DRAFT MEMORANDUM



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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 Municipal

Demand Projections

DATE: September 3, 2009

DRAFT

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This memorandum addresses Task 2 for the 2011 Region C Water Plan, "Review and Revision of Population and Water Demand Projections". This memo contains detailed descriptions by county of FNI's suggested revisions to population and demand projections. These revisions are based on TWDB input (list of suggested revisions), applicable planning studies performed on the local level, and direct input from WUGs and WWPs via meetings, survey responses, and phone or email correspondence. Where appropriate, supporting documentation has been cited. A glossary is included at the end of this memo for all abbreviated terms.

The table below shows the population and demand projections by decade from the 2006 Region C Plan and our suggested revisions to those projections.

	2010	2020	2030	2040	2050	2060
Population						
2006 Plan	6,625,282	7,966,389	9,093,847	10,246,795	11,559,990	13,087,849
Revised	6,670,493	7,971,728	9,171,650	10,399,038	11,645,686	13,045,592
Demand						
2006 Plan (acre-ft/yr)	1,534,703	1,828,831	2,060,118	2,294,491	2,574,265	2,915,773
Revised (acre-ft/yr)	1,547,329	1,834,472	2,089,198	2,346,678	2,615,140	2,927,200

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Collin County

<u>Allen</u> – Based on survey response, discussions with city staff, and current NCTCOG population estimates, we limited population to build out population. Based on survey response, we decreased per capita use in 2010 and 2020.

<u>Anna</u> – Based on survey response and input from Anna's future water providers (GTUA and NTMWD), we increased the population in all years to account for current population and ultimate build out population.

Blue Ridge – No change.

<u>Caddo Basin SUD</u> – No change.

<u>Celina</u> – TWDB suggested an increase in population for Celina in Collin County. We have revised the 2010 population per TWDB, but we put the remaining years' increases in the Denton County portion of Celina. UTRWD suggested an increase in gpcd use for 2010 through 2060 based on usage in recent years.

County Other – No change.

Culleoka WSC - No change.

<u>Dallas</u> – Based on input from city staff, we decreased per capita use in all years.

<u>Danville WSC</u> – No change.

<u>East Fork SUD</u> – Based on recent historical population and survey response, we increased population in all years. All of this increase was placed in the Collin County portion of East Fork SUD.

<u>Fairview</u> – Based on current population estimates, city input, and TWDB input, we increased population in 2010 through 2040. We limited population to build out beginning in 2040.

<u>Farmersville</u> – No change in population. TWDB suggested an increase in population. Based on historical population and projections from other sources, we feel this increase is not warranted. Based on recent historical data, we increased per capita use in all years.

<u>Frisco</u> – Based on data from Frisco's Planning Department, we decreased population in all years in both Collin and Denton Counties to account for slower recent growth and a lower build out population. Based on survey response, we decreased per capita use for 2020 through 2060. <u>Garland</u> – No change.

<u>Marilee SUD (Formerly called Gunter Rural WSC)</u> – Based on survey response, we decreased population in 2010 and 2020.

Hickory Creek SUD – No change.

<u>Josephine</u> – Based on TWDB input, we increased population in 2010, 2050, and 2060, and decreased population in 2020, 2030, and 2040 (to match TWDB suggested revisions). Based on recent historical use, we increased per capita use in all years.

<u>Lavon WSC</u> – Based on survey response, we decreased population in 2010 and increased population in 2020, 2030, and 2040.

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<u>Lowry Crossing</u> – Based on TWDB input, we increased population in 2010 through 2040 population. Based on survey response, we limited the remaining years' population to build out population beginning in 2040.

<u>Lucas</u> – No change.

<u>McKinney</u> – Based on TWDB input, survey response, and discussions with city staff, we increased population in 2010 through 2040, however the increase was not as much as recommended by TWDB. Based on city input, we increased the 2050 population and decreased the 2060 population to a build out of 380,000. Based on survey response, we decreased per capita use for 2020 through 2060.

Melissa – Based on recent historical population, we decreased population in 2010, 2020, and 2030.

Milligan WSC – No change.

<u>Murphy</u> – Based on current population estimates, we increased population in 2010. Based on recent historical use information from Murphy's wholesale water provider (NTWMD), we increased per capita use in all years.

<u>Nevada</u> – No change. TWDB suggested an increase in population. We feel this increase is not warranted.

New Hope – No change.

North Collins WSC – No change.

<u>Parker</u> – Based on current population estimates, we decreased population in 2010.

<u>Plano</u> – Based on survey response and current population estimates, we increased the population in 2010 and 2020 and we decreased population in 2030 through 2060 due to lower build out population.

<u>Princeton</u> – Based on TWDB input, we increased population in 2010 and 2020. We feel the remaining years' population should remain the same. Based on recent historical use from Princeton's wholesale water provider (NTWMD), we increased per capita use in all years.

<u>Prosper</u> – Based on recent historical population and input from Prosper's current water provider (NTMWD), we decreased population in 2020 through 2040.

<u>Richardson</u> – No change.

<u>Royse City</u> – Based on slower recent growth, we slightly decreased population in 2010 and 2020. We also increased the 2060 population to continue future growth trend.

<u>Sachse</u> – Based on TWDB input, we increased population in 2010, 2020, and 2030. We limited population to build out population provided by Sachse's water supplier (NTMWD) beginning in 2020.

Saint Paul – No change.

South Grayson WSC – No change.

Weston – No change.

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<u>Wylie</u> – Based on recent historical population, we increased population in 2010 through 2030. Based on survey response, we limited population to build out population beginning in 2040. Based on recent historical use from Wylie's wholesale water provider (NTWMD), we decreased per capita use in all years.

Cooke County

Bolivar WSC - No change.

County Other – No change.

<u>Gainesville</u> – Based on recent historical population, we decreased population in 2010 through 2050.

<u>Kiowa Homeowners WSC</u> – Based on groundwater use records and TCEQ meter count, we increased the per capita water use in all years.

Lindsay – No change.

<u>Muenster</u> – Based on survey response, we decreased population in all years.

Two Way SUD – No change.

<u>Valley View</u> – No change.

<u>Woodbine WSC</u> – No change.

Dallas County

<u>Addison</u> – Based on recent historical population, we decreased population in 2010 to account for slower growth.

Balch Springs - No change.

Carrollton – No change.

<u>Cedar Hill</u> – Based on the recent special county study¹, we increased population in 2020, 2030 and 2040. Based on information from the City's Master Plan, we limited the population to build out beginning in 2040. Based on recent historical use from the City, we increased per capita use in all years.

Cockrell Hill - No change.

<u>Combine</u> – No change.

Combine WSC – No change.

Coppell – Based on recent historical use, we increased per capita use in all years.

County Other - No change.

<u>Dallas</u> – Based on input from city staff, we decreased population in 2020 and 2030, and we decreased per capita use in all years.

<u>Dallas County WCID #6</u> – We set the population to zero in all years. Based on discussions with the District and the City of Balch Springs, TWDB understands that essentially all of the

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population and demand served by Dallas County WCID #6 is in the City of Balch Springs. This was not properly adjusted in the 2006 plan. TWDB recommended that Region C put zero retail population and demand for Dallas County WCID #6. This will make the District only a wholesale supplier for Balch Springs rather than a WUG.

<u>DeSoto</u> –Based on recent historical use, we decreased per capita use in all years.

<u>Duncanville</u> – Based on survey response, the city is currently at 98% build out, so future population is held at the 2010 level. Based on recent historical use, we decreased per capita use in all years.

<u>East Fork SUD</u> – No change.

<u>Farmers Branch</u> – No change.

<u>Garland</u> – Based on information from Garland's Master Plan and from their wholesale water provider (NTMWD), we decreased population in all years to reflect a lower build out population.

<u>Glenn Heights</u> – Based on TWDB input, we increased population in all years.

<u>Grand Prairie</u> – Based on survey response, we decreased population in all years to reflect a lower build out population. This reduction was taken in all three counties (Dallas, Ellis and Tarrant) in proportion to the projections from the 2006 Region C Plan. Based on survey response, we slightly increased per capita use in all years.

<u>Grapevine</u> – No change.

<u>Highland Park</u> – No change.

<u>Hutchins</u> – Based on survey response, we decreased population in all years. Based on recent historical use, we increased per capita use in all years.

<u>Irving</u> – Based on survey response, we increased per capita use in all years. Most of the future growth in the city will be commercial rather than population, which will increase per capita use.

<u>Lancaster</u> –Based on survey response, we decreased population in 2020 and limited population to build out population, beginning in 2030.

Lewisville – No change.

<u>Mesquite</u> – Based on survey response and the Mesquite's Master Plan, we decreased population in all years. Based on their Master Plan, we slightly increase per capita use in all years.

Ovilla –Based on recent historical use, we increased per capita use in all years. Based on input from the City, we decreased population for 2010 through 2030.

<u>Richardson</u> – No change.

<u>Rockett SUD</u> – No change.

Rowlett – Based on recent historical use, we decreased per capita use in all years.

<u>Sachse</u> – Based on TWDB input, we increased population in 2010. Based on input from Sachse's water provider (NTMWD), we adjusted population in the remaining years to account for a lower build out population. The adjustments resulted in population increases in 2020 through 2050 and population decrease in 2060.

Sardis-Lone Elm WSC – No change.

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<u>Seagoville</u> – Based on recent historical population, we decreased population for years 2010 through 2040 to account for slower growth. Based on recent historical use, we increased per capita use in all years.

Sunnyvale – No change.

<u>University Park</u> –Based on recent historical use, we increased per capita use in all years.

<u>Wilmer</u> – Based on recent historical population, we decreased population for years 2010 through 2040 to account for slower growth.

<u>Wylie</u> – Based on recent historical population, we increased population in 2010 and 2020. We kept the 2030 and 2040 populations from the 2006 Plan. Based on survey response, we limited the 2050 and 2060 populations to build out population (which was achieved beginning in 2040). Based on recent historical use information from Wylie's wholesale water provider (NTWMD), we decreased per capita use in all years.

Denton County

<u>Argyle</u> – Based on recent historical population and input from Argyle's water provider (UTRWD), we decreased population in all years.

<u>Argyle WSC</u> – Based on input from Argyle WSC's water provider (UTRWD), we increased population in all years.

<u>Aubrey</u> – Based on recent historical population and input from Aubrey's water provider (UTRWD), we decreased population in 2010.

<u>Bartonville</u> – Based on survey response and input from Bartonville's water provider (UTRWD), we decreased population in all years to account for a lower build out population.

Bartonville WSC – No change.

Bolivar WSC - No change.

<u>Carrollton</u> – No change.

<u>Celina</u> – TWDB suggested an increase in population for Celina in Collin County. We put all of this increase in Denton County beginning in 2020. (Celina has ETJ in Denton County and plans to annex into Denton County in the future.) We used the same per capita for Celina in Denton County as was used for Celina in Collin County.

Coppell – Based on recent historical use, we increased per capita use in all years.

<u>Copper Canyon</u> – Based on input from the City, we decreased population in all years.

<u>Corinth</u> – Based on TWDB input, we increased the 2010 population. We kept the 2040, 2050, and 2060 populations from the 2006 plan, which we believe are more reasonable than the TWDB suggested increase. The 2020 and 2030 populations were calculated to be a straight line between 2010 and 2040.

<u>County Other</u> – Based on input from UTRWD which supplies most of the County Other water demand, we increased population in all years. The table below shows the specific entities included in our calculation of Denton County Other population.

	2010	2020	2030	2040	2050	2060
Population						
Blackrock WSC	1,143	1,143	1,143	1,143	1,143	1,143
Corral City	115	901	1,557	1,965	2,161	2,161
Lakewood Village	643	943	1,244	1,244	1,244	1,244
Lantana (DCFWSD#7)	7,050	12,500	12,500	12,500	12,500	12,500
Denton County Unincorporated	18,772	12,225	5,703	12,877	20,757	29,075
DC FWSD #9	4,682	7,483	10,275	10,275	10,275	10,275
DCFWSD #8A & 11	5,537	11,351	16,749	16,749	16,749	16,749
DCFWSD #10	3,750	9,900	16,239	16,965	16,965	16,965
Total	41,692	56,446	65,410	73,718	81,794	90,112

<u>Cross Roads</u> – Based on survey response, we limited population to build out population beginning in 2020.

<u>Dallas</u> – Based on input from city staff, we decreased per capita use in all years.

<u>Denton</u> – Based on input from the city, we decreased population in 2010, 2020, and 2030.

Denton County FWSD No. 1A – No change.

<u>Double Oak</u> – Based on survey response, we limited population to build out population beginning in 2010 to reflect higher current population and a lower build out population.

<u>Flower Mound</u> – Based on survey response, we revised population in all years. Based on survey response, we decreased per capita use in 2010 and increased per capita use in the remaining years to reflect the fact that in future years commercial growth will exceed residential growth.

<u>Fort Worth</u> – Based on current population estimates, meetings with City staff, and input from the City Planning Department, we increased population in all years.

<u>Frisco</u> – Based on data from Frisco's Planning Department, we decreased population in all years to account for slower recent growth and a lower build population. Based on survey response, we decreased per capita use for 2020 through 2060.

Hackberry – No change.

<u>Hebron</u> – Based on recent historical population, we decreased population in all years and limited it to build out.

<u>Hickory Creek</u> – Based on input from Hickory Creek's water supplier (UTRWD), we increased the 2010 and 2020 population to account for recent rapid growth, and we limited population to build out beginning in 2040 and beyond. Based on recent historical use, we increased per capita use in all years.

<u>Highland Village</u> – Based on survey response, we limited population to build out population beginning in 2040. Based on recent historical use, we increased per capita use in all years.

Justin – Based on TWDB input, we increased population in all years.

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Krugerville – Based on TWDB input, we increased population in all years.

<u>Krum</u> – Based on recent historical population, we increased population in 2010 and 2020. Based on input from Krum's water provider (UTRWD), we limited population to build out for the remaining years. Based on recent historical use, we increased per capita use in 2010. All other years remain the same.

<u>Lake Dallas</u> – Based on input from Lake Dallas' water provider (UTRWD), we limited population to build out beginning in 2030. Based on recent historical use, we increased per capita use in all years.

<u>Lewisville</u> – Based on current population estimates, we decreased the population in 2010. Based on input from Lewisville, we decreased the population in 2060 to limit the population to build out. The population for 2020 through 2050 was adjusted to show steady growth.

<u>Lincoln Park</u> – Based on recent historical population and input from Lincoln Park's water provider (UTRWD), we decreased population in 2010. Based on input from the city, we limited population to build out in 2060, and adjusted population in 2020 through 2050 to show steady growth.

<u>Little Elm</u> – We decreased population beginning 2030 to account for a lower build out population.

<u>Mustang SUD</u> – Based on input from Mustang SUD's water provider (UTRWD), we increased population in 2040, 2050, and 2060.

<u>Northlake</u> – Based on survey response, we decreased population in 2010 and shifted population growth back 10 years for all decades.

Oak Point – Based on input from Oak Point's water provider (UTRWD), we increased population in all years.

<u>Pilot Point</u> – Based on recent historical population, input from Pilot Point's water provider (UTRWD), and local NCTCOG projections, we decreased the 2010 and 2020 population to account for slower growth.

<u>Plano</u> – In Denton County, we increased the near term population (2010, 2020, 2030, and 2040) due to recent accelerated growth, however based on the survey response we did not increase it as much as TWDB suggested. In addition, based on the survey response, we decreased the 2060 population due to lower build out population.

<u>Ponder</u> – Based on survey response, we increased population in 2010.

<u>Prosper</u> – Based on input from UTRWD, we decreased population in 2010 to reflect the fact that there is currently no development of Prosper within Denton County (all current development is in Collin County).

<u>Roanoke</u> – Based on recent historical population, we increased population in 2010 through 2030 to account for accelerated growth in recent years and the annexation of Marshall Creek. The population increase in 2040 through 2060 only accounts for the annexation of Marshall Creek.

<u>Sanger</u> – Based on recent historical population and input from Sanger's water provider (UTRWD), we decreased population in 2010 and 2020 to account for slower growth. Based on recent historical use, we decreased per capita use in all years.

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<u>Shady Shores</u> – Based on TWDB input, we increased population in 2010, 2020, and 2030. Based on input from Shady Shores' water provider (UTRWD), we limited population to build out beginning in 2030.

<u>Southlake</u> – Based on survey response, we decreased population in all years.

<u>The Colony</u> – Based on current population estimates, we decreased population in 2010. Based on recent historical use, we increased the already low per capita use in all years.

<u>Trophy Club</u> – Based on TWDB input, we increased population in all years.

Ellis County

Bardwell – No change.

<u>Brandon-Irene WSC</u> – No change.

<u>Buena Vista-Bethel SUD</u> – Based on survey response, we increased population and per capita use in all years.

<u>Cedar Hill</u> – Based on recent historical use from the City, we increased per capita use in all years.

<u>Community Water Company</u> – No change.

<u>County Other</u> – No change.

Ennis – No change.

<u>Ferris</u> – Based on the recent special county study¹, we increased population in all years. The 2060 population represents the build out population.

<u>Files Valley WSC</u> – Based on survey response and discussions with Files Valley staff, we increased population in all years.

<u>Glenn Heights</u> – Based on TWDB input, we increased population in all years.

<u>Grand Prairie</u> – Based on survey response, we decreased population in all years to reflect a lower build out population. This reduction was taken in all three counties (Dallas, Ellis and Tarrant) in proportion to the projections from the 2006 Region C Plan. Based on survey response, we slightly increased per capita use in all years.

Italy – No change.

<u>Johnson County SUD</u> – No change.

<u>Mansfield</u> – Based on survey response, we increased population in all years. Based on recent historical use, we decreased per capita use in all years.

<u>Maypearl</u> – Based on recent historical population and TWDB input, we increased population in all years. We limited population to build out population beginning in 2030.

<u>Midlothian</u> – Based on survey response, we increased population in all years.

<u>Milford</u> – Based on TWDB input, we increased population in all years. Based on recent historical use, we increased per capita use in all years.

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Mountain Peak WSC – No change.

Oak Leaf – No change.

Ovilla – Based on recent historical use, we increased per capita use in all years. Based on input from the City, we decreased population for 2010 through 2030.

Palmer – Based on TWDB input, we increased population in all years.

<u>Pecan Hill</u> – No change.

<u>Red Oak</u> – Based on the recent special county study¹, we increased population through 2030. We extended that population growth through 2060 using a slower growth rate.

Rice WSC – No change.

<u>Rockett SUD</u> – Based on the recent special county study¹, we increased population through 2030. We extended that population growth through the remaining years, reaching build out population in 2050.

<u>Sardis-Lone Elm WSC</u> – Based on survey response, we increased population in all years. We limited population to build out population beginning in 2030.

<u>Venus</u> – All population is in Johnson County (Region G).

<u>Waxahachie</u> – Based on survey response and recent historical population, we increased population in 2010 and 2020.

Fannin County

<u>Bonham</u> – Based on recent historical use, we decreased per capita use in all years.

County Other – No change.

Ector – No change.

Hickory Creek SUD – No change.

<u>Honey Grove</u> – Based on survey response, we increased population in 2020 through 2060.

<u>Ladonia</u> – Based on recent historical population, we decreased population in 2010.

<u>Leonard</u> – No change.

North Hunt WSC – No change.

Savoy – No change.

<u>Southwest Fannin County SUD</u> – Based on survey response and recent historical population, we increased population in all years.

Trenton – No change.

Whitewright – Based on recent historical use, we decreased per capita use in all years.

Freestone County

County Other – No change.

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Fairfield – Based on recent historical population, we decreased population in 2010 through 2050.

<u>Flo Community WSC</u> – No change.

<u>Teague</u> – No change.

<u>Wortham</u> – Based on input from Wortham and TWDB input, we increased population in all years.

Grayson County

<u>Bells</u> – Based on recent historical population, we decreased population in 2010 and 2020.

<u>Collinsville</u> – No change.

<u>County Other</u> – No change.

Denison – No change.

Gunter – Based on recent historical population, we decreased population in 2010 through 2040.

<u>Marilee SUD</u> – Based on survey response, we decreased population in 2010 and 2020.

<u>Howe</u> – Based on recent historical population and input from Howe's water provider (GTUA), we decreased population in 2010 through 2040. Based on recent historical use, we decreased per capita use in all years.

Luella WSC – Based on survey response, we decreased population in 2010, 2020, and 2030.

<u>Pottsboro</u> – No change.

<u>Sherman</u> – Based on recent historical use, we decreased per capita use for 2020 through 2060.

South Grayson WSC – No change.

<u>Southmayd</u> – Based on survey response and recent historical population, we decreased population in 2010 through 2050. Based on recent historical use, we increased their very low per capita use in all years.

<u>Southwest Fannin County SUD</u> – No change.

<u>Tioga</u> – No change.

<u>Tom Bean</u> – Based on survey response and recent historical population, we decreased population in 2010 through 2040.

Two Way SUD – No change.

<u>Van Alstyne</u> – Based on recent historical population, we decreased population in 2010 through 2030. Based on recent historical use, we decreased per capita use in all years.

<u>Whitesboro</u> – Based on recent historical population, we decreased population in 2010 through 2050.

Whitewright – Based on recent historical population, we decreased population in 2010 and 2020. Based on recent historical use, we decreased per capita use in all years.

Woodbine WSC – No change.

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Henderson County

Athens – No change.

Bethel-Ash WSC – No change.

County Other - No change.

<u>East Cedar Creek FWSD</u> – Based on survey response, we decreased population in 2010, 2040, 2050, and 2060.

<u>Eustace</u> – Based on input from the City, we decreased population to current level, showing no growth in future years.

<u>Gun Barrel City</u> – Based on recent historical use, we increased per capita use in all years.

Log Cabin – No change.

Mabank – Based on TWDB input, we increased population in all years.

<u>Malakoff</u> – Based on recent historical use, we decreased per capita use in all years.

<u>Payne Springs</u> – No change.

<u>Seven Points</u> – Based on recent historical use, we increased per capita use in all years.

<u>Tool</u> – No change.

<u>Trinidad</u> – No change.

<u>Virginia Hill WSC</u> – No change.

<u>West Cedar Creek MUD</u> – Based on their current meter count from the TCEQ Water Utilities Database and a factor of 3.0 persons per meter, we estimated their current population. From that estimate we revised the future projections proportionately.

Jack County

Bryson – No change.

<u>County Other</u> – No change.

Jacksboro – No change.

Kaufman County

<u>Ables Springs WSC</u> – No change.

<u>College Mound WSC</u> – Based on their current meter count (provided by College Mound WSC) and a factor of 3.0 persons per meter, we estimated their current population. From that estimate we revised the future projections proportionately.

Combine – No change.

Combine WSC - No change.

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<u>County Other</u> – We decreased population in all years by the amount of the 2010 population in the new water user group Post Oak Bend City.

<u>Crandall</u> – No change.

<u>Dallas</u> – No change.

<u>Forney</u> – Based on TWDB input, we increased population in all years.

<u>Forney Lake WSC</u> – Based on current population information provided by Forney Lake WSC (via NTMWD form) we lowered population in all years.

<u>Gastonia-Scurry</u> – We decreased population in all years by the amount of population now in the new water user group of Scurry.

<u>High Point WSC</u> – Based on their current meter count from the TCEQ Water Utilities Database and a factor of 3.0 persons per meter, we determined their current population. From that estimate we revised the future projections proportionately.

<u>Kaufman</u> – Based on recent historical use, we increased per capita use in 2010.

<u>Kemp</u> – Based on recent historical population, we increased population in all years.

Mabank – Based on TWDB input, we increased population in all years.

MacBee SUD – No change.

Mesquite – No change.

Oak Grove – No change.

<u>Post Oak Bend City</u> – This is a new WUG. The population shown is TWDB's recommended population. The TWDB suggested a demand of less than 115 gallons per capita per day, so we assumed a base per capita use of 115 gallons per capita per day.

<u>Scurry</u> – This is a new WUG. The population shown is TWDB's recommended population. The population for Scurry was taken from the population of Gastonia-Scurry. The TWDB suggested a demand of less than 115 gallons per capita per day, so we assumed a base per capita use of 115 gallons per capita per day.

<u>Seagoville</u> –Based on recent historical use, we increased per capita use in all years.

<u>Talty</u> – Based on survey response, we decreased population in 2010. Based on recent historical use, we increased per capita use in all years.

<u>Terrell</u> – Based on information from Terrell's Master Plan and information from Terrell's water provider (NTMWD), we increased population in all years.

<u>West Cedar Creek MUD</u> – Based on their current meter count from the TCEQ Water Utilities Database and a factor of 3.0 persons per meter, we estimated their current population. From that estimate we revised the future projections proportionately.

Navarro County

Blooming Grove – Based on TWDB input, we increased population in all years.

Brandon-Irene WSC – No change.

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Chatfield WSC – Based on survey response, we decreased population in 2010, 2020, and 2030.

<u>Community Water Company</u> – No change.

<u>Corsicana</u> – Based on TWDB input, we increased population in all years.

<u>County Other</u> – No change.

<u>Dawson</u> – No change.

Frost – Based on survey response, we decreased population in all years.

<u>Kerens</u> – Based on TWDB input, we increased population in all years.

MENWSC – No change.

<u>Navarro Mills WSC</u> – Based on survey response, we decreased population in all years.

Rice – No change.

Rice WSC – No change.

Parker County

<u>Aledo</u> – Based on survey response, we increased population in all years limiting it to build out beginning in 2050.

Annetta – Based on recent historical use, we increased per capita use in all years.

Annetta South – Based on recent historical use, we increased per capita use in all years.

Azle – No change.

<u>County Other</u> – Population has been decreased by the population of the two new WUGS (Cresson and Sanctuary).

<u>Cresson</u> – This is a new WUG. The population shown is TWDB's recommended population. We used the TWDB suggested demand of 123 gallons per capita per day.

<u>Fort Worth</u> – Based on current population estimates, meetings with City staff, and input from the City Planning Department, we increased population in all years.

<u>Hudson Oaks</u> – Based on the recent special county study², we decreased population in all years. Based on recent historical use, we increased per capita use in all years.

Mineral Wells – No change.

Reno – No change.

<u>Sanctuary</u> – This is a new WUG. The population shown is TWDB's recommended population. The TWDB suggested a demand of less than 115 gallons per capita per day, so we assumed a base per capita use of 115 gallons per capita per day.

Springtown – No change.

<u>Walnut Creek SUD</u> – Based on the recent special county study², we increased population in all years (after accounting for Sanctuary becoming a WUG).

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<u>Weatherford</u> – Based on recent historical population and the recent special county study², we increased population in 2010 and 2020.

Willow Park - Based on the recent special county study², we increased population in all years.

Rockwall County

Blackland WSC – No change.

Cash SUD – No change.

<u>County Other</u> – No change.

<u>Dallas</u> – No change.

East Fork SUD – No change.

<u>Fate</u> – This is a new WUG. The population shown is TWDB's recommended population. We are using historical per capita data as provided by Fate's water provider (NTMWD).

<u>Forney Lake WSC</u> – Based on current population information provided by Forney Lake WSC (via NTMWD form) we lowered population in all years.

<u>Heath</u> – Based on recent historical use, we increased per capita use in all years.

<u>High Point WSC</u> – Based on their current meter count from the TCEQ Water Utilities Database and a factor of 3.0 persons per meter, we determined their current population. From that estimate we revised the future projections proportionately. <u>Lavon WSC</u> – Based on survey response, we decreased population in 2010 and increased population in 2020, 2030, and 2040.

<u>McLendon-Chisholm</u> – Based on recent historical population, we increased population in 2010 through 2040.

<u>Mt Zion WSC</u> – Based on survey response, we held future population to the 2010 population to account for no projected growth.

R-C-H WSC – Based on survey response, we increased population in all years.

Rockwall – Based on TWDB input, we increased population in all years.

Rowlett – Based on recent historical use, we decreased per capita use in all years.

<u>Royse City</u> – Based on slower recent growth, we slightly decreased population in 2010 and 2020. We also increased population in 2060 to continue future growth trend.

<u>Wylie</u> – Based on TWDB input, we increased population in 2010 through 2040. However, based on the survey response, we held population in 2050 and 2060 to build out population (which was achieved beginning in 2040). Based on recent use information from Wylie's wholesale water provider (NTWMD), we decreased per capita use in all years.

Tarrant County

<u>Arlington</u> – Based on survey response and further input from the City, we decreased population in all years.

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Azle - No change.

<u>Bedford</u> – No change.

<u>Benbrook</u> – Based on recent historical population, we increased population in 2010 and 2020.

Bethesda WSC – No change.

Blue Mound - No change.

<u>Burleson</u> – No change.

<u>Colleyville</u> – Based on survey response, we limited population to build out population beginning in 2020.

<u>Community WSC</u> – No change.

<u>County Other</u> – No change.

<u>Crowley</u> – Based on TWDB input, we increased population in all years.

<u>Dalworthington Gardens</u> – No change.

<u>Edgecliff</u> – No change.

<u>Euless</u> – No change.

<u>Everman</u> – Based on recent historical population, we decreased population in 2010. Based on survey response, we limited population to build out population beginning in 2020.

<u>Forest Hill</u> – Based on NCTCOG current population estimate, we revised the 2010 population and revised the future proportionately.

<u>Fort Worth</u> – Based on current population estimates, meetings with City staff, and input from the City Planning Department, we increased population in all years.

<u>Grand Prairie</u> – Based on survey response, we decreased population in all years to reflect a lower build out population. This reduction was taken in all three counties (Dallas, Ellis and Tarrant) in proportion to the projections from the 2006 Region C Plan. Based on survey response, we increased per capita use in all years.

<u>Grapevine</u> – Based on input from city staff, we decreased population in 2020 through 2060, holding population to build out beginning in 2030. Based on recent historical use, we increased per capita use in all years.

<u>Haltom City</u> – Based on current population estimates, we decreased population in 2010. <u>Haslett</u> – Based on recent historical use, we increased per capita use in all years.

<u>Hurst</u> – Based on information from an ongoing impact fee study for Hurst being performed by Freese and Nichols, we limited population to build out population beginning in 2020.

<u>Johnson County SUD</u> – No change.

<u>Keller</u> – Based on survey response, we decreased population in 2010 and 2020 and increased population in remaining years to reflect a higher build out population.

Kennedale – Based on survey response, we decreased population in 2010.

<u>Lake Worth</u> – No change.

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<u>Lakeside</u> – No change.

<u>Mansfield</u> – Based on survey response, we increased population in all years. Based on recent historical use, we decreased per capita use in all years.

North Richland Hills – No change.

<u>Pantego</u> – Based on recent historical use, we increased per capita use in all years.

<u>Pelican Bay</u> – Based on TWDB input, we increased population in all years.

<u>Richland Hills</u> – No change.

<u>River Oaks</u> – No change.

<u>Saginaw</u> – Based on TWDB input, we increased population in all years. Based on recent historical use, we decreased per capita use in all years.

Sansom Park Village – No change.

Southlake – Based on survey response, we decreased population in all years.

<u>Watauga</u> – Based on survey response, we decreased population beginning in 2030 to reflect a lower build out population.

<u>Westover Hills</u> – No change.

Westworth Village – Based on TWDB input, we increased population in all years.

White Settlement – We decreased population in 2030.

Wise County

<u>Alvord</u> – Based on TWDB input, we increased population in all years.

<u>Aurora</u> – Based on TWDB input and survey response, we increased population in all years. For 2010 through 2030 we used higher estimates from the survey response. For 2040 through 2060 we used TWDB suggested revisions.

Bolivar WSC – No change.

 \underline{Boyd} – Based on the recent special county study², we increased population beginning in 2030 and then limited it to build out population beginning in 2050.

<u>Bridgeport</u> – Based on recent historical population, we decreased population in 2010.

Chico – No change.

Community WSC -No change.

<u>County Other</u> – We decreased population in all years to account for Paradise becoming a water user group.

<u>Decatur</u> – No change.

<u>Fort Worth</u> – Based on current population estimates, meetings with City staff, and input from the City Planning Department, we increased population in all years.

New Fairview – No change.

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Newark – No change.

<u>Paradise</u> – This is a new WUG. The population shown is TWDB's recommended population. The TWDB suggested a demand of less than 115 gallons per capita per day, so we assumed a base per capita use of 115 gallons per capita per day.

<u>Rhome</u> – Based on the recent special county study², we decreased population in all years. Based on recent historical use, we increased per capita use in all years.

Runaway Bay – Based on the recent special county study², we decreased population in all years.

<u>Walnut Creek SUD</u> – Based on the recent special county study², we increased population in all years (after accounting for Paradise becoming a WUG).

<u>West Wise Rural SUD</u> – Based on survey response, we decreased population in 2010 through 2030 and increased population for the remaining years.

Glossary

DWU - Dallas Water Utilities

FWSD – Fresh Water Supply District

GTUA – Greater Texoma Utility Authority

MUD – Municipal Utility District

NCTCOG – North Central Texas Council of Governments

NTMWD – North Texas Municipal Water District

SUD – Special Utility District

TRWD – Tarrant Regional Water District

UTRWD – Upper Trinity Regional Water District

WSC - Water Supply Corporation

WUG - Water User Group

References

¹ Water Supply Study for Ellis County, Johnson County, Southern Dallas County, and Southern Tarrant County, prepared for Region C Water Planning Group and the Tarrant Regional Water District in Cooperation with the Brazos G Water Planning Group, prepared by Freese and Nichols, Inc., Alan Plummer Associates, Inc., CP&Y, Inc., and HDR, Inc. April 2009.

² Water Supply Study for Parker and Wise Counties, prepared for Region C Water Planning Group prepared by Freese and Nichols, Inc. April 2009.