REGION C WATER PLANNING GROUP

TO: REGION C WATER PLANNING GROUP

FROM: J. KEVIN WARD, CHAIR

SUBJECT: JULY 17th, 2023 PUBLIC MEETING

DATE: JULY 10, 2023

This memorandum will serve as a notice that the Region C Water Planning Group (RCWPG) is holding a public meeting at **1:00 P.M. on Monday JULY 17th, 2023,** at the **North Central Texas Council of Governments, 616 Six Flags Drive, Centerpoint Two Building, First Floor Transportation Council Room, Arlington, Texas, 76011**. An agenda (including information on how to participate in the public meeting) has been prepared for the meeting and is attached to this memorandum. The following is a brief overview of the agenda items to be discussed with relevant materials and handouts.

OPEN MEETING

I. ROLL CALL

II. APPROVAL OF MINUTES – JUNE 12, 2023

III. PUBLIC COMMENTS (Limited to 3 minutes per speaker)

IV. PRIMARY ACTION ITEMS FOR CONSIDERATION

A. Discuss and take action to approve population and municipal demand projection revisions to TWDB draft projections, and to authorize consultant to submit revision request to TWDB. Consider authorizing consultant to continue working with TWDB regarding the revisions , on behalf of the RWPG.

TWDB provided draft population and municipal demand projections. The consultant team has reviewed TWDB's initial projections using TWDB guidelines and additional information. Consultants will present this information, along with recommended revisions. The planning group will consider the recommended changes and approval of the projections. The RCWPG may choose to authorize the Consultants to make minor revisions prior to submittal to TWDB as necessary.

B. Discuss and take action to approve letter to TWDB requesting specific hydrologic variances to water availability models.

The RCWPG will consider approval of a letter to TWDB requesting hydrologic variances to TCEQ's official WAM Run 3 model that is required in determining available surface water supplies. The hydrologic variances are the same as have been used in previous planning cycles and include items such as inclusion of system operations used in Region C and subordination agreements. In addition, both Tarrant Regional Water District and Dallas Water Utilities are requesting the use of safe yield (rather than firm yield) in the 2026 Plan. Safe yield was used for both entities in the 2021 Plan. RCWPG may take action to approve this request letter.

V. OTHER ITEMS (MAY RESULT IN ACTIONS)

A. Methodology for identifying infeasible water management strategies
B. Schedule

VI. OTHER DISCUSSION

A. Updates from the Chair.
B. Report from Regional Liaisons.
C. Report from the Interregional Planning Council.
D. Report from Texas Water Development Board.
E. Report from Texas Department of Agriculture.
F. Report from Texas Parks and Wildlife Department.
G. Report from Texas State Soil & Water Conservation Board.
H. Other Reports.
I. Confirm Date and Location of Next Meeting: TBD.

VII. ADJOURNMENT

The following items are enclosed with this memorandum:

I. RCWPG Agenda – July 17, 2023
II. Meeting Handouts
    A. Agenda Item II – RCWPG Minutes from June 12, 2023
    B. Agenda Item IV.A. – Population and Demand Projections Revision Recommendation Memorandums
    C. Agenda Item IV.B. – Hydrologic Variance Request Letter

REGION C WATER PLANNING GROUP

OPEN PUBLIC MEETING

MONDAY, JULY 17, 2023 AT 1:00 P.M.

THE MEETING WILL BE HELD AT
NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS
616 SIX FLAGS DRIVE, CENTERPOINT TWO BUILDING
FIRST FLOOR TRANSPORTATION COUNCIL ROOM
ARLINGTON, TX 76011[1]

AGENDA

I. ROLL CALL

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A. Methodology for identifying infeasible water management strategies.

B. Schedule

VI. OTHER DISCUSSION

A. Updates from the Chair.

B. Report from Regional Liaisons.

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[1] *If you plan to attend this public meeting and you have a disability that requires special arrangements at the meeting, please contact Elena Berg by phone at (817) 608-2363 or by email at eberg@nctcog,org, 72 hours in advance of the meeting. Reasonable accommodations will be made to assist your needs.*

C. Report from the Interregional Planning Council.
D. Report from Texas Water Development Board.
E. Report from Texas Department of Agriculture.
F. Report from Texas Parks and Wildlife Department.
G. Report from Texas State Soil & Water Conservation Board.
H. Other Reports.
I. Confirm Date and Location of Next Meeting: TBD

VII. ADJOURNMENT

SUBMITTED BY: _____
J. KEVIN WARD, Administrative Officer

DATE: July 10, 2023

POSTED BY: _____
DATE: _____
TIME: _____
LOCATION: _____

Agenda Item II – Attachment

RCWPG Minutes from June 12, 2023

REGION C WATER PLANNING GROUP

MINUTES OF AN OPEN PUBLIC MEETING

June 12, 2023

The Region C Water Planning Group (RCWPG) met in an open public meeting on Monday, June 12, 2023, at 2:00 P.M. The meeting was held at the North Central Texas Council of Governments located at 616 Six Flags Drive, Centerpoint Two Building, First Floor Transportation Council Room, Arlington, Texas. Notice of the meeting was legally posted.

Chairman Kevin Ward called the Region C Regional Water Planning Group meeting to order at approximately 2:00 P.M. and welcomed guests.

I. ROLL CALL

Chairman Ward conducted a roll call. The following members were in attendance:

David Bailey	Steve Mundt
Jay Barksdale	Denis Qualls
Dan Buhman	Bob Riley
Jenna Covington	Haley Salazar (Alternate for Stephen Gay)
Grace Darling	Rick Shaffer
Chris Harder	Doug Shaw
Harold Latham	Connie Standridge
Russell Laughlin	Kevin Ward
John Lingenfelder	

Kevin Smith, TWDB, Ronna Hartt, Region D, George Otstott, Region D, and Kathy Turner Jones, Region G, were present. The registration lists signed by guests in attendance are attached.

II. APPROVAL OF MINUTES – November 7, 2022

The minutes of the November 7, 2022, RCWPG meeting were approved by consensus upon a motion by Steve Mundt and a second by Chris Harder.

III. PUBLIC COMMENTS (Limited to 3 minutes per speaker)

There were no public comments.

IV. PRIMARY ACTION ITEMS FOR CONSIDERATION

A. Announcement of Region C RWPG voting member vacancies: Gary Spicer representing Electric Generating Utilities; call for nominations to fill vacancy, and vote to fill vacancy.

This action item will consider recommendations for replacement of RCWPG members who have resigned. Gary Spicer resigned from the Region C Water Planning Group effective November 14, 2022.

Chairman Ward led the discussion on this action item for recommendations to fill the vacancy left by Gary Spicer's resignation from the Region C WPG electric generating utilities position. Gary Spicer nominated Ryan Bayle to fill this vacancy on the Region C WPG board. There were no recommendations from the floor.

There were no public comments on this action item.

Upon a motion by David Bailey, and a second by Denis Qualls, the Region C WPG voted unanimously to elect Ryan Bayle to fill the Electric Generating Utilities vacancy left by Gary Spicer.

B. Presentation on manufacturing projections.

Simone Kiel, Freese and Nichols, led this discussion and advised that the TWDB provided draft manufacturing demands in January 2022. Ms. Kiel noted that this item was tabled at the last Region C meeting in November 2022 in order to receive additional solicited input. Responses were received from Grayson and Collin Counties. Ms. Kiel asked if there were any additional recommendations from the floor, and one was received concerning a new bottling facility in Dallas County. Following are highlights from Ms. Kiel's presentation.

Manufacturing Projections

- Defined as water used in the production process of manufactured goods including drinking and sanitation purposes
- TWDB draft projections baseline (2020) based on maximum annual historical use from 2015-2019 plus non-surveyed water use for each county
- 2030 projections: Apply statewide annual historic water use rate of change from 2010-2019 (0.96%)
- After 2030: Apply statewide manufacturing growth proxy of 0.37%

New Manufacturing Facilities

- At least 12 new facilities announced not included in TWDB draft projections
- Expected water use based on data from water provider or based on similar facilities
- Assumption of statewide growth applied uniformly does not accurately capture manufacturing growth corridors or projected water use

Manufacturing Projections

- Request to increase baseline with known new facilities expected to be operating in 2 – 5 years
- Apply same TWDB methodology to increased baseline
- Grayson County adjusted separately to incorporate large demands from 2 new facilities

There were no public comments on this action item.

Upon a motion by Jenna Covington, and a second by Rick Shaffer, the RCWPG voted unanimously to authorize the Consultants to make minor revisions on draft manufacturing projections prior to submittal to TWDB as necessary.

V. OTHER ITEMS (MAY RESULT IN ACTIONS)

A. Municipal Projection Methodology from TWDB – Emma Jones, TWDB, gave this presentation on population and municipal water demands methodology for 2026 Regional Water Plans. Below are some of the highlights from this presentation.

Variables

- Population
  - Historical
  - Demographics
  - Projections
- Baseline Gallons per Capita per Day (GPCD)
- Projected Plumbing Code Savings

Population Projections by County

- Based on Texas Demographic Center's (TDC) county-level projections
- Cohort component method
  - Age/sex/race/ethnicity
  - Birth rates, death rates, migration rates
- 2 migration scenarios: full-migration and half-migration 2010-2020
- 2030-2060
- TDC projections are online: https://demographics.texas.gov/Data/TPEPP/Projections/

TWDB Population Projections

- Difference this planning cycle: if a county's population is projected by TDC to decline, then the TWDB's county population projections will also decline
- TWDB draft projections
  - Extended 2070-2080 both scenarios
  - Provided WUG projections using each scenario to Region C
- 2030-2080
- 2021 RWP Population Projections Methodology carried over new base projections from 2016 whereas 2026 RWP includes new base projections
- 2021 RWP Population Projections Methodology held declining counties constant whereas 2026 RWP does not

Water User Groups (WUG)

- Municipal WUGs: utility water use of 100 acre-feet or more
- RWPGs reviewed the WUG list in July 2022

- 2026 RWP: 281 WUGs
- Including 16 County-Other WUGs

Historical WUG Population Estimates

- Permanent resident population
- Developed 2010 & 2020 population
  - Census Blocks
  - WUG Boundary
  - Cross-check Water Use Survey
  - Shared in March 2022 & January 2023
- Reviewed historical population growth rate to develop projections

Population Projections by WUG

- Sub-allocate County Population Projections to WUGs
- WUG's historical (2010 to 2020) share of the region-county's growth
- WUG's 2020 share of the region-county's 2020 population applied each decade
- Constant population: military bases, universities, primarily group quarter population, or buildout of subdivisions

Municipal Demand Projections: GPCD

- Gallons per Capita Daily
- Municipal water use
  - Residential
  - CII (commercial, institutional, light industrial)
- Draft Baseline GPCD carried over from 2021 RWP
  - Account for passive savings between historical and projected (2030)
- Groundwater & surface water
- Historical GPCDs shared with RWPGs (January 2023)

Municipal Demand Projections: PC Savings

- Plumbing Code Savings
- Updated this planning cycle
- Residential:
  - Toilets
  - Showerheads
  - Clothes washers
- New this cycle: commercial toilet and urinal water efficiency savings
- 2030 – 2080

Municipal Demand Projections: PC Savings

- Recent Revisions sent May 5, 2023
- Inadvertently included historical savings in the future demands

- Projected savings were overstated
- Result: higher draft municipal water demands projections
- Draft projections data available online: https://www.twdb.texas.gov/waterplanning/data/projections/2027/municipal.asp

Projections Timeline

- **July 14, 2023 -** RWPGs request revisions for non-municipal demand projections
- **August 11, 2023 –** RWPGs request revisions for population and municipal demand projections
- **Fall 2023 –** TWDB Board Meeting to Adopt Projections
- **March 4, 2024 –** Technical Memorandum Due

B. Municipal Projections Coordination and Review - Abbie Gardner, FNI, gave the Planning Group this presentation on the Region C methodology to revise draft projections. Listed below are the timelines involved in this process.

- **January 23, 2023 –** Received Draft Municipal Population and Demand Projections
- **February 2023 –** Reviewed Available Data Sources and Incorporated Studies
  - Individual master plans, impact fees, and comprehensive reports
  - NTMWD Long Range Water Supply Plan
  - UTGCD Regional Study for Parker and Wise Counties
- **March 2023 –** Sent out WUG Surveys
  - Survey was emailed to 256 public water systems; followed up via phone
  - 81 responded and 40 requested revisions
- **May 5, 2023 –** Received Revised GPCDs
- **May/June 2023 –** Met with Major and Regional Water Providers
  - Ongoing coordination

Regional-Level Population Projections

- **Criteria for Adjustment**
  1. A possible Census undercount took place in a county located within the region and action is currently being pursued to request a U.S. Census Bureau correction.
  2. The most recent population growth rate (2015-2020) for the whole region is significantly different than the draft regional projections.

- **Data Requirements**
  1. Documentation of an action requesting the U.S. Census Bureau correct an undercount of population within a county located in the region.
  2. Historical regional-total population estimates from the Texas Demographic Center or the U.S. Census Bureau.
  3. Other data and evidence that the RWPG believes provides a reasonable basis for justifying changes to the net total regional-level population projection.

Based on the data received and reviewed to date, Freese and Nichols, the Region C WPG consultants, have calculated a 1.92% undercount in the Region C Population Projections. A potential request to revise the Draft Regional Projections would include adjusting the 2020 Census to account for the undercount as a baseline. FNI forecasted the trend from the 2000 Census and adjusted the 2020 Census to later decades. Consequently, the Region C Regional Water Demand would also increase.

There were several requests for County level population revisions. Counties requesting revisions were as follows:

- Dallas County (most populated county in Region C)
- Tarrant County (second most populated county in Region C)
- Collin County
- Denton County
- Ellis County
- Kaufman County
- Parker County
- Grayson County
- Rockwall County
- Wise County
- Henderson County
- Navarro County
- Cooke County
- Fannin County
- Jack County

County-Other

- County-Other is the WUG with the least input and the most variability
- Straight-line growth is not always appropriate for some rural counties with a large portion of the population included in county-other
- More urban counties have WUGs that are approaching buildout and have less room to expand into county-other

Steps Moving Forward

- **June/July –** Continue Review and Incorporate Additional Data
- **July 10, 2023 –** Send Population and Demand Memo to Group to Review
- **July 17, 2023 –** Vote on Population and Municipal Demand Revisions
- **August 11, 2023 –** Deadline to submit Requested Revisions to TWDB

C. Schedule Overview – Abigail Gardner, FNI, gave the following working timeline for the 2026 RWP Cycle:

August 2021 – Contract Execution Deadline
January 2022 – Non-Municipal Demand Projections
September 2022 – Irrigation/Mining Projections
February 2023 – Population/Municipal Demand Projections
2022-2023 – Complete Various Scope of Work Tasks
March 4, 2024 – Technical Memo Due
March 3, 2025 – Initially Prepared Plan Due
October 20, 2025 – Regional Water Plan Due

D. Status on contracts with TWDB, TRA, and Consultants – Ms. Gardner, FNI, advised that all contracts are in good standing.

VI. OTHER DISCUSSION

A. Updates from the Chair – Chairman Ward advised that Howard Slobodin has a draft revision of the Bylaws, and they have been reviewed by the TWDB. The RCWPG Bylaws Subcommittee will review and present to the Planning Group at a future date.
B. Report from Regional Liaisons
- Region B - None
- Region D - Doug Shaw reported this planning group will meet 6/21/23. Chairman Ward introduced George Otstott, representing Region D, who advised Region D will take up similar items at their July 12, 2023 meeting.
- Region G – Chairman Ward introduced Kathy Turner Jones, Prairielands GCD, who will replace Gary Spicer on Region G at their July 27, 2023 meeting.
- Region H - Jim Sims, Alternate, advised Chairman Ward that Region H is engaged in similar processes as Region C.
- Region I - None

C. Interregional Planning Council – Jenna Covington attended the IPC meeting held May 30, 2023.
D. Report from Texas Water Development Board – Kevin Smith, TWDB, outlined the following dates:

1. **Reminder of Upcoming Critical Deadlines**
   - **July 14 –** Deadline to request revisions to draft non-municipal projections
   - **August 11 –** Deadline to request revisions to draft population and municipal demand projections
   - **Fall 2023 –** TWDB staff will present all projections to the Board for adoption
   - **Prior to Technical Memorandum**
     - Assess availability and supplies
     - Approve and submit hydrologic variance requests

- Present process identifying potentially feasible strategies for 2026 plan
- Identify infeasible strategies and projects from 2021 plan

- **March 4, 2024 –** Deadline to submit Technical Memorandum deliverable
- **June 5, 2024 –** Deadline RWP amendments for infeasible WMSs

2. **Revisions to Plumbing Code Savings Projections**
   - Revised to adjust assumption regarding adoption of fixtures
   - TWDB issued revised municipal demand projections May 5, 2023
3. **Interregional Planning Council**
   - Previous meetings held November 9, 2022, March 9, 2023, and May 30, 2023. Next meetings August 15 and November 30, 2023.
4. **Additional IPC Resource Materials Available** (Provided 4/5/23)
   - Status of 2021 RWPG policy recommendations
   - Active RWPG committees
   - Information on TCEQ membership
   - Voting membership costs
   - Liaison materials
5. **RWPG Additional Funding**
   - TWDB asked for an additional $1.3 Million per year for RWPGs as part of the agency's Legislative Appropriations Request.
   - TWDB will be receiving additional funding for RWPGs.
   - We anticipate, as always, allocating the additional funding to regions via a formula funding tool.
   - Details on the increased funding amount and allocations will be provided later this summer.
   - Any increase in funding will be included in the upcoming contract amendments to increase the contract committed funds.
   - TWDB is anticipating issuing the contract amendments in Fall 2023.
   - RWPGs will need to take action to authorize the fall contract amendments.
6. **SWIFT**
   - Abridged applications deadline was February 1, 2023; three full applications submitted for Region C.

E. Report from Texas Department of Agriculture - None
F. Report from Texas Parks and Wildlife Department - None
G. Other Reports – Chairman Ward advised that the current Legislative session has authorized a feasibility study on Marvin Nichols which is due January 2025; no funding has been provided.
H. Confirm Date and Location of Next Meeting – TBD; NCTCOG, 616 Six Flags Drive, Centerpoint Two Building, First Floor Transportation Council Room, Arlington, Texas 76011
I. Public Comments - None

VII. ADJOURNMENT

There being no further business, the meeting of the Region C WPG adjourned at approximately 3:40 PM.

_____
KEVIN WARD, Chairman

Agenda Item IV.A – Attachment

Population and Demand Projections Revision Recommendation Memorandums

MEMORANDUM

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www.freese.com

TO: Region C Regional Water Planning Group

CC: File

FROM: Freese and Nichols, Inc.

SUBJECT: Memorandum on Draft 2026 Region C Population Projections

DATE: 7/10/2023

PROJECT: TRA21862

1.0 BACKGROUND

The Texas Water Development Board (TWDB) provided the planning groups with draft population projections in January 2023. The review process of these projections includes review by the individual planning groups, with recommended changes provided to the TWDB by August 11, 2023. The TWDB will consider the recommended changes from the planning groups, and the final projections will ultimately be adopted by the TWDB and incorporated into the 2027 State Water Plan (SWP). The purpose of this technical memorandum is to document information related to historical population and provide information supporting recommended modifications, if needed, to the draft population projections. Population projections include permanent residential population, including 'group quarter' population residing in institutional facilities (military, prisons, schools, or nursing homes) who are served by municipal WUGs or rely on their own water sources. Seasonal population, including tourist or seasonal workers, are not included in the draft projections although the associated seasonal water use is necessarily reflected in the per capita water use rates.

Some key points regarding the draft population projections include:

- Draft population projections are based on county-level projections from the Texas Demographic Center (TDC), which used migration rates between the 2010 and 2020 decennial Census to project future growth.
- The Texas Water Development Board (TWDB) drafted WUG-level population and water demand projections using the TDC's full-migration scenario (1.0) projections and provided the half-migration scenario (0.5) projections by Region-County for the planning groups' consideration. The region can choose to use either the full migration or half migration scenario by county.
- Previous TWDB population projections for the regional and state water plans have relied, initially, on county-level population projections from the TDC using the half migration rate. In the past, the TWDB had altered the resulting regional plan population projections in counties with declining population– by holding them flat into future periods – which obscured projected population decline, a trend for some areas that continued in the 2020 Census. For the 2026 Regional Water Plans (RWPs), these draft county population projections being provided to the

RWPGs followed the trends, without adjustment, as projected by the TDC, including population declines.

- The 2026 population projections differ from the 2021 projections due to changes in migration rates, use of the full migration rate rather than half migration rate, and associated updates in the TDC cohort model to reflect updated birth and mortality rates. While the migration rates commonly drive long-term population trends, declines in the birth rates for the 2026 assessment also affected the draft projections.

1.1 Regional-level Population Projections

In accordance with the TWDB Guidance, adjustment to net regional-total population projections may be considered based on the criteria below. This guidance is included as ***Attachment A***. The net cumulative sub-regional requested changes may not exceed the maximum region-wide population that is provided by the TWDB.

Criteria for adjustment:
One or more of the following criteria must be verified by the RWPG and the Executive Administrator for consideration of revising the regional-level population projections:

1. A possible Census undercount took place in a county located within the region and action is currently being pursued to request a U.S. Census Bureau correction.
2. The most recent population growth rate (2015 – 2020) for the whole region is significantly different than the draft regional projections.

Data requirements:
The RWPG must provide the following data to the Executive Administrator associated with the identified criteria for justifying any adjustments to the regional-level population projections.

1. Documentation of an action requesting the U.S. Census Bureau correct an undercount of population within a county located in the region.
2. Historical regional-total population estimates from the Texas Demographic Center or the U.S. Census Bureau.
3. Other data and evidence that the RWPG believes provides a reasonable basis for justifying changes to the net total regional-level population projection.

Recommendation:
Region C consists of the Metroplex and surrounding counties. Most of the population is centered in the Metroplex, but current trends show fast growing areas in the surrounding counties. Collin, Rockwall and Kaufman counties in the eastern part of the region are some of the fastest growing areas in the state. Parker and Wise counties are also showing high growth rates in the western part of the region. As the Metroplex grows, the population could settle nearly anywhere within the region and not be contained in specific counties. This trend has become pronounced considering changing work requirements that support remote work. As such, we have focused our initial assessment at the regional level.

A review of the adopted population projections from the 2021 Region C Plan to the draft 2026 projections (with full migration) shows Region C has a higher population in 2020 than projected in the 2021 Plan. By 2040, the draft 2026 projections are less than estimated for the 2021 Plan. By 2070, the

draft 2026 projections are nearly one million people less than shown in the 2021 plan (7%). This is difficult to explain since the full migration rate is used for the 2026 projections and the half migration rate was used for the 2021 plan. The most likely reasons for this change are 1) the lower birth rates that can affect long-term growth patterns and 2) lower growth projected for some of the more rural counties. Both Jack and Freestone counties are the only counties that show population declines. **Table 1** summarizes the difference between the 2026 TWDB Draft projections and the final 2021 Region C Regional Plan projections.

Table 1: 2026 TWDB Draft Projections Compared to 2021 Region C Regional Water Plan Projections

	2020	2030	2040	2050	2060	2070	2080
2026 TWDB Draft	7,709,193[1]	8,866,884	10,093,722	11,297,108	12,440,777	13,700,226	15,087,176
2021 Region C Plan	7,621,230	8,840,050	10,130,718	11,512,888	13,029,984	14,661,858	-
Difference	***87,963***	***26,834***	***(36,996)***	***(215,780)***	***(589,207)***	***(961,632)***	-

[1]*2020 Census population for Region C*

The first criterion for adjustment is a possible Census undercount. The 2020 Census had several unique challenges to overcome. The nation was not only in the midst of a pandemic, but there was limited funding made available to allow for canvassing and outreach efforts. It was reported that towards the end, the self-response rate for Texas households was barely at 60%. The U.S. Census Bureau released the 2020 Census estimated undercount and overcount rates by state from the Post-Enumeration Survey (PES). It is estimated that Texas had an undercount of ~1.92%. ***It is recommended that the Region C 2020 Census total be adjusted to capture the ramifications of this undercount***. **Table 2** summarizes the population projections for Region C if the 2020 Census is increased by 1.92% and the trendline for growth between 2010 and 2020 is extended to 2080.

Table 2: 2010 – 2010 Census Adjusted with Undercount Trendline

	2010	2020	2030	2040	2050	2060	2070	2080
2026 TWDB Draft	6,456,749	7,709,193	8,866,884	10,093,722	11,297,108	12,440,777	13,700,226	15,087,176
Adjusted Undercount Trendline	6,456,749	7,857,210[1]	9,257,670	10,658,131	12,058,591	13,459,052	14,859,512	16,259,973
Difference	-	***(148,017)***	***(390,786)***	***(564,409)***	***(761,483)***	***(1,018,275)***	***(1,159,286)***	***(1,172,797)***

[1]*2020 Census population for Region C adjusted by 1.92% undercount*

The second criterion for adjustment is that the most recent growth rate (2015 – 2020) for the whole region is significantly different than the draft regional projections. **Table 3** shows the compound annual growth rate (CAGR) based on the historical census estimates for Region C in each year from 2010 to 2022. The average growth rate for this time period is 1.77%. This includes the lowest growth rate of 1.15% from 2019 to 2020 that is heavily influenced by the undercounted census. The average growth rate for the 2015 – 2020 timeframe is 1.66%.

Table 3: Historical Census Estimates for Region C and CAGR

	Historical Census Estimate[1]	Annual Growth Rate	5-Year Average	10-Year Average
2010	6,503,203	-	-	-
2011	6,621,057	1.81%	-	-
2012	6,753,968	2.01%	-	-
2013	6,861,506	1.59%	-	-
2014	6,996,147	1.96%	-	-
2015	7,148,153	2.17%	1.91%	-
2016	7,298,592	2.10%	1.97%	-
2017	7,439,843	1.94%	1.95%	-
2018	7,557,758	1.58%	1.95%	-
2019	7,673,210	1.53%	1.86%	-
2020	7,761,468	1.15%	1.66%	1.78%
2021	7,866,782	1.36%	1.51%	1.74%
2022	8,031,222	2.09%	1.54%	1.75%

[1]*The historical census estimate includes the total population of Henderson County. This is the only county that is split with another region (Region I) and represents a relatively small portion of the total Region C population.*

This supports the request to increase the Region C regional total to better reflect what has been historically observed. Additionally, the growth rate from 2021 to 2022 is one of the higher growth rates observed indicating that growth within Region C is actually increasing post the 2020 timeframe.

Table 4 summarizes the regional annual growth rates as well as the recommendation for a regional total increase. The cumulative requested revisions received through the planning group's own targeted canvassing efforts were lower than the 2070 – 2080 trendline predictions. **It is recommended that the trendline projections be used from 2030 – 2060 and the cumulative requested revisions be used from 2070 – 2080.** This growth rate better reflects the recent population trends observed within Region C. The growth rates proposed for the 2026 Region C Regional Water Plan projections are both lower than the 5-Year average from 2015 – 2020 (1.66%) as well as the 10-Year average from 2010 – 2020 (1.78%). It is also lower than the growth rate observed in the most recent census estimate from 2021 to 2022 (2.09%).

As a region that is heavily influenced by municipal use, it is imperative that Region C's population projections reflect the best available data to date. Implementation of this recommendation will not be able to accommodate all of the requested revisions that were received from individual WUGs and WWPs. In 2030 – 2060 all WUGs that requested an increase from the 2026 TWDB draft projections were reduced by the same percentage to match the adjusted undercount trendline projections. **To meet this regional total, requested increases had to be decreased from 1 - 7% between 2030 – 2060.** All requested revisions were incorporated into the 2070 – 2080 projections with no reductions.

Table 4: Regional Annual Growth Rates and Recommendation

	2030[1]	2040	2050	2060	2070	2080
2026 TWDB Draft	8,866,884	10,093,722	11,297,108	12,440,777	13,700,226	15,087,176
CAGR	*1.22%*	*1.30%*	*1.13%*	*0.97%*	*0.97%*	*0.97%*
Adjusted Undercount Trendline	9,257,670	10,658,131	12,058,591	13,459,052	14,859,512	16,259,973
CAGR	*1.65%*	*1.42%*	*1.24%*	*1.10%*	*0.99%*	*0.90%*
Cumulative Requested Revisions	9,407,089	11,108,342	12,375,568	13,555,150	14,532,628	15,575,473
CAGR	*1.82%*	*1.68%*	*1.09%*	*0.91%*	*0.70%*	*0.70%*
Recommended	***9,257,670***	***10,658,131***	***12,058,591***	***13,459,052***	***14,532,628***	***15,575,473***
CAGR	***1.65%***	***1.42%***	***1.24%***	***1.10%***	***0.77%***	***0.70%***

[1]*Cumulative Annual Growth Rate (CAGR) from 2020 – 2030 is based on the adjusted 2020 Region C Census total population of 7,857,210*

1.2 County-Level Population Projections

County-level projections were developed considering requested changes at the sub-county WUG level, historical county growth rates, known new developments and industries. Any net adjustments to a county-level population projection requires a redistribution of the projected counties populations within the same region so that the net, summed regional total, as recommended in ***Section 1.1***, remains unchanged.

Recommendation:
It is recommended that the increase to the Region C regional total be distributed among the 16 counties based upon historical data, requested revisions as well as other data and evidence, such as more detailed studies. **Table 5** shows the historical census estimates for each of the 16 individual counties located within Region C. **Table 6** and **Table 7** summarize the 2026 TWDB draft projections and the recommended county total revisions.

- **Collin –** Collin County is one of the more densely populated counties within Region C. While the population is still increasing, the historical annual growth rate has stayed consistently around 3% in recent years. From 2021 – 2022 the growth rate increased to almost 4%. ***It is recommended to increase the county total in 2030 – 2060 and decrease the county total in 2070 – 2080*** as some WUGs begin to reach buildout. Both the 5 (3.28%) and 10-year (3.17%) average annual historical growth rate is higher than the highest annual growth rate that was used in the draft projections (2.15%).
- **Cooke –** Region C only received two revision requests from WUGs within Cooke county. ***It is recommended to increase the county total***. Both the 5 (1.28%) and 10-year (0.82%) average annual historical growth rate is higher than the highest annual growth rate that was used in the draft projections (0.38%).
- **Dallas –** Dallas is currently the most populous county in Region C with an estimate of approximately 2.6 million people in 2022. Because Dallas County is so densely populated several WUGs are projected to be at or near buildout within the planning horizon. Of the 16 counties in Region C, Dallas is the only county that had a negative growth rate from 2020 – 2021. ***It is recommended to decrease the county total in 2030 – 2050 and increase the county total in***

2060 – 2080. The 5-year average annual historic growth rate (0.40%) and most recent year (0.50%) growth rate is lower than the highest annual growth rate used in the projections (0.54%).

- **Denton –** Currently Denton has over 1 million people living within the county. ***It is recommended to increase the county total in 2030 - 2060 and decrease the county total in 2070 - 2080.*** Both the 5 (3.24%) and 10-year (3.21%) average annual historical growth rate is higher than the highest annual growth rate that was used in the draft projections (2.27%).
- **Ellis –** ***It is recommended to increase the county total in all decades***. Both the 5 (3.54%) and 10-year (2.60%) average annual historical growth rate is higher than the highest annual growth rate that was used in the draft projections (1.78%).
- **Fannin –** ***It is recommended to increase the county total in all decades***. The 5-year average annual historical growth rate (1.33%) is higher than the highest annual growth rate that was used in the draft projections (0.41%). The two most recent years 2020 – 2021 (2.56%) and 2021 – 2022 (1.11%) are higher as well. Also, with the completion of Bois d'Arc Lake and the construction of Lake Ralph Hall, it is expected that this county will experience future growth at higher rates than shown in the past. This is based on economic studies conducted for these reservoirs and active development.
- **Freestone** - ***The only county that it is not recommended to make any changes to the county total***. Of the ten WUGs within the county, Region C only received one response to the survey and that response agreed with the draft projections.
- **Grayson** – ***It is recommended to increase the county total in all decades***. Both the 5 (1.61%) and 10-year (1.18%) average annual historical growth rate is higher than the highest annual growth rate that was used in the draft projections (0.81%).
- **Henderson –** Henderson County is the only county in Region C that is split with another region. Although we use the river basin as a divide in regional planning, we looked at the growth within the entire county as a means for comparison. ***It is recommended to increase the county total in all decades***. The 5-year average annual historical growth rate (0.72%) is higher than the highest annual growth rate that was used in the draft projections (0.46%). The two most recent years 2020 – 2021 (1.45%) and 2021 – 2022 (1.10%) are higher as well.
- **Jack –** Jack is the least populated county in Region C and one of the only two counties that are projected to decrease over the planning horizon. ***It is recommended to increase the county total in all decades, however the decreasing total trend will remain the same for the majority of the planning horizon.*** Both the 5 (-0.91%) and 10-year (-0.59%) average annual historical growth rate show a decreasing trend, however the two most recent years 2020 -2021 (2.73%) and 2021 – 2022 (2.34%) show an increase in growth. The largest reported decrease in growth is shown between 2019 – 2020 (-5.03%) which is not surprising considering the obstacles the census encountered particularly in the less urban counties.
- **Kaufman -** Kaufman is the county with the largest historical growth rate in recent years within Region C. The two largest WUGs in this county are currently Forney and Terrell. ***It is recommended to increase the county total in 2030 - 2070 and decrease the county total in 2080***. Both the 5 (5.22%) and 10-year (3.54%) average annual historical growth rate is higher than the highest annual growth rate that was used in the draft projections (2.69%). The most recent years 2020 – 2021 (7.54%) and 2021 – 2022 (8.94%) continue this trend.

- **Navarro –** Only one WUG requested an increase in projections within Navarro County. ***It is recommended to accommodate this request by increasing the county total in all decades.*** This is a minimal change, and an increase is supported by historical growth. Both the 5 (0.87%) and 10-year (1.17%) average annual historical growth rate is higher than the highest annual growth rate that was used in the draft projections (0.57%).
- **Parker –** Parker county has had consistently high growth throughout recent years. ***It is recommended to increase the county total in all decades***. The 5-year average annual historical growth rate (3.55%) is higher than the highest annual growth rate that was used in the draft projections (1.85%). The two most recent years 2020 – 2021 (4.96%) and 2021 – 2022 (5.65%) are higher as well. The majority of the increase is attributed to county-other as this county becomes more urbanized. This is supported by a recent study that considered the new planned developments and significant increase in groundwater permits for domestic use.
- **Rockwall –** ***It is recommended to increase the county total in all decades***. The 5-year average annual historical growth rate (3.89%) is higher than the highest annual growth rate that was used in the draft projections (2.29%). The two most recent years 2020 – 2021 (6.79%) and 2021 – 2022 (5.71%) are higher as well.
- **Tarrant –** Tarrant is the second largest county in Region C with over 2.1 million people in 2022. ***It is recommended to increase the county total in all decades***. The 5-year average annual historical growth rate (1.28%) is higher than the highest annual growth rate that was used in the draft projections (0.92%). The most recent year 2021 – 2022 (1.18%) is higher as well.
- **Wise -** ***It is recommended to increase the county total in all decades***. The 5-year average annual historical growth rate (1.87%) is higher than the highest annual growth rate that was used in the draft projections (0.92%). The two most recent years 2020 – 2021 (4.27%) and 2021 – 2022 (4.18%) are significantly higher as well. Most of the increase is attributed to county-other as this county becomes more urbanized.

Table 5: Historical Census Estimates and Annual Growth Rates for Region C Counties

County	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Population													
Collin	787,614	812,540	835,230	856,398	884,688	915,243	943,742	971,864	1,004,307	1,034,730	1,075,654	1,114,450	1,158,696
Cooke	38,472	38,443	38,717	38,456	38,764	39,170	39,343	39,932	40,504	41,257	41,744	42,408	43,050
Dallas	2,372,993	2,408,697	2,455,930	2,484,486	2,519,410	2,557,830	2,591,488	2,620,154	2,629,350	2,635,516	2,609,966	2,587,954	2,600,840
Denton	666,760	685,740	707,892	728,624	753,188	779,584	808,212	835,364	858,741	887,207	914,324	943,857	977,281
Ellis	150,367	152,373	153,739	155,928	159,204	163,292	168,332	173,405	179,006	184,826	194,295	203,107	212,182
Fannin	33,920	33,878	33,601	33,510	33,593	33,502	33,933	34,550	35,185	35,514	35,798	36,716	37,125
Freestone	19,803	19,602	19,484	19,597	19,677	19,746	19,669	19,649	19,789	19,717	19,445	19,784	19,950
Grayson	121,034	121,430	121,854	122,362	123,599	125,628	128,291	131,152	133,787	136,212	136,100	139,561	143,131
Henderson	78,665	78,837	78,992	78,669	79,324	79,492	80,062	80,954	82,103	82,737	82,394	83,590	84,511
Jack	9,004	9,030	8,992	8,951	8,880	8,883	8,789	8,828	8,825	8,935	8,486	8,718	8,922
Kaufman	103,872	105,199	106,553	108,248	110,872	114,055	117,904	122,628	128,279	136,154	147,126	158,216	172,366
Navarro	47,869	48,074	48,163	48,036	47,913	48,181	48,405	48,739	49,536	50,113	52,828	53,616	54,636
Parker	117,316	118,320	119,482	119,785	122,147	125,640	128,967	133,501	138,070	142,878	149,547	156,966	165,834
Rockwall	78,919	81,045	82,710	84,670	87,064	90,170	93,421	96,824	100,546	104,915	109,136	116,549	123,208
Tarrant	1,817,480	1,847,882	1,882,205	1,912,767	1,946,122	1,984,880	2,023,556	2,056,451	2,081,446	2,102,515	2,115,682	2,129,402	2,154,595
Wise	59,115	59,967	60,424	61,019	61,702	62,857	64,478	65,848	68,284	69,984	68,943	71,888	74,895
Annual Growth Rate													
Collin	-	3.16%	2.79%	2.53%	3.30%	3.45%	3.11%	2.98%	3.34%	3.03%	3.96%	3.61%	3.97%
Cooke	-	-0.08%	0.71%	-0.67%	0.80%	1.05%	0.44%	1.50%	1.43%	1.86%	1.18%	1.59%	1.51%
Dallas	-	1.50%	1.96%	1.16%	1.41%	1.52%	1.32%	1.11%	0.35%	0.23%	-0.97%	-0.84%	0.50%
Denton	-	2.85%	3.23%	2.93%	3.37%	3.50%	3.67%	3.36%	2.80%	3.31%	3.06%	3.23%	3.54%
Ellis	-	1.33%	0.90%	1.42%	2.10%	2.57%	3.09%	3.01%	3.23%	3.25%	5.12%	4.54%	4.47%
Fannin	-	-0.12%	-0.82%	-0.27%	0.25%	-0.27%	1.29%	1.82%	1.84%	0.94%	0.80%	2.56%	1.11%
Freestone	-	-1.01%	-0.60%	0.58%	0.41%	0.35%	-0.39%	-0.10%	0.71%	-0.36%	-1.38%	1.74%	0.84%
Grayson	-	0.33%	0.35%	0.42%	1.01%	1.64%	2.12%	2.23%	2.01%	1.81%	-0.08%	2.54%	2.56%
Henderson	-	0.22%	0.20%	-0.41%	0.83%	0.21%	0.72%	1.11%	1.42%	0.77%	-0.41%	1.45%	1.10%
Jack	-	0.29%	-0.42%	-0.46%	-0.79%	0.03%	-1.06%	0.44%	-0.03%	1.25%	-5.03%	2.73%	2.34%
Kaufman	-	1.28%	1.29%	1.59%	2.42%	2.87%	3.37%	4.01%	4.61%	6.14%	8.06%	7.54%	8.94%
Navarro	-	0.43%	0.19%	-0.26%	-0.26%	0.56%	0.46%	0.69%	1.64%	1.16%	5.42%	1.49%	1.90%
Parker	-	0.86%	0.98%	0.25%	1.97%	2.86%	2.65%	3.52%	3.42%	3.48%	4.67%	4.96%	5.65%
Rockwall	-	2.69%	2.05%	2.37%	2.83%	3.57%	3.61%	3.64%	3.84%	4.35%	4.02%	6.79%	5.71%
Tarrant	-	1.67%	1.86%	1.62%	1.74%	1.99%	1.95%	1.63%	1.22%	1.01%	0.63%	0.65%	1.18%
Wise	-	1.44%	0.76%	0.98%	1.12%	1.87%	2.58%	2.12%	3.70%	2.49%	-1.49%	4.27%	4.18%

Table 6: 2026 Draft Projections for 2026 Region C Regional Plan Compared to Historical Census Estimate Annual Growth Rates

County Name	Draft Projections for 2026 RWP (ac-ft/yr)							CAGR for Draft Projections						Historical Census Estimate Annual Growth Rates			
	2020[1]	2030	2040	2050	2060	2070	2080	2020-2030	2030-2040	2040-2050	2050-2060	2060-2070	2070-2080	5-Year Average (2015-2020)	10-Year Average (2010 – 2020)	2020 -2021	2021 - 2022
Collin	1,084,903	1,341,877	1,676,287	2,056,270	2,438,008	2,858,391	3,321,332	2.15%	2.25%	2.06%	1.72%	1.60%	1.51%	3.28%	3.17%	3.61%	3.97%
Cooke	42,468	44,096	45,641	46,337	46,490	46,658	46,843	0.38%	0.34%	0.15%	0.03%	0.04%	0.04%	1.28%	0.82%	1.59%	1.51%
Dallas	2,663,719	2,811,320	2,954,449	3,029,940	3,072,924	3,120,260	3,172,388	0.54%	0.50%	0.25%	0.14%	0.15%	0.17%	0.40%	0.96%	-0.84%	0.50%
Denton	923,825	1,156,452	1,449,394	1,757,793	2,071,337	2,416,623	2,796,864	2.27%	2.28%	1.95%	1.65%	1.55%	1.47%	3.24%	3.21%	3.23%	3.54%
Ellis	196,150	234,017	280,510	331,033	381,817	437,742	499,329	1.78%	1.83%	1.67%	1.44%	1.38%	1.33%	3.54%	2.60%	4.54%	4.47%
Fannin	36,347	37,851	39,584	40,629	41,251	41,936	42,690	0.41%	0.45%	0.26%	0.15%	0.16%	0.18%	1.33%	0.54%	2.56%	1.11%
Freestone	19,808	19,057	18,648	18,067	17,514	16,905	16,234	-0.39%	-0.22%	-0.32%	-0.31%	-0.35%	-0.40%	-0.31%	-0.18%	1.74%	0.84%
Grayson	138,145	149,694	163,010	174,122	183,924	194,718	206,605	0.81%	0.86%	0.66%	0.55%	0.57%	0.59%	1.61%	1.18%	2.54%	2.56%
Henderson	59,404	62,219	64,490	65,745	67,173	68,746	70,478	0.46%	0.36%	0.19%	0.22%	0.23%	0.25%	0.72%	0.46%	1.45%	1.10%
Jack	8,635	8,002	7,522	7,004	6,525	5,998	5,418	-0.76%	-0.62%	-0.71%	-0.71%	-0.84%	-1.01%	-0.91%	-0.59%	2.73%	2.34%
Kaufman	148,100	193,144	253,897	331,393	419,515	516,558	623,425	2.69%	2.77%	2.70%	2.39%	2.10%	1.90%	5.22%	3.54%	7.54%	8.94%
Navarro	53,634	56,773	60,865	64,251	67,193	70,433	74,001	0.57%	0.70%	0.54%	0.45%	0.47%	0.50%	1.86%	0.99%	1.49%	1.90%
Parker	151,068	181,391	217,135	257,508	299,924	346,634	398,073	1.85%	1.81%	1.72%	1.54%	1.46%	1.39%	3.55%	2.46%	4.96%	5.65%
Rockwall	109,889	137,756	173,604	216,829	262,120	311,996	366,921	2.29%	2.34%	2.25%	1.92%	1.76%	1.63%	3.89%	3.29%	6.79%	5.71%
Tarrant	2,151,164	2,356,541	2,604,655	2,809,558	2,969,443	3,145,514	3,339,410	0.92%	1.01%	0.76%	0.56%	0.58%	0.60%	1.28%	1.53%	0.65%	1.18%
Wise	69,950	76,694	84,031	90,629	95,619	101,114	107,165	0.92%	0.92%	0.76%	0.54%	0.56%	0.58%	1.87%	1.55%	4.27%	4.18%
Total	***7,857,210***	***8,866,884***	***10,093,722***	***11,297,108***	***12,440,777***	***13,700,226***	***15,087,176***	***1.22%***	***1.30%***	***1.13%***	***0.97%***	***0.97%***	***0.97%***	***1.66%***	***1.78%***	***1.36%***	***2.09%***

[1]2020 Census adjusted with 1.92% Undercount.

Table 7: Summary of Requested County Revisions for 2026 Regional Water Plan

County Name	Recommended Revisions for 2026 RWP (ac-ft/yr)						Recommended Revisions for 2026 RWP (ac-ft/yr)						Difference between TWDB Draft and Recommended Revisions					
	2030	2040	2050	2060	2070	2080	2020-2030	2030-2040	2040-2050	2050-2060	2060-2070	2070-2080	2030	2040	2050	2060	2070	2080
Collin	1,502,639	1,938,595	2,325,964	2,635,569	2,753,451	2,834,432	3.31%	2.58%	1.84%	1.26%	0.44%	0.29%	160,762	262,308	269,694	197,561	(104,940)	(486,900)
Cooke	44,108	45,652	46,353	47,265	49,238	51,051	0.38%	0.34%	0.15%	0.20%	0.41%	0.36%	12	11	16	775	2,580	4,208
Dallas	2,723,775	2,832,738	2,991,729	3,115,525	3,230,428	3,315,975	0.22%	0.39%	0.55%	0.41%	0.36%	0.26%	(87,545)	(121,711)	(38,211)	42,601	110,168	143,587
Denton	1,282,725	1,529,404	1,814,261	2,074,891	2,285,663	2,496,417	3.34%	1.77%	1.72%	1.35%	0.97%	0.89%	126,273	80,010	56,468	3,554	(130,960)	(300,447)
Ellis	244,681	291,560	345,539	402,186	459,833	521,012	2.24%	1.77%	1.71%	1.53%	1.35%	1.26%	10,664	11,050	14,506	20,369	22,091	21,683
Fannin	40,187	45,519	54,276	63,857	72,340	82,079	1.01%	1.25%	1.78%	1.64%	1.26%	1.27%	2,336	5,935	13,647	22,606	30,404	39,389
Freestone	19,057	18,648	18,067	17,514	16,905	16,234	-0.39%	-0.22%	-0.32%	-0.31%	-0.35%	-0.40%	0	0	0	0	0	0
Grayson	173,714	217,377	248,456	276,053	302,557	329,768	2.32%	2.27%	1.35%	1.06%	0.92%	0.86%	24,020	54,367	74,334	92,129	107,839	123,163
Henderson	81,675	91,981	105,398	117,181	128,149	139,134	3.24%	1.20%	1.37%	1.07%	0.90%	0.83%	19,456	27,491	39,653	50,008	59,403	68,656
Jack	8,229	7,951	7,856	7,948	7,884	7,749	-0.48%	-0.34%	-0.12%	0.12%	-0.08%	-0.17%	227	429	852	1,423	1,886	2,331
Kaufman	212,748	267,485	337,889	441,094	537,358	621,206	3.69%	2.32%	2.36%	2.70%	1.99%	1.46%	19,604	13,588	6,496	21,579	20,800	(2,219)
Navarro	57,002	61,064	64,468	67,483	70,755	74,379	0.61%	0.69%	0.54%	0.46%	0.47%	0.50%	229	199	217	290	322	378
Parker	208,388	258,812	345,298	471,788	599,929	759,643	3.27%	2.19%	2.93%	3.17%	2.43%	2.39%	26,997	41,677	87,790	171,864	253,295	361,570
Rockwall	143,544	191,435	249,903	315,065	344,164	372,018	2.71%	2.92%	2.70%	2.34%	0.89%	0.78%	5,788	17,831	33,074	52,945	32,168	5,097
Tarrant	2,407,513	2,710,325	2,898,125	3,129,835	3,333,067	3,534,167	1.13%	1.19%	0.67%	0.77%	0.63%	0.59%	50,972	105,670	88,567	160,392	187,553	194,757
Wise	107,686	149,586	205,007	275,797	340,907	420,209	4.41%	3.34%	3.20%	3.01%	2.14%	2.11%	30,992	65,555	114,378	180,178	239,793	313,044
Total	***9,257,670***	***10,658,131***	***12,058,591***	***13,459,052***	***14,532,628***	***15,575,473***	***1.65%***	***1.42%***	***1.24%***	***1.10%***	***0.77%***	***0.70%***	***390,786***	***564,409***	***761,483***	***1,018,275***	***832,402***	***488,297***

1.3 WUG (entity) Population Projections

The projected population growth throughout the planning period for the utilities and rural area (county-other) within a county is a function of a number of factors, including the WUG's estimated share of the county's population or growth between 2010 and 2020, as well as local information provided by RWPGs.

Recommendation:
Individual WUG projection adjustments were made as needed based on currently available information. Where possible, adjustments between WUG population projections were made within the same county. A summary of the WUG adjustments proposed is attached in ***Attachment B***.

Sources for Projection Adjustments:
In the case of Region C, new data sources since the 2021 Region C Water Plan (RCRWP) have been considered and changes to both the regional and county totals are warranted.

The consultant's population revisions are based on a review of the following data:

- **Water User Group Survey** – In March, FNI sent a survey to each municipal water user group with their draft projections and asked for input on the projections. To date, we have had a 32% response rate, half of which have requested changes.
- **Input from Wholesale Water Providers (WWPs)** – In March, an email survey was sent out to all WWPS. In May, FNI met with five major water providers and two regional water providers to get input on their customer's population and demand projections.
- **Texas Demographic Center Estimates –** The TDC releases annual population estimates by place. FNI reviewed these estimates of observed historical growth and compared it to the projected growth from 2030-2080. This was done for individual entities and for county totals. If an entity has grown much faster or slower than originally projected, adjustments were made.
- **North Central Texas Council of Government (NCTCOG) Estimated –** NCTCOG population estimates were reviewed and compared to the 2020 Census and TWDB projected growth.
- **Individual Plans and/or Reports** – If population projections were available from a recently updated plan and/or report that was available to FNI, the projections were compared to the other available data and projections were updated for the time period in which they overlapped. Specifically, these included long-range water supply plans, water and wastewater master plans, impact fee reports, and comprehensive plans. If projections from a plan and/or report was used to revise projections for a WUG it is noted in ***Attachment B.***

ATTACHMENT A

TWDB General Guidance on Population Projections

Non-municipal draft water demand projections consisting of manufacturing, irrigation, livestock, and steam-electric power generation will be developed based on more recent historical water use data (2015-2019) and the same methodologies that were updated for use in developing the 2021 RWPs and 2022 State Water Plan. For the mining water use category, new projections will be developed based on a contracted mining study by the Bureau of Economic Geology.

Criteria and required data for requested changes to draft projections and revisions of approved projections

The initial list of WUGs will be prepared and provided to each RWPG along with historical water use and population data for their review. The RWPGs will review the WUG list and historical data from the TWDB and provide corrections and feedback to the TWDB.

Once the final list of WUGs is established, the TWDB will prepare draft population and water demand projections for each region. The RWPGs will then review the draft projections and may provide input to the TWDB or request specific changes to the draft projections from the TWDB. All requests to adjust draft projections must be submitted along with associated quantified data in an electronic format determined by the TWDB (e.g., Excel spreadsheets). If adequate justification is provided by the RWPGs to the TWDB, population and/or water demand projections may be adjusted by the TWDB in consultation with Texas Department of Agriculture, Texas Commission on Environmental Quality (TCEQ), and Texas Parks and Wildlife Department (TPWD). The TWDB will then incorporate approved adjustments to the projections prior to the Board's consideration of adoption of the population and water demand projections. Acceptable criteria and required data are specified for each WUG category in Sections 2.2.1 and 2.2.2.

The RWPGs must use the Board-adopted projections when preparing their RWPs. The TWDB will directly populate DB27with all Board-adopted WUG-level projections and the TWDB will make any related changes to DB27 if subsequent revisions are approved by the Board.

RWPGs may request revisions to Board-adopted projections if the request demonstrates the projections no longer represent a reasonable estimate of anticipated conditions based on changed conditions or new information in accordance with 31 TAC §357.31(e)(2)[2]. However, planning groups will need to manage the timelines required for agency review and Board action with the subsequent revisions to their reginal plans in order to meet all contractual deliverable deadlines.

2.2.1 Population projections

The draft population projections will include permanent residential population, including 'group quarter' population residing in institutional facilities (military, prisons, schools, or nursing homes) who are served by municipal WUGs or rely on their own water sources. Seasonal population, including tourist or seasonal workers, are not included in the draft

[2] Work performed associated with revisions to Board-adopted projections is not eligible for regional water planning grant funding in accordance with 31 TAC §355.92(a)(E).

projections although the associated seasonal water use is necessarily reflected in the per capita water use rates.

Prior to the release of the draft projections, the TWDB will analyze the most recent population projections from the Texas Demographic Center in comparison to the 2022 State Water Plan projections to determine the maximum region-wide, net population changes that may be considered by the RWPGs. If the Texas Demographic Center produces multiple migration scenarios, the TWDB will analyze the WUG's historical growth rates, share of the county growth, and share of the county population to develop one set of projections for each WUG, county, and RWPA. Higher migration rates may be utilized in the short-term but are not recommended over the long-term of the planning horizon.

2.2.1.1 Municipal WUG list

The initial list of WUGs, also referred to as *entities*, will be developed by the TWDB per 31 TAC §357.10(43) and with the input of each RWPG. Municipal WUGs will be based on utility boundaries and annual water use volumes reported by associated public water systems via TWDB's annual Water Use Survey. Utilities' municipal net use will be evaluated based on whether they are public or private utilities. If the public water system or utility meets the annual municipal net use of 100 acre-feet threshold in any single year within the most recent five years (2015-2019), they will be established as stand-alone WUGs. Collective reporting units will be carried over from the 2022 State Water Plan, but also will be updated per newly established public water systems, changes in utility boundaries or input from the planning groups. Public water systems or utilities that do not meet the definition of a stand-alone WUG or collective reporting unit will be planned for as part of a county-other WUG per 31 TAC §357.10(43)(E). Additionally, group quarters can be WUGs if they meet the definition in 31 TAC §357.10(43)(B) or may be included as part of another WUG.

Criteria for adjustment:

A proposed WUG must meet the definition in 31 TAC §357.10(43) and the following criteria to be included as a new, discrete entity in the 2026 RWP. One or more of the following criteria must be verified by the RWPG and the Executive Administrator:

1. Evidence of errors identified in the historical water use for a public water system or utility, which would determine whether the system or utility meets the WUG definition.
2. Evidence of errors in the ownership type of a public water system or utility provided in the Texas Drinking Water Watch.
3. Evidence of recent changes of the ownership of a public water system or utility through merge or annexation.

Data requirements:

The RWPG must provide the following data to the Executive Administrator associated with the identified criteria to be included in the 2026 RWP:

1. Annual water intake, sales, or metered use volumes for recent years for the public water system.
2. Documentation supporting changes of the name or ownership of a public water system or utility.

3. Documentation supporting collective reporting units with the geographic designation along with a list of the utilities or public water systems that have a common association for the purposes of water planning.
4. Documentation supporting that a system or utility within a collective reporting unit boundary should be planned for as a stand-alone WUG.

2.2.1.2 Regional-level population projections

Adjustment to net regional-total population projections may be considered based on the criteria below. Associated adjustments to net county-total population projections within the regional total must also be justified (see Section 2.2.1.3). The net cumulative sub-regional requested changes may not exceed the maximum region-wide population that is provided by the TWDB.

Criteria for adjustment:

One or more of the following criteria must be verified by the RWPG and the Executive Administrator for consideration of revising the regional-level population projections:

1. A possible Census undercount took place in a county located within the region and action is currently being pursued to request a U.S. Census Bureau correction.
2. The most recent population growth rate (2015-2020) for the whole region is significantly different than the draft regional projections.

Data requirements:

The RWPG must provide the following data to the Executive Administrator associated with the identified criteria for justifying any adjustments to the regional-level population projections:

1. Documentation of an action requesting the U.S. Census Bureau correct an undercount of population within a county located in the region.
2. Historical regional-total population estimates from the Texas Demographic Center or the U.S. Census Bureau.
3. Other data and evidence that the RWPG believes provides a reasonable basis for justifying changes to the net total regional-level population projection.

2.2.1.3 County-level population projections

Any net adjustments to a county-total population projection due to adjustments to sub-county WUG-level projections within that county must be justified in a similar manner and will require an accompanying, justifiable redistribution of the projected county population within the same region so that the net, summed regional total remains unchanged unless an accompanying net total adjustment to the regional total is also requested, justified and approved (see Section 2.2.1.2). The TWDB draft county-level population projections will follow projection trends developed by the Texas Demographic Center.

Criteria for adjustment:

One or more of the following criteria must be verified by the RWPG and the Executive Administrator for consideration of revising a net total county-level population projection:

1. A possible Census undercount took place in the county and action is currently being pursued to request a U.S. Census Bureau correction.
2. If there is evidence that the most recent years (2015-2020) net migration rate was significantly different than the net migration rate used for the draft projections.
3. If there is evidence that the 2020-2030 net migration rate will be significantly different than the net migration rate used for the draft projections.
4. There are statistically significant birth and survival rate differences (by appropriate cohorts) between the county and the State.
5. The most recent county population growth rate (2015-2020) is significantly different than draft county's projections.

Data requirements:

The RWPG must provide the following data to the Executive Administrator associated with the identified criteria for justifying any adjustments to the county-level population projections:

1. Documentation of an action requesting the U.S. Census Bureau correct an undercount of population within a county.
2. Most recent in-migration and out-migration of a county, indicating that the net migration of a county over the most recent years (2015-2020) is significantly different than the net migration rates used for the draft projections.
3. Birth and/or survival rates for a county population between 2010-2020 by gender, race/ethnicity and single-year age cohorts.
4. County population estimates from the Texas Demographic Center or the U.S. Census Bureau.
5. Documentation of plans for a manufacturing facility to locate in a county at a future date (corresponding to section 2.2.2.2), or other type of new employment center, and the number of jobs that will result in migration of permanent residents from outside the county, and the migration rate would be significantly different than the migration rate used in the TWDB draft projections.
6. Other data and evidence that the RWPG believes provides a reasonable basis for justifying changes to the net total county-level population projection.

2.2.1.4 WUG (entity) population projections

The projected population growth throughout the planning period for the utilities and rural area (county-other) within a county is a function of a number of factors, including the WUG's estimated share of the county's population or growth between 2010 and 2020, as well as local information provided by RWPGs. The total county population will serve as a control total for the WUG populations within each county. Any adjustments to a sub-county WUG population projection must involve a justifiable redistribution of projected populations within the relevant county so that the county net total remains unchanged unless an adjustment to the county total is also requested, justified and approved (see Section 2.2.1.3).

Criteria for adjustment:

One or more of the following criteria must be verified by the RWPG and the Executive Administrator for consideration in adjusting individual WUG population projections:

1. An adjustment to the population estimates for utilities or rural areas due to official adjustment to the 2020 Census population.
2. The 2010 or 2020 permanent population-served estimate by a municipal WUG is significantly different than the 2010 or 2020 baseline population estimate used in the draft projections.
3. The population growth rate for a municipal WUG over the most recent years (2015–2020) is substantially different than the growth rate between 2010 and 2020 in the draft projections.
4. Identification of growth limitations or potential build-out conditions for a WUG that would result in an expected maximum population that is different than the draft projections.
5. Updated information regarding the utility or public water system service area or anticipated near-term changes in service area.
6. Plans for new residential development in the near future that has not been counted in the draft projections.
7. Evidence of errors identified in historical connections.
8. Plans for a new or expansion of an existing institutional facility that was not included in the draft projections.
9. Evidence of errors in group quarter population.

Data requirements:

The RWPG must provide the following data to the Executive Administrator associated with the identified criteria for justifying any adjustment to the WUG-level population projections:

1. The verified number of residential connections or permanent population of utilities or public water systems that are associated with a WUG and result in correcting the TWDB's Water Use Survey or historical estimates.
2. Updates or corrections to a WUG's group quarter population or the location of institutional facilities.
3. Population estimates for cities developed and published by the Texas Demographic Center or by a regional Council of Governments will be considered for utilities serving these respective cities.
4. Documentation from an official of a city or utility that describes the conditions expected to limit population growth and estimates the maximum expected population for a utility and the potential timeframe for buildout.
5. Documentation or maps that verify and display changes in the utility service area.
6. Documentation demonstrating near-term growth, expansion, or new construction such as platting of new subdivisions, annexation agreements, building permits or impact fee reports.

7. Documentation of potential future growth, such as utility master plans, capital improvement plans, land use and zoning plans, maps of vacant lands with number of dwelling units per acre or number of households and average household size.
8. Other data and evidence that the RWPG believes provides a reasonable basis for justifying changes to an individual WUG-level population projection.

2.2.2 Water demand projections

2.2.2.1 Municipal water demand projections

Municipal water use includes both residential and non-residential water use. Residential use includes single and multi-family residential household water use. Non-residential use includes water used by commercial establishments, public offices, institutions, and light industrial facilities, but does not include significant industrial water users, such as large manufacturing, mining, or power generation facilities. Residential and non-residential water uses are categorized together because they are similar types of use, both use water primarily for drinking, cleaning, sanitation, cooling, and landscape watering.

Per capita water use is developed as gallons per capita daily (GPCD) using historical population estimates and net use for the utility. The reported data included in the municipal draft projections includes surface water, groundwater, and direct and indirect potable reuse, but does not include non-potable reuse sources.

The TWDB-generated draft municipal water demand projections must incorporate limited, anticipated future water savings **due <u>only</u> to the transition to more water-efficient plumbing fixtures and appliances, as detailed in relevant legislation and provided to the RWPGs by the TWDB**. Any additional anticipated future water savings due to conservation programs undertaken by utilities or county-other WUGs must be quantified and considered as a potential, recommended water management strategy by the RWPG.

Dry-year and baseline GPCD

Municipal water demand projections will be based upon dry-year demand conditions. The baseline GPCDs used in the 2026 RWPs will be carried over from the 2021 RWPs and used as default baseline GPCDs **with water efficiency savings due to more efficient plumbing fixtures and appliances through 2020 subtracted** to develop the draft water demand projections for municipal WUGs in the 2026 RWPs.

Regions may make a request to use a WUG's GPCD value from a different base dry-year within the most recent five years (2015-2019) as the basis for the demand projections of that WUG. The TWDB will consider an alternative base dry-year GPCD if the RWPG provides sufficient evidence that the alternative base dry-year GPCD is more representative of demands expected under dry-year conditions or that the draft default GPCD fails to adequately reflect water efficiency and conservation savings that have already been implemented.

Note that any adjustment to the population projections for a WUG will require an associated adjustment to the municipal water demand projections.

ATTACHMENT B

WUG Revision Recommendations for Population Projections

WUG	Draft 2026 TWDB Projections (ac-ft/yr)						Proposed Population Projection Revisions (ac-ft/yr)						Changes from Draft and Proposed Revised Projections (ac-ft/yr)						Comment
	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	
ABLES SPRINGS SUD	3,675	4,329	5,141	6,039	7,029	8,118	9,948	11,440	12,012	12,621	13,243	13,905	6,273	7,111	6,871	6,582	6,214	5,787	Survey Revision Request
ADDISON	20,465	23,069	24,456	25,276	26,179	27,173	20,465	23,069	24,456	25,276	26,179	27,173	0	0	0	0	0	0	
ALEDO	4,538	5,449	6,480	7,563	8,755	10,069	8,421	9,273	10,793	12,336	13,500	14,500	3,883	3,824	4,313	4,773	4,745	4,431	UTGCD Regional Water Supply Planning Study
ALLEN	133,789	167,216	205,200	243,358	285,379	331,654	125,000	140,000	140,000	140,000	140,000	140,000	(8,789)	(27,216)	(65,200)	(103,358)	(145,379)	(191,654)	Survey Revision Request
ALVORD	3,020	3,736	4,375	4,888	5,453	6,073	3,020	3,736	4,375	4,888	5,453	6,073	0	0	0	0	0	0	
AMC CREEKSIDE	2,684	3,359	4,003	4,628	5,318	6,078	2,684	3,359	4,003	4,628	5,318	6,078	0	0	0	0	0	0	
ANNA	24,021	33,433	44,157	54,891	66,728	79,774	46,267	81,621	94,539	111,026	121,250	130,000	22,246	48,188	50,382	56,135	54,522	50,226	NTMWD Long Range Water Supply Plan
ANNETTA	5,531	7,356	9,417	11,622	14,041	16,697	3,180	3,810	4,439	5,068	5,698	6,327	(2,351)	(3,546)	(4,978)	(6,554)	(8,343)	(10,370)	Survey Revision Request; Comprehensive Plan Projections
ARGYLE WSC	9,608	13,402	18,694	22,005	22,005	22,005	14,326	18,592	23,464	29,854	33,250	36,250	4,718	5,190	4,770	7,849	11,245	14,245	Ongoing UTRWD Study
ARLEDGE RIDGE WSC	1,364	1,474	1,531	1,578	1,629	1,684	1,364	1,474	1,531	1,578	1,629	1,684	0	0	0	0	0	0	
ARLINGTON	416,797	423,084	423,084	423,084	423,084	423,084	435,711	475,475	506,915	549,864	574,231	591,297	18,914	52,391	83,831	126,780	151,147	168,213	TRWD Demand Study
ATHENS	12,949	13,322	13,645	13,918	14,218	14,547	19,100	24,675	31,420	33,027	33,463	33,463	6,151	11,353	17,775	19,109	19,245	18,916	Survey Revision Request; Land Use Data
AUBREY	4,303	5,402	6,559	7,735	9,030	10,457	9,002	17,680	28,207	37,218	40,586	40,586	4,699	12,278	21,648	29,483	31,556	30,129	Ongoing UTRWD Study
AVALON WATER SUPPLY & SEWER SERVICE	992	1,109	1,236	1,360	1,498	1,650	992	1,109	1,236	1,360	1,498	1,650	0	0	0	0	0	0	
AZLE	16,328	18,775	21,074	23,169	25,472	28,005	16,328	18,775	21,074	23,169	25,472	28,005	0	0	0	0	0	0	Agreed with Draft Projections
B AND B WSC	1,871	2,060	2,217	2,364	2,525	2,701	1,871	2,060	2,217	2,364	2,525	2,701	0	0	0	0	0	0	
B B S WSC	1,081	1,078	1,065	1,052	1,038	1,025	1,081	1,078	1,065	1,052	1,038	1,025	0	0	0	0	0	0	
BALCH SPRINGS	26,209	28,020	28,979	29,535	30,146	30,819	26,209	28,020	28,979	29,535	30,146	30,819	0	0	0	0	0	0	
BEAR CREEK SUD	10,185	13,887	18,118	22,368	27,052	32,214	31,283	61,664	62,415	65,630	66,501	66,501	21,098	47,777	44,297	43,262	39,449	34,287	Survey Revision Request
BECKER JIBA WSC	3,608	4,259	5,085	6,007	7,030	8,160	4,487	7,769	10,057	10,948	14,800	17,113	879	3,510	4,972	4,941	7,770	8,953	Survey Revision Request; Growth Analysis
BEDFORD	53,705	59,337	60,166	60,166	60,166	60,166	52,345	56,345	57,255	60,166	60,166	60,166	(1,360)	(2,992)	(2,911)	0	0	0	Survey Revision Request
BELLS	1,743	1,900	2,031	2,147	2,275	2,416	1,743	1,900	2,031	2,147	2,275	2,416	0	0	0	0	0	0	
BENBROOK WATER AUTHORITY	27,061	29,909	32,288	34,213	34,213	34,213	26,309	29,353	31,526	33,698	35,871	38,044	(752)	(556)	(762)	(515)	1,658	3,831	Survey Revision Request; 2021 Master Plan Update
BETHEL ASH WSC	7,511	7,855	8,164	8,454	8,754	9,064	7,511	7,855	8,164	8,454	8,754	9,064	0	0	0	0	0	0	
BETHESDA WSC	35,167	40,663	46,170	51,154	56,749	63,032	35,167	40,663	46,170	51,154	56,749	63,032	0	0	0	0	0	0	
BLACK ROCK WSC	1,560	1,959	2,377	2,804	3,274	3,791	1,560	1,959	2,377	2,804	3,274	3,791	0	0	0	0	0	0	
BLACKLAND WSC	6,440	8,044	9,977	12,000	14,228	16,683	4,634	4,824	5,199	6,029	6,491	6,988	(1,806)	(3,220)	(4,778)	(5,971)	(7,737)	(9,695)	NTMWD Long Range Water Supply Plan
BLOOMING GROVE	828	890	940	985	1,033	1,087	1,057	1,089	1,157	1,275	1,355	1,465	229	199	217	290	322	378	Survey Revision Request
BLUE MOUND	2,690	2,976	3,213	3,398	3,602	3,826	2,690	2,976	3,213	3,398	3,602	3,826	0	0	0	0	0	0	
BLUE RIDGE	1,653	2,162	2,740	3,320	3,959	4,664	2,734	9,118	14,735	29,607	35,000	43,000	1,081	6,956	11,995	26,287	31,041	38,336	Survey Revision Request
BOIS D ARC MUD	3,047	3,196	3,285	3,341	3,402	3,469	3,047	3,196	3,285	3,341	3,402	3,469	0	0	0	0	0	0	
BOLIVAR WSC	12,220	14,878	17,544	20,208	23,992	28,800	12,220	14,878	17,544	20,208	23,992	28,800	0	0	0	0	0	0	Agreed with Draft Projections
BONHAM	11,132	11,547	11,815	11,949	12,098	12,263	12,398	15,829	22,893	30,580	37,686	45,834	1,266	4,282	11,078	18,631	25,588	33,571	NTMWD Long Range Water Supply Plan
BOYD	1,477	1,641	1,788	1,901	2,026	2,162	1,477	1,855	2,628	3,355	3,800	4,200	0	214	840	1,454	1,774	2,038	UTGCD Regional Water Supply Planning Study
BRANDON IRENE WSC	1,999	2,069	2,118	2,168	2,222	2,286	1,999	2,069	2,118	2,168	2,222	2,286	0	0	0	0	0	0	
BRIDGEPORT	5,814	5,958	6,093	6,165	6,246	6,337	5,814	5,958	6,093	6,165	6,246	6,337	0	0	0	0	0	0	Agreed with Draft Projections
BRUSHY CREEK WSC	3,493	3,510	3,490	3,469	3,451	3,434	3,493	3,510	3,490	3,469	3,451	3,434	0	0	0	0	0	0	
BUENA VISTA-BETHEL SUD	7,152	8,701	10,384	12,081	13,948	16,004	7,152	8,701	10,384	12,081	13,948	16,004	0	0	0	0	0	0	
BURLESON	51,966	60,546	68,952	76,495	84,944	94,407	51,966	60,546	68,952	76,495	84,944	94,407	0	0	0	0	0	0	
BUTLER WSC	838	830	818	794	767	737	838	830	818	794	767	737	0	0	0	0	0	0	Agreed with Draft Projections
CADDO BASIN SUD	15,886	19,589	23,280	26,882	30,699	34,750	18,175	26,075	35,538	38,969	41,334	43,698	2,289	6,486	12,258	12,087	10,635	8,948	NTMWD Long Range Water Supply Plan; Region D WUG
CALLISBURG WSC	1,614	1,686	1,717	1,728	1,740	1,752	1,614	1,686	1,717	1,728	1,740	1,752	0	0	0	0	0	0	Agreed with Draft Projections
CARROLLTON	133,138	133,138	133,138	133,138	133,138	133,138	133,138	133,138	133,138	133,138	133,138	133,138	0	0	0	0	0	0	
CASH SUD	22,234	25,203	27,991	30,651	33,412	36,283	23,510	27,288	34,167	42,044	50,195	59,926	1,276	2,085	6,176	11,393	16,783	23,643	NTMWD Long Range Water Supply Plan; Region D WUG
CEDAR HILL	44,678	46,970	48,179	48,868	49,627	50,462	44,678	46,970	48,179	48,868	49,627	50,462	0	0	0	0	0	0	
CELINA	34,358	50,886	69,716	88,545	109,316	132,216	72,595	139,090	215,869	286,200	330,000	350,000	38,237	88,204	146,153	197,655	220,684	217,784	Survey Revision Request; Ongoing Study
CHATFIELD WSC	3,318	3,572	3,782	3,967	4,172	4,396	3,318	3,572	3,782	3,967	4,172	4,396	0	0	0	0	0	0	
CHICO	2,054	2,054	2,054	2,054	2,054	2,054	2,710	3,524	4,787	6,316	8,000	9,600	656	1,470	2,733	4,262	5,946	7,546	UTGCD Regional Water Supply Planning Study
COCKRELL HILL	3,610	3,380	3,255	3,176	3,089	2,993	3,610	3,380	3,255	3,176	3,089	2,993	0	0	0	0	0	0	
COLLEGE MOUND SUD	8,873	10,427	12,398	14,597	17,035	19,730	13,205	14,783	19,668	31,301	40,174	50,886	4,332	4,356	7,270	16,704	23,139	31,156	NTMWD Long Range Water Supply Plan
COLLEYVILLE	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	0	0	0	0	0	0	
COLLINSVILLE	2,641	2,907	3,129	3,331	3,552	3,794	2,641	2,907	3,129	3,331	3,552	3,794	0	0	0	0	0	0	Agreed with Draft Projections
COMBINE WSC	3,604	4,094	4,678	5,309	6,009	6,784	3,604	4,094	4,678	5,309	6,009	6,784	0	0	0	0	0	0	
COMMUNITY WSC	4,123	4,630	5,054	5,396	5,773	6,186	4,123	4,630	5,054	5,396	5,773	6,186	0	0	0	0	0	0	
COPEVILLE SUD	4,697	5,939	7,350	8,766	10,327	12,046	16,775	29,835	39,409	41,439	41,989	41,989	12,078	23,896	32,059	32,673	31,662	29,943	Survey Revision Request; Comprehensive Plan Projections
COPPELL	42,913	42,913	42,913	42,913	42,913	42,913	42,913	42,913	42,913	42,913	42,913	42,913	0	0	0	0	0	0	
CORBET WSC	2,465	2,647	2,797	2,928	3,072	3,232	2,465	2,647	2,797	2,928	3,072	3,232	0	0	0	0	0	0	
CORINTH	29,073	29,520	29,520	29,520	29,520	29,520	28,264	30,136	39,419	41,450	42,000	42,000	(809)	616	9,899	11,930	12,480	12,480	Survey Revision Request

WUG	Draft 2026 TWDB Projections (ac-ft/yr)						Proposed Population Projection Revisions (ac-ft/yr)						Changes from Draft and Proposed Revised Projections (ac-ft/yr)						Comment
	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	
CORSICANA	27,916	29,886	31,517	32,925	34,477	36,187	27,916	29,886	31,517	32,925	34,477	36,187	0	0	0	0	0	0	Agreed with Draft Projections
COUNTY-OTHER, COLLIN	3,794	7,605	9,769	10,346	9,123	5,415	3,794	7,605	9,769	10,346	9,123	5,415	0	0	0	0	0	0	
COUNTY-OTHER, COOKE	5,882	6,135	6,253	6,272	6,296	6,319	5,882	6,135	6,253	6,272	6,296	6,319	0	0	0	0	0	0	
COUNTY-OTHER, DALLAS	43,170	46,746	56,051	58,742	56,780	54,021	1,500	1,700	1,900	2,100	2,300	2,500	(41,670)	(45,046)	(54,151)	(56,642)	(54,480)	(51,521)	
COUNTY-OTHER, DENTON	51,205	104,950	179,574	262,889	352,402	427,254	51,205	80,964	110,723	140,482	170,241	200,000	0	(23,986)	(68,851)	(122,407)	(182,161)	(227,254)	Ongoing UTRWD Study
COUNTY-OTHER, ELLIS	8,881	8,302	7,671	7,960	7,379	6,796	8,881	8,302	7,671	7,960	7,379	6,796	0	0	0	0	0	0	
COUNTY-OTHER, FANNIN	3,862	3,441	3,335	3,108	2,856	2,577	3,862	3,441	3,335	3,108	2,856	2,577	0	0	0	0	0	0	
COUNTY-OTHER, FREESTONE	3,337	3,063	2,622	2,661	2,675	2,657	3,337	3,063	2,622	2,661	2,675	2,657	0	0	0	0	0	0	
COUNTY-OTHER, GRAYSON	7,888	7,139	6,509	5,649	4,745	3,784	7,888	7,139	6,509	5,649	4,745	3,784	0	0	0	0	0	0	
COUNTY-OTHER, HENDERSON	14,502	15,266	15,390	15,772	16,193	16,662	14,502	15,266	15,390	15,772	16,193	16,662	0	0	0	0	0	0	
COUNTY-OTHER, JACK	4,565	4,337	4,088	3,867	3,625	3,362	4,565	4,337	4,088	3,867	3,625	3,362	0	0	0	0	0	0	
COUNTY-OTHER, KAUFMAN	17,341	22,239	28,466	36,164	45,550	55,894	17,341	22,239	28,466	36,164	45,550	55,894	0	0	0	0	0	0	
COUNTY-OTHER, NAVARRO	6,648	6,596	6,298	5,703	4,949	3,994	6,648	6,596	6,298	5,703	4,949	3,994	0	0	0	0	0	0	
COUNTY-OTHER, PARKER	67,251	79,740	93,855	109,450	126,692	145,699	83,243	113,127	166,125	246,724	328,000	435,000	15,992	33,387	72,270	137,274	201,308	289,301	UTGCD Regional Water Supply Planning Study
COUNTY-OTHER, ROCKWALL	3,015	3,675	4,390	4,879	5,145	5,080	3,253	3,337	3,269	3,768	5,843	7,294	238	(338)	(1,121)	(1,111)	698	2,214	NTMWD Long Range Water Supply Plan
COUNTY-OTHER, TARRANT	65,604	122,842	179,060	218,141	262,363	309,421	50,000	80,000	110,000	140,000	170,000	200,000	(15,604)	(42,842)	(69,060)	(78,141)	(92,363)	(109,421)	
COUNTY-OTHER, WISE	41,986	45,709	48,781	50,632	52,558	54,544	64,852	98,290	140,784	195,405	244,000	305,000	22,866	52,581	92,003	144,773	191,442	250,456	UTGCD Regional Water Supply Planning Study
CRANDALL	4,813	5,816	7,106	7,920	7,920	7,920	11,930	29,643	44,832	62,732	79,364	95,162	7,117	23,827	37,726	54,812	71,444	87,242	Survey Revision Request
CRESCENT HEIGHTS WSC	1,622	1,640	1,702	1,731	1,762	1,796	1,947	2,014	2,216	2,929	3,770	4,000	325	374	514	1,198	2,008	2,204	Survey Revision Request
CROSS TIMBERS WSC	9,808	12,310	14,944	17,622	20,802	25,403	9,808	12,310	14,944	17,622	20,802	25,403	0	0	0	0	0	0	Agreed with Draft Projections
CROWLEY	22,370	26,626	30,175	33,053	36,216	39,691	22,370	26,626	30,175	33,053	36,216	39,691	0	0	0	0	0	0	Agreed with Draft Projections
CULLEOKA WSC	6,985	8,735	10,723	12,719	14,919	17,341	53,833	69,190	73,381	79,476	80,531	80,531	46,848	60,455	62,658	66,757	65,612	63,190	NTMWD Long Range Water Supply Plan
DALLAS	1,372,734	1,447,053	1,494,277	1,529,969	1,573,879	1,622,202	1,342,289	1,391,906	1,472,336	1,525,397	1,620,364	1,692,302	(30,445)	(55,147)	(21,941)	(4,572)	46,485	70,100	
DALWORTHINGTON GARDENS	2,303	2,326	2,343	2,344	2,348	2,352	2,303	2,326	2,343	2,344	2,348	2,352	0	0	0	0	0	0	Agreed with Draft Projections
DAWSON	825	834	842	839	837	835	825	834	842	839	837	835	0	0	0	0	0	0	
DECATUR	7,291	7,976	8,591	9,057	9,568	10,132	11,325	14,187	18,583	22,896	27,000	31,300	4,034	6,211	9,992	13,839	17,432	21,168	UTGCD Regional Water Supply Planning Study
DELTA COUNTY MUD	1,973	2,011	2,043	2,075	2,108	2,142	1,973	2,011	2,043	2,075	2,108	2,142	0	0	0	0	0	0	
DENISON	30,631	33,349	35,617	37,617	39,819	42,245	47,898	65,635	74,097	85,971	95,278	103,443	17,267	32,286	38,480	48,354	55,459	61,198	Survey Revision Request
DENTON	183,086	227,946	275,173	323,187	379,613	460,476	231,237	278,034	338,028	412,499	485,078	562,953	48,151	50,088	62,855	89,312	105,465	102,477	Survey Revision Request; Ongoing Study
DENTON COUNTY FWSD 10	18,887	19,770	19,770	19,770	19,770	19,770	6,246	6,246	6,246	6,246	6,246	6,246	(12,641)	(13,524)	(13,524)	(13,524)	(13,524)	(13,524)	
DENTON COUNTY FWSD 11-C	5,406	8,467	11,690	14,965	18,573	22,547	5,406	8,467	11,690	14,965	18,573	22,547	0	0	0	0	0	0	
DENTON COUNTY FWSD 1-A	22,382	30,000	30,000	30,000	30,000	30,000	23,065	30,253	32,903	34,598	35,057	35,057	683	253	2,903	4,598	5,057	5,057	Survey Revision Request; Annexed by Lewisville
DENTON COUNTY FWSD 7	9,981	13,500	13,500	13,500	13,500	13,500	13,067	13,500	13,500	13,500	13,500	13,500	3,086	0	0	0	0	0	Ongoing UTRWD Study
DESERT WSC	1,864	2,071	2,215	2,350	2,498	2,663	1,864	2,071	2,215	2,350	2,498	2,663	0	0	0	0	0	0	
DESOTO	59,901	63,934	66,069	67,304	68,664	70,162	59,901	63,934	66,069	67,304	68,664	70,162	0	0	0	0	0	0	
DOGWOOD ESTATES WATER	1,179	1,154	1,226	1,239	1,253	1,267	1,179	1,154	1,226	1,239	1,253	1,267	0	0	0	0	0	0	
DORCHESTER	1,287	1,322	1,350	1,361	1,376	1,394	1,287	1,322	1,350	1,361	1,376	1,394	0	0	0	0	0	0	
DUNCANVILLE	43,672	45,939	47,157	47,307	47,307	47,307	43,672	45,939	47,157	47,307	47,307	47,307	0	0	0	0	0	0	Agreed with Draft Projections
EAST CEDAR CREEK FWSD	11,866	12,479	12,591	12,900	13,243	13,622	23,723	26,772	32,252	40,542	49,109	58,704	11,857	14,293	19,661	27,642	35,866	45,082	Survey Revision Request; Master Plan
EAST FORK SUD	21,352	28,061	36,878	48,466	63,694	83,708	21,352	28,061	36,878	48,466	63,694	83,708	0	0	0	0	0	0	NTMWD Long Range Water Supply Plan
EAST GARRETT WSC	1,806	2,295	2,825	3,363	3,954	4,605	1,806	2,295	2,825	3,363	3,954	4,605	0	0	0	0	0	0	
EDGECLIFF	3,761	3,761	3,761	3,761	3,761	3,761	3,761	3,761	3,761	3,761	3,761	3,761	0	0	0	0	0	0	Agreed with Draft Projections
ELMO WSC	2,332	2,733	3,243	3,810	4,440	5,137	2,332	2,733	3,243	3,810	4,440	5,137	0	0	0	0	0	0	Agreed with Draft Projections
ENNIS	20,220	21,227	22,316	23,303	24,413	25,655	20,220	21,227	22,316	23,303	24,413	25,655	0	0	0	0	0	0	
EULESS	60,820	60,820	60,820	60,820	60,820	60,820	60,820	60,820	60,820	60,820	60,820	60,820	0	0	0	0	0	0	
EUSTACE	3,105	3,399	3,333	3,441	3,562	3,696	3,105	3,399	3,333	3,441	3,562	3,696	0	0	0	0	0	0	
EVERMAN	6,600	6,600	6,600	6,600	6,600	6,600	6,600	6,600	6,600	6,600	6,600	6,600	0	0	0	0	0	0	Agreed with Draft Projections
FAIRFIELD	4,932	4,782	4,639	4,338	4,039	3,742	4,932	4,782	4,639	4,338	4,039	3,742	0	0	0	0	0	0	
FAIRVIEW	13,152	16,629	20,418	20,418	20,418	20,418	13,152	16,629	20,418	20,418	20,418	20,418	0	0	0	0	0	0	Agreed with Draft Projections
FARMERS BRANCH	36,454	39,795	41,570	42,609	43,754	45,014	36,454	39,795	41,570	42,609	43,754	45,014	0	0	0	0	0	0	Agreed with Draft Projections
FARMERSVILLE	5,700	7,115	8,723	10,338	12,118	14,077	15,580	44,929	80,188	86,847	88,000	88,000	9,880	37,814	71,465	76,509	75,882	73,923	NTMWD Long Range Water Supply Plan
FATE	25,597	36,969	50,748	65,318	81,326	98,927	25,597	36,969	50,748	65,318	81,326	98,927	0	0	0	0	0	0	
FERRIS	2,455	2,602	2,761	2,907	3,072	3,256	2,455	2,602	2,761	2,907	3,072	3,256	0	0	0	0	0	0	
FILES VALLEY WSC	3,342	3,592	3,830	4,071	4,338	4,634	3,342	3,592	3,830	4,071	4,338	4,634	0	0	0	0	0	0	
FLO COMMUNITY WSC	3,159	2,951	2,745	2,555	2,344	2,106	3,159	2,951	2,745	2,555	2,344	2,106	0	0	0	0	0	0	
FLOWER MOUND	95,740	120,016	145,555	171,507	200,084	231,556	95,709	119,929	145,466	145,536	145,555	145,555	(31)	(87)	(89)	(25,971)	(54,529)	(86,001)	Ongoing UTRWD Study
FOREST HILL	15,535	17,189	18,556	19,624	20,798	22,093	15,535	17,189	18,556	19,624	20,798	22,093	0	0	0	0	0	0	
FORNEY	27,431	36,654	48,424	61,829	76,582	92,825	33,211	41,883	50,211	61,829	61,829	61,829	5,780	5,229	1,787	0	(14,753)	(30,996)	Survey Revision Request
FORNEY LAKE WSC	14,953	22,347	31,804	42,648	54,555	67,646	19,653	22,100	23,000	25,000	25,500	26,000	4,700	(247)	(8,804)	(17,648)	(29,055)	(41,646)	Survey Revision Request
FORT WORTH	1,088,987	1,239,211	1,371,239	1,477,653	1,593,371	1,718,478	1,097,332	1,281,436	1,371,239	1,477,653	1,593,371	1,718,478	8,345	42,225	0	0	0	0	Survey Revision Request; 2022 Impact Fee Study
FRISCO	284,501	383,861	493,210	603,456	724,940	858,774	318,631	361,316	389,656	389,656	389,656	389,656	34,130	(22,545)	(103,554)	(213,800)	(335,284)	(469,118)	Survey Revision Request; Ongoing Study
FROGNOT WSC	2,130	2,664	3,263	3,865	4,527	5,256	2,130	2,664	3,263	3,865	4,527	5,256	0	0	0	0	0	0	

WUG	Draft 2026 TWDB Projections (ac-ft/yr)						Proposed Population Projection Revisions (ac-ft/yr)						Changes from Draft and Proposed Revised Projections (ac-ft/yr)						Comment
	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	
GAINESVILLE	19,705	20,309	20,590	20,630	20,676	20,727	19,705	20,309	20,590	21,387	23,237	24,916	0	0	0	757	2,561	4,189	Survey Revision Request; New MUD Annexation
GARLAND	264,943	278,533	285,702	289,787	294,284	299,237	259,490	260,687	276,478	299,440	303,416	303,416	(5,453)	(17,846)	(9,224)	9,653	9,132	4,179	NTMWD Long Range Water Supply Plan
GASTONIA SCURRY SUD	12,814	16,869	22,040	27,922	34,398	41,530	12,512	14,583	19,563	33,262	52,565	65,808	(302)	(2,286)	(2,477)	5,340	18,167	24,278	NTMWD Long Range Water Supply Plan
GLENN HEIGHTS	22,178	25,909	29,228	32,297	35,668	39,377	22,178	25,909	29,228	32,297	35,668	39,377	0	0	0	0	0	0	
GRAND PRAIRIE	204,821	211,690	215,314	217,378	219,651	222,154	221,059	250,582	281,944	296,464	300,401	300,401	16,238	38,892	66,630	79,086	80,750	78,247	Survey Revision Request; Ongoing Study
GRAPEVINE	54,037	54,037	54,037	54,037	54,037	54,037	54,037	54,037	54,037	54,037	54,037	54,037	0	0	0	0	0	0	
GUNTER	1,940	2,258	2,523	2,782	3,064	3,371	1,940	2,258	2,523	2,782	3,064	3,371	0	0	0	0	0	0	
HACKBERRY	5,999	8,480	11,092	13,748	16,673	19,894	2,309	2,840	3,682	4,642	5,612	6,173	(3,690)	(5,640)	(7,410)	(9,106)	(11,061)	(13,721)	NTMWD Long Range Water Supply Plan
HALTOM CITY	50,298	55,645	60,061	63,509	67,306	71,487	50,000	50,000	50,000	50,000	50,000	50,000	(298)	(5,645)	(10,061)	(13,509)	(17,306)	(21,487)	Survey Revision Request
HASLET	2,584	3,277	4,156	5,271	6,686	8,480	7,318	10,997	13,140	13,817	14,000	14,000	4,734	7,720	8,984	8,546	7,314	5,520	Fort Worth Impact Fee
HEATH	12,307	15,369	19,062	22,935	27,201	31,899	11,828	14,740	20,050	21,363	21,363	21,363	(479)	(629)	988	(1,572)	(5,838)	(10,536)	Survey Revision Request; 2018 Comprehensive Plan
HICKORY CREEK SUD	3,827	4,340	4,946	5,631	6,415	7,315	3,827	4,340	4,946	5,631	6,415	7,315	0	0	0	0	0	0	
HIGH POINT WSC	21,311	32,764	47,362	64,034	82,333	102,444	5,798	6,796	8,849	13,759	17,816	20,290	(15,513)	(25,968)	(38,513)	(50,275)	(64,517)	(82,154)	NTMWD Long Range Water Supply Plan
HIGHLAND PARK	9,311	9,311	9,311	9,311	9,311	9,311	9,311	9,311	9,311	9,311	9,311	9,311	0	0	0	0	0	0	
HIGHLAND VILLAGE	16,656	17,822	18,020	18,020	18,020	18,020	16,656	17,822	18,020	18,020	18,020	18,020	0	0	0	0	0	0	Agreed with Draft Projections
HILCO UNITED SERVICES	6,489	6,767	7,005	7,253	7,526	7,826	6,489	6,767	7,005	7,253	7,526	7,826	0	0	0	0	0	0	
HONEY GROVE	1,782	1,828	1,828	1,828	1,828	1,828	1,782	1,828	1,828	1,828	1,828	1,828	0	0	0	0	0	0	
HORSESHOE BEND WATER SYSTEM	1,118	1,340	1,591	1,854	2,144	2,464	1,309	1,430	1,823	2,510	3,334	4,367	191	90	232	656	1,190	1,903	UTGCD Regional Water Supply Planning Study
HOWE	4,785	5,735	6,531	7,320	8,178	9,111	4,785	5,735	6,531	7,320	8,178	9,111	0	0	0	0	0	0	Agreed with Draft Projections
HUDSON OAKS	5,679	5,679	5,679	5,679	5,679	5,679	5,500	5,285	5,537	6,020	6,300	6,500	(179)	(394)	(142)	341	621	821	UTGCD Regional Water Supply Planning Study
HURST	40,367	40,367	40,367	40,367	40,367	40,367	39,737	38,067	38,531	40,515	41,053	41,053	(630)	(2,300)	(1,836)	148	686	686	Fort Worth Impact Fee
HUTCHINS	8,346	9,300	9,808	10,107	10,436	10,799	8,346	9,300	9,808	10,107	10,436	10,799	0	0	0	0	0	0	
IRVING	286,398	301,541	301,541	301,541	301,541	301,541	286,398	301,541	301,541	301,541	301,541	301,541	0	0	0	0	0	0	
ITALY	1,939	1,942	1,944	1,933	1,923	1,915	1,939	1,942	1,944	1,933	1,923	1,915	0	0	0	0	0	0	
JACKSBORO	3,437	3,185	2,916	2,658	2,373	2,056	3,664	3,614	3,768	4,081	4,259	4,387	227	429	852	1,423	1,886	2,331	Survey Revision Request
JOHNSON COUNTY SUD	51,219	57,510	63,810	69,436	75,756	82,856	79,292	107,704	122,344	141,881	161,417	180,896	28,073	50,194	58,534	72,445	85,661	98,040	Fort Worth Impact Fee; Region G WUG
JOSEPHINE	4,505	4,530	4,553	4,574	4,594	4,615	5,810	16,067	21,380	22,022	22,022	22,022	1,305	11,537	16,827	17,448	17,428	17,407	NTMWD Long Range Water Supply Plan
JUSTIN	5,812	7,705	10,214	13,540	17,950	23,796	13,067	20,029	27,875	37,115	37,608	37,608	7,255	12,324	17,661	23,575	19,658	13,812	Ongoing UTRWD Study
KAUFMAN	8,074	9,443	11,178	13,112	15,256	17,628	7,626	8,606	11,929	15,806	18,682	21,791	(448)	(837)	751	2,694	3,426	4,163	NTMWD Long Range Water Supply Plan
KAUFMAN COUNTY DEVELOPMENT DISTRICT 1	1,052	1,467	1,997	2,603	3,270	4,003	4,415	5,025	7,095	10,744	14,527	16,798	3,363	3,558	5,098	8,141	11,257	12,795	NTMWD Long Range Water Supply Plan
KAUFMAN COUNTY MUD 11	5,635	7,900	10,792	14,097	17,731	21,729	4,340	5,159	6,629	8,374	10,269	11,378	(1,295)	(2,741)	(4,163)	(5,723)	(7,462)	(10,351)	NTMWD Long Range Water Supply Plan
KAUFMAN COUNTY MUD 14	7,221	11,836	17,743	24,540	31,995	40,186	6,300	6,300	6,300	6,300	6,300	6,300	(921)	(5,536)	(11,443)	(18,240)	(25,695)	(33,886)	Survey Revision Request
KELLER	51,130	51,974	51,974	51,974	51,974	51,974	51,130	51,974	51,974	51,974	51,974	51,974	0	0	0	0	0	0	Agreed with Draft Projections
KEMP	1,611	1,671	1,745	1,813	1,894	1,987	1,611	1,671	1,745	1,813	1,894	1,987	0	0	0	0	0	0	
KENNEDALE	10,296	13,100	16,667	21,206	26,981	34,329	10,473	14,153	18,495	23,833	28,592	33,035	177	1,053	1,828	2,627	1,611	(1,294)	Survey Revision Request; 2021 Impact Fee
KENTUCKYTOWN WSC	2,863	3,139	3,368	3,574	3,801	4,050	2,863	3,139	3,368	3,574	3,801	4,050	0	0	0	0	0	0	
KERENS	1,469	1,359	1,257	1,163	1,076	995	1,469	1,359	1,257	1,163	1,076	995	0	0	0	0	0	0	
KRUM	7,146	9,532	12,715	16,961	22,625	30,180	7,146	9,532	12,715	16,961	22,625	30,180	0	0	0	0	0	0	Agreed with Draft Projections
LADONIA	606	578	573	554	535	514	792	1,062	1,505	2,221	2,500	2,500	186	484	932	1,667	1,965	1,986	Ongoing UTRWD Study
LAKE CITIES MUNICIPAL UTILITY AUTHORITY	16,486	18,770	21,178	21,810	21,810	21,810	17,462	21,232	21,490	22,597	22,897	22,897	976	2,462	312	787	1,087	1,087	Ongoing UTRWD Study
LAKE KIOWA SUD	2,346	2,477	2,532	2,555	2,581	2,609	2,346	2,477	2,532	2,555	2,581	2,609	0	0	0	0	0	0	Agreed with Draft Projections
LAKE WORTH	5,483	6,060	6,536	6,907	7,316	7,767	5,767	6,115	6,465	7,087	7,474	7,767	284	55	(71)	180	158	0	Fort Worth Impact Fee
LAKESIDE	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	0	0	0	0	0	0	
LANCASTER	44,667	47,419	48,875	49,713	50,637	51,653	44,667	47,419	48,875	49,713	50,637	51,653	0	0	0	0	0	0	
LANCASTER MUD 1	2,286	2,844	3,142	3,321	3,517	3,734	2,286	2,844	3,142	3,321	3,517	3,734	0	0	0	0	0	0	
LEONARD	2,020	2,077	2,117	2,132	2,149	2,168	2,904	3,245	3,754	4,441	5,000	6,000	884	1,168	1,637	2,309	2,851	3,832	Survey Revision Request
LEWISVILLE	109,624	109,624	109,624	109,624	109,624	109,624	112,966	110,550	120,234	126,426	128,105	128,105	3,342	926	10,610	16,802	18,481	18,481	Survey Revision Request; Annexed DCFWSD 1-A
LINDSAY	1,718	1,758	1,777	1,777	1,776	1,776	1,718	1,758	1,777	1,777	1,776	1,776	0	0	0	0	0	0	
LITTLE ELM	38,253	38,253	38,253	38,253	38,253	38,253	44,416	41,240	43,739	47,371	48,000	48,000	6,163	2,987	5,486	9,118	9,747	9,747	NTMWD Long Range Water Supply Plan
LOG CABIN	671	671	702	712	723	735	671	671	702	712	723	735	0	0	0	0	0	0	
LUCAS	9,825	12,494	15,330	15,330	15,330	15,330	11,519	12,464	13,442	13,442	13,442	13,442	1,694	(30)	(1,888)	(1,888)	(1,888)	(1,888)	Survey Revision Request
LUELLA SUD	2,717	2,717	2,717	2,717	2,717	2,717	2,717	2,717	2,717	2,717	2,717	2,717	0	0	0	0	0	0	
M E N WSC	3,732	4,307	4,782	5,255	5,771	6,334	3,732	4,307	4,782	5,255	5,771	6,334	0	0	0	0	0	0	
MABANK	10,137	10,592	10,605	10,778	10,992	11,241	10,137	10,592	10,605	10,778	10,992	11,241	0	0	0	0	0	0	
MACBEE SUD	8,904	10,951	13,480	16,595	20,435	25,172	8,904	10,951	13,480	16,595	20,435	25,172	0	0	0	0	0	0	
MALAKOFF	1,782	1,775	1,863	1,889	1,916	1,946	2,904	3,245	3,567	3,948	4,200	4,400	1,122	1,470	1,704	2,059	2,284	2,454	Survey Revision Request
MANSFIELD	61,629	70,212	77,826	84,239	91,347	99,226	98,088	123,812	145,008	173,038	201,069	227,221	36,459	53,600	67,182	88,799	109,722	127,995	Fort Worth Impact Fee
MARKOUT WSC	3,921	5,648	7,856	10,384	13,161	16,214	2,958	3,514	4,903	7,062	9,422	12,571	(963)	(2,134)	(2,953)	(3,322)	(3,739)	(3,643)	NTMWD Long Range Water Supply Plan
MCKINNEY	258,054	340,062	434,174	531,763	639,339	760,430	227,593	269,464	344,909	433,869	433,869	433,869	(30,461)	(70,598)	(89,265)	(97,894)	(205,470)	(326,561)	NTMWD Long Range Water Supply Plan
MELISSA	26,317	39,105	53,689	68,267	84,350	102,082	46,809	72,926	91,455	113,564	119,072	119,072	20,492	33,821	37,766	45,297	34,722	16,990	NTMWD Long Range Water Supply Plan
MESQUITE	161,746	170,046	174,424	176,918	179,664	182,689	161,837	161,878	184,951	219,322	243,324	266,415	91	(8,168)	10,527	42,404	63,660	83,726	NTMWD Long Range Water Supply Plan

WUG	Draft 2026 TWDB Projections (ac-ft/yr)						Proposed Population Projection Revisions (ac-ft/yr)						Changes from Draft and Proposed Revised Projections (ac-ft/yr)						Comment
	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	
MIDLOTHIAN	23,665	29,642	36,138	42,714	49,945	57,900	35,087	39,937	45,817	53,849	60,311	66,058	11,422	10,295	9,679	11,135	10,366	8,158	Survey Revision Request; 2021 Water Supply Plan Update
MILLIGAN WSC	2,894	3,091	3,310	3,536	3,783	4,053	3,359	3,474	4,106	4,954	5,593	6,231	465	383	796	1,418	1,810	2,178	NTMWD Long Range Water Supply Plan
MINERAL WELLS	14,993	15,021	14,887	14,825	14,755	14,674	18,000	19,000	20,000	21,000	21,000	21,000	3,007	3,979	5,113	6,175	6,245	6,326	UTGCD Regional Water Supply Planning Study; Region G WUG
MOUNT ZION WSC	2,079	2,148	2,226	2,294	2,373	2,462	2,934	3,324	4,246	5,517	6,542	6,542	855	1,176	2,020	3,223	4,169	4,080	NTMWD Long Range Water Supply Plan
MOUNTAIN PEAK SUD	25,731	33,919	42,997	52,557	63,308	75,434	25,731	33,919	42,997	52,557	63,308	75,434	0	0	0	0	0	0	
MOUNTAIN SPRINGS WSC	2,001	2,028	2,055	2,062	2,069	2,077	2,001	2,028	2,055	2,062	2,069	2,077	0	0	0	0	0	0	
MUENSTER	2,139	2,139	2,139	2,139	2,139	2,139	2,139	2,139	2,139	2,139	2,139	2,139	0	0	0	0	0	0	
MURPHY	20,850	20,850	20,850	20,850	20,850	20,850	20,818	20,696	23,500	27,251	29,564	31,653	(32)	(154)	2,650	6,401	8,714	10,803	NTMWD Long Range Water Supply Plan
MUSTANG SUD	88,989	132,593	178,432	224,995	276,279	332,757	113,649	159,015	206,583	264,972	304,419	340,419	24,660	26,422	28,151	39,977	28,140	7,662	Ongoing UTRWD Study
NASH FORRESTON WSC	2,095	2,514	2,970	3,428	3,933	4,489	2,095	2,514	2,970	3,428	3,933	4,489	0	0	0	0	0	0	Agreed with Draft Projections
NAVARRO MILLS WSC	2,831	3,040	3,211	3,362	3,526	3,709	2,831	3,040	3,211	3,362	3,526	3,709	0	0	0	0	0	0	Agreed with Draft Projections
NEVADA SUD	4,223	5,453	6,856	8,268	9,822	11,534	6,015	7,732	11,390	25,061	41,290	55,490	1,792	2,279	4,534	16,793	31,468	43,956	NTMWD Long Range Water Supply Plan
NEWARK	1,227	1,346	1,453	1,533	1,622	1,721	2,226	3,060	4,224	6,119	8,300	10,600	999	1,714	2,771	4,586	6,678	8,879	UTGCD Regional Water Supply Planning Study
NORTH COLLIN SUD	18,047	25,235	33,426	41,622	50,661	60,624	7,544	8,523	10,409	12,496	14,565	16,977	(10,503)	(16,712)	(23,017)	(29,126)	(36,096)	(43,647)	NTMWD Long Range Water Supply Plan
NORTH FARMERSVILLE WSC	585	629	680	731	787	849	465	550	680	839	942	992	(120)	(79)	0	108	155	143	NTMWD Long Range Water Supply Plan
NORTH HUNT SUD	2,630	2,591	2,560	2,496	2,431	2,369	2,630	2,591	2,560	2,496	2,431	2,369	0	0	0	0	0	0	
NORTH KAUFMAN WSC	3,448	4,535	5,920	7,495	9,231	11,141	3,448	4,535	5,920	7,495	9,231	11,141	0	0	0	0	0	0	Agreed with Draft Projections
NORTH RICHLAND HILLS	77,480	77,480	77,480	77,480	77,480	77,480	78,210	83,269	84,283	88,623	89,800	89,800	730	5,789	6,803	11,143	12,320	12,320	Fort Worth Impact Fee
NORTH RURAL WSC	3,027	3,322	3,636	3,976	4,349	4,761	3,027	3,322	3,636	3,976	4,349	4,761	0	0	0	0	0	0	
NORTHLAKE	12,164	18,423	25,012	31,711	39,091	47,219	28,941	32,139	36,998	43,601	48,940	53,700	16,777	13,716	11,986	11,890	9,849	6,481	Survey Revision Request; Impact Fee
NORTHWEST GRAYSON COUNTY WCID 1	2,032	2,265	2,459	2,640	2,838	3,054	2,032	2,265	2,459	2,640	2,838	3,054	0	0	0	0	0	0	
OAK RIDGE SOUTH GALE WSC	2,811	2,875	2,927	2,942	2,962	2,988	2,811	2,875	2,927	2,942	2,962	2,988	0	0	0	0	0	0	Agreed with Draft Projections
OVILLA	5,438	6,827	8,337	9,871	11,556	13,411	5,438	6,827	8,337	9,871	11,556	13,411	0	0	0	0	0	0	Agreed with Draft Projections
PALMER	2,543	3,053	3,606	4,162	4,775	5,449	2,543	3,053	3,606	4,162	4,775	5,449	0	0	0	0	0	0	
PALOMA CREEK NORTH	12,101	12,101	12,101	12,101	12,101	12,101	5,853	5,853	5,853	5,853	5,853	5,853	(6,248)	(6,248)	(6,248)	(6,248)	(6,248)	(6,248)	Ongoing UTRWD Study
PALOMA CREEK SOUTH	9,088	9,088	9,088	9,088	9,088	9,088	9,088	9,088	9,088	9,088	9,088	9,088	0	0	0	0	0	0	
PANTEGO	2,653	2,653	2,653	2,653	2,653	2,653	2,653	2,653	2,653	2,653	2,653	2,653	0	0	0	0	0	0	Agreed with Draft Projections
PARKER	8,096	10,382	12,982	15,590	18,465	21,631	6,878	8,782	12,121	14,089	14,089	14,089	(1,218)	(1,600)	(861)	(1,501)	(4,376)	(7,542)	NTMWD Long Range Water Supply Plan
PARKER COUNTY SUD	10,512	13,725	17,355	21,229	25,480	30,150	9,100	12,400	16,800	22,501	30,900	41,800	(1,412)	(1,325)	(555)	1,272	5,420	11,650	UTGCD Regional Water Supply Planning Study
PELICAN BAY	2,958	3,967	5,320	7,134	9,567	12,830	2,958	3,967	5,320	7,134	9,567	12,830	0	0	0	0	0	0	
PILOT POINT	5,501	6,854	8,279	9,727	11,321	13,076	6,363	8,241	14,848	21,605	21,892	21,892	862	1,387	6,569	11,878	10,571	8,816	Ongoing UTRWD Study
PINK HILL WSC	2,210	2,449	2,648	2,832	3,033	3,253	2,210	2,449	2,648	2,832	3,033	3,253	0	0	0	0	0	0	Agreed with Draft Projections
PLANO	314,299	354,971	401,499	451,952	507,362	570,820	286,232	288,115	317,280	326,800	326,800	326,800	(28,067)	(66,856)	(84,219)	(125,152)	(180,562)	(244,020)	NTMWD Long Range Water Supply Plan
PLEASANT GROVE WSC	1,445	1,560	1,711	1,674	1,633	1,588	1,445	1,560	1,711	1,674	1,633	1,588	0	0	0	0	0	0	Agreed with Draft Projections
POETRY WSC	3,166	3,723	4,392	5,120	5,914	6,782	3,867	4,698	6,403	8,868	11,937	13,865	701	975	2,011	3,748	6,023	7,083	NTMWD Long Range Water Supply Plan; Region D WUG
POINT ENTERPRISE WSC	1,295	1,262	1,219	1,188	1,152	1,113	1,295	1,262	1,219	1,188	1,152	1,113	0	0	0	0	0	0	
PONDER	4,798	6,403	8,093	9,811	11,703	13,786	4,798	6,403	8,093	9,811	11,703	13,786	0	0	0	0	0	0	Agreed with Draft Projections
POST OAK SUD	1,495	1,481	1,462	1,433	1,401	1,371	1,495	1,481	1,462	1,433	1,401	1,371	0	0	0	0	0	0	
POTTSBORO	3,613	3,938	4,210	4,450	4,715	5,007	3,613	3,938	4,210	4,450	4,715	5,007	0	0	0	0	0	0	
PRINCETON	27,577	39,276	52,611	65,952	80,665	91,789	52,438	126,792	155,843	168,786	171,027	171,027	24,861	87,516	103,232	102,834	90,362	79,238	NTMWD Long Range Water Supply Plan
PROSPER	47,211	51,000	51,000	51,000	51,000	51,000	55,515	67,037	80,183	84,312	85,432	85,432	8,304	16,037	29,183	33,312	34,432	34,432	Survey Revision Request; Ongoing Study
PROVIDENCE VILLAGE WCID	7,235	7,235	7,235	7,235	7,235	7,235	7,235	7,235	7,235	7,235	7,235	7,235	0	0	0	0	0	0	
R C H WSC	11,581	16,495	22,447	28,737	35,649	43,250	5,684	6,457	8,240	10,994	13,407	16,350	(5,897)	(10,038)	(14,207)	(17,743)	(22,242)	(26,900)	NTMWD Long Range Water Supply Plan
RED OAK	12,039	15,009	18,237	21,502	25,093	29,044	12,039	15,009	18,237	21,502	25,093	29,044	0	0	0	0	0	0	
RED RIVER AUTHORITY OF TEXAS	7,908	7,707	7,574	7,496	7,439	7,403	7,908	7,707	7,574	7,496	7,439	7,403	0	0	0	0	0	0	
RENO (PARKER)	4,273	5,195	6,233	7,327	8,530	9,854	4,273	5,195	6,233	7,327	8,530	9,854	0	0	0	0	0	0	
RHOME	1,567	1,852	2,189	2,587	3,057	3,613	3,194	4,451	6,194	8,882	12,000	16,000	1,627	2,599	4,005	6,295	8,943	12,387	UTGCD Regional Water Supply Planning Study
RICE WATER SUPPLY AND SEWER SERVICE	9,518	11,375	13,469	15,738	18,327	21,287	9,518	11,375	13,469	15,738	18,327	21,287	0	0	0	0	0	0	
RICHARDSON	135,150	151,181	166,848	181,636	197,918	215,845	118,700	120,082	131,067	135,000	135,000	135,000	(16,450)	(31,099)	(35,781)	(46,636)	(62,918)	(80,845)	NTMWD Long Range Water Supply Plan
RICHLAND HILLS	9,616	10,622	11,452	12,911	14,217	15,655	9,616	10,622	11,452	12,911	14,217	15,655	0	0	0	0	0	0	Agreed with Draft Projections
RIVER OAKS	7,746	7,746	7,746	7,746	7,746	7,746	7,900	7,613	7,706	8,102	8,210	8,210	154	(133)	(40)	356	464	464	Fort Worth Impact Fee
ROANOKE	11,961	11,961	11,961	11,961	11,961	11,961	14,058	13,468	13,632	14,334	14,524	14,524	2,097	1,507	1,671	2,373	2,563	2,563	Fort Worth Impact Fee
ROCKETT SUD	38,261	43,299	48,748	57,135	68,836	81,687	37,168	43,617	53,030	65,513	78,881	93,733	(1,093)	318	4,282	8,378	10,045	12,046	Survey Revision Request; Comprehensive Plan
ROCKWALL	53,377	63,929	76,604	89,790	104,338	120,377	53,733	64,366	88,072	123,062	124,696	124,696	356	437	11,468	33,272	20,358	4,319	NTMWD Long Range Water Supply Plan
ROSE HILL SUD	4,699	5,634	6,822	8,154	9,628	11,255	4,876	5,739	6,723	8,151	9,005	9,948	177	105	(99)	(3)	(623)	(1,307)	NTMWD Long Range Water Supply Plan
ROWLETT	64,753	68,743	71,325	73,173	75,220	77,480	78,654	82,222	95,765	103,718	105,095	105,095	13,901	13,479	24,440	30,545	29,875	27,615	NTMWD Long Range Water Supply Plan
ROYSE CITY	14,632	17,715	20,758	23,755	26,928	30,293	45,865	103,385	120,640	120,640	120,640	120,640	31,233	85,670	99,882	96,885	93,712	90,347	NTMWD Long Range Water Supply Plan
RUNAWAY BAY	1,878	2,304	2,826	3,467	4,253	5,217	1,878	2,304	2,826	3,467	4,253	5,217	0	0	0	0	0	0	
SACHSE	29,635	30,558	30,558	30,558	30,558	30,558	28,896	29,792	35,048	37,958	38,462	38,462	(739)	(766)	4,490	7,400	7,904	7,904	NTMWD Long Range Water Supply Plan

WUG	Draft 2026 TWDB Projections (ac-ft/yr)						Proposed Population Projection Revisions (ac-ft/yr)						Changes from Draft and Proposed Revised Projections (ac-ft/yr)						Comment
	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	
SAGINAW	29,238	31,218	31,218	31,218	31,218	31,218	29,126	31,274	31,655	33,285	33,727	33,727	(112)	56	437	2,067	2,509	2,509	Fort Worth Impact Fee
SANGER	11,153	14,002	17,000	22,119	27,933	35,269	11,153	14,002	17,000	22,119	27,933	35,269	0	0	0	0	0	0	Agreed with Draft Projections
SANSOM PARK	6,087	6,736	7,272	7,690	8,152	8,659	6,087	6,736	7,272	7,690	8,152	8,659	0	0	0	0	0	0	
SANTO SUD	2,137	2,166	2,178	2,203	2,231	2,259	2,137	2,166	2,178	2,203	2,231	2,259	0	0	0	0	0	0	
SARDIS LONE ELM WSC	20,865	25,783	31,135	32,524	32,524	32,524	20,865	25,783	31,135	32,524	32,524	32,524	0	0	0	0	0	0	
SAVOY	711	704	706	698	689	678	711	704	706	698	689	678	0	0	0	0	0	0	
SEAGOVILLE	20,875	22,892	23,964	24,593	25,285	26,047	20,875	22,892	23,964	24,593	25,285	26,047	0	0	0	0	0	0	
SEIS LAGOS UD	2,148	2,148	2,148	2,148	2,148	2,148	2,323	2,162	2,299	2,496	2,535	2,541	175	14	151	348	387	393	NTMWD Long Range Water Supply Plan
SHERMAN	46,811	50,903	54,318	57,317	60,622	64,264	46,811	50,903	54,318	57,317	60,622	64,264	0	0	0	0	0	0	
SOUTH ELLIS COUNTY WSC	1,526	1,833	2,161	2,492	2,855	3,256	1,526	1,833	2,161	2,492	2,855	3,256	0	0	0	0	0	0	
SOUTH FREESTONE COUNTY WSC	2,598	2,720	2,880	2,799	2,708	2,608	2,598	2,720	2,880	2,799	2,708	2,608	0	0	0	0	0	0	
SOUTH GRAYSON SUD	5,303	6,167	7,010	7,826	8,723	9,710	5,303	6,167	7,010	7,826	8,723	9,710	0	0	0	0	0	0	
SOUTHERN OAKS WATER SUPPLY	838	1,077	1,368	1,393	1,418	1,444	838	1,077	1,368	1,393	1,418	1,444	0	0	0	0	0	0	
SOUTHLAKE	34,941	38,688	41,773	44,175	46,820	49,732	34,886	37,879	40,425	44,698	47,511	49,732	(55)	(809)	(1,348)	523	691	0	Fort Worth Impact Fee
SOUTHMAYD	964	992	1,015	1,026	1,039	1,055	964	992	1,015	1,026	1,039	1,055	0	0	0	0	0	0	
SOUTHWEST FANNIN COUNTY SUD	8,413	9,279	9,755	10,180	10,646	11,157	8,413	9,279	9,755	10,180	10,646	11,157	0	0	0	0	0	0	Agreed with Draft Projections
SPRINGTOWN	3,832	4,590	5,445	5,484	5,484	5,484	5,662	7,975	10,653	13,915	16,850	19,600	1,830	3,385	5,208	8,431	11,366	14,116	Survey Revision Request
STARR WSC	2,325	2,533	2,708	2,862	3,032	3,219	2,325	2,533	2,708	2,862	3,032	3,219	0	0	0	0	0	0	
STURDIVANT PROGRESS WSC	2,282	2,283	2,257	2,242	2,225	2,207	2,282	2,283	2,257	2,242	2,225	2,207	0	0	0	0	0	0	
SUNNYVALE	9,834	11,408	12,247	12,746	13,295	13,900	9,064	10,590	13,067	14,152	14,340	14,340	(770)	(818)	820	1,406	1,045	440	NTMWD Long Range Water Supply Plan
TALTY SUD	13,312	18,056	24,112	31,018	38,615	46,977	12,151	13,567	20,000	28,710	39,600	46,568	(1,161)	(4,489)	(4,112)	(2,308)	985	(409)	NTMWD Long Range Water Supply Plan
TEAGUE	3,437	3,142	2,738	2,646	2,545	2,435	3,437	3,142	2,738	2,646	2,545	2,435	0	0	0	0	0	0	
TERRA SOUTHWEST	3,143	3,996	4,895	5,808	6,814	7,922	3,143	3,996	4,895	5,808	6,814	7,922	0	0	0	0	0	0	
TERRELL	18,329	20,344	22,881	25,638	28,724	32,152	25,701	30,155	35,908	42,183	47,940	53,769	7,372	9,811	13,027	16,545	19,216	21,617	NTMWD Long Range Water Supply Plan
THE COLONY	51,496	60,502	67,600	67,600	67,600	67,600	51,496	60,502	67,600	67,600	67,600	67,600	0	0	0	0	0	0	Agreed with Draft Projections
TIOGA	1,773	2,106	2,386	2,662	2,961	3,288	1,773	2,106	2,386	2,662	2,961	3,288	0	0	0	0	0	0	
TOM BEAN	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	0	0	0	0	0	0	
TRENTON	798	857	889	913	940	970	798	857	889	913	940	970	0	0	0	0	0	0	
TRINIDAD	1,134	1,152	1,191	1,213	1,236	1,261	1,134	1,152	1,191	1,213	1,236	1,261	0	0	0	0	0	0	
TROPHY CLUB MUD 1	14,247	14,534	14,773	14,969	15,185	15,421	14,247	14,534	14,773	14,969	15,185	15,421	0	0	0	0	0	0	Agreed with Draft Projections
TWO WAY SUD	4,636	5,053	5,400	5,707	6,044	6,417	6,205	6,572	7,749	8,612	9,241	9,811	1,569	1,519	2,349	2,905	3,197	3,394	Survey Revision Request
UNIVERSITY PARK	25,656	25,656	25,656	25,656	25,656	25,656	25,656	25,656	25,656	25,656	25,656	25,656	0	0	0	0	0	0	
VAN ALSTYNE	5,999	7,189	8,186	9,175	10,250	11,420	13,164	29,302	42,704	50,529	59,800	70,300	7,165	22,113	34,518	41,354	49,550	58,880	Survey Revision Request
VERONA SUD	3,345	4,217	5,210	6,206	7,303	8,512	3,345	4,217	5,210	6,206	7,303	8,512	0	0	0	0	0	0	
VIRGINIA HILL WSC	3,240	3,346	3,421	3,494	3,569	3,647	3,240	3,346	3,421	3,494	3,569	3,647	0	0	0	0	0	0	
WALNUT CREEK SUD	19,469	23,145	27,222	31,425	36,053	41,147	25,134	26,576	37,625	58,701	77,781	99,566	5,665	3,431	10,403	27,276	41,728	58,419	UTGCD Regional Water Supply Planning Study
WATAUGA	24,525	24,525	24,525	24,525	24,525	24,525	24,525	24,525	24,525	24,525	24,525	24,525	0	0	0	0	0	0	
WAXAHACHIE	48,394	59,800	72,197	84,724	98,504	113,667	48,394	59,800	72,197	84,724	98,504	113,667	0	0	0	0	0	0	
WEATHERFORD	45,410	54,197	64,123	74,543	86,019	98,660	45,410	54,197	64,123	74,543	86,019	98,660	0	0	0	0	0	0	Agreed with Draft Projections
WEST CEDAR CREEK MUD	5,074	4,777	5,308	5,383	5,461	5,543	5,074	4,777	5,308	5,383	5,461	5,543	0	0	0	0	0	0	
WEST LEONARD WSC	2,287	2,764	3,042	3,326	3,637	3,978	2,287	2,764	3,042	3,326	3,637	3,978	0	0	0	0	0	0	
WEST WISE SUD	4,047	4,438	4,789	5,056	5,349	5,672	4,047	4,438	4,789	5,056	5,349	5,672	0	0	0	0	0	0	Agreed with Draft Projections
WESTLAKE	3,052	4,001	4,791	5,441	6,152	6,933	3,052	4,001	4,791	5,441	6,152	6,933	0	0	0	0	0	0	
WESTMINSTER SUD	2,168	2,710	3,324	3,940	4,620	5,367	2,168	2,710	3,324	3,940	4,620	5,367	0	0	0	0	0	0	
WESTOVER HILLS	655	657	659	661	663	665	660	632	640	673	682	682	5	(25)	(19)	12	19	17	Fort Worth Impact Fee
WESTWORTH VILLAGE	2,751	3,043	3,285	3,474	3,682	3,912	3,123	3,045	3,230	3,551	3,755	3,912	372	2	(55)	77	73	0	Fort Worth Impact Fee
WHITE SETTLEMENT	20,351	22,469	24,218	25,582	27,083	28,738	20,351	22,469	24,218	25,582	27,083	28,738	0	0	0	0	0	0	
WHITE SHED WSC	2,344	2,460	2,528	2,571	2,618	2,670	2,344	2,460	2,528	2,571	2,618	2,670	0	0	0	0	0	0	
WHITESBORO	4,847	5,280	5,642	5,960	6,311	6,699	4,847	5,280	5,642	5,960	6,311	6,699	0	0	0	0	0	0	Agreed with Draft Projections
WHITEWRIGHT	2,298	2,519	2,695	2,854	3,026	3,218	2,298	2,519	2,695	2,854	3,026	3,218	0	0	0	0	0	0	
WILLOW PARK	8,080	9,714	11,560	13,501	15,638	17,991	10,647	11,496	12,948	14,996	16,593	17,991	2,567	1,782	1,388	1,495	955	0	Fort Worth Impact Fee
WILMER	5,902	6,672	7,081	7,324	7,591	7,885	5,902	6,672	7,081	7,324	7,591	7,885	0	0	0	0	0	0	
WOLFE CITY	1,638	1,657	1,677	1,681	1,685	1,692	1,638	1,657	1,677	1,681	1,685	1,692	0	0	0	0	0	0	
WOODBINE WSC	6,944	7,212	7,333	7,370	7,409	7,453	6,944	7,212	7,333	7,370	7,409	7,453	0	0	0	0	0	0	
WORTHAM	925	841	724	700	673	644	925	841	724	700	673	644	0	0	0	0	0	0	
WYLIE	53,618	66,995	82,196	97,466	114,282	132,801	47,379	46,874	49,115	50,589	50,589	50,589	(6,239)	(20,121)	(33,081)	(46,877)	(63,693)	(82,212)	NTMWD Long Range Water Supply Plan
WYLIE NORTHEAST SUD	9,693	13,264	17,332	21,405	25,896	30,844	16,928	21,271	24,614	26,299	26,648	26,648	7,235	8,007	7,282	4,894	752	(4,196)	Survey Revision Request

MEMORANDUM

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TO: Region C Regional Water Planning Group

CC: File

FROM: Freese and Nichols, Inc.

SUBJECT: Comparison of Historical GPCDs for Region C; Requested GPCD Changes

DATE: 7/10/2023

PROJECT: TRA21862

1.0 BACKGROUND

The purpose of this memorandum is to summarize the conclusions from a quantitative assessment of the draft base dry year Gallons Per Capita Day (GPCD) estimates to be used in the ***2026 Region C Water Plan***. The TWDB provided updated estimates of 2010-2020 GPCDs in March 2022.

According to the General Guidelines for the Sixth Cycle of Regional Water Plan Development, one or more of the following criteria must be met to qualify for an adjustment.

1) Evidence that per capita water use from a more recent year (2015-2019) would be more appropriate because that year was more representative of dry-year conditions.
2) Evidence of errors identified in the historical water use for a utility or public water system, including evidence that volumes of reuse (treated effluent) water or brackish groundwater used for municipal purposes should be included in the draft projections.
3) Evidence that the dry year water use was abnormal due to temporary infrastructure constraints.
4) Trends indicating that per capita water use for a utility or rural area of a county have changed substantially since 2011 and evidence that these trends will continue to rise in the short-term future.
5) Evidence that the water efficiency and conservation savings that have been implemented are not reflected in the baseline GPCD.
6) Evidence that the number of installations of water-efficient fixtures and appliances between 2010 and 2020 is substantially different than the TWDB estimate.
7) Evidence that future water efficiency savings are projected much higher than the draft projections.

2.0 Methodology

To review this data, we compared the draft baseline dry year GPCDs against the maximum historical GPCD from 2015 – 2019.

1. Any WUGs that had a recent year of at least 20 GPCD higher than the proposed draft baseline GPCD were identified.

2. If the max GPCD was over 100 GPCD higher than the draft baseline, the other years were also analyzed.
3. If the max GPCD was significantly higher than all of the other annual historical data, then it was marked as an outlier.
4. If that max GPCD was consistent with the other historical data, the WUG was marked as requiring further analysis to determine if a revision to the base GPCD was needed.

Based on our review, we believe that several of the Region C WUGs meet one or more of the required criteria for a GPCD adjustment and are recommended to be revised. ***Attachment A*** summarizes the requested GPCD revisions as well as the required TWDB criteria code(s) that they fulfill. The maximum GPCDs from 2015 – 2019 are highlighted in green. The revised GPCD utilize the maximum historical GPCD with the 2010 -2020 plumbing code per year savings applied. If the historical maximum GPCD was in 2020, the plumbing code per year savings was not applied. For new WUGs that do not have 2010 - 2020 plumbing code savings, an annual savings of 0.9 gallons was used. Additionally, several WUGs responded to the survey requesting revisions to their GPCDs based on more recent use. These revisions are recommended as well and are included in the request for revisions included in ***Attachment A***.

Due to the nature of county-other, there is less historical data available for the 16 county-other WUGs included in Region C. It is recommended to keep the TWDB baseline GPCDs for these WUGs. ***Table 1*** summarizes the baseline GPCDs for the 16 county-other WUGs.

Table 1: Region C County Other GPCDs

WUG	Baseline GPCD	Plumbing Code Savings					
		2030	2040	2050	2060	2070	2080
County-Other, Collin	**141**	6.53	7.39	7.39	7.39	7.39	7.39
County-Other, Cooke	**119**	4.99	5.63	5.63	5.63	5.63	5.63
County-Other, Dallas	**1,822**[1]	3.40	4.29	4.29	4.29	4.29	4.29
County-Other, Denton	**112**	5.32	5.70	5.70	5.70	5.70	5.70
County-Other, Ellis	**110**	3.91	4.48	4.48	4.48	4.48	4.48
County-Other, Fannin	**100**	5.13	5.61	5.61	5.61	5.61	5.61
County-Other, Freestone	**93**	5.76	6.53	6.53	6.53	6.53	6.53
County-Other, Grayson	**114**	4.25	4.87	4.87	4.87	4.87	4.87
County-Other, Henderson	**83**	4.98	5.44	5.44	5.44	5.44	5.44
County-Other, Jack	**101**	4.67	5.26	5.26	5.26	5.26	5.26
County-Other, Kaufman	**99**	4.16	4.57	4.57	4.57	4.57	4.57
County-Other, Navarro	**102**	4.63	5.22	5.22	5.22	5.22	5.22
County-Other, Parker	**117**	4.26	4.77	4.77	4.77	4.77	4.77
County-Other, Rockwall	**144**	4.07	4.64	4.64	4.64	4.64	4.64
County-Other, Tarrant	**206**	4.85	5.38	5.38	5.38	5.38	5.38
County-Other, Wise	**108**	4.37	4.93	4.93	4.93	4.93	4.93

[1]*Water use for Dallas County-Other includes DFW Airport and surrounding commercial areas that have no permanent population.*

ATTACHMENT A

WUG Revision Recommendations for Demand Projections

Region C Requested GPCD Changes				2011	2015	2016	2017	2018	2019	2020		
Entity Name	Draft Baseline GPCD	2010-2020 PC Per Year Savings	Revised GPCD	GPCD Estimates (provided by TWDB)							TWDB Criteria Code (1-7)*	Additional Comments
ABLES SPRINGS SUD	60	0.3		90	70	70	69	69	69	74		
ADDISON	369	1.0		371	329	320	308	292	273	262		
ALEDO	139	1.0	**165**	118	170	153	140	136	122	155	1	Max historical GPCD minus PC per year savings
ALLEN	187	0.7		191	143	152	151	150	143	151		
ALVORD	126	0.5		102	70	55	53	50	47	62		
AMC CREEKSIDE	60	0.0		54	48	47	46	56	53	52		
ANNA	142	0.6		148	126	117	134	137	135	136		
ANNETTA	104	1.0	**122**	113	121	119	125	123	74	82	1	Max historical GPCD minus PC per year savings
ARGYLE WSC	178	1.3		200	163	177	168	197	184	193		
ARLEDGE RIDGE WSC	105	1.0	**155**	115	138	135	126	136	156	145	1	Max historical GPCD minus PC per year savings
ARLINGTON	155	0.9		167	142	141	133	135	128	124		
ATHENS	183	1.0		203	172	156	157	152	132	133		
AUBREY	107	1.0		109	96	94	83	90	90	88		
AVALON WATER SUPPLY & SEWER SERVICE	114	0.9		149	113	126	118	113	113	110		
AZLE	141	0.9		140	109	118	124	124	119	123		
B AND B WSC	124	1.0	**151**	151	104	105	118	93	152	137	1	Max historical GPCD minus PC per year savings
BALCH SPRINGS	94	0.9		89	87	100	101	98	90	84		
BEAR CREEK SUD	107	1.3		136	108	111	101	117	107	105		
BECKER JIBA WSC	83	1.0		88	69	63	61	62	65	64		
BEDFORD	171	0.9		186	148	149	153	148	143	137		
BELLS	96	0.9		62	91	85	91	108	101	95		
BENBROOK WATER AUTHORITY	207	0.9		222	164	151	153	157	158	152		
BLACK ROCK WSC	169	0.7	**219**	176	222	182	216	191	140	148	1	Max historical GPCD minus PC per year savings
BLACKLAND WSC	181	0.9		169	107	102	107	98	101	109		
BLOOMING GROVE	151	1.0		151	108	122	115	115	115	103		
BLUE MOUND	69	0.0		68	63	64	65	69	63	59		
BLUE RIDGE	154	0.9		87	93	83	78	79	84	77		
BOIS D ARC MUD	105	1.0		88	75	103	94	87	109	98		
BOLIVAR WSC	81	0.9	**127**	116	121	84	120	117	113	127	1	Max historical GPCD
BONHAM	144	1.0		146	126	129	123	124	124	145		
BOYD	150	0.9		176	143	115	164	157	127	120		
BRIDGEPORT	156	0.9		136	129	119	102	121	126	143		
BUENA VISTA-BETHEL SUD	249	0.7		175	169	165	159	166	157	156		
BUTLER WSC	138	1.0	**196**	246	143	173	199	163	162	156	1	Max historical GPCD minus PC per year savings
CALLISBURG WSC	82	0.9		102	77	76	75	74	74	96		
CARROLLTON	167	0.9		176	152	151	144	146	141	145		
CEDAR HILL	180	0.8		221	152	151	145	158	147	138		
CELINA	187	0.9	**211**	125	128	114	123	133	130	140	4	Updated based on WUG Survey Revision Request
CHATFIELD WSC	97	1.0		136	112	100	107	110	112	105		
CHICO	177	0.9		91	55	60	65	67	64	63		
COCKRELL HILL	79	1.0	**134**	90	103	119	137	102	94	89	1	Max historical GPCD minus PC per year savings
COLLEGE MOUND SUD	61	1.1	**92**	94	97	86	89	87	86	86	1	Max historical GPCD minus PC per year savings
COLLEYVILLE	348	0.8		343	262	251	264	260	257	282		
COLLINSVILLE	99	1.0		94	87	107	96	96	79	49		
COMBINE WSC	86	0.9		108	80	78	86	89	83	88		
COMMUNITY WSC	89	1.1	**136**	106	97	96	94	90	116	136	1	Max historical GPCD
COPEVILLE SUD	75	1.0	**112**	92	76	79	80	89	97	112	1	Max historical GPCD
COPPELL	237	0.8		258	233	224	213	226	209	200		
CORBET WSC	81	0.9		95	99	84	82	100	91	84		
CORINTH	154	0.7		166	134	133	138	142	127	130		
CORSICANA	205	1.0		212	175	164	200	215	165	169		
CRANDALL	163	1.1		164	150	127	121	114	118	122		
CRESCENT HEIGHTS WSC	79	0.9		88	61	69	66	70	68	66		
CROSS TIMBERS WSC	196	0.7		203	158	147	168	162	160	174		
CROWLEY	133	0.9		136	107	111	125	121	96	100		
CULLEOKA WSC	98	1.0		107	90	94	94	94	99	104		
DALLAS	202	0.9		205	212	191	182	168	176	149		

Region C Requested GPCD Changes				2011	2015	2016	2017	2018	2019	2020		
Entity Name	Draft Baseline GPCD	2010-2020 PC Per Year Savings	Revised GPCD	GPCD Estimates (provided by TWDB)							TWDB Criteria Code (1-7)*	Additional Comments
DALWORTHINGTON GARDENS	354	0.9		369	358	358	274	265	267	253		
DAWSON	150	1.0		151	113	118	137	121	124	123		
DECATUR	244	1.1		238	189	195	221	204	189	204		
DENISON	237	1.0		265	159	154	139	145	131	134		
DENTON	162	1.0		165	130	121	111	152	164	125		
DENTON COUNTY FWSD 10	169	0.6		12	129	181	147	179	162	144		
DENTON COUNTY FWSD 11-C	60	0.0		0	47	75	58	45	60	63		
DENTON COUNTY FWSD 1-A	234	0.7	**155**	213	207	211	216	230	235	236	4	Updated based on WUG Survey Revision Request
DENTON COUNTY FWSD 7	227	0.6		445	325	303	334	300	286	299		
DESERT WSC	113	0.8	**148**	121	126	114	116	137	149	139	1	Max historical GPCD minus PC per year savings
DESOTO	155	0.9		165	139	132	144	135	135	163		
DOGWOOD ESTATES WATER	137	0.9		130	131	107	96	101	105	102		
DORCHESTER	68	0.9	**159**	97	142	136	139	161	159	160	1	Max historical GPCD minus PC per year savings
DUNCANVILLE	128	1.0		138	133	94	96	102	96	99		
EAST CEDAR CREEK FWSD	61	0.5	**135**	123	119	120	110	120	115	135	1	Max historical GPCD
EAST FORK SUD	110	1.2		115	83	87	89	98	94	102		
EAST GARRETT WSC	148	0.9		193	131	98	95	91	159	129		
EDGECLIFF	155	0.9		162	106	117	124	108	93	111		
ELMO WSC	77	1.0		106	82	86	70	77	70	84		
ENNIS	169	1.0		186	138	115	136	96	90	110		
EULESS	149	0.9		159	93	96	95	98	99	102		
EUSTACE	97	0.9		64	66	64	50	61	49	44		
EVERMAN	78	0.9		94	81	94	79	75	73	74		
FAIRFIELD	187	1.0		180	152	132	134	143	152	151		
FAIRVIEW	320	0.8		336	233	231	232	247	235	225		
FARMERS BRANCH	265	0.9		268	272	259	236	257	250	229		
FARMERSVILLE	108	1.4		102	80	77	70	94	98	105		
FATE	158	0.6		153	100	99	106	107	94	108		
FERRIS	141	1.0	**177**	157	136	90	96	95	120	177	1	Max historical GPCD
FLOWER MOUND	226	0.8		235	167	192	186	182	183	192		
FOREST HILL	96	0.9		105	83	80	83	88	84	81		
FORNEY	130	0.8	**134**	127	124	106	99	116	107	114	4	Updated based on WUG Survey Revision Request
FORNEY LAKE WSC	146	0.7		159	108	103	112	110	85	128		
FORT WORTH	177	0.9		173	143	139	136	140	120	134		
FRISCO	217	0.6		223	1	159	155	160	154	163		
FROGNOT WSC	94	0.8		102	93	86	87	105	108	107		
GAINESVILLE	129	1.0		130	114	115	112	113	113	141		
GARLAND	145	0.9		153	0	115	111	114	119	125		
GASTONIA SCURRY SUD	61	1.0	**103**	75	91	88	102	104	104	96	1	Max historical GPCD minus PC per year savings
GLENN HEIGHTS	100	0.9		106	90	87	85	83	108	120		
GRAND PRAIRIE	145	0.9		141	120	123	124	122	120	120		
GRAPEVINE	315	0.9		343	280	267	245	251	226	231		
GUNTER	145	1.0		161	109	118	137	132	126	136		
HACKBERRY	217	0.7		0	0	196	207	207	174	181		
HALTOM CITY	108	0.9	**100**	120	96	90	87	90	83	85	4	Updated based on WUG Survey Revision Request
HASLET	292	0.8	**357**	277	275	258	286	295	357	357	1	Max historical GPCD minus PC per year savings
HEATH	292	0.9		224	173	171	171	193	242	250		
HIGH POINT WSC	82	1.2		71	55	77	78	79	71	76		
HIGHLAND PARK	402	1.0		411	336	336	321	317	307	300		
HIGHLAND VILLAGE	201	0.9		216	181	171	168	162	163	175		
HONEY GROVE	144	1.0		157	105	91	88	95	121	108		
HORSESHOE BEND WATER SYSTEM	86	0.9	**127**	135	131	113	83	95	94	98	1	Max historical GPCD minus PC per year savings
HOWE	86	1.0		88	54	69	69	56	92	82		
HUDSON OAKS	308	1.1		151	132	159	153	138	140	123		
HURST	153	1.0		155	134	128	133	129	127	126		
HUTCHINS	202	1.0		110	142	137	148	147	157	140		
IRVING	193	1.0		163	153	151	151	149	142	138		

Region C Requested GPCD Changes				2011	2015	2016	2017	2018	2019	2020	TWDB Criteria Code (1-7)*	Additional Comments
Entity Name	Draft Baseline GPCD	2010-2020 PC Per Year Savings	Revised GPCD	GPCD Estimates (provided by TWDB)								
ITALY	119	1.2		131	112	111	103	113	112	106		
JACKSBORO	127	0.9	**195**	152	134	143	163	197	190	192	1	Max historical GPCD minus PC per year savings
JOSEPHINE	192	1.2		119	71	80	68	77	92	127		
JUSTIN	134	0.9	**158**	130	162	85	118	120	128	154	1	Max historical GPCD minus PC per year savings
KAUFMAN	151	1.1		123	131	135	123	123	114	124		
KAUFMAN COUNTY DEVELOPMENT DISTRICT 1	214	1.0	**1,292**	1,064	882	907	1,023	945	1,045	1,292	1	Max historical GPCD
KAUFMAN COUNTY MUD 11	152	1.0		0	92	101	96	87	77	84		
KAUFMAN COUNTY MUD 14	148	0.9	**246**	0	0	0	0	148	136	0	4	Updated based on WUG Survey Revision Request
KELLER	229	0.8		242	179	177	185	178	174	191		
KEMP	160	1.3		174	149	163	151	170	159	150		
KENNEDALE	159	0.9		173	146	136	136	135	123	135		
KENTUCKYTOWN WSC	112	1.0		142	122	130	91	131	129	128		
KERENS	107	1.0		109	89	95	75	85	79	82		
KRUM	199	0.8		109	87	86	89	93	87	97		
LADONIA	140	1.5		154	336	317	340	372	112	169		
LAKE CITIES MUNICIPAL UTILITY AUTHORITY	126	0.7		133	101	101	104	107	100	107		
LAKE KIOWA SUD	363	1.2		465	294	262	291	302	271	284		
LAKE WORTH	197	1.0		206	169	163	153	154	149	154		
LAKESIDE	247	0.8		130	133	106	109	129	111	106		
LANCASTER	153	0.9		163	114	119	135	138	149	137		
LANCASTER MUD 1	75	0.9	**111**	0	70	114	81	75	90	95	1	Max historical GPCD minus PC per year savings
LEONARD	134	1.0	**127**	139	139	137	119	140	150	127	4	Updated based on WUG Survey Revision Request
LEWISVILLE	168	0.8	**155**	184	130	139	149	138	128	134	4	Updated based on WUG Survey Revision Request
LINDSAY	117	0.9		90	70	60	67	70	61	72		
LITTLE ELM	123	0.5		129	0	103	103	105	97	104		
LOG CABIN	121	0.0	**157**	99	99	100	108	121	157	133	1	Max historical GPCD minus PC per year savings
LUCAS	265	0.9	**255**	295	222	214	211	221	212	203	4	Updated based on WUG Survey Revision Request
LUELLA SUD	95	0.9		128	99	93	93	98	98	105		
M E N WSC	127	0.8		167	111	117	120	126	119	108		
MABANK	178	0.9		107	89	96	98	109	102	98		
MALAKOFF	102	0.9	**105**	134	108	114	109	117	113	119	4	Updated based on WUG Survey Revision Request
MANSFIELD	245	0.7		255	207	183	198	196	207	207		
MARKOUT WSC	156	1.0		165	97	97	112	129	118	124		
MCKINNEY	196	0.7		201	165	164	160	153	151	155		
MELISSA	197	0.7		169	118	174	185	178	142	109		
MESQUITE	134	0.9		128	0	103	97	94	103	105		
MIDLOTHIAN	208	0.6		168	171	147	155	152	163	163		
MILLIGAN WSC	108	0.8		142	95	100	79	106	113	98		
MOUNT ZION WSC	178	1.1		208	136	132	118	127	133	143		
MOUNTAIN PEAK SUD	281	1.0		144	123	131	142	150	145	148		
MOUNTAIN SPRINGS WSC	151	0.8		204	166	148	142	159	148	163		
MUENSTER	154	0.9		118	102	98	102	107	101	116		
MURPHY	206	0.6		208	170	177	177	200	198	187		
MUSTANG SUD	135	0.8		138	100	95	126	151	119	120		
NASH FORRESTON WSC	70	0.0	**102**	0	51	70	68	70	68	102	1	Max historical GPCD
NAVARRO MILLS WSC	96	0.9		111	81	54	87	83	76	98		
NEVADA SUD	90	0.8		84	96	91	94	95	89	85		
NEWARK	99	1.2		110	84	84	86	94	88	73		
NORTH COLLIN SUD	132	0.9		137	109	101	91	99	87	86		
NORTH FARMERSVILLE WSC	195	0.8		186	108	122	140	163	168	161		
NORTH KAUFMAN WSC	62	1.0		71	64	69	57	63	62	63		
NORTH RICHLAND HILLS	160	0.9		179	133	133	127	124	116	129		
NORTHLAKE	182	0.8		160	235	266	296	324	249	266		
NORTHWEST GRAYSON COUNTY WCID 1	92	0.9		111	76	88	90	103	92	100		
OAK RIDGE SOUTH GALE WSC	79	0.9		77	60	66	69	70	65	60		
OVILLA	214	1.0		200	166	153	132	138	140	129		
PALMER	101	1.1		107	91	87	86	90	81	80		

Region C Requested GPCD Changes				2011	2015	2016	2017	2018	2019	2020		
Entity Name	Draft Baseline GPCD	2010-2020 PC Per Year Savings	Revised GPCD	GPCD Estimates (provided by TWDB)							TWDB Criteria Code (1-7)*	Additional Comments
PALOMA CREEK NORTH	186	0.6		79	95	103	112	127	108	96		
PALOMA CREEK SOUTH	184	0.7		118	114	105	91	100	81	100		
PANTEGO	232	0.9		244	207	193	195	199	191	188		
PARKER	382	0.8		283	254	245	236	223	255	237		
PARKER COUNTY SUD	96	0.8		81	54	76	70	89	71	77		
PELICAN BAY	60	0.2		62	47	45	47	46	58	64		
PILOT POINT	123	1.2		147	118	109	111	125	116	117		
PINK HILL WSC	104	0.9		117	103	90	98	82	81	81		
PLANO	231	0.8		248	207	220	206	207	194	196		
PLEASANT GROVE WSC	90	1.0		99	90	80	86	96	98	86		
POINT ENTERPRISE WSC	98	1.0	**128**	123	110	104	106	130	128	127	1	Max historical GPCD minus PC per year savings
PONDER	111	0.8	**133**	129	112	104	118	135	132	102	1	Max historical GPCD minus PC per year savings
POTTSBORO	152	1.0		99	77	81	77	82	83	83		
PRINCETON	97	0.8		86	59	61	58	62	64	77		
PROSPER	230	0.7	**235**	213	0	208	207	212	203	218	4	Updated based on WUG Survey Revision Request
PROVIDENCE VILLAGE WCID	116	0.5		121	108	112	100	124	103	112		
R C H WSC	189	0.9		197	148	145	148	153	141	120		
RED OAK	134	0.7		115	114	123	115	126	114	126		
RENO (PARKER)	60	0.0		58	44	52	55	62	64	55		
RHOME	155	0.8		179	101	149	104	76	108	118		
RICE WATER SUPPLY AND SEWER SERVICE	108	0.9		116	101	105	102	108	111	97		
RICHARDSON	225	0.9		226	191	179	169	170	172	164		
RICHLAND HILLS	123	1.0		126	116	114	109	110	105	103		
RIVER OAKS	102	0.9		112	76	82	84	73	80	80		
ROANOKE	254	0.8		261	220	220	238	230	204	199		
ROCKETT SUD	103	1.0	**107**	126	108	93	105	110	114	114	4	Updated based on WUG Survey Revision Request
ROCKWALL	168	0.7		161	128	125	135	169	164	172		
ROSE HILL SUD	78	1.1		105	80	72	77	87	84	79		
ROWLETT	137	0.8		154	118	116	106	106	108	121		
ROYSE CITY	104	0.7	**138**	126	0	105	103	110	113	138	1	Max historical GPCD
RUNAWAY BAY	326	0.9		266	192	170	138	150	147	166		
SACHSE	163	0.8		177	129	117	105	106	106	111		
SAGINAW	123	0.8		132	110	103	100	100	104	111		
SANGER	125	0.9		130	90	92	97	99	89	90		
SANSOM PARK	99	0.9		107	93	102	93	85	85	94		
SARDIS LONE ELM WSC	241	1.1		253	184	177	168	194	179	181		
SAVOY	123	0.9		97	111	110	112	123	125	126		
SEAGOVILLE	99	0.9		71	101	99	97	87	90	85		
SEIS LAGOS UD	253	1.0		259	223	201	182	217	211	185		
SHERMAN	220	1.0		233	179	155	108	175	160	166		
SOUTH ELLIS COUNTY WSC	232	0.9	**336**	167	237	216	304	338	299	297	1	Max historical GPCD minus PC per year savings

Region C Requested GPCD Changes				2011	2015	2016	2017	2018	2019	2020		
Entity Name	Draft Baseline GPCD	2010-2020 PC Per Year Savings	Revised GPCD	GPCD Estimates (provided by TWDB)							TWDB Criteria Code (1-7)*	Additional Comments
SOUTH FREESTONE COUNTY WSC	90	1.0		100	85	81	84	94	92	97		
SOUTH GRAYSON SUD	110	0.7		123	75	80	74	107	130	129		
SOUTHERN OAKS WATER SUPPLY	131	0.9	**165**	175	169	145	135	131	127	124	1	Max historical GPCD minus PC per year savings
SOUTHLAKE	370	0.7		378	298	291	316	286	277	265		
SOUTHMAYD	101	0.9		144	94	70	70	64	98	97		
SOUTHWEST FANNIN COUNTY SUD	91	0.9		86	78	71	72	87	88	82		
SPRINGTOWN	199	1.1		141	110	105	99	99	125	114		
STARR WSC	93	0.9		117	87	81	78	84	83	85		
SUNNYVALE	301	0.8		306	246	212	199	226	242	228		
TALTY SUD	147	0.7		162	129	109	110	131	125	140		
TEAGUE	154	1.0		99	100	97	88	99	98	100		
TERRA SOUTHWEST	71	0.9		99	68	66	74	71	79	76		
TERRELL	153	1.1		152	124	121	140	131	125	124		
THE COLONY	137	1.0		136	123	122	123	130	124	133		
TIOGA	123	0.9		88	93	105	112	117	75	82		
TOM BEAN	169	1.0		148	106	101	101	93	83	100		
TRENTON	166	1.0		201	145	132	130	123	125	124		
TRINIDAD	92	1.0	**130**	93	130	134	109	99	90	131	1	Max historical GPCD minus PC per year savings
TROPHY CLUB MUD 1	341	0.7		310	196	192	204	233	191	187		
TWO WAY SUD	100	0.9	**121**	135	107	107	107	111	108	121	1	Max historical GPCD
UNIVERSITY PARK	266	1.0		278	221	209	212	221	207	206		
VAN ALSTYNE	124	1.0	**172**	130	176	79	98	101	100	97	1	Max historical GPCD minus PC per year savings
VERONA SUD	90	0.8	**122**	98	106	103	105	114	108	122	1	Max historical GPCD
VIRGINIA HILL WSC	87	1.0	**111**	119	116	94	90	102	102	98	1	Max historical GPCD minus PC per year savings
WALNUT CREEK SUD	68	0.8	**142**	107	114	113	108	122	131	142	1	Max historical GPCD
WATAUGA	104	0.9		111	94	86	78	79	99	92		
WAXAHACHIE	164	0.9		171	138	148	158	165	166	161		
WEATHERFORD	158	0.9	**166**	144	126	120	118	122	110	116	4	Updated based on WUG Survey Revision Request
WEST CEDAR CREEK MUD	60	0.3	**191**	179	193	185	188	182	184	187	1	Max historical GPCD minus PC per year savings
WEST LEONARD WSC	120	1.0		128	84	97	87	79	90	123		
WEST WISE SUD	111	1.0		118	89	90	89	91	85	78		
WESTLAKE	1,033	0.6		1,010	768	798	780	783	512	639		
WESTMINSTER SUD	121	0.8	**173**	129	128	143	154	164	174	144	1	Max historical GPCD minus PC per year savings
WESTOVER HILLS	1,218	0.9		1,316	729	754	824	836	753	845		
WESTWORTH VILLAGE	131	1.0		128	119	121	111	114	115	145		
WHITE SETTLEMENT	110	0.9		114	108	108	100	103	93	95		
WHITE SHED WSC	98	1.0		112	90	84	82	96	92	87		
WHITESBORO	110	0.9		116	102	92	94	98	95	90		
WHITEWRIGHT	124	0.9	**165**	133	146	164	133	154	166	146	1	Max historical GPCD minus PC per year savings
WILLOW PARK	140	0.9		127	109	108	104	112	113	117		
WILMER	93	0.9	**128**	89	99	120	121	100	113	128	1	Max historical GPCD
WOODBINE WSC	96	0.9		98	81	79	83	93	85	95		
WORTHAM	128	1.0		124	99	100	93	82	77	88		
WYLIE	135	0.6		127	118	127	118	119	116	119		
WYLIE NORTHEAST SUD	122	0.8	**108**	132	106	116	120	109	106	130	4	Updated based on WUG Survey Revision Request

***TWDB Criteria for Adjustment**

1) Evidence that per capita water use from a more recent year (2015-2019) would be more appropriate because that year was more representative of dry-year conditions.
2) Evidence of errors identified in the historical water use for a utility or public water system, including evidence that volumes of reuse (treated effluent) water or brackish groundwater used for municipal purposes should be included in the draft projections.
3) Evidence that the dry year water use was abnormal due to temporary infrastructure constraints.
4) Trends indicating that per capita water use for a utility or rural area of a county have changed substantially since 2011 and evidence that these trends will continue to rise in the short-term future.
5) Evidence that the water efficiency and conservation savings that have been implemented are not reflected in the baseline GPCD.
6) Evidence that the number of installations of water-efficient fixtures and appliances between 2010 and 2020 is substantially different than the TWDB estimate.
7) Evidence that future water efficiency savings are projected much higher than the draft projections.

ATTACHMENT B

Region C Recommended Revisions to TWDB Draft Projections (All)

	WUG Info						Revisions by RWPG													ojected Demand by Decade = (Population projection * (Baseline GPCD - PC Savings projection) * 365)/325					
Split Region	County	EntityId	EntityName	2030 Pop	2040 Pop	2050 Pop	2060 Pop	2070 Pop	2080 Pop	Baseline GPCD	PCSavings 2030	PCSavings 2040	PCSavings 2050	PCSavings 2060	PCSavings 2070	PCSavings 2080	2030 Demand	2040 Demand	2050 Demand	2060 Demand	2070 Demand	2080 Demand
C	ROCKWALL	23	Cash SUD	2,040	2,657	3,935	5,773	7,779	10,210	103	4.37	4.87	4.87	4.87	4.87	4.87	225	292	433	635	855	1,122
C	DALLAS	24	Cedar Hill	44,678	46,970	48,179	48,868	49,627	50,462	180	4.53	5.16	5.16	5.16	5.16	5.16	8,782	9,199	9,436	9,571	9,719	9,883
C	NAVARRO	35	Corsicana	27,916	29,886	31,517	32,925	34,477	36,187	205	4.65	5.21	5.21	5.21	5.21	5.21	6,265	6,688	7,053	7,368	7,716	8,098
C	COLLIN	36	Dallas	53,145	57,647	65,234	72,386	81,962	91,072	202	4.96	5.59	5.59	5.59	5.59	5.59	11,730	12,683	14,352	15,925	18,032	20,037
C	DALLAS	36	Dallas	1,254,601	1,291,602	1,354,048	1,389,701	1,462,078	1,511,677	202	4.96	5.59	5.59	5.59	5.59	5.59	276,907	284,162	297,901	305,745	321,668	332,580
C	DENTON	36	Dallas	34,543	42,657	53,054	63,310	76,324	89,553	202	4.96	5.59	5.59	5.59	5.59	5.59	7,624	9,385	11,672	13,929	16,792	19,702
C	DENTON	40	Denton	231,237	278,034	338,028	412,499	485,078	562,953	162	4.57	5.06	5.06	5.06	5.06	5.06	40,777	48,877	59,424	72,515	85,274	98,965
C	HENDERSON	205	Athens	18,890	24,462	31,209	32,816	33,252	33,252	183	5.03	5.62	5.62	5.62	5.62	5.62	3,766	4,860	6,201	6,520	6,607	6,607
C	ELLIS	51	Ennis	20,220	21,227	22,316	23,303	24,413	25,655	169	4.71	5.32	5.32	5.32	5.32	5.32	3,721	3,892	4,092	4,272	4,476	4,704
C	KAUFMAN	52	Forney	33,211	41,883	50,211	61,829	61,829	61,829	134	4.19	4.69	4.69	4.69	4.69	4.69	4,829	6,067	7,273	8,956	8,956	8,956
C	DENTON	55	Fort Worth	25,666	37,852	48,326	60,243	73,369	87,826	177	4.53	5.13	5.13	5.13	5.13	5.13	4,958	7,287	9,304	11,598	14,125	16,908
C	PARKER	55	Fort Worth	3,661	4,151	4,438	4,856	5,321	5,835	177	4.53	5.13	5.13	5.13	5.13	5.13	707	799	854	935	1,024	1,123
C	TARRANT	55	Fort Worth	1,065,586	1,236,682	1,310,518	1,401,360	1,501,256	1,611,117	177	4.53	5.13	5.13	5.13	5.13	5.13	205,862	238,085	252,300	269,789	289,020	310,171
C	WISE	55	Fort Worth	2,420	2,750	2,948	3,243	3,567	3,924	177	4.53	5.13	5.13	5.13	5.13	5.13	467	529	568	624	687	755
C	COOKE	57	Gainesville	19,705	20,309	20,590	21,387	23,237	24,916	129	4.8	5.4	5.4	5.4	5.4	5.4	2,741	2,812	2,851	2,961	3,217	3,450
C	DALLAS	60	Garland	259,490	260,687	276,478	299,440	303,416	303,416	145	4.59	5.21	5.21	5.21	5.21	5.21	40,812	40,820	43,292	46,888	47,510	47,510
C	DENTON	83	Lake Cities Municipal Utility Authority	17,462	21,232	21,490	22,597	22,897	22,897	126	4.55	5.06	5.06	5.06	5.06	5.06	2,376	2,876	2,911	3,061	3,102	3,102
C	ELLIS	94	Mansfield	895	1,141	1,441	1,927	2,401	2,849	245	4.43	5.05	5.05	5.05	5.05	5.05	241	307	387	518	645	766
C	TARRANT	94	Mansfield	84,159	98,743	113,920	139,586	160,559	179,679	245	4.43	5.05	5.05	5.05	5.05	5.05	22,679	26,540	30,619	37,518	43,155	48,294
C	ELLIS	98	Midlothian	35,087	39,937	45,817	53,849	60,311	66,058	208	4.57	5.21	5.21	5.21	5.21	5.21	7,995	9,072	10,407	12,232	13,700	15,005
C	COLLIN	101	Mustang SUD	3,517	4,763	6,190	7,947	9,133	10,213	135	3.41	3.72	3.72	3.72	3.72	3.72	518	700	910	1,169	1,343	1,502
C	DENTON	101	Mustang SUD	107,788	150,828	195,997	251,656	289,198	323,398	135	3.41	3.72	3.72	3.72	3.72	3.72	15,888	22,180	28,822	37,007	42,527	47,556
C	GRAYSON	101	Mustang SUD	2,344	3,424	4,396	5,368	6,088	6,808	135	3.41	3.72	3.72	3.72	3.72	3.72	346	504	646	789	895	1,001
C	TARRANT	107	North Richland Hills	78,210	83,269	84,283	88,623	89,800	89,800	160	4.74	5.29	5.29	5.29	5.29	5.29	13,602	14,430	14,606	15,358	15,562	15,562
C	DALLAS	121	Rockett SUD	732	797	883	943	466	976	107	4.31	4.8	4.8	4.8	4.8	4.8	84	91	101	108	53	112
C	ELLIS	121	Rockett SUD	36,436	42,820	52,146	64,570	78,415	92,757	107	4.31	4.8	4.8	4.8	4.8	4.8	4,191	4,902	5,970	7,392	8,977	10,619
C	ROCKWALL	122	Rockwall	53,733	64,366	88,072	123,062	124,696	124,696	168	4.46	5.04	5.04	5.04	5.04	5.04	9,843	11,749	16,076	22,464	22,762	22,762
C	DALLAS	130	Seagoville	20,875	22,892	23,964	24,593	25,285	26,047	99	4.19	4.78	4.78	4.78	4.78	4.78	2,217	2,416	2,529	2,596	2,669	2,749
C	KAUFMAN	139	Terrell	25,701	30,155	35,908	42,183	47,940	53,769	153	4.78	5.34	5.34	5.34	5.34	5.34	4,267	4,988	5,939	6,977	7,929	8,893
C	PARKER	153	Walnut Creek SUD	21,363	22,590	31,981	49,895	66,114	84,631	142	4.3	4.73	4.73	4.73	4.73	4.73	3,295	3,474	4,918	7,672	10,166	13,013
C	WISE	153	Walnut Creek SUD	3,770	3,986	5,644	8,805	11,667	14,935	142	4.3	4.73	4.73	4.73	4.73	4.73	582	613	868	1,354	1,794	2,296
C	ELLIS	154	Waxahachie	48,394	59,800	72,197	84,724	98,504	113,667	164	4.35	4.82	4.82	4.82	4.82	4.82	8,654	10,663	12,873	15,107	17,564	20,267
C	PARKER	155	Weatherford	45,410	54,197	64,123	74,543	86,019	98,660	166	4.7	5.23	5.23	5.23	5.23	5.23	8,205	9,760	11,548	13,424	15,491	17,767
C	HENDERSON	6206	B B S WSC	17	17	17	17	17	17	87	4.44	4.97	4.97	4.97	4.97	4.97	2	2	2	2	2	2
C	KAUFMAN	156	West Cedar Creek MUD	227	276	339	410	488	575	191	0	0	0	0	0	0	49	59	73	88	104	123
C	KAUFMAN	164	Ables Springs SUD	7,936	8,897	9,640	10,836	11,687	12,422	60	0	0	0	0	0	0	533	598	648	728	785	835
C	DALLAS	166	Addison	20,465	23,069	24,456	25,276	26,179	27,173	369	5.9	6.79	6.79	6.79	6.79	6.79	8,324	9,360	9,922	10,255	10,622	11,025
C	PARKER	171	Aledo	8,421	9,273	10,793	12,336	13,500	14,500	165	4.64	5.19	5.19	5.19	5.19	5.19	1,513	1,660	1,932	2,208	2,417	2,596
C	COLLIN	173	Allen	125,000	140,000	140,000	140,000	140,000	140,000	187	4.48	5.05	5.05	5.05	5.05	5.05	25,556	28,533	28,533	28,533	28,533	28,533
C	WISE	180	Alvord	3,020	3,736	4,375	4,888	5,453	6,073	126	4.07	4.45	4.45	4.45	4.45	4.45	412	509	596	666	742	827
C	COLLIN	187	Anna	46,267	81,621	94,539	111,026	121,250	130,000	142	3.93	4.42	4.42	4.42	4.42	4.42	7,156	12,579	14,569	17,110	18,686	20,034
C	PARKER	188	Annetta	3,180	3,810	4,439	5,068	5,698	6,327	122	4.13	4.47	4.47	4.47	4.47	4.47	420	502	584	667	750	833
C	DENTON	199	Argyle WSC	14,326	18,592	23,464	29,854	33,250	36,250	178	4.2	4.6	4.6	4.6	4.6	4.6	2,789	3,611	4,557	5,799	6,458	7,041
C	TARRANT	200	Arlington	435,711	475,475	506,915	549,864	574,231	591,297	155	4.67	5.24	5.24	5.24	5.24	5.24	73,370	79,762	85,036	92,241	96,329	99,192
C	HENDERSON	247	Bethel Ash WSC	3,053	3,205	3,238	3,316	3,403	3,499	92	4.59	5.14	5.14	5.14	5.14	5.14	299	312	315	323	331	340
C	DENTON	207	Aubrey	9,002	17,680	28,207	37,218	40,586	40,586	107	4.59	5.07	5.07	5.07	5.07	5.07	1,033	2,019	3,221	4,249	4,634	4,634
C	PARKER	209	Azle	3,347	4,258	5,287	6,382	7,584	8,906	141	4.51	5.02	5.02	5.02	5.02	5.02	512	649	805	972	1,155	1,357
C	TARRANT	209	Azle	12,981	14,517	15,787	16,787	17,888	19,099	141	4.51	5.02	5.02	5.02	5.02	5.02	1,985	2,211	2,405	2,557	2,725	2,909
C	DALLAS	213	Balch Springs	26,209	28,020	28,979	29,535	30,146	30,819	94	4.33	4.92	4.92	4.92	4.92	4.92	2,633	2,796	2,892	2,947	3,008	3,075
C	DENTON	223	Cross Timbers WSC	9,808	12,310	14,944	17,622	20,802	25,403	196	4.55	4.96	4.96	4.96	4.96	4.96	2,103	2,634	3,198	3,771	4,451	5,436
C	TARRANT	232	Bedford	52,345	56,345	57,255	60,166	60,166	60,166	171	5.01	5.51	5.51	5.51	5.51	5.51	9,733	10,445	10,614	11,153	11,153	11,153
C	GRAYSON	238	Bells	1,743	1,900	2,031	2,147	2,275	2,416	96	4.55	5.07	5.07	5.07	5.07	5.07	179	194	207	219	232	246
C	TARRANT	242	Benbrook Water Authority	26,309	29,353	31,526	33,698	35,871	38,044	207	4.76	5.27	5.27	5.27	5.27	5.27	5,960	6,633	7,124	7,615	8,106	8,597
C	HENDERSON	304	Brushy Creek WSC	681	702	719	733	750	768	77	4.6	5.12	5.12	5.12	5.12	5.12	55	57	58	59	60	62
C	TARRANT	248	Bethesda WSC	349	386	417	441	467	496	188	4.2	4.82	4.82	4.82	4.82	4.82	72	79	86	90	96	102
C	ROCKWALL	260	Blackland WSC	4,634	4,824	5,199	6,029	6,491	6,988	181	4.57	5.16	5.16	5.16	5.16	5.16	916	950	1,024	1,188	1,279	1,376
C	NAVARRO	263	Blooming Grove	1,057	1,089	1,157	1,275	1,355	1,465	151	4.6	5.1	5.1	5.1	5.1	5.1	173	178	189	208	221	239
C	COLLIN	267	Blue Ridge	2,734	9,118	14,735	29,607	35,000	43,000	154	4.1	4.53	4.53	4.53	4.53	4.53	459	1,527	2,467	4,957	5,860	7,199
C	COOKE	271	Bolivar WSC	1,869	2,045	2,112	2,154	2,196	2,244	127	4.98	5.5	5.5	5.5	5.5	5.5	255	278	287	293	299	305
C	DENTON	271	Bolivar WSC	9,399	11,786	14,299	16,855	20,524	25,205	127	4.98	5.5	5.5	5.5	5.5	5.5	1,285	1,604	1,946	2,294	2,793	3,430
C	WISE	271	Bolivar WSC	952	1,047	1,133	1,199	1,272	1,351	127	4.98	5.5	5.5	5.5	5.5	5.5	130	142	154	163	173	184
C	FANNIN	272	Bonham	12,398	15,829	22,893	30,580	37,686	45,834	144	4.79	5.31	5.31	5.31	5.31	5.31	1,933	2,459	3,557	4,751	5,855	7,120
C	WISE	276	Boyd	1,477	1,855	2,628	3,355	3,800	4,200	150	4.74	5.2	5.2	5.2	5.2	5.2	240	301	426	544	616	681
C	NAVARRO	279	Brandon Irene WSC	76	90	100	111	122	135	119	5.19	5.82	5.82	5.82	5.82	5.82	10	11	13	14	15	17
C	WISE	291	Bridgeport	5,814	5,958	6,093	6,165	6,246	6,337	156	4.66	5.22	5.22	5.22	5.22	5.22	986	1,006	1,029	1,041	1,055	1,070

		WUG Info						Revisions by RWPG													ojected Demand by Decade = (Population projection * (Baseline GPCD - PC Savings projection) * 365)/325
Split Region	County	EntityId	EntityName	2030 Pop	2040 Pop	2050 Pop	2060 Pop	2070 Pop	2080 Pop	Baseline GPCD	PCSavings 2030	PCSavings 2040	PCSavings 2050	PCSavings 2060	PCSavings 2070	PCSavings 2080	2030 Demand	2040 Demand	2050 Demand	2060 Demand	2070 Demand	2080 Demand
C	HENDERSON	518	County-Other, Henderson	14,502	15,266	15,390	15,772	16,193	16,662	83	4.98	5.44	5.44	5.44	5.44	5.44	1,267	1,326	1,337	1,370	1,407	1,448
C	ELLIS	308	Buena Vista-Bethel SUD	7,152	8,701	10,384	12,081	13,948	16,004	249	4.16	4.63	4.63	4.63	4.63	4.63	1,961	2,382	2,842	3,307	3,818	4,381
C	TARRANT	314	Burleson	9,765	10,956	11,941	12,718	13,573	14,513	136	4.38	4.91	4.91	4.91	4.91	4.91	1,440	1,609	1,753	1,868	1,993	2,131
C	COLLIN	317	Caddo Basin SUD	6,475	9,353	13,679	16,487	18,447	20,244	101	4.22	4.71	4.71	4.71	4.71	4.71	702	1,009	1,475	1,778	1,990	2,183
C	DALLAS	332	Carrollton	51,488	51,488	51,488	51,488	51,488	51,488	167	4.78	5.48	5.48	5.48	5.48	5.48	9,356	9,315	9,315	9,315	9,315	9,315
C	DENTON	332	Carrollton	81,650	81,650	81,650	81,650	81,650	81,650	167	4.78	5.48	5.48	5.48	5.48	5.48	14,837	14,773	14,773	14,773	14,773	14,773
C	COLLIN	338	Celina	71,144	136,308	211,551	280,476	323,400	343,000	211	3.48	3.87	3.87	3.87	3.87	3.87	16,537	31,626	49,083	65,075	75,034	79,581
C	DENTON	338	Celina	1,452	2,782	4,317	5,724	6,600	7,000	211	3.48	3.87	3.87	3.87	3.87	3.87	337	645	1,002	1,328	1,531	1,624
C	NAVARRO	345	Chatfield WSC	3,318	3,572	3,782	3,967	4,172	4,396	97	4.57	5.15	5.15	5.15	5.15	5.15	344	368	389	408	429	452
C	WISE	346	Chico	2,710	3,524	4,787	6,316	8,000	9,600	177	4.75	5.25	5.25	5.25	5.25	5.25	523	678	921	1,215	1,539	1,847
C	DALLAS	376	Cockrell Hill	3,610	3,380	3,255	3,176	3,089	2,993	134	4.25	4.79	4.79	4.79	4.79	4.79	525	489	471	460	447	433
C	KAUFMAN	380	College Mound SUD	13,205	14,783	19,668	31,301	40,174	50,886	92	1	1	1	1	1	1	1,346	1,507	2,005	3,191	4,095	5,187
C	TARRANT	382	Colleyville	28,000	28,000	28,000	28,000	28,000	28,000	348	4.46	5.01	5.01	5.01	5.01	5.01	10,775	10,758	10,758	10,758	10,758	10,758
C	GRAYSON	383	Collinsville	2,641	2,907	3,129	3,331	3,552	3,794	99	4.52	5.04	5.04	5.04	5.04	5.04	280	306	329	351	374	399
C	DALLAS	389	Combine WSC	769	823	853	870	888	908	86	4.18	4.67	4.67	4.67	4.67	4.67	70	75	78	79	81	83
C	KAUFMAN	389	Combine WSC	2,835	3,271	3,825	4,439	5,121	5,876	86	4.18	4.67	4.67	4.67	4.67	4.67	260	298	348	404	467	535
C	PARKER	394	Community WSC	39	60	82	107	135	165	136	4.48	4.95	4.95	4.95	4.95	4.95	6	9	12	16	20	24
C	TARRANT	394	Community WSC	4,084	4,570	4,972	5,289	5,638	6,021	136	4.48	4.95	4.95	4.95	4.95	4.95	602	671	730	776	828	884
C	DALLAS	403	Coppell	41,779	41,779	41,779	41,779	41,779	41,779	237	4.69	5.49	5.49	5.49	5.49	5.49	10,872	10,834	10,834	10,834	10,834	10,834
C	DENTON	403	Coppell	1,134	1,134	1,134	1,134	1,134	1,134	237	4.69	5.49	5.49	5.49	5.49	5.49	295	294	294	294	294	294
C	DENTON	406	Corinth	28,264	30,136	39,419	41,450	42,000	42,000	154	4.55	5.04	5.04	5.04	5.04	5.04	4,732	5,028	6,577	6,916	7,008	7,008
C	COLLIN	454	County-Other, Collin	3,794	7,605	9,769	10,346	9,123	5,415	141	6.53	7.39	7.39	7.39	7.39	7.39	571	1,138	1,462	1,548	1,365	810
C	COOKE	460	County-Other, Cooke	5,882	6,135	6,253	6,272	6,296	6,319	119	4.99	5.63	5.63	5.63	5.63	5.63	751	779	794	796	800	802
C	DALLAS	468	County-Other, Dallas	1,500	1,700	1,900	2,100	2,300	2,500	1822	3.4	4.29	4.29	4.29	4.29	4.29	3,056	3,461	3,869	4,276	4,683	5,090
C	DENTON	472	County-Other, Denton	51,205	80,964	110,723	140,482	170,241	200,000	112	5.32	5.7	5.7	5.7	5.7	5.7	6,119	9,640	13,184	16,727	20,271	23,814
C	ELLIS	481	County-Other, Ellis	8,881	8,302	7,671	7,960	7,379	6,796	110	3.91	4.48	4.48	4.48	4.48	4.48	1,055	981	907	941	872	803
C	FANNIN	485	County-Other, Fannin	3,862	3,441	3,335	3,108	2,856	2,577	100	5.13	5.61	5.61	5.61	5.61	5.61	410	364	353	329	302	272
C	FREESTONE	492	County-Other, Freestone	3,337	3,063	2,622	2,661	2,675	2,657	93	5.76	6.53	6.53	6.53	6.53	6.53	326	297	254	258	259	257
C	GRAYSON	502	County-Other, Grayson	7,888	7,139	6,509	5,649	4,745	3,784	114	4.25	4.87	4.87	4.87	4.87	4.87	970	873	796	691	580	463
C	HENDERSON	6259	Crescent Heights WSC	1,947	2,014	2,216	2,929	3,770	4,000	79	4.58	5.18	5.18	5.18	5.18	5.18	162	167	183	242	312	331
C	JACK	530	County-Other, Jack	4,565	4,337	4,088	3,867	3,625	3,362	101	4.67	5.26	5.26	5.26	5.26	5.26	493	465	438	415	389	361
C	KAUFMAN	540	County-Other, Kaufman	17,341	22,239	28,466	36,164	45,550	55,894	99	4.16	4.57	4.57	4.57	4.57	4.57	1,842	2,352	3,011	3,825	4,818	5,912
C	NAVARRO	586	County-Other, Navarro	6,648	6,596	6,298	5,703	4,949	3,994	102	4.63	5.22	5.22	5.22	5.22	5.22	725	715	683	618	537	433
C	PARKER	595	County-Other, Parker	83,243	113,127	166,125	246,724	328,000	435,000	117	4.26	4.77	4.77	4.77	4.77	4.77	10,512	14,222	20,884	31,017	41,234	54,685
C	ROCKWALL	610	County-Other, Rockwall	3,253	3,337	3,269	3,768	5,843	7,294	144	4.07	4.64	4.64	4.64	4.64	4.64	510	521	510	588	912	1,139
C	TARRANT	631	County-Other, Tarrant	50,000	80,000	110,000	140,000	170,000	200,000	206	4.85	5.38	5.38	5.38	5.38	5.38	11,266	17,978	24,720	31,461	38,203	44,945
C	WISE	660	County-Other, Wise	64,852	98,290	140,784	195,405	244,000	305,000	108	4.37	4.93	4.93	4.93	4.93	4.93	7,528	11,348	16,254	22,560	28,171	35,213
C	KAUFMAN	667	Crandall	11,930	29,643	44,832	62,732	79,364	95,162	163	4.82	5.3	5.3	5.3	5.3	5.3	2,114	5,236	7,919	11,081	14,019	16,810
C	TARRANT	679	Crowley	22,194	26,367	29,831	32,630	35,703	39,078	133	4.2	4.73	4.73	4.73	4.73	4.73	3,202	3,788	4,286	4,688	5,130	5,615
C	COLLIN	685	Culleoka WSC	53,833	69,190	73,381	79,476	80,531	80,531	98	4.31	4.72	4.72	4.72	4.72	4.72	5,650	7,229	7,667	8,304	8,414	8,414
C	TARRANT	694	Dalworthington Gardens	2,303	2,326	2,343	2,344	2,348	2,352	354	4.75	5.36	5.36	5.36	5.36	5.36	901	908	915	915	917	919
C	NAVARRO	697	Dawson	825	834	842	839	837	835	150	4.75	5.27	5.27	5.27	5.27	5.27	134	135	137	136	136	135
C	WISE	704	Decatur	11,325	14,187	18,583	22,896	27,000	31,300	244	4.98	5.53	5.53	5.53	5.53	5.53	3,032	3,790	4,964	6,116	7,212	8,361
C	GRAYSON	706	Denison	47,898	65,635	74,097	85,971	95,278	103,443	237	4.9	5.45	5.45	5.45	5.45	5.45	12,453	17,024	19,219	22,298	24,712	26,830
C	DENTON	707	Denton County FWSD 1-A	23,065	30,253	32,903	34,598	35,057	35,057	155	4.05	4.57	4.57	4.57	4.57	4.57	3,900	5,098	5,544	5,830	5,907	5,907
C	DALLAS	724	Duncanville	43,672	45,939	47,157	47,307	47,307	47,307	128	4.6	5.2	5.2	5.2	5.2	5.2	6,037	6,319	6,487	6,507	6,507	6,507
C	COLLIN	730	East Fork SUD	15,038	19,763	25,973	34,134	44,859	58,954	110	3.87	4.39	4.39	4.39	4.39	4.39	1,788	2,338	3,073	4,038	5,307	6,974
C	DALLAS	730	East Fork SUD	3,951	5,192	6,823	8,967	11,784	15,487	110	3.87	4.39	4.39	4.39	4.39	4.39	470	614	807	1,061	1,394	1,832
C	ROCKWALL	730	East Fork SUD	2,363	3,106	4,082	5,365	7,051	9,267	110	3.87	4.39	4.39	4.39	4.39	4.39	281	367	483	635	834	1,096
C	TARRANT	763	Euless	60,820	60,820	60,820	60,820	60,820	60,820	149	4.56	5.14	5.14	5.14	5.14	5.14	9,840	9,801	9,801	9,801	9,801	9,801
C	HENDERSON	6271	Dogwood Estates Water	1,179	1,154	1,226	1,239	1,253	1,267	137	4.56	5.11	5.11	5.11	5.11	5.11	175	170	181	183	185	187
C	TARRANT	765	Everman	6,600	6,600	6,600	6,600	6,600	6,600	78	4.42	4.92	4.92	4.92	4.92	4.92	544	540	540	540	540	540
C	FREESTONE	767	Fairfield	4,932	4,782	4,639	4,338	4,039	3,742	187	4.64	5.26	5.26	5.26	5.26	5.26	1,007	973	944	883	822	762
C	COLLIN	769	Fairview	13,152	16,629	20,418	20,418	20,418	20,418	320	4.63	5.22	5.22	5.22	5.22	5.22	4,646	5,863	7,199	7,199	7,199	7,199
C	DALLAS	773	Farmers Branch	36,454	39,795	41,570	42,609	43,754	45,014	265	5.37	6.21	6.21	6.21	6.21	6.21	10,602	11,536	12,050	12,352	12,683	13,049
C	COLLIN	774	Farmersville	15,580	44,929	80,188	86,847	88,000	88,000	108	4.78	5.35	5.35	5.35	5.35	5.35	1,801	5,166	9,220	9,986	10,118	10,118
C	ELLIS	778	Ferris	2,455	2,602	2,761	2,907	3,072	3,256	177	4.72	5.27	5.27	5.27	5.27	5.27	474	501	531	559	591	626
C	ELLIS	779	Files Valley WSC	848	1,024	1,214	1,406	1,617	1,850	138	3.97	4.52	4.52	4.52	4.52	4.52	127	153	182	210	242	277
C	FREESTONE	782	Flo Community WSC	150	150	150	150	150	150	114	4.65	5.2	5.2	5.2	5.2	5.2	18	18	18	18	18	18
C	DENTON	785	Flower Mound	94,783	118,816	144,099	144,099	144,099	144,099	226	4.42	4.87	4.87	4.87	4.87	4.87	23,525	29,430	35,693	35,693	35,693	35,693
C	TARRANT	785	Flower Mound	926	1,113	1,367	1,437	1,456	1,456	226	4.42	4.87	4.87	4.87	4.87	4.87	230	276	338	356	361	361
C	TARRANT	787	Forest Hill	15,535	17,189	18,556	19,624	20,798	22,093	96	4.33	4.84	4.84	4.84	4.84	4.84	1,595	1,755	1,895	2,004	2,124	2,256
C	KAUFMAN	788	Forney Lake WSC	19,653	22,100	23,000	25,000	25,500	26,000	146	3.74	4.15	4.15	4.15	4.15	4.15	3,132	3,512	3,655	3,972	4,052	4,131
C	COLLIN	819	Frisco	181,619	205,950	222,104	222,104	222,104	222,104	217	4.17	4.71	4.71	4.71	4.71	4.71	43,298	48,974	52,815	52,815	52,815	52,815
C	DENTON	819	Frisco	137,012	155,366	167,552	167,552	167,552	167,552	217	4.17	4.71	4.71	4.71	4.71	4.71	32,664	36,945	39,843	39,843	39,843	39,843
C	KAUFMAN	831	Gastonia Scurry SUD	12,512	14,583	19,563	33,262	52,565	65,808	103	1	1	1	1	1	1	1,430	1,666	2,235	3,800	6,006	7,519

	WUG Info										Revisions by RWPG						ojected Demand by Decade = (Population projection * (Baseline GPCD - PC Savings projection) * 365)/325					
Split Region	County	EntityId	EntityName	2030 Pop	2040 Pop	2050 Pop	2060 Pop	2070 Pop	2080 Pop	Baseline GPCD	PCSavings 2030	PCSavings 2040	PCSavings 2050	PCSavings 2060	PCSavings 2070	PCSavings 2080	2030 Demand	2040 Demand	2050 Demand	2060 Demand	2070 Demand	2080 Demand
C	DALLAS	841	Glenn Heights	13,834	15,160	15,864	16,278	16,732	17,233	100	4.12	4.59	4.59	4.59	4.59	4.59	1,486	1,620	1,695	1,740	1,788	1,842
C	ELLIS	841	Glenn Heights	8,344	10,749	13,364	16,019	18,936	22,144	100	4.12	4.59	4.59	4.59	4.59	4.59	896	1,149	1,428	1,712	2,024	2,367
C	DALLAS	853	Grand Prairie	144,673	166,804	189,267	199,014	201,657	201,657	145	4.58	5.31	5.31	5.31	5.31	5.31	22,756	26,100	29,615	31,140	31,554	31,554
C	TARRANT	853	Grand Prairie	76,386	83,778	92,677	97,450	98,744	98,744	145	4.58	5.31	5.31	5.31	5.31	5.31	12,015	13,109	14,501	15,248	15,451	15,451
C	TARRANT	859	Grapevine	54,037	54,037	54,037	54,037	54,037	54,037	315	5.35	6.21	6.21	6.21	6.21	6.21	18,743	18,691	18,691	18,691	18,691	18,691
C	GRAYSON	870	Gunter	1,940	2,258	2,523	2,782	3,064	3,371	145	4.57	5.06	5.06	5.06	5.06	5.06	305	354	395	436	480	528
C	DENTON	873	Hackberry	2,309	2,840	3,682	4,642	5,612	6,173	217	3.46	3.86	3.86	3.86	3.86	3.86	552	678	879	1,108	1,340	1,474
C	TARRANT	878	Haltom City	50,000	50,000	50,000	50,000	50,000	50,000	100	4.74	5.31	5.31	5.31	5.31	5.31	5,335	5,303	5,303	5,303	5,303	5,303
C	TARRANT	920	Haslet	7,318	10,997	13,140	13,817	14,000	14,000	357	5.6	6.9	6.9	6.9	6.9	6.9	2,880	4,313	5,153	5,418	5,490	5,490
C	KAUFMAN	925	Heath	193	254	364	388	388	388	292	4.22	4.73	4.73	4.73	4.73	4.73	62	82	117	125	125	125
C	ROCKWALL	925	Heath	11,635	14,486	19,686	20,975	20,975	20,975	292	4.22	4.73	4.73	4.73	4.73	4.73	3,751	4,661	6,335	6,749	6,749	6,749
C	COLLIN	938	Hickory Creek SUD	99	128	161	194	230	271	94	4.47	4.96	4.96	4.96	4.96	4.96	10	13	16	19	23	27
C	FANNIN	938	Hickory Creek SUD	274	252	245	232	217	202	94	4.47	4.96	4.96	4.96	4.96	4.96	27	25	24	23	22	20
C	KAUFMAN	942	High Point WSC	5,294	6,239	8,158	12,734	16,530	18,857	82	3.67	4.02	4.02	4.02	4.02	4.02	465	545	713	1,112	1,444	1,647
C	ROCKWALL	942	High Point WSC	504	557	691	1,025	1,286	1,433	82	3.67	4.02	4.02	4.02	4.02	4.02	44	49	60	90	112	125
C	DALLAS	943	Highland Park	9,311	9,311	9,311	9,311	9,311	9,311	402	4.68	5.19	5.19	5.19	5.19	5.19	4,144	4,139	4,139	4,139	4,139	4,139
C	DENTON	944	Highland Village	16,656	17,822	18,020	18,020	18,020	18,020	201	4.46	4.95	4.95	4.95	4.95	4.95	3,667	3,914	3,957	3,957	3,957	3,957
C	FANNIN	957	Honey Grove	1,782	1,828	1,828	1,828	1,828	1,828	144	4.83	5.35	5.35	5.35	5.35	5.35	278	284	284	284	284	284
C	GRAYSON	960	Howe	4,785	5,735	6,531	7,320	8,178	9,111	86	4.25	4.7	4.7	4.7	4.7	4.7	438	522	595	667	745	830
C	PARKER	963	Hudson Oaks	5,500	5,285	5,537	6,020	6,300	6,500	308	4.21	4.79	4.79	4.79	4.79	4.79	1,872	1,795	1,881	2,045	2,140	2,208
C	TARRANT	969	Hurst	39,737	38,067	38,531	40,515	41,053	41,053	153	4.79	5.42	5.42	5.42	5.42	5.42	6,597	6,293	6,370	6,698	6,787	6,787
C	DALLAS	970	Hutchins	8,346	9,300	9,808	10,107	10,436	10,799	202	5.11	6.47	6.47	6.47	6.47	6.47	1,841	2,037	2,148	2,214	2,286	2,365
C	DALLAS	1219	Irving	286,398	301,541	301,541	301,541	301,541	301,541	193	4.81	5.52	5.52	5.52	5.52	5.52	60,373	63,325	63,325	63,325	63,325	63,325
C	ELLIS	1220	Italy	1,939	1,942	1,944	1,933	1,923	1,915	119	4.47	4.94	4.94	4.94	4.94	4.94	249	248	248	247	246	245
C	JACK	1223	Jacksboro	3,664	3,614	3,768	4,081	4,259	4,387	195	5.1	5.64	5.64	5.64	5.64	5.64	779	767	799	866	903	931
C	TARRANT	1237	Johnson County SUD	2,863	3,436	3,688	4,277	4,679	5,024	116	4.23	4.73	4.73	4.73	4.73	4.73	358	428	460	533	583	626
C	COLLIN	1242	Josephine	5,433	14,392	19,385	20,995	21,274	21,274	192	3.76	4.14	4.14	4.14	4.14	4.14	1,146	3,029	4,079	4,418	4,477	4,477
C	DENTON	1246	Justin	13,067	20,029	27,875	37,115	37,608	37,608	134	4.34	4.84	4.84	4.84	4.84	4.84	1,898	2,898	4,033	5,370	5,441	5,441
C	KAUFMAN	1249	Kaufman	7,626	8,606	11,929	15,806	18,682	21,791	151	4.47	4.93	4.93	4.93	4.93	4.93	1,252	1,408	1,952	2,586	3,057	3,565
C	TARRANT	1251	Keller	51,130	51,974	51,974	51,974	51,974	51,974	229	4.41	4.97	4.97	4.97	4.97	4.97	12,863	13,043	13,043	13,043	13,043	13,043
C	KAUFMAN	1253	Kemp	1,611	1,671	1,745	1,813	1,894	1,987	160	4.44	4.96	4.96	4.96	4.96	4.96	281	290	303	315	329	345
C	TARRANT	1258	Kennedale	10,473	14,153	18,495	23,833	28,592	33,035	159	4.69	5.23	5.23	5.23	5.23	5.23	1,810	2,438	3,186	4,105	4,925	5,690
C	NAVARRO	1259	Kerens	1,469	1,359	1,257	1,163	1,076	995	107	4.56	5.12	5.12	5.12	5.12	5.12	169	155	143	133	123	114
C	DENTON	1275	Krum	7,146	9,532	12,715	16,961	22,625	30,180	199	4.28	4.75	4.75	4.75	4.75	4.75	1,559	2,074	2,767	3,691	4,923	6,567
C	FANNIN	1288	Ladonia	792	1,062	1,505	2,221	2,500	2,500	140	4.99	5.47	5.47	5.47	5.47	5.47	120	160	227	335	377	377
C	TARRANT	1298	Lake Worth	5,767	6,115	6,465	7,087	7,474	7,767	197	5.22	5.98	5.98	5.98	5.98	5.98	1,239	1,308	1,383	1,516	1,599	1,662
C	TARRANT	1300	Lakeside	2,144	2,144	2,144	2,144	2,144	2,144	247	4.13	4.69	4.69	4.69	4.69	4.69	583	582	582	582	582	582
C	DALLAS	1305	Lancaster	44,667	47,419	48,875	49,713	50,637	51,653	153	4.55	5.27	5.27	5.27	5.27	5.27	7,427	7,847	8,088	8,226	8,379	8,547
C	FANNIN	1315	Leonard	2,904	3,245	3,754	4,441	5,000	6,000	127	4.7	5.21	5.21	5.21	5.21	5.21	398	443	512	606	682	819
C	DALLAS	1317	Lewisville	1,025	1,003	1,092	1,148	1,163	1,163	155	4.69	5.32	5.32	5.32	5.32	5.32	173	168	183	192	195	195
C	DENTON	1317	Lewisville	111,941	109,547	119,143	125,278	126,942	126,942	155	4.69	5.32	5.32	5.32	5.32	5.32	18,847	18,367	19,976	21,005	21,283	21,283
C	COOKE	1327	Lindsay	1,718	1,758	1,777	1,777	1,776	1,776	117	4.59	5.14	5.14	5.14	5.14	5.14	216	220	223	223	223	223
C	DENTON	1328	Little Elm	44,416	41,240	43,739	47,371	48,000	48,000	123	3.86	4.6	4.6	4.6	4.6	4.6	5,927	5,469	5,801	6,283	6,366	6,366
C	COLLIN	1605	Lucas	11,519	12,464	13,442	13,442	13,442	13,442	255	4.05	4.55	4.55	4.55	4.55	4.55	3,238	3,497	3,771	3,771	3,771	3,771
C	HENDERSON	45	East Cedar Creek FWSD	23,723	26,772	32,252	40,542	49,109	58,704	135	1	1	1	1	1	1	3,561	4,018	4,841	6,085	7,371	8,811
C	KAUFMAN	1613	Mabank	6,335	6,398	6,461	6,467	6,498	6,549	178	4.07	4.72	4.72	4.72	4.72	4.72	1,234	1,242	1,254	1,255	1,261	1,271
C	KAUFMAN	1614	Macbee SUD	276	336	412	498	592	696	60	0	0	0	0	0	0	19	23	28	33	40	47
C	HENDERSON	764	Eustace	3,105	3,399	3,333	3,441	3,562	3,696	97	4.31	4.74	4.74	4.74	4.74	4.74	322	351	344	356	368	382
C	COLLIN	1817	McKinney	227,593	269,464	344,909	433,869	433,869	433,869	196	4.33	4.88	4.88	4.88	4.88	4.88	48,864	57,687	73,839	92,883	92,883	92,883
C	COLLIN	1824	Melissa	46,809	72,926	91,455	113,564	119,072	119,072	197	3.45	3.86	3.86	3.86	3.86	3.86	10,148	15,777	19,786	24,569	25,761	25,761
C	DALLAS	1832	Mesquite	161,837	161,878	184,951	219,322	243,324	266,415	134	4.63	5.28	5.28	5.28	5.28	5.28	23,452	23,340	26,667	31,623	35,084	38,413
C	PARKER	1843	Mineral Wells	1,742	1,762	1,877	2,072	2,100	2,100	146	4.83	5.42	5.42	5.42	5.42	5.42	276	277	296	326	331	331
C	ELLIS	2090	Mountain Peak SUD	21,088	28,150	35,829	43,651	52,242	61,684	281	3.99	4.46	4.46	4.46	4.46	4.46	6,543	8,720	11,099	13,522	16,183	19,108
C	COOKE	2092	Muenster	2,139	2,139	2,139	2,139	2,139	2,139	154	4.98	5.64	5.64	5.64	5.64	5.64	357	355	355	355	355	355
C	COLLIN	2096	Murphy	20,818	20,696	23,500	27,251	29,564	31,653	206	4.16	4.96	4.96	4.96	4.96	4.96	4,707	4,661	5,292	6,137	6,658	7,128
C	NAVARRO	2103	Navarro Mills WSC	2,814	3,021	3,193	3,343	3,507	3,689	96	4.5	5	5	5	5	5	288	308	325	341	357	376
C	COLLIN	2107	Nevada SUD	5,774	7,423	10,935	24,059	39,638	53,270	90	4.14	4.57	4.57	4.57	4.57	4.57	555	710	1,046	2,302	3,793	5,098
C	ROCKWALL	2107	Nevada SUD	241	310	455	1,003	1,652	2,220	90	4.14	4.57	4.57	4.57	4.57	4.57	23	30	44	96	158	212
C	WISE	2118	Newark	2,226	3,060	4,224	6,119	8,300	10,600	99	4.37	4.77	4.77	4.77	4.77	4.77	236	323	446	646	876	1,119
C	COLLIN	2133	North Collin SUD	7,544	8,523	10,409	12,496	14,565	16,977	132	4.17	4.64	4.64	4.64	4.64	4.64	1,080	1,216	1,485	1,783	2,078	2,422
C	DENTON	2140	Northlake	28,941	32,139	36,998	43,601	48,940	53,700	182	4.5	5.03	5.03	5.03	5.03	5.03	5,754	6,371	7,334	8,643	9,701	10,645
C	DALLAS	2165	Ovilla	464	504	547	594	645	701	214	4.13	4.49	4.49	4.49	4.49	4.49	109	118	128	139	151	165
C	ELLIS	2165	Ovilla	4,974	6,323	7,790	9,277	10,911	12,710	214	4.13	4.49	4.49	4.49	4.49	4.49	1,169	1,484	1,828	2,177	2,561	2,983
C	ELLIS	2172	Palmer	2,543	3,053	3,606	4,162	4,775	5,449	101	4.27	4.72	4.72	4.72	4.72	4.72	276	329	389	449	515	588
C	TARRANT	2178	Pantego	2,653	2,653	2,653	2,653	2,653	2,653	232	5.43	6.26	6.26	6.26	6.26	6.26	673	671	671	671	671	671
C	COLLIN	2179	Parker	6,878	8,782	12,121	14,089	14,089	14,089	382	3.96	4.49	4.49	4.49	4.49	4.49	2,913	3,714	5,126	5,958	5,958	5,958

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Split Region	County	EntityId	EntityName	2030 Pop	2040 Pop	2050 Pop	2060 Pop	2070 Pop	2080 Pop	Baseline GPCD	PCSavings 2030	PCSavings 2040	PCSavings 2050	PCSavings 2060	PCSavings 2070	PCSavings 2080	2030 Demand	2040 Demand	2050 Demand	2060 Demand	2070 Demand	2080 Demand
C	TARRANT	2190	Pelican Bay	2,958	3,967	5,320	7,134	9,567	12,830	60	0	0	0	0	0	0	199	267	358	479	643	862
C	DENTON	2198	Pilot Point	6,236	8,076	14,535	21,173	21,454	21,454	123	4.46	4.85	4.85	4.85	4.85	4.85	828	1,069	1,924	2,802	2,839	2,839
C	GRAYSON	2198	Pilot Point	127	165	313	432	438	438	123	4.46	4.85	4.85	4.85	4.85	4.85	17	22	41	57	58	58
C	COLLIN	2208	Plano	277,913	279,472	307,762	316,996	316,996	316,996	231	4.82	5.39	5.39	5.39	5.39	5.39	70,410	70,627	77,776	80,110	80,110	80,110
C	DENTON	2208	Plano	8,319	8,643	9,518	9,804	9,804	9,804	231	4.82	5.39	5.39	5.39	5.39	5.39	2,108	2,184	2,405	2,478	2,478	2,478
C	DENTON	2219	Ponder	4,798	6,403	8,093	9,811	11,703	13,786	133	4.15	4.63	4.63	4.63	4.63	4.63	692	921	1,164	1,411	1,683	1,982
C	GRAYSON	2231	Pottsboro	3,613	3,938	4,210	4,450	4,715	5,007	152	4.67	5.22	5.22	5.22	5.22	5.22	596	647	692	732	775	823
C	COLLIN	2236	Princeton	52,438	126,792	155,843	168,786	171,027	171,027	97	3.82	4.25	4.25	4.25	4.25	4.25	5,473	13,173	16,191	17,536	17,769	17,769
C	COLLIN	2239	Prosper	38,861	46,926	56,128	59,018	59,802	59,802	235	3.58	4.06	4.06	4.06	4.06	4.06	10,074	12,139	14,519	15,267	15,470	15,470
C	DENTON	2239	Prosper	16,654	20,111	24,055	25,294	25,630	25,630	235	3.58	4.06	4.06	4.06	4.06	4.06	4,317	5,202	6,223	6,543	6,630	6,630
C	ELLIS	2255	Red Oak	12,039	15,009	18,237	21,502	25,093	29,044	134	4.01	4.5	4.5	4.5	4.5	4.5	1,753	2,177	2,645	3,119	3,640	4,213
C	WISE	2260	Rhome	3,194	4,451	6,194	8,882	12,000	16,000	155	5	5.58	5.58	5.58	5.58	5.58	537	745	1,037	1,487	2,008	2,678
C	ELLIS	2263	Rice Water Supply and Sewer Service	5,565	6,678	7,888	9,106	10,446	11,922	108	4.23	4.71	4.71	4.71	4.71	4.71	647	773	913	1,054	1,209	1,379
C	NAVARRO	2263	Rice Water Supply and Sewer Service	3,953	4,697	5,581	6,632	7,881	9,365	108	4.23	4.71	4.71	4.71	4.71	4.71	459	543	646	767	912	1,084
C	COLLIN	2264	Richardson	64,326	63,793	72,087	74,250	74,250	74,250	225	4.82	5.44	5.44	5.44	5.44	5.44	15,865	15,689	17,729	18,261	18,261	18,261
C	DALLAS	2264	Richardson	54,374	56,289	58,980	60,750	60,750	60,750	225	4.82	5.44	5.44	5.44	5.44	5.44	13,410	13,844	14,505	14,941	14,941	14,941
C	TARRANT	2265	Richland Hills	9,616	10,622	11,452	12,911	14,217	15,655	123	4.81	5.37	5.37	5.37	5.37	5.37	1,273	1,400	1,509	1,701	1,873	2,063
C	TARRANT	2277	River Oaks	7,900	7,613	7,706	8,102	8,210	8,210	102	4.55	5.09	5.09	5.09	5.09	5.09	862	826	836	880	891	891
C	DENTON	2281	Roanoke	14,058	13,468	13,632	14,334	14,524	14,524	254	4.36	4.95	4.95	4.95	4.95	4.95	3,931	3,757	3,803	3,999	4,052	4,052
C	DALLAS	2302	Rowlett	66,070	69,067	80,443	87,123	88,280	88,280	137	4.59	5.19	5.19	5.19	5.19	5.19	9,799	10,197	11,877	12,863	13,034	13,034
C	ROCKWALL	2302	Rowlett	12,584	13,155	15,322	16,595	16,815	16,815	137	4.59	5.19	5.19	5.19	5.19	5.19	1,866	1,942	2,262	2,450	2,483	2,483
C	COLLIN	2304	Royse City	9,762	20,430	25,284	27,383	27,747	27,747	138	4.29	4.85	4.85	4.85	4.85	4.85	1,462	3,047	3,771	4,084	4,138	4,138
C	ROCKWALL	2304	Royse City	16,127	33,754	41,773	45,242	45,843	45,843	138	4.29	4.85	4.85	4.85	4.85	4.85	2,415	5,034	6,230	6,748	6,837	6,837
C	WISE	2306	Runaway Bay	1,878	2,304	2,826	3,467	4,253	5,217	326	4.56	4.96	4.96	4.96	4.96	4.96	676	829	1,016	1,247	1,529	1,876
C	COLLIN	2311	Sachse	9,745	9,832	11,566	12,526	12,692	12,692	163	4.15	4.81	4.81	4.81	4.81	4.81	1,734	1,742	2,049	2,219	2,249	2,249
C	DALLAS	2311	Sachse	19,151	19,960	23,482	25,432	25,770	25,770	163	4.15	4.81	4.81	4.81	4.81	4.81	3,408	3,537	4,161	4,506	4,566	4,566
C	TARRANT	2312	Saginaw	29,126	31,274	31,655	33,285	33,727	33,727	123	4.4	5.06	5.06	5.06	5.06	5.06	3,869	4,132	4,182	4,397	4,456	4,456
C	DENTON	2328	Sanger	11,153	14,002	17,000	22,119	27,933	35,269	125	4.53	5.03	5.03	5.03	5.03	5.03	1,505	1,882	2,285	2,972	3,754	4,740
C	ELLIS	2334	Sardis Lone Elm WSC	20,865	25,783	31,135	32,524	32,524	32,524	241	4.2	4.67	4.67	4.67	4.67	4.67	5,534	6,825	8,242	8,610	8,610	8,610
C	GRAYSON	2355	Sherman	46,811	50,903	54,318	57,317	60,622	64,264	220	5	5.59	5.59	5.59	5.59	5.59	11,274	12,225	13,046	13,766	14,560	15,434
C	COLLIN	2376	South Grayson SUD	1,269	1,671	2,128	2,586	3,092	3,649	110	4.01	4.54	4.54	4.54	4.54	4.54	151	197	251	305	365	431
C	GRAYSON	2376	South Grayson SUD	4,034	4,496	4,882	5,240	5,631	6,061	110	4.01	4.54	4.54	4.54	4.54	4.54	479	531	577	619	665	716
C	DENTON	2383	Southlake	680	612	551	507	440	367	370	4.39	5.01	5.01	5.01	5.01	5.01	279	250	225	207	180	150
C	TARRANT	2383	Southlake	34,205	37,267	39,874	44,191	47,071	49,365	370	4.39	5.01	5.01	5.01	5.01	5.01	14,008	15,236	16,302	18,067	19,245	20,182
C	GRAYSON	2384	Southmayd	964	992	1,015	1,026	1,039	1,055	101	5.22	5.86	5.86	5.86	5.86	5.86	103	106	108	109	111	112
C	FANNIN	2386	Southwest Fannin County SUD	6,879	7,606	7,967	8,289	8,643	9,030	91	4.21	4.75	4.75	4.75	4.75	4.75	669	735	770	801	835	872
C	GRAYSON	2386	Southwest Fannin County SUD	1,534	1,673	1,788	1,891	2,003	2,127	91	4.21	4.75	4.75	4.75	4.75	4.75	149	162	173	183	194	205
C	PARKER	2393	Springtown	5,662	7,975	10,653	13,915	16,850	19,600	199	4.81	5.3	5.3	5.3	5.3	5.3	1,232	1,730	2,311	3,019	3,656	4,253
C	DALLAS	2498	Sunnyvale	9,064	10,590	13,067	14,152	14,340	14,340	301	4.49	5.29	5.29	5.29	5.29	5.29	3,010	3,508	4,328	4,688	4,750	4,750
C	FREESTONE	2512	Teague	3,437	3,142	2,738	2,646	2,545	2,435	154	4.58	5.1	5.1	5.1	5.1	5.1	575	524	457	441	424	406
C	DENTON	2518	The Colony	51,496	60,502	67,600	67,600	67,600	67,600	137	4.59	5.1	5.1	5.1	5.1	5.1	7,638	8,939	9,988	9,988	9,988	9,988
C	GRAYSON	2528	Tioga	1,773	2,106	2,386	2,662	2,961	3,288	123	4.32	4.77	4.77	4.77	4.77	4.77	236	279	316	353	392	435
C	GRAYSON	2530	Tom Bean	1,113	1,113	1,113	1,113	1,113	1,113	169	4.76	5.32	5.32	5.32	5.32	5.32	205	204	204	204	204	204
C	FANNIN	2539	Trenton	798	857	889	913	940	970	166	5.03	5.57	5.57	5.57	5.57	5.57	144	154	160	164	169	174
C	HENDERSON	10095	Log Cabin	671	671	702	712	723	735	157	4.94	5.41	5.41	5.41	5.41	5.41	114	114	119	121	123	125
C	DENTON	2546	Trophy Club MUD 1	13,252	13,252	13,252	13,252	13,252	13,252	341	3.76	4.29	4.29	4.29	4.29	4.29	5,006	4,998	4,998	4,998	4,998	4,998
C	TARRANT	2546	Trophy Club MUD 1	995	1,282	1,521	1,717	1,933	2,169	341	3.76	4.29	4.29	4.29	4.29	4.29	376	484	574	648	729	818
C	COOKE	2552	Two Way SUD	45	45	51	53	54	55	121	4.57	5.1	5.1	5.1	5.1	5.1	6	6	7	7	7	7
C	GRAYSON	2552	Two Way SUD	6,161	6,528	7,698	8,558	9,187	9,756	121	4.57	5.1	5.1	5.1	5.1	5.1	803	847	999	1,111	1,193	1,267
C	DALLAS	2557	University Park	25,656	25,656	25,656	25,656	25,656	25,656	266	4.39	4.94	4.94	4.94	4.94	4.94	7,518	7,502	7,502	7,502	7,502	7,502
C	GRAYSON	2562	Van Alstyne	13,164	29,302	42,704	50,529	59,800	70,300	172	4.45	4.96	4.96	4.96	4.96	4.96	2,471	5,483	7,990	9,454	11,189	13,154
C	HENDERSON	1613	Mabank	3,474	3,826	3,737	3,863	4,004	4,161	178	4.07	4.72	4.72	4.72	4.72	4.72	677	743	725	750	777	808
C	TARRANT	2580	Watauga	24,525	24,525	24,525	24,525	24,525	24,525	104	4.61	5.12	5.12	5.12	5.12	5.12	2,730	2,716	2,716	2,716	2,716	2,716
C	TARRANT	2607	Westover Hills	660	632	640	673	682	682	1218	4.66	5.16	5.16	5.16	5.16	5.16	897	859	870	914	927	927
C	TARRANT	2608	Westworth Village	3,123	3,045	3,230	3,551	3,755	3,912	131	4.83	5.38	5.38	5.38	5.38	5.38	441	428	454	500	528	550
C	TARRANT	2615	White Settlement	20,351	22,469	24,218	25,582	27,083	28,738	110	4.72	5.27	5.27	5.27	5.27	5.27	2,400	2,636	2,841	3,001	3,177	3,371
C	GRAYSON	2617	Whitesboro	4,847	5,280	5,642	5,960	6,311	6,699	110	4.86	5.37	5.37	5.37	5.37	5.37	571	619	661	699	740	785
C	FANNIN	2618	Whitewright	78	98	107	117	127	139	165	4.73	5.27	5.27	5.27	5.27	5.27	14	18	19	21	23	25
C	GRAYSON	2618	Whitewright	2,220	2,421	2,588	2,737	2,899	3,079	165	4.73	5.27	5.27	5.27	5.27	5.27	399	433	463	490	519	551
C	PARKER	2624	Willow Park	10,647	11,496	12,948	14,996	16,593	17,991	140	4.32	4.84	4.84	4.84	4.84	4.84	1,618	1,741	1,960	2,270	2,512	2,724
C	DALLAS	2627	Wilmer	5,902	6,672	7,081	7,324	7,591	7,885	128	4.84	5.79	5.79	5.79	5.79	5.79	814	913	969	1,003	1,039	1,079
C	FANNIN	2638	Wolfe City	49	38	30	24	19	15	91	4.7	5.22	5.22	5.22	5.22	5.22	5	4	3	2	2	1
C	COOKE	2640	Woodbine WSC	6,857	7,116	7,230	7,260	7,292	7,328	96	4.53	5.04	5.04	5.04	5.04	5.04	703	725	737	740	743	747

	WUG Info									Revisions by RWPG							ojected Demand by Decade = (Population projection * (Baseline GPCD - PC Savings projection) * 365)/325					
Split Region	County	EntityId	EntityName	2030 Pop	2040 Pop	2050 Pop	2060 Pop	2070 Pop	2080 Pop	Baseline GPCD	PCSavings 2030	PCSavings 2040	PCSavings 2050	PCSavings 2060	PCSavings 2070	PCSavings 2080	2030 Demand	2040 Demand	2050 Demand	2060 Demand	2070 Demand	2080 Demand
C	GRAYSON	2640	Woodbine WSC	87	96	103	110	117	125	96	4.53	5.04	5.04	5.04	5.04	5.04	9	10	10	11	12	13
C	FREESTONE	2649	Wortham	925	841	724	700	673	644	128	4.79	5.3	5.3	5.3	5.3	5.3	128	116	100	96	92	89
C	COLLIN	2650	Wylie	47,379	46,874	49,115	50,589	50,589	50,589	135	4.32	4.91	4.91	4.91	4.91	4.91	6,935	6,830	7,157	7,372	7,372	7,372
C	PARKER	2657	Reno (Parker)	4,194	5,107	6,138	7,226	8,424	9,741	60	0	0	0	0	0	0	282	343	413	486	566	655
C	TARRANT	2657	Reno (Parker)	79	88	95	101	106	113	60	0	0	0	0	0	0	5	6	6	7	7	8
C	ROCKWALL	2679	Fate	25,597	36,969	50,748	65,318	81,326	98,927	158	3.64	4.04	4.04	4.04	4.04	4.04	4,426	6,376	8,752	11,265	14,025	17,061
C	DALLAS	2774	Desoto	59,901	63,934	66,069	67,304	68,664	70,162	155	4.58	5.18	5.18	5.18	5.18	5.18	10,093	10,729	11,088	11,295	11,523	11,775
C	TARRANT	2775	Edgecliff	3,761	3,761	3,761	3,761	3,761	3,761	155	4.07	4.59	4.59	4.59	4.59	4.59	636	634	634	634	634	634
C	TARRANT	2779	Sansom Park	6,087	6,736	7,272	7,690	8,152	8,659	99	4.31	4.8	4.8	4.8	4.8	4.8	646	711	767	811	860	914
C	COOKE	2975	Lake Kiowa SUD	2,346	2,477	2,532	2,555	2,581	2,609	363	4.64	5.13	5.13	5.13	5.13	5.13	942	993	1,015	1,024	1,035	1,046
C	COLLIN	2976	Bear Creek SUD	29,068	57,531	58,231	61,230	62,043	62,043	107	3.93	4.41	4.41	4.41	4.41	4.41	3,356	6,611	6,692	7,036	7,130	7,130
C	ROCKWALL	2976	Bear Creek SUD	2,215	4,134	4,184	4,400	4,458	4,458	107	3.93	4.41	4.41	4.41	4.41	4.41	256	475	481	506	512	512
C	GRAYSON	2977	Luella SUD	2,717	2,717	2,717	2,717	2,717	2,717	95	4.58	5.11	5.11	5.11	5.11	5.11	275	274	274	274	274	274
C	NAVARRO	2978	M E N WSC	3,732	4,307	4,782	5,255	5,771	6,334	127	4.45	4.96	4.96	4.96	4.96	4.96	512	589	654	718	789	866
C	ROCKWALL	2979	Mount Zion WSC	2,934	3,324	4,246	5,517	6,542	6,542	178	4.82	5.53	5.53	5.53	5.53	5.53	569	642	820	1,066	1,264	1,264
C	FANNIN	2980	North Hunt SUD	107	112	116	117	119	122	60	0	0	0	0	0	0	7	8	8	8	8	8
C	WISE	2993	West Wise SUD	4,047	4,438	4,789	5,056	5,349	5,672	111	4.9	5.47	5.47	5.47	5.47	5.47	481	525	566	598	632	670
C	COLLIN	3002	Copeville SUD	16,775	29,835	39,409	41,439	41,989	41,989	112	4.13	4.54	4.54	4.54	4.54	4.54	2,027	3,591	4,744	4,988	5,054	5,054
C	NAVARRO	3003	Corbet WSC	2,465	2,647	2,797	2,928	3,072	3,232	81	4.54	5.02	5.02	5.02	5.02	5.02	211	225	238	249	261	275
C	GRAYSON	3018	Kentuckytown WSC	2,863	3,139	3,368	3,574	3,801	4,050	112	4.52	5.01	5.01	5.01	5.01	5.01	345	376	404	428	456	485
C	COOKE	3027	Mountain Springs WSC	1,933	1,942	1,952	1,940	1,927	1,913	151	4.62	5.18	5.18	5.18	5.18	5.18	317	317	319	317	315	312
C	DENTON	3027	Mountain Springs WSC	68	86	103	122	142	164	151	4.62	5.18	5.18	5.18	5.18	5.18	11	14	17	20	23	27
C	PARKER	3032	Parker County SUD	9,100	12,400	16,800	22,501	30,900	41,800	96	4.03	4.49	4.49	4.49	4.49	4.49	937	1,271	1,722	2,306	3,167	4,285
C	KAUFMAN	3035	Rose Hill SUD	4,876	5,739	6,723	8,151	9,005	9,948	78	4.32	4.82	4.82	4.82	4.82	4.82	402	470	551	668	738	815
C	KAUFMAN	3041	Talty SUD	12,151	13,567	20,000	28,710	39,600	46,568	147	4.03	4.5	4.5	4.5	4.5	4.5	1,946	2,166	3,192	4,583	6,321	7,433
C	DENTON	3055	Denton County FWSD 7	13,067	13,500	13,500	13,500	13,500	13,500	227	3.87	4.33	4.33	4.33	4.33	4.33	3,266	3,367	3,367	3,367	3,367	3,367
C	DENTON	3056	Providence Village WCID	7,235	7,235	7,235	7,235	7,235	7,235	116	3.85	4.5	4.5	4.5	4.5	4.5	909	904	904	904	904	904
C	DENTON	3057	Denton County FWSD 10	6,246	6,246	6,246	6,246	6,246	6,246	169	3.5	3.88	3.88	3.88	3.88	3.88	1,158	1,155	1,155	1,155	1,155	1,155
C	COLLIN	3058	Wylie Northeast SUD	16,928	21,271	24,614	26,299	26,648	26,648	108	4	4.61	4.61	4.61	4.61	4.61	1,972	2,463	2,851	3,046	3,086	3,086
C	COLLIN	3060	Seis Lagos UD	2,323	2,162	2,299	2,496	2,535	2,541	253	3.5	4.05	4.05	4.05	4.05	4.05	649	603	641	696	707	709
C	DENTON	3079	Paloma Creek North	5,853	5,853	5,853	5,853	5,853	5,853	186	3.29	3.95	3.95	3.95	3.95	3.95	1,198	1,194	1,194	1,194	1,194	1,194
C	ELLIS	3124	East Garrett WSC	1,806	2,295	2,825	3,363	3,954	4,605	148	4.2	4.58	4.58	4.58	4.58	4.58	291	369	454	540	635	740
C	FREESTONE	3133	Butler WSC	838	830	818	794	767	737	196	4.61	5.2	5.2	5.2	5.2	5.2	180	177	175	170	164	158
C	TARRANT	3142	Westlake	3,052	4,001	4,791	5,441	6,152	6,933	1033	3.58	4.14	4.14	4.14	4.14	4.14	3,519	4,611	5,521	6,271	7,090	7,990
C	FANNIN	6201	Arledge Ridge WSC	1,364	1,474	1,531	1,578	1,629	1,684	155	4.4	4.91	4.91	4.91	4.91	4.91	230	248	257	265	274	283
C	ELLIS	6203	Avalon Water Supply & Sewer Service	992	1,109	1,236	1,360	1,498	1,650	114	4.3	4.75	4.75	4.75	4.75	4.75	122	136	151	166	183	202
C	NAVARRO	6205	B and B WSC	1,871	2,060	2,217	2,364	2,525	2,701	151	4.42	4.96	4.96	4.96	4.96	4.96	307	337	363	387	413	442
C	HENDERSON	1619	Malakoff	2,904	3,245	3,567	3,948	4,200	4,400	105	5.16	5.73	5.73	5.73	5.73	5.73	325	361	397	439	467	489
C	KAUFMAN	6218	Becker Jiba WSC	4,487	7,769	10,057	10,948	14,800	17,113	83	4.39	4.86	4.86	4.86	4.86	4.86	395	680	880	958	1,295	1,498
C	DENTON	6223	Black Rock WSC	1,560	1,959	2,377	2,804	3,274	3,791	219	5.07	5.46	5.46	5.46	5.46	5.46	374	469	569	671	783	907
C	FANNIN	6227	Bois D Arc MUD	3,031	3,180	3,269	3,325	3,386	3,453	105	4.53	5.05	5.05	5.05	5.05	5.05	341	356	366	372	379	387
C	COOKE	6236	Callisburg WSC	1,614	1,686	1,717	1,728	1,740	1,752	82	4.12	4.72	4.72	4.72	4.72	4.72	141	146	149	150	151	152
C	HENDERSON	2542	Trinidad	1,134	1,152	1,191	1,213	1,236	1,261	130	4.49	5	5	5	5	5	159	161	167	170	173	177
C	FANNIN	6267	Delta County MUD	72	84	90	96	102	109	64	4	4	4	4	4	4	5	6	6	6	7	7
C	COLLIN	6268	Desert WSC	365	401	440	480	524	572	148	4.71	5.2	5.2	5.2	5.2	5.2	59	64	70	77	84	91
C	FANNIN	6268	Desert WSC	798	905	957	1,006	1,059	1,119	148	4.71	5.2	5.2	5.2	5.2	5.2	128	145	153	161	169	179
C	GRAYSON	6268	Desert WSC	701	765	818	864	915	972	148	4.71	5.2	5.2	5.2	5.2	5.2	113	122	131	138	146	155
C	HENDERSON	2571	Virginia Hill WSC	1,547	1,594	1,633	1,667	1,704	1,744	111	4.53	5.07	5.07	5.07	5.07	5.07	184	189	194	198	202	207
C	GRAYSON	6273	Dorchester	1,287	1,322	1,350	1,361	1,376	1,394	159	4.75	5.26	5.26	5.26	5.26	5.26	222	228	232	234	237	240
C	KAUFMAN	6283	Elmo WSC	2,332	2,733	3,243	3,810	4,440	5,137	77	4.23	4.67	4.67	4.67	4.67	4.67	190	221	263	309	360	416
C	COLLIN	6320	Frognot WSC	2,077	2,593	3,181	3,772	4,422	5,138	94	4.46	4.87	4.87	4.87	4.87	4.87	208	259	318	377	441	513
C	FANNIN	6320	Frognot WSC	30	42	48	53	60	67	94	4.46	4.87	4.87	4.87	4.87	4.87	3	4	5	5	6	7
C	ELLIS	6364	Hilco United Services	605	651	701	748	801	860	125	4.58	5.1	5.1	5.1	5.1	5.1	82	87	94	100	108	116
C	PARKER	6370	Horseshoe Bend Water System	1,309	1,430	1,823	2,510	3,334	4,367	127	4.64	5.03	5.03	5.03	5.03	5.03	179	195	249	343	456	597
C	KAUFMAN	6376	Kaufman County Development District 1	4,415	5,025	7,095	10,744	14,527	16,798	1292	3.8	4.33	4.33	4.33	4.33	4.33	6,370	7,248	10,233	15,497	20,953	24,229
C	KAUFMAN	6377	Kaufman County MUD 11	4,340	5,159	6,629	8,374	10,269	11,378	152	3.89	4.37	4.37	4.37	4.37	4.37	720	853	1,096	1,385	1,698	1,882
C	KAUFMAN	6410	Markout WSC	2,958	3,514	4,903	7,062	9,422	12,571	156	3.88	4.24	4.24	4.24	4.24	4.24	504	597	833	1,200	1,602	2,137
C	COLLIN	6423	Milligan WSC	3,359	3,474	4,106	4,954	5,593	6,231	108	4.92	5.64	5.64	5.64	5.64	5.64	388	398	471	568	641	714
C	COLLIN	6452	North Farmersville WSC	465	550	680	839	942	992	195	4.73	5.26	5.26	5.26	5.26	5.26	99	117	145	178	200	211
C	KAUFMAN	6455	North Kaufman WSC	3,448	4,535	5,920	7,495	9,231	11,141	62	2	2	2	2	2	2	232	305	398	504	620	749
C	PARKER	6458	North Rural WSC	1,391	1,684	2,015	2,364	2,747	3,170	88	4.53	5.02	5.02	5.02	5.02	5.02	130	157	187	220	255	295
C	GRAYSON	6461	Northwest Grayson County WCID 1	2,032	2,265	2,459	2,640	2,838	3,054	92	4.53	5.01	5.01	5.01	5.01	5.01	199	221	240	257	277	298
C	GRAYSON	6465	Oak Ridge South Gale WSC	2,811	2,875	2,927	2,942	2,962	2,988	79	3.99	4.66	4.66	4.66	4.66	4.66	236	239	244	245	247	249

			WUG Info					Revisions by RWPG											ojected Demand by Decade = (Population projection * (Baseline GPCD - PC Savings projection) * 365)/325					
Split Region	County	EntityId	EntityName	2030 Pop	2040 Pop	2050 Pop	2060 Pop	2070 Pop	2080 Pop	Baseline GPCD	PCSavings 2030	PCSavings 2040	PCSavings 2050	PCSavings 2060	PCSavings 2070	PCSavings 2080	2030 Demand	2040 Demand	2050 Demand	2060 Demand	2070 Demand	2080 Demand
C	GRAYSON	6486	Pink Hill WSC	2,210	2,449	2,648	2,832	3,033	3,253	104	4.49	5	5	5	5	5	246	272	294	314	336	361
C	FREESTONE	6487	Pleasant Grove WSC	1,323	1,430	1,574	1,530	1,482	1,429	90	4.66	5.23	5.23	5.23	5.23	5.23	126	136	149	145	141	136
C	NAVARRO	6487	Pleasant Grove WSC	122	130	137	144	151	159	90	4.66	5.23	5.23	5.23	5.23	5.23	12	12	13	14	14	15
C	KAUFMAN	6489	Poetry WSC	1,555	1,811	2,498	3,638	4,962	5,763	99	4.43	4.86	4.86	4.86	4.86	4.86	165	191	263	384	523	608
C	FREESTONE	6490	Point Enterprise WSC	842	834	823	823	823	823	128	4.6	5.18	5.18	5.18	5.18	5.18	116	115	113	113	113	113
C	NAVARRO	6493	Post Oak SUD	505	472	445	408	367	325	67	4.53	5.05	5.05	5.05	5.05	5.05	35	33	31	28	25	23
C	ROCKWALL	6502	R C H WSC	5,684	6,457	8,240	10,994	13,407	16,350	189	3.83	4.25	4.25	4.25	4.25	4.25	1,179	1,336	1,705	2,275	2,775	3,384
C	GRAYSON	6505	Red River Authority of Texas	1,052	1,265	1,443	1,621	1,814	2,024	220	4.85	5.46	5.46	5.46	5.46	5.46	254	304	347	390	436	486
C	PARKER	6514	Santo SUD	155	186	219	256	297	340	113	4.66	5.27	5.27	5.27	5.27	5.27	19	22	26	31	36	41
C	ELLIS	6533	South Ellis County WSC	1,458	1,750	2,067	2,386	2,737	3,124	336	4.22	4.75	4.75	4.75	4.75	4.75	542	649	767	885	1,016	1,159
C	NAVARRO	6533	South Ellis County WSC	68	83	94	106	118	132	336	4.22	4.75	4.75	4.75	4.75	4.75	25	31	35	39	44	49
C	FREESTONE	6534	South Freestone County WSC	2,598	2,720	2,880	2,799	2,708	2,608	90	4.07	4.81	4.81	4.81	4.81	4.81	250	260	275	267	258	249
C	GRAYSON	6547	Starr WSC	2,325	2,533	2,708	2,862	3,032	3,219	93	4.85	5.31	5.31	5.31	5.31	5.31	230	249	266	281	298	316
C	PARKER	6549	Sturdivant Progress WSC	23	21	19	16	13	10	83	4.41	4.89	4.89	4.89	4.89	4.89	2	2	2	1	1	1
C	COLLIN	6581	Verona SUD	3,345	4,217	5,210	6,206	7,303	8,512	122	4.12	4.56	4.56	4.56	4.56	4.56	442	555	685	816	961	1,120
C	COLLIN	6591	West Leonard WSC	337	422	518	614	720	837	120	4.24	4.64	4.64	4.64	4.64	4.64	44	55	67	79	93	108
C	FANNIN	6591	West Leonard WSC	1,914	2,301	2,478	2,661	2,862	3,082	120	4.24	4.64	4.64	4.64	4.64	4.64	248	297	320	344	370	398
C	COLLIN	6594	Westminster SUD	2,138	2,674	3,283	3,894	4,567	5,309	173	4.42	4.84	4.84	4.84	4.84	4.84	404	504	618	733	860	1,000
C	GRAYSON	6594	Westminster SUD	30	36	41	46	53	58	173	4.42	4.84	4.84	4.84	4.84	4.84	6	7	8	9	10	11
C	FANNIN	6600	White Shed WSC	2,344	2,460	2,528	2,571	2,618	2,670	98	4.77	5.25	5.25	5.25	5.25	5.25	245	256	263	267	272	277
C	DENTON	6618	Paloma Creek South	9,088	9,088	9,088	9,088	9,088	9,088	184	3.17	3.78	3.78	3.78	3.78	3.78	1,841	1,835	1,835	1,835	1,835	1,835
C	DALLAS	10082	AMC Creekside	544	673	742	782	828	879	60	0	0	0	0	0	0	37	45	50	53	56	59
C	DENTON	10082	AMC Creekside	2,140	2,686	3,261	3,846	4,490	5,199	60	0	0	0	0	0	0	144	181	219	258	302	349
C	TARRANT	10094	Blue Mound	2,690	2,976	3,213	3,398	3,602	3,826	69	4.42	4.94	4.94	4.94	4.94	4.94	195	214	231	244	258	275
C	HENDERSON	156	West Cedar Creek MUD	4,847	4,501	4,969	4,973	4,973	4,968	191	0	0	0	0	0	0	1,037	963	1,063	1,064	1,064	1,063
C	FANNIN	10096	Savoy	711	704	706	698	689	678	123	4.83	5.35	5.35	5.35	5.35	5.35	94	93	93	92	91	89
C	DENTON	10097	Denton County FWSD 11-C	5,406	8,467	11,690	14,965	18,573	22,547	60	0	0	0	0	0	0	363	569	786	1,006	1,248	1,515
C	KAUFMAN	10098	Kaufman County MUD 14	6,300	6,300	6,300	6,300	6,300	6,300	246	3.09	3.39	3.39	3.39	3.39	3.39	1,714	1,712	1,712	1,712	1,712	1,712
C	DALLAS	10099	Lancaster MUD 1	2,286	2,844	3,142	3,321	3,517	3,734	111	3.66	4.1	4.1	4.1	4.1	4.1	275	341	376	398	421	447
C	ELLIS	10100	Nash Forreston WSC	2,095	2,514	2,970	3,428	3,933	4,489	102	4.2	4.69	4.69	4.69	4.69	4.69	230	274	324	374	429	489
C	FREESTONE	10101	Southern Oaks Water Supply	675	856	1,099	1,073	1,043	1,009	165	4.37	4.86	4.86	4.86	4.86	4.86	121	154	197	192	187	181
C	NAVARRO	10101	Southern Oaks Water Supply	163	221	269	320	375	435	165	4.37	4.86	4.86	4.86	4.86	4.86	29	40	48	57	67	78
C	DENTON	10102	Terra Southwest	3,143	3,996	4,895	5,808	6,814	7,922	71	4.14	4.6	4.6	4.6	4.6	4.6	235	297	364	432	507	589

Agenda Item IV.B – Attachment

Hydrologic Variance Request Letter

REGION C WATER PLANNING GROUP

Senate Bill One Sixth Round of Regional Water Planning - Texas Water Development Board

August 2023

Jeff Walker
Texas Water Development Board
1700 North Congress
Austin, Texas 78711-3231

RE: Region C Request for Modifications to TCEQ Water Availability Models for Planning Purposes

Dear Mr. Walker:

Region C is located primarily within the Trinity and Red River Basins. Small areas of the region are in the Sabine, Sulphur and Brazos River Basins. Reservoirs in each of these river basins and the Neches River Basin supply water to Region C. As part of the 2026 planning efforts, the Full Authorization Water Availability Models (WAM[1]), also known as Run 3, for each of these basins will be updated to determine surface water availability in the region. To reflect the current conditions and operations of the region, the following hydrologic variances are summarized below. Completed hydrologic variance request forms for each river basin are included in Attachment A.

Safe Yield

Based on requests from Tarrant Regional Water District (TRWD) and Dallas Water Utilities (DWU), Region C requests the use of safe yield for the allocation and distribution of surface water supplies from reservoirs owned and operated by these two wholesale water providers. In accordance with the TWDB planning rules, firm yields will also be determined and reported in the plan. Firm yield will be used for other surface water reservoirs.

Drought Worse than the Drought of Record

The Texas Legislature authorized the regional water planning groups to consider droughts worse than the drought of record in its planning efforts, which can reflect expected climate uncertainties and trends in water availability. Several water providers in Region C consider such conditions in their long-term water planning. NTMWD has recently completed a Long-Range Water Supply Plan that did a detailed evaluation on the potential impacts of a drought worse than the drought of record on its water supplies. Region C requests the use of the results of this analysis for the allocation and distribution of surface water supplies from reservoirs owned and operated by NTMWD. DWU is also considering the potential impacts of climatic uncertainties in the update of its Long-Range Water Supply Plan, but this update is not available at this time. Therefore, Region C has requested the use of safe yield as discussed above.

[1] The term WAM refers throughout this document to TCEQ's Full Authorization Scenario, also known as Run 3, with modifications as proposed in this letter.

If the DWU update becomes available prior to the completion of the 2026 Region C Water Plan, Region C respectfully requests the option to use these results for the allocation and distribution of surface water supplies from reservoirs owned and operated by DWU.

Trinity River WAM

Multiple changes are requested for the Trinity WAM to account for current operating conditions, including:

- Subordination agreements,
- System operations, where appropriate, and
- Other corrections noted during review of the models.

Red River WAM

Water supplies from the Red River Basin include supplies from Lake Texoma, several small lakes, and run of the river supplies. Hydrologic variance requests for the Red River WAM include changes to Lake Texoma and associated water rights to avoid potential double counting of supply and more accurately define the firm yields of the Region C reservoirs.

Sulphur WAM

The only reservoir in the Sulphur Basin currently used by Region C is Lake Chapman. This reservoir is used by multiple providers and is modeled in the WAM as individual water rights. Region C requests modeling Lake Chapman as a single pool to assess the firm yield, and then assign supplies proportionally based on each provider's water right.

Other WAMs

For the 2026 Region C Water Plan, we request to use the Neches and Sabine River WAM models as modified by the Region I Planning Group with the approval of the Texas Water Development Board. For supplies in the Brazos River Basin, we request to use the Brazos G WAM as modified by the Brazos G Planning Group with the approval of the Texas Water Development Board.

As intended by Senate Bill 1, the assessment of surface water availability in Region C will be conducted to accurately reflect water supplies that are available for use.

Please call me if you have any questions regarding our request.

Sincerely,

Kevin Ward
Chair, Region C Water Planning Group

Attachment A

Hydrologic Variance Request Forms

Surface Water Hydrologic Variance Request Checklist

Texas Water Development Board (TWDB) rules[1] require that regional water planning groups (RWPG) use most current Water Availability Models (WAM) from the Texas Commission on Environmental Quality (TCEQ) and assume full utilization of existing water rights and no return flows for surface water supply analysis. Additionally, evaluation of existing stored surface water available during Drought of Record conditions must be based on Firm Yield using anticipated sedimentation rates. However, the TWDB rules also allow, and **we encourage**, RWPGs to use more representative, water availability modeling assumptions; better site-specific information; or justified operational procedures other than Firm Yield with written approval (via a Hydrologic Variance) from the Executive Administrator in order to better represent and therefore prepare for expected drought conditions.

RWPGs must use this checklist, which is intended to save time and reduce effort, to request a Hydrologic Variance for estimating the availability of surface water sources. For Questions 4 – 10, please indicate whether the requested variance is for determining Existing Supply, Strategy Supply, or both. Please complete a separate checklist for each river basin in which variances are being requested.

Water Planning Region: C

1. Which major river basin does the request apply to? Please specify if the request only applies part of the basin or only to certain reservoirs.

   Trinity River Basin

2. Please give a brief, bulleted, description of the requested hydrologic variances including how the alternative availability assumptions vary from rule requirements, how the modifications will affect the associated annual availability volume(s) in the regional water plan, and why the variance is necessary or provides a better basis for planning. You must provide more-detailed descriptions in the subsequent checklist questions. Attach any available documentation supporting the request.

   Region C requests to use the posted TCEQ Trinity WAM for use in the 2021 Region C Plan with the following variances for all water supply analyses:
   - Inclusion of any new water rights that are not currently included in the posted TCEQ WAM.
   - Modeling of Lake Jacksboro and Lost Creek Reservoir as a system. System modeling includes subordination of Lake Bridgeport.
   - Use of the full storage for Forest Grove Reservoir with an annual depletion limit (inflow for storage, diversion, and evaporation) of 16,348 acre-feet per year. The TCEQ WAM incorrectly uses the 16,348 acre-feet as the storage of the reservoir rather than the authorized storage of 20,038 acre-feet.

[1] 31 Texas Administrative Code (TAC) §§ 357.10(14) and 357.32(c)

- Modeling of Corsicana's rights from Richland-Chambers Reservoir as a system with Lake Halbert, reflecting how these rights are actually used.

The following variances are required only for modeling the yields of these supplies. When calculating the firm yield of other sources, the modeling will be identical to Run 3.

- Modeling of Tarrant Regional Water District's West Fork reservoirs (Bridgeport, Eagle Mountain, and Worth) as a system.
- Modeling of Dallas' water rights in the Elm Fork of the Trinity River as a system with Lakes Grapevine, Lewisville and Ray Roberts.
- Modeling of Lake Benbrook as one pool instead of multiple pools to facilitate calculation of yields. The current modeling incorrectly assigns evaporation to the dead pool of the reservoir which does not refill because it is modeled as non-priority. In actual operation, TRWD cannot use water from the reservoir unless this dead storage is full. This modeling respects the USACE minimum elevation for water supply.

These adjustments to the WAMs are requested to reflect the water rights and agreements more accurately for water supply sources in Region C.

3. Was this request submitted in a previous planning cycle? If yes, please indicate which cycle and note how it is different, if at all, from the previous request?

   Yes

   The same hydrologic variance requests were implemented in the 2021 Region C Water Plan. This request only differs in the inclusion of any new water rights that are not currently in the WAM.

4. Are you requesting to extend the period of record beyond the current applicable WAM hydrologic period? If yes, please describe the proposed methodology. Indicate whether you believe there is a new drought of record in the basin.

   No

   Choose an item.

   Click or tap here to enter text.

5. Are you requesting to use a reservoir safe yield? If yes, please describe in detail how the safe yield would be calculated and defined, which reservoir(s) it would apply to, and why the modification is needed or preferrable for drought planning purposes.

   Yes

   Existing Supply

Based on requests from Tarrant Regional Water District (TRWD) and Dallas Water Utilities, Region C requests the use of safe yield for the allocation and distribution of surface water supplies from reservoirs owned and operated by these two wholesale water providers. The TRWD reservoirs include Lake Bridgeport, Eagle Mountain Lake, Lake Worth, Lake Benbrook, Lake Arlington, Richland-Chambers Reservoir and Cedar Creek Reservoir. Dallas reservoirs include Lake Ray Roberts, Lake Lewisville, Lake Grapevine, Lake Ray Hubbard, Lake Tawakoni, and Lake Fork. For some of these lakes, Dallas holds only a portion of the water rights. Supply for the other water right holders in these lakes will continue to be calculated using firm yield.

Safe yield is the amount of water that can be used during the critical drought while leaving a minimum supply in reserve. Safe yield is consistent with the current operations of these two surface water suppliers and previous regional water planning. In accordance with the TWDB planning rules, firm yields will also be determined and reported in the plan.

6. Are you requesting to use a reservoir yield other than firm yield or safe yield? If yes, please describe, in a bulleted list, each modification requested including how the alternative yield was calculated, which reservoir(s) it applies to, and why the modification is needed or preferrable for drought planning purposes. Examples of alternative reservoir yield analyses may include using an alternative reservoir level, conditional reliability, or other special reservoir operations.

   Yes

   Existing Supply

   The Texas Legislature authorized the regional water planning groups to consider droughts worse than the drought of record in its planning efforts, which can reflect expected climate uncertainties and trends in water availability. Several water providers in Region C consider such conditions in their long-term water planning. NTMWD has recently completed a Long-Range Water Supply Plan that did a detailed evaluation on the potential impacts of a drought worse than the drought of record on its water supplies. Region C requests the use of the results of this analysis for the allocation and distribution of surface water supplies from reservoirs owned and operated by NTMWD. DWU is also considering the potential impacts of climatic uncertainties in the update of its Long-Range Water Supply Plan, but this update is not available at this time. Therefore, Region C has requested the use of safe yield as discussed above.

   If the DWU update becomes available prior to the completion of the 2026 Region C Water Plan, Region C respectfully requests the option to use these results for the allocation and distribution of surface water supplies from reservoirs owned and operated by DWU.

7. Are you requesting to use a different model (such as a RiverWare or Excel-based models) than RUN 3 of the applicable TCEQ WAM? If yes, please describe the model being considered including how it incorporates water rights and prior appropriation and how it is more conservative than RUN 3 of the applicable TCEQ WAM.

   No

Choose an item.

Click or tap here to enter text.

8. Are you requesting to use a modified TCEQ WAM? If yes, please describe in a bulleted list all modifications in detail including all specific changes to the WAM and whether the modified WAM is more conservative than the TCEQ WAM RUN 3. Examples of WAM modifications may include adding subordination agreements, contracts, updated water rights, modified spring flows, updated lake evaporation, updated sedimentation[2], system or reservoir operations, or special operational procedures into the WAM.

   Yes

   Existing Supply

Multiple changes are requested for the Trinity WAM to account for current operating conditions, including:

- Subordination agreements,
- System operations, and
- Other corrections noted during review of the models.

These changes are detailed in Question 2.

9. Are you requesting to include return flows in the modeling? If yes, are you doing so to model an indirect reuse water management strategy (WMS)? Please provide complete details regarding the proposed methodology for determining reuse WMS availability.

   No

   Choose an item.

   Only return flows authorized in existing surface water rights and modeled in the existing WAM Run 3 will be included in the analysis.

10. Are any of the requested Hydrologic Variances also planned to be used by another region for the same basin? If yes, please indicate the other Region. Please indicate if unknown.

    Unknown

    Each of the river basins modeled by Region C are also used by other regions. It is unknown whether the other regions will adopt the modifications made by Region C in the analysis of

[2] Updating anticipated sedimentation rates does not require a hydrologic variance under 31 TAC § 357.10(14). The Technical Memorandum will require providing details regarding the sedimentation methodology utilized. Please consider providing that information with this request.

the supplies for each respective region. We do not expect our modifications to affect the supplies for these regions.

11. Please describe any other variance requests not captured on this checklist or add any other information regarding the variance requests on this checklist.

    Click or tap here to enter text.

Surface Water Hydrologic Variance Request Checklist

Texas Water Development Board (TWDB) rules[1] require that regional water planning groups (RWPG) use most current Water Availability Models (WAM) from the Texas Commission on Environmental Quality (TCEQ) and assume full utilization of existing water rights and no return flows for surface water supply analysis. Additionally, evaluation of existing stored surface water available during Drought of Record conditions must be based on Firm Yield using anticipated sedimentation rates. However, the TWDB rules also allow, and **we encourage**, RWPGs to use more representative, water availability modeling assumptions; better site-specific information; or justified operational procedures other than Firm Yield with written approval (via a Hydrologic Variance) from the Executive Administrator in order to better represent and therefore prepare for expected drought conditions.

RWPGs must use this checklist, which is intended to save time and reduce effort, to request a Hydrologic Variance for estimating the availability of surface water sources. For Questions 4 – 10, please indicate whether the requested variance is for determining Existing Supply, Strategy Supply, or both. Please complete a separate checklist for each river basin in which variances are being requested.

Water Planning Region: C

1. Which major river basin does the request apply to? Please specify if the request only applies part of the basin or only to certain reservoirs.

   Red River Basin

2. Please give a brief, bulleted, description of the requested hydrologic variances including how the alternative availability assumptions vary from rule requirements, how the modifications will affect the associated annual availability volume(s) in the regional water plan, and why the variance is necessary or provides a better basis for planning. You must provide more-detailed descriptions in the subsequent checklist questions. Attach any available documentation supporting the request.

   Region C requests to use the posted TCEQ Red River WAM for use in the 2021 Region C Plan with the following variances;
   - Modeling of Lake Randell and Valley Lake as stand-alone reservoirs without Lake Texoma backups for the firm yield calculation of these two reservoirs. Backup supply for these reservoirs from Lake Texoma is included in the supplies from Lake Texoma. This prevents double counting of the makeup water from Lake Texoma. For firm yield calculations for reservoirs other than Lake Randell, Valley Lake and Lake Texoma, the backups for Lake Randell and Valley Lake were retained.
   - Lake Texoma is located on the Texas-Oklahoma border, and in accordance with the Red River Compact, water in Lake Texoma is equally shared by Texas and Oklahoma. There are three distinct water storage pools in Lake Texoma: 1) water supply, 2) hydropower, and 3) sediment storage (dead pool). Use of water from Lake Texoma is authorized by

[1] 31 Texas Administrative Code (TAC) §§ 357.10(14) and 357.32(c)

multiple Texas water rights and Oklahoma water rights, as well as authorizations by the US Congress and contracts with the Corps. To assess the firm yield of the reservoir for Region C, the total firm yield for both the water supply and hydropower pools will be modeled. This total yield is equally split between Texas and Oklahoma. The reliable supplies from the lake are limited to the Texas water rights and associated storage contracts with the Corps.

- Removal of diversion backups of individual Texas water rights in Lake Texoma from the hydropower pool. All Texas water rights are 100% reliable in the WAM, so these backups are not invoked in the WAM. The code was removed because it made the modeling unnecessarily complicated.

These adjustments to the WAMs are requested to reflect the water rights and agreements more accurately for water supply sources in Region C.

3. Was this request submitted in a previous planning cycle? If yes, please indicate which cycle and note how it is different, if at all, from the previous request?

   Yes

   The same hydrologic variance requests were implemented in the 2021 Region C Water Plan.

4. Are you requesting to extend the period of record beyond the current applicable WAM hydrologic period? If yes, please describe the proposed methodology. Indicate whether you believe there is a new drought of record in the basin.

   No

   Choose an item.

   Click or tap here to enter text.

5. Are you requesting to use a reservoir safe yield? If yes, please describe in detail how the safe yield would be calculated and defined, which reservoir(s) it would apply to, and why the modification is needed or preferrable for drought planning purposes.

   No

   Choose an item.

   Click or tap here to enter text.

6. Are you requesting to use a reservoir yield other than firm yield or safe yield? If yes, please describe, in a bulleted list, each modification requested including how the alternative yield was calculated, which reservoir(s) it applies to, and why the modification is needed or preferrable for drought planning purposes. Examples of alternative reservoir yield analyses may include using an alternative reservoir level, conditional reliability, or other special reservoir operations.

No

Choose an item.

Click or tap here to enter text.

7. Are you requesting to use a different model (such as a RiverWare or Excel-based models) than RUN 3 of the applicable TCEQ WAM? If yes, please describe the model being considered including how it incorporates water rights and prior appropriation and how it is more conservative than RUN 3 of the applicable TCEQ WAM.

   No

   Choose an item.

   Click or tap here to enter text.

8. Are you requesting to use a modified TCEQ WAM? If yes, please describe in a bulleted list all modifications in detail including all specific changes to the WAM and whether the modified WAM is more conservative than the TCEQ WAM RUN 3. Examples of WAM modifications may include adding subordination agreements, contracts, updated water rights, modified spring flows, updated lake evaporation, updated sedimentation[2], system or reservoir operations, or special operational procedures into the WAM.

   Yes

   Existing Supply

Multiple changes are requested for the Red River WAM to account for current operating conditions, as detailed in the response to Question 2

9. Are you requesting to include return flows in the modeling? If yes, are you doing so to model an indirect reuse water management strategy (WMS)? Please provide complete details regarding the proposed methodology for determining reuse WMS availability.

   No

   Choose an item.

[2] Updating anticipated sedimentation rates does not require a hydrologic variance under 31 TAC § 357.10(14). The Technical Memorandum will require providing details regarding the sedimentation methodology utilized. Please consider providing that information with this request.

Only return flows authorized in existing surface water rights and modeled in the existing WAM Run 3 will be included in the analysis.

10. Are any of the requested Hydrologic Variances also planned to be used by another region for the same basin? If yes, please indicate the other Region. Please indicate if unknown.

    Unknown

    Click or tap here to enter text.

11. Please describe any other variance requests not captured on this checklist or add any other information regarding the variance requests on this checklist.

    Click or tap here to enter text.

Surface Water Hydrologic Variance Request Checklist

Texas Water Development Board (TWDB) rules[1] require that regional water planning groups (RWPG) use most current Water Availability Models (WAM) from the Texas Commission on Environmental Quality (TCEQ) and assume full utilization of existing water rights and no return flows for surface water supply analysis. Additionally, evaluation of existing stored surface water available during Drought of Record conditions must be based on Firm Yield using anticipated sedimentation rates. However, the TWDB rules also allow, and **we encourage**, RWPGs to use more representative, water availability modeling assumptions; better site-specific information; or justified operational procedures other than Firm Yield with written approval (via a Hydrologic Variance) from the Executive Administrator in order to better represent and therefore prepare for expected drought conditions.

RWPGs must use this checklist, which is intended to save time and reduce effort, to request a Hydrologic Variance for estimating the availability of surface water sources. For Questions 4 – 10, please indicate whether the requested variance is for determining Existing Supply, Strategy Supply, or both. Please complete a separate checklist for each river basin in which variances are being requested.

Water Planning Region: C

1. Which major river basin does the request apply to? Please specify if the request only applies part of the basin or only to certain reservoirs.

   Sulphur River Basin

2. Please give a brief, bulleted, description of the requested hydrologic variances including how the alternative availability assumptions vary from rule requirements, how the modifications will affect the associated annual availability volume(s) in the regional water plan, and why the variance is necessary or provides a better basis for planning. You must provide more-detailed descriptions in the subsequent checklist questions. Attach any available documentation supporting the request.

   Region C requests to use the approved TCEQ Sulphur WAM for use in the 2021 Region C Plan with the following variances for all water supply analyses:
   - Inclusion of any new water rights granted that are not currently included in the approved TCEQ WAM.

The following variance is requested for modeling existing supplies from Lake Chapman.

- Modeling of Lake Chapman as one pool instead of multiple pools to facilitate calculation of the firm yield. All authorizations have the same priority date, and a single pool correctly distributes inflows among the water right holders. This modeling respects the USACE minimum elevation for water supply.

[1] 31 Texas Administrative Code (TAC) §§ 357.10(14) and 357.32(c)

These adjustments to the WAMs are requested to reflect the water rights and agreements more accurately for water supply sources in Region C.

3. Was this request submitted in a previous planning cycle? If yes, please indicate which cycle and note how it is different, if at all, from the previous request?

   Yes

   The same hydrologic variance requests were implemented in the 2021 Region C Water Plan. This request only differs in the inclusion of any new water rights that are not currently in the WAM.

4. Are you requesting to extend the period of record beyond the current applicable WAM hydrologic period? If yes, please describe the proposed methodology. Indicate whether you believe there is a new drought of record in the basin.

   No

   Choose an item.

   Click or tap here to enter text.

5. Are you requesting to use a reservoir safe yield? If yes, please describe in detail how the safe yield would be calculated and defined, which reservoir(s) it would apply to, and why the modification is needed or preferrable for drought planning purposes.

   No

   Choose an item.

   Click or tap here to enter text.

6. Are you requesting to use a reservoir yield other than firm yield or safe yield? If yes, please describe, in a bulleted list, each modification requested including how the alternative yield was calculated, which reservoir(s) it applies to, and why the modification is needed or preferrable for drought planning purposes. Examples of alternative reservoir yield analyses may include using an alternative reservoir level, conditional reliability, or other special reservoir operations.

   No

   Choose an item.

7. Are you requesting to use a different model (such as a RiverWare or Excel-based models) than RUN 3 of the applicable TCEQ WAM? If yes, please describe the model being considered including how it incorporates water rights and prior appropriation and how it is more conservative than RUN 3 of the applicable TCEQ WAM.

   No

   Choose an item.

   Click or tap here to enter text.

8. Are you requesting to use a modified TCEQ WAM? If yes, please describe in a bulleted list all modifications in detail including all specific changes to the WAM and whether the modified WAM is more conservative than the TCEQ WAM RUN 3. Examples of WAM modifications may include adding subordination agreements, contracts, updated water rights, modified spring flows, updated lake evaporation, updated sedimentation[2], system or reservoir operations, or special operational procedures into the WAM.

   Yes

   Existing Supply

Changes are requested for the Sulphur WAM are in Question 2.

-

9. Are you requesting to include return flows in the modeling? If yes, are you doing so to model an indirect reuse water management strategy (WMS)? Please provide complete details regarding the proposed methodology for determining reuse WMS availability.

   No

   Choose an item.

   Only return flows authorized in existing surface water rights and modeled in the existing WAM Run 3 will be included in the analysis.

[2] Updating anticipated sedimentation rates does not require a hydrologic variance under 31 TAC § 357.10(14). The Technical Memorandum will require providing details regarding the sedimentation methodology utilized. Please consider providing that information with this request.

10. Are any of the requested Hydrologic Variances also planned to be used by another region for the same basin? If yes, please indicate the other Region. Please indicate if unknown.

    Unknown

    Click or tap here to enter text.

11. Please describe any other variance requests not captured on this checklist or add any other information regarding the variance requests on this checklist.

    Click or tap here to enter text.