

## NOTICE OF OPEN MEETING

### REGIONAL WATER PLANNING GROUP-NETRWPG

**Wednesday, July 12, 2023 – 10:00 A.M.**

**Region 8 Education Service Center  
4845 US 271 N  
Pittsburg, TX 75686**

In compliance with the Texas Open Meetings Act, Chapter 551, of the Texas Government Code, the Regional Water Planning Group D issues this public notice. On July 12, 2023, at 10:00 A.M., the North East Texas Regional Water Planning Group (NETRWPG) will meet in-person. The meeting will be held the Region 8 Education Service Center, 4845 US 271 N, Pittsburg, TX 75686. The NETRWPG will consider and act on the following items:

1. Recognitions. Roll call.
2. Public Comment/participation.
3. Review and approval of minutes for March 15, 2023 meeting.
4. Reports from liaisons: TWDB Project Manager – TWDB Planner; GMA #8 & #11; Region C & I.
5. Accept resignation of voting member, Bob Tardiff. Consider appointment of successor to the position held by Bob Tardiff. Appointment will be for the remainder of the unexpired term.
6. Discussion and Action as appropriate: Review, discuss, and consider taking action to authorize the technical consultant to submit a technical memorandum, populate, and distribute to the TWDB recommended revisions to the draft municipal population and demands for Region D consistent with the information provided in this meeting, and approve for the consultant to work with the Chair and Administrator to submit further revisions and make responses to revision requests by TWDB by August 11, 2023.
7. Report and discussion from Region D Technical Consultant providing summary of Infeasible Strategy process for Region D.
8. Financial report by Administrator. Approval of invoices of consultant.
9. Further public comment/participation.
10. Adjourn.

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Additional information may be obtained from the Administrative Agency for NETRWPG: Riverbend Water Resources District, 228 Texas Avenue, Suite A, New Boston, Texas 75570; Office Telephone: (903) 831-0091; Office Fax: (903) 831-0096; E-mail: [kyledooley@rwr.org](mailto:kyledooley@rwr.org); Website: <https://rwr.org/region-d/>; Attn: Kyle Dooley, P.E., Executive Director

**MEETING OF THE  
North East Texas Regional Water Planning Group  
WEDNESDAY, July 12, 2023**

Agenda Item 3  
March 15, 2023  
Meeting Minutes

**Minutes of the North East Texas Regional Water Planning Group  
March 15, 2023 – 10:00 A.M.**

The North East Texas Regional Water Planning Group (NETRWPG) – Region D met in an open meeting on Wednesday, March 15, 2023, at 10:00 A.M. The meeting was held at the Region 8 Education Service Center, 4845 US 271 N, Pittsburg, TX 75686. Notice of the meeting was legally posted.

Jim Thompson called the meeting to order at 10:00 A.M. and welcomed everyone. Introductions were made and a quorum was present. Twenty-one members of the planning group were present in person or represented by a designated alternate.

The following voting members were present:

Russell Acker	David Akin	Allen Beeler	John Brooks
Joe Bumgarner	Kevin Chumbley	Donnie Duffie	Richard Garza
Cindy Gwinn	Conrad King	Richard LeTourneau	Janet McCoy
Fred Milton	Sharron Nabors	George Otstott	Jim Thompson

The following alternates were present:

Gary Cheatwood	Howdy Lisenbee	Doug Skinner
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The following voting members were absent:

Brandon Belcher	Joe Coats	Andy Endsley	Nicolas Fierro
Billy Henson	Ned Muse	Bob Tardiff	Harlton Taylor

The public was provided an opportunity for comment prior to any action being taken by the planning group. There were no public comments at this time.

John Brooks made a motion to approve the minutes from the October 19, 2022 meeting. Fred Milton seconded the motion. Motion carried, all voting aye.

The interregional planning council met on March 9, 2023. Jim Thompson provided that the meeting laid out an outline of how to move forward. They plan to meet again in June 2023.

Ron Ellis with the Texas Water Development Board (TWDB) provided an update. Mr. Ellis presented information from TWDB on Infeasible Water Management Strategies (WMS). He provided clarification on identifying Infeasible WMSs in the 2021 RWPs provided on January 31, 2023. There are new one-pagers on the Drought of Record, Consistency Reviews found at <https://www.twdb.texas.gov/waterplanning/rwp/education/index.asp>. There are new educational materials posted related to Member Guide and Administrative Guidance found at <https://www.twdb.texas.gov/waterplanning/rwp/regions/newmembers.asp> and <https://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2026/documents.asp>.

Mr. Ellis skimmed over the timeline for data submission but will refer to the presentation from Tony Smith with Carollo Engineers for a more detailed look at that timeline. He did emphasize that July 14<sup>th</sup> is the deadline to request revisions for non-municipal demand projections and August 11<sup>th</sup> is the deadline to request revisions for population and municipal

demand projections. Senate Bill 1511 from the 85<sup>th</sup> legislative session put into law that the planning groups will look back at the previous plan at the water management strategies and determine if they are feasible or infeasible. Analysis must be completed prior to March 4, 2024 which is the due date for the Technical Memorandum. If infeasible WMSs are identified, planning groups must amend 2021 plans to remove infeasible WMS or WMSP, revise infeasible WMS or WMSP to make feasible, and/or incorporate new WMS or WMSP. RWPG-adopted amendments are due to TWDB June 5, 2024. Planning groups should review strategies & projects that require a permit and/or involve construction and that are shown to be online in 2020 or 2030, are related to new major reservoirs, seawater desalination, Direct Potable Reuse, brackish groundwater, Aquifer Storage & Recovery, and out of state transfers generally require significant resources and time to implement. Analysis is not required for strategies/projects that do not require a permit or involve construction. For more information, please visit the TWDB website and navigate to the 6th planning cycle page. The new webpage can be found here:

<https://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2026/index.asp>

This page will be updated throughout the cycle with important documents, the working schedule, task organization, newsletters, as well as contract and administrative documents. The email address for the broadcast communications for the planning group is [regionalwaterplanning@twdb.texas.gov](mailto:regionalwaterplanning@twdb.texas.gov). No action taken.

There were no reports from Region C, Region I, GMA 8, or GMA 11.

Jim Thompson presented the current slate of officers and liaisons for Region D. Mr. Thompson is the Chair, Richard LeTourneau is Vice Chair, Cindy Gwinn is the Secretary, Joe Bumgarner and John Brooks are the At Large members. Our liaisons are John McFarland for Region I and GMA 11 and Sharon Nabors for Region C and GMA 8. An election of officers is required annually. Everyone currently serving is willing to continue to do so with the exception of Sharon Nabors. She has asked for nominations for someone to take her place. George Otstott has volunteered as the Liaison for Region C and GMA 11. Any nominations can be made by the board at this time. Fred Milton made a motion to approve the slate of officers as is with the exception of George Otstott to replace Sharon Nabors. Janet McCoy seconded the motion. Motion carried, all voting aye.

Tony Smith, Carollo Engineers, provided information on ongoing work during the 2026 water planning process. Mr. Smith presented the budget. We are at 25% of our initial allocation of the budget expended. An overview of the working schedule for the 6<sup>th</sup> cycle of regional water planning was presented with a focus on the most pressing deadlines. The action to consider today is the approval to submit the technical memorandum. The July to August timeframe will require a review of the draft projections and finalization of the adjustments with TWDB staff. The non-municipal projections are due by July 14<sup>th</sup> and the municipal projections due by August 11<sup>th</sup>. He shared the draft municipal projections of population and water demand for Region D. He also made recommendations on revisions to the draft non-municipal demand projections. Municipal population projections by county are based on Texas Demographic Center's county level projections. There are two migration scenarios based on the census from 2010 to 2020. The Texas Demographics Center uses the census information to project out to 2030 to 2060. TWDB extends it further to 2070 to 2080. They develop what the trend is at the county level between those decades. Then they use a

cohort methodology that incorporates migration rates and birth and death rates. They incorporate those various factors into a scenario of population growth at the county level. The TDC projections are available here:

<https://demographics.Texas.gov/Data/TPEPP/Projections>

The difference in data analysis this cycle is in the methodology for population projections. Historical declines in population for a county will be projected to decline through this planning cycle. In the past, the methodology held the population numbers flat. They take the county projections (2030 to 2080) and break those apart into each individual Water User Group (WUG) looking at the CCN, and how it overlaps with the county and its population, what that utility's growth has been relative to the county population growth, and they portion that out by growth rate or by the percentage of the population to dial in to get the trending growth for the utility relative to the county growth rate. It incorporates constant population facilities like prisons, military bases, and universities but it does not capture transient population numbers as in tourism but when the demand is calculated those people are included in the per capita usage. The buildouts are held constant from the 2021 projections. The TWDB shared two region-county projections for the 2030 to 2080 migration scenarios. A 0.5 migration scenario and a 1.0 migration scenario. The migration scenario measures how many in and how many out from each county. The 0.5 scenario looks at the last 10 years and estimates the population will grow half as fast. The 1.0 scenario mimics the last 10 years of growth. There is ongoing coordination with the planning group and TWDB. This can be both helpful and hurtful to individual counties. If population has been increasing, then the 1.0 migration scenario will project a larger increase. If population is declining, then the 1.0 migration scenario projects a faster declination in population. The 0.5 is a more moderate migration scenario. There can be a mix between the two scenarios, not entity by entity but it can be done at the county level. These population numbers are half of the calculation for the water need. The other half is the per capita usage. The question becomes "what can be done to dial in the population growth to be as conservative as we can while we are following the rules set by TWDB? Then what can be done on the demand side of the equation in terms of the per capita usage?" One of the key obligations is that TWDB has population projections from the State of Texas. Therefore, the estimates of growth can be conservative, but TWDB will have a standard as well. Jim Thompson, Region D Chair, stated that it seems this 0.5 or 1.0 migration scenario is the best that can be done. There seems to be a tendency to over-project and overvalue entities that are growing rapidly and undervalue growth in rural areas. He stated that there is a saturation point in every county. People are moving into places where it simply can not hold any more people. Then they will end up moving to more rural areas. Demand is calculated by gallons per capita daily (GPCD). They establish a baseline by issuing water use surveys. The survey breaks down the usage between residential, commercial, institutional, and light industrial. There are many domestic livestock users that are exempt from surface water permitting in the State of Texas. That data is difficult to capture. The projected demand is calculated by taking the baseline GPCD minus plumbing code savings created with new fixtures and appliances and multiply that difference by the population estimate. Carollo dug through the numbers and searched for entities that had their GPCD lowered by the plumbing code savings. The majority had that number lowered by about 10%. One strategy is to remove the plumbing code savings and instead we point to the drought of record in 2011 as the baseline and start there for a higher GPCD. In summary, we will be digging into population growth based on the two migration scenarios, talking with people to identify what more recent information is available, we will look at removing the

passive savings from the GPCD baseline, identify the maximum ‘dry year’ GPCD but still use the TWDB assumed passive savings for decadal projections, we will continue to engage with entities by sending surveys and making calls. There will also be reviews for data errors, new studies, new infrastructure or if your service areas have changed, and if there are any major differences in long-term demand. Don’t forget the revision requests are due August 11, 2023. Water surveys will be mailed to every Water User Group (WUG). If there is not a response, Carollo will reach out to each WUG via phone call, virtual meeting, or physical meeting. During the last planning cycle TWDB provided extra funding to accommodate for travel to every WUG to complete the water use survey. Mr. Smith began his discussion on the non-municipal water demands on which he is requesting action by the Board. Water Demand is Volume of water required to carry out the anticipated domestic, public, and/or economic activities of a Water User Group during drought conditions. Exhibit C of the TWDB Contract identifies what information is required for justification of changes to draft projections. This section provides what evidence the planning group can bring forward to make recommended changes to draft numbers. The draft irrigation 2030 baseline is based on a 2015-2019 average. Then they hold that constant unless there is a limitation on ground water in which case, they will decrease it to whatever that limit on ground water is. Looking at the estimates historically, results in an overall reduction in the projected irrigation demands in the region that is driven by decreases in the past use estimated for those counties with the highest demand. Using the 2015-2019 average excludes the significant 2011 drought. The Board then stated that if the most recent 10 years or less of irrigation trends are more indicative of future trends than the draft water demand projections, then our look-back period can include 10 years ago instead of just 5. For each county we compared the 5-year average to the 10-year average and using the 10-year average is more accurate for trending usage. They used 2011 as a base but didn’t go back that far if another year showed to have higher than average usage. Using the 10-year look-back, there are 10 counties where revision will be necessary because the draft numbers are lower than projections. Those revisions result in an increase in the draft irrigation projections per county. The counties with any adjustments in livestock numbers show an increase in projected demand. There was one big change in that they developed new rates per head of livestock. Some of the factors were increased and some were decreased. The methodology in coming up with the new rates were based on interaction with dairy cattle facilities in west Texas. Those large facilities may have more efficient procedures that would benefit water use strategies for local cattle facilities. There are 13 counties that will be adjusted with the 10-year lookback. Manufacturing methodology will generate county baselines from the highest survey use from 2015-2019, they have an estimate for unaccounted water, and they will produce a linear trend based on county business patterns. We will keep Riverbend Water Resources District listed as a major wholesale water provider and that contractual demand with TexAmericas Center will be captured in analysis. The previous plan used the Eastman Facility in Harrison County entirely for manufacturing. They also have steam electric power capabilities at a 10/90 ratio to manufacturing. Eastman will be listed at 90% towards manufacturing, 10% towards steam electric power generation and we will show a growth estimate of 2500 acre feet in the first decade with a new planned facility coming online. There are 11 counties that will have a revision from the baseline based on the 10-year lookback. The result is an increase in the statewide growth rate compared to the last planning cycle. The information from an update on the mining estimates conducted by the UT Bureau of Geology was reviewed. There are projected increases for Bowie County for aggregate use, Harrison County oil and gas usage is

increasing, and Wood County has increases in both aggregate and oil and gas. Overall, there are no recommended changes for mining. Steam Electric methodology did not change. They have an estimated baseline developed from the highest single-year county surveyed water use between 2015 and 2019 with adjustments reflecting near-term facility additions and retirements and assumed constant projected use through 2080. There are fewer proposed facilities compared to previous plans and removal of retired facilities. This results in a decrease in projections. There are 6 counties with recommendations for changes in steam electric power generation. The decrease in steam electric accounts for facilities going off line and making adjustments in other decreases in Harrison County. Mr. Smith asked for action from the board to authorize the technical consultant to submit the technical memorandum, populate, and distribute to the TWDB including recommended revisions to the draft non-municipal demands for Region D consistent with the information provided in this meeting and approve for the consultant to work with the Chair and Administrator to submit further revisions and make responses to revision request by TWDB by July 14, 2023. A Motion was made by Sharron Nabors as requested and seconded by Kevin Chumley. Motion carried, all voting aye.

Kyle Dooley presented invoices from Carollo Engineers for approval. The invoices are for work spanning from September of 2022 to December 2022. The total for the five invoices is \$14,848.47. Please recall that the original contract includes funding up to around \$205,000 and the amended contract will be approved for around \$607,000. Up to this point \$29,000 has been approved. Fred Milton made a motion to authorize Kyle Dooley to pay the invoices to Carollo. George Otstott seconded the motion. Motion carried, all voting aye.

David Nabors stated that letting water out of reservoirs needs to be slowed or stopped instead of building another reservoir. Janet McCoy asked if we will cover data on the availability of brackish ground water. Tony Smith with Carollo answered, yes, as soon as our attention is diverted from demand to supply.

Next meeting should be scheduled for mid-July which will giving enough time to prepare municipal data similar to the non-municipal data given today. That will give us enough time to meet the August 11<sup>th</sup> deadline for the municipal data submission.

With no further business to discuss, Jim Thompson adjourned the meeting at 11:42 a.m.

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Secretary

Date

**MEETING OF THE  
North East Texas Regional Water Planning Group  
WEDNESDAY, July 12, 2023**

**Agenda Item 4  
Reports From Liaisons**



# Region D TWDB Update 7-12-23

## **1. Updated plumbing code savings and revised draft demand projections released on 5/5/2023.**

Projections revisions deadlines have not changed: Non-municipal demand revision requests due 7/14/2023; Population and Municipal Demand revision requests due 8/11/2023.

## **2. New one-pager: Population Revision Summary**

[https://www.twdb.texas.gov/waterplanning/data/projections/2027/doc/Summary\\_PopRevisionRequests.pdf](https://www.twdb.texas.gov/waterplanning/data/projections/2027/doc/Summary_PopRevisionRequests.pdf)

**3. Interregional Planning Council update:** IPC met on 11/9/22, 3/9/23, and 5/30/2023. Will meet again on 8/15/23 and 11/30/23. Resources posted on TWDB IPC web page:

<http://www.twdb.texas.gov/waterplanning/rwp/ipc/index.asp>

## **4. Upcoming critical deadlines and upcoming activities (prior to 3/4/2024 tech memo deadline):**

- Approve projections revision requests
- Assess availability and supplies
- Approve and submit hydrologic variance requests
- Present process for identifying potentially feasible strategies for the 2026 regional water plan
- Identify infeasible strategies and projects from 2021 regional water plan

# 88<sup>th</sup> Legislature: Bills of Interest that Passed

- **HB 1565 - TWDB Sunset Bill**
  - RWPGs will report on implementation of large projects.
  - RWPGs may plan for conditions worse than drought of record.
  - These provisions already in planning contract.
- **SB 28/SJR 75 - Texas Water Fund**
  - Establishes \$1 billion Texas Water Fund, subject to voter approval, which can provide additional funding for existing TWDB financial assistance programs.
  - Can also fund the New Water Supply for Texas Fund for water supply projects from new sources.
    - At least \$250 million of funds appropriated to the Texas Water Fund must be used for the New Water Supply for Texas Fund
  - The Texas Water Fund will take effect January 1, 2024, if SJR 75 is approved by the voters. All other provisions of SB 28 take effect September 1, 2023.
- **HB 1 - Budget Bill**
  - Passed budget includes additional funding for RWPGs.
  - Specific region amounts to be determined and planning contracts amended in Fall 2023.

# 88<sup>th</sup> Legislature: Bill of Interest that did not Pass

- **HB 4373/SB 2108**

- TWDB Legislative priority bills for Regional Water Planning.
- Original bill text would have removed the requirement to place a printed copy of the Initially Prepared Plan (IPP) in each county courthouse and one public library in each county in the planning area.
- Would have also allowed notice of the IPP hearing to be posted on the planning group's website, instead of published in newspapers.

**MEETING OF THE  
North East Texas Regional Water Planning Group  
WEDNESDAY, July 12, 2023**

**Agenda Item 5  
Resignation of Voting Member**

**Administrative Summary**

Staff recieved a letter from Bob Tardiff dated Saturday, April 8, 2023, submitting his resignation from the Region D WPG. The item on the agenda would be to consider accepting the resignation and opening up this position to nominations as called for in the bylaws. The bylaws call for opening the position for nominations within 45 days of the acceptance of the resignation and having a deadline for nominations between 30-45 days from the date the public notice is posted. If this item is approved the plan would be that nominations would be brought back to the Executive Committee and the full voting membership at the next meeting. Mr. Tardiff did have a nominee in his resignation letter. It was Cory Moose. Mr. Moose is the Utility Director for the City of Lindale, and he is currently Mr. Tardiff's designated alternate.

April 8, 2023

Northeast Texas Regional Water Planning Group D  
Jim Thompson, Chair

Subject: Resignation as Voting Member

Dear Mr. Thompson,

I have enjoyed the opportunity to serve as a voting member of the NET Regional Water Planning Group D. The work this group does is critical to the ability of our region to provide an ample supply of fresh water now and into the future.

It is with some regret that I have decided to resign as the Smith County Municipal Representative. At this time, I believe the NET Regional Water Planning Group would be better served with a new voting member to represent Smith County municipalities.

I would like to nominate Cory Moose to replace me as the voting member representing Smith County Municipalities on the NET Regional Water Planning Group D. Mr. Moose is Utility Director for the City of Lindale and is highly respected in his field. I have discussed this with Mr. Moose, and he is willing to serve. I have further discussed this with both Lindale Mayor Jeff Daugherty, and City Manager Carolyn Caldwell. Both are pleased to endorse his nomination. Mr. Moose has served as my Alternate and I believe you have all his contact information. If you need anything else, please feel free to contact me.

Thank you for the opportunity to serve and for your consideration of my nomination of Mr. Moose to serve as my replacement.

Yours Truly,

Bob Tardiff, Councilman-Elect  
City of Lindale, Texas

**MEETING OF THE  
North East Texas Regional Water Planning Group  
WEDNESDAY, July 12, 2023**

**Agenda Item 6  
Recommended Revisions to the Region D  
Municipal Population and Demands**

**Administrative Summary**

Region D is trying to submit these municipal population and demand revisions earlier than in past cycles, at the request of TWDB, if it was possible. The Technical Consultant will still be surveying and calling Region D WUGs between now and late-July, and there may be some relevant new information that may warrant an additional revision. If that were to happen, staff requests the option to work with the Chair and the technical consultant to submit additional revisions to TWDB after this first approved submittal so long as that additional submittal happens before the TWDB's August 11, 2023 deadline.



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[carollo.com](http://carollo.com)

August 11, 2023

Mr. Jeff Walker  
Executive Administrator  
Texas Water Development Board  
1700 N. Congress Ave.  
Austin, TX 78711-3231

Subject: Region D – Proposed Revision Request to Draft 2026 Municipal Projections

Dear Mr. Walker:

The Draft 2026 Region D Water Plan municipal projections prepared by the Texas Water Development Board (TWDB) have been reviewed by the North East Texas Regional Water Planning Group (NETRWPG; Region D) and its consultants. Attached are the required spreadsheets, documenting the proposed modifications to these projections, as well as the supporting documentation as required under the Texas Water Code.

Upon review of the Draft 2026 projections, comments have been received by a number of Water User Groups (WUGs; see attachments) requesting modifications to the population and/or municipal water demand projections. Upon receipt of these documented requests, and review and presentation from the technical consultant, at its' July 12, 2023 meeting the NETRWPG formally provided unanimous approval authorizing the consultants to populate and distribute to the TWDB the population, per capita, and associated demand adjustments consistent with the information provided in this meeting by the consultants, and approved for the consultants to submit further revisions and make responses to revision requests by TWDB.

If any additional information is necessary, please feel free to give me a call at your convenience, and we will respond as appropriate.

Sincerely,  
CAROLLO ENGINEERS, INC.

Tony L. Smith, P.E.  
Project Manager

tls

Enclosures: Digital Attachments

cc: Ron Ellis  
Kyle Dooley  
NETRWPG



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## Region D Supporting Analyses

The rationale and supporting analyses for the NETRWPG's requested revisions to the Draft Municipal Projections are provided herein. These requests ascribe to the contractually required criteria for adjustment identified within Section 2.2 of the First Amended General Guidelines for Development of the 2026 Regional Water Plans (October 2022), referred to hereafter as the Exhibit C Guidelines. The Texas Administrative Code is referred to herein as TAC, for brevity. All amounts documented herein are in acre-feet, unless otherwise noted. Compound annual growth rates are referred to herein simply as the "growth rate," unless otherwise noted.

The Exhibit C Guidelines note that, "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)." The NETRWPG's general approach to reviewing the Draft Municipal Projections initiated with regional analyses of historical population, per capita usage, and water demands for the primary WUGs located within Region D. Subsequent to these regional analyses, the NETRWPG surveyed WUGs and Wholesale Water Providers (WWPs) within the region via email and phone, in an effort to obtain as much input and documentation as possible to support the requests herein.

Provided below are descriptions of the NETRWPG's regional analyses, identifying the specific Exhibit C Guidelines for which the analysis and requests apply. For those WUGs where supporting documentation identifying a specific request for that WUG has been identified, the rationale for that WUG is summarized and supporting documentation incorporated by digital attachment. Regional analyses and requests are then documented for per capita usage and municipal water demand, incorporating the requests sequentially consistent with the methodology for determining the municipal demand projections.

A response frequently expressed throughout the ongoing engagement with WUGs within Region D is the general concern regarding the significant decreases observed in many of the projected municipal populations when compared to those amounts adopted for the purposes of the 2021 Regional Water Plan. The NETRWPG shares this concern, generally commenting that western areas of the region experiencing changing conditions do not appear to be appropriately reflected in the draft projections, while also noting that allowing for decreases in projected population does not align with an objective to conservatively plan for sufficient supplies addressing changing conditions. In other words, planning for future declines in population - particularly in rural areas such as those comprising much of Region D - does not complement a conservative approach to water planning.

## Regional Population Analyses

With these general concerns noted, the NETRWPG first evaluated the 1.0- and 0.5-migration scenarios provided by the TWDB to assess the regional, county, and WUG-level population projections. At the county-level, the draft projections for each migration scenario were comparatively assessed to determine the migration scenario resulting in the greater projection of population, in order to support a more conservative estimation of population growth at the county-level.

Through these comparisons, it was observed that the projected trends based on the 0.5-migration scenario appear less sensitive to the data upon which they were based than the trends of the 1.0-migration scenario, as evidenced in Figures 1 and 2 below. Generally, counties with significant decreasing trends in the estimated

historical population produced higher (but still decreasing) population projections when using the 0.5-migration scenario. Counties with significant increasing trends in the estimated historical population produced higher population projections when using the 1.0-migration scenario.

Table 1 – Results of Comparison of Draft Projected Population utilizing 1.0- and 0.5- Migration Scenarios for Counties in Region D

BOWIE	1
CAMP	0.5
CASS	0.5
DELTA	1
FRANKLIN	0.5
GREGG	0.5
HARRISON	1
HOPKINS	1
HUNT	1
LAMAR	0.5
MARION	0.5
MORRIS	0.5
RAINS	1
RED RIVER	0.5
SMITH	1
TITUS	0.5
UPSHUR	1
VAN ZANDT	1
WOOD	1

DRAFT



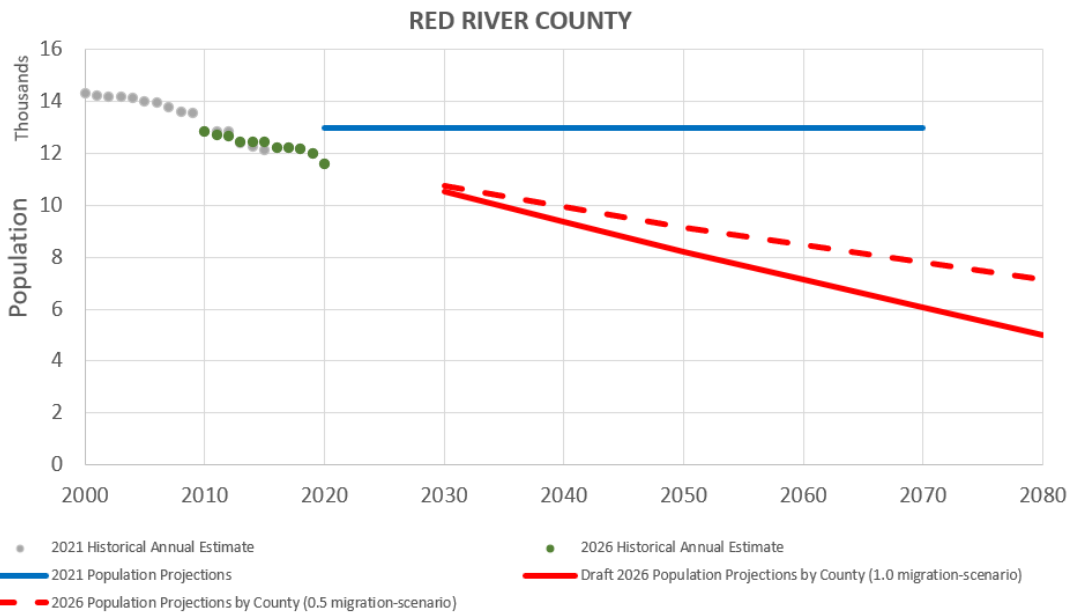


Figure 1 – Comparisons of Historical and Projected Populations using 1.0- and 0.5- Migration Scenarios and the Adopted 2021 Region D Plan Population Projection for Red River County (2000 – 2080)

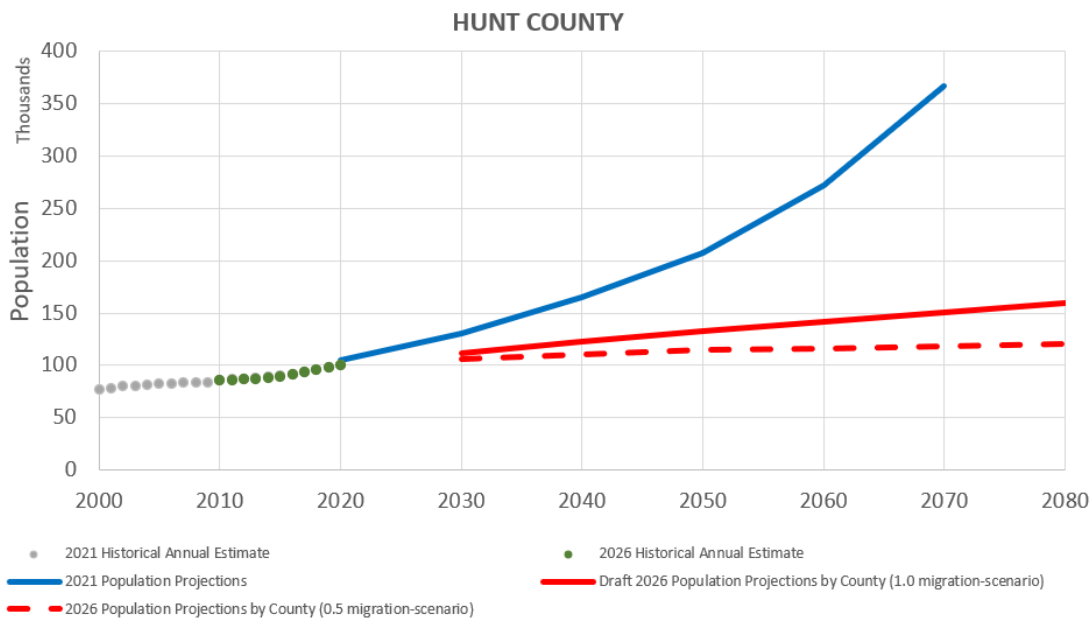


Figure 2 - Comparisons of Historical and Projected Populations using 1.0- and 0.5- Migration Scenarios and the Adopted 2021 Region D Plan Population Projection for Hunt County (2000 – 2080)

The NETRWPG thus first requests the mixing of differing migration rates at the county level within Region D, as the mixture (identified in Table 1 above) produces a greater, more conservative estimation of projected population. For more rapidly growing counties, the 1.0-migration scenario's higher projections allow some accommodation for continued near-term growth, which is consistent with the Texas Demographic Center's (TDC) suggested use for near-term planning uses. For counties with estimated declining populations, use of the 0.5-migration scenario allows for some additional conservatism through avoiding over-estimation of long-term decreases in population. The 0.5-migration scenario is also recommended by the TDC for long-term planning, and thus the use of this migration scenario remains consistent with the overall goals of regional planning.

The sixth data requirement for adjustment identified in the Exhibit C Guidelines for county-level population projections (Section 2.2.1.3, Item 6) is, "Other data and evidence that the RWPG believes provides a reasonable basis for justifying changes to the net total county-level population projection." The NETRWPG offers this first request based on this requirement. The NETRWPG further notes that with the significant change in the approach for developing the draft population projections, the requested mixing of the 0.5- and 1.0-migration scenarios minimizes the decreases in projected populations while continuing to employ data provided by the TWDB and TDC. The NETRWPG finds that this approach is a reasonable basis for revision to the draft population projections at the county-level.

A comparison of the total regional population projections is presented in Table 2, showing the 1.0- and 0.5-migration scenario projections along with the projected total regional populations when using the mixed migration rates. It is noted that use of the mixed migration rates by county produces a greater projected population for the region than the Draft projections based on the 1.0-migration scenario.

Table 2 – Comparison of Projected Total Regional Populations using 1.0- and 0.5 Migration Scenarios to Mixed Scenario Approach

Scenario	2030	2040	2050	2060	2070	2080
1.0-Migration Scenario	824,990	847,410	859,530	868,815	878,201	887,689
0.5-Migration Scenario	811,242	820,972	821,491	820,356	819,224	818,093
Mixed Migration Rates by County	828,602	855,265	872,532	887,692	903,074	918,677

The regional total populations based on the mixed migration rates by county are *not* the final requested amounts. They have been modified based on WUG-specific revision requests relating to the draft municipal population projections that have been received by the NETRWPG over the course of its survey of WUGs within the region. Consideration of those WUG's requests, and the NETRWPG's accordant analyses and requests, are reported by county below. Where a WUG spans multiple counties, the supporting information has been repeated for ease of reference.

## Bowie County Summary of Requested Population Revisions

An increase from the Draft projected population amounts is requested for Bowie County, as shown in Table 3.

Table 3 – Summary of Requested Revisions to Population Projections for Bowie County (2030 – 2080)

BOWIE	2030	2040	2050	2060	2070	2080
2026 Draft	93,746	93,256	92,580	91,309	90,024	88,725
Requested Changes	98,959	98,931	102,692	105,556	107,560	107,596
Net County Increase	5,213	5,675	10,112	14,247	17,536	18,871

This increase is based on requested changes for the WUGs identified below.

Riverbend Water Resources District (RWRD) Member Entities (Bowie County)

### *Summary of Comments Received:*

1. Request for revision to population and demand projections (demand projections are discussed later within this document).

### *Summary of Supporting Materials Received:*

1. A revision request to remain appropriately consistent with the previously adopted amounts was received by email on June 28, 2023 from Mr. Kyle Dooley, Executive Director/CEO for the RWRD (see Digital Attachment/Bowie\_Cass/RWRD1.pdf).
2. For the development of the 2021 Region D Water Plan, RWRD submitted a request for revised municipal population projections for its member entities for the consideration of the NETRWPG and TWDB (see Digital Attachment/Bowie\_Cass/RWRD2.pdf). These projections were incorporated and utilized within RWRD's 2018 Regional Water Master Plan, requested by the NETRWPG, and formally adopted for the purposes of the 2021 Region D Water Plan.

### *NETRWPG Analysis*

1. For the present effort, the NETRWPG has evaluated and compared the population projections previously submitted by RWRD for its member entities to the Draft 2026 population projections corresponding to those WUGs that are member entities. The City of De Kalb is no longer a member entity, and was thus excluded from this analysis.
2. The NETRWPG has identified those instances where the RWRD's population projections exceed the Draft 2026 1.0-migration scenario's projections.
3. The supporting documentation for each WUG has been provided by RWRD and utilized within RWRD's 2018 Regional Water Master Plan.

### *NETRWPG Request*

1. Revise the WUG population projections for the identified WUGs that are RWRD member entities in Bowie County as shown in Table 4.

- The population projections for the County-Other, Bowie, WUG are requested to be reduced to the same amounts as were adopted for the purposes of the 2021 Region D Plan. This reduction offsets a portion of the overall requested increase in the county population.

Table 4 - Summary of Requested Revisions to Population Projections for WUGs in Bowie County (2030 – 2080)

Bowie County		2030	2040	2050	2060	2070	2080
Hooks	2026 Draft	2,604	2,587	2,562	2,523	2,483	2,443
	Requested Changes	3,173	3,303	3,303	3,303	3,303	3,303
Maud	2026 Draft	777	772	764	752	741	729
	Requested Changes	1,500	1,642	1,642	1,642	1,642	1,642
Nash	2026 Draft	4,107	4,080	4,041	3,980	3,918	3,855
	Requested Changes	4,751	5,431	6,111	6,111	6,111	6,111
Redwater	2026 Draft	2,926	2,906	2,879	2,834	2,790	2,745
	Requested Changes	4,229	4,709	5,189	5,429	5,429	5,429
Texarkana (TX)	2026 Draft	36,392	36,186	35,899	35,390	34,874	34,353
	Requested Changes	39,674	41,413	43,220	45,124	47,102	47,102
Wake Village	2026 Draft	5,757	5,719	5,665	5,577	5,490	5,401
	Requested Changes	6,850	7,550	8,250	8,950	8,950	8,950
County-Other, Bowie	2026 Draft	13,653	13,350	13,020	12,483	11,932	11,367
	Requested Changes	11,252	7,227	7,227	7,227	7,227	7,227

This request is based on information utilized within RWRD’s 2018 Regional Water Master Plan, and is thus consistent with the seventh and eighth data requirements for adjustments identified in the Exhibit C Guidelines for WUG-level population projections (Section 2.2.1.4, Items 7 and 8). The seventh data requirement states, “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.” The eighth data requirement states, “Other data and evidence that the RWPG believes provides a reasonable basis for justifying changes to an individual WUG-level population projection.”

## Cass County Summary of Requested Population Revisions

An increase from the Draft projected population amounts is requested for Cass County, as shown Table 5:

Table 5 - Summary of Requested Revisions to Population Projections for Cass County (2030 – 2080)

CASS	2030	2040	2050	2060	2070	2080
2026 Draft	26,634	24,679	22,518	20,582	18,625	16,647
Requested Changes	27,246	25,970	24,574	23,456	22,340	21,225
Net County Increase	612	1,291	2,056	2,874	3,715	4,578

This increase is based on requested changes for the WUGs identified below.

Riverbend Water Resources District (RWRD) Member Entities (Cass County)

### *Summary of Comments Received:*

1. Request for revision to population and demand projections (demand projections are discussed later within this document).

### *Summary of Supporting Materials Received:*

1. A revision request to remain appropriately consistent with the previously adopted amounts was received by email on June 28, 2023 from Mr. Kyle Dooley, Executive Director/CEO for the RWRD (see Digital Attachment/Bowie\_Cass/RWRD1.pdf).
2. For the development of the 2021 Region D Water Plan, RWRD submitted a request for revised municipal population projections for its member entities for the consideration of the NETRWPG and TWDB (see Digital Attachment/Bowie\_Cass/RWRD2.pdf). These projections were incorporated and utilized within RWRD's 2018 Regional Water Master Plan, requested by the NETRWPG, and formally adopted for the purposes of the 2021 Region D Water Plan.

### *NETRWPG Analysis*

1. For the present effort, the NETRWPG has evaluated and compared the population projections previously submitted by RWRD for its member entities to the Draft 2026 population projections corresponding to those WUGs that are member entities.
2. The NETRWPG has identified those instances where the RWRD's population projections exceed the Draft 2026 1.0-migration scenario's projections.
3. The supporting documentation for each WUG has been provided by RWRD and utilized within RWRD's 2018 Regional Water Master Plan.
4. The Draft 2026 population projections for the County-Other, Cass, WUG are significantly lower than those adopted for the purposes of the 2021 Region D Plan. Thus, no reduction is requested to the County-Other, Cass WUG.



*NETRWPG Request*

1. Revise the WUG population projections for the identified WUGs that are RWRD member entities in Cass County as shown in the table below.

Table 6 - Summary of Requested Revisions to Population Projections for WUGs in Cass County (2030 – 2080)

Cass County		2030	2040	2050	2060	2070	2080
Atlanta	2026 Draft	4,878	4,528	4,142	3,792	3,439	3,081
	Requested Changes	6,394	6,910	7,427	7,427	7,427	7,427

This request is based on information utilized within RWRD’s 2018 Regional Water Master Plan, and is thus consistent with the seventh and eighth data requirements for adjustments identified in the Exhibit C Guidelines for WUG-level population projections (Section 2.2.1.4, Items 7 and 8). The seventh data requirement states, “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.” The eighth data requirement states, “Other data and evidence that the RWPG believes provides a reasonable basis for justifying changes to an individual WUG-level population projection.”

**Hopkins County Summary of Requested Population Revisions**

An increase from the Draft projected population amounts is requested for Hopkins County, as shown in Table 7:

Table 7 - Summary of Requested Revisions to Population Projections for Hopkins County (2030 – 2080)

HOPKINS	2030	2040	2050	2060	2070	2080
2026 Draft	38,576	39,833	40,770	41,593	42,425	43,266
Requested Population Projections	49,565	51,316	52,534	53,645	54,767	55,904
Net County Increase	10,989	11,483	11,764	12,052	12,342	12,638

The NETRWPG received three requests for revisions to the draft population projections from WUGs within Hopkins County: Cash Special Utility District (Cash SUD), North Hopkins Water Supply Corporation (NHWSC), and the City of Sulphur Springs. Based on the information provided by these WUGs, the NETRWPG requests revisions to the draft population projections for Cash SUD and NHWSC.

Cash SUD

*Summary of Comments Received:*

1. Request for revision to population and demand projections (demand projections are addressed later in this document).





*Summary of Supporting Materials Received:*

1. Revision request received by email on May 24, 2023 from Mr. Clay Hodges, General Manager for the Cash SUD (see Digital Attachment /Hunt/CashSUD1.pdf). The WUG provided data on historical water sales, population estimates, per capita usage, and municipal water use data over the 1994 – 2022 period of record (see Digital Attachment /Hunt/CashSUD2.pdf).

*NETRWPG Analysis*

The WUG's reported 2020 population of 19,723 is approximately 2.2% greater than the estimated Draft 2020 population of 19,289 from the historical data provided to the NETRWPG by TWDB. The WUG estimates the 2022 total population of 22,736, which represents a near-term annual growth rate of 7.4% since 2020. The 10-year historical annual growth rate derived from the WUG's data over the 2012 – 2022 period is 3.3%, while the 5-year annual growth rate (2018 – 2022) is 4.8%, again suggesting more recent near-term growth for the WUG's overall estimated population.

These historical annual growth rates significantly differ from the Draft projected annual growth rates, which start at a 0.5% annual growth rate from 2020 to 2030, to 1.1% in 2040, then decreasing to 0.6% by 2080.

Cash SUD serves Hopkins, Hunt, and Rains Counties. The TWDB Draft population projections provide an estimate of the projected distribution of the population served by Cash SUD between these three counties, as shown in Table 8.

Table 8 - Distribution as Percentage of Total Projected Population from Draft TWDB Projections of Cash SUD (2030 – 2080)

County	2030	2040	2050	2060	2070	2080
Hopkins	1.0%	1.0%	0.9%	0.9%	0.9%	0.9%
Hunt	94.7%	94.9%	95.1%	95.1%	95.1%	95.1%
Rains	4.3%	4.2%	4.0%	4.0%	4.0%	4.0%

*NETRWPG Request*

Revise the WUG's population projections as shown in Table 9, incorporating the revised 2022 population estimate of 22,736 from the WUG's provided data, then applying the following annual growth rates:

- 2030: 4.8%, based on the WUG's recent 5-year annual growth rate over the 2018 – 2022 period;
- 2040: 3.3%, based on the WUG's longer-term 10-year annual growth rate over the 2012 – 2022 period;
- 2050: 0.9% - based on the calculated annual growth rate for the total Cash SUD system for 2050 from the Draft TWDB projections.
- 2060: 0.7% - based on the calculated annual growth rate for the total Cash SUD system for 2050 from the Draft TWDB projections.

- 2070: 0.7%- based on the calculated annual growth rate for the total Cash SUD system for 2050 from the Draft TWDB projections.
- 2080: 0.6%- based on the calculated annual growth rate for the total Cash SUD system for 2050 from the Draft TWDB projections.

The resultant decadal revised population projections for Cash SUD would then be apportioned using the decadal distribution percentages as identified in Table 8 to determine the split population projections for Cash SUD in Hopkins, Hunt, and Rains Counties.

Table 9 - Summary of Requested Revisions to Population Projections for the Cash SUD portion in Hopkins County (2030 – 2080)

Cash SUD		2030	2040	2050	2060	2070	2080
Hopkins	2026 Draft	195	220	220	232	244	256
	Requested Changes	330	412	449	482	515	550

The NETRWPG’s request employs the reported 2022 total population estimate provided by the WUG. The request also reflects the WUG’s reporting of recent growth as exhibited by the historical population data provided by the WUG, and reflects the WUG’s projections of future growth by incorporating both 5-year and 10-year annual growth rates from the recent observed record to estimate 2030 and 2040 total population projections for Cash SUD, and incorporates the TWDB’s annual growth rates derived from the Draft projections for the WUG for the long-term 2050 – 2080 population projections.

This request is based on data provided by Cash SUD and information reported by the TWDB, and is consistent with the seventh and eighth data requirements for adjustments identified in the Exhibit C Guidelines for WUG-level population projections (Section 2.2.1.4, Items 7 and 8). The seventh data requirement states, “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.” The eighth data requirement states, “Other data and evidence that the RWPG believes provides a reasonable basis for justifying changes to an individual WUG-level population projection.”

North Hopkins WSC

*Summary of Comments Received:*

1. Request for revision to population and demand projections.

*Summary of Supporting Materials Received:*

1. Revision request received by email on June 26, 2023 from NHWSC (see Digital Attachment /Hopkins/NorthHopkinsWSC.pdf).



2. According to the NHWSC’s estimates based on reported use and increases in connections, the recent historical population served over the 2020 – 2022 period has increased from 6,970 in 2020 to 8,253 in 2022.

*NETRWPG Analysis*

NHWSC’s estimated full time residential population served directly by the system of 6,970 in 2020 is significantly greater recent growth than the estimated 2020 census population of 5,048. The 2022 population of 8,253 is greater than all the draft projections over the 2030 – 2080 planning period. These estimates are based on the information reported in NHWSC’s Water Use Surveys submitted to the TWDB. The compounded annual growth rate over this more recent two-year period equates to 8.8%, which is significantly higher than the draft near-term growth rate of 0.62% applied to estimate the draft 2030 population for NHWSC.

*NETRWPG Request*

1. Revise the WUG’s population projections as shown in Table 10, incorporating the revised 2022 population estimate of 8,253 from NHWSC for 2022, applying the more recent 8.8% annual growth rate for the estimation of 2030 population, then utilize the annual growth rate from the draft 1.0-migration scenario estimates of population for the 2040 – 2080 period:

Table 10 - Summary of Requested Revisions to Population Projections for WUGs in Hopkins County (2030 – 2080)

North Hopkins WSC	2030	2040	2050	2060	2070	2080
2026 Draft	5,369	5,585	5,706	5,838	5,971	6,106
Requested Changes	16,223	16,876	17,241	17,640	18,042	18,450

This request is consistent with the third and fifth criteria for adjustment identified in the Exhibit C Guidelines for WUG-level population projections (Section 2.2.1.4, Items 3 and 5). The third criterion is, “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.” The fifth criterion is, “Updated information regarding the utility or public water system service area or anticipated near-term changes in service area.”

This request is also consistent with the eighth data requirements for adjustments identified in the Exhibit C Guidelines for WUG-level population projections (Section 2.2.1.4, Item 8). The eighth data requirement states, “Other data and evidence that the RWPG believes provides a reasonable basis for justifying changes to an individual WUG-level population projection.”

City of Sulphur Springs

*Summary of Comments Received:*

1. Request for revision to population projection.

*Summary of Supporting Materials Received:*

1. Revision request received by email on June 22, 2023 from Mr. David Reed, providing a link with projected 2030 population for the City at greater than 17,000: <https://worldpopulationreview.com/us-cities/sulphur-springs-tx-population>

*NETRWPG Analysis*

WUG Census-based populations were estimated using Public Water Service (PWS) area boundaries and overlaying those boundaries with Census block data. The NETRWPG's review of the PWS boundary for the City of Sulphur Springs indicates the latest PWS review date was May 18, 2020. The link provided by the City of Sulphur Springs utilizes the 2020 decennial census, which is based on 2020 Census Place boundaries. Regional Water Planning is based on utility boundaries. The PWS boundary differs significantly from 2020 Census Place boundary (located here: [https://data.census.gov/map?g=160XX00US4870904&y=2020&tid=DECENNIALDHC2020.P1&layer=VT\\_2020\\_160\\_00\\_PY\\_D1&mode=thematic&loc=33.1414,-95.6260,z10.7802](https://data.census.gov/map?g=160XX00US4870904&y=2020&tid=DECENNIALDHC2020.P1&layer=VT_2020_160_00_PY_D1&mode=thematic&loc=33.1414,-95.6260,z10.7802)) for the City of Sulphur Springs.

*NETRWPG Request*

The proposed revision is not requested by the NETRWPG for the purposes of the 2026 Regional Water Plan.

### Hunt County Summary of Requested Population Revisions

An increase from the Draft projected population amounts is requested for Hunt County, as shown in Table 11:

Table 11 - Summary of Requested Revisions to Population Projections for Hunt County (2030 – 2080)

HUNT	2030	2040	2050	2060	2070	2080
2026 Draft	111,474	122,936	133,004	141,857	150,805	159,850
Requested Population Projections	146,458	172,179	185,986	198,080	210,306	222,665
Net County Increase	34,984	49,243	52,982	56,223	59,501	62,815

The NETRWPG received two requests for revisions to the draft population projections for Hunt County from the City of Greenville and the Cash Special Utility District (Cash SUD). Based on the information provided, the NETRWPG requests revisions to the draft population projections for these WUGs, as detailed below.

Cash SUD

*Summary of Comments Received:*

1. Request for revision to population and demand projections (demand projections are addressed later in this document).

*Summary of Supporting Materials Received:*

1. Revision request received by email on May 24, 2023 from Mr. Clay Hodges, General Manager for the Cash SUD (see Digital Attachment /Hunt/CashSUD1.pdf). The WUG provided data on historical water sales, population estimates, per capita usage, and municipal water use data over the 1994 – 2022 period of record (see Digital Attachment /Hunt/Greenville2.pdf).

*NETRWPG Analysis*

The WUG's reported 2020 population of 19,723 is approximately 2.2% greater than the estimated Draft 2020 population of 19,289 from the historical data provided to the NETRWPG by TWDB. The WUG estimates the 2022 total population of 22,736, which represents a near-term annual growth rate of 7.4% since 2020. The 10-year historical annual growth rate derived from the WUG's data over the 2012 – 2022 period is 3.3%, while the 5-year annual growth rate (2018 – 2022) is 4.8%, again suggesting more recent near-term growth for the WUG's overall estimated population.

These historical annual growth rates significantly differ from the Draft projected annual growth rates, which start at a 0.5% annual growth rate from 2020 to 2030, to 1.1% in 2040, then decreasing to 0.6% by 2080.

Cash SUD serves Hopkins, Hunt, and Rains Counties. The TWDB Draft population projections provide an estimate of the projected distribution of the population served by Cash SUD between these three counties, as shown in Table 12.

Table 12 - Distribution as Percentage of Total Projected Population from Draft TWDB Projections of Cash SUD (2030 – 2080)

County	2030	2040	2050	2060	2070	2080
Hopkins	1.0%	1.0%	0.9%	0.9%	0.9%	0.9%
Hunt	94.7%	94.9%	95.1%	95.1%	95.1%	95.1%
Rains	4.3%	4.2%	4.0%	4.0%	4.0%	4.0%

*NETRWPG Request*

Revise the WUG's population projections as shown in Table 13, incorporating the revised 2022 population estimate of 22,736 from the WUG's provided data, then applying the following annual growth rates:

- 2030: 4.8%, based on the WUG's recent 5-year annual growth rate over the 2018 – 2022 period;

- 2040: 3.3%, based on the WUG’s longer-term 10-year annual growth rate over the 2012 – 2022 period;
- 2050: 0.9% - based on the calculated annual growth rate for the total Cash SUD system for 2050 from the Draft TWDB projections.
- 2060: 0.7%- based on the calculated annual growth rate for the total Cash SUD system for 2050 from the Draft TWDB projections.
- 2070: 0.7%- based on the calculated annual growth rate for the total Cash SUD system for 2050 from the Draft TWDB projections.
- 2080: 0.6%- based on the calculated annual growth rate for the total Cash SUD system for 2050 from the Draft TWDB projections.

The resultant decadal revised population projections for Cash SUD would then be apportioned using the decadal distribution percentages as identified in Table 12 to determine the split population projections for Cash SUD in Hopkins, Hunt, and Rains Counties.

Table 13 - Summary of Requested Revisions to Population Projections for the Cash SUD portion in Hunt County (2030 – 2080)

Cash SUD		2030	2040	2050	2060	2070	2080
Hunt	2026 Draft	19,173	21,398	23,349	25,096	26,860	28,641
	Requested Changes	31,330	43,439	47,387	50,918	54,485	58,087

The NETRWPG’s request employs the reported 2022 total population estimate provided by the WUG. The request also reflects the WUG’s reporting of recent growth as exhibited by the historical population data provided by the WUG, and reflects the WUG’s projections of future growth by incorporating both 5-year and 10-year annual growth rates from the recent observed record to estimate 2030 and 2040 total population projections for Cash SUD, and incorporates the TWDB’s annual growth rates derived from the Draft projections for the WUG for the long-term 2050 – 2080 population projections.

This request is based on data provided by Cash SUD and information reported by the TWDB, and is consistent with the seventh and eighth data requirements for adjustments identified in the Exhibit C Guidelines for WUG-level population projections (Section 2.2.1.4, Items 7 and 8). The seventh data requirement states, “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.” The eighth data requirement states, “Other data and evidence that the RWPG believes provides a reasonable basis for justifying changes to an individual WUG-level population projection.”





City of Greenville

*Summary of Comments Received:*

1. Request for revision to population and demand projections (demand projections are addressed later in this document).

*Summary of Supporting Materials Received:*

1. Revision request received by email on June 26, 2023 from Mr. Robert Burney, Water Production Superintendent for the City of Greenville (see Digital Attachment /Hunt/Greenville1.pdf). The City provided a draft copy of its 2021 Water Distribution Master Plan (see Digital Attachment /Hunt/Greenville2.pdf).
2. Historical population data for the City was compiled for this plan from the U.S. Census Bureau data and from population data included in previous studies. As reported therein, “the data indicated an average annual growth rate of 1.6% over the past 30 years. More recently though in the past four years though the City has seen a sharp increase in growth with growth rates of between 2.2% and 3.1% each year. The average growth rate for the past four years has been over 2.5%.
3. The City anticipates significant population growth, reporting new development projects occurring around the City. The City reports approximately 4,300 new water service applications related to new development. The City has developed projections of growth from 2021 – 2041 in 5-year increments, reflecting more aggressive near-term yearly growth rates, with the longer-term growth returning to the long-term historical average rate.

*NETRWPG Analysis*

The City’s reported 2021 population of 34,375 is greater than the estimated 2020 population and draft projections for 2030 – 2040. Utilizing the plan’s population estimates for 2021, 2031, and 2041, the NETRWPG has calculated that the compound annual growth rate for 2030 is 5.28%, and for 2040 is 1.19%.

*NETRWPG Request*

Revise the WUG’s population projections as shown in Table 14, incorporating the revised 2021 population estimate of 34,375 from the City’s plan for 2021, applying the 5.28% annual growth rate for the estimation of 2030 population, applying a 1.19% annual growth rate for the 2040 population, then use the annual growth rate from the TWDB’s Draft 2026 estimates of population over the 2050 – 2080 period.

Table 14 - Summary of Requested Revisions to Population Projections for the City of Greenville (2030 – 2080)

City of Greenville	2030	2040	2050	2060	2070	2080
2026 Draft	31,790	34,277	36,472	38,307	40,166	42,048
Requested Changes	54,617	61,479	65,416	68,708	72,042	75,417

The NETRWPG's request employs the reported 2021 population estimate from the City's plan, and reflects the City's reporting of recent increasing growth rates by incorporating those growth rates for the near-term estimations of 2030 and 2040 demands, while preserving the TWDB's long-term growth rates for 2050 - 2080.

This request is consistent with the third, fifth, and sixth criteria for adjustment identified in the Exhibit C Guidelines for WUG-level population projections (Section 2.2.1.4, Items 3, 5, and 6). The second criterion is, "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." The third criterion is, "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." The sixth criterion is, "Plans for a new residential development in the near future that has not been counted in the draft projections."

This request is based on draft information from the City of Greenville's Water Distribution Master Plan, and is thus consistent with the seventh and eighth data requirements for adjustments identified in the Exhibit C Guidelines for WUG-level population projections (Section 2.2.1.4, Items 7 and 8). The seventh data requirement states, "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." The eighth data requirement states, "Other data and evidence that the RWPG believes provides a reasonable basis for justifying changes to an individual WUG-level population projection."

### Morris County Summary of Requested Population Revisions

An increase from the Draft projected population amounts is requested for Morris County, as shown in Table 15:

Table 15 – Summary of Requested Revisions to Population Projections for Morris County

<b>MORRIS</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>	<b>2080</b>
2026 Draft	11,295	10,590	9,811	9,142	8,466	7,783
Revised Population Projections	11,909	11,773	11,574	11,521	11,461	11,320
Net County Increase	614	1,183	1,763	2,379	2,995	3,537

The NETRWPG received one request for revisions to the draft population projections for Morris County from the TRI Special Utility District (TRI SUD), which has a service area located within Morris and Titus Counties.

TRI SUD

#### *Summary of Comments Received:*

1. Request for revision to population and demand projections (demand projections are addressed later in this document).



*Summary of Supporting Materials Received:*

1. Revision request received by email on June 27, 2023 from Ms. Becky Brantley for TRI SUD (see Digital Attachment /Morris\_Titus/TRISUD1.pdf), with follow-up on June 29, 2023 (see Digital Attachment /Morris\_Titus/TRISUD3). TRI SUD provided historical population estimates, metering data over the 2001 – 2022 period, usage over the 2015 – 2022 period, and estimated projections of growth in meters developed by J.F. Fonaine (see Digital Attachment /Morris\_Titus/TRISUD2.pdf). These data represent the entirety of TRI SUD’s service area spanning Morris and Titus Counties.
2. TRI SUD reports that the municipal population has increased 1.5 % to 2% per year over last 20 years, and based their requested population projections on an assumed  $\approx$  10% increase every 5 years, resulting in a projected estimate of slightly more than double the 2030 population by 2080 (see Digital Attachment /Morris\_Titus/TRISUD4.pdf).

*NETRWPG Analysis*

The NETRWPG reviewed the information submitted by TRI SUD, and the historical Water Use Survey data for TRI SUD over the 2010 – 2021 period summarized on the TWDB Water Use Survey Dashboard, located at: <https://www.twdb.texas.gov/waterplanning/waterusesurvey/dashboard/index.asp>. The annual growth rate over that 11-year period for the reported population served by TRI SUD has been calculated to be 1.1%. The annual growth rate in TRI SUD’s reported metering is similar over the same period, calculated to be 0.9%. The WUG’s projections for future growth in meters is calculated to have an annual growth rate of 1.2% over the 2030 – 2080 period. These annual growth rates are slightly lower than the WUG’s observed 1.5- 2% per year estimated annual growth rate.

Historical population data provided to the NETRWPG by TWDB indicates the total population served in 2020 by TRI SUD to be 15,161. The Draft population projection for TRI SUD declines to 14,634 by 2030, down to 10,696 by 2080, equating to declining annual growth rate of -0.6% over the 50-year period.

The 2021 population served by TRI SUD as reported in the 2021 Water Use Survey is 17,421, which represents a 12.7% increase over the 2020 population identified in TRI SUD’s 2020 Water Use Survey, and an approximate 15% increase over the historical total 2020 population of 15,161 identified in the TWDB’s historical data.

TRI SUD serves both Morris and Titus Counties. The TWDB Draft population projections provide an estimate of the projected distribution of the population served by TRI SUD between these two counties, as shown in Table 16.

Table 16 –Distribution as Percentage of Total Projected Population from Draft TWDB Projections of TRI SUD (2030 – 2080)

County	2030	2040	2050	2060	2070	2080
Morris	9.0%	8.0%	7.0%	6.0%	6.0%	5.0%
Titus	91.0%	91.9%	92.9%	93.6%	94.3%	95.1%

*NETRWPG Request*

Revise the WUG’s population projections as shown in Table 17, incorporating TRI SUD’s requested 2030 – 2080 municipal population projections, then apportioning the decadal distribution percentages as identified in Table 16 to determine the split amounts for TRI SUD between Morris and Titus Counties.

Table 17 - Summary of Requested Revisions to Population Projections for TRI SUD portion in Morris County (2030 – 2080)

TRI SUD		2030	2040	2050	2060	2070	2080
Morris	Draft 2026	1,311	1,129	926	788	653	524
	Requested Changes	1,696	1,847	1,956	2,131	2,294	2,376

The NETRWPG’s request reflects the WUG’s reporting of long-term and recent growth as exhibited by the information provided by the WUG. The request is consistent with the seventh and eighth data requirements for adjustments identified in the Exhibit C Guidelines for WUG-level population projections (Section 2.2.1.4, Items 7 and 8). The seventh data requirement states, “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.” The eighth data requirement states, “Other data and evidence that the RWPG believes provides a reasonable basis for justifying changes to an individual WUG-level population projection.”

**Rains County Summary of Requested Population Revisions**

An increase from the Draft projected population amounts is requested for Rains County, as shown in Table 18:

Table 18 - Summary of Requested Revisions to Population Projections for Rains County (2030 – 2080)

RAINS	2030	2040	2050	2060	2070	2080
2026 Draft	13,446	14,244	14,881	15,667	16,461	17,264
Requested Population Projections	13,997	15,227	15,887	16,751	17,623	18,503
Net County Increase	551	983	1,006	1,084	1,162	1,239

The NETRWPG received one request for revisions to the draft population projections from WUGs within Rains County from the Cash Special Utility District (Cash SUD), which serves a portion of the county. Based on the information provided by this WUG, the NETRWPG requests revisions to the draft population projections for Cash SUD as described below.

Cash SUD

*Summary of Comments Received:*

1. Request for revision to population and demand projections (demand projections are addressed later in this document).



*Summary of Supporting Materials Received:*

1. Revision request received by email on May 24, 2023 from Mr. Clay Hodges, General Manager for the Cash SUD (see Digital Attachment /Hunt/CashSUD1.pdf). The WUG provided data on historical water sales, population estimates, per capita usage, and municipal water use data over the 1994 – 2022 period of record (see Digital Attachment /Hunt/CashSUD2.pdf).

*NETRWPG Analysis*

The WUG’s reported 2020 population of 19,723 is approximately 2.2% greater than the estimated Draft 2020 population of 19,289 from the historical data provided to the NETRWPG by TWDB. The WUG estimates the 2022 total population of 22,736, which represents a near-term annual growth rate of 7.4% since 2020. The 10-year historical annual growth rate derived from the WUG’s data over the 2012 – 2022 period is 3.3%, while the 5-year annual growth rate (2018 – 2022) is 4.8%, again suggesting more recent near-term growth for the WUG’s overall estimated population.

These historical annual growth rates significantly differ from the Draft projected annual growth rates, which start at a 0.5% annual growth rate from 2020 to 2030, to 1.1% in 2040, then decreasing to 0.6% by 2080.

Cash SUD serves Hopkins, Hunt, and Rains Counties. The TWDB Draft population projections provide an estimate of the projected distribution of the population served by Cash SUD between these three counties, as shown in Table 12.

Table 19 - Distribution as Percentage of Total Projected Population from Draft TWDB Projections of Cash SUD (2030 – 2080)

County	2030	2040	2050	2060	2070	2080
Hopkins	1.0%	1.0%	0.9%	0.9%	0.9%	0.9%
Hunt	94.7%	94.9%	95.1%	95.1%	95.1%	95.1%
Rains	4.3%	4.2%	4.0%	4.0%	4.0%	4.0%

*NETRWPG Request*

Revise the WUG’s population projections as shown in Table 20, incorporating the revised 2022 population estimate of 22,736 from the WUG’s provided data, then applying the following annual growth rates:

- 2030: 4.8%, based on the WUG’s recent 5-year annual growth rate over the 2018 – 2022 period;
- 2040: 3.3%, based on the WUG’s longer-term 10-year annual growth rate over the 2012 – 2022 period;
- 2050: 0.9% - based on the calculated annual growth rate for the total Cash SUD system for 2050 from the Draft TWDB projections.

- 2060: 0.7%- based on the calculated annual growth rate for the total Cash SUD system for 2050 from the Draft TWDB projections.
- 2070: 0.7%- based on the calculated annual growth rate for the total Cash SUD system for 2050 from the Draft TWDB projections.
- 2080: 0.6%- based on the calculated annual growth rate for the total Cash SUD system for 2050 from the Draft TWDB projections.

The resultant decadal revised population projections for Cash SUD would then be apportioned using the decadal distribution percentages as identified in Table 19 to determine the split population projections for Cash SUD in Hopkins, Hunt, and Rains Counties.

Table 20 - Summary of Requested Revisions to Population Projections for the Cash SUD portion in Rains County (2030 – 2080)

Cash SUD		2030	2040	2050	2060	2070	2080
Rains	2026 Draft	872	939	987	1,058	1,130	1,204
	Requested Changes	1,423	1,922	1,993	2,142	2,292	2,443

The NETRWPG’s request employs the reported 2022 total population estimate provided by the WUG. The request also reflects the WUG’s reporting of recent growth as exhibited by the historical population data provided by the WUG, and reflects the WUG’s projections of future growth by incorporating both 5-year and 10-year annual growth rates from the recent observed record to estimate 2030 and 2040 total population projections for Cash SUD, and incorporates the TWDB’s annual growth rates derived from the Draft projections for the WUG for the long-term 2050 – 2080 population projections.

This request is based on data provided by Cash SUD and information reported by the TWDB, and is consistent with the seventh and eighth data requirements for adjustments identified in the Exhibit C Guidelines for WUG-level population projections (Section 2.2.1.4, Items 7 and 8). The seventh data requirement states, “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.” The eighth data requirement states, “Other data and evidence that the RWPG believes provides a reasonable basis for justifying changes to an individual WUG-level population projection.”

## Titus County Summary of Requested Population Revisions

An increase from the Draft projected population amounts is requested for Titus County, as shown in Table 21:

Table 21 – Summary of Requested Revisions to Population Projections for Titus County

TITUS	2030	2040	2050	2060	2070	2080
2026 Draft	30,777	30,064	28,978	27,938	26,887	25,825
Revised Population Projections	35,234	39,528	44,470	50,291	57,350	65,820
Net County Increase	4,457	9,464	15,492	22,353	30,463	39,995

The NETRWPG received one request for revisions to the draft population projections for Titus County from the TRI Special Utility District (TRI SUD), which has a service area located within Morris and Titus Counties.

### TRI SUD

#### *Summary of Comments Received:*

1. Request for revision to population and demand projections (demand projections are addressed later in this document).

#### *Summary of Supporting Materials Received:*

1. Revision request received by email on June 27, 2023 from Ms. Becky Brantley for TRI SUD (see Digital Attachment /Morris\_Titus/TRISUD1.pdf), with follow-up on June 29, 2023 (see Digital Attachment /Morris\_Titus/TRISUD3). TRI SUD provided historical population estimates, metering data over the 2001 – 2022 period, usage over the 2015 – 2022 period, and estimated projections of growth in meters developed by J.F. Fonaine (see Digital Attachment /Morris\_Titus/TRISUD2.pdf). These data represent the entirety of TRI SUD's service area spanning Morris and Titus Counties.
2. TRI SUD reports that the municipal population has increased 1.5 % to 2% per year over last 20 years, and based their requested population projections on an assumed  $\approx$  10% increase every 5 years, resulting in a projected estimate of slightly more than double the 2030 population by 2080 (see Digital Attachment /Morris\_Titus/TRISUD4.pdf).

### *NETRWPG Analysis*

The NETRWPG reviewed the information submitted by TRI SUD, and the historical Water Use Survey data for TRI SUD over the 2010 – 2021 period summarized on the TWDB Water Use Survey Dashboard, located at: <https://www.twdb.texas.gov/waterplanning/waterusesurvey/dashboard/index.asp>. The annual growth rate over that 11-year period for the reported population served by TRI SUD has been calculated to be 1.1%. The annual growth rate in TRI SUD's reported metering is similar over the same period, calculated to be 0.9%. The WUG's projections for future growth in meters is calculated to have an annual growth rate of 1.2% over the 2030 – 2080 period. These annual growth rates are lower than the WUG's observed 1.5- 2% per year estimated annual growth rate.

Historical population data provided to the NETRWPG by TWDB indicates the total population served in 2020 by TRI SUD to be 15,161. The Draft population projection for TRI SUD declines to 14,634 by 2030, down to 10,696 by 2080, equating to declining annual growth rate of -0.6% over the 50-year period.

The 2021 population served by TRI SUD as reported in the 2021 Water Use Survey is 17,421, which represents a 12.7% increase over the 2020 population identified in TRI SUD’s 2020 Water Use Survey, and an approximate 15% increase over the historical total 2020 population of 15,161 identified in the TWDB’s historical data.

TRI SUD serves both Morris and Titus Counties. The TWDB Draft population projections provide an estimate of the projected distribution of the population served by TRI SUD between these two counties, as shown in Table 22.

Table 22 –Distribution as Percentage of Total Projected Population from Draft TWDB Projections of TRI SUD (2030 – 2080)

County	2030	2040	2050	2060	2070	2080
Morris	9.0%	8.0%	7.0%	6.0%	6.0%	5.0%
Titus	91.0%	91.9%	92.9%	93.6%	94.3%	95.1%

*NETRWPG Request*

Revise the WUG’s population projections as shown in Table 23, incorporating TRI SUD’s requested 2030 – 2080 municipal population projections, then apportioning the decadal distribution percentages as identified in Table 22 to determine the split amounts for TRI SUD between Morris and Titus Counties.

Table 23 - Summary of Requested Revisions to Population Projections for TRI SUD portion in Titus County (2030 – 2080)

TRI SUD		2030	2040	2050	2060	2070	2080
Titus	Draft 2026	13,323	12,844	12,111	11,476	10,830	10,172
	Requested Changes	17,154	20,953	25,594	31,169	37,956	46,124

The NETRWPG’s request reflects the WUG’s reporting of long-term and recent growth as exhibited by the information provided by the WUG. The request is consistent with the seventh and eighth data requirements for adjustments identified in the Exhibit C Guidelines for WUG-level population projections (Section 2.2.1.4, Items 7 and 8). The seventh data requirement states, “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.” The eighth data requirement states, “Other data and evidence that the RWPG believes provides a reasonable basis for justifying changes to an individual WUG-level population projection.”



## Wood County Summary of Requested Population Revisions

An increase from the Draft projected population amounts is requested for Wood County, as shown Table 24.

Table 24 – Summary of Requested Revisions to Population Projections for Wood County

WOOD	2030	2040	2050	2060	2070	2080
2026 Draft	48,214	50,445	51,760	54,102	56,469	58,862
Requested Population Projections	49,393	51,617	52,927	55,227	57,553	59,907
Net County Increase	1,179	1,172	1,167	1,125	1,084	1,045

The NETRWPG received one request for revisions to the draft population projections for Wood County from the New Hope Special Utility District (New Hope SUD), which has a service area located within the county.

WUG

### *Summary of Comments Received:*

1. Request for revision to population and demand projections (demand projections are addressed later in this document).

### *Summary of Supporting Materials Received:*

1. Revision request received by email on May 19, 2023 from Mr. Jim Slayton, General Manager for New Hope SUD (see Digital Attachment /Wood/NewHopeSUD1.pdf). New Hope SUD provided a System Totals report for May 2023 identifying 915 meters with an estimated current 2023 population within the WUG of 2,745. The WUG's estimate is based upon an assumed three persons per meter (see Digital Attachment /Wood/NewHopeSUD2.pdf and NewHopeSUD3.pdf).

### *NETRWPG Analysis*

The NETRWPG reviewed the historical Water Use Survey data for New Hope SUD over the 2011 – 2021 period summarized on the TWDB Water Use Survey Dashboard, located at:

<https://www.twdb.texas.gov/waterplanning/waterusesurvey/dashboard/index.asp>. The annual growth rate over the 2011 – 2021 period for this reported population served by New Hope SUD has been calculated to be approximately 1.2%. When comparing the 2013 WUS population and the WUG's reported current 2023 population of 2,745, the 10-year annual growth rate is similarly approximately 1.2%.

The historical population data provided to the NETRWPG by TWDB indicates the draft total population served by New Hope SUD in 2020 to be 1,821, with a historical annual growth rate of near 0%. The Draft population for New Hope SUD is projected to decline to 1,805 by 2030, down to 1,599 by 2080, equating to a declining annual growth rate of -0.2% over the 50-year period.

*NETRWPG Request*

Revise the WUG’s population projections as shown in Table 27, incorporating New Hope SUD’s estimated 2023 population of 2,745, applying an annual growth rate of 1.2% to estimate the 2030 population, and retaining the decadal annual growth rates employed for the Draft 2026 population projections for this WUG.

Table 25 - Summary of Requested Revisions to Population Projections for New Hope SUD in Wood County (2030 – 2080)

New Hope SUD		2030	2040	2050	2060	2070	2080
Wood	2026 Draft	1,805	1,794	1,787	1,722	1,659	1,599
	Requested Changes	2,984	2,966	2,954	2,847	2,743	2,644

The NETRWPG’s request employs the reported 2023 population estimate requested by the WUG, and employs an annual growth rate that is consistent with the population data reported by TWDB in the Water Use Survey Dashboard. The long-term annual growth rate over the 2040 – 2080 period is consistent with the decadal annual growth rates in the Draft 2026 population projections for the WUG.

This request is based on data provided by the WUG and information reported by the TWDB, and is consistent with the eighth data requirement for adjustments identified in the Exhibit C Guidelines for WUG-level population projections (Section 2.2.1.4, Items 8). The eighth data requirement states, “Other data and evidence that the RWPG believes provides a reasonable basis for justifying changes to an individual WUG-level population projection.”

**Summary of Requested Region D Population Revisions by County/WUG**

A compilation of all projected WUG populations for Region D WUGs, including requested revisions, is presented in Table 26. As the requested revisions include county- wide adjustments, this table includes those portions of any WUGs with service areas located in a county in the Region D planning area, including WUGs for which the Region C and I RWPGs are responsible. These requested amounts have been shared with the technical consultants of the applicable RWPGs to ensure consistency between the regions. The requested revisions to the Region D municipal WUG population projections are color coded as denoted below.

Legend	Description
Black	Revision based on NETRWPG’s requested use of 0.5-migration rate for county.
Red	<b>Revision based on WUG-specific request.</b>
Yellow Highlight	Revision based on NETRWPG’s requested use of 0.5-migration rate for county for a portion of another RWPG’s primary WUG that is located in Region D.





Table 26 – WUG Population Projections with NETRWPG Requested Revisions Identified (2030 – 2080)

County	WUG	2030	2040	2050	2060	2070	2080	Comment
BOWIE	County-Other, Bowie	11,252	7,227	7,227	7,227	7,227	7,227	Revision requested based on WUG-specific adjustment to population.
BOWIE	Hooks	3,173	3,303	3,303	3,303	3,303	3,303	Revision requested based on WUG-specific adjustment to population.
BOWIE	Maud	1,500	1,642	1,642	1,642	1,642	1,642	Revision requested based on WUG-specific adjustment to population.
BOWIE	Nash	4,751	5,431	6,111	6,111	6,111	6,111	Revision requested based on WUG-specific adjustment to population.
BOWIE	Redwater	4,229	4,709	5,189	5,429	5,429	5,429	Revision requested based on WUG-specific adjustment to population.
BOWIE	Texarkana	39,674	41,413	43,220	45,124	47,102	47,102	Revision requested based on WUG-specific adjustment to population.
BOWIE	Wake Village	6,850	7,550	8,250	8,950	8,950	8,950	Revision requested based on WUG-specific adjustment to population.
CAMP	Bi County WSC	7,238	7,318	7,339	7,400	7,462	7,524	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
CAMP	County-Other, Camp	1,403	1,417	1,421	1,433	1,446	1,457	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
CAMP	Cypress Springs SUD	59	59	60	60	61	61	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
CAMP	Pittsburg	3,899	3,942	3,954	3,987	4,020	4,053	Revision based on NETRWPG's requested use of 0.5-migration rate for county.

County	WUG	2030	2040	2050	2060	2070	2080	Comment
CAMP	Sharon WSC	33	34	34	34	31	31	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
CASS	Atlanta	6,394	6,910	7,427	7,427	7,427	7,427	Revision requested based on WUG-specific adjustment to population.
CASS	Avinger	346	329	311	297	283	268	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
CASS	County-Other, Cass	8,164	7,398	6,512	5,716	4,864	3,921	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
CASS	E M C WSC	503	479	453	432	410	390	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
CASS	Eastern Cass WSC	4,134	4,300	4,508	4,760	5,065	5,444	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
CASS	Holly Springs WSC	891	848	801	765	727	690	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
CASS	Hughes Springs	2,091	1,996	1,893	1,810	1,727	1,645	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
CASS	Linden	1,728	1,653	1,573	1,507	1,441	1,376	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
CASS	Mims WSC	226	216	204	195	185	176	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
CASS	Queen City	1,285	1,236	1,200	1,173	1,155	1,149	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
CASS	Western Cass WSC	2,888	2,750	2,599	2,479	2,358	2,238	Revision based on NETRWPG's requested use of 0.5-migration rate for county.



County	WUG	2030	2040	2050	2060	2070	2080	Comment
FRANKLIN	Cornersville WSC	33	35	39	43	47	52	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
FRANKLIN	County-Other, Franklin	338	331	324	322	321	319	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
FRANKLIN	Cypress Springs SUD	6,824	6,780	6,686	6,738	6,790	6,841	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
FRANKLIN	Mount Vernon	2,421	2,406	2,374	2,392	2,409	2,426	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
FRANKLIN	Winnsboro	751	747	737	742	747	753	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
GREGG	Chalk Hill SUD	20	20	21	20	20	19	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
GREGG	Clarksville City	824	832	828	814	801	787	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
GREGG	County-Other, Gregg	4,397	4,328	4,089	3,769	3,427	3,076	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
GREGG	Cross Roads SUD	423	431	441	451	463	475	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
GREGG	East Mountain Water System	346	350	348	341	336	331	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
GREGG	Eldersville WSC	4,826	4,875	4,841	4,762	4,683	4,604	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
GREGG	Gladewater	3,846	3,885	3,858	3,795	3,732	3,670	Revision based on NETRWPG's requested use of 0.5-migration rate for county.

County	WUG	2030	2040	2050	2060	2070	2080	Comment
GREGG	Glenwood WSC	112	113	112	110	109	107	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
GREGG	Kilgore	10,517	10,624	10,555	10,385	10,216	10,048	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
GREGG	Liberty City WSC	4,656	4,704	4,671	4,595	4,519	4,442	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
GREGG	Longview	80,528	81,343	80,816	79,514	78,216	76,918	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
GREGG	Starrville-Friendship WSC	444	448	445	439	431	424	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
GREGG	Tryon Road SUD	5,630	5,688	5,649	5,556	5,464	5,372	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
GREGG	West Gregg SUD	3,356	3,500	3,666	3,846	4,040	4,247	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
GREGG	White Oak	6,313	6,378	6,333	6,229	6,126	6,022	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
HOPKINS	Cash SUD	<b>330</b>	<b>412</b>	<b>449</b>	<b>482</b>	<b>515</b>	<b>550</b>	Revision requested based on WUG-specific adjustment to population.
HOPKINS	North Hopkins WSC	<b>16,223</b>	<b>16,876</b>	<b>17,241</b>	<b>17,640</b>	<b>18,042</b>	<b>18,450</b>	Revision requested based on WUG-specific adjustment to population.
HUNT	Cash SUD	<b>31,330</b>	<b>43,439</b>	<b>47,387</b>	<b>50,918</b>	<b>54,485</b>	<b>58,087</b>	Revision requested based on WUG-specific adjustment to population.
HUNT	Greenville	<b>54,617</b>	<b>61,479</b>	<b>65,416</b>	<b>68,708</b>	<b>72,042</b>	<b>75,417</b>	Revision requested based on WUG-specific adjustment to population.

County	WUG	2030	2040	2050	2060	2070	2080	Comment
LAMAR	Blossom	1,372	1,376	1,369	1,363	1,357	1,351	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
LAMAR	Bois D Arc MUD	16	16	16	16	16	16	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
LAMAR	County-Other, Lamar	2,668	2,672	2,661	2,647	2,635	2,622	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
LAMAR	Lamar County WSD	17,430	17,478	17,392	17,314	17,234	17,155	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
LAMAR	Paris	26,592	26,666	26,548	26,421	26,294	26,166	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
LAMAR	Reno (Lamar)	2,729	2,737	2,724	2,711	2,698	2,686	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
MARION	County-Other, Marion	1,552	1,349	1,069	912	732	532	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
MARION	Diana SUD	503	421	359	299	252	212	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
MARION	E M C WSC	1,736	1,558	1,349	1,215	1,076	931	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
MARION	Harleton WSC	783	671	538	452	363	268	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
MARION	Jefferson	1,661	1,550	1,430	1,348	1,266	1,185	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
MARION	Kellyville-Berea WSC	969	948	931	916	905	898	Revision based on NETRWPG's requested use of 0.5-migration rate for county.

County	WUG	2030	2040	2050	2060	2070	2080	Comment
MARION	Mims WSC	1,850	1,918	2,024	2,081	2,151	2,238	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
MARION	Ore City	108	138	180	205	232	262	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
MORRIS	Bi County WSC	1,402	1,275	1,128	1,033	936	837	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
MORRIS	County-Other, Morris	2,234	2,210	2,180	2,157	2,136	2,115	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
MORRIS	Daingerfield	2,151	2,210	2,288	2,327	2,369	2,414	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
MORRIS	Holly Springs WSC	619	558	489	444	399	352	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
MORRIS	Lone Star	1,277	1,180	1,069	997	923	849	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
MORRIS	Naples	1,381	1,371	1,365	1,354	1,346	1,338	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
MORRIS	Omaha	988	964	941	922	903	886	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
MORRIS	Tri SUD	<b>1,696</b>	<b>1,847</b>	<b>1,956</b>	<b>2,131</b>	<b>2,294</b>	<b>2,376</b>	Revision requested based on WUG-specific adjustment to population.
MORRIS	Western Cass WSC	161	158	158	156	155	153	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
RAINS	Cash SUD	<b>1,423</b>	<b>1,922</b>	<b>1,993</b>	<b>2,142</b>	<b>2,292</b>	<b>2,443</b>	Revision requested based on WUG-specific adjustment to population.



County	WUG	2030	2040	2050	2060	2070	2080	Comment
RED RIVER	410 WSC	1,343	1,276	1,215	1,163	1,112	1,063	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
RED RIVER	Bogata	883	834	788	748	710	673	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
RED RIVER	Clarksville	2,460	2,178	1,888	1,661	1,429	1,195	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
RED RIVER	County-Other, Red River	1,437	1,250	1,006	770	458	36	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
RED RIVER	Red River County WSC	4,623	4,377	4,207	4,101	4,072	4,154	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
RED RIVER	Talco	21	23	26	26	28	29	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
TITUS	Bi County WSC	511	628	807	946	1,099	1,272	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
TITUS	County-Other, Titus	1,212	1,105	895	732	554	352	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
TITUS	Cypress Springs SUD	434	508	617	702	796	901	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
TITUS	Mount Pleasant	15,375	15,788	16,030	16,229	16,449	16,692	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
TITUS	Talco	548	546	527	513	496	479	Revision based on NETRWPG's requested use of 0.5-migration rate for county.
TITUS	Tri SUD	<b>17,154</b>	<b>20,953</b>	<b>25,594</b>	<b>31,169</b>	<b>37,956</b>	<b>46,124</b>	Revision requested based on WUG-specific adjustment to population.



County	WUG	2030	2040	2050	2060	2070	2080	Comment
WOOD	New Hope SUD	2,984	2,966	2,954	2,847	2,743	2,644	Revision requested based on WUG-specific adjustment to population.

Comparisons of the requested revisions to the projected populations for the entire region are shown in Table 27. The NETRWPG is requesting an increase to the regional total from the draft projections for municipal populations in the region. For the total region, the NETRWPG's requested revisions represent increases ranging from approximately 62,000 in 2030 to approximately 166,000 by 2080. These requested revisions represent a 7.5 – 18.7% increase from the TWDB's Draft 2026 total municipal population projections over the 50-year planning period.

Table 27 – Comparisons of Total Regional Decadal Population Projections between the 2021 Region D Plan, 2026 Draft, and NETRWPG's Requested Revisions by Magnitude and Percentage (2030 – 2080)

	2030	2040	2050	2060	2070	2080
Adopted 2021 Region D Plan	907,531	988,859	1,089,197	1,211,979	1,370,438	n/a
2026 Draft	824,990	847,410	859,530	868,815	878,201	887,689
NETRWPG Request	886,631	933,727	965,464	994,612	1,024,405	1,053,838
Net Increase from 2026 Draft	61,641	86,317	105,934	125,797	146,204	166,149
% Increase from 2026 Draft	7.5%	10.2%	12.3%	14.5%	16.6%	18.7%
Net Decrease from 2021 Plan	(20,900)	(55,132)	(123,733)	(217,367)	(346,033)	n/a
% Decrease from 2021 Plan	-2.3%	-5.6%	-11.4%	-17.9%	-25.2%	n/a

With the NETRWPG's requested revisions applied, the total regional population projections remain a significant decrease from the projected populations adopted for the purposes of the 2021 Region D Plan. These decreases range from approximately -20,900 in 2030 (-2.3%) to a decrease of nearly -346,000 by 2070 (-25.9%) over the comparable 2030 – 2070 planning period.





## Regional Per Capita Use Analyses (Gallons per Capita Daily; GPCD)

As described in the Exhibit C Guidelines,

“[T]he municipal water demand projections will be based upon dry-year demand conditions. The baseline GPCDs used in the 2026 RWP’s will be carried over from the 2021 RWP’s 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 RWP’s.”

The NETRWPG has performed an evaluation of historical GPCDs for WUGs within Region D over the 2010 – 2020 period. Historical GPCDs over this period were calculated using historical utility-based annual WUG population estimates developed by the TWDB and annual net use amounts reported by PWSs via annual Water Use Surveys submitted to and reported by TWDB. These data, provided by TWDB, are consistent with the third data requirement for adjustment identified in the Exhibit C Guidelines for WUG-level population projections (Section 2.2.2.1, Data requirements, Item 3). The third data requirement is, “Net annual municipal water use, defined as total water production less sales to other water users (utilities, industries, public water systems, etc.) measured in acre-feet.”

The NETRWPG has identified the maximum historically observed annual GPCD and evaluated trends over the ten-year (2010 – 2020) period for each Region D WUG. The results of these analyses are shown in Table 28 for each WUG. It is noted that approximately a third of the WUGs within Region D exhibit increasing per capita usage, which is consistent with patterns of growth in rural areas comprising the region. Almost half of the WUGs in the region exhibit a decreasing trend in per capita usage, based largely on high usage amounts that occurred during drought conditions observed in the 2010 – 2012 period. The remaining WUGs do not exhibit significant positive or negative trends in per capita usage.

### *NETRWPG Request*

The NETRWPG requests the following for the WUGs identified in Table 28 located within the Region D planning area:

1. Use of the maximum<sup>1</sup> historical GPCD over the 2010 – 2020 period.

By employing the maximum historical GPCD over the 2010 – 2020 period, the extended period captures extreme drought conditions observed in the region in the early part of the decade, while also reflecting

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<sup>1</sup> One exception is for the City of Texarkana (TX). The NETRWPG’s evaluation identified an apparent error in the TWDB’s calculation and reporting of GPCD. The error arises from the reporting of the Water Use Survey, which reflects intake and population for both Texarkana (TX) and Texarkana (AR). The TWDB’s calculation of GPCD appears to only use the population for Texarkana (TX), resulting in a high GPCD (see digital attachment /Bowie\_Cass/Texarkana WUS and GPCD files for reference). The NETRWPG has investigated correcting this calculation, and has determined that the resultant maximum GPCD was nearly equivalent to the Draft 2026 baseline GPCD calculated by the TWDB. Thus, no revision is requested to the Draft baseline GPCD for the City of Texarkana (TX).

the higher per capita usage observed for those WUGs with increasing trends in the region. Capturing the higher GPCD observed for WUGs during the drought conditions in the early part of the decade is consistent with the Exhibit C Guidelines’ objective of reflecting “dry-year demand conditions”. Use of the maximum to capture observed increasing trends is also consistent with the fourth criterion for adjustment identified in the Exhibit C Guidelines for WUG-level population projections (Section 2.2.2.1, Item 4). The fourth criterion states, “Trends indicating that per capita water use for a utility or rural area of a county have increased substantially in recent years, and evidence that these trends will continue to rise in the short-term future due to commercial development.”

2. Removal of the subtraction of water efficiency savings due to more efficient plumbing fixtures and appliances from the baseline GPCD.

The NETRWPG considers usage of the maximum observed GPCD representative of a conservative estimate of per capita usage in dry-year demand conditions and/or representative of increasing trends in per capita usage for WUGs in the region. The NETRWPG requests that the baseline GPCDs *not* be reduced by subtracting estimated water efficiency savings, as they are representative of per capita usage that has been observed and derived from data reported by WUGs in the region. The NETRWPG considers this a reasonable adjustment to the methodology, as it is consistent with the overall guidance principles in TAC §358.3(2) that “[t]he regional water plans and state water plan shall serve as water supply plans under drought of record conditions.”

Table 28 – Identification of Historical Trends and Maximum Per Capita Usage by Region D WUG over the 2010 – 2020 period Compared to the Adopted 2021 Region D Plan and Draft 2026 TWDB Baselines, with Requested Revisions of the NETRWPG

WUG	Trend	10-year Max GPCD	2021 Region D Plan Baseline GPCD	Draft TWDB Baseline GPCD	Requested Baseline GPCD	Year of Requested Baseline GPCD	Comment
410 WSC	10.9	237	152	143	237	2020	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
ATLANTA	1.9	179	164	155	179	2018	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
B H P WSC	4.4	88	77	68	88	2016	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
BEN WHEELER WSC	0.2	96	85	76	96	2019	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .

WUG	Trend	10-year Max GPCD	2021 Region D Plan Baseline GPCD	Draft TWDB Baseline GPCD	Requested Baseline GPCD	Year of Requested Baseline GPCD	Comment
BI COUNTY WSC	0.3	81	101	92	81	2020	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
BIG SANDY	-0.5	216	146	137	216	2013	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
BLOCKER CROSSROADS WSC	-0.8	91	91	83	91	2016	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
BLOSSOM	-1.6	93	88	79	93	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
BOGATA	0.0	175	103	93	175	2017	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
BRASHEAR WSC	-0.8	193	177	169	193	2016	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
BRIGHT STAR SALEM SUD	-1.0	154	82	73	154	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
BRINKER WSC	-1.4	151	105	96	151	2016	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
BURNS REDBANK WSC	-0.8	103	123	115	103	2016	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
CADDO BASIN SUD	-1.3	116	110	101	116	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
CADDO MILLS	1.3	131	90	81	131	2013	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
CANTON	2.8	291	226	217	291	2017	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .

WUG	Trend	10-year Max GPCD	2021 Region D Plan Baseline GPCD	Draft TWDB Baseline GPCD	Requested Baseline GPCD	Year of Requested Baseline GPCD	Comment
CASH SUD	-0.9	117	112	103	117	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
CELESTE	-4.4	122	120	110	122	2010	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
CENTRAL BOWIE COUNTY WSC	1.8	74	81	74	No revision requested.	NA	No revision requested.
CITY OF AVINGER	4.6	260	New WUG	254	260	2019	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
CITY OF COMO	2.2	133	New WUG	113	133	2016	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
CITY OF TALCO	6.5	193	New WUG	193	No revision requested.	NA	No revision requested.
CLARKSVILLE	-2.6	229	177	168	229	2015	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
CLARKSVILLE CITY	3.1	139	104	95	139	2019	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
COMBINED CONSUMERS SUD	1.1	122	84	75	122	2016	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
COMMERCE	6.5	229	153	144	229	2018	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
COOPER	-1.2	205	206	197	205	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
CORNERSVILLE WSC	-0.2	98	127	118	98	2010	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .

WUG	Trend	10-year Max GPCD	2021 Region D Plan Baseline GPCD	Draft TWDB Baseline GPCD	Requested Baseline GPCD	Year of Requested Baseline GPCD	Comment
CRYSTAL SYSTEMS TEXAS	-9.4	291	291	280	291	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
CUMBY	-2.3	124	123	114	124	2010	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
CYPRESS SPRINGS SUD	0.7	148	89	81	148	2018	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
CYPRESS VALLEY WSC	6.8	101	New WUG	99	101	2016	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
DAINGERFIELD	-1.7	190	169	160	190	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
DE KALB	1.9	175	164	155	175	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
DELTA COUNTY MUD	1.2	93	73	64	93	2019	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
DIANA SUD	0.6	90	86	78	90	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
E M C WSC	1.3	67	65	61	67	2020	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
EAST MOUNTAIN WATER SYSTEM	3.6	239	116	108	239	2018	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
EAST TAWAKONI	-3.4	205	192	184	205	2012	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
EAST TEXAS MUD OF SMITH COUNTY	-13.4	408	408	400	408	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .

WUG	Trend	10-year Max GPCD	2021 Region D Plan Baseline GPCD	Draft TWDB Baseline GPCD	Requested Baseline GPCD	Year of Requested Baseline GPCD	Comment
EASTERN CASS WSC	-1.9	69	78	73	69	2016	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
EDGEWOOD	1.6	192	165	156	192	2020	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
EDOM WSC	-1.2	123	107	98	123	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
ELDERVILLE WSC	0.8	96	60	60	96	2020	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
ELYSIAN FIELDS WSC	-1.4	127	New WUG	115	127	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
EMORY	11.0	379	338	330	379	2020	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
FOUKE WSC	-2.4	123	106	98	123	2010	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
FRUITVALE WSC	-0.7	90	90	81	90	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
GAFFORD CHAPEL WSC	0.7	111	89	80	111	2012	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
GILL WSC	-3.0	150	113	104	150	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
GILMER	-2.2	168	186	177	168	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
GLADEWATER	5.4	199	159	150	199	2017	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .

WUG	Trend	10-year Max GPCD	2021 Region D Plan Baseline GPCD	Draft TWDB Baseline GPCD	Requested Baseline GPCD	Year of Requested Baseline GPCD	Comment
GLENWOOD WSC	-0.7	113	98	90	113	2010	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
GOLDEN WSC	-0.6	104	81	73	104	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
GRAND SALINE	-2.1	127	111	103	127	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
GREENVILLE	-14.9	322	287	278	322	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
GUM SPRINGS WSC	-2.0	148	92	84	148	2014	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
HALLSVILLE	-3.3	132	130	122	132	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
HARLETON WSC	1.5	78	100	92	78	2017	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
HAWKINS	-11.1	242	238	229	242	2010	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
HICKORY CREEK SUD	3.0	149	99	94	149	2020	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
HOLLY SPRINGS WSC	-1.1	79	91	83	79	2014	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
HOOKS	0.8	112	92	83	112	2020	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
HUGHES SPRINGS	3.4	165	110	101	165	2016	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .





WUG	Trend	10-year Max GPCD	2021 Region D Plan Baseline GPCD	Draft TWDB Baseline GPCD	Requested Baseline GPCD	Year of Requested Baseline GPCD	Comment
JEFFERSON	0.1	241	173	165	241	2014	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
JONES WSC	0.2	130	90	81	130	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
KELLYVILLE-BEREA WSC	-0.6	119	83	74	119	2017	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
KILGORE	6.9	271	202	194	271	2019	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
LAKE FORK WSC	0.2	137	98	89	137	2015	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
LAMAR COUNTY WSD	-4.0	152	125	117	152	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
LEIGH WSC	14.9	246	208	200	246	2015	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
LIBERTY CITY WSC	-0.7	107	99	91	107	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
LIBERTY UTILITIES SILVERLEAF WATER	3.7	237	69	61	237	2013	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
LINDALE	-0.7	213	211	203	213	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
LINDALE RURAL WSC	1.6	120	78	70	120	2018	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
LINDEN	4.0	183	137	130	183	2020	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .



WUG	Trend	10-year Max GPCD	2021 Region D Plan Baseline GPCD	Draft TWDB Baseline GPCD	Requested Baseline GPCD	Year of Requested Baseline GPCD	Comment
LITTLE HOPE MOORE WSC	-1.0	85	99	90	85	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
LONE STAR	3.3	147	111	103	147	2019	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
LONGVIEW	-7.5	258	255	246	258	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
MACBEE SUD	-1.0	104	63	60	104	2010	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
MACEDONIA EYLAU MUD 1	1.9	75	60	60	75	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
MARSHALL	-4.3	183	190	181	183	2015	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
MARTIN SPRINGS WSC	-3.4	142	118	109	142	2010	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
MAUD	-2.6	191	148	139	191	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
MILLER GROVE WSC	-1.4	154	132	123	154	2010	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
MIMS WSC	-0.8	59	60	60	59	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
MINEOLA	-4.5	138	151	142	138	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
MOUNT PLEASANT	-7.9	234	208	199	234	2013	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .

WUG	Trend	10-year Max GPCD	2021 Region D Plan Baseline GPCD	Draft TWDB Baseline GPCD	Requested Baseline GPCD	Year of Requested Baseline GPCD	Comment
MOUNT VERNON	-1.2	181	184	176	181	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
MYRTLE SPRINGS WSC	1.6	77	75	66	77	2012	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
NAPLES	-1.8	121	113	104	121	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
NASH	-0.7	72	86	86	72	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
NEW BOSTON	-11.3	222	218	209	222	2012	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
NEW HOPE SUD	-4.4	164	125	117	164	2010	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
NORTH HARRISON WSC	-1.0	105	101	93	105	2014	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
NORTH HOPKINS WSC	0.4	116	80	71	116	2020	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
NORTH HUNT WSC	4.0	130	60	60	130	2016	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
OMAHA	-2.9	143	166	158	143	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
ORE CITY	-2.5	128	116	107	128	2018	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
PANOLA-BETHANY WSC	2.8	180	187	178	180	2016	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .

WUG	Trend	10-year Max GPCD	2021 Region D Plan Baseline GPCD	Draft TWDB Baseline GPCD	Requested Baseline GPCD	Year of Requested Baseline GPCD	Comment
PARIS	-0.9	128	110	101	128	2012	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
PINE RIDGE WSC	-3.1	114	114	105	114	2010	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
PITTSBURG	0.3	194	167	159	194	2020	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
POETRY WSC	-6.1	109	108	99	109	2010	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
POINT	1.6	192	229	220	192	2018	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
PRITCHETT WSC	0.0	110	88	80	110	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
PRUITT SANDFLAT WSC	-1.9	102	108	99	102	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
QUEEN CITY	1.6	170	145	136	170	2016	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
QUINLAN	-2.3	125	88	79	125	2012	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
QUITMAN	-2.2	144	148	139	144	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
R P M WSC	-1.9	140	107	98	140	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
RAMEY WSC	3.2	147	76	68	147	2020	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .

WUG	Trend	10-year Max GPCD	2021 Region D Plan Baseline GPCD	Draft TWDB Baseline GPCD	Requested Baseline GPCD	Year of Requested Baseline GPCD	Comment
RED RIVER COUNTY WSC	-0.8	101	77	68	101	2010	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
REDWATER	1.8	126	129	121	126	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
RENO (LAMAR)	-2.3	135	156	148	135	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
RIVERBEND WATER RESOURCES DISTRICT	81.1	2,469	864	861	864	2011	Revision based on Draft GPCD without application of assumed plumbing code savings to baseline.
SAND FLAT WSC	8.9	74	73	64	74	2018	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
SCOTTSVILLE	-9.5	235	203	194	235	2010	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
SHADY GROVE NO 2 WSC	-13.3	162	178	170	162	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
SHADY GROVE SUD	-1.9	94	94	85	94	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
SHARON WSC	-1.0	107	81	72	107	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
SHIRLEY WSC	-4.8	129	129	121	129	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
SOUTH RAINS SUD	-1.6	91	90	81	91	2010	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
SOUTH TAWAKONI WSC	-0.4	105	94	85	105	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .

WUG	Trend	10-year Max GPCD	2021 Region D Plan Baseline GPCD	Draft TWDB Baseline GPCD	Requested Baseline GPCD	Year of Requested Baseline GPCD	Comment
STAR MOUNTAIN WSC	-5.1	162	159	151	162	2012	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
STARRVILLE-FRIENDSHIP WSC	-1.5	131	114	106	131	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
SULPHUR SPRINGS	2.2	196	185	177	196	2019	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
TALLEY WSC	8.3	66	76	68	66	2015	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
TEXARKANA	-3.4	168	177	169	No revision requested.	2019	No revision requested. Amount reflects corrected GPCD calculation based on entire population served by TWU.
TEXAS A&M UNIVERSITY COMMERCE	-7.3	184	160	151	184	2010	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
TRI SUD	-2.4	108	97	89	108	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
TRYON ROAD SUD	-1.4	148	139	131	148	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
UNION GROVE WSC	13.8	117	72	64	117	2018	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
VAN	-1.6	147	120	111	147	2013	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
WAKE VILLAGE	-2.7	104	111	102	104	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
WASKOM	-0.9	132	142	134	132	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .

WUG	Trend	10-year Max GPCD	2021 Region D Plan Baseline GPCD	Draft TWDB Baseline GPCD	Requested Baseline GPCD	Year of Requested Baseline GPCD	Comment
WEST GREGG WSC	-1.5	96	86	77	96	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
WEST HARRISON WSC	-1.5	98	97	89	98	2014	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
WEST TAWAKONI	3.5	105	101	94	105	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
WESTERN CASS WSC	0.6	93	93	84	93	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
WHITE OAK	16.9	374	182	174	374	2018	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
WILLS POINT	1.4	180	164	156	180	2018	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
WINNSBORO	-2.1	182	176	167	182	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
WINONA	-5.2	274	195	186	274	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .
WOLFE CITY	-1.1	95	99	91	95	2011	Revision based on observed historical maximum (2010 - 2020) GPCD without application of assumed plumbing code savings to baseline .

For those WUGs with service areas spanning multiple regions, the requested GPCD amounts and rationale have been shared with the technical consultants for the appropriate RWPG to ensure consistency between the regions. Similarly, the baseline GPCD amounts requested by those RWPGs for those WUGs with portions of their service area in Region D have been preliminarily provided by those RWPG's technical consultants, and reviewed by the NETRWPG. These preliminary amounts (identified in Table 29), are subject to revision as the RWPGs prepare their respective submittals, and are supported by the NETRWPG as revised and incorporated for regional water demand projections herein.

Table 29 – Preliminary Revisions to Baseline GPCD for WUGs serving Portions of Region D as Identified by Region C and I RWPGs

WUG	Primary Region	Region I Requested Revised GPCD
Chalk Hill SUD	I	No recommended revisions
Cross Roads SUD	I	98
Jackson WSC	I	100
Overton	I	208
Panola-Bethany WSC	I	No recommended revisions
Southern Utilities	I	177
Tyler	I	Pending

Requested Municipal Water Demand Projections

As noted in the Exhibit C Guidelines, “any adjustment to the population projections for a WUG will require an associated adjustment to the municipal water demand projections.” The requested modifications detailed above to both the municipal population projections and the baseline per capita usage amounts (GPCD) result in revised municipal water demand projections for most of the WUGs within the region.

The NETRWPG acknowledges receipt of the revised draft plumbing code savings projections provided by email by the TWDB on May 5, 2023, and makes no request to modify these estimated projections of passive future savings nor their application in the estimation of the municipal water demand projections.

The requested municipal water demand projections are presented for all Region D WUGs in Table 30.

Table 30 – Requested Municipal Water Demand Projections for Region D WUGs (2030 – 2080)

County	WUG	2030	2040	2050	2060	2070	2080	Comments
BOWIE	Burns Redbank WSC	257	271	288	306	325	345	Based on requested revised baseline GPCD
BOWIE	Central Bowie County WSC	759	760	766	773	780	787	No revision recommended.
BOWIE	County-Other, Bowie	1,299	830	830	830	830	830	Based on requested WUG-specific adjustment to population.



County	WUG	2030	2040	2050	2060	2070	2080	Comments
BOWIE	De Kalb	263	260	258	254	250	247	Based on requested revised baseline GPCD
BOWIE	Hooks	381	395	395	395	395	395	Based on requested WUG-specific adjustment to population and requested revised baseline GPCD.
BOWIE	Macedonia Eylau MUD 1	701	696	689	679	668	657	Based on requested revised baseline GPCD
BOWIE	Maud	312	341	341	341	341	341	Based on requested WUG-specific adjustment to population and requested revised baseline GPCD.
BOWIE	Nash	359	407	458	458	458	458	Based on requested WUG-specific adjustment to population and requested revised baseline GPCD.
BOWIE	New Boston	1,293	1,281	1,268	1,249	1,229	1,209	Based on requested revised baseline GPCD
BOWIE	Redwater	575	638	703	736	736	736	Based on requested WUG-specific adjustment to population and requested revised baseline GPCD.
BOWIE	Riverbend Water Resources District	377	371	367	362	355	349	Based on requested revised baseline GPCD
BOWIE	Texarkana	7,286	7,572	7,903	8,251	8,613	8,613	Based on requested WUG-specific adjustment to population.
BOWIE	Wake Village	762	835	913	990	990	990	Based on requested WUG-specific adjustment to population and requested revised baseline GPCD.
CAMP	Bi County WSC	620	622	624	629	634	640	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
CAMP	County-Other, Camp	94	95	96	96	97	98	Based on requested 0.5-migration scenario
CAMP	Cypress Springs SUD	9	9	10	10	10	10	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
CAMP	Pittsburg	825	832	834	841	848	855	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
CAMP	Sharon WSC	4	4	4	4	4	4	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD



County	WUG	2030	2040	2050	2060	2070	2080	Comments
CASS	Atlanta	1,247	1,343	1,443	1,443	1,443	1,443	Based on requested WUG-specific adjustment to population and requested revised baseline GPCD.
CASS	Avinger	99	94	89	85	81	76	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
CASS	County-Other, Cass	692	622	547	480	409	329	Based on requested 0.5-migration scenario
CASS	E M C WSC	37	35	33	32	30	29	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
CASS	Eastern Cass WSC	302	311	326	345	367	394	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
CASS	Holly Springs WSC	74	70	66	63	60	57	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
CASS	Hughes Springs	375	356	338	323	308	294	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
CASS	Linden	344	328	313	299	286	273	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
CASS	Mims WSC	15	14	13	13	12	12	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
CASS	Queen City	237	228	221	216	213	212	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
CASS	Western Cass WSC	281	265	251	239	228	216	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
DELTA	Cooper	460	457	454	449	443	437	Based on requested revised baseline GPCD
DELTA	County-Other, Delta	73	70	67	63	58	54	No revision recommended.
DELTA	Delta County MUD	190	192	195	197	200	203	Based on requested revised baseline GPCD
DELTA	North Hunt SUD	30	29	29	29	28	28	Based on requested revised baseline GPCD



County	WUG	2030	2040	2050	2060	2070	2080	Comments
FRANKLIN	Cornersville WSC	3	4	4	4	5	5	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
FRANKLIN	County-Other, Franklin	61	60	58	58	58	57	Based on requested 0.5-migration scenario
FRANKLIN	Cypress Springs SUD	1,094	1,082	1,067	1,076	1,084	1,092	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
FRANKLIN	Mount Vernon	476	471	464	468	471	475	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
FRANKLIN	Winnsboro	149	148	146	147	148	149	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
GREGG	Chalk Hill SUD	2	2	2	2	2	2	Based on requested 0.5-migration scenario
GREGG	Clarksville City	124	124	124	122	120	118	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
GREGG	County-Other, Gregg	550	537	507	468	425	382	Based on requested 0.5-migration scenario
GREGG	Cross Roads SUD	44	45	46	47	48	50	Based on requested 0.5-migration scenario and revised GPCD requested by the Region I RWPG.
GREGG	East Mountain Water System	91	92	91	89	88	87	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
GREGG	Elderville WSC	519	524	521	512	504	495	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
GREGG	Gladewater	836	842	836	822	809	795	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
GREGG	Glenwood WSC	14	14	14	13	13	13	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
GREGG	Kilgore	3,133	3,154	3,134	3,083	3,033	2,983	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD



County	WUG	2030	2040	2050	2060	2070	2080	Comments
GREGG	Liberty City WSC	534	535	531	522	514	505	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
GREGG	Longview	22,823	22,989	22,840	22,472	22,105	21,738	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
GREGG	Starrville-Friendship WSC	63	63	63	62	61	60	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
GREGG	Tryon Road SUD	907	913	906	891	877	862	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
GREGG	West Gregg SUD	344	357	374	392	412	433	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
GREGG	White Oak	2,611	2,633	2,615	2,572	2,529	2,486	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
HARRISON	Blocker Crossroads WSC	149	152	153	154	155	155	Based on requested revised baseline GPCD
HARRISON	County-Other, Harrison	972	917	917	821	726	634	No revision recommended.
HARRISON	Cypress Valley WSC	159	163	164	165	167	168	Based on requested revised baseline GPCD
HARRISON	Diana SUD	37	39	39	40	41	41	Based on requested revised baseline GPCD
HARRISON	Elysian Fields WSC	163	188	192	221	249	275	Based on requested revised baseline GPCD
HARRISON	Gill WSC	199	197	197	190	184	177	Based on requested revised baseline GPCD
HARRISON	Gum Springs WSC	1,653	1,784	1,804	1,928	2,049	2,165	Based on requested revised baseline GPCD
HARRISON	Hallsville	644	691	698	742	784	826	Based on requested revised baseline GPCD
HARRISON	Harleton WSC	280	288	289	294	298	302	Based on requested revised baseline GPCD
HARRISON	Leigh WSC	393	352	347	285	225	167	Based on requested revised baseline GPCD
HARRISON	Longview	768	846	858	937	1,014	1,089	Based on requested revised baseline GPCD

County	WUG	2030	2040	2050	2060	2070	2080	Comments
HARRISON	Marshall	4,590	4,480	4,472	4,218	3,971	3,731	Based on requested revised baseline GPCD
HARRISON	North Harrison WSC	161	167	168	173	177	182	Based on requested revised baseline GPCD
HARRISON	Panola-Bethany WSC	80	65	53	43	35	29	No revision recommended.
HARRISON	Scottsville	333	368	374	410	445	479	Based on requested revised baseline GPCD
HARRISON	Talley WSC	128	129	129	128	127	127	Based on requested revised baseline GPCD
HARRISON	Tryon Road SUD	323	391	401	480	557	632	Based on requested revised baseline GPCD
HARRISON	Waskom	284	264	262	229	198	167	Based on requested revised baseline GPCD
HARRISON	West Harrison WSC	192	216	220	246	272	297	Based on requested revised baseline GPCD
HOPKINS	Brashear WSC	207	222	225	233	242	250	Based on requested revised baseline GPCD
HOPKINS	Brinker WSC	420	445	452	466	481	496	Based on requested revised baseline GPCD
HOPKINS	Cash SUD	42	52	56	61	65	69	Based on requested WUG-specific adjustment to population and requested revised baseline GPCD.
HOPKINS	Como	111	110	110	110	110	110	Based on requested revised baseline GPCD
HOPKINS	Cornersville WSC	96	99	101	104	106	109	Based on requested revised baseline GPCD
HOPKINS	County-Other, Hopkins	248	254	263	268	274	280	No revision recommended.
HOPKINS	Cumby	97	94	98	97	97	96	Based on requested revised baseline GPCD
HOPKINS	Cypress Springs SUD	178	186	189	194	199	205	Based on requested revised baseline GPCD
HOPKINS	Gafford Chapel WSC	128	131	135	137	140	142	Based on requested revised baseline GPCD
HOPKINS	Jones WSC	12	11	12	12	12	12	Based on requested revised baseline GPCD
HOPKINS	Lake Fork WSC	20	21	21	22	22	22	Based on requested revised baseline GPCD

County	WUG	2030	2040	2050	2060	2070	2080	Comments
HOPKINS	Martin Springs WSC	474	488	499	509	519	530	Based on requested revised baseline GPCD
HOPKINS	Miller Grove WSC	191	199	203	209	214	220	Based on requested revised baseline GPCD
HOPKINS	North Hopkins WSC	2,027	2,098	2,143	2,193	2,243	2,294	Based on requested WUG-specific adjustment to population and requested revised baseline GPCD.
HOPKINS	Shady Grove No 2 WSC	115	123	125	129	134	138	Based on requested revised baseline GPCD
HOPKINS	Shirley WSC	240	251	256	263	270	277	Based on requested revised baseline GPCD
HOPKINS	Sulphur Springs	3,400	3,457	3,549	3,604	3,659	3,713	Based on requested revised baseline GPCD
HUNT	Ables Springs SUD	41	44	47	50	53	55	No revision recommended.
HUNT	B H P WSC	560	647	727	801	876	951	Based on requested revised baseline GPCD
HUNT	Caddo Basin SUD	1,257	1,497	1,712	1,915	2,119	2,325	Based on requested revised baseline GPCD
HUNT	Caddo Mills	151	154	156	159	162	165	Based on requested revised baseline GPCD
HUNT	Cash SUD	3,953	5,456	5,952	6,395	6,843	7,296	Based on requested WUG-specific adjustment to population and requested revised baseline GPCD.
HUNT	Celeste	107	113	117	121	125	129	Based on requested revised baseline GPCD
HUNT	Combined Consumers SUD	717	745	772	792	811	831	Based on requested revised baseline GPCD
HUNT	Commerce	1,570	1,517	1,478	1,417	1,357	1,298	Based on requested revised baseline GPCD
HUNT	County-Other, Hunt	972	1,008	1,004	949	859	725	No revision recommended.
HUNT	Frognot WSC	2	3	3	4	4	5	No revision recommended.
HUNT	Greenville	19,410	21,807	23,203	24,371	25,554	26,751	Based on requested WUG-specific adjustment to population and requested revised baseline GPCD.
HUNT	Hickory Creek SUD	559	639	733	840	963	1,104	Based on requested revised baseline GPCD
HUNT	Josephine	32	37	42	47	51	55	No revision recommended.

County	WUG	2030	2040	2050	2060	2070	2080	Comments
HUNT	Macbee SUD	36	38	39	40	41	42	Based on requested revised baseline GPCD
HUNT	North Hunt SUD	338	332	327	317	308	299	Based on requested revised baseline GPCD
HUNT	Poetry WSC	217	228	240	248	257	266	Based on requested revised baseline GPCD
HUNT	Quinlan	236	255	273	288	303	318	Based on requested revised baseline GPCD
HUNT	Royse City	456	648	817	983	1,151	1,319	No revision recommended.
HUNT	Shady Grove SUD	171	217	277	353	449	573	Based on requested revised baseline GPCD
HUNT	Texas A and M University Commerce	427	426	426	426	426	426	Based on requested revised baseline GPCD
HUNT	West Leonard WSC	5	5	6	7	7	8	No revision recommended.
HUNT	West Tawakoni	319	350	378	403	428	453	Based on requested revised baseline GPCD
HUNT	Wolfe City	161	163	166	167	168	169	Based on requested revised baseline GPCD
LAMAR	Blossom	136	135	134	134	133	133	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
LAMAR	Bois D Arc MUD	2	2	2	2	2	2	Based on requested 0.5-migration scenario
LAMAR	County-Other, Lamar	398	396	395	393	391	389	Based on requested 0.5-migration scenario
LAMAR	Lamar County WSD	2,879	2,876	2,862	2,849	2,836	2,823	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
LAMAR	Paris	3,664	3,653	3,637	3,620	3,602	3,585	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
LAMAR	Reno (Lamar)	398	398	396	394	392	390	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD



County	WUG	2030	2040	2050	2060	2070	2080	Comments
MARION	County-Other, Marion	104	91	72	61	49	36	Based on requested 0.5-migration scenario
MARION	Diana SUD	48	40	34	28	24	20	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
MARION	E M C WSC	128	115	100	90	80	69	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
MARION	Harleton WSC	64	55	44	37	30	22	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
MARION	Jefferson	439	408	377	355	334	312	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
MARION	Kellyville-Berea WSC	124	121	118	116	115	114	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
MARION	Mims WSC	122	127	134	138	142	148	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
MARION	Ore City	15	19	25	28	32	36	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
MORRIS	Bi County WSC	120	108	96	88	80	71	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
MORRIS	County-Other, Morris	260	255	252	249	247	244	Based on requested 0.5-migration scenario
MORRIS	Daingerfield	446	457	473	481	490	499	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
MORRIS	Holly Springs WSC	52	46	40	37	33	29	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
MORRIS	Lone Star	203	187	170	158	146	135	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
MORRIS	Naples	180	178	177	176	175	173	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD



County	WUG	2030	2040	2050	2060	2070	2080	Comments
MORRIS	Omaha	153	149	145	142	139	137	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
MORRIS	Tri SUD	196	212	225	245	264	273	Based on requested WUG-specific adjustment to population and requested revised baseline GPCD.
MORRIS	Western Cass WSC	16	15	15	15	15	15	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
RAINS	Bright Star Salem SUD	404	433	455	486	518	550	Based on requested revised baseline GPCD
RAINS	Cash SUD	180	241	250	269	288	307	Based on requested WUG-specific adjustment to population and requested revised baseline GPCD.
RAINS	County-Other, Rains	253	269	282	300	319	338	No revision recommended.
RAINS	East Tawakoni	182	184	188	187	186	184	Based on requested revised baseline GPCD
RAINS	Emory	727	740	761	767	772	776	Based on requested revised baseline GPCD
RAINS	Golden WSC	5	6	6	6	6	6	Based on requested revised baseline GPCD
RAINS	Miller Grove WSC	39	42	44	47	50	54	Based on requested revised baseline GPCD
RAINS	Point	228	231	237	238	239	240	Based on requested revised baseline GPCD
RAINS	Shirley WSC	114	123	130	141	152	163	Based on requested revised baseline GPCD
RAINS	South Rains SUD	269	288	303	324	345	367	Based on requested revised baseline GPCD
RED RIVER	410 WSC	350	331	316	302	289	276	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
RED RIVER	Bogata	168	158	149	142	135	128	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
RED RIVER	Clarksville	617	545	472	416	358	299	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
RED RIVER	County-Other, Red River	175	151	122	93	55	4	Based on requested 0.5-migration scenario

County	WUG	2030	2040	2050	2060	2070	2080	Comments
RED RIVER	Red River County WSC	498	469	451	440	437	445	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
RED RIVER	Talco	4	5	5	5	6	6	Based on requested 0.5-migration scenario
SMITH	Carroll WSC	48	49	50	51	51	52	No revision recommended.
SMITH	County-Other, Smith	303	280	264	243	222	200	No revision recommended.
SMITH	Crystal Systems Texas	1,465	1,527	1,573	1,597	1,622	1,648	Based on requested revised baseline GPCD
SMITH	East Texas MUD	1,306	1,517	1,666	1,805	1,944	2,084	Based on requested revised baseline GPCD
SMITH	Jackson WSC	172	185	194	202	209	217	Based on revised GPCD requested by the Region I RWPG.
SMITH	Liberty City WSC	23	26	28	30	31	33	Based on requested revised baseline GPCD
SMITH	Lindale	851	875	894	901	908	916	Based on requested revised baseline GPCD
SMITH	Lindale Rural WSC	1,281	1,407	1,500	1,579	1,659	1,738	Based on requested revised baseline GPCD
SMITH	Overton	30	32	33	34	35	36	Based on revised GPCD requested by the Region I RWPG.
SMITH	Pine Ridge WSC	196	218	235	249	263	278	Based on requested revised baseline GPCD
SMITH	Sand Flat WSC	314	325	334	337	341	345	Based on requested revised baseline GPCD
SMITH	Southern Utilities	2,158	2,268	2,351	2,405	2,459	2,513	Based on revised GPCD requested by the Region I RWPG.
SMITH	Star Mountain WSC	240	251	260	266	271	277	Based on requested revised baseline GPCD
SMITH	Starrville-Friendship WSC	155	154	154	151	148	145	Based on requested revised baseline GPCD
SMITH	Tyler	146	132	122	109	96	83	No revision recommended.
SMITH	West Gregg SUD	102	108	112	115	117	120	Based on requested revised baseline GPCD
SMITH	Winona	177	195	208	220	231	242	Based on requested revised baseline GPCD



County	WUG	2030	2040	2050	2060	2070	2080	Comments
TITUS	Bi County WSC	44	53	69	80	93	108	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
TITUS	County-Other, Titus	186	169	137	112	85	54	Based on requested 0.5-migration scenario
TITUS	Cypress Springs SUD	70	81	98	112	127	144	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
TITUS	Mount Pleasant	3,946	4,039	4,101	4,152	4,209	4,271	Based on requested 0.5-migration scenario and Based on requested revised baseline GPCD
TITUS	Talco	115	115	111	108	104	101	Based on requested 0.5-migration scenario
TITUS	Tri SUD	1,985	2,408	2,941	3,582	4,362	5,300	Based on requested WUG-specific adjustment to population.
UPSHUR	Bi County WSC	399	400	398	392	387	381	Based on requested revised baseline GPCD
UPSHUR	Big Sandy	263	265	264	261	257	253	Based on requested revised baseline GPCD
UPSHUR	County-Other, Upshur	712	663	596	509	416	315	No revision recommended.
UPSHUR	Diana SUD	513	559	613	672	737	809	Based on requested revised baseline GPCD
UPSHUR	East Mountain Water System	371	373	372	367	361	356	Based on requested revised baseline GPCD
UPSHUR	Fouke WSC	10	10	10	10	10	10	Based on requested revised baseline GPCD
UPSHUR	Gilmer	939	943	940	927	913	900	Based on requested revised baseline GPCD
UPSHUR	Gladewater	521	524	522	515	507	500	Based on requested revised baseline GPCD
UPSHUR	Glenwood WSC	331	333	331	327	322	317	Based on requested revised baseline GPCD
UPSHUR	Ore City	187	188	187	185	182	179	Based on requested revised baseline GPCD
UPSHUR	Pritchett WSC	872	875	872	859	847	834	Based on requested revised baseline GPCD



County	WUG	2030	2040	2050	2060	2070	2080	Comments
UPSHUR	Sharon WSC	229	230	229	225	222	219	Based on requested revised baseline GPCD
UPSHUR	Union Grove WSC	230	232	231	228	224	221	Based on requested revised baseline GPCD
VAN ZANDT	Ables Springs SUD	2	2	3	3	3	3	No revision recommended.
VAN ZANDT	Ben Wheeler WSC	289	328	366	408	450	492	Based on requested revised baseline GPCD
VAN ZANDT	Bethel Ash WSC	167	183	199	215	231	247	No revision recommended.
VAN ZANDT	Canton	1,536	1,717	1,894	2,079	2,265	2,454	Based on requested revised baseline GPCD
VAN ZANDT	Carroll WSC	57	65	73	81	89	98	No revision recommended.
VAN ZANDT	Combined Consumers SUD	146	153	160	166	172	178	Based on requested revised baseline GPCD
VAN ZANDT	County-Other, Van Zandt	1,826	2,102	2,312	2,493	2,600	2,616	No revision recommended.
VAN ZANDT	Edgewood	320	329	339	343	348	354	Based on requested revised baseline GPCD
VAN ZANDT	Edom WSC	133	135	137	136	136	136	Based on requested revised baseline GPCD
VAN ZANDT	Fruitvale WSC	329	359	388	417	447	477	Based on requested revised baseline GPCD
VAN ZANDT	Golden WSC	81	90	100	110	120	130	Based on requested revised baseline GPCD
VAN ZANDT	Grand Saline	463	469	478	477	478	479	Based on requested revised baseline GPCD
VAN ZANDT	Little Hope Moore WSC	132	137	142	146	150	154	Based on requested revised baseline GPCD
VAN ZANDT	Mabank	64	71	79	87	95	103	No revision recommended.
VAN ZANDT	Macbee SUD	969	1,199	1,483	1,835	2,270	2,809	Based on requested revised baseline GPCD
VAN ZANDT	Myrtle Springs WSC	273	334	394	463	532	601	Based on requested revised baseline GPCD
VAN ZANDT	Pine Ridge WSC	43	55	66	80	93	106	Based on requested revised baseline GPCD
VAN ZANDT	Pruitt Sandflat WSC	124	124	124	121	119	116	Based on requested revised baseline GPCD

County	WUG	2030	2040	2050	2060	2070	2080	Comments
VAN ZANDT	R P M WSC	242	239	237	229	222	214	Based on requested revised baseline GPCD
VAN ZANDT	South Tawakoni WSC	292	235	190	150	118	94	Based on requested revised baseline GPCD
VAN ZANDT	Van	519	526	535	534	533	534	Based on requested revised baseline GPCD
VAN ZANDT	Wills Point	1,032	1,139	1,243	1,349	1,457	1,565	Based on requested revised baseline GPCD
WOOD	Bright Star Salem SUD	299	328	346	387	427	468	Based on requested revised baseline GPCD
WOOD	Cornersville WSC	26	28	30	32	34	37	Based on requested revised baseline GPCD
WOOD	County-Other, Wood	552	540	508	488	458	418	No revision recommended.
WOOD	Cypress Springs SUD	73	77	79	84	89	94	Based on requested revised baseline GPCD
WOOD	Fouke WSC	777	810	831	868	907	945	Based on requested revised baseline GPCD
WOOD	Golden WSC	304	314	321	333	344	356	Based on requested revised baseline GPCD
WOOD	Hawkins	352	357	361	363	364	367	Based on requested revised baseline GPCD
WOOD	Jones WSC	586	620	642	685	729	773	Based on requested revised baseline GPCD
WOOD	Lake Fork WSC	295	312	323	345	368	390	Based on requested revised baseline GPCD
WOOD	Liberty Utilities Silverleaf Water	699	724	738	758	780	802	Based on requested revised baseline GPCD
WOOD	Mineola	930	972	1,000	1,050	1,101	1,152	Based on requested revised baseline GPCD
WOOD	New Hope SUD	533	528	526	507	488	471	Based on requested WUG-specific adjustment to population and requested revised baseline GPCD.
WOOD	Pritchett WSC	6	7	7	7	7	7	Based on requested revised baseline GPCD
WOOD	Quitman	342	341	341	333	325	318	Based on requested revised baseline GPCD
WOOD	Ramey WSC	577	660	758	870	999	1,147	Based on requested revised baseline GPCD



County	WUG	2030	2040	2050	2060	2070	2080	Comments
WOOD	Sharon WSC	502	531	550	589	627	666	Based on requested revised baseline GPCD
WOOD	Shirley WSC	16	17	17	17	17	18	Based on requested revised baseline GPCD
WOOD	Winnsboro	507	522	532	547	561	576	Based on requested revised baseline GPCD

Comparisons of the NETRWPG’s requested revisions to the total municipal water demand projections for the entire region are shown in Table 31. The NETRWPG is requesting an increase to the regional total municipal water demand. The NETRWPG’s requested revisions represent increases from the 2026 Draft projections ranging from approximately 34,000 ac-ft/yr in 2030 to 55,000 ac-ft/yr by 2080. These represent a 28% – 42.2% increase from the TWDB’s Draft 2026 municipal water demand projections over the 50-year planning period for the region.

Table 31 – Comparisons of Total Requested Municipal Water Demand Projections for Region D (2030 – 2080)

	2030	2040	2050	2060	2070	2080
Adopted 2021 Region D Plan	137,442	147,334	161,229	179,350	202,860	N/A
2026 Draft	123,395	125,825	127,211	127,843	128,456	129,027
NETRWPG Request	157,886	165,436	170,490	174,811	179,242	183,539
Net Increase from 2026 Draft	34,491	39,611	43,279	46,968	50,786	54,512
% Increase from 2026 Draft	28.0%	31.5%	34.0%	36.7%	39.5%	42.2%
Net Decrease from 2021 Plan	20,444	18,102	9,261	(4,539)	(23,618)	N/A
% Decrease from 2021 Plan	14.9%	12.3%	5.7%	-2.5%	-11.6%	N/A

The NETRWPG’s requested revisions for the total regional municipal demand represent an increase from the projected 2030 – 2050 municipal water demands adopted for the purposes of the 2021 Region D Plan, and a decrease in the latter 2060 – 2080 portion of the planning period. These changes from the 2021 Region D Plan range from an increase of approximately 20,000 ac-ft/yr in 2030 (14.9%) to a decrease of approximately -24,000 ac-ft/yr by 2070 (-11.6%) over the comparable 2030 – 2070 planning period.

The near-term increases are largely driven by the near-term increases requested for the municipal populations, particularly in the western portion of Region D where significant recent growth has been reported by WUGs, combined with the NETRWPG’s requested increases in per capita use based on maximums observed for WUGs over the 2010-2022 period.

**MEETING OF THE  
North East Texas Regional Water Planning Group  
WEDNESDAY, July 12, 2023**

**Agenda Item 7  
Report from the Region D Technical  
Consultant**



# Region D Water Planning

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## **Consultant Presentation**

Tony L. Smith, P.E.

Mount Pleasant, TX | July 12, 2023



# 2026 Planning Budget Progress

Task #	Task	Contract Amount	Expended to Date	% Complete
1	Planning Area Description	\$16,231	\$0	0%
2A	Non-Municipal Water Demand Projections	\$28,414	\$24,169.44	85%
2B	Population & Municipal Water Demand Projections	\$47,482	\$28,573.47	60%
3	Water Supply Analyses	n/a	n/a	0%
4A	Identification of Water Needs	n/a	n/a	0%
4B	Identification of Potentially Feasible WMSs and WMS Projects	n/a	n/a	0%
4C	Prepare and Submit Technical Memorandum	n/a	n/a	0%
5A	Evaluation & Recommendation of WMSs	n/a	n/a	0%
5B	Water Conservation Recommendations	n/a	n/a	0%
6	Impacts of Regional Water Plan	n/a	n/a	0%
7	Drought Response, Activities & Recommendations	n/a	n/a	0%
8	Recommendations Regarding Unique Stream Segments and/or Reservoir Sites and Legislative & Regional Policy Issues	\$10,648	\$0	0%
9	Implementation and Comparison to the Previous Regional Water Plan	n/a	n/a	0%
10	Public Participation and Plan Adoption	\$97,916	\$38,669.39	46%
	<b>TOTAL</b>	<b>\$200,691</b>	<b>\$91,412.30</b>	<b>46%</b>

# 2026 Plan Schedule Detail

<b>Date</b>	<b>Scheduled Events/Tasks</b>
Sept 2022	TWDB releases remaining Draft Non-Municipal data for Irrigation and Mining for review
Jan 2023	TWDB release of Draft Municipal Population and Demand Projections
March 2023	Region D Meeting – NETRWPG’s approval of submittal of technical memorandum, and make revisions, requesting adjustments to Draft Non-Municipal Demand Projections and finalize adjustments with TWDB staff.
July 2023	Region D Meeting – Consideration of approval of submittal of technical memorandum, and make revisions, requesting adjustments to Draft Municipal Population and Demand Projections and finalize adjustments with TWDB staff. (Non-Municipal: July 14, Municipal: Aug 11)
Oct 2023	TWDB Board adopts projections
Winter 2023	Supply evaluations, infeasible WMS engagement



# Today's Discussion

## 1: Summary of Methodology

- Draft Municipal Population and Demand Projections

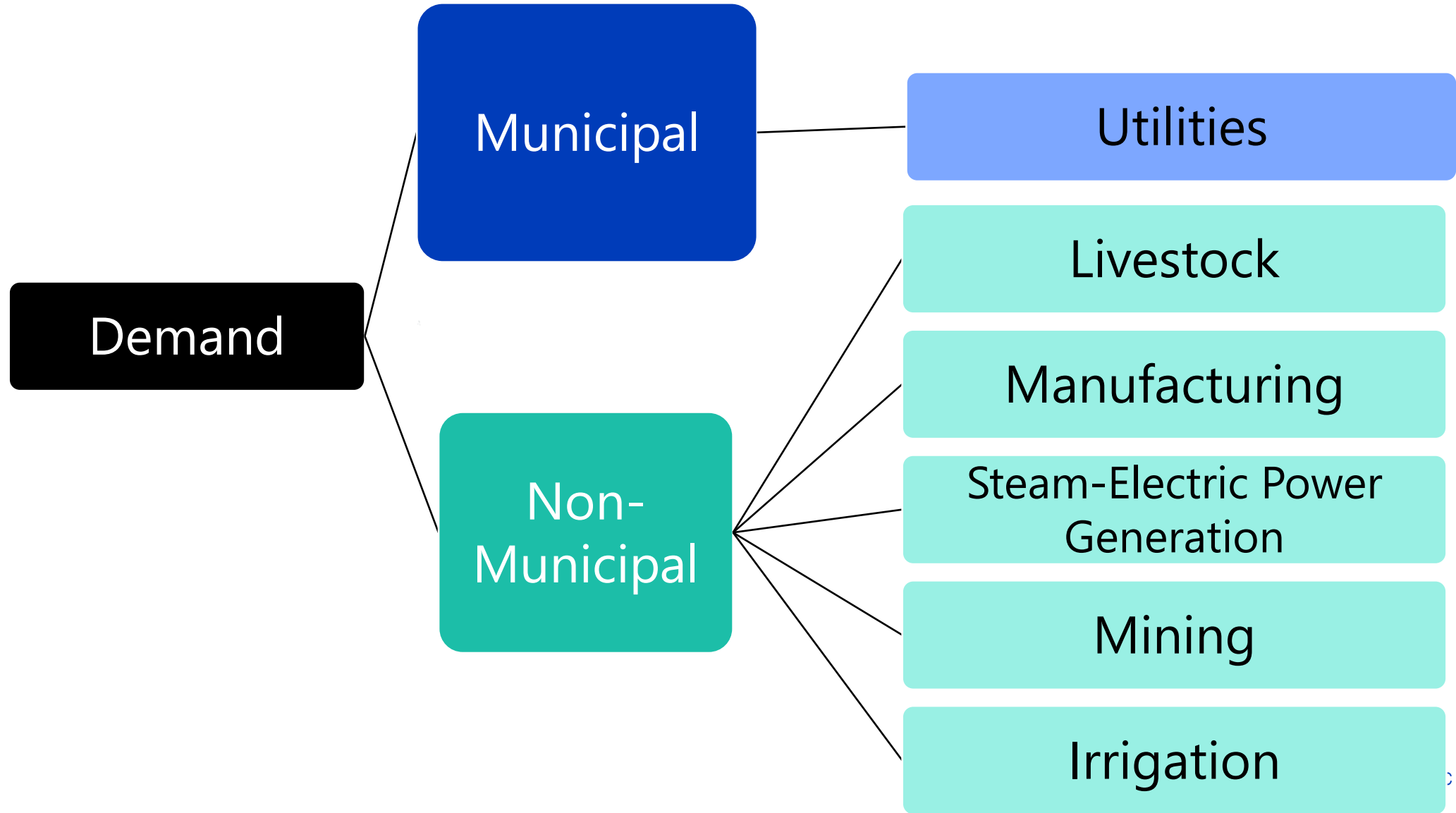
## 2: Recommended Revisions

- Municipal Population, Per Capita Use, and Demand Projections

## Seeking Action

- For approval of consultant to coordinate with the Administrator and Chair to submit recommended revisions to TWDB, allowing for adjustments in coordination with TWDB staff

# Projections of Future Water Demands



01

# Summary of Municipal Projection Methodology

# Population Projections by County

2026 Plan now includes 2020 census

Based on Texas Demographic Center's county-level projections

Two migration scenarios (2010-2020):

- Full 1.0-migration
- Half 0.5-migration



# Population Projections – TWDB Methodology

## 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

## 2026 Planning Period

- 2030 - 2080

# Population Projections by WUG

## Sub-allocate to WUGs

- GIS mapping of WUG boundaries and census block data

RWPG has the option to request revisions (by county) to use the 0.5-migration scenario

Ongoing coordination with RWPG and TWDB

# Municipal Demand Projections Rely on Baseline GPCD and *Revised* Projected Plumbing Code Savings

$$\left( \text{Baseline GPCD} - \frac{\text{PC Savings}}{\text{Decade}} \right) \times \frac{\text{Population}}{\text{Decade}} = \frac{\text{Projected Demand}}{\text{Decade}}$$

- Draft Baseline GPCD
  - » Based on 2021 Plan
  - » Reduced to account for passive savings between historical and projected (2030)
  - » Revised estimates provided by TWDB in May and have been incorporated
- Water sources: groundwater + surface water
  - » Water Use Survey

# Criteria for Adjustments

## TWDB's First Amended General Guidelines

- "Exhibit C"

## Section 2.2

- Specific Criteria
- Data Requirements

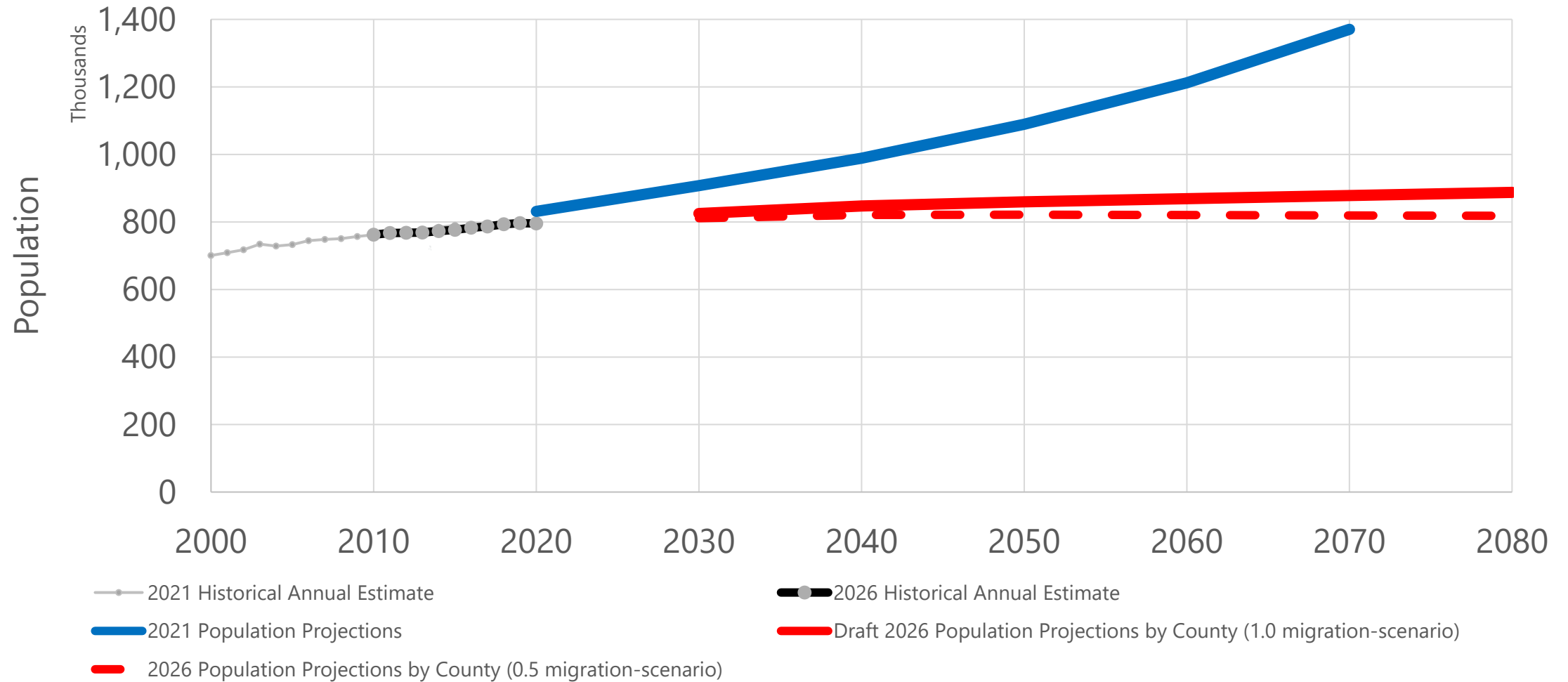
## Texas Administrative Code

- Ch. 357 – Regional Water Planning
- Ch. 358 – State Water Planning Guidelines

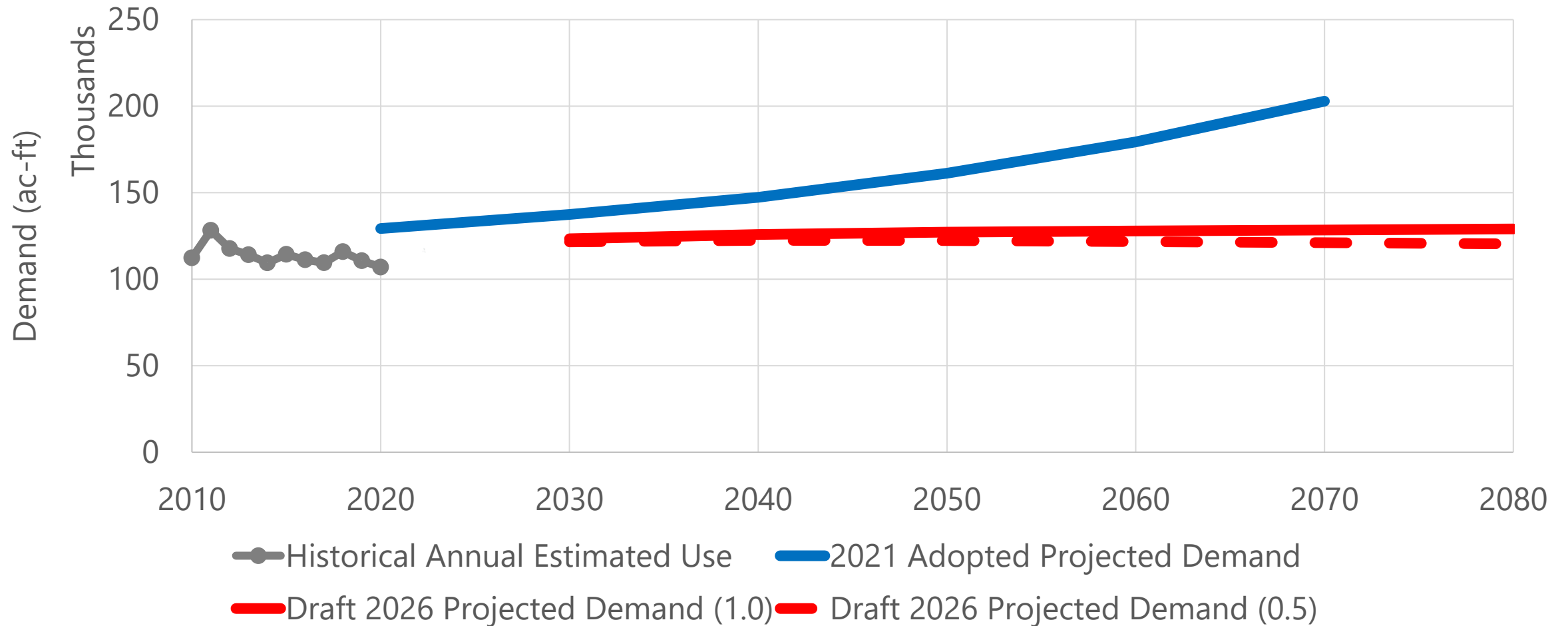
02

Recommended  
Revisions to  
Draft Municipal  
Projections

# Comparison of 2021 to Draft 2026 Population Projections



# Comparison of 2021 to Draft 2026 Municipal Demand Projections

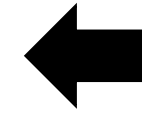




# Summary

## Population

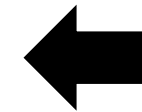
- 1.0-Migration Scenario
- 0.5-Migration scenario



**By County**

## WUG-specific Requests

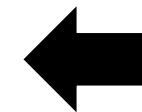
- Available studies
- Historic data from TWDB
- Historic data from WUGs and WUS
- Information on new/recent infrastructure
- Recent information/Data
- WUG projections



**Requesting  
WUGs**

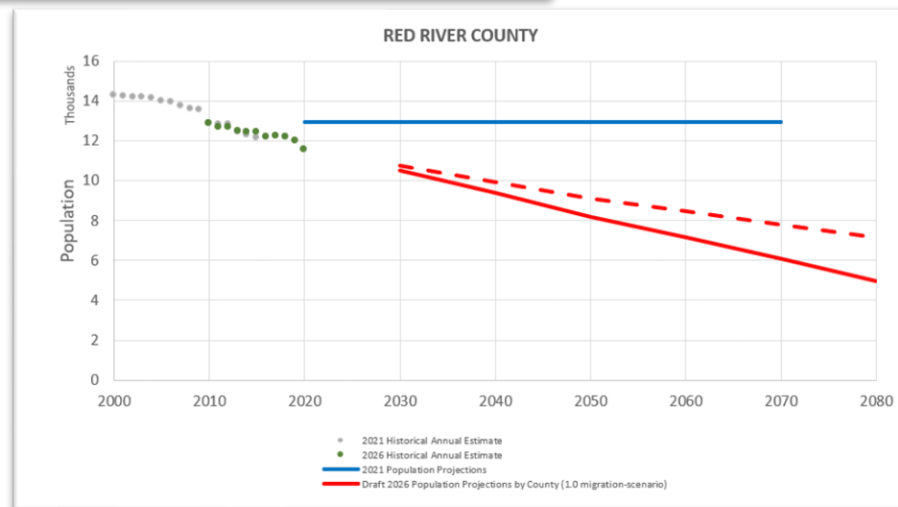
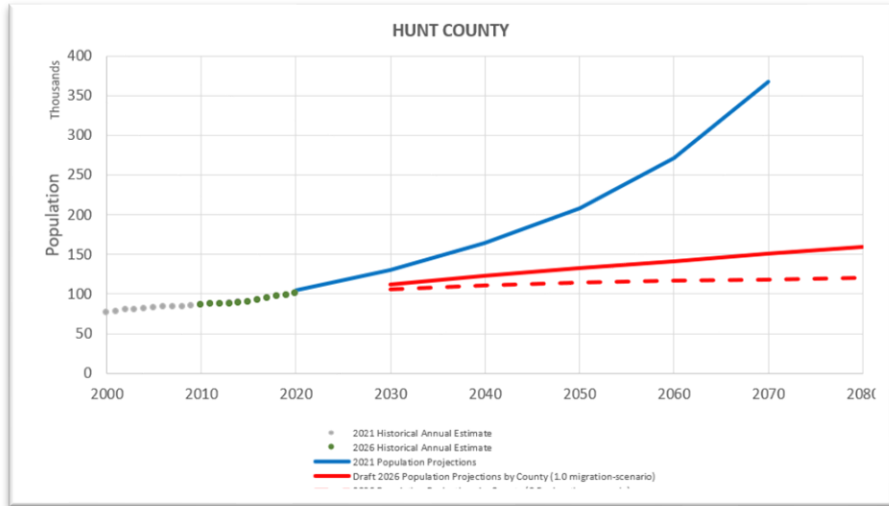
## GPCD

- Remove passive savings assumption from baseline GPCD
- Evaluate maximum "dry-year" GPCD and trends
- Continue use of TWDB's assumed passive savings for decadal projections



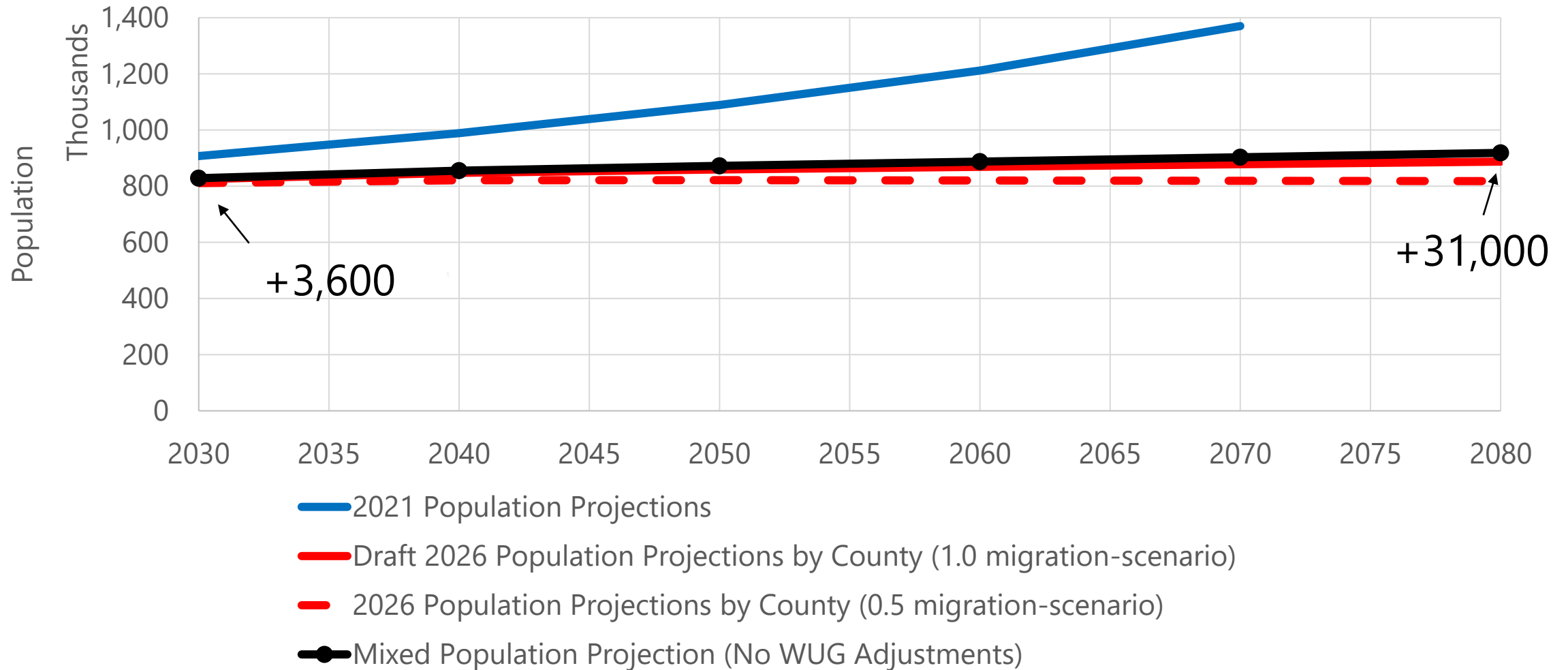
**By WUG**

# County by County Population Comparison of Migration Scenarios



COUNTY	SCENARIO
BOWIE	1
CAMP	0.5
CASS	0.5
DELTA	1
FRANKLIN	0.5
GREGG	0.5
HARRISON	1
HOPKINS	1
HUNT	1
LAMAR	0.5
MARION	0.5
MORRIS	0.5
RAINS	1
RED RIVER	0.5
SMITH	1
TITUS	0.5
UPSHUR	1
VAN ZANDT	1
WOOD	1

# Comparison of Population Projections to Mixed Migration Scenarios





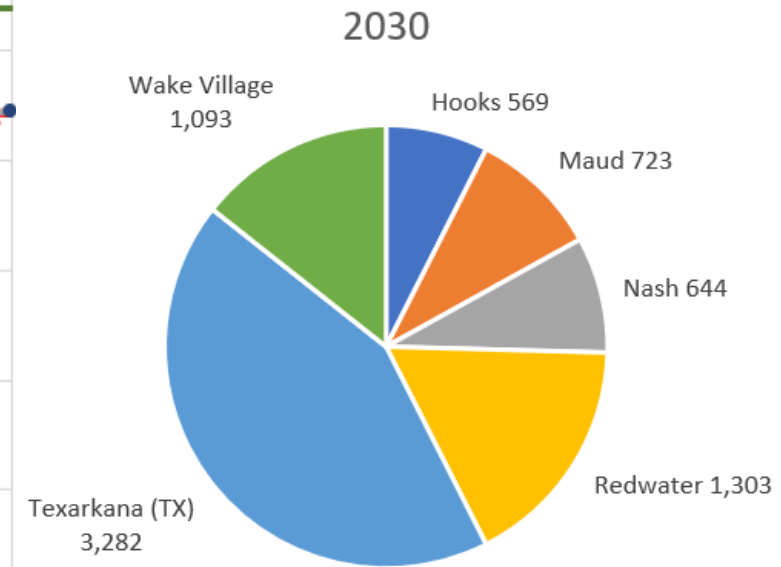
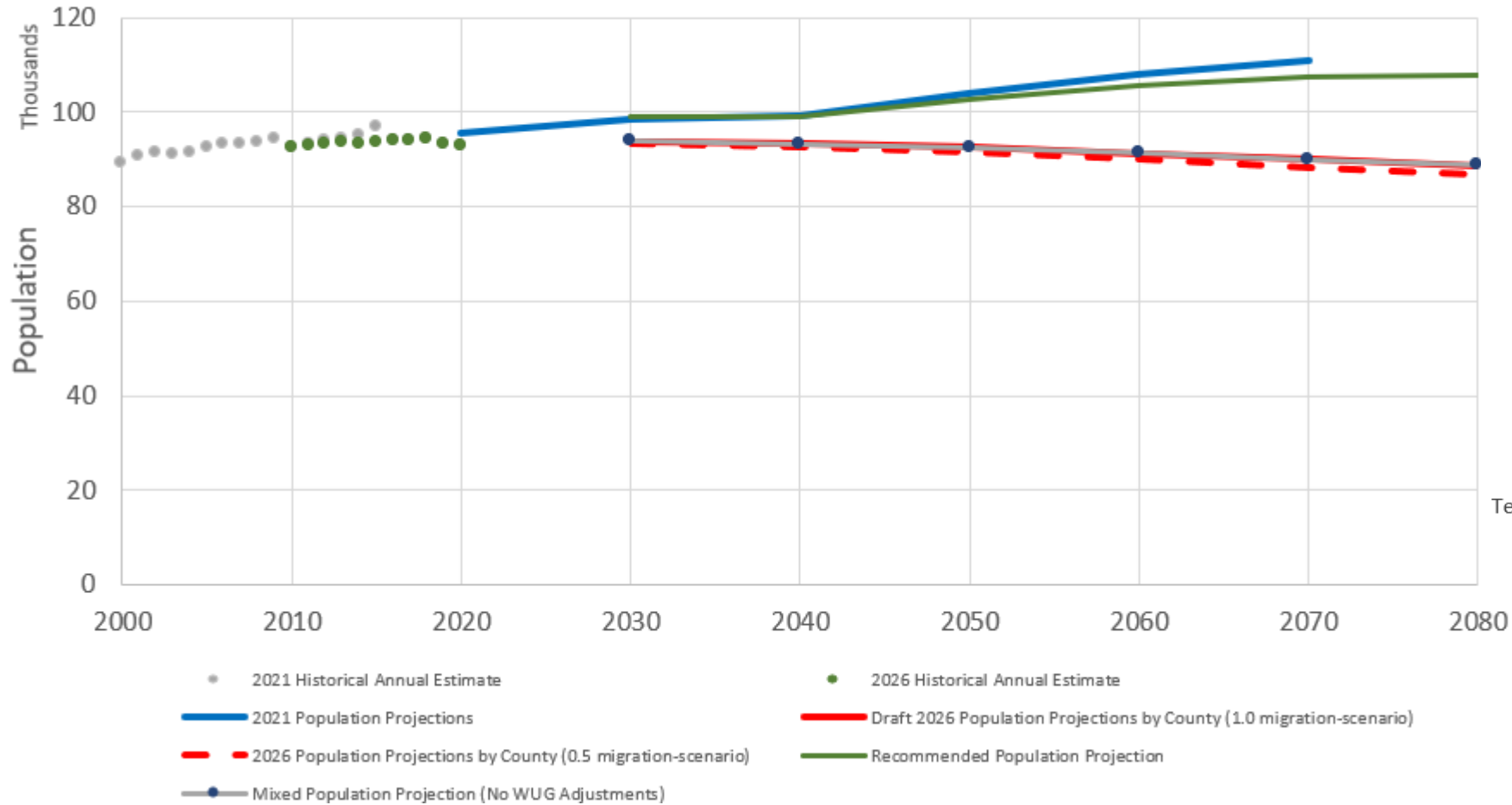
# Recommendation

- **Request mixing of differing migration rates at county level (as identified in previous table)**
  - » More conservative estimation of population
    - 1.0-migration scenario
      - Accommodates near-term growth for more rapidly growing counties
    - 0.5-scenario
      - avoids over-estimation of long-term decreases in population
      - Recommended by TDC for long-term planning
  - » Utilizes data from TDC and TWDB
  - » Meets Section 2.2.1.3, Item 6 Data Requirement
    - “Other data and evidence that the RWPG believes provides a reasonable basis for justifying changes to the net total county-level population projection.”

# WUG-Specific Requests

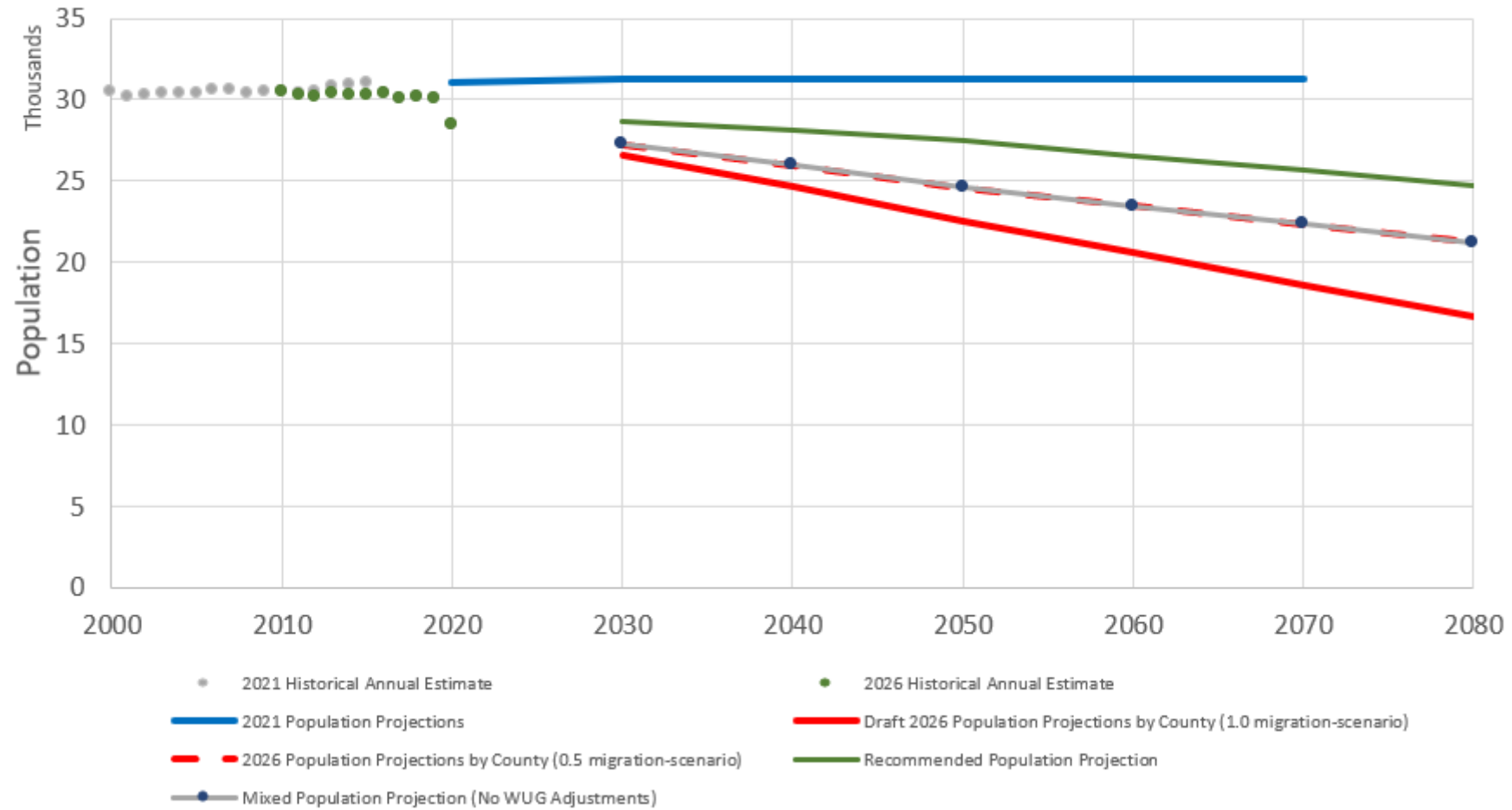
County	WUG	Information Provided
Bowie	Hooks	RWRD 2021 Request
	Maud	
	Nash	
	Redwater	
	Texarkana (TX)	
	Wake Village	
	County-Other, Bowie	
Cass	Atlanta	
Hopkins	Cash SUD	Data on historical water sales, population estimates, per capita usage, and municipal water use over (1994-2022).
	North Hopkins WSC	Data on reported use and increases in connections. Est. significant recent growth from 6,970 in 2020 to 8,253 in 2022. WUS data.
	City of Sulphur Springs	Link to census data for Sulphur Springs
Hunt	Cash SUD	See entry for WUG in Hopkins County.
	Greenville	2021 Water Distribution Master Plan
Morris	TRI SUD	Data on historical pop. Estimates, metering (2001-2022), usage (2015-2022), proj. growth in meters.
Rains	Cash SUD	See entry for WUG in Hopkins County.
Titus	TRI SUD	See entry for WUG in Morris County.
Wood	New Hope SUD	System Totals Report (May 2023) and estimate of current 2023 population.

## BOWIE COUNTY



- RWRD requested for member entities & adopted for 2021 Region D Plan
- RWRD request to remain appropriately consistent.

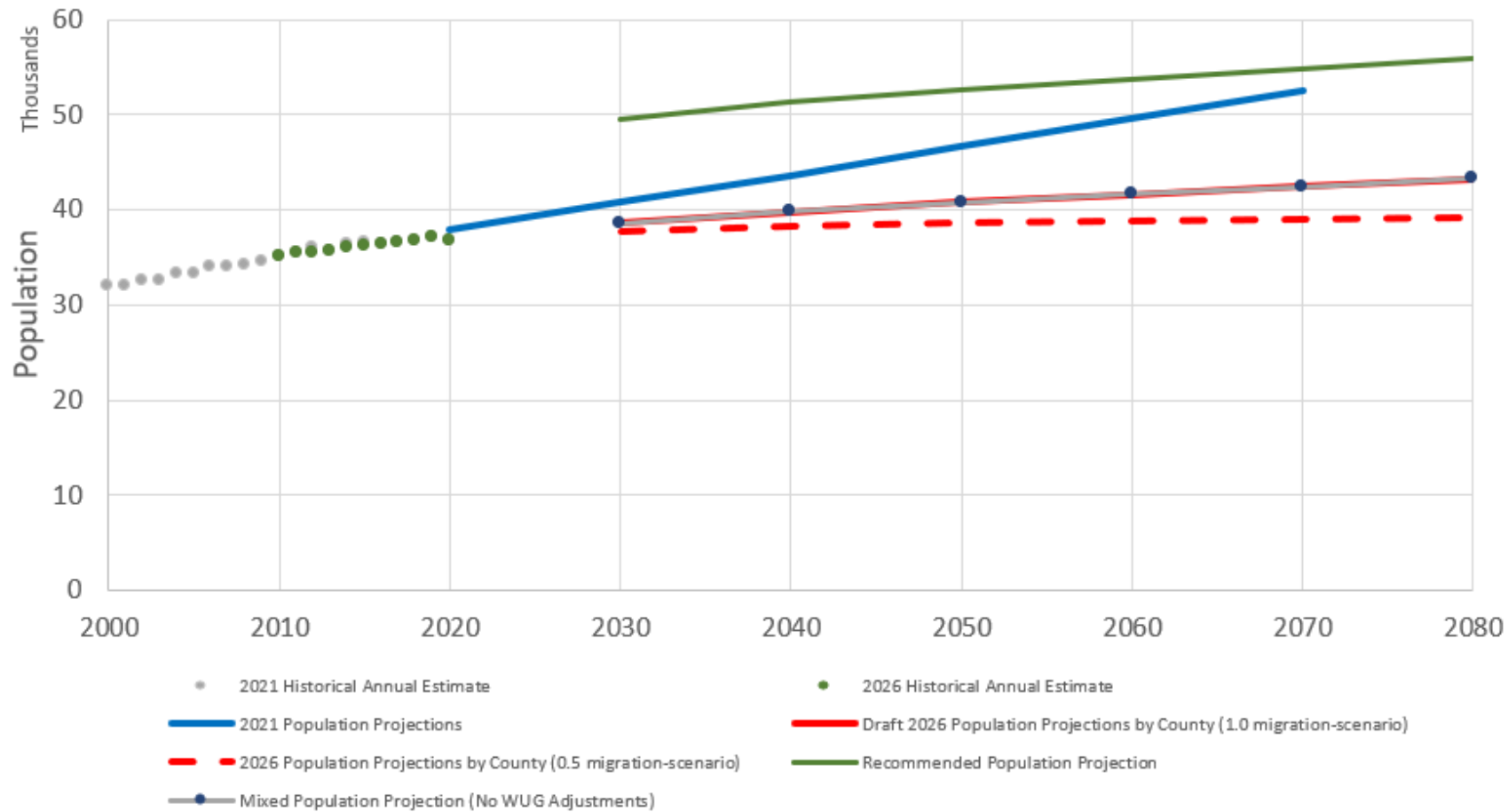
## CASS COUNTY



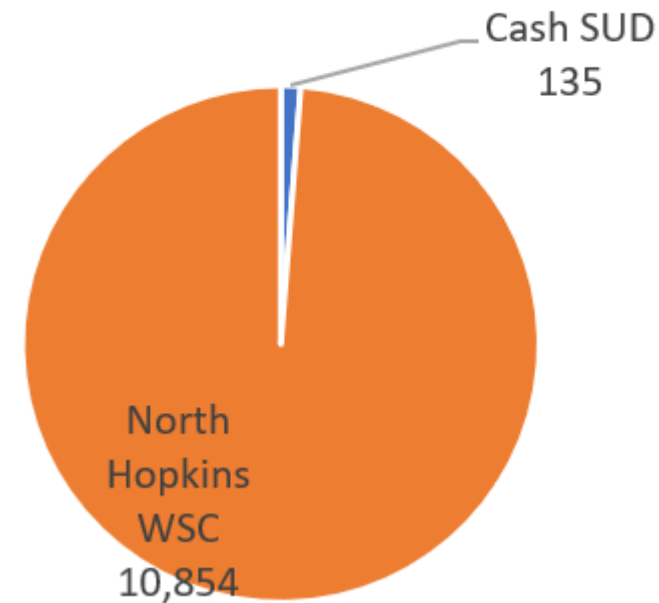
- City of Atlanta
  - Included in RWRD request.



## HOPKINS COUNTY

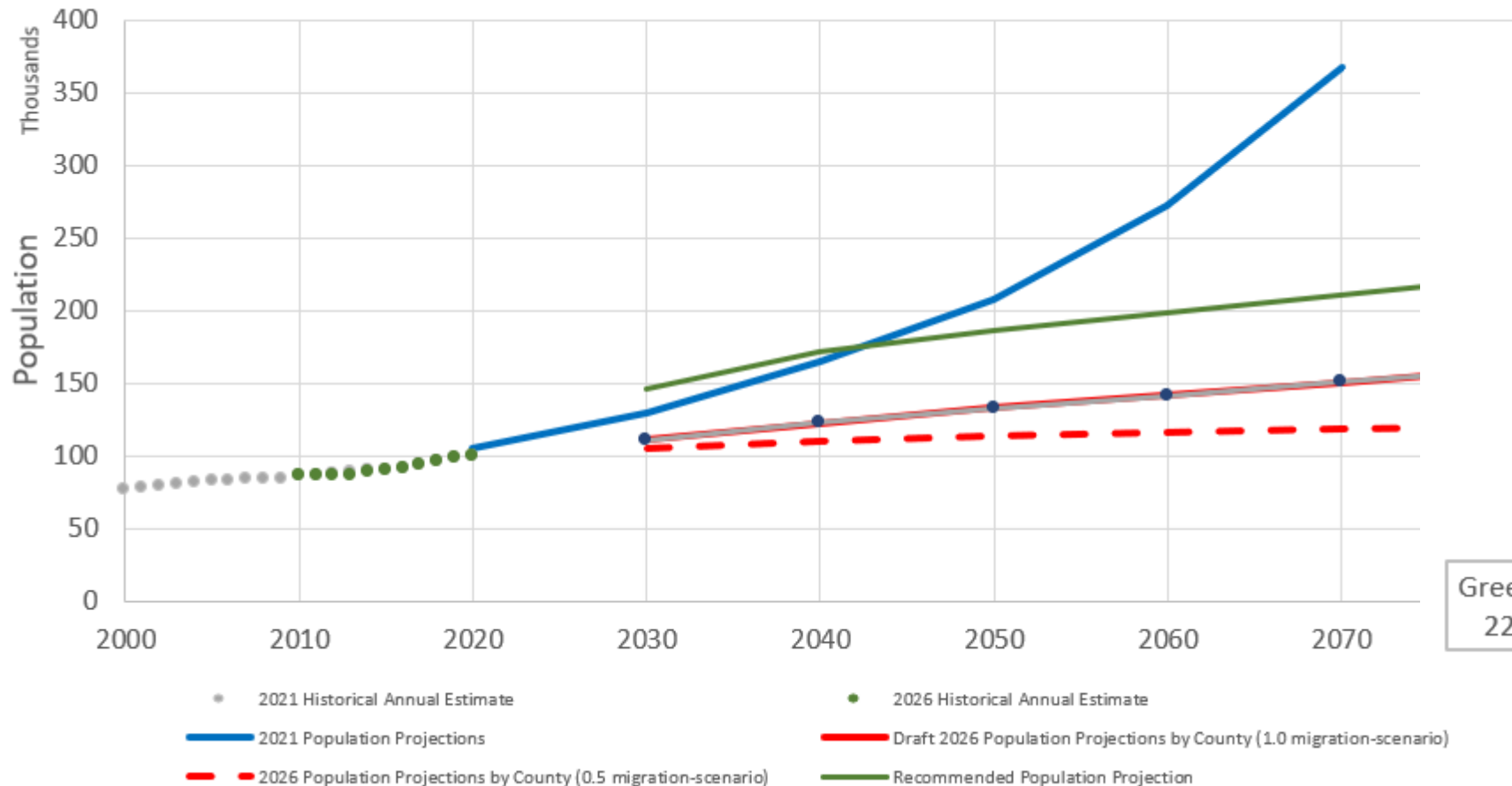


## Composition of Difference in 2030

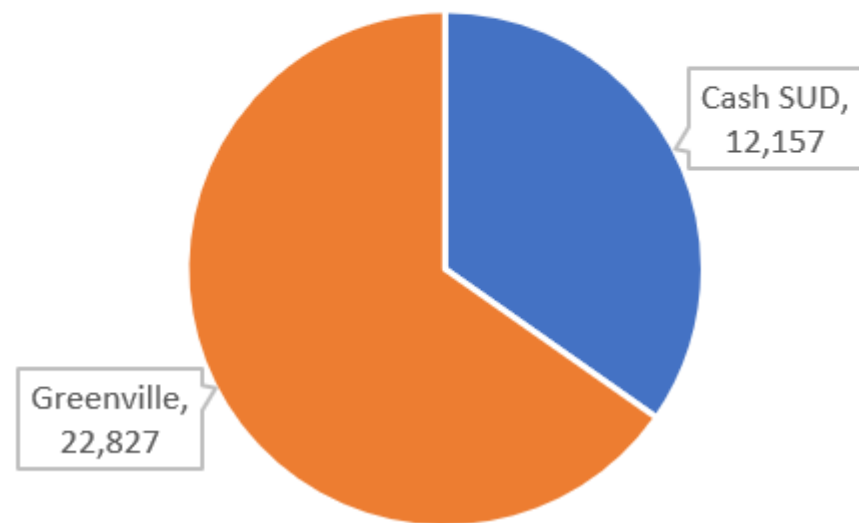


- Cash SUD & North Hopkins WSC
  - Larger reported recent populations
  - Rec. near-term projections based on recent growth, long-term projections based Draft growth rate
- City of Sulphur Springs
  - Insufficient supporting documentation

# HUNT COUNTY

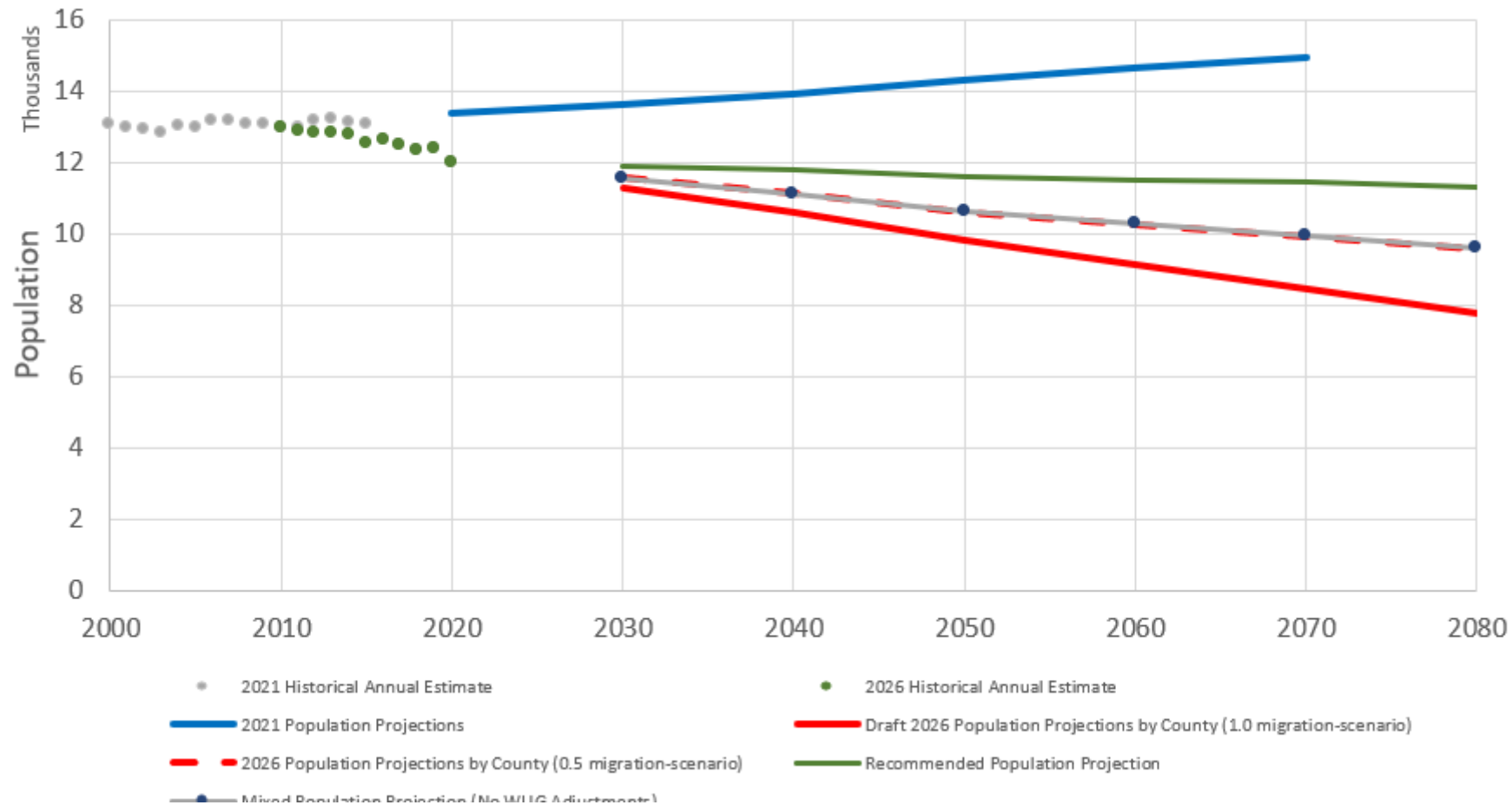


Composition of Difference in 2030



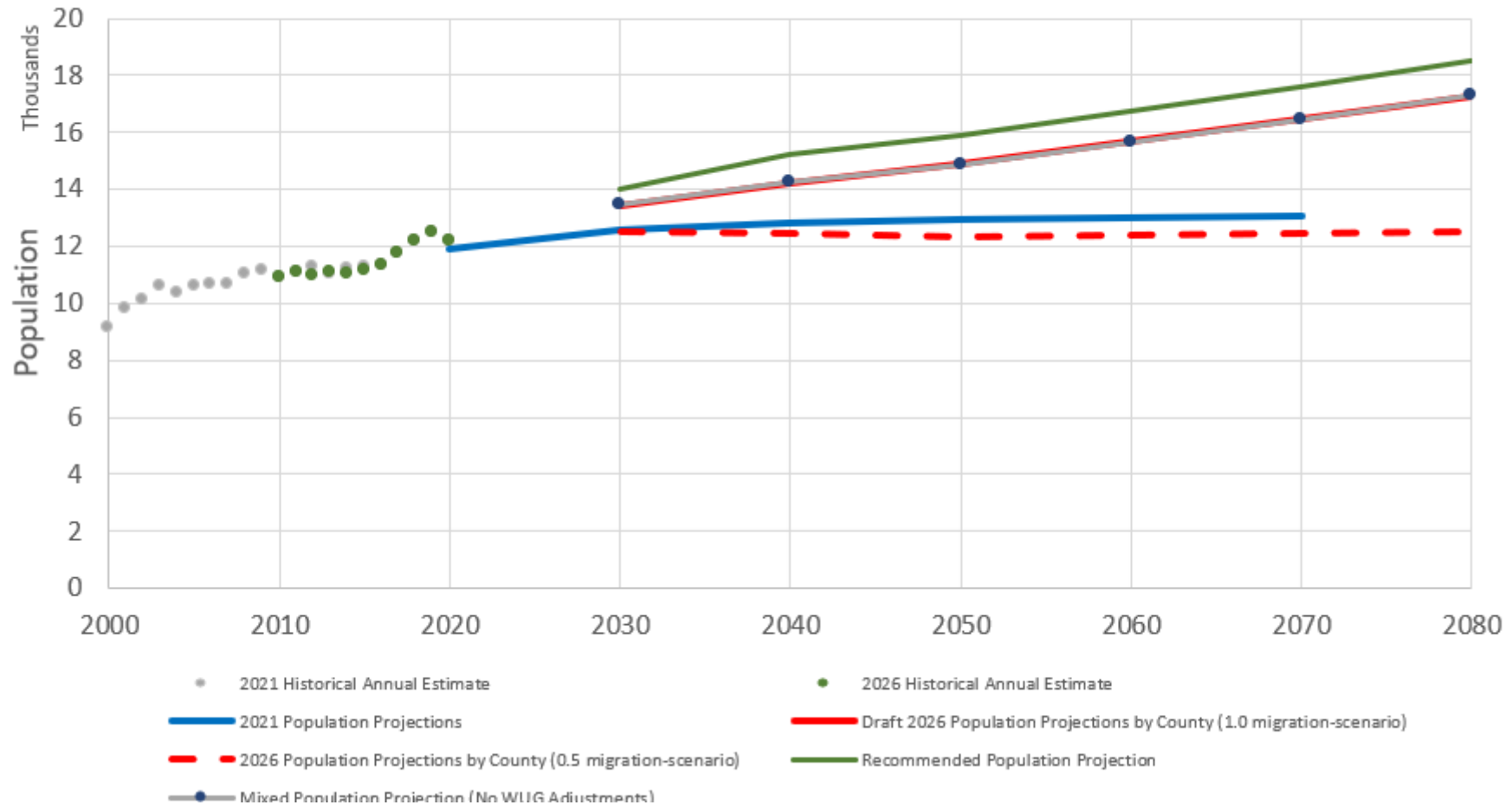
- Align with Greenville 2021 Plan
- Cash SUD
  - Same rationale for WUG as in Hopkins County

## MORRIS COUNTY



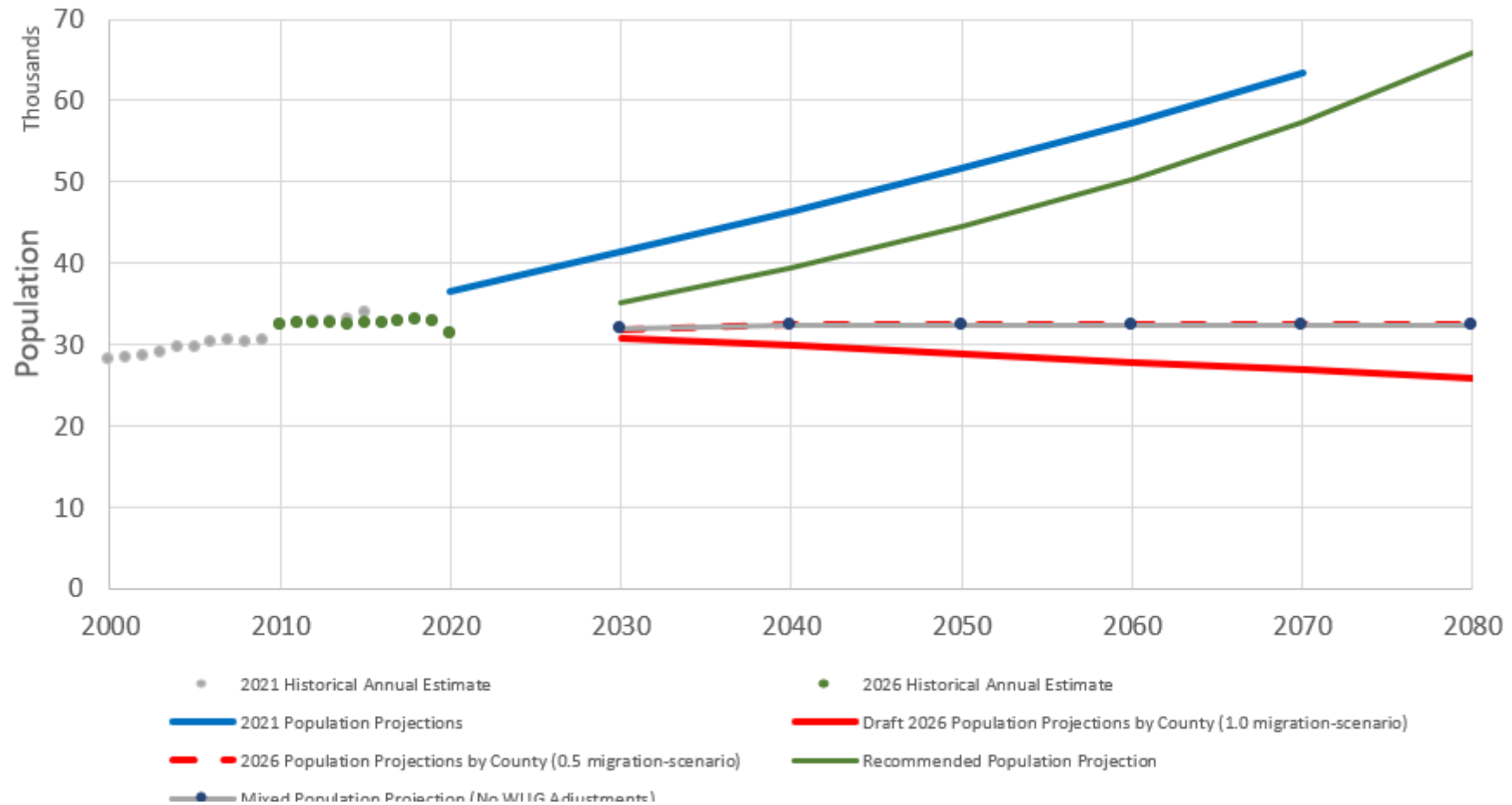
- TRI SUD (portion in Morris County)
  - Use WUG's reported historical 20-yr growth rate of 2%
  - Use WUG's requested projections at requested 2% growth rate

## RAINS COUNTY



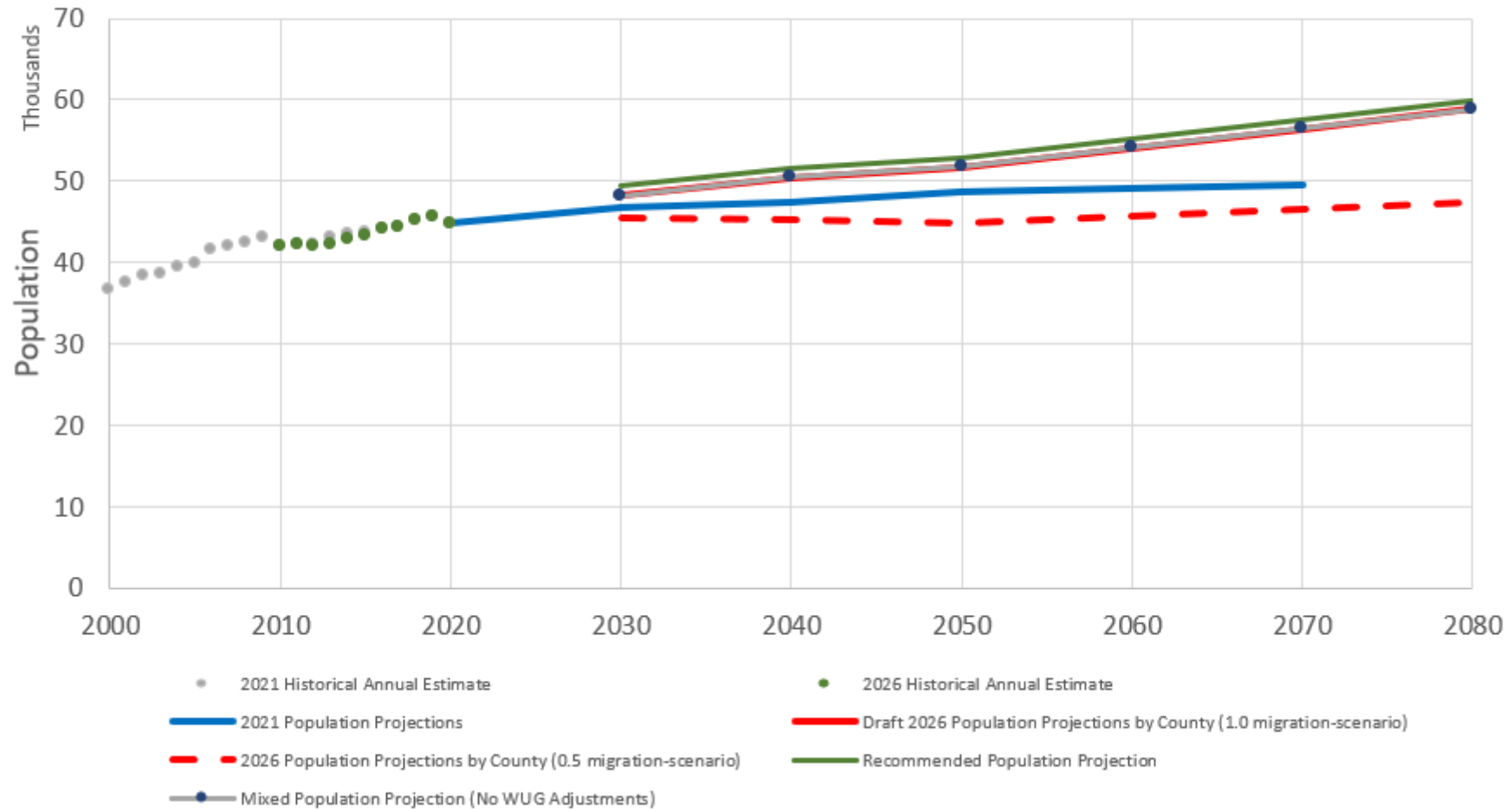
- Cash SUD
  - Same rationale for WUG as in Hopkins County.

## TITUS COUNTY



- TRI SUD (portion in Titus County)
  - Same rationale for WUG as in Morris County

## WOOD COUNTY



- New Hope SUD
  - Use WUG-estimated 2023 population
  - 2030: WUS growth rate of 1.2%
  - 2040-2080: Draft growth rates

# Municipal Demand Projections: GPCD

Gallons per Capita Daily

Guidance on Municipal Demands

- Exhibit C
  - Municipal water demand projections will be based upon dry-year demand conditions.
- TAC §358.3(2)
  - The regional water plans and state water plan shall serve as water supply plans under drought of record conditions.

Baseline GPCD = dry-year demand conditions

TWDB provided data on municipal water use collected from WUS submitted by water providers

- Residential
- Can include (commercial, institutional, light industrial)
- E.g., restaurants, hotels, camps, transient populations' use included along with permanent residents



# GPCD Evaluation

Reviewed reported population and usage provided by TWDB over 2010-2020.

Identified historic maximums

Evaluated trends in WUG GPCD

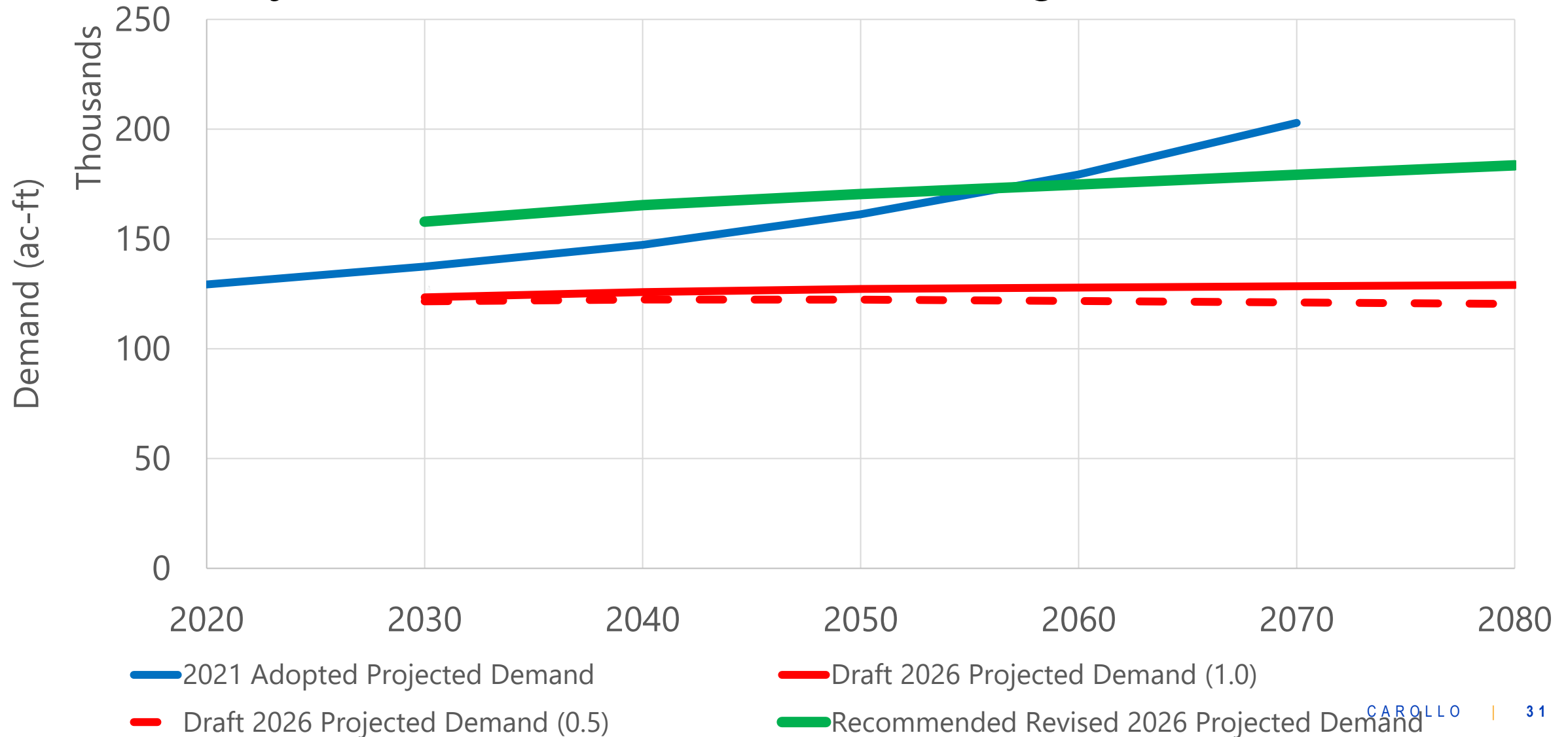
- ~1/3 increasing
- ~40% decreasing (early 2011 drought conditions)
- Remainder relatively constant



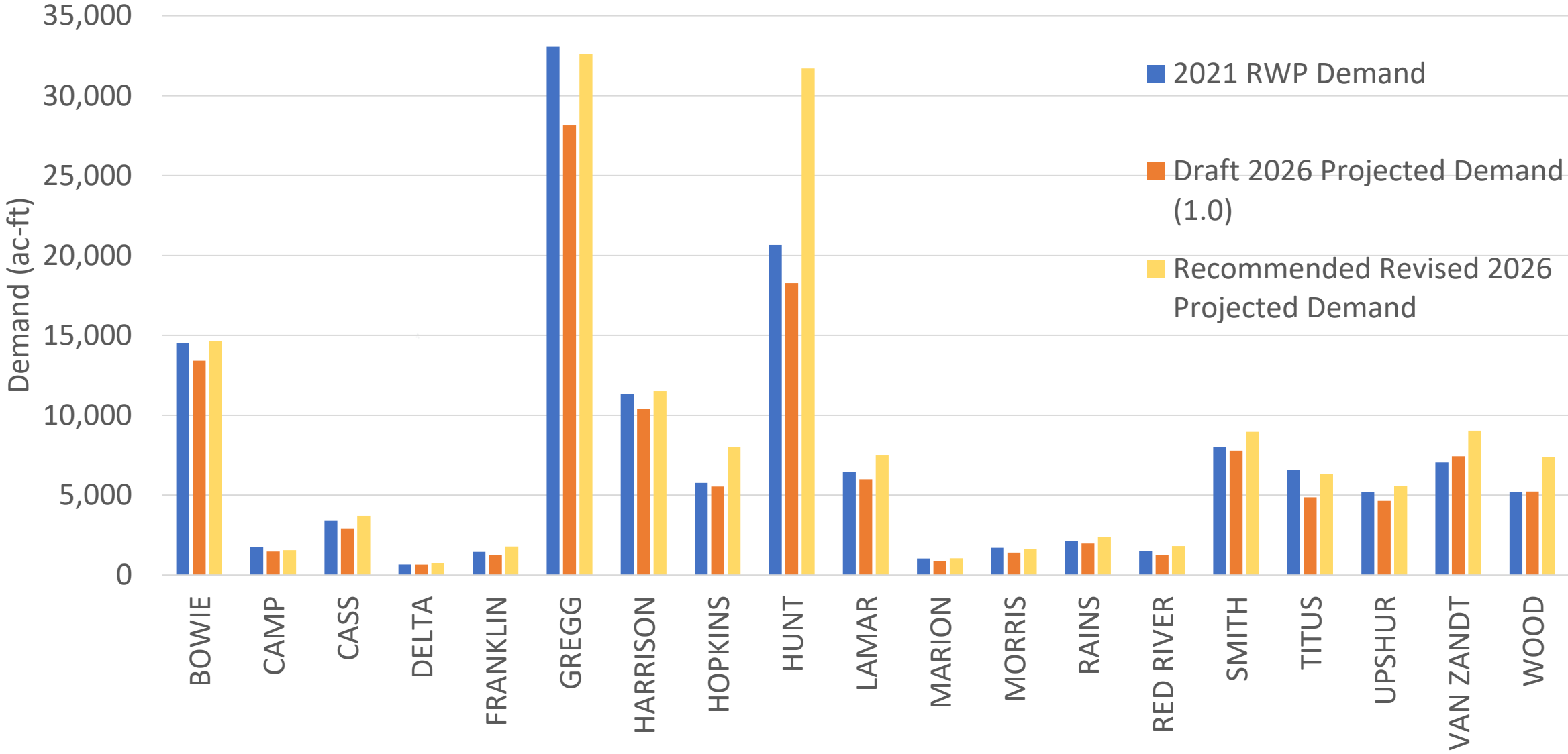
# Recommendation

1. Use of the maximum historical GPCD over the 2010 – 2020 period.
  - Captures extreme drought conditions observed in the region in the early part of the decade.
  - Reflects higher per capita usage observed for those WUGs with increasing trends in the region.
  - Utilizes data from TWDB and reported by WUGs
2. Removal of the subtraction of water efficiency savings due to more efficient plumbing fixtures and appliances from the baseline GPCD.
  - Representative of observed per capita usage
  - Consistent with planning for drought of record conditions

# Region D – Comparison of Recommended Region D Municipal Water Demand Projections to 2021 Plan, 1.0-, and 0.5 Migration Scenarios



# Municipal Demand Projections by County: 2030



# Action Sought

## Action

- Authorize the technical consultant to submit a technical memorandum, populate, and distribute to the TWDB recommended revisions to the draft municipal demands for Region D consistent with the information provided in this meeting, and approve for the consultant to work with the TWDB to submit further revisions and make responses to revision requests by TWDB by August 11,

Upcoming:

Source and Supply

Infeasible Strategies

**MEETING OF THE  
North East Texas Regional Water Planning Group  
WEDNESDAY, July 12, 2023**

**Agenda Item 8  
Financial Report**

March 8, 2023

Mr. Kyle Dooley, P.E.  
Executive Director/CEO  
228 Texas Ave., Suite A  
New Boston, TX 75570

RE: January 2023 Invoice – 2026 Region D Water Planning  
(TWDB Contract No. 2148302556 / Carollo # 200343)

Dear Mr. Dooley:

Please find the attached invoice for services performed in January 2023, under the above referenced contract. The Carollo Team has been working on the following items for the 2026 Region D Regional Water Plan:

Task No.	Task Description	Current Progress	Future Progress	Problems Encountered/Resolution
1	Planning Area Description	n/a	n/a	n/a
2A	Non-Municipal Water Demand Projections	Review of historical data, analysis, and preparation of draft recommendations and documentation.	WUG engagement, coordination with TWDB, and preparation of recommended revisions to draft projections.	None.
2B	Population and Municipal Water Demand Projections	Initial review of analyses and methods.	Continued review of analyses, preparation of summary and survey material.	None.
8	Recommendations Regarding Unique Stream Segments and/or Reservoir Sites and Legislative & Regional Policy Issues	n/a	n/a	n/a
10	Public Participation and Plan Adoption	Continued internal project coordination and engagement.	Continued internal project coordination and engagement, preparation of material for March 15, 2023 RWPG.	None.

Should you have any questions regarding this matter, please don't hesitate to contact me.

Sincerely,

Carollo Engineers, Inc.

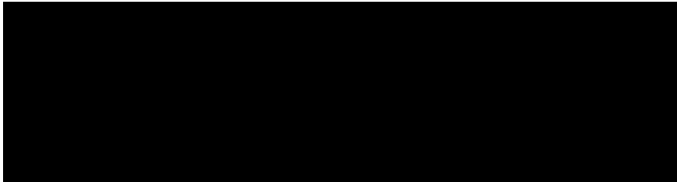


Tony L. Smith, P.E.  
Project Manager

TLS;

Enclosures





Attn: Mr. Kyle Dooley, P.E., Executive Director/CEO  
 228 Texas Ave., Suite A  
 New Boston, TX 75570

March 8, 2023  
 Project No.: 200343  
 Invoice No.: FB32678

Regional Water Plan for the North East Texas Regional Water Planning Group (Region D RWPG)  
 Total Contract: \$200,691

**Professional Services from January 01, 2023 to January 31, 2023**

Task 2A 00002A Non-Municipal Water Demand Projections

**Professional Personnel**

		<b>Hours</b>	<b>Rate</b>	<b>Amount</b>
Project Professional	Smith, Tony	15.5	86.05	1,333.89
	Totals	15.5		1,333.89
			<b>Fringe</b>	2,000.82
			<b>Overhead</b>	3,964.30
	<b>Total Labor</b>			<b>3,964.30</b>

**Additional Fees**

Profit				360.19
	<b>Total Additional Fees</b>			<b>360.19</b>

**Billing Limits**

	<b>Current</b>	<b>Prior</b>	<b>To Date</b>
Total Billings	4,324.49	12,095.46	16,419.95
Limit			24,152.00
Remaining			7,732.05

**Task Total** **\$ 4,324.49**

Task 2B 00002B Population and Municipal Water Demand Projections

**Professional Personnel**

		<b>Hours</b>	<b>Rate</b>	<b>Amount</b>
Project Professional	Smith, Tony	4.0	86.05	344.23
	Totals	4.0		344.23
			<b>Fringe</b>	516.34
			<b>Overhead</b>	1,023.05
	<b>Total Labor</b>			<b>1,023.05</b>

**Additional Fees**

Profit				92.95
	<b>Total Additional Fees</b>			<b>92.95</b>

**Billing Limits**

	<b>Current</b>	<b>Prior</b>	<b>To Date</b>
Total Billings	1,116.00	5,697.98	6,813.98
Limit			42,734.00
Remaining			35,920.02

**Task Total** **\$ 1,116.00**

Task 10 000100 Public Participation and Plan Adoption

**Professional Personnel**

		<b>Hours</b>	<b>Rate</b>	<b>Amount</b>
Project Professional	Smith, Tony	2.0	86.05	172.11

Professional					
	Pinckney, Michael	1.5	73.72	110.58	
	Totals	3.5		282.69	
			<b>Fringe</b>	282.69	424.03
			<b>Overhead</b>	424.03	840.15
	<b>Total Labor</b>				<b>840.15</b>
<b>Additional Fees</b>					
Profit				76.33	
	<b>Total Additional Fees</b>			<b>76.33</b>	<b>76.33</b>
<b>Billing Limits</b>		<b>Current</b>	<b>Prior</b>	<b>To Date</b>	
Total Billings		916.48	23,738.93	24,655.41	
Limit				56,750.00	
Remaining				32,094.59	
			<b>Task Total</b>		<b>\$ 916.48</b>
<hr/>					
			<b>Project Total</b>		<b>\$ 6,356.97</b>
<hr/>					

Project	200343.0S		2026 Region D - SUBS		
			<b>Subconsultant Total</b>		<b>\$ -</b>
<b>Billing Limits</b>		<b>Current</b>	<b>Prior</b>	<b>To-Date</b>	
Total Billings		0.00	2,932.50	2,932.50	
Limit				52,611.00	
Remaining				49,678.50	
<hr/>					
			<b>Project Total</b>		<b>\$ 6,356.97</b>

<b>Retainage</b>				
Current Retainage	317.85 (5% of 6,356.97)			<b>- 317.85</b>
Prior Retainage	2,223.23			
Retainage To-Date	2,541.08			

**Please Pay This Amount \$ 6,039.12**

<b>Budget Category Breakdown</b>	
Salaries & Wages	1,960.81
Fringe	980.38
Overhead	2,886.31
Profit	529.47
Travel	0.00
Other Expenses	0.00
Subcontractor Services	0.00
<b>Total</b>	<b>6,356.97</b>
Retainage	- 317.85
<b>Total</b>	<b>6,039.12</b>

<b>Project Summary</b>	
Contract Amount	200,691.00
Less Current Invoice	6,039.12
Less Total Retainage to Date	2,541.08
Less Prior Amount Invoiced	42,241.64
Balance Remaining	149,869.16

**Remit To: P.O. Box 30835 | Salt Lake City, UT 84130-0835 | United States  
Phone: 1-800-523-5822**

**Outstanding Invoices**

<b>Number</b>	<b>Date</b>	<b>Balance</b>	<b>Retainage</b>	<b>Now Due</b>
FB28651	10/14/2022	5,701.42	300.07	5,701.42
FB29512	11/18/2022	6,587.29	346.70	6,587.29
FB30633	12/16/2023	795.15	41.85	795.15
FB31587	1/12/2023	1,022.19	53.80	1,022.19
<b>Total</b>		<b>14,106.05</b>	<b>742.42</b>	<b>14,106.05</b>

For any questions regarding this invoice please contact us at [ClientInvoicing@carollo.com](mailto:ClientInvoicing@carollo.com).

March 22, 2023

Mr. Kyle Dooley, P.E.  
Executive Director/CEO  
228 Texas Ave., Suite A  
New Boston, TX 75570

RE: February 2023 Invoice – 2026 Region D Water Planning  
(TWDB Contract No. 2148302556 / Carollo # 200343)

Dear Mr. Dooley:

Please find the attached invoice for services performed in February 2023, under the above referenced contract. The Carollo Team has been working on the following items for the 2026 Region D Regional Water Plan:

Task No.	Task Description	Current Progress	Future Progress	Problems Encountered/Resolution
1	Planning Area Description	n/a	n/a	n/a
2A	Non-Municipal Water Demand Projections	WUG engagement, coordination with TWDB, and preparation of recommended revisions to draft projections	Documentation and submittal of proposed revisions to TWDB.	None.
2B	Population and Municipal Water Demand Projections	Continued review of analyses, preparation of summary and survey material.	Continued review of analyses (migration scenarios, gpcd), continued preparation of survey material.	None.
8	Recommendations Regarding Unique Stream Segments and/or Reservoir Sites and Legislative & Regional Policy Issues	n/a	n/a	n/a
10	Public Participation and Plan Adoption	Continued internal project coordination and engagement, preparation of material for March 15, 2023 RWPG.	Continued internal project coordination and engagement, preparation and presentation of material at March 15, 2023 RWPG meeting.	None.

Should you have any questions regarding this matter, please don't hesitate to contact me.

Sincerely,

Carollo Engineers, Inc.



Tony L. Smith, P.E.  
Project Manager

TLS;

Enclosures



Attn: Mr. Kyle Dooley, P.E., Executive Director/CEO  
 228 Texas Ave., Suite A  
 New Boston, TX 75570

March 22, 2023  
 Project No.: 200343  
 Invoice No.: FB34383

Regional Water Plan for the North East Texas Regional Water Planning Group (Region D RWPG)  
 Total Contract: \$200,691

**Professional Services from February 01, 2023 to February 28, 2023**

Task 2A 00002A Non-Municipal Water Demand Projections

**Professional Personnel**

		<b>Hours</b>	<b>Rate</b>	<b>Amount</b>
Project Professional				
	Smith, Tony	12.5	86.05	1,075.72
	Totals	12.5		1,075.72
			<b>Fringe</b> 1,075.72	1,613.57
			<b>Overhead</b> 1,613.57	3,197.02

**Total Labor 3,197.02**

**Additional Fees**

Profit				290.47
	<b>Total Additional Fees</b>			<b>290.47</b>

**290.47**

**Billing Limits**

	<b>Current</b>	<b>Prior</b>	<b>To Date</b>
Total Billings	3,487.49	16,419.95	19,907.44
Limit			24,152.00
Remaining			4,244.56

**Task Total \$ 3,487.49**

Task 2B 00002B Population and Municipal Water Demand Projections

**Professional Personnel**

		<b>Hours</b>	<b>Rate</b>	<b>Amount</b>
Project Professional				
	Smith, Tony	13.0	86.05	1,118.75
	Totals	13.0		1,118.75
			<b>Fringe</b> 1,118.75	1,678.11
			<b>Overhead</b> 1,678.11	3,324.90

**Total Labor 3,324.90**

**Additional Fees**

Profit				302.09
	<b>Total Additional Fees</b>			<b>302.09</b>

**302.09**

**Billing Limits**

	<b>Current</b>	<b>Prior</b>	<b>To Date</b>
Total Billings	3,626.99	6,813.98	10,440.97
Limit			42,734.00
Remaining			32,293.03

**Task Total \$ 3,626.99**

Task 10		000100		Public Participation and Plan Adoption		
<b>Professional Personnel</b>						
Project Professional		<b>Hours</b>	<b>Rate</b>	<b>Amount</b>		
Smith, Tony		4.5	86.05	387.26		
Totals		4.5		387.26		
		<b>Fringe</b>	387.26	580.89		
		<b>Overhead</b>	580.89	1,150.93		
<b>Total Labor</b>				<b>1,150.93</b>		
<b>Additional Fees</b>						
Profit				104.57		
Travel - Company Vehicle	<u>Quantity</u>		<u>Rate</u>			
Mileage	0		0.585	0.00		
<b>Total Additional Fees</b>				<b>104.57</b>		
<b>Billing Limits</b>						
		<b>Current</b>	<b>Prior</b>	<b>To Date</b>		
Total Billings		1,255.50	24,655.41	25,910.91		
Limit				56,750.00		
Remaining				30,839.09		
<b>Task Total</b>				<b>\$ 1,255.50</b>		
<b>Project Total</b>				<b>\$ 8,369.98</b>		
<b>Project 200343.0S</b>						
				2026 Region D - SUBS		
<b>Subconsultant Total</b>				<b>\$ -</b>		
<b>Billing Limits</b>						
		<b>Current</b>	<b>Prior</b>	<b>To-Date</b>		
Total Billings		0.00	2,932.50	2,932.50		
Limit				52,611.00		
Remaining				49,678.50		
<b>Project Total</b>				<b>\$ 8,369.98</b>		
<b>Retainage</b>						
Current Retainage	418.50 (5% of 8,369.98)					<b>- 418.5</b>
Prior Retainage	2,541.08					
Retainage To-Date	2,959.58					
<b>Please Pay This Amount \$ 7,951.48</b>						
<b>Budget Category Breakdown</b>						
Salaries & Wages		2,581.73				
Fringe		1,290.84				
Overhead		3,800.28				
Profit		697.13				
Travel		0.00				
Other Expenses		0.00				
Subcontractor Services		0.00				
<b>Total</b>		<b>8,369.98</b>				
Retainage		- 418.5				
<b>Total</b>		<b>7,951.48</b>				
<b>Project Summary</b>						
Contract Amount		200,691.00				
Less Current Invoice		7,951.48				
Less Total Retainage to Date		2,959.58				
Less Prior Amount Invoiced		48,280.76				
Balance Remaining		141,499.18				

Remit To: P.O. Box 30835 | Salt Lake City, UT 84130-0835 | United States  
Phone: 1-800-523-5822

**Outstanding Invoices**

<b>Number</b>	<b>Date</b>	<b>Balance</b>	<b>Retainage</b>	<b>Now Due</b>
FB28651	10/14/2022	5,701.42	300.07	5,701.42
FB29512	11/18/2022	6,587.29	346.70	6,587.29
FB30633	12/16/2023	795.15	41.85	795.15
FB31587	1/12/2023	1,022.19	53.80	1,022.19
FB32678	3/8/2023	6,039.12	317.85	6,039.12
<b>Total</b>		<b>20,145.17</b>	<b>1,060.27</b>	<b>20,145.17</b>

For any questions regarding this invoice please contact us at [ClientInvoicing@carollo.com](mailto:ClientInvoicing@carollo.com).

April 25, 2023

Mr. Kyle Dooley, P.E.  
Executive Director/CEO  
228 Texas Ave., Suite A  
New Boston, TX 75570

RE: March 2023 Invoice – 2026 Region D Water Planning  
(TWDB Contract No. 2148302556 / Carollo # 200343)

Dear Mr. Dooley:

Please find the attached invoice for services performed in March 2023, under the above referenced contract. The Carollo Team has been working on the following items for the 2026 Region D Regional Water Plan:

Task No.	Task Description	Current Progress	Future Progress	Problems Encountered/Resolution
1	Planning Area Description	n/a	n/a	n/a
2A	Non-Municipal Water Demand Projections	Preparation of documentation and summary information for Region D RWPG Meeting.	Review and submittal of proposed revisions to TWDB.	None.
2B	Population and Municipal Water Demand Projections	Continued review of analyses (migration scenarios, gpcd), continued preparation of survey material.	Distribution of survey material, engagement.	None.
8	Recommendations Regarding Unique Stream Segments and/or Reservoir Sites and Legislative & Regional Policy Issues	n/a	n/a	n/a
10	Public Participation and Plan Adoption	Continued internal project coordination and engagement, preparation and presentation of material at March 15, 2023 RWPG meeting.	Continued internal project coordination and engagement.	None.

Should you have any questions regarding this matter, please don't hesitate to contact me.

Sincerely,

Carollo Engineers, Inc.

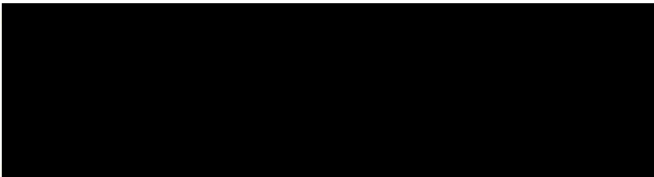


Tony L. Smith, P.E.  
Project Manager

TLS;

Enclosures





Attn: Mr. Kyle Dooley, P.E., Executive Director/CEO  
228 Texas Ave., Suite A  
New Boston, TX 75570

April 25, 2023  
Project No.: 200343  
Invoice No.: 35294

Regional Water Plan for the North East Texas Regional Water Planning Group (Region D RWPG)  
Total Contract: \$200,691

**Professional Services from March 01, 2023 to March 31, 2023**

Task 2B 00002B Population and Municipal Water Demand Projections

**Professional Personnel**

		Hours	Rate	Amount
Project Professional				
	Smith, Tony	2.0	86.05	172.11
Professional				
	Pinckney, Michael	12.0	73.72	884.64
	Totals	14.0		1,056.75
			<b>Fringe</b>	1,585.12
			<b>Overhead</b>	3,140.65

**Total Labor**

**3,140.65**

**Additional Fees**

Profit				285.35
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**Total Additional Fees**

**285.35**

**285.35**

**Billing Limits**

	Current	Prior	To Date
Total Billings	3,426.00	10,440.97	13,866.97
Limit			42,734.00
Remaining			28,867.03

**Task Total**

**\$ 3,426.00**

-----  
 Task 10                    000100                    Public Participation and Plan Adoption

**Professional Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Project Professional				
Smith, Tony	9.5	86.05	817.55	
Document Processing/Clerical				
Thompson, Chris	2.5	39.48	98.70	
Woody, Shoshana	2.5	39.48	98.70	
Totals	14.5		1,014.95	
		<b>Fringe</b>	1,014.95	
		<b>Overhead</b>	1,522.42	
			3,016.43	
				<b>3,016.43</b>

**Total Labor**

**Additional Fees**

Profit			274.06	
Travel - Company Vehicle	<u>Quantity</u>	<u>Rate</u>		
Mileage	0	0.585	0.00	
			<b>274.06</b>	<b>274.06</b>

**Total Additional Fees**

**Billing Limits**

	<b>Current</b>	<b>Prior</b>	<b>To Date</b>
Total Billings	3,290.49	25,910.91	29,201.40
Limit			56,750.00
Remaining			27,548.60

**Task Total**                    \$    **3,290.49**

**Project Total**                    \$    **6,716.49**

-----  
 Project                    200343.0S                    2026 Region D - SUBS  
**Subconsultant Total**                    \$            -

**Billing Limits**

	<b>Current</b>	<b>Prior</b>	<b>To-Date</b>
Total Billings	0.00	2,932.50	2,932.50
Limit			52,611.00
Remaining			49,678.50

**Project Total**                    \$    **6,716.49**

**Retainage**

Current Retainage	335.82 (5% of 6,716.49)	<b>- 335.82</b>
Prior Retainage	2,959.58	
Retainage To-Date	3,295.40	

**Please Pay This Amount \$    6,380.67**

**Budget Category Breakdown**

Salaries & Wages	2,071.70
Fringe	1,035.84
Overhead	3,049.54
Profit	559.41
Travel	0.00
Other Expenses	0.00
Subcontractor Services	0.00
<b>Total</b>	<b>6,716.49</b>
Retainage	- 335.82
<b>Total</b>	<b>6,380.67</b>

**Project Summary**

Contract Amount	200,691.00
Less Current Invoice	6,380.67
Less Total Retainage to Date	3,295.40
Less Prior Amount Invoiced	56,232.24
Balance Remaining	134,782.69

**Remit To: P.O. Box 30835 | Salt Lake City, UT 84130-0835 | United States  
Phone: 1-800-523-5822**

**Outstanding Invoices**

<b>Number</b>	<b>Date</b>	<b>Balance</b>	<b>Retainage</b>	<b>Now Due</b>
FB28651	10/14/2022	5,701.42	300.07	5,701.42
FB29512	11/18/2022	6,587.29	346.70	6,587.29
FB30633	12/16/2023	795.15	41.85	795.15
FB31587	1/12/2023	1,022.19	53.80	1,022.19
FB32678	3/8/2023	6,039.12	317.85	6,039.12
FB34383	3/22/2023	7,951.48	418.50	7,951.48
<b>Total</b>		<b>28,096.65</b>	<b>1,478.77</b>	<b>28,096.65</b>

For any questions regarding this invoice please contact us at [ClientInvoicing@carollo.com](mailto:ClientInvoicing@carollo.com).

May 8, 2023

Mr. Kyle Dooley, P.E.  
Executive Director/CEO  
228 Texas Ave., Suite A  
New Boston, TX 75570

RE: April 2023 Invoice – 2026 Region D Water Planning  
(TWDB Contract No. 2148302556 / Carollo # 200343)

Dear Mr. Dooley:

Please find the attached invoice for services performed in April 2023, under the above referenced contract. The Carollo Team has been working on the following items for the 2026 Region D Regional Water Plan:

Task No.	Task Description	Current Progress	Future Progress	Problems Encountered/Resolution
1	Planning Area Description	n/a	n/a	n/a
2A	Non-Municipal Water Demand Projections	n/a	Review and submittal of proposed revisions to TWDB.	None.
2B	Population and Municipal Water Demand Projections	Continued preparation of survey material, review of water use surveys.	Revisions to 1.0 and 0.5-migration scenario projections with revised pipeline savings, distribution of survey material, discussions with WUGs.	None.
8	Recommendations Regarding Unique Stream Segments and/or Reservoir Sites and Legislative & Regional Policy Issues	n/a	n/a	n/a
10	Public Participation and Plan Adoption	Continued internal project coordination, engagement.	Continued internal project coordination and engagement.	None.

Should you have any questions regarding this matter, please don't hesitate to contact me.

Sincerely,

Carollo Engineers, Inc.



Tony L. Smith, P.E.  
Project Manager

TLS;

Enclosures



Attn: Mr. Kyle Dooley, P.E., Executive Director/CEO  
 228 Texas Ave., Suite A  
 New Boston, TX 75570

May 8, 2023  
 Project No.: 200343  
 Invoice No.: FB36203

Regional Water Plan for the North East Texas Regional Water Planning Group (Region D RWPG)  
 Total Contract: \$200,691

**Professional Services from April 01, 2023 to April 30, 2023**

Task 2B 00002B Population and Municipal Water Demand Projections

**Professional Personnel**

		<b>Hours</b>	<b>Rate</b>	<b>Amount</b>
Project Professional				
	Smith, Tony	0.5	86.05	43.02
Professional				
	Pinckney, Michael	18.0	73.72	1,326.96
Technicians				
	Harkins, Christian	47.0	45.96	2,160.09
	Totals	65.5		3,530.07
			<b>Fringe</b>	5,295.07
			<b>Overhead</b>	10,491.29

**Total Labor 10,491.29**

**Additional Fees**

Profit				953.21
	<b>Total Additional Fees</b>			<b>953.21</b>

**Billing Limits**

	<b>Current</b>	<b>Prior</b>	<b>To Date</b>
Total Billings	11,444.50	13,866.97	25,311.47
Limit			42,734.00
Remaining			17,422.53

**Task Total \$ 11,444.50**

Task 10 000100 Public Participation and Plan Adoption

**Professional Personnel**

		<b>Hours</b>	<b>Rate</b>	<b>Amount</b>
Project Professional				
	Smith, Tony	1.5	86.05	129.08
Technicians				
	Harkins, Christian	5.0	45.96	229.80
	Totals	6.5		358.88
			<b>Fringe</b>	538.32
			<b>Overhead</b>	1,066.59

**Total Labor 1,066.59**

**Additional Fees**

Profit				96.91
Travel - Company Vehicle	<u>Quantity</u>		<u>Rate</u>	
	<b>Total Additional Fees</b>			<b>96.91</b>

**Billing Limits**

	<b>Current</b>	<b>Prior</b>	<b>To Date</b>
Total Billings	1,163.50	29,201.40	30,364.90
Limit			56,750.00
Remaining			26,385.10

**Task Total \$ 1,163.50**

<b>Project Total</b>			<b>\$ 12,608.00</b>
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Project 200343.0S 2026 Region D - SUBS

TASK 2A	00002A	Non-Municipal Water Demand Projections			
<b>Consultants</b>					
Sub-Consultants					
	3/31/2023	HEI	VO1051399	1,329.50	
		<b>Total Consultants</b>		<b>1,329.50</b>	<b>\$ 1,329.50</b>
<b>Task Total</b>					<b>\$ 1,329.50</b>

TASK 10	000100	Public Participation and Plan Adoption			
<b>Consultants</b>					
Sub-Consultants					
	3/31/2023	HEI	VO1051399	4,270.50	
		<b>Total Consultants</b>		<b>4,270.50</b>	<b>\$ 4,270.50</b>
<b>Task Total</b>					<b>\$ 4,270.50</b>
<b>Subconsultant Total</b>					<b>\$ 5,600.00</b>

<b>Billing Limits</b>	<b>Current</b>	<b>Prior</b>	<b>To-Date</b>
Total Billings	5,600.00	2,932.50	8,532.50
Limit			52,611.00
Remaining			44,078.50

<b>Project Total</b>			<b>\$ 18,208.00</b>
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<b>Retainage</b>			
Current Retainage	910.40 (5% of 18,208.00)		<b>- 910.4</b>
Prior Retainage	3,295.40		
Retainage To-Date	4,205.80		

**Please Pay This Amount \$ 17,297.60**

<b>Budget Category Breakdown</b>	
Salaries & Wages	3,888.95
Fringe	1,944.44
Overhead	5,724.49
Profit	1,050.12
Travel	0.00
Other Expenses	0.00
Subcontractor Services	5,600.00
<b>Total</b>	<b>18,208.00</b>
Retainage	- 910.4
<b>Total</b>	<b>17,297.60</b>

<b>Project Summary</b>	
Contract Amount	200,691.00
Less Current Invoice	17,297.60
Less Total Retainage to Date	4,205.80
Less Prior Amount Invoiced	62,612.91
Balance Remaining	116,574.69

**Remit To: P.O. Box 30835 | Salt Lake City, UT 84130-0835 | United States**  
**Phone: 1-800-523-5822**

**Outstanding Invoices**

<b>Number</b>	<b>Date</b>	<b>Balance</b>	<b>Retainage</b>	<b>Now Due</b>
FB32678	3/8/2023	6,039.12	317.85	6,039.12
FB34383	3/22/2023	7,951.48	418.50	7,951.48
FB35294	4/25/2023	6,380.67	335.82	6,380.67
<b>Total</b>		<b>20,371.27</b>	<b>1,072.17</b>	<b>20,371.27</b>

For any questions regarding this invoice please contact us at [ClientInvoicing@carollo.com](mailto:ClientInvoicing@carollo.com).

**PROGRESS BILLING**

Please submit invoice in one pdf format to: [accountspayable@carollo.com](mailto:accountspayable@carollo.com)

CAROLLO ENGINEERS, INC.

HAYES ENGINEERING, INC.  
(SUBCONSULTANT)

*If mailing invoice, send to:*  
4600 W. Washington St., Ste. 500  
Phoenix, AZ 85034

2126 Alpine Rd.  
Longview, TX 75601-3401  
(903) 758-2010

**Attn: Accounts Payable**

Sent by: Paula Coleman, Ext. 23

**Subject: Region D Water Plan**

Date sent: 4/11/23

**Carollo Project Number: 200343**

Hayes Engineering Invoice Number: 11301

**Professional Services Period Ending: 3/31/2023**

Hayes Engineering Invoice Date: 4/7/2023

Acct'g Item No	Task Summary	Current Period	Previous Billings	Job to Date	Contract Limits	% of Budget
	1		\$ -	\$ -	\$1,435.00	0.00%
	2A	\$ 1,329.50	\$ 2,932.50	\$ 4,262.00	\$4,262.00	100.00%
	2B		\$ -	\$ -	\$4,748.00	0.00%
	10	\$ 4,270.50	\$ -	\$ 4,270.50	\$39,000.00	10.95%
	<b>Total Amounts</b>	<b>\$ 5,600.00</b>	<b>\$2,932.50</b>	<b>\$8,532.50</b>	<b>\$49,445.00</b>	

Prior Billings Not Paid

\$ 2,932.50

Progress Percent Complete (based on completed work)

17.26%

NOTE: SUBCONSULTANT's Current Period Invoice attached.



2126 ALPINE RD.  
 LONGVIEW, TX 75601  
 +1 9037385460  
 paula@hayesengineering.net  
 www.hayesengineering.net



# INVOICE

BILL TO  
 Carollo Engineers, Inc.  
 8911 Capital of Texas Hwy. North,  
 Bldg. 2, Ste. 2200  
 Austin, TX 78759

INVOICE # 11301	DATE 04/07/2023	TERMS Net 30	DUE DATE 05/07/2023
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AMOUNT BILLED TO DATE \$2,932.50	PROJECT NAME Region D Round 6 #200343
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	DESCRIPTION	QTY	RATE	AMOUNT
Task 1	Planning Area Description	0	1,435.00	0.00
Task 2A	Non-Municipal Water Demand Projections	1	4,262.00	4,262.00
Task 2B	Population and Municipal water Demand Projections	0	4,748.00	0.00
Task 10	Public Participation and Plan Adoption	0.1095	39,000.00	4,270.50
				Subtotal: 8,532.50
40 Less Previous Invoices		-1	2,932.50	-2,932.50

Thank you for your business.

BALANCE DUE **\$5,600.00**