# REGION C WATER PLANNING GROUP

TO: REGION C WATER PLANNING GROUP

FROM: J. KEVIN WARD, CHAIR

SUBJECT: SEPTEMBER 30, 2024 PUBLIC MEETING

DATE: SEPTEMBER 23, 2024

This memorandum will serve as a notice that the Region C Water Planning Group (RCWPG) is holding a public meeting at **2:00 P.M. on Monday SEPTEMBER 30, 2024,** at the **North Central Texas Council of Governments, 616 Six Flags Drive, Centerpoint Two Building, First Floor Transportation Council Room, Arlington, Texas, 76011**. An agenda (including information on how to participate in the public meeting) has been prepared for the meeting and is attached to this memorandum. The following is a brief overview of the agenda items to be discussed with relevant materials and handouts.

OPEN MEETING

I. ROLL CALL

II. APPROVAL OF MINUTES – APRIL 29, 2024

***Agenda Item II: RCWPG Minutes from April 29, 2024***

III. PUBLIC COMMENTS (Limited to 2 minutes per speaker)

IV. PRIMARY ACTION ITEMS FOR CONSIDERATION

A. Announcement of Region C RWPG voting member vacancies: G.K. Maenius representing Counties; Call for nominations to fill vacancy and vote to fill vacancy.

***This action item will consider recommendations for replacement of RCWPG members who have resigned. G.K. Maenius resigned from the RCWPG effective August 13, 2024. Steve Starnes has expressed interest to fill the Counties interest vacancy.***

***Agenda Item IV.A: Call for nominations for Steve Starnes as the replacement for G.K. Maenius***

V. OTHER ITEMS (MAY RESULT IN ACTIONS)

A. Draft Chapter 1 Overview (Description of Region C).
***Agenda Item V.A: Draft IPP Chapter 1***

B. Draft Chapter 2 Overview (Population and Water Demand Projections).
***Agenda Item V.B: Draft IPP Chapter 2***

C. Draft Chapter 3 Overview (Analysis of Water Supply).
***Agenda Item V.C: Draft IPP Chapter 3***

D. Update on Major Water Provider Strategies/WUGs Strategy Survey.
E. Update on Conservation Strategies.
F. Update on Drought Management (Chapter 7).
G. Update on Legislative Recommendations (Chapter 8).
H. Schedule Overview.

VI. OTHER DISCUSSION

A. Updates from the Chair.
B. Report from Regional Liaisons.
C. Report from the Interregional Planning Council.
D. Report from Texas Water Development Board.

- Scott Galaway – TWDB Financial Assistance Programs
- Temple McKinnon – Marvin Nichols Feasibility Review
- Kevin Smith – TWDB Updates

E. Report from Texas Department of Agriculture.
F. Report from Texas Parks and Wildlife Department.
G. Report from Texas State Soil & Water Conservation Board.
H. Other Reports.

VII. ADJOURNMENT

The following items are enclosed with this memorandum:

I. RCWPG Agenda – September 30, 2024
II. Meeting Handouts
   A. Agenda Item II – RCWPG Minutes from April 29, 2024
   B. Agenda Item IV.A – G. K Maenius resignation email and Steve Starnes resume
   C. Agenda Item V.A – Draft IPP Chapter 1
   D. Agenda Item V.B – Draft IPP Chapter 2
   E. Agenda Item V.C – Draft IPP Chapter 3

# Agenda Item II – Attachment

## RCWPG Minutes from April 29, 2024

# REGION C WATER PLANNING GROUP

MINUTES OF AN OPEN PUBLIC MEETING

April 29, 2024

The Region C Water Planning Group (RCWPG) met in an open public meeting on Monday, April 29, at 1:00 P.M. The meeting was held at the North Central Texas Council of Governments located at 616 Six Flags Drive, Centerpoint Two Building, First Floor Transportation Council Room, Arlington, Texas. Notice of the meeting was legally posted.

Chairman Kevin Ward called the Region C Regional Water Planning Group meeting to order at approximately 1:05 P.M. and welcomed guests.

I. ROLL CALL

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

| | |
|---|---|
| David Bailey | John Lingenfelder |
| Jay Barksdale | Denis Qualls |
| Chris Boyd | Kyle Pritchett (Alt. for Connie Standridge) |
| Sheila Chowdhury (Alt. for Chris Harder) | Haley Salazar (Alt. for Stephen Gay) |
| Jenna Covington | Rick Shaffer |
| Lisa Estrada (Alt. for Steve Mundt) | Doug Shaw |
| Rachel Ickert (Alt. for Dan Buhman) | Paul Sigle |
| Harold Latham | John Stevenson (Alt. for Bob Riley) |
| Russell Laughlin | Kevin Ward |

Kevin Smith, TWDB, Kathy Jones, Region G, Michelle Carte, Region D, and Darrell Dean, TDA, were present. The registration lists signed by guests in attendance are attached.

II. APPROVAL OF MINUTES – November 6, 2023

The minutes of the November 6, 2023, RCWPG meeting were approved by consensus upon a motion by Russell Laughlin and a second by John Lingenfelder.

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

There were no public comments.

IV. PRIMARY ACTION ITEMS FOR CONSIDERATION

A. Announcement of Region C RWPG voting member vacancies: Bob Riley Representing Environment; Call for nominations to fill vacancy and vote to fill vacancy.

Chairman Ward presented this item to consider recommendations for replacement of RCWPG members who have resigned. Bob Riley resigned from the Region C Water Planning Group effective March 15, 2024. Mr. Riley nominated John Stevenson to fill this environmental interest vacancy. Chairman Ward asked if there were any other nominations from the floor for this vacancy. Hearing none, Chairman Ward asked for a vote on the nomination.

There were no public comments on this action item.

Upon a motion by Denis Qualls, and a second by Rick Shaffer, the Region C WPG voted unanimously to appoint John Stevenson to fill the environment interest vacancy left by the resignation of Bob Riley.

B. Review and discuss Technical Memorandum.

Abbie Gardner, FNI, led this discussion on the Technical Memorandum (TM) due to TWDB on May 3, 2024. The TM contains data on population, demand, existing sources of supplies, connected supplies, needs, and potentially feasible water management strategies. Public comment will be accepted prior to approval (see Agenda Item IV.C). Ms. Gardner advised that a copy of the Region C Technical Memorandum is included in the Board members' packets. Ms. Gardner presented the following overview of the Technical Memorandum:

- **Three Major Deliverables**
  - Technical Memorandum (May 3, 2024)
  - Initially Prepared Plan (March 3, 2025)
  - Final Water Plan (October 20, 2025)

- **Technical Memorandum**
  - Provides reporting of demands, supplies, needs
  - Demands – Previously approved by RWPG (no changes)
  - Other data can be modified up to Final Plan submission

- **Contents**
  - WUG Population Projections (Final – cannot change)
  - WUG Water Demand Projections (Final – cannot change)
  - Source Availability
  - WUG Existing Water Supplies
  - WUG Identified Water Needs/Surpluses
  - WUG Data Comparison to 2021 RWP
  - Source Data Comparison to 2021 RWP
  - Documentation of:
    - Methodology/Models for Surface Water Supplies
    - Methodology/Models for Groundwater Supplies
    - Methodology to Identify Potentially Feasible WMS
  - List of Potentially Feasible WMS
  - Interregional Coordination – Summary to date and future
  - Infeasible Water Management Strategy Assessment
  - Public Comment

Ms. Gardner presented comparisons of the 2021 and 2026 Water Plans in the areas of Demands, Supplies and Needs.

There were no public comments on this item.

C. Accept public comment on the Technical Memorandum (limit three minutes per speaker).

Chairman Ward acknowledged that there were no public comments on this item.

D. Consider approval of the Technical Memorandum and authorize the consultant to work with TWDB to make adjustments, as needed.

Chairman Ward asked the Planning Group to consider approval of the Technical Memorandum for the 2026 Region C Plan as reviewed in the preceding Agenda Item IV.B and Agenda Item IV.C. Chairman Ward also asked the Planning Group to consider approval to allow the consultants to make minor changes to the TM based on RCWPG comment and/or public comment.

There were no public comments on this item.

Upon a motion by Rick Shaffer, and a second by Doug Shaw, the RCWPG approved the Technical Memorandum, and authorized the consultants to work with TWDB to make adjustments, as needed.

E. Consider approval of the scope of work for Task 5B and authorize the political subdivision to submit a request to the TWDB for a notice to proceed with the scope of work for Task 5B. Consider Authorizing TRA to execute Contract Amendment with TWDB.

Simone Kiel, FNI, led this discussion on the requirement for each Planning Group to develop a region-specific scope of work for Task 5B (Evaluation of Water Management Strategies). Ms. Kiel advised that the consultants have developed a scope of work and associated fee for the work to be done under this task. Approval from the RCWPG is needed prior to the submittal of the scope of work to the TWDB for approval and their Notice to Proceed. The Planning Group is also asked to authorize TRA to execute a contract amendment with TWDB to include this new scope of work.

There were no public comments on this item.

Upon a motion by Denis Qualls, and a second by John Lingenfelder, the Region C Water Planning group voted unanimously to approve the scope of work for Task 5B and authorize the political subdivision to submit a request to the TWDB for a notice to proceed with the scope of work for Task 5B; and authorize TRA to Execute Contract Amendment with TWDB.

V. OTHER ITEMS (MAY RESULT IN ACTIONS)

A. Schedule Overview

Christina Gildea, FNI, advised that the working timeline for the 2026 RWP Cycle involves the following next steps:

- Water Management Strategies
  - Strategy surveys to all water user groups summer of 2024
  - Meetings with individual wholesale water providers
  - The identification of Strategies should be finalized by September 2024

.

B. Status of contracts with TWDB, TRA and Consultants

Abbie Gardner, FNI, stated that all contracts are up to date.

VI. OTHER DISCUSSION

A. Updates from the Chair – Chairman Ward advised the Planning Group that Alexis Long has been promoted to TRA's Deputy Counsel position.
B. Report from Regional Liaisons
   - Region B – Doug Shaw advised that Region B is slightly ahead of Region C in their planning efforts.
   - Region D - None
   - Region G – Kathy Turner Jones advised the Planning Group that Region G held a public hearing on March 27, 2024, but did not receive any comments.
   - Region H – Chairman Ward stated that Region H will meet May 1, 2024.
   - Region I – None
C. Interregional Planning Council – Jenna Covington advised that the IRPC report has been completed and finalized.
D. Report from Texas Water Development Board – Kevin Smith, TWDB, commented on the following:

**Items of Note**

- Water Supply Planning County Summaries available online
- Prop 6/Texas Water Fund – TWDB is seeking public input during board meetings and stakeholder workshops through April. Details and FAQs on TWDB website.
- Texas Water Service Boundary Viewer open for editing until July 1, 2024.
- Water Loss Audits due by May 1, 2024
- IRPC adopted their final report on February 8, 2024. Recommendations address three statutory charges:
  1. Improve coordination among the regional water planning groups, and between each regional water planning group and the Board, in meeting the goals of the state water planning process and the water needs of the state as a whole;

2. Facilitate dialogue regarding water management strategies that could affect multiple regional water planning areas; and
3. Share best practices regarding operation of the regional water planning process.

E. Report from Texas Department of Agriculture – None
F. Report from Texas Parks and Wildlife Department - None
G. Other Reports – None
H. Confirm Date and Location of Next Meeting – TBD (Fall 2024); NCTCOG, 616 Six Flags Drive, Centerpoint Two Building, First Floor Transportation Council Room, Arlington, Texas 76011
I. Public Comments - None

VII. ADJOURNMENT

There being no further business, the meeting of the Region C WPG adjourned at approximately 1:55 PM.

_____
KEVIN WARD, Chairman

# Agenda Item IV.A - Attachment

## G. K Maenius resignation email and Steve Starnes resume

## Christina Gildea

**From:** Kevin Ward <wardk@trinityra.org>
**Sent:** Tuesday, August 13, 2024 12:33 PM
**To:** Simone Kiel; Alexis Long; Christina Gildea; Carol Claybrook; Casandra Gulley; Laura Caughey
**Subject:** Fwd: Resignation for Region C Planning Group



FYI.

Get Outlook for iOS

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**From:** gkmaenius@att.net <gkmaenius@att.net>
**Sent:** Tuesday, August 13, 2024 12:23 PM
**To:** Kevin Ward <wardk@trinityra.org>
**Cc:** G.K. Maenius <GK@ridgehillstrategies.com>
**Subject:** Resignation for Region C Planning Group



Kevin

Please accept this communication as my formal resignation as a member of the Region C Planning Group. I have truly enjoyed serving with this important Group and wish each of you great success. I have recently retired as the Tarrant County Administrator, and therefore, am submitting my resignation.

G. K. Maenius

# STEVE STARNES

**1041 CR 182, Gainesville, Texas 76240**
**Cell: 940-284-0284**
**Email: Steve.Starnes.Texas@gmail.com**

## EXECUTIVE PROFILE

High-performing, analytical operations-management executive with expertise in strategic and tactical planning. Proven track record in building and optimizing organizational processes and infrastructure to maximize business results. A result-driven and open-minded professional with a successful record of implementing planning, policy, and strategy while maintaining daily operations.

## CORE ACCOMPLISHMENTS

- As County Judge I served as Head of Emergency Management for Cooke County during COVID 19 Pandemic.
- As Director of Operations at Weber Aircraft I managed all of operations in Gainesville TX and Chihuahua Mexico responsible for $420M of revenue and a team of 1250 employees.
- As Director of Operations, I developed the Vision and Mission statement for the company. I led the team that developed the annual, 3-year and 5-year strategic plan. I also oversaw the tactical implementation of these plans that resulted in a revenue increase from $150M annually to $400M annually in 5 years.
- I planned and led the implementation of a turn-around initiative for failing divisions in Brea and Fullerton California. The initiative resulted in an operating profit increase of 20% at contribution.
- As Director of Supply Chain Management, I headed the supply chain operations responsible for $200M of materials. This included purchasing, material control, strategical planning, and supplier development.
- With process adjustments, we were able to deliver $420M of product while maintaining less than $15M in WIP inventory.
- We developed new suppliers resulting in annual material savings averaging over $4M a year for 5 consecutive years.

## EXPERIENCE

**FEB 2024-PRESENT**
**B-29 FAMILY HOLDINGS**

**VICE PRESIDENT (PRESENT POSITION)**

- Responsible for developing and managing strategical planning for Tax Increment Reinvestment Zones (TIRZ). Gainesville Municipal airport and Camp Howze Industrial Rail Park.

**JAN 2021 – DEC 2022**
**COUNTY JUDGE (COOKE COUNTY, TX)**

- Presiding officer of the Cooke County Commissioner's Court.
- Accountable for the FY21 $30M budget; developed and implemented FY22 $30M budget.
- Responsible for Emergency Management Services for Cooke County.
- Coordinated with State and Federal legislators concerning legislation that affects the county.

- Headed Emergency Management for Cooke County during COVID pandemic.
- Guided Emergency Management for Cooke County/Texoma Region during February 2021 Winter Storm Uri.
- Additional responsibilities included elections, finance, bond and sureties, judicial operations, mental health resources, special tax districts and general administration for the county.

**MARCH 1979 – AUGUST 2020**
**ZODIAC AEROSPACE/WEBER AIRCRAFT (GAINESVILLE, TEXAS)**

**Director of Purchasing (Apr 2016 to Aug 2020)**

- Developed and implemented strategic plan for FY 2019/2020
- FY18 Cost savings of $7M.
- FY17 Cost savings of $8.3M
- Successfully negotiated $3.2M of annual savings on machine parts.
- Developed new raw material suppliers that reduced cost by $1.2M annually.

**Director of Supplier Quality and Value Management (Feb 2013 to Apr 2016)**

- Developed new processes and procedures that lead to a 30% improvement in product quality scores.
- Implement over $4M in cost savings each year.

**Director of Operations Head of Version (Oct 2011 to Feb 2013)**

- Improved on time delivery from 25% to 91.5%.
- Led the operational team responsible for new product development activities including procurement and manufacturing of tools, materials, and manufacturing of parts.
- Developed standard work, work instructions and tools for new product developments.
- Collaborated with cross functional teams to design and manufacture new products on time.

**Director of Supply Chain Management (Jun 2006 to Oct 2011)**

- Headed supply chain operations responsible for $200M of materials, including purchasing, stockrooms and production control.
- Negotiated cost saving in excess of $6.5M.
- Created a materials consignment that eliminated $500K of inventory. Developed standard work for the Purchasing Department.
- Implemented a supplier interface (Portal) to facilitate accurate and timely communications with suppliers.
- Reduced inventory levels from $19.5M to $15.5M while production increased by 30%.
- Designed and implemented a process to manage continuous improvement for cost savings and supplier development.
- Created and implemented supplier performance system based on value not price and reduced supplier base by 14%.
- Reduced excess inventory from $8.2M to $3.2M, reduced excess on order from $6.5M to $0.9M.
- Created weekly supplier symposiums to ensure we maintain competitive advantage through supplier communication with design engineering.
- Implemented recycling processes for paper and plastic.
- Implemented quarterly supplier newsletter 'Partner' to develop proactive communications and increased supplier input.
- Achieved 50% improvement in Delivery and Quality in FY 2011.
- Achieved 98% Purchased Parts inventory accuracy in FY 2011.

**Director of Operations (Aug 2000 to Jun 2006)**

- Responsible for the operational planning and execution for the Gainesville, Texas facility.
- Directed all of operations with revenues of $420M a year in sales and 1550 employees.
- Oversaw Manufacturing, Materials, Production Control, Purchasing, Master Scheduling and Maintenance.
- Developed and managed annual operating budgets in excess of $120M
- Facilitated the implementation of Thru-Put MRP engine.
- Achieved improved inventory turns in 2005 from 18 to 21.

**Director of Spares Division (May 1998 to Aug 2000)**

- Directed a $30M dollar a year division of Weber/Zodiac, including manufacturing, purchasing, and sales.
- Monitored market conditions, product innovations and competitor activity and adjusted account sales approach to address latest market developments.
- Created new revenue streams through partnerships with third party distributors.
- Initiated and launched the company's first website resulting in $4M of new business.

**Various Supervisor & Manager Position (Mar 1979 to May 1998)**

- Held various supervisor and manager positions mentoring, motivating, and leading large teams within the organization.

**Texas Army National Guard (Feb 1973 to Feb 1979)**

- Sargent E5. (Forward Observer for 155 SP Howitzer Battalion)

# EDUCATION

**2023**
**MASTER OF JURISPUDANCE DEGREE**
**Texas A&M University,** College Station, Texas

**2010**
**SIX SIGMA BLACK BELT CERTIFIED**

**2009**
**MASTER OF BUSINESS ADMINISTRATION DEGREE**
**University of Leicester,** Leicester England, UK

**2006**
**MASTER CERTIFICATE BUSINESS ADMINISTARTION**
**Tulane University,** New Orleans, Louisiana, USA

**2005**
**MASTER CERTIFICATE MARKETING**
**Tulane University,** New Orleans, Louisiana

**2002**
**American Purchasing Society (CPP/CPPM Certified)**

**1976-79**
**Business Administration**
**Midwestern State University,** Wichita Falls, Texas

## SKILLS

- Strategical and Tactical Planning
- Asset Development
- Team Building
- Cross Functional Team Management
- Lean – Six Sigma
- Contract Negotiations
- Cost Management
- Risk Management
- P&L Management
- Continuous Improvement Processes
- Operational Efficiency Planning
- Total Quality Management
- Microsoft Office Applications

## PUBLIC SERVICE/BOARDS

- Head of Emergency Management for Cooke County, Texas
- Texoma Regional Emergency Planning Board of Directors
- Texoma Council of Government Board of Directors
- National Association of Counties Agriculture and Rural Affairs Steering Committee

## AFFILIATIONS

- Federal Firearms License
- Life Member of the NRA
- American Quarter Horse Association
- National Cutting Horse Association

## REFERANCE

The Honorable Drew Springer, State Senator, District 30 (940) 736-9493

The Honorable David Spiller, State Representative, District 68 (940) 567-1025

The Honorable  Tommy Moore City of Gainesville Mayor (940) 902-9026

The Honorable John Roane. Cooke County Judge (940) 736-3526

The Honorable Ray Sappington, Cooke County Sheriff (940) 727-1166

# Agenda Item V.A – Attachment

## Draft IPP Chapter 1

CHAPTER ONE

# DESCRIPTION OF REGION C

OVERVIEW

*This Chapter gives an overall summary of the economic drivers, water users, water resources, natural resources, and threats to these resources in Region C.*

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# 1 DESCRIPTION OF REGION C

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| Section 1.3 | Current Water Uses and Demand Centers in Region C |
| Section 1.4 | Current Sources of Water Supply |
| Section 1.5 | Water Providers in Region C |
| Section 1.6 | Pre-existing Plans for Water Supply Development |
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| Section 1.8 | Other Water-Related Programs |
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| **RELATED APPENDICES** | |
| Appendix A | Consistency with TWDB Rules |
| Appendix B | Water Loss Audit |
| Appendix E | Water Supply Available |
| Appendix I | Water Conservation Savings |

Region C includes all or part of 16 counties in North Texas. The population of the region has grown from over 987,000 in 1930 to over 7,711,000 as of July 2021. In 2021, Region C included approximately 26 percent of Texas' total population. The two most populous counties in Region C, Dallas and Tarrant County, have over 60 percent of the region's population [1]. **Table 1.1** shows the cities in Region C with a population of 20,000 or more in 2021. These cities include 84 percent of the 2021 population of the region.

### Region C at a Glance

**2021 Population:** 7.2 Million

**26%** of State's Population

**30%** of State's Economy

**10%** of State's Water Use

**57** Cities over 20,000 population

**89%** of Demand Met by Surface Water

*TABLE 1.1 CITIES IN REGION C WITH 2021 POPULATION GREATER THAN 20,000*

| CITY | ESTIMATED 2021 POPULATION [1] | COUNTY(IES) | CITY | ESTIMATED 2021 POPULATION [1] | COUNTY(IES) |
|---|---|---|---|---|---|
| **Dallas** | 1,289,151 | Collin, Dallas, Denton, Rockwall | **Keller** | 45,644 | Tarrant |
| **Fort Worth** | 934,957 | Denton, Parker, Tarrant, Wise | **Haltom City** | 45,510 | Tarrant |
| **Arlington** | 392,472 | Tarrant | **The Colony** | 45,237 | Denton |
| **Plano** | 288,474 | Collin, Denton | **Sherman** | 45,129 | Grayson |
| **Irving** | 260,171 | Dallas | **Waxahachie** | 43,686 | Ellis |
| **Garland** | 247,721 | Collin, Dallas, Rockwall | **Coppell** | 43,071 | Dallas, Denton |
| **Frisco** | 211,774 | Collin, Denton | **Lancaster** | 40,521 | Dallas |
| **McKinney** | 202,084 | Collin | **Hurst** | 39,936 | Tarrant |
| **Grand Prairie** | 197,584 | Dallas, Ellis, Tarrant | **Duncanville** | 39,790 | Dallas |
| **Mesquite** | 151,232 | Dallas, Kaufman | **Midlothian** | 37,264 | Ellis |
| **Denton** | 146,428 | Denton, Parker, Tarrant, Wise | **Farmers Branch** | 36,562 | Dallas |
| **Carrollton** | 131,515 | Collin, Dallas, Denton | **Prosper** | 34,039 | Collin, Denton |
| **Lewisville** | 128,200 | Dallas, Denton | **Weatherford** | 33,126 | Parker |
| **Richardson** | 118,235 | Collin, Dallas | **Southlake** | 30,910 | Denton, Tarrant |
| **Allen** | 107,324 | Collin | **Sachse** | 27,863 | Collin, Dallas |
| **Flower Mound** | 77,450 | Denton, Tarrant | **Balch Springs** | 27,106 | Dallas |
| **Mansfield** | 75,959 | Ellis, Tarrant, Johnson | **Forney** | 26,960 | Kaufman |
| **North Richland Hills** | 69,877 | Tarrant | **Colleyville** | 25,801 | Tarrant |
| **Rowlett** | 64,148 | Dallas, Rockwall | **Corsicana** | 25,407 | Navarro |
| **Euless** | 60,342 | Tarrant | **Denison** | 25,175 | Grayson |
| **Wylie** | 45,644 | Collin, Dallas, Rockwall | **University Park** | 24,823 | Dallas |
| **DeSoto** | 55,870 | Dallas | **Benbrook** | 24,786 | Tarrant |
| **Little Elm** | 51,472 | Denton | **Saginaw** | 24,101 | Tarrant |
| **Grapevine** | 50,803 | Tarrant | **Celina** | 23,691 | Collin, Denton |
| **Burleson** | 50,689 | Tarrant, Johnson | **Watauga** | 23,214 | Tarrant |
| **Bedford** | 49,046 | Tarrant | **Corinth** | 22,852 | Denton |
| **Rockwall** | 48,516 | Rockwall | **Ennis** | 21,380 | Ellis |
| **Cedar Hill** | 48,443 | Dallas, Ellis | **Murphy** | 21,113 | Collin |
| **Keller** | 45,644 | Tarrant | | | |

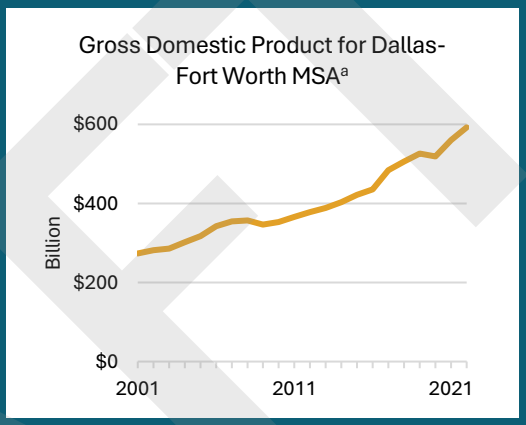
## 1.1 Economic Activity in Region C

Region C includes most of the Dallas and Fort Worth-Arlington metropolitan statistical areas (MSA). The largest employment sector in the Dallas and Fort Worth-Arlington MSA is trade, transportation, and utilities [2], all of which are heavily dependent on water resources.

Payroll and employment in Region C are concentrated in the central urban counties of Dallas and Tarrant, which have 74 percent of the region's total payroll and 69 percent of the employment[3]. Economic activity is more concentrated than population because many workers commute from outlying counties to work in Dallas and Tarrant Counties.

Region C supported more than 5.5 million jobs and generated more than $562 billion in Gross Domestic Product (GDP) in 2021 dollars. Texas' total 2021 GDP was $1.87 trillion, making Region C account for almost one-third (30%) of the state's economy, as shown in **Figure 1.1**[4].

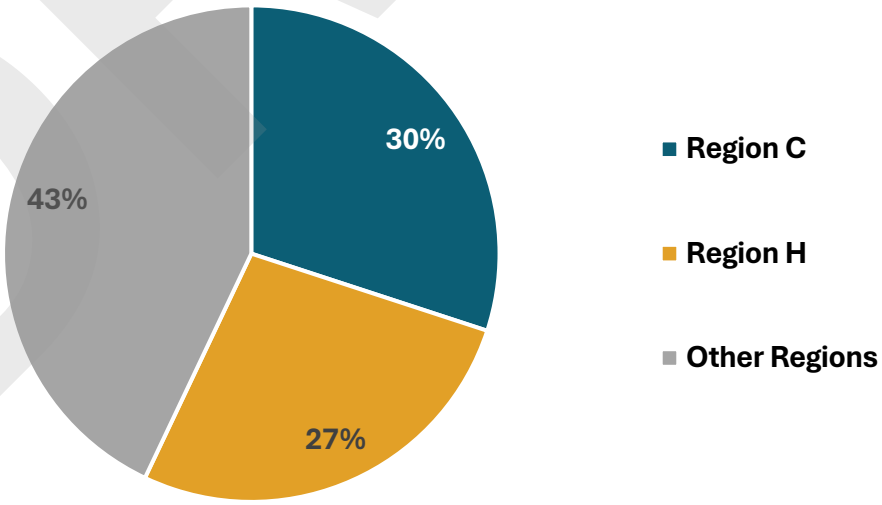
**Region C accounts for nearly 1/3 of Texas' economy, making it the single largest economic engine in the State.**




[a]GDP between 2001 and 2016 are in chained 2012 U.S. dollars. Subsequent years are in chained 2017 dollars.

**Chapter 6** of this plan has additional information on the Socio-Economic Study that was performed by TWDB to evaluate the impacts of not meeting water needs.

***FIGURE 1.1 GROSS DOMESTIC PRODUCT BY REGIONAL PLANNING AREA COMPARISON***



The DFW metro area is home to over 20 Fortune 500 companies. Additionally, 79 companies headquartered in the area posted revenue of $1 billion or more in 2023 [5]. Among the companies with corporate headquarters in DFW are McKesson Corp, AT&T, Energy Transfer LP, Caterpillar Inc., and American Airlines.

Region C is also home to Dallas-Fort Worth International Airport which handles around 81 million passengers per year, making it the 2nd busiest airport in the US [6]. The DFW area attracts many visitors from around the state and country with its medical facilities and entertainment venues, including UT Southwestern Medical Center, Baylor Scott & White, Children's Medical Center, Cook Children's Hospital, AT&T Stadium, Globe Life Park, the Texas State Fair, and Texas Motor Speedway.

**Food Production Companies in Region C**

- Frito-Lay
- Borden Dairy
- Bimbo Bakeries (Mrs. Baird's)
- Mission Foods
- DFW Dr. Pepper Bottling Company
- PepsiCo
- Coors Miller
- Nestle Waters North America
- Daisy Brand
- Americas Beverage Company

**Major Universities in Region C**

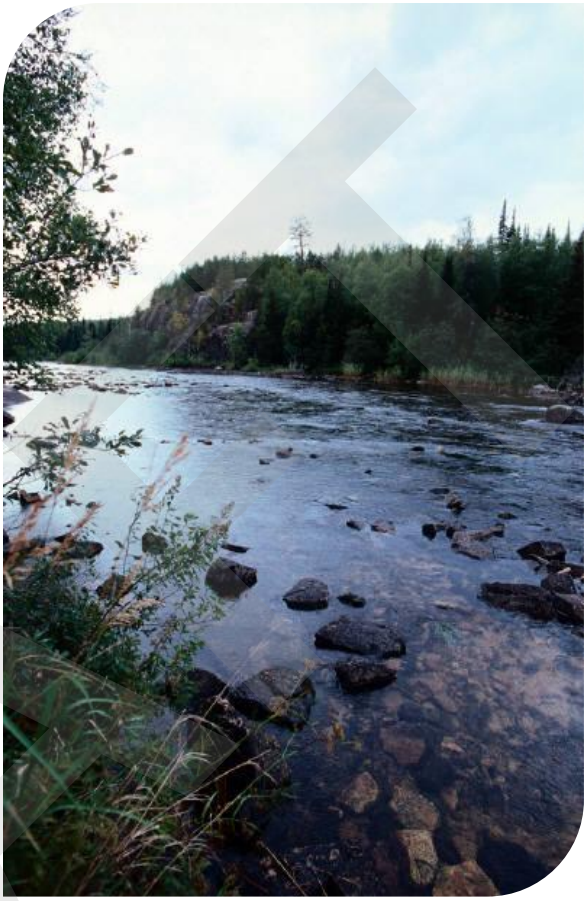
- Southern Methodist University
- Texas Christian University
- University of North Texas
- University of Texas at Arlington
- University of Texas at Dallas
- Texas A&M Law School

**Other Large Employers in Region C**

- Lockheed Martin Aero
- Raytheon
- Bell Helicopter Textron
- Alcon Laboratories
- Naval Air Station (Ft Worth)

*MARGARET HUNT HILL BRIDGE IN DALLAS*

## 1.2 Water-Related Physical Features in Region C



Most of Region C is in the upper portion of the Trinity River Basin, with smaller parts in the Red, Brazos, Sulphur, and Sabine Basins. With the exception of the Red River Basin, the predominant flow of the streams is from northwest to southeast, as is true for most of Texas. The Red River flows west to east, forming the north border of Region C, and its major tributaries in Region C flow southwest to northeast. Major streams in Region C include the Brazos River, Red River, Trinity River, Clear Fork Trinity River, West Fork Trinity River, Elm Fork Trinity River, East Fork Trinity River, and numerous other tributaries of the Trinity River.

Average annual precipitation in Region C increases west to east from slightly more than 30 inches per year in western Jack County to more than 43 inches per year in the northeast corner of Fannin County[7]. **Table 1.2** lists the 24 reservoirs in Region C with conservation storage over 5,000 acre-feet (see **Figure 1.2**). These reservoirs and others outside of Region C provide most of the region's water supply. Reservoirs are necessary to provide a reliable surface water supply in this part of the state because of the wide variations in natural streamflow. Reservoir storage serves to capture high flows when they are available and save them for use during times of normal or low flow.

**Figure 1.3** and **Figure 1.4** shows major and minor aquifers in Region C. The most heavily used aquifer in Region C is the Trinity aquifer, which supplies most of the groundwater used in the region. The Carrizo-Wilcox aquifer also outcrops in Region C in Navarro, Freestone, and Henderson Counties. Minor aquifers in Region C include the Woodbine aquifer, the Nacatoch aquifer, the Cross Timbers aquifer, and a small part of the Queen City aquifer.

*TABLE 1.2 MAJOR RESERVOIRS IN REGION C (OVER 5,000 ACRE-FEET OF CONSERVATION STORAGE)*

| RESERVOIR | BASIN | STREAM | COUNTY(IES) | OWNER | WATER RIGHT HOLDER(S) |
|---|---|---|---|---|---|
| **Moss** | Red | Fish Creek | Cooke | Gainesville | Gainesville |
| **Texoma** | Red | Red River | Grayson, Cooke | Corps of Engineers | Red River Authority, GTUA, Denison, NTMWD, Luminant |
| **Randell** | Red | Unnamed Trib. Shawnee Creek | Grayson | Denison | Denison |
| **Valley** | Red | Sand Creek | Fannin, Grayson | Luminant | Luminant |
| **Bonham** | Red | Timber Creek | Fannin | Bonham | NTMWD |
| **Bois d'Arc** | Red | Bois d'Arc Creek | Fannin | NTMWD | NTMWD |
| **Coffee Mill** | Red | Coffee Mill Creek | Fannin | USDA | USDA |
| **Kiowa** | Trinity | Indian Creek | Cooke | Lake Kiowa POA Inc. | Lake Kiowa Property Owners Association, Inc. |
| **Ray Roberts** | Trinity | Elm Fork Trinity River | Denton, Cooke, Grayson | Corps of Engineers | Dallas and Denton |
| **Lost Creek** | Trinity | Lost Creek | Jack | Jacksboro | Jacksboro |
| **Bridgeport** | Trinity | West Fork Trinity River | Wise, Jack | TRWD | TRWD |
| **Lewisville** | Trinity | Elm Fork Trinity River | Denton | Corps of Engineers | Dallas and Denton |
| **Lavon** | Trinity | East Fork Trinity River | Collin | Corps of Engineers | NTMWD |
| **Weatherford** | Trinity | Clear Fork Trinity River | Parker | Weatherford | Weatherford |
| **Grapevine** | Trinity | Denton Creek | Tarrant, Denton | Corps of Engineers | Dallas County Park Cities MUD, Dallas, Grapevine |
| **Eagle Mountain** | Trinity | West Fork Trinity River | Tarrant, Wise | TRWD | TRWD |
| **Worth** | Trinity | West Fork Trinity River | Tarrant | Fort Worth | Fort Worth |
| **Benbrook** | Trinity | Clear Fork Trinity River | Tarrant | Corps of Engineers | TRWD |
| **Arlington** | Trinity | Village Creek | Tarrant | Arlington | Arlington and Luminant |
| **Joe Pool** | Trinity | Mountain Creek | Dallas, Tarrant | Corps of Engineers | TRA |
| **Mountain Creek** | Trinity | Mountain Creek | Dallas | Exelon | Exelon |
| **North** | Trinity | South Fork Grapevine Creek | Dallas | Coppell | Coppell |
| **White Rock** | Trinity | White Rock Creek | Dallas | Dallas | Dallas |
| **Ralph Hall** | Sulphur | North Fork Sulphur River | Fannin | UTRWD | UTRWD |

[a]*Data are from TCEQ water rights list [8] and other sources*

*FIGURE 1.2 REGION C LOCATION MAP WITH MAJOR WATER SOURCES*

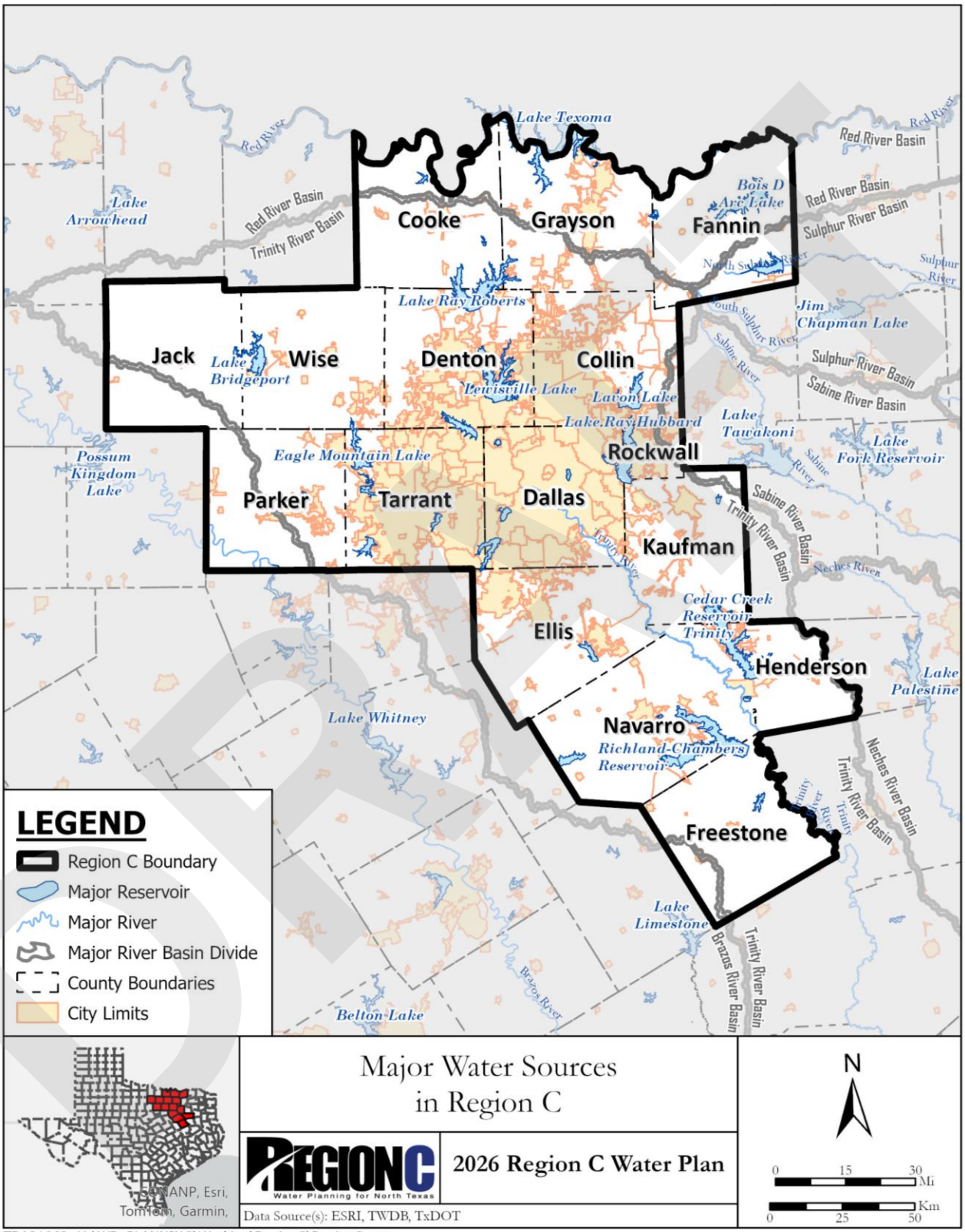



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*FIGURE 1.3 MAJOR AQUIFERS IN REGION C*

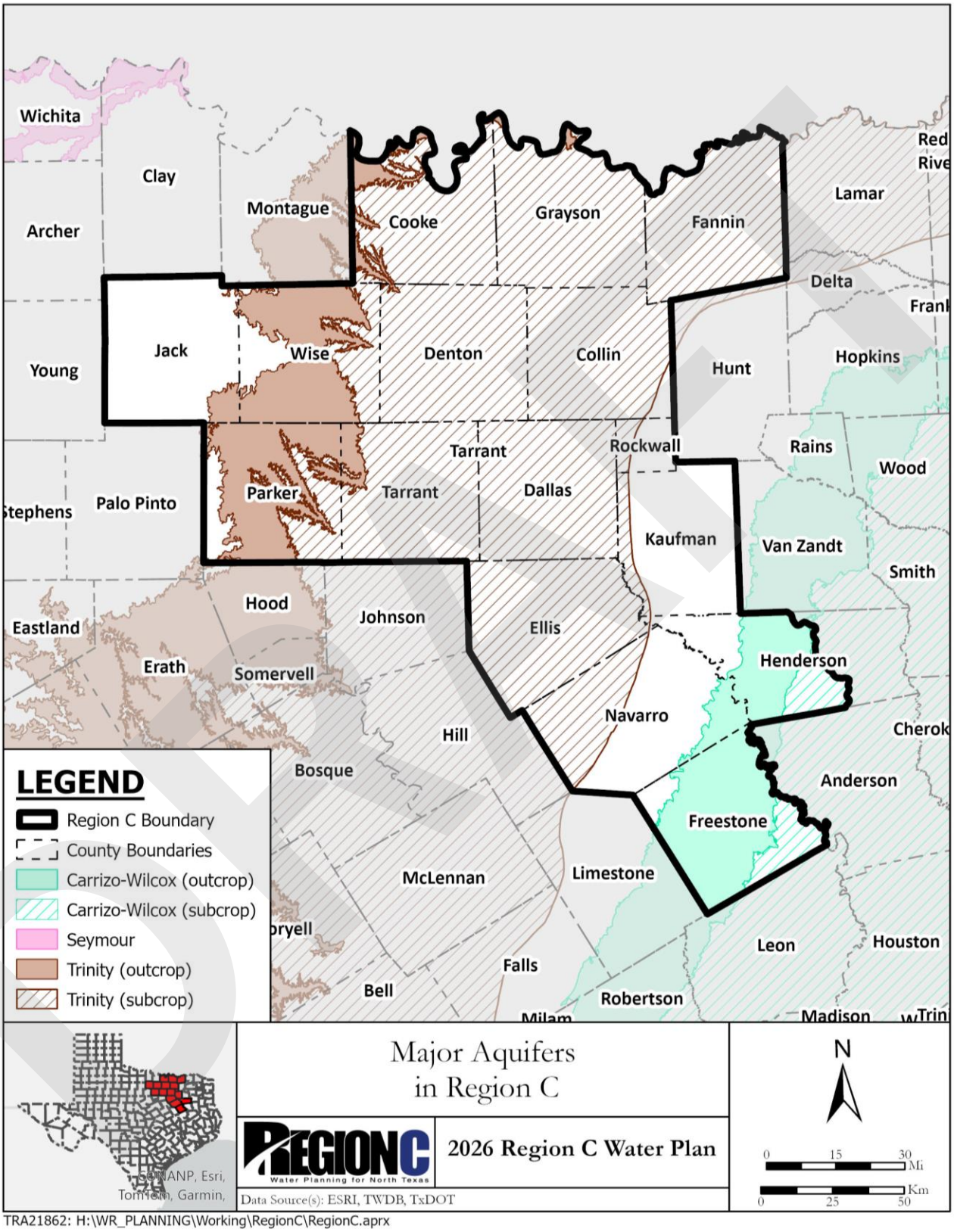
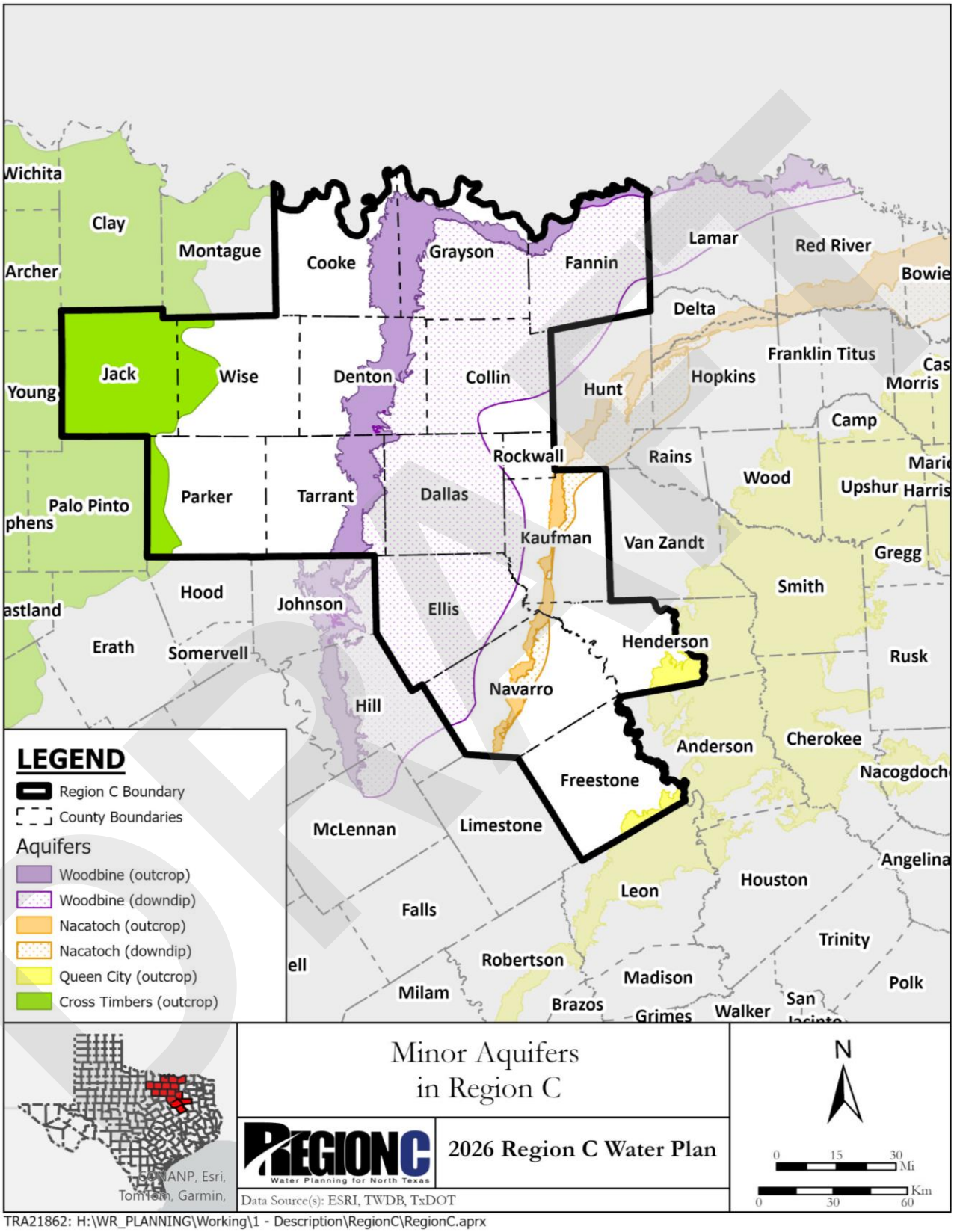


*FIGURE 1.4 MINOR AQUIFERS IN REGION C*

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## 1.3 Current Water Uses and Demand Centers in Region C

Water use in Region C has increased in recent years, primarily in response to increasing population. High use years have historically been associated with dry weather, which causes higher municipal use due to increased outdoor water use (lawn watering). While this has historically been the case, the water use characteristics during dry years are now beginning to change in Region C due to major changes in conservation practices across the region. Many water providers are now imposing permanent restrictions on outdoor watering, the most common restrictions being limiting the hours for lawn watering in the summer, limiting lawn watering to no more than twice per week, and prohibiting water waste.

The TWDB categorizes water use as municipal or non-municipal (which includes irrigation, livestock, manufacturing, mining, and steam electric power generation). Municipal use is by far the largest category in Region C, accounting for 90 percent of the total use in 2021. There is limited steam electric, mining, manufacturing, irrigation, and livestock use in Region C. **Table 1.3** shows Region C water use by county and water use category for 2021 and Region C use as a percent of statewide use. It is interesting to note that Region C, with 26 percent of Texas' population, had only 9.7 percent of the state's water use in 2021. This is primarily because Region C has very limited water use for irrigation, while irrigation use is more than 55 percent of the total use for the state.

In addition to the consumptive water uses discussed above, water is used for recreation and other purposes in Region C. Reservoirs for which records of visitors are maintained show that these facilities draw millions of visitors each year in Region C. In addition, smaller lakes and streams in the region draw many visitors for fishing, boating, swimming, and other water-related recreational activities. Water in streams and lakes is also important to fish and wildlife in the region.

*LAKE TEXOMA*

*TABLE 1.3 HISTORICAL WATER USE BY COUNTY AND CATEGORY IN 2021 FOR REGION C*

| COUNTY | MUNICIPAL | MANUFACTURING | MINING | STEAM ELECTRIC POWER | IRRIGATION | LIVESTOCK |
|---|---|---|---|---|---|---|
| **Collin** | 195,989 | 4,655 | 0 | 115 | 1,840 | 799 |
| **Cooke** | 5,552 | 31 | 28 | 5 | 784 | 1,541 |
| **Dallas** | 435,921 | 18,467 | 1 | 1,174 | 9,636 | 186 |
| **Denton** | 153,039 | 539 | 408 | 536 | 8,867 | 866 |
| **Ellis** | 32,820 | 4,529 | 0 | 1,326 | 2,594 | 932 |
| **Fannin** | 4,648 | 0 | 37 | 0 | 2,912 | 1,341 |
| **Freestone** | 2,527 | 38 | 2 | 3,871 | 976 | 1,460 |
| **Grayson** | 19,918 | 2,469 | 3 | 1,491 | 1,702 | 1,017 |
| **Henderson**[a] | 11,437 | 14 | 14 | 104 | 1,231 | 2,931 |
| **Jack** | 1,239 | 0 | 1 | 1,939 | 562 | 672 |
| **Kaufman** | 18,050 | 934 | 14 | 20 | 573 | 1,466 |
| **Navarro** | 8,139 | 619 | 2,434 | 0 | 58 | 1,543 |
| **Parker** | 17,988 | 41 | 781 | 0 | 1,125 | 1,461 |
| **Rockwall** | 18,352 | 0 | 0 | 0 | 163 | 84 |
| **Tarrant** | 336,475 | 10,266 | 706 | 4 | 3,156 | 291 |
| **Wise** | 8,197 | 93 | 2,517 | 1,571 | 3,340 | 1,494 |
| **Region C** | **1,270,291** | **42,595** | **6,946** | **12,156** | **39,519** | **18,084** |
| **Texas Total** | | | | **14,295,854** | | |
| ***REGION C TOTAL WATER USE AS A PERCENT OF STATEWIDE WATER USE*** | | | | ***9.7%*** | | |

[a]*Data for Henderson County includes the entire county, not just the Region C portion.*
[b]*Data are from the Texas Water Development Board* [9].

## 1.4 Current Sources of Water Supply

Water sources are generally categorized as surface water, groundwater, and reuse (indirect and direct). Direct reuse is when treated wastewater is delivered to a user directly from the treatment facility, such as a purple pipe system. Indirect reuse is treated wastewater that is discharged to a river or stream and then diverted and reused.

**Table 1.4** shows the 2021 water use in Region C by water type category. The reuse shown in the table is mostly direct reuse. Most of the large-scale indirect reuse in Region C is included with surface water in the table. The irrigation water use in Region C primarily represents the use of raw water for golf course irrigation, which TWDB classifies as irrigation, rather than municipal use.

*TABLE 1.4 HISTORICAL USE BY COUNTY AND CATEGORY IN 2021 FOR REGION C*

| WATER TYPE | MUNICIPAL | MANUFACTURING | MINING | STEAM ELECTRIC POWER | IRRIGATION | LIVESTOCK |
|---|---|---|---|---|---|---|
| Ground | 76,750 | 3,627 | 1,989 | 13 | 17,988 | 3,499 |
| Surface | 1,150,023 | 37,774 | 4,136 | 11,889 | 15,750 | 14,585 |
| Direct Reuse | 43,519 | 1,194 | 821 | 254 | 5,781 | 0 |
| ***Total*** | ***1,270,292*** | ***42,595*** | ***6,946*** | ***12,156*** | ***39,519*** | ***18,084*** |

[a]*Data are from the Texas Water Development Board* [8]*. Indirect reuse is included in Surface Water.*

Some interesting points about water use in Region C in 2021 include:

- Surface water provided 90 percent of the water to Region C users, with groundwater and direct reuse comprising the remaining 10 percent. Indirect reuse is included as part of the surface water estimates.
- Although groundwater provided only 7.5 percent of the overall water use in Region C, it provided 46 percent of the irrigation use, 29 percent of the mining use, and 19 percent of the livestock use.
- Groundwater provided the majority of the municipal use in Cooke, Fannin, Freestone, Grayson, and Wise Counties.

### 1.4.1 Surface Water Sources

Most of the surface water in Region C comes from major reservoirs.

**TABLE *1.5*** lists the permitted conservation storage, and the permitted diversion for major reservoirs with over 5,000 acre-feet of conservation storage in the region.

The newest major reservoir in Region C is Bois d'Arc Lake located in Fannin County, which is owned and operated by NTMWD. Bois d'Arc Lake was the first major reservoir in Texas in over 30 years and began supplying water to the region in March 2023. Lake Ralph Hall is another new lake owned and operated by UTRWD and is currently under construction in Southeast Fannin County. Construction began in June 2021 and water delivery is expected to begin by 2026.

Another major source of supply in Region C is surface water imported from other regions. **Table 1.6** lists currently permitted imports of water to Region C from other regions. No special permit is required if importation from another region does not involve interbasin transfers, but all significant imports to Region C, except for TRA's upstream sale from Lake Livingston, currently involve interbasin transfers and thus require interbasin transfer permits.

**Figure 1.2** shows the surface water reservoirs that provide these imports. There is also small-scale importation of treated water in parts of the region, where suppliers purchase water that originates in other regions.

*TABLE 1.5 WATER RIGHTS, STORAGE, AND DIVERSION FOR MAJOR RESERVOIRS IN REGION C*

| RESERVOIR | COUNTY(IES) | WATER RIGHT NUMBER(S) [A] | PERMITTED CONSERVATION STORAGE [B] | PERMITTED DIVERSION [B] |
|---|---|---|---|---|
| **Moss** | Cooke | 4881 | 23,210 | 7,740 |
| **Texoma** | Grayson, Cooke | 4301B, 4301C, 4898, 4899, 4901, 4900, 5003 | 2,915,365 | 323,250 |
| **Randell** | Grayson | 4901 | 5,400 | 5,280 |
| **Valley** | Fannin, Grayson | 4900 | 15,000 | 16,400 |
| **Bonham** | Fannin | 4925 | 13,000 | 5,340 |
| **Bois d'Arc** | Fannin | 12151 | 367,609 | 175,000 |
| **Coffee Mill** | Fannin | 4915 | 8,000 | 0 |
| **Kiowa** | Cooke | 2334A, 2334C | 7,000 | 234 |
| **Ray Roberts** | Denton, Cooke, Grayson | 2335A, 2455B | 799,600 | 799,600 |
| **Lewisville** | Denton | 2348,2456 | 618,400 | 799,600 |
| **Lost Creek** | Jack | 3313A | 11,961 | 1,397 |
| **Bridgeport** | Wise, Jack | 3808B, | 387,000 | 17,000[c] |
| **Eagle Mountain** | Tarrant, Wise | 3809 | 210,000 | 159,600[f] |
| **Lavon** | Collin | 2410G | 443,800 | 118,670[d] |
| **Weatherford** | Parker | 3356 | 19,470 | 5,220[e] |
| **Grapevine** | Tarrant, Denton | 2362A, 2363A, 2458C | 161,250 | 161,250 |
| **Benbrook** | Tarrant | 5157A | 72,500 | 6,833 |
| **Arlington** | Tarrant | 3391 | 45,710 | 22,720 |
| **Joe Pool** | Dallas, Tarrant | 3404C | 176,900 | 17,000[d] |
| **Mountain Creek** | Dallas | 3408 | 22,840 | 6,400 |
| **White Rock** | Dallas | 2461B | 21,345 | 8,703 |
| **Ray Hubbard** | Dallas, Kaufman, Rockwall | 2462H | 490,000 | 208,067 |
| **Terrell** | Kaufman | 4972 | 8,712 | 5,800 |
| **Bardwell** | Ellis | 5021A | 54,900 | 9,600[d] |
| **Waxahachie** | Ellis | 5018 | 13,500 | 3,570 |
| **Cedar Creek** | Henderson, Kaufman | 4976C | 678,900 | 175,000[d] |
| **Teague City Lake** | Freestone | 5291 | 1,160 | 605 |
| **Ralph Hall** | Fannin | 5821 | 160,235 | 45,000 |
| **Clark** | Ellis | 5019 | 1,549 | 450 |
| **Forest Grove** | Henderson | 4983 | 20,038 | 9,500[g] |
| **Trinidad** | Henderson | 4970 | 6,200 | 4,000 |

| RESERVOIR | COUNTY(IES) | WATER RIGHT NUMBER(S) [A] | PERMITTED CONSERVATION STORAGE [B] | PERMITTED DIVERSION [B] |
|---|---|---|---|---|
| **Navarro Mills** | Navarro | 4992 | 63,300 | 19,400 |
| **Richland-Chambers** | Freestone, Navarro | 5030, 5035[C] | 1,135,000 | 227,653[d] |
| **Fairfield** | Freestone | 5040 | 50,600 | 14,150 |
| **Mineral Wells** | Parker | 4039 | 7,065 | 2,520 |
| **Muenster** | Cooke | 2323 | 4,700 | 500 |

*[a]Water rights numbers are Certificate of Adjudication (or application) numbers.*
*[b]Permitted conservation storage and permitted diversion are from TCEQ permits [(6)].*
*[c]Release of 78,000 acre-feet per year for diversion and use from Eagle Mountain Lake is also authorized.*
*[d]Permitted diversion does not include reuse.*
*[e]Diversion does not include 59,400 acre-feet per year of non-consumptive industrial use.*
*[f]Permitted diversion includes water releases from Lake Bridgeport.*
*[g]Permitted diversion does not include non-consumptive use.*

***TABLE 1.6 PERMITTED IMPORTATION OF SURFACE WATER TO REGION C***

| REGION C SUPPLIER | SOURCE | SOURCE REGION | SOURCE BASIN | DESTINATION BASIN | PERMITTED AMOUNT [(6)] | RAW OR TREATED | STATUS |
|---|---|---|---|---|---|---|---|
| **NTMWD** | Chapman Lake[a] | D | Sulphur | Trinity | 57,214 | Raw | Operating |
| **Irving** | Chapman Lake[a] | D | Sulphur | Trinity | 54,000 | Raw | Operating |
| **UTRWD** | Chapman Lake[a] | D | Sulphur | Trinity | 16,106 | Raw | Operating |
| **Dallas** | Lake Tawakoni | D | Sabine | Trinity | 190,480 | Raw | Operating |
| **Dallas** | Lake Fork Reservoir | D | Sabine | Trinity | 120,000 | Raw | Operating |
| **Dallas** | Lake Palestine | I | Neches | Trinity | 114,337 | Raw | Not Yet Developed |
| **Athens[b]** | Lake Athens | I | Neches | Trinity | 5,477 | Treated | Operating |
| **NTMWD** | Lake Tawakoni | D | Sabine | Trinity | 11,210 | Raw | Operating |
| **NTMWD** | Lake Tawakoni and Lake Fork | D | Sabine | Trinity | 40,000[d] | Raw | Operating |
| **TXU Big Brown Plant** | Lake Livingston[c] | H | Trinity | Trinity | 20,000 | Raw | Operating |

*[a]Chapman Lake was formerly Cooper Lake.*
*[b]Most of Athens is in the Trinity Basin.*
*[c]Use is an upstream diversion based on Lake Livingston water right. Contract allows 20,000 acre-feet per year, with a maximum of 48,000 acre-feet over 3 years.*
*[d]This is an interim supply.*

## 1.4.2 Groundwater Sources

**Table 1.7** lists the 2021 groundwater pumping by county and aquifer for Region C. Note that the pumping totals do not match use totals given in

**Table 1.4**. The Texas Water Development Board (TWDB) supplied both sets of data. The discrepancy is assumed to be due to water that is pumped in one county and used in another. The Trinity aquifer is by far the largest source of groundwater in Region C, providing 45 percent of the total groundwater pumped in 2021. (The Trinity aquifer is sometimes called the Trinity Sands and includes the Antlers, Twin Mountain, Glen Rose, and Paluxy formations.) The Woodbine and Carrizo-Wilcox aquifers provided 22.7 and 7.8 percent of the 2021 totals, respectively. The remaining 24 percent came from the Nacatoch, Queen City, Blossom, Cross Timbers, Edwards-Trinity-Plateau, and undifferentiated aquifers. The counties in which there are known to be several locally undifferentiated formations are Fannin (Red River Alluvium), Jack, and Parker. There may be other counties in which this is the case, but it is believed that the large 2021 use numbers from the Other aquifer in **Table 1.7** are likely to be from one of the named aquifers but were not classified as such in the TWDB data. Groundwater pumping was highest (over 10,000 acre-feet) in Denton, Ellis, Grayson, and Tarrant Counties. These four counties had 50 percent of the region's total groundwater pumping in 2021.

**Table 1.8** compares the modeled available groundwater supplies for the Trinity and Woodbine aquifers in Region C to 2021 use. The "modeled available groundwater" represents the amount of groundwater that can be pumped while maintaining stated "desired future conditions" in an aquifer. For Region C, the desired future conditions for the Trinity and Woodbine aquifer were set by Groundwater Management Area 8, a consortium of groundwater districts in North-Central and North Texas, covering most Region C and most of the area overlying the Northern Trinity and Woodbine aquifers. Once the desired future conditions were established, the TWDB determined the modeled available water that could be pumped while meeting those conditions. For planning purposes, TWDB regulations governing regional planning require that allocation of groundwater to water user groups be no more than the modeled available groundwater.

**Table 1.8** shows that 2021 groundwater pumping exceeds the modeled available groundwater in certain Region C counties and aquifers. Pumping from the Woodbine aquifer in Dallas and Tarrant Counties; and the Trinity aquifer in Jack County exceeded the modeled available groundwater.

In Texas, groundwater conservation districts (GCD) manage groundwater conservation, preservation, protection, recharge, and waste prevention within their borders. Typical GCD responsibilities include permitting wells, developing management plans, and adopting rules to implement management plans.

*TABLE 1.7 2021 GROUNDWATER PUMPING BY COUNTY AND AQUIFER IN REGION C*

| VALUES IN ACRE-FEET PER YEAR[b] | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| COUNTY | TRINITY AQUIFER | WOODBINE AQUIFER | CARRIZO-WILCOX AQUIFER | NACATOCH AQUIFER | QUEEN CITY AQUIFER | BLOSSOM AQUIFER | CROSS TIMBERS AQUIFER | EDWARDS-TRINITY-PLATEAU AQUIFER | OTHER AQUIFER | UNKNOWN | TOTAL |
| **Collin** | 1,486 | 2,394 | 0 | 0 | 0 | 0 | 0 | 0 | 597 | 0 | 4,477 |
| **Cooke** | 4,729 | 379 | 0 | 0 | 0 | 0 | 0 | 0 | 603 | 0 | 5,711 |
| **Dallas** | 1,407 | 4,338 | 0 | 0 | 0 | 0 | 0 | 0 | 1,067 | 0 | 6,812 |
| **Denton** | 8,883 | 3,300 | 0 | 0 | 0 | 0 | 0 | 0 | 2,831 | 0 | 15,014 |
| **Ellis** | 3,321 | 1,509 | 0 | 0 | 0 | 0 | 0 | 0 | 7,287 | 0 | 12,117 |
| **Fannin** | 181 | 3,863 | 0 | 0 | 0 | 329 | 0 | 0 | 1,514 | 0 | 5,887 |
| **Freestone** | 0 | 0 | 2,176 | 0 | 14 | 0 | 0 | 0 | 817 | 0 | 3,007 |
| **Grayson** | 5,505 | 5,906 | 0 | 0 | 0 | 0 | 0 | 0 | 2,030 | 0 | 13,441 |
| **Henderson** [a] | 0 | 0 | 6,016 | 9 | 751 | 0 | 0 | 0 | 335 | 0 | 7,111 |
| **Jack** | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 692 | 0 | 701 |
| **Kaufman** | 0 | 0 | 0 | 101 | 0 | 0 | 0 | 0 | 1,609 | 0 | 1,710 |
| **Navarro** | 73 | 0 | 11 | 22 | 0 | 0 | 0 | 0 | 196 | 0 | 302 |
| **Parker** | 8,333 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 586 | 0 | 8,945 |
| **Rockwall** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 361 | 7 | 368 |
| **Tarrant** | 6,816 | 2,183 | 0 | 0 | 0 | 0 | 0 | 0 | 2,965 | 0 | 11,964 |
| **Wise** | 6,810 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 783 | 0 | 7,593 |
| ***TOTAL*** | ***47,552*** | ***23,872*** | ***8,203*** | ***132*** | ***765*** | ***329*** | ***1*** | ***26*** | ***24,273*** | ***7*** | ***105,160*** |

[a] *Includes all of Henderson County*
[b] *Data are from TWDB* [10].

*TABLE 1.8 2021 ESTIMATED GROUNDWATER PUMPING VERSUS MAG 202*

| COUNTY | VALUES IN ACRE-FEET PER YEAR[a] | | | | | |
|---|---|---|---|---|---|---|
| | TRINITY 2016 PUMPING | TRINITY MODELED AVAILABLE GROUNDWATER [11] | TRINITY OVER-PUMPING | WOODBINE 2016 PUMPING | WOODBINE MODELED AVAILABLE GROUNDWATER [11] | WOODBINE OVER-PUMPING |
| **Collin** | 1,486 | 5,795 | 0 | 2,394 | 4,254 | 0 |
| **Cooke** | 4,729 | 10,521 | 0 | 379 | 801 | 0 |
| **Dallas** | 1,407 | 3,691 | 0 | 4,338 | 2,798 | 1,540 |
| **Denton** | 8,883 | 30,091 | 0 | 3,300 | 3,609 | 0 |
| **Ellis** | 3,321 | 6,168 | 0 | 1,509 | 2,074 | 0 |
| **Fannin** | 181 | 2,088 | 0 | 3,863 | 4,924 | 0 |
| **Freestone** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Grayson** | 5,505 | 10,716 | 0 | 5,906 | 7,526 | 0 |
| **Henderson** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Jack** | 8 | 637 | 0 | 0 | 0 | 0 |
| **Kaufman** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Navarro** | 73 | 0 | 73 | 0 | 68 | 0 |
| **Parker** | 8,333 | 11,793 | 0 | 0 | 0 | 0 |
| **Rockwall** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Tarrant** | 6,816 | 17,926 | 0 | 2,183 | 1,139 | 1,044 |
| **Wise** | 6,810 | 11,452 | 0 | 0 | 0 | 0 |
| ***TOTAL*** | ***47,552*** | ***108,190*** | ***73*** | ***23,872*** | ***27,193*** | ***2,584*** |

[a]*Data are from TWDB [11].*

Seven GCDs exist within the Region C boundaries. These GCDs are shown on **Figure 1.5**. The seven GCDs include:

- Mid-East Texas GCD, which includes Freestone County,
- Neches and Trinity Valley GCD, which includes Henderson County,
- Northern Trinity GCD, which comprises only Tarrant County,
- Upper Trinity GCD, which includes Parker and Wise Counties, as well as Montague County in Region B and Hood County in Region G,
- Prairielands GCD, which includes Ellis County,
- North Texas GCD, which is comprised of Collin, Cooke, and Denton Counties, and
- Red River GCD, which is comprised of Grayson and Fannin Counties.

A portion of Region C is located within the North-Central Texas Trinity and Woodbine Aquifers Priority Groundwater Management Area (PGMA). **Figure 1.6** is a map of this and other PGMAs in Texas. The above mentioned GCDs cover all counties in North-Central Texas Trinity and Woodbine Aquifers PGMA except Dallas County. Section 35.019 of the Texas Water Code allows the commissioners court of a county in a PGMA not covered by a GCD to adopt water availability requirements. As of this time, to the best knowledge of Region C, Dallas County commissioner's court has not promulgated any groundwater regulations or availability values.

### 1.4.3 Water Reuse

About half of the water used for municipal supply in Region C is discharged as treated effluent from wastewater treatment plants after use, making wastewater reclamation and reuse a potentially significant source of additional water supply. There are currently a number of direct reuse projects in Region C that reuse highly treated wastewater for non-potable uses such as the irrigation of golf courses, or industrial or mining uses. There are also a number of large-scale indirect reuse projects, notably TRWD and NTWMD wetlands reuse projects. Currently authorized reuse makes up about 17 percent of the overall available supply in Region C.

In addition to direct and indirect reuse projects, there are sizable return flows of treated wastewater upstream from many Region C reservoirs. For many Region C reservoirs, return flows can increase the reliable supply from the reservoir. To ensure the use of the return flows, a water right must be obtained; otherwise, that water can be used by other senior water right holders. Many Region C suppliers have obtained or plan to obtain water right permits for these return flows.

### 1.4.4 Springs in Region C

There are no springs in Region C that are currently used as a significant source of water supply. Springs are further discussed in **Section 1.10** of this report.

*FIGURE 1.5 GROUND WATER CONSERVATION DISTRICTS IN REGION C*

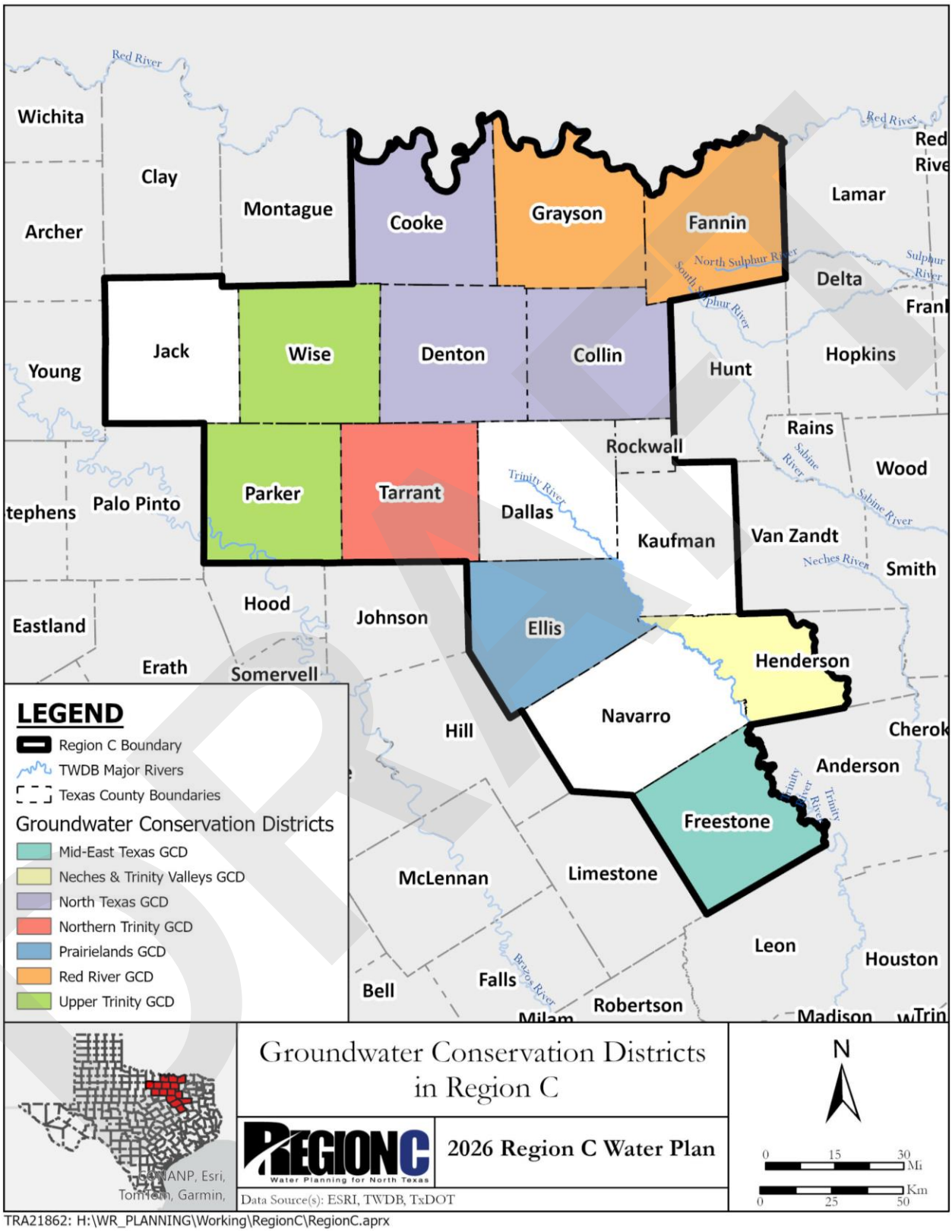
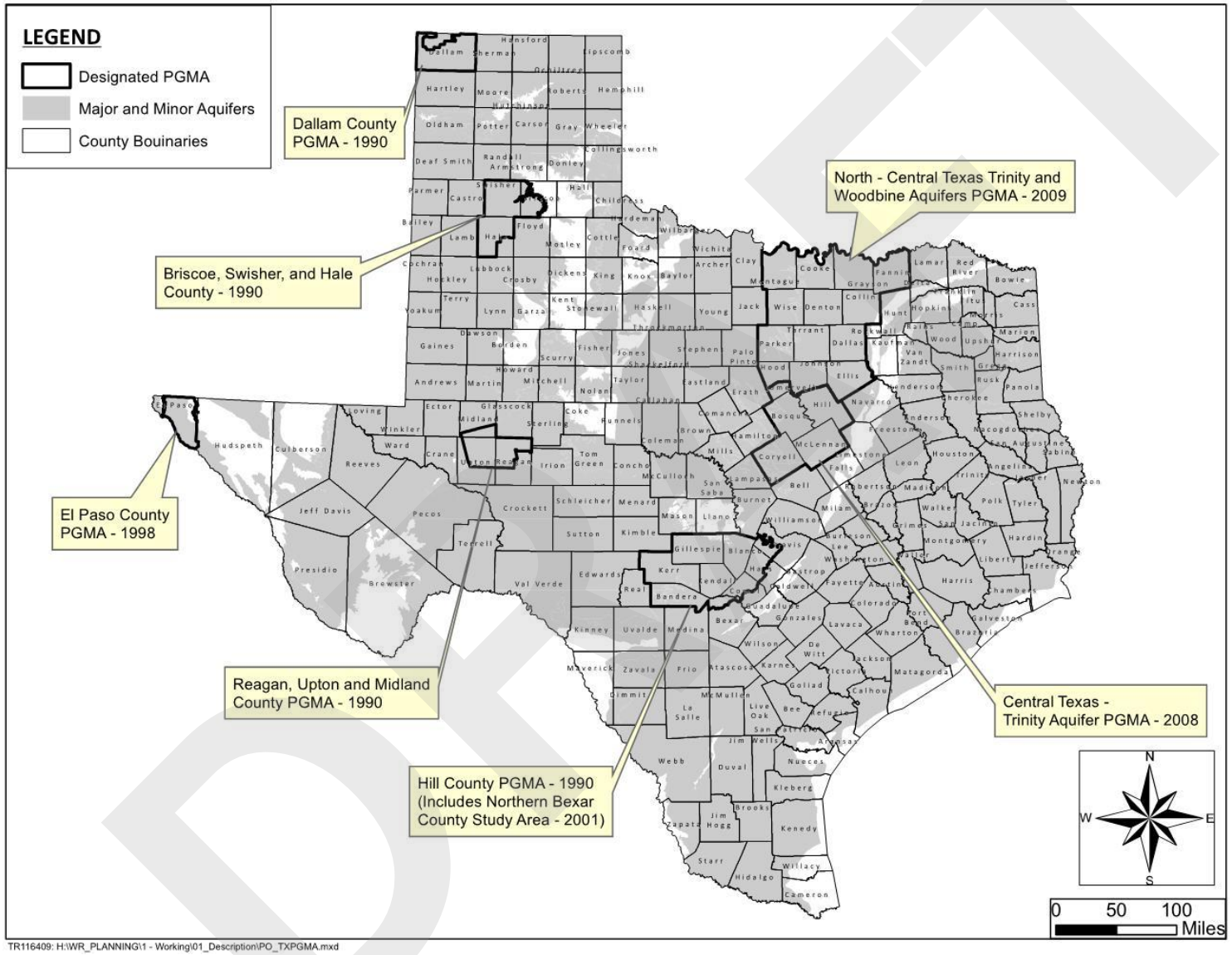


***FIGURE 1.6 PRIORITY GROUNDWATER MANAGEMENT AREAS (PGMAS) IN TEXAS***



## 1.5 Water Providers in Region C

Water providers in Region C include wholesale water providers (WWPs) and water user groups (WUGs). WWPs deliver and sell wholesale (raw or treated) water to WUGs or other WWPs. Region C has designated six of the larger WWPs as major water providers (MWPs) and two WWPs as regional providers (RWPs). These designations represent the water providers that supply large quantities of water and/or supply to a large region. Municipal WUGs are entities that generally provide the retail water within the region.

**Major Water Providers**

- Fort Worth
- Dallas (Dallas Water Utilities)
- North Texas Municipal Water District
- Tarrant Regional Water District
- Trinity River Authority
- Upper Trinity Regional Water District

**Regional Wholesale Water Providers**

- Corsicana
- Greater Texoma Utility Authority

### 1.5.1 Major Water Providers (MWPs)

The category of "major water providers" (MWP) was established in rules for the development of the 2022 State Water Plan in conjunction with the removal of certain reporting requirements to allow Regional Water Planning Groups (RWPGs) to establish a more consistent list of large water providers from cycle to cycle for which they are required to report information. MWPs are intended to reflect entities of particular significance to the region's water supply instead of reporting data for every WWP as previously required. The MWP designation may include public or private entities that provide water for any water use category.

Each RWPG is responsible for designating its own list of MWPs. In Region C, the RCWPG chose to designate based on top tier providers of existing and future supplies. In 2026 the following providers supplied 90 percent of Region C water and served 94 percent of Region C population: NTMWD, TRWD, DWU, UTRWD, TRA, and the City of Fort Worth. This list of MWPs was approved by the RCWPG at its November 6, 2023 public meeting. **Figure 1.7** is a map showing the service areas for each of the MWPs.

**City of Fort Worth.** The City of Fort Worth purchases all of its raw water from Tarrant Regional Water District and has water treatment plants with combined design capacity to treat 497 MGD. They also have a limited amount of reuse water available as supplies. The City of Fort Worth sells wholesale treated water to other water suppliers, mostly located in Tarrant County.

**Dallas Water Utilities (DWU).** DWU currently obtains its water supplies from Lake Ray Hubbard, Lake Tawakoni, Grapevine Lake, the Lake Ray Roberts/Lewisville/Elm Fork system, and Lake Fork. Dallas Water Utilities has contracted with the Upper Neches River Municipal Water Authority to secure water from Lake Palestine, but Lake Palestine is not currently connected to DWU's system. DWU is currently working with TRWD to construct a pipeline to connect this source. DWU has the capacity to treat up to 900 MGD with another 100 MGD of treatment capacity under construction. DWU supplies treated and raw water to wholesale customers in Dallas, Collin, Denton, Ellis, and Kaufman Counties. In addition to providing treated water, DWU owns and operates two wastewater treatment plants.

**North Texas Municipal Water District (NTMWD).** NTMWD supplies treated water to customers in suburban communities north and east of Dallas. The district obtains raw water from water rights in Lake Lavon, Lake Texoma, Chapman Lake, Lake Bonham, and Bois d'Arc Lake. NTMWD also obtains water from Lake Tawakoni and Lake Fork through the Sabine River Authority (SRA). NTMWD has a permit to reuse treated wastewater effluent from its Wilson Creek Wastewater Treatment Plant and diversions from its East Fork Water Reuse Project. This supply is blended with other freshwater supplies in Lake Lavon. In addition to providing treated water, NTMWD owns and/or operates a number of wastewater treatment plants in Region C.

**Tarrant Regional Water District (TRWD).** TRWD supplies raw water to customers in Tarrant County, eight other counties in Region C, and Johnson County in the Brazos G Region. TRWD owns and operates Lake Bridgeport, Eagle Mountain Lake, Cedar Creek Reservoir, and Richland-Chambers Reservoir. The district's water supply system also includes Lake Arlington (owned by Arlington), Lake Worth (owned by Fort Worth), and Benbrook Lake (owned by the U.S. Army Corps of Engineers, with TRWD holding water rights), a major reuse project, and a substantial water transmission system. The district also has commitments to supply water to users in Ellis County.

**Trinity River Authority (TRA).** TRA oversees the Trinity River Basin that spans across Regions C and H. TRA is designated as a MWP in both Regions C and H. The discussion in this plan focuses on the TRA role as a regional wholesale water supplier through its' projects in Region C.

TRA holds water rights in Joe Pool Lake, Navarro Mills Lake, and Bardwell Lake, all owned and operated by the U.S. Army Corps of Engineers. TRA sells raw water from these lakes for use in Region C. TRA has contracts to sell Joe Pool Lake water to Midlothian, Duncanville, Cedar Hill, and Grand Prairie. TRA sells water from Navarro Mills Lake to the City of Corsicana and from Bardwell Lake to Ennis and Waxahachie.

TRA has a regional treated water system in northeast Tarrant County, which treats raw water delivered by the Tarrant Regional Water District system through Lake Arlington and sells treated water to cities. This system is known as the Tarrant County Water Supply Project.

In addition to its raw and treated water sales, TRA operates a number of regional wastewater treatment projects in Region C. TRA also provides a large quantity of reuse water to other providers in the region.

**Upper Trinity Regional Water District (UTRWD).** UTRWD operates a regional treated water supply system in Denton County, which is a rapidly growing area. UTRWD has a contract with the City of Commerce to divert raw water from Chapman Lake in the Sulphur River Basin. UTRWD cooperates with the City of Irving to bring that water to Lewisville Lake. UTRWD also has contracts to buy raw water from Dallas and Denton and has an indirect reuse permit. UTRWD holds water rights to and is currently constructing Lake Ralph Hall, a new lake in Fannin County. In addition to its water supply activities, UTRWD provides regional wastewater treatment services in Denton County.

## 1.5.2 Regional Water Providers

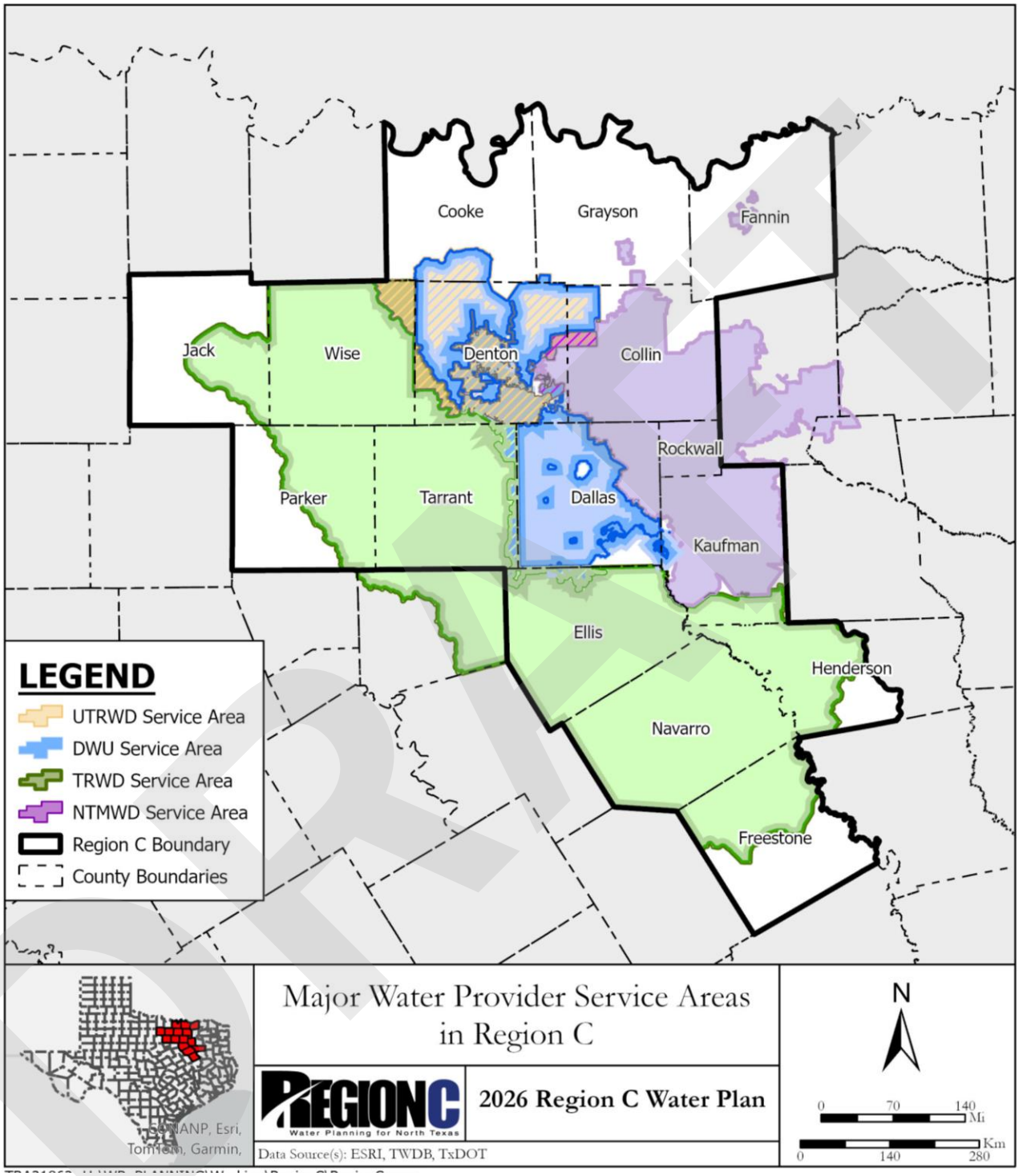
In addition to the major water providers listed in the previous section, two WWPs, the City of Corsicana and Greater Texoma Utility Authority (GTUA), are designated as regional water providers.

These were carried over from the *2021 Region C Water Plan* as they sell water to multiple WUGs or WWPs. The City Corsicana and GTUA were approved as RWPs by the RCWPG at its November 6, 2023 public meeting.

**City of Corsicana.** The City of Corsicana provides municipal and manufacturing water to the majority of Navarro County, and parts of Ellis, Hill, and Limestone counties. The City of Corsicana has a water right in the Richland-Chambers Reservoir and is authorized to divert water from Lake Halbert. Corsicana has a total available water supply capacity of 24 MGD limited by their water treatment plants.

**Greater Texoma Utility Authority (GTUA).** GTUA is a local political subdivision of the State that helps its member cities with constructing and financing their water and wastewater facilities. GTUA holds a water right in Lake Texoma but is constrained to 17 MGD by their raw water transmission system. GTUA may also be requested to provide operations services for water and wastewater facilities by their customers, such as the Collin-Grayson Municipal Alliance that delivers water from NTMWD.

*FIGURE 1.7 MAJOR WATER PROVIDER SERVICE AREAS IN REGION C*



### 1.5.3 Water User Groups

Cities, towns, water supply corporations, and special utility districts provide most of the retail water service in Region C. The TWDB developed the term "water user group" (WUG) to identify entities that regional water planning groups must include in their plans. The TWDB states that a WUG is defined as one of the following:

- Retail public or private utilities that provide more than 100 acre-feet per year of water for municipal use
- Collective reporting units (CRUs) consisting of grouped utilities having a common association
- County-Wide WUGs
    - Includes County Other (Rural/unincorporated areas of municipal water use), Manufacturing, Steam electric power generation, Mining, Irrigation, Livestock

***TABLE 1.9 REGION C NUMBER OF WATER USER GROUPS BY COUNTY***

| COUNTY | MUNCIPAL | NON-MUNICIPAL | TOTAL |
|---|---|---|---|
| Collin | 41 | 4 | 45 |
| Cooke | 10 | 5 | 15 |
| Dallas | 33 | 5 | 38 |
| Denton | 43 | 5 | 48 |
| Ellis | 22 | 4 | 26 |
| Fannin | 19 | 3 | 22 |
| Freestone | 10 | 5 | 15 |
| Grayson | 30 | 5 | 35 |
| Henderson | 15 | 5 | 20 |
| Jack | 2 | 4 | 6 |
| Kaufman | 26 | 5 | 31 |
| Navarro | 16 | 4 | 20 |
| Parker | 18 | 4 | 22 |
| Rockwall | 14 | 2 | 16 |
| Tarrant | 44 | 5 | 49 |
| Wise | 13 | 5 | 18 |
| ***Adjustment for Multi-County WUGs[a]*** | - | - | -59 |
| ***TOTAL*** | ***297*** | ***70*** | ***367*** |

[a]*Multi-County WUG is a WUG with retail customers in more than one county.*

## 1.6 Pre-Existing Plans for Water Supply Development

### 1.6.1 Previous Water Supply Planning in Region C

The region has a long history of successful local water supply planning and development. NTMWD has recently completed a Long-Range Water Supply Plan that outlines multiple water management strategies the District may pursue. TRWD and DWU are actively updating their respective water supply plans and expect to have them completed by 2025. These studies and plans have resulted in new water supply sources for the region, such as Bois d'Arc Lake.

Some of active plans for developing additional water supplies in Region C in the near future include the following:

- DWU and TRWD are actively planning and designing the segment of the Integrated Pipeline Project that will connect Lake Palestine to the Metroplex area. This connection is expected to be online by 2030.
- TRWD plans to expand the facilities that divert return flows of treated wastewater from the Trinity River into Cedar Creek Reservoir.
- UTRWD is constructing Lake Ralph Hall on the North Sulphur River in Fannin County.
- Several Region C water suppliers have received permits to reuse return flows of treated wastewater in Region C and are developing projects to use those supplies.
- There are on-going studies to further evaluate water supply options in the Sulphur River Basin. These studies are follow-on studies to a U.S. Army Corps of Engineers study to analyze options for water supply in the Sulphur River Basin that was completed in 2013.
- Other Region C suppliers are planning and developing smaller water supply projects to meet local needs.

## 1.6.2 Recommendations in the 2021 Region C Water Plan and the 2022 State Water Plan

The most significant recommendations for Region C in the *2021 Region C Water Plan* [12] and the 2022 State Water Plan [13] are summarized below. A more detailed discussion of the recommendations is available in the original documents.

A large part of the water supplied in Region C is provided by five water providers: Dallas Water Utilities, Tarrant Regional Water District, North Texas Municipal Water District, Fort Worth, and Trinity River Authority. In the *2021 Region C Water Plan* and the *2022 State Water Plan*, these five entities are expected to provide the majority of the water supply for Region C through the planning cycle.

Recommended water management strategies in the *2021 Region C Water Plan* and the *2022 State Water Plan* to meet the needs of these major water providers include the following:

### Dallas Water Utilities

- Conservation
- Additional Indirect Reuse
- Connect Lake Palestine (Dallas Portion of IPL and IPL to Bachman)
- Neches Run-of-River
- Lake Colombia
- Infrastructure to Treat and Deliver to Customers

### Tarrant Regional Water District

- Conservation
- Aquifer Storage and Recovery Pilot
- Additional Capacity to Convey Richland Chambers Reuse (IPL)

- Cedar Creek Wetland Reuse
- Reuse from TRA Central WWTP
- Lake Tehuacana
- Carrizo-Wilcox Groundwater
- Marvin Nichols Reservoir (328)
- Wright Patman Reallocations
- Additional Transmission Pipeline

### North Texas Municipal Water District

- Conservation
- Bois D'Arc Lake
- Additional Lake Texoma Blend Phase I and II
- Additional Measure to Access Full Lavon Yield (Raw Water #4)
- Expanded Wetland Reuse
- Additional Lavon Watershed Reuse
- Marvin Nichols Reservoir (328)
- Wright Patman Reallocation
- Oklahoma
- Infrastructure to Treat and Deliver to Customers
- Fannin County Water Supply System
- Treatment and Distribution Improvements (CIP)
- Chapman Booster Pump Station

### City of Fort Worth

- Conservation
- Alliance Direct Reuse
- Village Creek Water Reclamation Facility (WRF) Future Direct Reuse
- Mary's Creek WRF Future Direct Reuse
- Additional supply from Tarrant Regional Water District
- Expansion of Water Treatment Plants

### Trinity River Authority

- Conservation
- Additional Supply from Tarrant Regional Water District
- Ennis Indirect Reuse
- Joe Pool Lake Reuse
- Tarrant and Denton County District Reuse
- Central Reuse to TRWD
- Central Reuse to Irving

In addition to the strategies recommended for the five major water providers above, the *2021 Region C Plan* included strategies for individual water user groups. Major types of strategies included the following:

- Conservation for all water user groups
- Continued development and expansion of existing regional water supply systems
- Connection of water user groups to larger regional systems
- Construction of additional water treatment capacity as needed
- Development of reuse projects to meet growing steam electric and other demands

The estimated capital costs for all recommended water management strategies in the *2021 Region C Water Plan* totaled $23.5 billion in 2013 dollars.

### 1.6.3 Conservation Planning in Region C

Since completion of the *2021 Region C Water Plan*, significant legislative actions—Senate Bill 28 (SB 28) and Senate Joint Resolution 75 (SJR 75) — have been passed, directing the Texas Water Development Board (TWDB) to enhance existing programs such as the water loss technical assistance program and water conservation efforts. Additionally, TWDB has launched a new website[14] that provides water use and water loss data, along with other valuable resources for conservation for this cycle. However, the water conservation tool developed by the TWDB during the previous cycle has not been updated in this cycle. The resources and information available since the 2021 plan will inform the recommended water conservation strategies in this plan. **Chapter 5C** of this plan summarizes new information, reports existing conservation and reuse in Region C, and presents recommended water conservation and reuse strategies for Region C.

During development of this plan, the Region C Water Planning Group placed strong emphasis on water conservation and reuse as a means of meeting projected water needs. Water conservation (demand reduction) appears in this plan in four ways:

**Historical Water Demand Reduction.** Since the first Region C Water Plan in 2001, the average baseline per capita water demand for the region as a whole has decreased from 225 gallons per capita per day (gpcd) to 183 gpcd, largely due to water conservation efforts in the region.

**Projected Passive Water Conservation Savings.** The TWDB has projected municipal water savings that are expected to result from passive water conservation measures, including low-flow plumbing fixture rules, efficient new residential clothes washer standards, and efficient new residential dishwasher standards. Water savings from these measures will occur naturally and no WUG actions are needed to realize the savings. The water demand projections presented in **Chapter 2** are the baseline water demand projections minus the projected water savings from passive measures. Therefore, the projected water savings from passive measures are built into the Region C water demand projections. The projected passive water conservation savings for the region represent 2.5 to 2.9 percent of the baseline water demand, depending on the planning decade.

**Active Water Conservation Savings Since the Base Planning Year.** As described in **Section 2.3**, the representative year of the Board-Adopted Baseline GPCD of approximately 93% of the WUGs in

Region C is 2020. Region C WUGs have continued to implement water conservation measures since 2020. The associated water savings have reduced water demand in Region C, but this demand reduction is not reflected in the Region C water demand projections.

**Active Water Conservation During the Planning Period.** The recommended water management strategies include active water conservation measures that are projected to save additional water during the planning period.

In addition, Region C continues to be a leader in the implementation of reuse strategies, increasing water efficiency and reducing the need to develop new water supplies. In the *2021 Region C Water Plan*, Region C accounted for one third of the State's current and recommended reuse supplies, more than any other region.

## 1.7 Preliminary Assessment of Current Preparations for Drought in Region C

The drought of record for most water supplies used in Region C occurred from 1950 through 1957. The drought of 2011 through early 2015 resulted in new droughts of record for several reservoirs in the Red River Basin and low inflows and low water levels for many other Region C lakes. The recent hot and dry summers placed considerable stress on water suppliers throughout Texas, including Region C. In most years entities across the state implement water restrictions in response to drought conditions. Many Region C water suppliers have already made or are currently making improvements to increase delivery of raw and treated water under drought conditions.

Some smaller suppliers in Region C faced a shortage of supplies in the recent droughts. Most of those entities have moved to address this problem by connecting to a larger supplier or by developing additional supplies on their own.

Most of the water conservation plans developed in response to TCEQ and TWDB requirements include a drought contingency plan. In addition to its regional planning provisions, Senate Bill One included a requirement that all public water suppliers and irrigation districts above a certain size develop and implement a drought contingency plan. Refer to **Chapter 7** for additional information on current preparations for drought in Region C.

## 1.8 Other Water-Related Programs

In addition to the Senate Bill One regional planning efforts, there are a number of other significant water-related programs that will affect water supply efforts in Region C. Perhaps the most important are the Texas Commission on Environmental Quality water rights permitting, the Clean Rivers Program, the Clean Water Act, and the Safe Drinking Water Act.

**Texas Commission on Environmental Quality (TCEQ) Water Rights Permitting**. Surface water in Texas is a public resource, and the TCEQ is empowered to grant water rights that allow beneficial use of that resource. The development of any new surface water supply will most likely require a water right permit. Among its many other provisions, Senate Bill One set out formal criteria for the permitting of interbasin transfers for water supply. Since many of the major sources of supply that have been considered for Region C involve interbasin transfers, these criteria are important in Region C planning.

**Clean Rivers Program.** The Clean Rivers Program is a Texas program overseen by TCEQ and funded by fees assessed on water use and wastewater discharge permit holders. The program is designed to provide information on water quality issues and to develop plans to resolve water quality problems. The Clean Rivers Program is carried out by local entities. In Region C, the program is carried out by river authorities: the Trinity River Authority in the Trinity Basin, the Red River Authority in the Red Basin, the Brazos River Authority in the Brazos Basin, the Sulphur River Basin Authority in the Sulphur Basin, and the Sabine River Authority in the Sabine Basin.

**Clean Water Act.** The Clean Water Act is a federal law designed to protect water quality. The parts of the act which have the greatest impact on water supplies are the National Pollutant Discharge Elimination System (NPDES) permitting process, which covers wastewater treatment plant and storm water discharges, and the Section 404 permitting program for the discharge of dredged and fill material into the waters of the United States, which affects construction for development of water resources. In Texas, the state took over the NPDES permitting system in 1998, renaming it the Texas Pollutant Discharge Elimination System (TPDES). The TPDES Program sets the discharge requirements for wastewater treatment plants and for storm water discharges associated with construction and industrial activities. The Section 404 permit program is handled by the U.S. Army Corps of Engineers. Section 404 permitting is a required step in the development of a new reservoir and for pipelines, pump stations, and other facilities constructed in or through waters of the United States.

**Safe Drinking Water Act (SDWA)**. The Safe Drinking Water Act is a federal program that regulates drinking water supplies. In recent years, new requirements introduced under the SDWA have required significant changes to water treatment. On-going SDWA initiatives will continue to impact water treatment requirements. Some of the initiatives that may have significant impacts in Region C are the reduction in allowable levels of trihalomethanes in treated water, the requirement for reduction of total organic carbon levels in raw water, and the reduction of the allowable level of arsenic in drinking water. In April 2024, the EPA established requirements to limit the levels of six Per- and Polyfluoroalkyl Substances (PFAS). Public water systems have until 2027 to begin monitoring the levels and informing the public with this information, and until 2029 to implement solutions to reduce the PFAS levels below the Maximum Contaminant Levels (MCLs)[15].

**SDWA Groundwater Rules**. The EPA has developed groundwater monitoring regulations as part of the SDWA. TCEQ is the agency responsible for implementing these rules in Texas and has developed a source sampling compliance program for groundwater systems which took effect on December 1, 2009. Requirements of this rule are meant to ensure that groundwater systems 1) conduct source water monitoring, 2) address significant deficiencies, 3) address source water fecal contamination, and 4) implement corrective actions. The Groundwater Rule has the potential to encourage entities on groundwater to consider alternative sources. Systems that utilize groundwater as a supplemental supply may find that the additional regulatory monitoring and reporting are more trouble than the supplemental supply is worth.

## 1.9 Water Loss Audits

TWDB water loss audit information for entities in Region C was compiled for 2020 through 2022 and is included in **Appendix B**. The primary purposes of a water loss audit are to account for all the

water being used and to identify potential areas where water can be saved. Water audits track multiple sources of water loss that are commonly described as apparent loss and real loss. Apparent loss is water that was used but for which the utility did not receive compensation. Apparent losses are associated with customer meters under-registering, billing adjustment and waivers, and unauthorized consumption. Real loss is water that was physically lost from the system before it could be used, including main breaks and leaks, customer service line breaks and leaks, and storage overflows. The sum of the apparent loss and the real loss make up the total water loss for a utility [16]. The water loss audits were considered in the development of water conservation recommendations.

**Table *1.10*** summarizes the water loss audit information from 2020 through 2022. More information on water loss audits is presented in **Chapter 5B**.

***TABLE 1.10 REGION C WATER LOSS AUDTIS SUMMARY BY GALLONS AND PERCENT FOR 2020, 2021, AND 2022***

| YEAR | SYSTEM INPUT VOLUME | AUTHORIZED CONSUMPTION | WATER LOSS |
|---|---|---|---|
| **2020** | 339,730,978,194 | 294,749,121,211 (86.8%) | 44,981,856,983 (13.2%) |
| **2021** | 361,314,449,821 | 314,194,172,268 (87.0%) | 47,120,277,553 (13.0%) |
| **2022** | 260,200,249,414 | 229,042,503,422 (88.0%) | 31,157,745,992 (12.0%) |

[a]*Data are from the Texas Water Development Board [17].*

## 1.10 Agricultural and Natural Resources in Region C

### 1.10.1 Springs in Region C

No springs in Region C are currently used as a significant source of water supply. Springs were important sources of water supply to Native Americans and in the initial settlement of the area and had great influence on the initial patterns of settlement. Groundwater development and the resulting water level declines have caused many springs to disappear and greatly diminished the flow from those that remain [18].

The Texas Parks and Wildlife Department (TPWD) has identified a number of small to medium-sized springs in Region C [19]. **Table 1.11** shows the distribution and number of these springs as of 1980. Former springs are springs that have run dry due to groundwater pumping, sedimentation caused by surface erosion, or other causes [20].

*TABLE 1.11 DISTRIBUTION AND ESTIMATED SIZE OF SPRINGS AND SEEPS*

| COUNTY | MEDIUM (2.8 – 28 cfs) | SMALL (0.28 – 2.8 cfs) | VERY SMALL (0.028 – 0.28 cfs) | SEEP (Less than 0.028 cfs) | FORMER |
|---|---|---|---|---|---|
| **Collin** | 0 | 3 | 10 | 1 | 4 |
| **Cooke** | 0 | 3 | 9 | 3 | 1 |
| **Dallas** | 2 | 6 | 2 | 0 | 4 |
| **Denton** | 0 | 3 | 8 | 1 | 1 |
| **Ellis** | 0 | 0 | 0 | 0 | 1 |
| **Fannin** | 0 | 3 | 6 | 3 | 1 |
| **Grayson** | 0 | 2 | 12 | 1 | 1 |
| **Parker** | 0 | 8 | 3 | 2 | 6 |
| **Rockwall** | 0 | 0 | 1 | 0 | 2 |
| **Tarrant** | 3 | 6 | 1 | 3 | 5 |
| **Wise** | 0 | 7 | 4 | 3 | 2 |

[a]*Data are from Texas Parks and Wildlife Department* [16].

## 1.10.2 Wetlands

According to the regulatory definition of the U.S. Army Corps of Engineers [21], wetlands are "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Areas classified as wetlands are often dependent on water from streams and reservoirs. Some of the important functions of wetlands include providing food and habitat for fish and wildlife, water quality improvement, flood protection, shoreline erosion control, and groundwater exchange, in addition to opportunities for human recreation, education, and research.

The Natural Resources Conservation Service (NRCS) has mapped and quantified areas of hydric soils for all but one of the counties in Region C. The agency makes these data available through its local county offices and, in some cases, publishes the acreages of soil series in the soil survey report for the county. Hydric soil is defined as "soil that in its undrained condition is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation" [22]. Thus, the area of hydric soils mapped in a county provides an indication of the potential extent of wetlands in that county. However, as implied in the definition, some areas mapped as hydric soils may not occur as wetlands because the hydrology has been changed to preclude saturation or inundation. **Table 1.12** is a list of acreages of hydric soils for the counties in Region C for which the data are available.

The acreages of hydric soils listed in **Table 1.12** should be considered as an indicator of the relative abundance of wetlands in the counties and not as an absolute quantity.

*TABLE 1.12 HYDRIC SOILS MAPPED BY THE NATURAL RESOURCES CONSERVATION SERVICE*

| COUNTY | TOTAL COUNTY ACREAGES | HYDRIC SOIL ACREAGE WITHIN COUNTY [a] | PERCENT OF COUNTY |
|---|---|---|---|
| **Collin** | 565,760 | 45,110 | 7.97% |
| **Cooke** | 568,320 | 13,038 | 2.29% |
| **Dallas** | 577,920 | 106,908 | 18.50% |
| **Denton** | 611,200 | 12,293 | 2.01% |
| **Ellis** | 608,000 | 170,991 | 28.12% |
| **Fannin** | 574,080 | 121,458 | 21.16% |
| **Freestone** | 574,720 | 208,314 | 36.25% |
| **Grayson** | 627,840 | 24,751 | 3.94% |
| **Henderson** [b] | 604,800 | 209,011 | 34.56% |
| **Jack** | 588,800 | 73,370 | 12.46% |
| **Kaufman** | 517,760 | 265,877 | 51.35% |
| **Navarro** | 695,680 | 198,088 | 28.47% |
| **Parker** | 581,760 | 26,539 | 4.56% |
| **Rockwall** | 94,080 | 48,311 | 51.35% |
| **Tarrant** | 574,080 | 16,633 | 2.90% |
| **Wise** | 592,000 | 13,358 | 2.26% |

[a] *Data from U.S. Department of Agriculture* [19].
[b] *The values for Henderson County include all of Henderson County, not just the Region C portion.*

## 1.10.3 Endangered or Threatened Species

The Endangered Species Act (ESA) provides for the conservation of endangered or threatened species and their critical habitats. Recovery plans are created for each species to provide protocols, timelines, and costs for recovering endangered species. Federal agencies are required to ensure that their activities do not jeopardize listed species or their critical habitats. In addition, many federal agencies incorporate conservation of listed species into their existing authorities.

The U.S. Fish and Wildlife Service (USFWS) is the authority responsible for the federal listing of endangered and threatened species. The Texas Parks and Wildlife Department (TPWD) maintains a separate listing of species of special concern in the Texas Biological and Conservation Data System. **Table 1.13** lists federal endangered or threatened species identified by USFWS in Region C counties.

**Table 1.14** lists species of special concern as identified at the state level and species that have limited range within the state. County designations indicate that a species is either known to occur or existing habitat is suitable to support a species in the particular county.

***TABLE 1.13 FEDERAL ENDANGERED OR THREATENED SPECIES IN REGION C***

| SPECIES [a] | FEDERAL STATUS[b] | COUNTY | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | COLLIN | COOKE | DALLAS | DENTON | ELLIS | FANNIN | FREESTONE | GRAYSON | HENDERSON | JACK | KAUFMAN | NAVARRO | PARKER | ROCKWALL | TARRANT | WISE |
| **Golden-Cheeked Warbler** | E | | | x | | | | | | | x | | | | | | |
| **Large Fruited Sand Verbena** | E | | | | | | | x | | | | | | | | | |
| **Navasota Ladies' Tresses** | E | | | | | | | x | | | | | | | | | |
| **Piping Plover** | T | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| **Red Knot** | T | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| **Smalleye Shiner [c]** | E | | | | | | | | | | | | | | | | |
| **Sharpnose Shiner [c]** | E | | | | | | | | | | | | | | | | |
| **Texas Fawnsfoot** | T | x | | x | x | x | x | x | x | x | x | x | x | x | x | | |
| **Whooping Crane** | E | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |

*[a]Information obtained from U.S. Fish and Wildlife Service [(23)].*

*[b]E is federally listed as endangered; T is federally listed as threatened, C is federally listed as a candidate species.*

*[c] Species were updated in response to Texas Parks and Wildlife comment on 2021 Initially Prepared Plan.*

*[d]TPWD List last updated 09/01/2023*

*TABLE 1.14 STATE SPECIES OF SPECIAL CONCERN IN REGION C*

| SPECIES [a] | STATE STATUS [b] | COLLIN [c] | COOKE [c] | DALLAS [c] | DENTON [c] | ELLIS [c] | FANNIN [c] | FREESTONE [c] | GRAYSON [c] | HENDERSON [c] | JACK [c] | KAUFMAN [c] | NAVARRO [c] | PARKER [c] | ROCKWALL [c] | TARRANT [c] | WISE [c] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alligator snapping turtle | T | x | | x | | x | | x | | x | | x | | | x | x | |
| Bachman's Sparrow | T | | | | | | | | | x | | | | | | | |
| Black bear | T | | | | | | x | x | x | x | | x | x | | | x | |
| Black Rail | T | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Blue sucker | T | | | | | | | | x | | | | | | | | |
| Brazos Heelsplitter | T | | | | | | | | | | | | | x | | | |
| Brazos water snake | T | | | | | | | | | | x | | | x | | | |
| Chub shiner | T | | x | | | | | | x | | | | | | | | |
| Earth fruit | T | | | | | | | | | | | | | x | | | |
| Golden-cheeked Warbler | E | | | x | | | | | | | | | | x | | | |
| Houston toad | E | | | | | | | x | | | | | | | | | |
| Large-fruited sand-verbena | E | | | | | | | x | | | | | | | | | |
| Louisiana pigtoe | T | x | | x | x | x | | x | | x | | x | x | | x | x | x |
| Navasota ladies'-tresses | E | | | | | | | x | | | | | | | | | |
| Northern scarlet snake | T | | | | | | | | | x | | | | | | | |
| Paddlefish | T | | x | | | | x | | x | | | | | | | | |
| Piping Plover | T | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Red river pupfish | T | | x | | | | | | | | | | | | | | |
| Rufa Red Knot | T | x | x | x | x | x | x | x | x | x | | x | x | | x | x | x |
| Sandbank pocketbook | T | | | x | x | x | | x | | x | | x | x | | | x | x |
| Shovelnose sturgeon | T | | x | | | | x | | x | | | | | | | | |
| Small-headed pipewort | T | | | | | | | x | | x | | | | | | | |
| Southern hickorynut | T | | | | | | | | | x | | | | | | | |
| Swallow-tailed kite | T | | | | | | | | | x | | | x | | | | |
| Texas fawnsfoot | T | | | | | | | | | | | | | x | | | |
| Texas heelsplitter | T | x | x | x | x | | | x | x | x | | x | x | | x | x | x |
| Texas horned lizard | T | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |

| SPECIES [a] | STATE STATUS [b] | COLLIN [c] | COOKE [c] | DALLAS [c] | DENTON [c] | ELLIS [c] | FANNIN [c] | FREESTONE [c] | GRAYSON [c] | HENDERSON [c] | JACK [c] | KAUFMAN [c] | NAVARRO [c] | PARKER [c] | ROCKWALL [c] | TARRANT [c] | WISE [c] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Texas kangaroo rat** | T | | | | | | | | | | x | | | | | | |
| **Texas pigtoe** | T | | | | | | | | | x | | | | | | | |
| **Trinity Pigtoe** | T | | | x | | x | | x | | x | | x | x | | | | |
| **White-faced Ibis** | T | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| **Whooping Crane** | E | x | x | x | x | x | | x | x | x | x | x | x | x | x | x | x |
| **Wood Stork** | T | x | | x | | x | x | x | x | x | | x | x | | x | | |

[a] *Information is obtained from TPWD [24] Rare, Threatened, and Endangered Species of Texas by Counties.*
[b] *E is endangered, T is threatened, R is rare.*
[c] *TPWD List last updated 09/01/2023.*

### 1.10.4 Navigation

There is very little commercial navigation in Region C. However, the U.S. Army Corps of Engineers has defined two stretches of river in Region C that qualify as "navigable." In the Red River Basin, the segment of the Red River from Denison Dam forming Lake Texoma upstream to Warrens Bend in Cooke County is defined as navigable. In the Trinity River Basin, the Trinity River has a reach that is considered to be "navigable" from the southeastern border of Freestone County up to Riverside Drive in Fort Worth. While these rivers meet the legal definition of navigable waters, they are not currently used for this purpose.

### 1.10.5 Agriculture and Prime Farmland

**Table 1.15** provides some basic data on agricultural production in Region C, based on the 2022 Agricultural Census from the U.S. Department of Agriculture (USDA). Region C includes over 5,106,000 acres of farmland and over 1,536,000 acres of cropland. Irrigated agriculture does not play a significant role in Region C, with only 2 percent of the harvested cropland being irrigated.

The Natural Resources Conservation Service (NRCS) defines prime farmland as "land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is also available for these uses [25]." As part of the National Resources Inventory, the NRCS has identified prime farmland throughout the country. **Figure 1.8** shows the distribution of prime farmland in Region C. Each color in the figure represents the percentage of the total acreage that is prime farmland of any kind. (There are four categories of prime farmland in the NRCS STATSGO database for Texas: prime farmland, prime farmland if drained, prime farmland if protected from flooding or not frequently flooded during the growing season, and prime farmland if irrigated.) There are large areas of prime farmland in Cooke, Denton, Collin, Tarrant, Dallas, and Ellis Counties. There are localized areas of irrigated agriculture in Region C.

**Table 1.4** shows that 46 percent of the 2021 water use for irrigation in Region C came from groundwater (compared to only 8 percent of total water use from groundwater.) TWDB Report 269 [26] studied groundwater in most of Region C (except for Jack and Henderson Counties and part of Navarro County). Most irrigation wells in the study area were scattered over the outcrop areas of the Trinity and the Woodbine aquifers with only a few areas of concentrated activity. The largest concentration of irrigation wells is located on the Woodbine outcrop in an area bounded by western Grayson County, the eastern edge of Cooke County, and the northeastern corner of Denton County. Approximately 80 irrigation wells operated in this region (as of 1982), and several produced as much as 900 gpm. Several smaller irrigation well developments were located in Parker County and Wise County in the Trinity aquifer. There were also irrigation wells in Fannin County producing from the alluvium along the Red River.

### 1.10.6 State and Federal Natural Resource Holdings

The TPWD operates several state parks in Region C:

- Bonham State Park in Fannin County,
- Cedar Hill State Park in Dallas County,

- Eisenhower State Park in Grayson County, Fort Richardson State Park & Historic Site in Jack County,
- Lake Mineral Wells State Park in Parker County,
- Lake Ray Roberts State Park in Denton and Cooke Counties, and
- Purtis Creek State Park which is partially located in Henderson County.

TPWD also operates:

- Caddo Wildlife Management Area in Fannin County,
- Cedar Creek Islands Wildlife Management Area in Henderson County,
- Ray Roberts Wildlife Management Area in Cooke, Denton, and Grayson Counties, and
- Richland Creek Wildlife Management Area in Freestone and Navarro Counties.

Federal government natural resource holdings in Region C include the following:

- Parks and other land around all of the U.S. Army Corps of Engineers lakes in the region (Texoma, Ray Roberts, Lewisville, Lavon, Grapevine, Benbrook, Joe Pool, Bardwell, and Navarro Mills)
- Hagerman National Wildlife Refuge on the shore of Lake Texoma in Grayson County
- Caddo National Grasslands in Fannin County
- Lyndon B. Johnson National Grasslands in Wise County.

Area reservoirs provide a variety of recreational benefits, as well as water supply. **Table 1.16** lists the reservoirs located in Region C that have national or state lands associated with them and the recreational opportunities available at these sites. Recreational activities typically found at these sites include camping, fishing, boating, hiking, swimming, and picnicking.

*TABLE 1.15 2022 U.S. DEPARTMENT OF AGRICULTURE COUNTY DATA[a]*

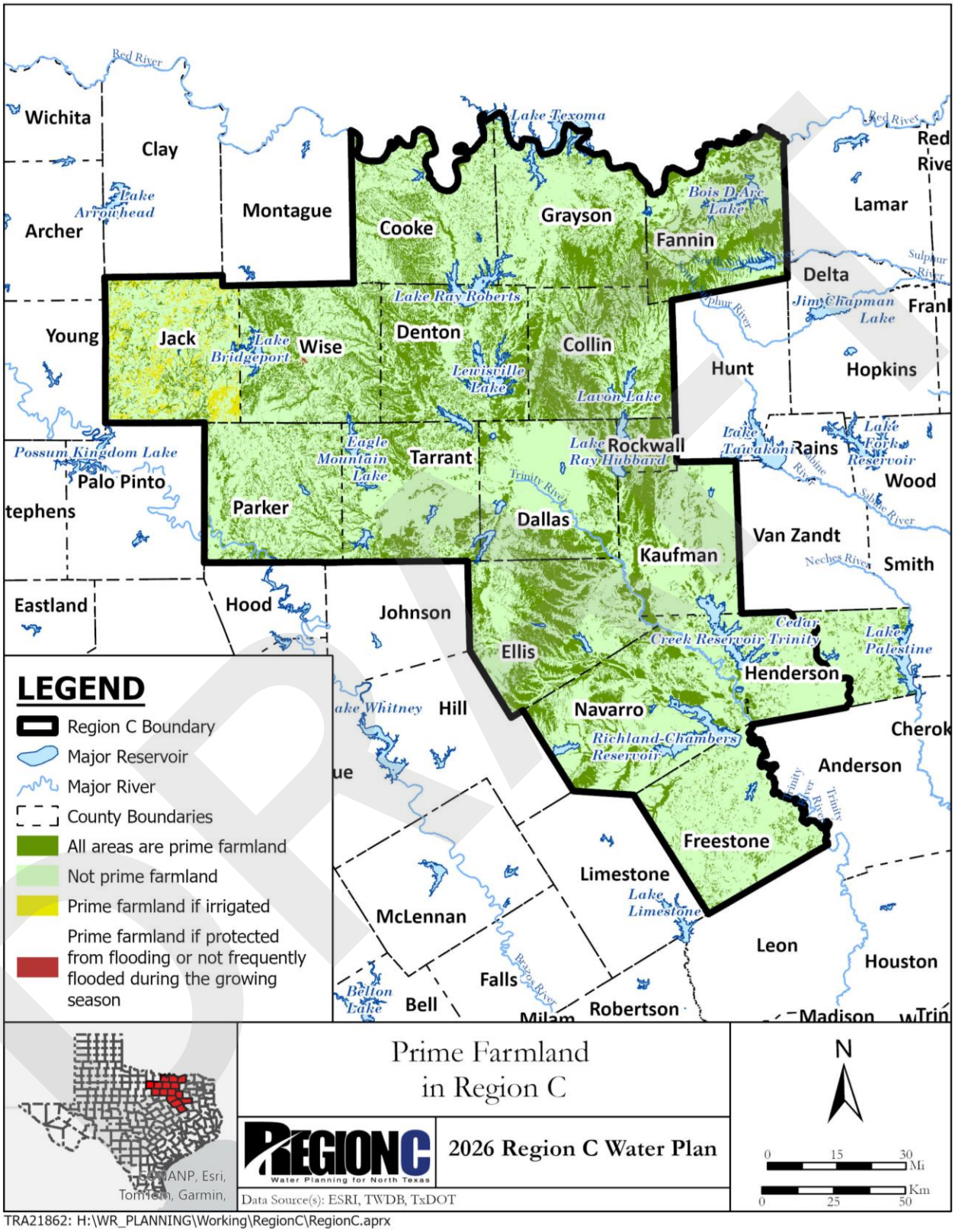
| | COLLIN | COOKE | DALLAS | DENTON | ELLIS | FANNIN | FREESTONE | GRAYSON | HENDERSON [b] |
|---|---|---|---|---|---|---|---|---|---|
| **Farms** | 2,330 | 2,188 | 647 | 2,936 | 2,563 | 2,108 | 1,291 | 2,851 | 1,891 |
| **Land in Farms (acres)** | 197,374 | 513,278 | 67,030 | 272,184 | 377,200 | 417,464 | 372,086 | 394,985 | 263,600 |
| **Crop Land (acres)** | 93,314 | 147,151 | 35,546 | 116,619 | 203,455 | 163,905 | 45,766 | 184,758 | 68,636 |
| **Harvested Crop Land (acres)** | 63,118 | 104,418 | 19,605 | 78,946 | 146,876 | 120,454 | 33,447 | 105,948 | 48,946 |
| **Irrigated Crop Land (acres)** | 1,076 | 10,291 | 972 | 2,043 | 3,511 | 6,008 | 1,827 | 2,499 | 1,180 |
| **Market Value ($1,000)** | | | | | | | | | |
| **-Crops** | 45,111 | 19,860 | 24,837 | 25,217 | 50,972 | 55,953 | 6,737 | 48,035 | 10,380 |
| **-Livestock** | 53,668 | 89,591 | 7,843 | 110,250 | 27,372 | 47,742 | 116,059 | 39,062 | 33,814 |
| **-Total** | 98,779 | 109,452 | 32,680 | 135,467 | 78,345 | 103,695 | 122,792 | 87,097 | 44,194 |

| | JACK | KAUFMAN | NAVARRO | PARKER | ROCKWALL | TARRANT | WISE | TOTAL |
|---|---|---|---|---|---|---|---|---|
| **Farms** | 889 | 2,478 | 2,213 | 4,379 | 359 | 1,000 | 3,528 | **33,651** |
| **Land in Farms (acres)** | 573,752 | 280,030 | 468,616 | 341,108 | 23,466 | 199,120 | 345,021 | **5,106,314** |
| **Crop Land (acres)** | 64,723 | 91,185 | 117,599 | 76,147 | 11,059 | 34,694 | 82,410 | **1,536,967** |
| **Harvested Crop Land (acres)** | 13,231 | 62,730 | 86,368 | 40,648 | 9,417 | 11,109 | 58,290 | **1,003,551** |
| **Irrigated Crop Land (acres)** | 565 | 679 | 426 | 2,191 | 104 | 509 | 1,995 | **35,876** |
| **Market Value ($1,000)** | | | | | | | | |
| **-Crops** | 2,022 | 10,815 | 22,173 | 8,531 | 3,055 | 9,059 | 14,755 | **357,512** |
| **-Livestock** | 40,794 | 38,557 | 42,789 | 59,965 | 2,306 | 15,268 | 44,190 | **769,270** |
| **-Total** | 42,816 | 49,371 | 64,962 | 68,496 | 5,361 | 24,327 | 58,945 | **1,126,779** |

[a]*Data are from the U.S. Department of Agriculture [(27)].*

[b]*Data for Henderson County are for the entire county.*

*FIGURE 1.8 PRIME FARMLAND IN REGION C*




TRA21862: H:\WR_PLANNING\Working\RegionC\RegionC.aprx

*TABLE 1.16 RECREATIONAL ACTIVITIES AT REGION C RESERVOIRS[a]*

| RESERVOIR | NATIONAL LANDS | STATE LANDS | CAMPING | FISHING | BOATING | HIKING/NATURE TRAILS | HUNTING | SWIMMING | PICNIC SITES | BICYCLING TRAILS | EQUESTRAIN TRAILS | PLAYGROUNDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lavon** | X | | X | X | X | X | X | X | X | X | X | |
| **Texoma** | X | X | X | X | X | X | X | X | X | X | X | X |
| **Bonham** | | X | X | X | X | X | | X | X | X | | X |
| **Ray Roberts** | X | X | X | X | X | X | X | X | X | X | X | X |
| **Lewisville** | X | | X | X | X | X | X | X | X | X | X | |
| **Benbrook** | X | | X | X | X | X | X | X | X | X | X | |
| **Grapevine** | X | | X | X | X | X | X | X | X | X | X | |
| **Joe Pool** | X | X | X | X | X | X | | X | X | X | X | X |
| **Bardwell** | X | | X | X | X | X | X | X | X | X | X | |
| **Navarro Mills** | X | | X | X | X | X | X | X | X | | | |
| **Mineral Wells** | | X | X | X | X | X | | X | X | X | X | X |
| **Lost Creek Reservoir** | | X | X | X | X | X | | X | X | X | X | |
| **Cedar Ck. Reservoir** | | X | X | X | X | X | | X | X | X | | |

[a]*Data taken from Texas Parks and Wildlife Department and U.S. Army Corps of Engineers [28, 29].*

*LAKE GRAPEVINE*

### 1.10.7 Oil and Gas Resources

Oil and natural gas fields are significant natural resources in portions of Region C.

As of September 2022, four counties within Region C had 1,500 or more regular producing gas wells (Denton, Freestone, Tarrant and Wise), with Wise County having the most at 4,104[30]. As of February 2019, two counties within Region C had 1,200 or more regular producing oil wells (Cooke and Jack) and two Counties had between 500 and 1,000 regular producing oil wells (Grayson and Navarro).

### 1.10.8 Lignite Coal Fields

There are some lignite coal resources in Region C[31]. Paleozoic rocks with bituminous coal deposits underlie most of Jack County and small portions of Wise and Parker Counties. Near surface (to 200 feet in depth) lignite deposits in the Wilcox Group underlie significant portions of Freestone, Navarro, and Henderson Counties. Deposits of deep basin lignite (200 - 2,000 feet in depth) in rocks of the Wilcox Group underlie a significant portion of Freestone County. However, there are currently no active coal mines in Region C.

*OIL PUMPJACK*

## 1.11 Summary of Threats and Constraints to Water Supply in Region C

The potential threats to existing water supplies in Region C are surface water quality concerns, climate variability, groundwater drawdown, groundwater quality, and invasive species. Constraints on the development of new supplies include the availability of sites and unappropriated water for new water supply reservoirs and the challenges imposed by environmental concerns and permitting.

### 1.11.1 Need to Develop Additional Supplies

Many of the water suppliers in Region C will have to develop additional supplies before 2080. Each major water supplier has a projected water shortages in 2030 through 2080. They will require additional supplies to meet projected growth in the near future. Each county in Region C will have a net need for more water in 2030, with over 280 water users being predicted to need additional water by 2080. The counties with the largest water needs are Collin, Dallas, Denton, and Tarrant. Further analysis of the region's water needs is presented in **Chapter 4** of this plan.

### 1.11.2 Surface Water Quality Concerns

The Texas Commission on Environmental Quality (TCEQ) publishes the *Texas Integrated Report of Surface Water Quality* every two years in accordance with the schedule mandated under Section 303(d) and 305(b) of the Clean Water Act. The latest EPA-approved edition of the report was approved by the EPA in July 2022 [32]. The TCEQ has also established a list of stream segments for which it intends to develop total maximum daily load (TMDL) evaluations to address water quality concerns. None of the proposed TMDL studies in Region C are due to concerns related to public water supply. Most are due to general use, aquatic life, contact recreation, and fish consumption.

Many of the water supply reservoirs in Region C are experiencing increasing discharges of treated wastewater in their watersheds. To date, this has not presented a problem for public water supplies, but increased amounts of wastewater and greater nutrient loads may lead to concerns about eutrophication in some lakes. Some of the largest wastewater treatment plants are on the Trinity River in the Dallas-Fort Worth Metroplex and do not discharge into the watershed of any Region C reservoir. However, there are existing and proposed projects to withdraw water from rivers downstream of municipal wastewater treatment plants, polish the water with wetlands treatment, and convey the water to Region C water supply reservoirs. Additionally, there are significant permitted discharges upstream from many reservoirs in the region, and return flows are tending to increase with time.

In December 1998, the U.S. EPA published the *Stage 1 Disinfectants and Disinfection Byproducts (D/DBP) Rule* [33], which applies to water systems that treat surface water with a chemical disinfectant. This rule sets forth Maximum Contaminant Levels (MCLs) for a number of different contaminants including total organic carbon, trihalomethane, haloacetic acid, and dissolved solids. Under certain circumstances, the rule mandates the use of enhanced coagulation to remove total organic carbon (TOC), an indicator of potential disinfection byproduct formation. Effective January 1, 2004, all community and nontransient, noncommunity systems were required

to comply with the MCLs for TTHM (0.080 milligrams per liter, or mg/l) and HAA5 (0.060 mg/l) based on the running annual average for the entire distribution system.

In January 2006, the U.S. EPA published the *Stage 2 Disinfectants and Disinfection Byproducts (D/DBP) Rule*, which requires utilities to evaluate their distribution systems to identify locations with high DBP concentrations. The utilities will then use these locations as sampling sites for DBP compliance monitoring [(34)]. This rule requires compliance with the MCLs for TTHM and HAA5 at each monitoring location.

The Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) [(35)] is a companion rule to Stage 2 DBPR. This rule requires additional Cryptosporidium treatment techniques for higher-risk systems as well as provisions to reduce risks from uncovered finished water reservoirs and provisions to ensure that microbial protection is maintained when DBP concentrations are decreased.

Dissolved solids in the Red River and Lake Texoma along the northern boundary of Region C are generally high in comparison to other current Region C supplies. The use of Lake Texoma water for public supply requires desalination (Sherman, Red River Authority Preston Shores) or blending with higher quality water (NTMWD, Denison). This requirement has limited the use of water from the Red River and Lake Texoma for public water supply. The Red River Authority is serving as a local sponsor for the Red River Chloride Control Project, which may serve to improve the quality of Lake Texoma water for public water supply by diverting saline water before it reaches the lake. Before any of the chloride control efforts were initiated, about 3,450 tons per day of chlorides entered the Red River. Although portions of the project have been online since 1987, construction efforts were temporarily placed on hold while a cost-sharing partner for the operation and maintenance responsibilities was identified. The Water Resources Development Act of 2007 reaffirmed that operation and maintenance responsibilities would be federally funded. In 2008, funding for efforts in Texas was used to complete contract plans and specifications and continue environmental monitoring activities.

The Texas Commission on Environmental Quality (TCEQ) has the primary responsibility for enforcing state laws regarding water pollution. **Chapter 7** of the Texas Water Code also establishes laws to allow local governments to combat environmental crime, including water pollution. Local enforcement of these laws can supplement the enforcement activities of TCEQ and help protect Texas' water resources.

### 1.11.3 Invasive Species

The appearance of several invasive and/or harmful species (including zebra mussels, giant salvinia, and golden algae) poses a potential threat to water supplies throughout the state of Texas. Continued monitoring and management by water suppliers in Region C will be necessary in the coming decades. Invasive species will likely be an ongoing area of interest to Region C, as the appearance of additional invasive species in the future remains a possibility.

Zebra mussel (*Dreissena polymorpha*) is an invasive species that is native to Eurasia and is believed to have first entered the United States in 1988 through the ballast water in ships entering the Great Lakes. Zebra mussels multiply rapidly, can be easily transported on boats, and can clog

intakes, pumps, pipes and other water supply infrastructure. Additionally, zebra mussels can impact fish populations, native mussels, and birds.

TPWD has four classifications of lakes relating to zebra mussels: Infested, Positive, Suspect, and Inconclusive. Infested Lakes are those where the water body has an established, reproducing zebra mussel population. Positive Lakes are those where zebra mussels or their larvae have been detected on more than one occasion. Suspect Lakes are those where zebra mussels or their larvae have been found once in recent years. Inconclusive Lakes are those where zebra mussel DNA or an unverified suspect organism has been found. As of March 2024 TPWD [36] has identified the following reservoirs used for Region C water supply in relation to zebra mussels:

- **Infested:** Bridgeport, Eagle Mountain, Lewisville, Grapevine, Randell, Ray Roberts, Richland-Chambers, Texoma, and Worth
- **Positive:** Lavon
- **Suspect:** Ray Hubbard

Due to the number of water transfers in Region C and other potential pathways of transferring zebra mussels into a reservoir (boats, birds), reservoirs should continue to be monitored for the appearance of zebra mussels. As zebra mussels spread into Region C water supply reservoirs, the operation and maintenance cost of control and removal from water supply infrastructure could be significant. To avoid further spread of this invasive species, strategies in this plan that involve transfer of water from basins or reservoirs with known presence of zebra mussels have been modified to transfer water directly to water treatment plants.

Giant salvinia (*salvinia molesta*) is a floating plant that is native to South America. Colonies of giant salvinia can develop, covering the water surface. Under certain environmental conditions (light, temperature, and available nutrients), oxygen depletion and fish kills can occur. In addition, colonies of giant salvinia can block sunlight penetration to submerged plants. Lower water levels typically experienced during the summer months help prevent the spread of giant salvinia.

Giant salvinia was first discovered in Texas in the Houston area in 1998, and has spread to over a dozen Texas lakes, including Toledo Bend and Sam Rayburn. Due to the number of water transfers in Region C and other potential pathways of transferring, reservoirs should continue to be monitored for the appearance of giant salvinia. If giant salvinia appears in Region C water supply reservoirs, mechanical techniques and herbicide can be applied during the summer months to control the population.

Golden algae (*prymnesium parvum*) is a type of aquatic plant that produces toxins that can be lethal to fish, mussels, clams, and certain amphibians. Under certain environmental conditions, an explosive increase in the algal population can occur, which can result in fish kills. Golden algae typically occur in waters with a high TDS concentration, and appears to have a competitive advantage over

*ZEBRA MUSSELS*

beneficial algae during the winter and spring months. Golden alga blooms have occurred in the Rio Grande, Brazos, Canadian, Colorado, and Red River basins. Golden algae were first identified in Texas in the 1980s; it remains unclear whether the species is native or invasive. Research is ongoing to better understand, detect, and manage golden alga blooms.

### 1.11.4 Groundwater Drawdown

Overdevelopment of aquifers and the resulting decline in water levels poses a threat to small water suppliers and to household water use in rural areas. As water levels decline, the cost of pumping water grows and water quality generally suffers. Wells that go dry must be redrilled to reach deeper portions of the aquifer. Water level declines have been reported in localized areas in each of the major and minor aquifers in Region C. In particular, the annual pumpage from the Trinity aquifer in some counties is estimated to be greater than the annual recharge [24]. Concern about groundwater drawdown is likely to prevent any substantial increase in groundwater use in Region C and may require conversion to surface water in some areas.

### 1.11.5 Groundwater Quality

**Figure 1.3** and **Figure 1.4** shows the major and minor aquifers in Region C. Major aquifers are the Trinity aquifer and the Carrizo-Wilcox aquifer. Minor aquifers are the Woodbine aquifer, the Nacatoch aquifer, the Cross Timbers aquifer and the Queen City aquifer. Water quality in the Trinity aquifer is acceptable for most municipal and industrial purposes [37]. However, in some areas, natural concentrations of arsenic, fluoride, nitrate, chloride, iron, manganese, sulfate, and total dissolved solids in excess of either primary or secondary drinking water standards can be found. Water on the outcrop tends to be harder with relatively high iron concentration. Downdip, water tends to be softer, with concentrations of TDS, chlorides, and sulfates higher than on the outcrop. Groundwater contamination from man-made sources is found in localized areas. TWDB Report 269 reported contaminated water in wells located between Springtown in Parker County and Decatur in Wise County [24]. The apparent source of the contamination was improperly completed oil and gas wells. Other potential contaminant sources (agricultural practices, abandoned wells, septic systems, etc.) are known to exist on the Trinity outcrop, but existing data are insufficient to quantify their impact on the aquifer.

Water from the Carrizo-Wilcox aquifer is fresh to slightly saline. In the outcrop, the water is hard and low in TDS [38]. In the downdip, the water is softer, with a higher temperature and higher TDS concentrations. Hydrogen sulfide and methane may be found in localized areas. In much of the northeastern part of the aquifer, water is excessively corrosive and has high iron content. In this area, the groundwater may also have high concentrations of TDS, sulfate, and chloride. Some of these sites may be mineralized due to waters passing through lignite deposits, especially in the case of high sulfate. Another cause may be the historic practice of storing oil field brines in unlined surface storage pits.

Water quality in the layers of the Woodbine aquifer used for public water supply is good along the outcrop. Water quality decreases downdip (southeast), with increasing concentrations of sodium, chloride, TDS, and bicarbonate. High sulfate and boron concentrations may be found in Tarrant,

Dallas, Ellis, and Navarro Counties. Excessive iron concentrations also occur in parts of the Woodbine formation.

Water from the Cross Timbers aquifer occurs under mostly unconfined conditions and is typically discontinuous with isolated sandstone layers. The groundwater occurs in a shallow flow system that is susceptible to water level changes due to variable recharge and discharge. The groundwater quality ranges from fresh to brackish. The geometry and aquifer properties of water-bearing strata vary widely and contribute to variability in well yields [(39)].

The Nacatoch and Queen City aquifers provide very little water in Region C. Available data indicate that the quality of the Nacatoch in this area is acceptable for most uses. Water quality data on the Queen City aquifer in Region C are very limited.

## 1.12 Water-Related Threats to Agricultural and Natural Resources in Region C

Water-related threats to agricultural and natural resources in Region C include changes to natural flow conditions, water quality concerns, and inundation of land due to reservoir development. In general, there are few significant water-related threats to agricultural resources in Region C due to the limited use of water for agricultural purposes. Water-related threats to natural resources are more significant. Further information on how this plan is consistent with the long-term protection of the State's agricultural and natural resources is presented in **Section 6.4** of this report.

### 1.12.1 Changes to Natural Flow Conditions

Reservoir development, groundwater drawdown, and return flows of treated wastewater have greatly altered natural flow patterns in Region C. Spring flows in Region C have diminished, and many springs have dried up because of groundwater development and the resulting drawdown. This has reduced reliable flows for many tributary streams. Reservoir development also changes natural hydrology, diminishing flood flows and capturing low flows. (Some reservoirs provide steady flows in downstream reaches due to releases to empty flood control storage or meet permit requirements.) Downstream from the Dallas-Fort Worth Metroplex, base flows on the Trinity River have greatly increased due to return flows of treated wastewater. It is unlikely that future changes to flow conditions in Region C will be as dramatic as those that have already occurred. If additional reservoirs are developed, they will likely be required to release some inflow to maintain downstream stream conditions, which was often not required in the past. It is likely that return flows from the Dallas-Fort Worth area will continue to increase over the long term, thus increasing flows in the Trinity River. On balance, this will probably enhance habitat in this reach.

### 1.12.2 Water Quality Concerns

There are a number of reaches in which the TCEQ has documented concerns over water quality impacts to aquatic life or fish consumption. In general, these concerns are due to low dissolved oxygen levels or to levels of lead, pesticides, or other pollutants that can harm aquatic life or present a threat to humans eating fish in which these compounds tend to accumulate. Baseline water quality conditions used to evaluate water management strategies are included in **Appendix I**.

### 1.12.3 Inundation Due to Reservoir Development

The impacts of a new reservoir on natural resources include the inundation of habitat, often including wetlands and bottomland hardwoods, and changes to downstream flow patterns. Depending on the location, a reservoir may also inundate prime farmland. The impacts of specific projects depend on the location, the mitigation required, and the operation of the projects.

In the *2021 Region C Water Plan*, four new reservoirs were considered: Bois d'Arc Lake, Lake Ralph Hall, Tehuacana, and the Main Stem Balancing Reservoir. Bois d'Arc Lake has been completed and is actively supplying water. Lake Ralph Hall is currently under construction. The other two reservoirs are still under consideration.

## 1.13 Chapter 1 List of References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# Agenda Item V.B – Attachment

## Draft IPP Chapter 2

# CHAPTER TWO

# POPULATION AND WATER DEMAND PROJECTIONS

## OVERVIEW

*This chapter summarizes the population and water demand projections for Region C as approved by the Texas Water Development Board (TWDB).*

***Bardwell Lake***

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This chapter summarizes the population and water demand projections for Region C as approved by the Texas Water Development Board (TWDB). The chapter includes a discussion on historical growth trends in Region C, the basis of projections, and the final population and water demand projections for Region C. Region C is the most populous of the sixteen regional planning areas, making up approximately a quarter of the State's population. Region C's total population is projected to increase by ~ 60% from 9.1 million in 2030 to over 15 million in 2080. This is almost double the 2020 population of 7.7 million. This will account for almost one-third of the State's population by 2080. Similarly, Region C's demand is projected to increase as well (~63%) from 1.8 million acre-feet per year in 2030 to 2.8 million acre-feet per year in 2080. Although Region C is densely populated, the region has historically used less than 10 percent of the State's total annual water use.

## 2.1 Historical Perspective

The sixteen counties that comprise Region C have been among the fastest growing areas in Texas and the nation since the 1950s. The population of the region more than tripled from 1960 to 2020. The region's highest population density is centered in and around Dallas and Tarrant Counties.

For many years, the population growth in the region was concentrated in the cities of Dallas and Fort Worth. In the 1960s and 1970s, growth expanded into the suburbs in Dallas and Tarrant Counties. Then in the 1980s and more so since the 1990s, the growth extended into Collin, Denton, Rockwall, and Ellis Counties.

According to the U.S. Census Bureau, the 2010 population of Region C was 6,455,044. The 2020 Census determined that the Region C population grew to 7,709,194 in 2020[(1)]. The total Region C water demand was 1,382,808 acre-feet[(2)].

**Figure 2-1** shows the historical population for Region C from 1970 to 2020, and **Figure 2-2** shows the historical water use for Region C from 1990 to 2020.

*AERIAL VIEW OF RESIDENTIAL AREA*

***FIGURE 2-1 HISTORICAL POPULATION***

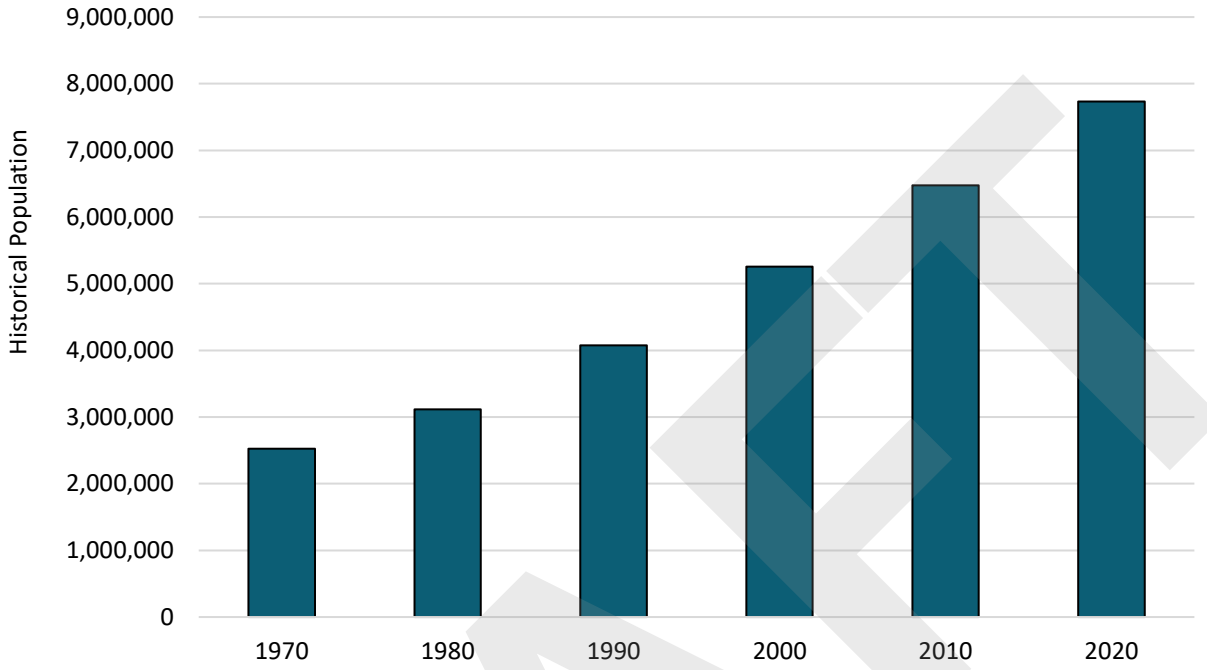
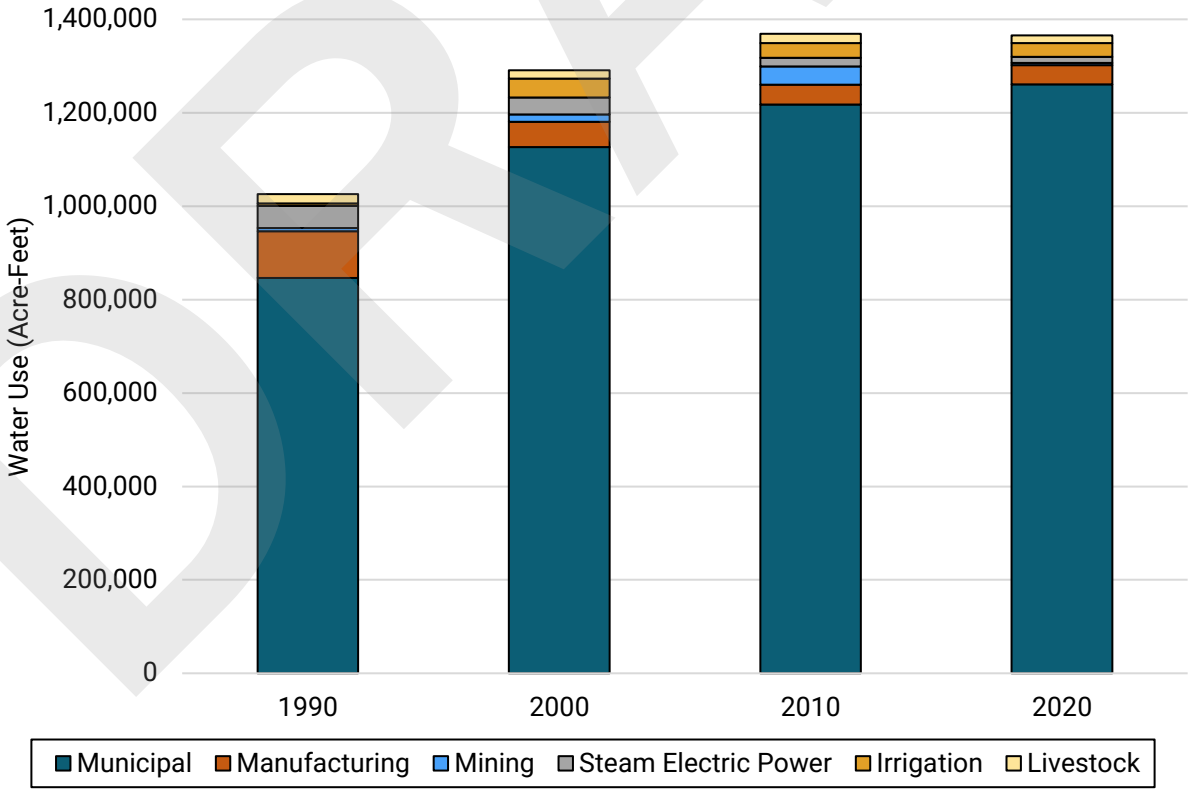



***FIGURE 2-2 HISTORICAL WATER USE IN REGION C***



## 2.2 Population Projections

Population and water demand projections have been developed for all water user groups (WUGs).

### 2.2.1 Basis for Population Projections

For this update of the Region C Plan, ten new water user groups (WUGs) have been added and one WUG was combined with another WUG. Four WUGs were also renamed. The list of new, removed, and renamed WUGs can be found in **Appendix C**. There are 296 municipal WUGs in Region C.

Population projections presented in this section are based on draft population projections provided by the Texas Water Development Board on January 23, 2023. Those draft projections were developed from county-level population projections from the Texas Demographic Center (TDC), which projected future growth using the full migration scenario (1.0) based on the 2020 U.S. decennial Census. These were adjusted to match utility service area boundaries for each WUG. Region C analyzed the draft projections and made changes based on input from water user groups and wholesale water providers (WWPs) in Region C, the North Central Texas Council of Governments, and other sources. Detailed explanation of these changes is in **Appendix C**. TWDB allowed population adjustments to be made between WUGs and counties, but initially required that the total regional population remain the same as the total of their draft projections. After further consideration, TWDB allowed a slight increase (3.05%) in the overall population projections due to the under-estimation of the Region C population in the 2020 U.S. Census and a significantly differing growth rate in the draft regional projections from the 2015-2020 growth rate.

As stated in the previous paragraph, revisions to the projections were made based on input from water user groups and wholesale water providers in Region C. Each municipal WUG in Region C was emailed a survey regarding their population projections. An example of this survey is included in **Appendix C**. In the survey, each WUG was provided TWDB's draft population projection for the 2026 Region C Water Plan along with any revisions the consultants were suggesting based on gathered data. If the WUG was not in agreement with the projections, they were asked to provide alternative projections. Twenty-nine WUGs responded with suggestions for revisions to the population projections, and those revisions were incorporated to the extent feasible. Email notification was sent to all WUGs for which revisions were made. A summary of the justification for all changes made to population projections is included in **Appendix C**.

As required by TWDB regulations, these projections were posted for public review on the Region C website in advance of the Region C Planning Group meeting at which they were considered for approval. The population projections were approved by the Region C Water Planning Group at the November 6, 2023 Public Meeting and were subsequently adopted by TWDB. No public comments were received on these projection revisions.

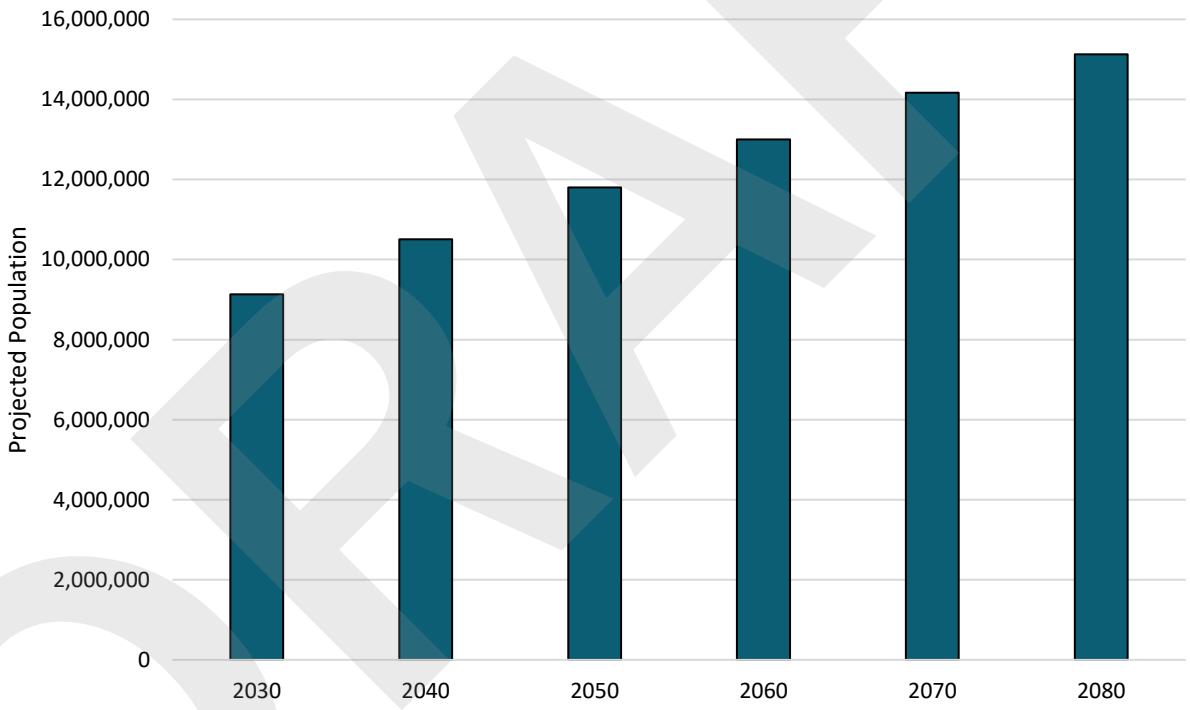
### 2.2.2 Water User Group Projections

**Figure 2-3** and **Table 2.1** present the projected population for the Region C counties, as adopted by TWDB. The projected 2030 population for Region C is 9,133,116. This 2030 projection is about 3.1 percent more than the projected 2030 population from the *2021 Region C Water Plan*[3] and about

5.6% more than the 2030 population projection from the *2016 Region C Water Plan*[4]. The 2080 population projection for Region C is 15,126,596 in the *2026 Region C Water Plan*. **Figure 2.4** shows how the population will increase across Region C from 2030 to 2080. Generally, the overall long-term population projections are consistent with previous plans.

**Attachment 1** at the end of this chapter is a summary of the projected populations for Region C, by water user group, by county, and by basin as approved by the RCWPG and TWDB. Many of the water user groups have a population that is split among multiple basins, counties, and regions. For convenience, **Attachment 2** at the end of this chapter includes the total projected populations for those water user groups in multiple basins, counties, and regions. As required for Regional Planning, this report also contains population tables generated directly from TWDB's Regional Water Planning Database (DB27). Those tables are in **Appendix D** (DB27 tables). Reports for the projected dry-year demands for WUGs and the wholesale water providers are also shown there.

***FIGURE 2-3 ADOPTED POPULATION PROJECTIONS FOR REGION C***



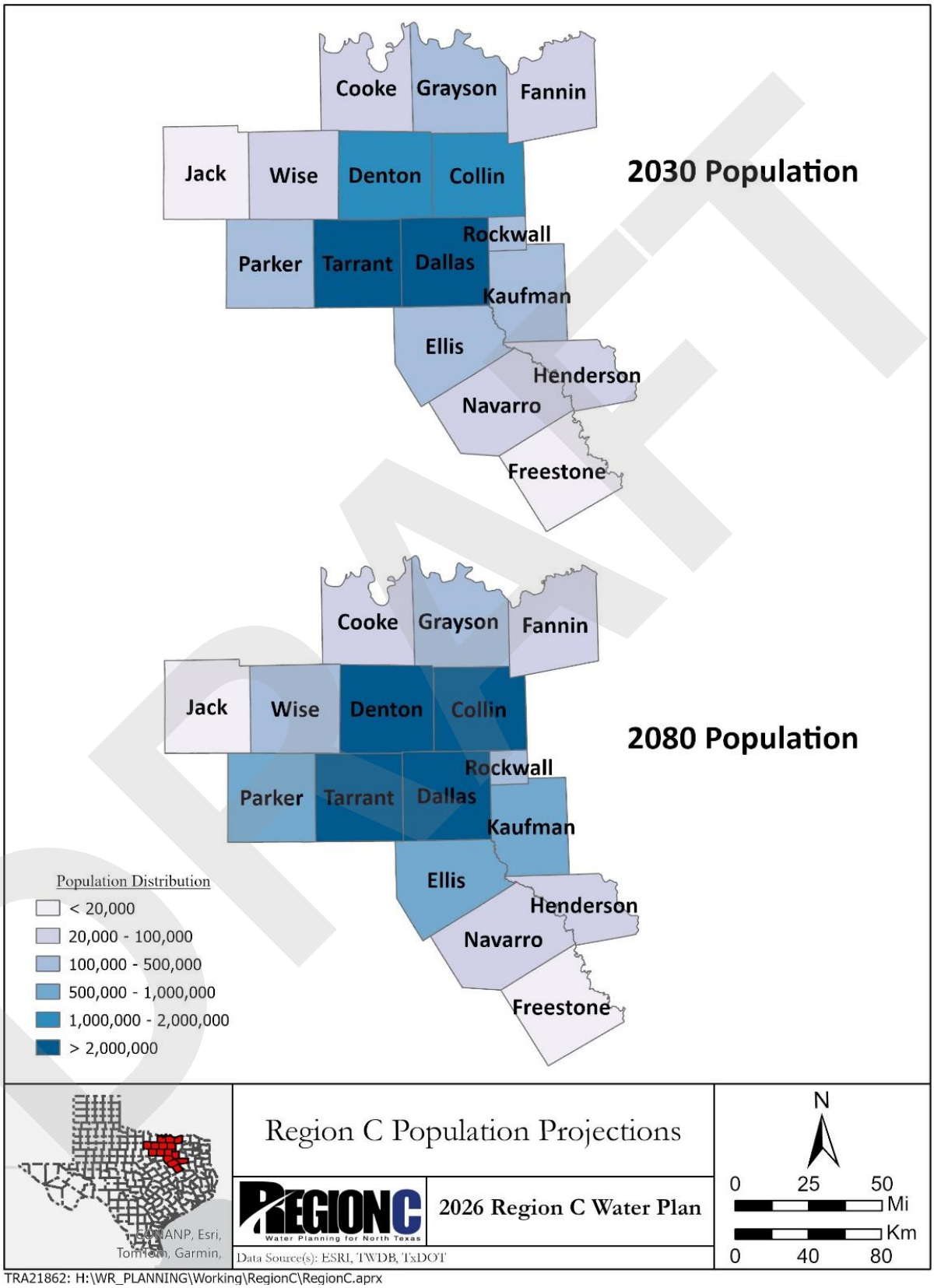

***Region C's population is increasing by more than 300 people per day.***

*TABLE 2.1 ADOPTED POPULATION PROJECTIONS FOR REGION C BY COUNTY*

| COUNTY | HISTORICAL 2000 | HISTORICAL 2010 | HISTORICAL 2020 | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
|---|---|---|---|---|---|---|---|---|---|
| **Collin** | 491,774 | 782,341 | 1,064,465 | 1,418,872 | 1,764,402 | 2,126,310 | 2,351,305 | 2,505,630 | 2,612,777 |
| **Cooke** | 36,363 | 38,437 | 41,668 | 44,200 | 45,693 | 46,466 | 47,694 | 49,742 | 51,732 |
| **Dallas** | 2,218,774 | 2,368,139 | 2,613,539 | 2,744,243 | 2,899,298 | 3,045,184 | 3,162,467 | 3,277,308 | 3,372,187 |
| **Denton** | 432,976 | 662,614 | 906,422 | 1,229,659 | 1,498,214 | 1,772,935 | 1,998,120 | 2,244,614 | 2,456,768 |
| **Ellis** | 111,360 | 149,610 | 192,455 | 241,747 | 290,486 | 346,554 | 397,716 | 455,844 | 513,797 |
| **Fannin** | 31,242 | 33,915 | 35,662 | 40,069 | 44,955 | 53,396 | 62,521 | 74,244 | 84,502 |
| **Freestone** | 17,867 | 19,816 | 19,435 | 19,057 | 18,648 | 18,067 | 17,514 | 16,905 | 16,234 |
| **Grayson** | 110,595 | 120,877 | 135,543 | 169,780 | 200,021 | 231,274 | 257,654 | 292,518 | 317,713 |
| **Henderson**[a] | 51,984 | 78,532 | 82,150 | 65,669 | 71,460 | 78,514 | 84,827 | 92,129 | 97,538 |
| **Jack** | 8,763 | 9,044 | 8,472 | 8,214 | 7,957 | 7,770 | 7,740 | 7,859 | 7,787 |
| **Kaufman** | 71,313 | 103,350 | 145,310 | 209,309 | 257,499 | 335,063 | 431,671 | 542,246 | 627,644 |
| **Navarro** | 45,124 | 47,735 | 52,624 | 57,263 | 61,718 | 65,957 | 70,146 | 75,206 | 80,385 |
| **Parker** | 88,495 | 116,927 | 148,222 | 190,921 | 254,388 | 340,869 | 442,691 | 566,315 | 675,719 |
| **Rockwall** | 43,080 | 78,337 | 107,819 | 155,987 | 214,364 | 280,320 | 340,099 | 378,980 | 403,891 |
| **Tarrant** | 1,446,219 | 1,809,034 | 2,110,640 | 2,446,041 | 2,749,019 | 2,878,997 | 3,093,389 | 3,272,494 | 3,438,106 |
| **Wise** | 48,793 | 59,127 | 68,632 | 92,085 | 125,921 | 176,629 | 234,863 | 311,934 | 369,816 |
| ***REGION C TOTAL*** | ***5,254,722*** | ***6,477,835*** | ***7,732,976*** | ***9,133,116*** | ***10,504,043*** | ***11,804,305*** | ***13,000,417*** | ***14,163,968*** | ***15,126,596*** |

[a]*Projections for Henderson County only include the portion of Henderson County located within Region C.*

***FIGURE 2-4: REGION C POPULATION PROJECTIONS***

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## 2.3 Water Demand Projections

Water demand projections are divided into two main water use categories: municipal and non-municipal. Non-municipal water use is further divided into five water use categories: irrigation, livestock, manufacturing, mining, and steam electric power for the purposes of regional planning. Additionally, non-municipal demands are sometimes referred to more simply as agricultural (irrigation and livestock) and industrial (manufacturing, mining, and steam electric).

Region C was given the opportunity to request adjustments to the water demand projections if needed. Region C did request several revisions, and those revisions are detailed in separate memoranda for each use category. **Appendix C** contains the memoranda detailing the demands for Region C.

As required by TWDB regulations, these projections were posted for public review on the Region C website in advance of the Region C Planning Group meeting at which they were considered for approval. The demand projections were approved at the November 6, 2023, Public Meeting and were subsequently adopted by TWDB. No public comments were received on these projection revisions.

### 2.3.1 Municipal Water Demand

Municipal water demand includes water used by a variety of consumers in Region C, including single-family residence, multi-family residence, and nonresidential establishments (commercial, institutional, and light industrial). It includes water utilities, cities, and aggregated rural areas (referred to collectively as "county other" for planning purposes). Residential and nonresidential consumers use water for purposes such as drinking, cooking, sanitation, cooling, and landscape watering.

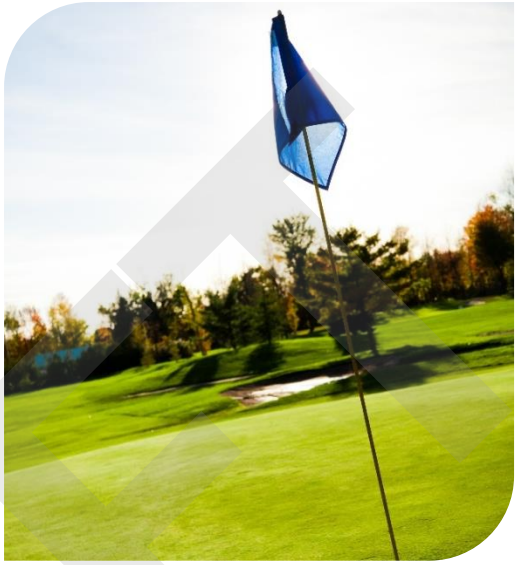
Although some nonresidential establishments are included in municipal water use, water-intensive industrial customers such as large manufacturing plants, steam electric power generation facilities, and mining operations are not included but instead have their own non-municipal categories. Examples of nonresidential municipal demand include hospitals, universities, offices, shopping, hotels, entertainment venues, airports, and telecom facilities.

The TWDB has defined municipal water user group (WUG) boundaries differently in this round of planning than in previous rounds. A municipal WUG is now defined based on utility service area boundaries instead of political boundaries.

Municipal water user groups include:

- Privately-owned utilities that provide an average of more than 100 acre-feet per year for municipal use for all owned water systems,
- Water systems serving institutions or facilities owned by the state or federal government that provide more than 100 acre-feet per year for municipal use;
- All other retail public utilities not covered in the first two bullets that provide more than 100 acre-feet per year for municipal use;

- Collective reporting units, or groups of retail public utilities that have a common association and are requested for inclusion by the regional water planning group;
- Municipal and domestic water use, referred to as county other, not included in any of the above.



The municipal water demand projections presented in this section are based on per capita dry-year water use and the adopted population projections from the previous section. On March 16, 2022, TWDB provided 2010 through 2020 historical per water use data based on the updated utility service area boundaries for Region C WUGs. Region C used this historical data to identify whether any base per capita uses should be changed. This process is outlined in the memorandum "Comparison of Historical GPCDs for Region C; Requested GPCD Changes", which is included in **Appendix C**.

With this methodology, Region C requested changes to the base per capita usage for 51 WUGs. Among the WUGs for which changes were requested are Tarrant County Other and Dallas County Other. County Other WUGs represent the area in counties that is not included in any other municipal WUG service area boundary. In Dallas and Tarrant counties, the Dallas-Fort Worth International Airport (DFWIA), a significant water user, is included in County Other. However, TWDB's historical use data and per capita calculation does not include the use for DFWIA in the Tarrant and Dallas County Other. Therefore, the per capita water use for these two WUGs was significantly revised to include DFWIA water use.

Using the final base-year per capita values for each WUG, the TWDB calculated the 2030 through 2080 per capita values incorporating the reduction in per capita values each decade expected to be caused by state and federally regulated plumbing codes (low flow plumbing fixtures, efficient residential clothes washer standards, and efficient residential dishwasher standards). TWDB then calculated the projected volume of water savings from these plumbing codes for each municipal WUG. This information (split by county and WUG) is included at the end of **Appendix C**.

On January 23, 2023, TWDB provided draft per capita projections for each WUG based on each WUG's per capita use from the *2021 Region C Water Plan* and the *2022 State Water Plan*. (In most cases, this per capita usage was from 2011.) The 2030 through 2080 projections included estimated water reductions due to savings from plumbing code requirements.

In total, Region C's projected water savings due to plumbing code is 46,333 acre-feet in 2030, increasing to 84,464 acre-feet in 2080.

## 2.3.2 Irrigation Water Demand

Irrigation water demand includes water used in irrigated field crops, vineyards, orchards, and self-supplied golf courses. Each planning cycle, the previous cycle's irrigation projections are adjusted by factors and trends including changes in the number of crops under irrigation, increases in irrigation application efficiency, changes in canal losses for surface water diversions, and changes in cropping patterns. Irrigation demand is expected to decline as a result of more efficient irrigation systems, reduced groundwater supplies, the economic difficulty of pumping water from increasingly greater depths, and the transfer of water rights from agricultural to municipal uses.

There is some demand for crop irrigation; however, this demand is mainly composed of golf courses watered by raw water or reclaimed water. The TWDB classifies the use of potable water for golf course irrigation as part of municipal use. The use of raw water or reuse of treated wastewater effluent for golf course irrigation is classified as irrigation use.

TWDB provided the draft irrigation projections on August 23, 2022. TWDB draft irrigation demands were based on an average of TWDB's 2015-2019 irrigation water use estimates. Any revisions requested by the Region C Regional Water Planning Group are summarized in **Appendix C**. **Table 2.2** summarizes the finalized, projected demands for the irrigation WUGs by county.

***TABLE 2.2 PROJECTED DEMAND FOR IRRIGATION WUGS (ACRE-FEET PER YEAR)***

| COUNTY | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
|---|---|---|---|---|---|---|
| **Collin** | 2,811 | 2,811 | 2,811 | 2,811 | 2,811 | 2,811 |
| **Cooke** | 1,038 | 1,038 | 1,038 | 1,038 | 1,038 | 1,038 |
| **Dallas** | 10,468 | 10,468 | 10,468 | 10,468 | 10,468 | 10,468 |
| **Denton** | 2,973 | 2,973 | 2,973 | 2,973 | 2,973 | 2,973 |
| **Ellis** | 2,725 | 2,725 | 2,725 | 2,725 | 2,725 | 2,725 |
| **Fannin** | 11,186 | 11,186 | 11,186 | 11,186 | 11,186 | 11,186 |
| **Freestone** | 565 | 565 | 565 | 565 | 565 | 565 |
| **Grayson** | 4,450 | 4,450 | 4,450 | 4,450 | 4,450 | 4,450 |
| **Henderson** | 743 | 743 | 743 | 743 | 743 | 743 |
| **Jack** | 84 | 84 | 84 | 84 | 84 | 84 |
| **Kaufman** | 353 | 353 | 353 | 353 | 353 | 353 |
| **Navarro** | 447 | 447 | 447 | 447 | 447 | 447 |
| **Parker** | 1,136 | 1,136 | 1,136 | 1,136 | 1,136 | 1,136 |
| **Rockwall** | 201 | 201 | 201 | 201 | 201 | 201 |
| **Tarrant** | 4,964 | 4,964 | 4,964 | 4,964 | 4,964 | 4,964 |
| **Wise** | 1,440 | 1,440 | 1,440 | 1,440 | 1,440 | 1,440 |
| ***REGION C TOTAL*** | ***45,584*** | ***45,584*** | ***45,584*** | ***45,584*** | ***45,584*** | ***45,584*** |

### 2.3.3 Livestock Water Demand

Livestock water demand consists of water used in the production of various types of livestock, including cattle (beef and dairy), hogs, poultry, horses, sheep, and goats. In most cases, it was predicted that livestock use would remain fairly constant.

TWDB provided the draft livestock projections on January 20, 2023. TWDB draft livestock demands were based on an average of TWDB's 2015-2019 livestock water use estimates. Any revisions requested by the Region C Regional Water Planning Group are summarized in **Appendix C**.

**Table 2.3** summarizes the finalized, projected demands for the livestock water user groups by county.

***TABLE 2.3 PROJECTED DEMAND FOR LIVESTOCK WUGS (ACRE-FEET PER YEAR)***

| COUNTY | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
|---|---|---|---|---|---|---|
| **Collin** | 801 | 801 | 801 | 801 | 801 | 801 |
| **Cooke** | 1,508 | 1,508 | 1,508 | 1,508 | 1,508 | 1,508 |
| **Dallas** | 248 | 248 | 248 | 248 | 248 | 248 |
| **Denton** | 840 | 840 | 840 | 840 | 840 | 840 |
| **Ellis** | 923 | 923 | 923 | 923 | 923 | 923 |
| **Fannin** | 1,375 | 1,375 | 1,375 | 1,375 | 1,375 | 1,375 |
| **Freestone** | 1,430 | 1,430 | 1,430 | 1,430 | 1,430 | 1,430 |
| **Grayson** | 1,106 | 1,106 | 1,106 | 1,106 | 1,106 | 1,106 |
| **Henderson** | 694 | 694 | 694 | 694 | 694 | 694 |
| **Jack** | 685 | 685 | 685 | 685 | 685 | 685 |
| **Kaufman** | 1,413 | 1,413 | 1,413 | 1,413 | 1,413 | 1,413 |
| **Navarro** | 1,512 | 1,512 | 1,512 | 1,512 | 1,512 | 1,512 |
| **Parker** | 1,503 | 1,503 | 1,503 | 1,503 | 1,503 | 1,503 |
| **Rockwall** | 106 | 106 | 106 | 106 | 106 | 106 |
| **Tarrant** | 341 | 341 | 341 | 341 | 341 | 341 |
| **Wise** | 1,415 | 1,415 | 1,415 | 1,415 | 1,415 | 1,415 |
| ***REGION C TOTAL*** | ***15,900*** | ***15,900*** | ***15,900*** | ***15,900*** | ***15,900*** | ***15,900*** |

## 2.3.4 Manufacturing Water Demand

Manufacturing water demand consists of the water necessary for large facilities including those that process chemicals, oil and gas, food, paper, and other materials. Demands take into consideration economic projections for the manufacturing industry as well as incorporated efficiency improvements from new technology. Growth in manufacturing water demand was generally predicted to be located in the same counties in which the facilities currently exist. Manufacturing demands in Region C includes larger manufacturing facilities, food processing operations, defense industry operations, and others. TWDB provided the draft manufacturing projections on January 20, 2022. TWDB draft manufacturing demands were based on 2015-2019 data from TWDB's Water Use Survey.

For the current round of regional water planning, the TWDB adopted a new policy for projecting water demands for manufacturing WUGs. The baseline was determined by the maximum water use volume and estimated unaccounted water. Since the first projected decade (2030) is more than a decade out from the baseline water use data, the historical water use rate of change from 2010-2019 was used to adjust the baseline value to 2030. For the planning decades after 2030, an annual rate of change was applied based on the 2010-2019 U.S. Census Bureau's County Business Patterns (CBP). **Table 2.4** summarizes the finalized, projected demands for the manufacturing WUGs by county.

***TABLE 2.4 PROJECTED DEMAND FOR MANUFACTURING WUGS (ACRE-FEET PER YEAR)***

| COUNTY | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
|---|---|---|---|---|---|---|
| **Collin** | 8,623 | 8,942 | 9,273 | 9,616 | 9,972 | 10,341 |
| **Cooke** | 139 | 144 | 149 | 155 | 161 | 167 |
| **Dallas** | 21,497 | 22,292 | 23,117 | 23,972 | 24,859 | 25,779 |
| **Denton** | 605 | 627 | 650 | 674 | 699 | 725 |
| **Ellis** | 5,660 | 5,869 | 6,086 | 6,311 | 6,545 | 6,787 |
| **Fannin** | 5 | 5 | 5 | 5 | 5 | 5 |
| **Freestone** | 55 | 57 | 59 | 61 | 63 | 65 |
| **Grayson** | 11,148 | 19,092 | 19,197 | 19,306 | 19,419 | 19,536 |
| **Henderson** | 1,269 | 1,316 | 1,365 | 1,416 | 1,468 | 1,522 |
| **Jack** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Kaufman** | 1,177 | 1,221 | 1,266 | 1,313 | 1,362 | 1,412 |
| **Navarro** | 1,634 | 1,694 | 1,757 | 1,822 | 1,889 | 1,959 |
| **Parker** | 85 | 88 | 91 | 94 | 97 | 101 |
| **Rockwall** | 445 | 461 | 478 | 496 | 514 | 533 |
| **Tarrant** | 12,339 | 12,796 | 13,269 | 13,760 | 14,269 | 14,797 |
| **Wise** | 254 | 263 | 273 | 283 | 293 | 304 |
| ***REGION C TOTAL*** | ***64,935*** | ***74,867*** | ***77,035*** | ***79,284*** | ***81,615*** | ***84,033*** |

## 2.3.5 Mining Water Demand

Mining water demand consists of water used in the exploration, development and extraction of oil, gas, coal, aggregates, and other materials.

TWDB provided the draft mining projections on August 23, 2022. TWDB draft mining demands were based on a study by the University of Texas' Bureau of Economic Geology (BEG)[5].

Any revisions requested by the Region C Regional Water Planning Group are summarized in **Appendix C**. **Table 2.5** summarizes the finalized, projected demands for the mining water user groups by county.

***TABLE 2.5 PROJECTED DEMAND FOR MINING WUGS***

| COUNTY | VALUES IN ACRE-FEET PER YEAR | | | | | |
|---|---|---|---|---|---|---|
| | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Collin** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Cooke** | 12 | 12 | 12 | 13 | 13 | 13 |
| **Dallas** | 32 | 32 | 32 | 32 | 32 | 32 |
| **Denton** | 259 | 75 | 87 | 99 | 111 | 120 |
| **Ellis** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Fannin** | 1,747 | 2,070 | 2,561 | 3,376 | 4,258 | 5,130 |
| **Freestone** | 200 | 200 | 200 | 200 | 200 | 200 |
| **Grayson** | 295 | 295 | 295 | 295 | 295 | 295 |
| **Henderson** | 15 | 16 | 17 | 19 | 22 | 26 |
| **Jack** | 35 | 35 | 35 | 35 | 35 | 35 |
| **Kaufman** | 1,453 | 1,736 | 2,101 | 2,679 | 3,357 | 4,134 |
| **Navarro** | 1,748 | 1,915 | 2,125 | 2,352 | 2,723 | 3,293 |
| **Parker** | 1,062 | 1,126 | 1,385 | 1,712 | 2,060 | 2,411 |
| **Rockwall** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Tarrant** | 525 | 106 | 115 | 121 | 129 | 136 |
| **Wise** | 3,084 | 3,074 | 3,650 | 4,246 | 5,193 | 6,663 |
| ***REGION C TOTAL*** | ***10,467*** | ***10,692*** | ***12,615*** | ***15,179*** | ***18,428*** | ***22,488*** |

## 2.3.7 Steam Electric Water Demand

**Steam Electric Power Plants**

- Calpine Plant (Freestone)
- Garland Power and Light Spencer Plant
- Forney Energy Center
- Exelon Mountain Creek Station
- Panda Power Company
- Luminant Trinidad Plant
- Ennis Power Plant
- Midlothian Energy LLC
- Handley Power Plant
- Others

Steam Electric water demand consists of water used for the purpose of generating power. A generation facility usually diverts surface waters, uses it for cooling purposes, and then returns a large portion of the water to a body of water. The water use for the facility is only the volume consumed in the cooling process and not returned. Most future water demand growth is expected to take place in the same counties in which current facilities exist. In Freestone and Tarrant, there are two retired facilities that still retain their water right for power generation. To meet the growing population and need for electrical generation, two-thirds of the consumptive water right for the facilities may be used be new SEP facilities in the future. These lower amounts to be used in future power generation reflect newer and more efficient units. TWDB provided the draft steam electric projections on January 20, 2022. TWDB draft steam electric power generation demands were based on 2015-2019 historical use data.

**Table *2.6*** summarizes the finalized, projected demands for the steam electric power water user groups by county.

***TABLE 2.6 PROJECTED DEMAND FOR STEAM ELECTRIC POWER WUGS***

| COUNTY | VALEUS IN ACRE-FEET PER YEAR | | | | | |
|---|---|---|---|---|---|---|
| | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Collin** | 40 | 40 | 40 | 40 | 40 | 40 |
| **Cooke** | 6 | 6 | 6 | 6 | 6 | 6 |
| **Dallas** | 2,412 | 2,412 | 2,412 | 2,412 | 2,412 | 2,412 |
| **Denton** | 1,175 | 1,175 | 1,175 | 1,175 | 1,175 | 1,175 |
| **Ellis** | 1,854 | 1,854 | 1,854 | 1,854 | 1,854 | 1,854 |
| **Fannin** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Freestone** | 4,831 | 14,269 | 14,269 | 14,269 | 14,269 | 14,269 |
| **Grayson** | 4,573 | 4,573 | 4,573 | 4,573 | 4,573 | 4,573 |
| **Henderson** | 132 | 2,192 | 2,192 | 2,192 | 2,192 | 2,192 |
| **Jack** | 3,772 | 3,772 | 3,772 | 3,772 | 3,772 | 3,772 |
| **Kaufman** | 9,793 | 9,793 | 9,793 | 9,793 | 9,793 | 9,793 |
| **Navarro** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Parker** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Rockwall** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Tarrant** | 1,157 | 4,249 | 4,249 | 4,249 | 4,249 | 4,249 |
| **Wise** | 2,894 | 2,894 | 2,894 | 2,894 | 2,894 | 2,894 |
| ***REGION C TOTAL*** | ***32,639*** | ***47,229*** | ***47,229*** | ***47,229*** | ***47,229*** | ***47,229*** |

## 2.3.8 Water User Group Projections

**Figure 2-5** summarizes the adopted projections for total dry-year water use by category in Region C. As can be seen in the figure, Region C's total water demand is heavily municipal (over 90 percent). **Table 2.7** presents the projected total dry-year water demand for the Region C counties, as adopted by TWDB.

**Table 2.8** and **Table 2.9** show the projected dry-year water demand for the region by type of use. **Table 2.9** summarizes the projected dry-year water demand for each Region C county by type of use.

For more detail, the municipal water demand projections are listed by water user group by county as well as by basin in **Attachment 3** at the end of this chapter.

**Attachment 4** lists the total projected municipal water demand for those water user groups that are split among multiple basins, counties, and regions.

***FIGURE 2-5 ADOPTED PROJECTIONS FOR TOTAL DRY-YEAR WATER USE BY CATEGORY IN REGION C***

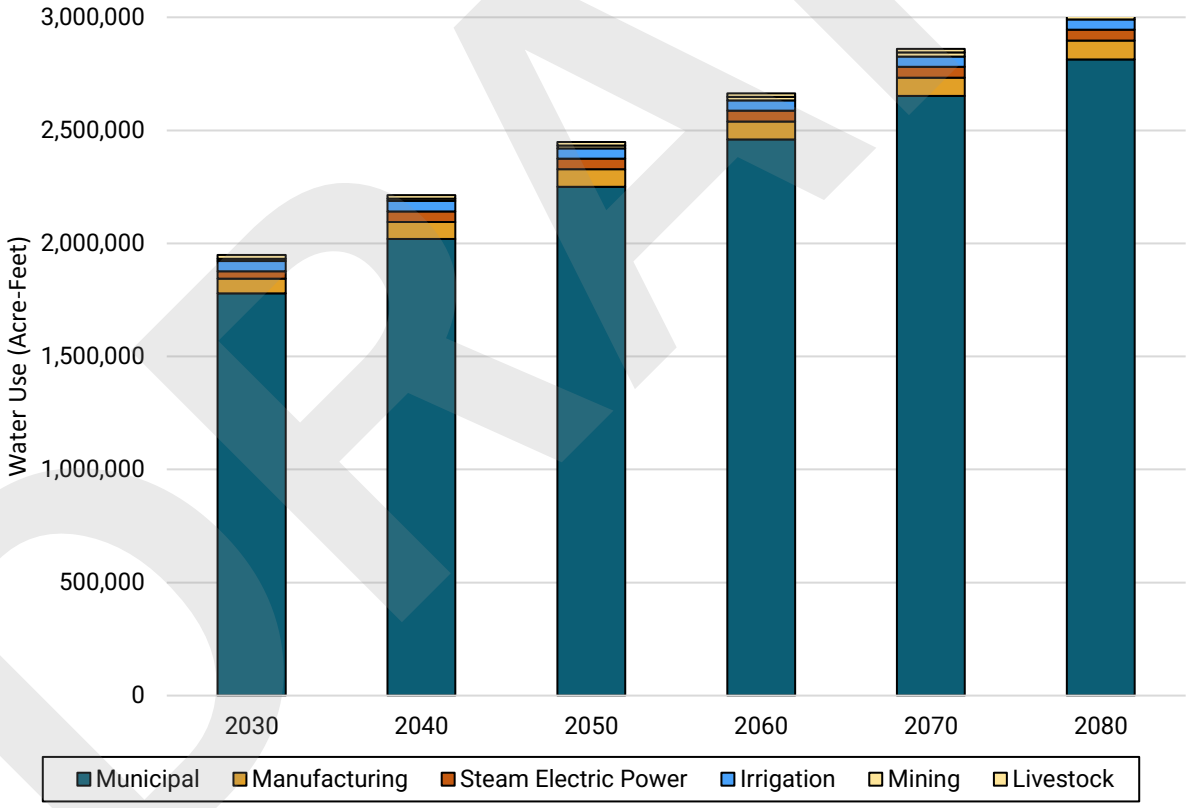


*TABLE 2.7 ADOPTED TOTAL DRY-YEAR WATER DEMAND PROJECTIONS FOR REGION C BY COUNTY*

| COUNTY | PROJECTED DRY YEAR WATER DEMAND (ACRE-FFET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|
| | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| Collin | 315,084 | 376,604 | 445,569 | 487,945 | 513,708 | 532,582 |
| Cooke | 9,144 | 9,345 | 9,464 | 9,643 | 9,935 | 10,218 |
| Dallas | 588,041 | 617,407 | 645,928 | 669,521 | 692,645 | 712,879 |
| Denton | 236,318 | 283,138 | 329,838 | 366,045 | 405,842 | 441,009 |
| Ellis | 57,400 | 67,132 | 78,443 | 88,594 | 99,681 | 110,919 |
| Fannin | 19,627 | 20,619 | 22,364 | 24,540 | 27,177 | 29,580 |
| Freestone | 9,928 | 19,291 | 19,205 | 19,108 | 19,005 | 18,898 |
| Grayson | 54,245 | 67,933 | 73,732 | 78,945 | 85,660 | 90,355 |
| Henderson | 12,965 | 15,951 | 17,245 | 18,385 | 19,713 | 20,664 |
| Jack | 5,852 | 5,813 | 5,805 | 5,820 | 5,865 | 5,872 |
| Kaufman | 43,359 | 49,805 | 60,450 | 73,713 | 88,988 | 100,484 |
| Navarro | 15,156 | 16,093 | 17,046 | 17,985 | 19,187 | 20,628 |
| Parker | 33,291 | 41,987 | 54,233 | 68,619 | 85,846 | 101,206 |
| Rockwall | 28,848 | 38,732 | 50,519 | 60,940 | 67,289 | 71,482 |
| Tarrant | 496,189 | 556,887 | 584,574 | 630,705 | 665,633 | 698,257 |
| Wise | 22,940 | 27,319 | 34,750 | 43,114 | 54,362 | 63,752 |
| ***REGION C TOTAL*** | ***1,948,387*** | ***2,214,056*** | ***2,449,165*** | ***2,663,622*** | ***2,860,536*** | ***3,028,785*** |

*TABLE 2.8 ADOPTED DRY-YEAR WATER DEMAND PROJECTIONS FOR REGION C BY TYPE OF USE*

| USE | PROJECTED DRY YEAR WATER DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|
| | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| Municipal | 1,778,862 | 2,019,784 | 2,250,802 | 2,460,446 | 2,651,780 | 2,813,551 |
| Manufacturing | 64,935 | 74,867 | 77,035 | 79,284 | 81,615 | 84,033 |
| Steam Electric | 32,639 | 47,229 | 47,229 | 47,229 | 47,229 | 47,229 |
| Irrigation | 45,584 | 45,584 | 45,584 | 45,584 | 45,584 | 45,584 |
| Mining | 10,467 | 10,692 | 12,615 | 15,179 | 18,428 | 22,488 |
| Livestock | 15,900 | 15,900 | 15,900 | 15,900 | 15,900 | 15,900 |
| ***REGION C TOTAL*** | ***1,948,387*** | ***2,214,056*** | ***2,449,165*** | ***2,663,622*** | ***2,860,536*** | ***3,028,785*** |

*TABLE 2.9 ADOPTED DRY-YEAR WATER DEMAND PROJECTIONS BY COUNTY AND TYPE OF USE*

| TYPE OF USE | PROJECTED DRY YEAR WATER DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|
| | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Collin County** | | | | | | |
| Municipal | 302,809 | 364,010 | 432,644 | 474,677 | 500,084 | 518,589 |
| Manufacturing | 8,623 | 8,942 | 9,273 | 9,616 | 9,972 | 10,341 |
| Steam Electric Power | 40 | 40 | 40 | 40 | 40 | 40 |
| Irrigation | 2,811 | 2,811 | 2,811 | 2,811 | 2,811 | 2,811 |
| Mining | 0 | 0 | 0 | 0 | 0 | 0 |
| Livestock | 801 | 801 | 801 | 801 | 801 | 801 |
| ***COLLIN TOTAL*** | ***315,084*** | ***376,604*** | ***445,569*** | ***487,945*** | ***513,708*** | ***532,582*** |
| **Cooke County** | | | | | | |
| Municipal | 6,441 | 6,637 | 6,751 | 6,923 | 7,209 | 7,486 |
| Manufacturing | 139 | 144 | 149 | 155 | 161 | 167 |
| Steam Electric Power | 6 | 6 | 6 | 6 | 6 | 6 |
| Irrigation | 1,038 | 1,038 | 1,038 | 1,038 | 1,038 | 1,038 |
| Mining | 12 | 12 | 12 | 13 | 13 | 13 |
| Livestock | 1,508 | 1,508 | 1,508 | 1,508 | 1,508 | 1,508 |
| ***COOKE TOTAL*** | ***9,144*** | ***9,345*** | ***9,464*** | ***9,643*** | ***9,935*** | ***10,218*** |
| **Dallas County** | | | | | | |
| Municipal | 553,384 | 581,955 | 609,651 | 632,389 | 654,626 | 673,940 |
| Manufacturing | 21,497 | 22,292 | 23,117 | 23,972 | 24,859 | 25,779 |
| Steam Electric Power | 2,412 | 2,412 | 2,412 | 2,412 | 2,412 | 2,412 |
| Irrigation | 10,468 | 10,468 | 10,468 | 10,468 | 10,468 | 10,468 |
| Mining | 32 | 32 | 32 | 32 | 32 | 32 |
| Livestock | 248 | 248 | 248 | 248 | 248 | 248 |
| ***DALLAS TOTAL*** | ***588,041*** | ***617,407*** | ***645,928*** | ***669,521*** | ***692,645*** | ***712,879*** |
| **Denton County** | | | | | | |
| Municipal | 230,466 | 277,448 | 324,113 | 360,284 | 400,044 | 435,176 |
| Manufacturing | 605 | 627 | 650 | 674 | 699 | 725 |
| Steam Electric Power | 1,175 | 1,175 | 1,175 | 1,175 | 1,175 | 1,175 |
| Irrigation | 2,973 | 2,973 | 2,973 | 2,973 | 2,973 | 2,973 |
| Mining | 259 | 75 | 87 | 99 | 111 | 120 |
| Livestock | 840 | 840 | 840 | 840 | 840 | 840 |
| ***DENTON TOTAL*** | ***236,318*** | ***283,138*** | ***329,838*** | ***366,045*** | ***405,842*** | ***441,009*** |
| **Ellis County** | | | | | | |
| Municipal | 46,238 | 55,761 | 66,855 | 76,781 | 87,634 | 98,630 |
| Manufacturing | 5,660 | 5,869 | 6,086 | 6,311 | 6,545 | 6,787 |
| Steam Electric Power | 1,854 | 1,854 | 1,854 | 1,854 | 1,854 | 1,854 |
| Irrigation | 2,725 | 2,725 | 2,725 | 2,725 | 2,725 | 2,725 |
| Mining | 0 | 0 | 0 | 0 | 0 | 0 |
| Livestock | 923 | 923 | 923 | 923 | 923 | 923 |

| TYPE OF USE | PROJECTED DRY YEAR WATER DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|
| | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| ***ELLIS TOTAL*** | ***57,400*** | ***67,132*** | ***78,443*** | ***88,594*** | ***99,681*** | ***110,919*** |
| **Fannin County** | | | | | | |
| Municipal | 5,314 | 5,983 | 7,237 | 8,598 | 10,353 | 11,884 |
| Manufacturing | 5 | 5 | 5 | 5 | 5 | 5 |
| Steam Electric Power | 0 | 0 | 0 | 0 | 0 | 0 |
| Irrigation | 11,186 | 11,186 | 11,186 | 11,186 | 11,186 | 11,186 |
| Mining | 1,747 | 2,070 | 2,561 | 3,376 | 4,258 | 5,130 |
| Livestock | 1,375 | 1,375 | 1,375 | 1,375 | 1,375 | 1,375 |
| ***FANNIN TOTAL*** | ***19,627*** | ***20,619*** | ***22,364*** | ***24,540*** | ***27,177*** | ***29,580*** |
| **Freestone County** | | | | | | |
| Municipal | 2,847 | 2,770 | 2,682 | 2,583 | 2,478 | 2,369 |
| Manufacturing | 55 | 57 | 59 | 61 | 63 | 65 |
| Steam Electric Power | 4,831 | 14,269 | 14,269 | 14,269 | 14,269 | 14,269 |
| Irrigation | 565 | 565 | 565 | 565 | 565 | 565 |
| Mining | 200 | 200 | 200 | 200 | 200 | 200 |
| Livestock | 1,430 | 1,430 | 1,430 | 1,430 | 1,430 | 1,430 |
| ***FREESTONE TOTAL*** | ***9,928*** | ***19,291*** | ***19,205*** | ***19,108*** | ***19,005*** | ***18,898*** |
| **Grayson County** | | | | | | |
| Municipal | 32,673 | 38,417 | 44,111 | 49,215 | 55,817 | 60,395 |
| Manufacturing | 11,148 | 19,092 | 19,197 | 19,306 | 19,419 | 19,536 |
| Steam Electric Power | 4,573 | 4,573 | 4,573 | 4,573 | 4,573 | 4,573 |
| Irrigation | 4,450 | 4,450 | 4,450 | 4,450 | 4,450 | 4,450 |
| Mining | 295 | 295 | 295 | 295 | 295 | 295 |
| Livestock | 1,106 | 1,106 | 1,106 | 1,106 | 1,106 | 1,106 |
| ***GRAYSON TOTAL*** | ***54,245*** | ***67,933*** | ***73,732*** | ***78,945*** | ***85,660*** | ***90,355*** |
| **Henderson County (Region C Portion Only)** | | | | | | |
| Municipal | 10,112 | 10,990 | 12,234 | 13,321 | 14,594 | 15,487 |
| Manufacturing | 1,269 | 1,316 | 1,365 | 1,416 | 1,468 | 1,522 |
| Steam Electric Power | 132 | 2,192 | 2,192 | 2,192 | 2,192 | 2,192 |
| Irrigation | 743 | 743 | 743 | 743 | 743 | 743 |
| Mining | 15 | 16 | 17 | 19 | 22 | 26 |
| Livestock | 694 | 694 | 694 | 694 | 694 | 694 |
| ***HENDERSON TOTAL*** | ***12,965*** | ***15,951*** | ***17,245*** | ***18,385*** | ***19,713*** | ***20,664*** |
| **Jack County** | | | | | | |
| Municipal | 1,276 | 1,237 | 1,229 | 1,244 | 1,289 | 1,296 |
| Manufacturing | 0 | 0 | 0 | 0 | 0 | 0 |
| Steam Electric Power | 3,772 | 3,772 | 3,772 | 3,772 | 3,772 | 3,772 |
| Irrigation | 84 | 84 | 84 | 84 | 84 | 84 |
| Mining | 35 | 35 | 35 | 35 | 35 | 35 |
| Livestock | 685 | 685 | 685 | 685 | 685 | 685 |
| ***JACK TOTAL*** | ***5,852*** | ***5,813*** | ***5,805*** | ***5,820*** | ***5,865*** | ***5,872*** |
| **Kaufman County** | | | | | | |
| Municipal | 29,170 | 35,289 | 45,524 | 58,162 | 72,710 | 83,379 |
| Manufacturing | 1,177 | 1,221 | 1,266 | 1,313 | 1,362 | 1,412 |
| Steam Electric Power | 9,793 | 9,793 | 9,793 | 9,793 | 9,793 | 9,793 |
| Irrigation | 353 | 353 | 353 | 353 | 353 | 353 |

| TYPE OF USE | PROJECTED DRY YEAR WATER DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|
| | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| Mining | 1,453 | 1,736 | 2,101 | 2,679 | 3,357 | 4,134 |
| Livestock | 1,413 | 1,413 | 1,413 | 1,413 | 1,413 | 1,413 |
| ***KAUFMAN TOTAL*** | ***43,359*** | ***49,805*** | ***60,450*** | ***73,713*** | ***88,988*** | ***100,484*** |
| **Navarro County** | | | | | | |
| Municipal | 9,815 | 10,525 | 11,205 | 11,852 | 12,616 | 13,417 |
| Manufacturing | 1,634 | 1,694 | 1,757 | 1,822 | 1,889 | 1,959 |
| Steam Electric Power | 0 | 0 | 0 | 0 | 0 | 0 |
| Irrigation | 447 | 447 | 447 | 447 | 447 | 447 |
| Mining | 1,748 | 1,915 | 2,125 | 2,352 | 2,723 | 3,293 |
| Livestock | 1,512 | 1,512 | 1,512 | 1,512 | 1,512 | 1,512 |
| ***NAVARRO TOTAL*** | ***15,156*** | ***16,093*** | ***17,046*** | ***17,985*** | ***19,187*** | ***20,628*** |
| **Parker County** | | | | | | |
| Municipal | 29,505 | 38,134 | 50,118 | 64,174 | 81,050 | 96,055 |
| Manufacturing | 85 | 88 | 91 | 94 | 97 | 101 |
| Steam Electric Power | 0 | 0 | 0 | 0 | 0 | 0 |
| Irrigation | 1,136 | 1,136 | 1,136 | 1,136 | 1,136 | 1,136 |
| Mining | 1,062 | 1,126 | 1,385 | 1,712 | 2,060 | 2,411 |
| Livestock | 1,503 | 1,503 | 1,503 | 1,503 | 1,503 | 1,503 |
| ***PARKER TOTAL*** | ***33,291*** | ***41,987*** | ***54,233*** | ***68,619*** | ***85,846*** | ***101,206*** |
| **Rockwall County** | | | | | | |
| Municipal | 28,096 | 37,964 | 49,734 | 60,137 | 66,468 | 70,642 |
| Manufacturing | 445 | 461 | 478 | 496 | 514 | 533 |
| Steam Electric Power | 0 | 0 | 0 | 0 | 0 | 0 |
| Irrigation | 201 | 201 | 201 | 201 | 201 | 201 |
| Mining | 0 | 0 | 0 | 0 | 0 | 0 |
| Livestock | 106 | 106 | 106 | 106 | 106 | 106 |
| ***ROCKWALL TOTAL*** | ***28,848*** | ***38,732*** | ***50,519*** | ***60,940*** | ***67,289*** | ***71,482*** |
| **Tarrant County** | | | | | | |
| Municipal | 476,863 | 534,431 | 561,636 | 607,270 | 641,681 | 673,770 |
| Manufacturing | 12,339 | 12,796 | 13,269 | 13,760 | 14,269 | 14,797 |
| Steam Electric Power | 1,157 | 4,249 | 4,249 | 4,249 | 4,249 | 4,249 |
| Irrigation | 4,964 | 4,964 | 4,964 | 4,964 | 4,964 | 4,964 |
| Mining | 525 | 106 | 115 | 121 | 129 | 136 |
| Livestock | 341 | 341 | 341 | 341 | 341 | 341 |
| ***TARRANT TOATAL*** | ***496,189*** | ***556,887*** | ***584,574*** | ***630,705*** | ***665,633*** | ***698,257*** |
| **Wise County** | | | | | | |
| Municipal | 13,853 | 18,233 | 25,078 | 32,836 | 43,127 | 51,036 |
| Manufacturing | 254 | 263 | 273 | 283 | 293 | 304 |
| Steam Electric Power | 2,894 | 2,894 | 2,894 | 2,894 | 2,894 | 2,894 |
| Irrigation | 1,440 | 1,440 | 1,440 | 1,440 | 1,440 | 1,440 |
| Mining | 3,084 | 3,074 | 3,650 | 4,246 | 5,193 | 6,663 |
| Livestock | 1,415 | 1,415 | 1,415 | 1,415 | 1,415 | 1,415 |
| ***WISE TOTAL*** | ***22,940*** | ***27,319*** | ***34,750*** | ***43,114*** | ***54,362*** | ***63,752*** |

## 2.3.9 Water Provider Projections

**Table 2.10** shows the projected dry-year demand in Region C by major, regional and wholesale water provider. **Attachment 5** shows the population served by each major water provider and the demand for each major water provider by demand category.

***TABLE 2.10 PROJECTED DRY-YEAR WATER DEMAND (ACRE-FT/YEAR) BY WHOLESALE WATER PROVIDER***

| WHOLESALE WATER PROVIDER | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
|---|---|---|---|---|---|---|
| **Major Water Providers** | | | | | | |
| North Texas Municipal Water District | 521,343 | 607,451 | 698,545 | 773,169 | 818,760 | 847,375 |
| Tarrant Regional Water District | 581,393 | 679,910 | 737,799 | 815,557 | 885,144 | 955,351 |
| Dallas Water Utilities | 545,087 | 583,909 | 626,907 | 659,136 | 694,970 | 727,530 |
| Upper Trinity Regional Water District | 77,029 | 108,290 | 143,680 | 169,249 | 191,523 | 209,574 |
| Trinity River Authority | 207,716 | 223,989 | 232,729 | 241,808 | 250,392 | 248,831 |
| Fort Worth | 337,144 | 386,156 | 405,721 | 436,498 | 471,287 | 503,806 |
| **Regional Wholesale Water Providers** | | | | | | |
| Corsicana | 12,883 | 13,779 | 14,666 | 15,522 | 16,498 | 17,526 |
| Greater Texoma Utility Authority | 50,911 | 77,404 | 87,857 | 97,219 | 104,665 | 107,999 |
| **Other Region C Wholesale Water Providers** | | | | | | |
| Arlington | 81,645 | 88,380 | 94,132 | 98,825 | 105,137 | 108,524 |
| Athens Municipal Water Authority | 4,676 | 5,248 | 6,272 | 7,155 | 8,217 | 8,884 |
| Dallas County Park Cities MUD | 15,321 | 15,339 | 15,324 | 15,321 | 15,320 | 15,320 |
| Denison | 13,480 | 16,751 | 19,693 | 22,661 | 26,522 | 28,690 |
| Denton | 33,535 | 42,271 | 51,886 | 61,299 | 72,966 | 84,374 |
| Ennis | 6,868 | 7,159 | 7,487 | 7,798 | 8,144 | 8,525 |
| Forney | 19,423 | 21,532 | 25,308 | 29,885 | 34,878 | 37,981 |
| Gainesville | 3,690 | 3,766 | 3,810 | 3,946 | 4,188 | 4,427 |
| Garland | 51,674 | 54,825 | 56,840 | 58,337 | 58,708 | 58,800 |
| Grand Prairie | 36,679 | 41,393 | 46,254 | 47,524 | 49,261 | 49,281 |
| Mansfield | 5,683 | 8,212 | 11,030 | 14,000 | 17,339 | 21,108 |
| Midlothian | 19,851 | 21,793 | 23,509 | 25,123 | 26,809 | 28,138 |
| Mustang SUD | 20,221 | 27,040 | 34,788 | 42,472 | 48,626 | 53,920 |
| North Richland Hills | 16,664 | 17,557 | 17,802 | 17,996 | 18,278 | 18,278 |
| Princeton | 6,401 | 12,286 | 16,433 | 18,378 | 20,081 | 20,323 |
| Rockett SUD | 6,442 | 7,340 | 8,449 | 9,464 | 11,013 | 12,298 |
| Rockwall | 15,879 | 19,442 | 25,707 | 32,027 | 33,712 | 34,567 |
| Seagoville | 2,547 | 2,789 | 2,955 | 3,079 | 3,217 | 3,367 |
| Sherman | 14,110 | 22,179 | 22,817 | 23,412 | 23,943 | 24,230 |
| Terrell | 7,103 | 8,505 | 10,947 | 13,610 | 16,880 | 19,737 |
| Walnut Creek SUD | 55 | 87 | 158 | 267 | 436 | 578 |
| Waxahachie | 13,304 | 16,009 | 18,831 | 21,757 | 25,021 | 28,602 |
| Weatherford | 0 | 200 | 200 | 1,400 | 2,700 | 4,200 |
| Wise County WSD | 2,940 | 3,476 | 4,671 | 5,747 | 7,262 | 8,411 |
| **Wholesale Water Providers based in Other Regions [a]** | | | | | | |
| Sabine River Authority | 234,513 | 234,065 | 233,729 | 233,280 | 232,832 | 232,495 |
| Upper Neches River MWA | 0 | 95,086 | 93,967 | 92,874 | 91,778 | 90,673 |
| Sulphur River Municipal Water District | 11,292 | 11,023 | 10,755 | 10,486 | 10,217 | 9,948 |
| Sulphur River Basin Authority | 0 | 0 | 0 | 361,200 | 361,200 | 361,200 |
| Red River Authority of Texas | 254 | 304 | 347 | 390 | 436 | 486 |

[a] *Only the demand from Region C customers*Chapter 2 List of References

(1) Texas Water Development Board: Historical and Board-Adopted Projected Population | Region C, Austin, [Online], Available URL: http://www.twdb.texas.gov/waterplanning/data/projections/2027/municipal.asp, accessed July 1, 2024.

(2) Texas Water Development Board: 2020 Texas Water Use Summary Estimates for Region C, Austin, [Online], Available URL: https://www3.twdb.texas.gov/apps/reports/WU_REP/SumFinal_CountyReportWithReuse, downloaded July 1, 2024.

(3) Freese and Nichols, Inc., Alan Plummer Associates, Inc., CP&Y, Inc., and Cooksey Communications, Inc.: *2021 Region C Water Plan*, prepared for the Region C Water Planning Group, Fort Worth, November 2020.

(4) Freese and Nichols, Inc., Alan Plummer Associates, Inc., CP&Y, Inc., and Cooksey Communications, Inc.: *2016 Region C Water Plan*, prepared for the Region C Water Planning Group, Fort Worth, December 2015.

(5) Bureau of Economic Geology in conjunction with Texas Water Development Board: *Water Use by the Mining Industry in Texas*, Austin, [Online}, Available URL: https://www.twdb.texas.gov/waterplanning/data/projections/MiningStudy/doc/Final%20TWDB%20Mining%20Water%20Use%20Report.PDF, August 2022.

# Attachment One

## *Region C Population Projections by WUG, by County*

***ATTACHMENT 1 - REGION C POPULATION PROJECTIONS BY WUG, BY COUNTY***

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | FINAL REGION C POPULATION PROJECTIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | COLLIN | ALLEN | 125,000 | 140,000 | 140,000 | 140,000 | 140,000 | 140,000 |
| | COLLIN | ANNA | 42,924 | 69,571 | 88,103 | 104,876 | 121,250 | 130,000 |
| **Yes** | COLLIN | BEAR CREEK SUD | 25,815 | 45,451 | 51,976 | 56,600 | 62,043 | 62,043 |
| | COLLIN | BLUE RIDGE | 1,653 | 2,162 | 2,740 | 3,320 | 3,959 | 4,664 |
| **Yes** | COLLIN | CADDO BASIN SUD | 2,289 | 11,747 | 18,804 | 21,710 | 24,225 | 25,047 |
| **Yes** | COLLIN | CELINA | 65,403 | 114,328 | 190,491 | 198,744 | 245,262 | 296,640 |
| | COLLIN | COPEVILLE WSC | 7,703 | 12,179 | 17,902 | 19,644 | 21,942 | 24,238 |
| | COLLIN | COUNTY-OTHER | 3,794 | 5,035 | 6,276 | 7,518 | 8,759 | 10,000 |
| | COLLIN | CULLEOKA WSC | 12,542 | 14,383 | 17,346 | 19,661 | 22,127 | 24,442 |
| **Yes** | COLLIN | DALLAS | 53,145 | 59,190 | 65,922 | 73,420 | 81,771 | 91,072 |
| **Yes** | COLLIN | DESERT WSC | 365 | 401 | 440 | 480 | 524 | 572 |
| **Yes** | COLLIN | EAST FORK SUD | 17,422 | 20,787 | 24,665 | 28,063 | 30,999 | 34,243 |
| | COLLIN | FAIRVIEW | 13,152 | 16,629 | 20,418 | 20,418 | 20,418 | 20,418 |
| | COLLIN | FARMERSVILLE | 5,700 | 14,074 | 27,886 | 31,725 | 35,920 | 39,678 |
| **Yes** | COLLIN | FRISCO | 183,058 | 221,642 | 222,104 | 222,104 | 222,104 | 222,104 |
| **Yes** | COLLIN | FROGNOT WSC | 2,077 | 2,593 | 3,181 | 3,772 | 4,422 | 5,138 |
| **Yes** | COLLIN | HICKORY CREEK SUD | 99 | 128 | 161 | 194 | 230 | 271 |
| **Yes** | COLLIN | JOSEPHINE | 5,389 | 11,989 | 17,424 | 19,491 | 21,800 | 21,800 |
| | COLLIN | LUCAS | 11,475 | 13,122 | 13,442 | 13,442 | 13,442 | 13,442 |
| | COLLIN | MCKINNEY | 227,593 | 269,464 | 344,909 | 433,869 | 433,869 | 433,869 |
| | COLLIN | MELISSA | 43,840 | 65,280 | 87,678 | 108,878 | 119,072 | 119,072 |
| | COLLIN | MILLIGAN WSC | 3,352 | 3,525 | 4,137 | 4,824 | 5,593 | 6,231 |
| | COLLIN | MURPHY | 21,373 | 21,822 | 24,104 | 26,718 | 29,564 | 31,653 |
| **Yes** | COLLIN | MUSTANG SUD | 3,517 | 5,124 | 6,520 | 7,970 | 9,133 | 10,213 |
| **Yes** | COLLIN | NEVADA SUD | 5,579 | 7,080 | 10,527 | 22,206 | 39,638 | 53,270 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | FINAL REGION C POPULATION PROJECTIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | COLLIN | NORTH COLLIN SUD | 7,544 | 8,523 | 10,409 | 12,496 | 14,565 | 16,977 |
| | COLLIN | NORTH FARMERSVILLE WSC | 465 | 550 | 715 | 834 | 942 | 992 |
| | COLLIN | PARKER | 6,878 | 8,782 | 12,121 | 14,089 | 14,089 | 14,089 |
| **Yes** | COLLIN | PLANO | 277,913 | 279,472 | 307,762 | 316,996 | 316,996 | 316,996 |
| | COLLIN | PRINCETON | 48,722 | 103,793 | 140,731 | 157,121 | 171,027 | 171,027 |
| **Yes** | COLLIN | PROSPER | 39,104 | 45,350 | 54,280 | 56,527 | 59,802 | 59,802 |
| **Yes** | COLLIN | RICHARDSON | 63,141 | 66,547 | 72,087 | 74,250 | 74,250 | 74,250 |
| **Yes** | COLLIN | ROYSE CITY | 8,394 | 15,496 | 22,376 | 24,692 | 27,747 | 27,747 |
| **Yes** | COLLIN | SACHSE | 9,745 | 10,386 | 11,796 | 12,331 | 12,692 | 12,692 |
| | COLLIN | SEIS LAGOS UD | 2,348 | 2,270 | 2,383 | 2,479 | 2,535 | 2,541 |
| **Yes** | COLLIN | SOUTH GRAYSON SUD | 1,269 | 1,671 | 2,128 | 2,586 | 3,092 | 3,649 |
| | COLLIN | VERONA SUD | 3,345 | 4,217 | 5,210 | 6,206 | 7,303 | 8,512 |
| **Yes** | COLLIN | WEST LEONARD WSC | 337 | 422 | 518 | 614 | 720 | 837 |
| **Yes** | COLLIN | WESTMINSTER SUD | 2,138 | 2,674 | 3,283 | 3,894 | 4,567 | 5,309 |
| | COLLIN | WYLIE | 47,379 | 46,874 | 49,115 | 50,589 | 50,589 | 50,589 |
| | COLLIN | WYLIE NORTHEAST SUD | 15,891 | 19,669 | 24,240 | 25,954 | 26,648 | 26,648 |
| | **COLLIN TOTAL** | | **1,418,872** | **1,764,402** | **2,126,310** | **2,351,305** | **2,505,630** | **2,612,777** |
| **Yes** | COOKE | BOLIVAR WSC | 1,869 | 2,045 | 2,112 | 2,154 | 2,196 | 2,244 |
| | COOKE | CALLISBURG WSC | 1,614 | 1,686 | 1,717 | 1,728 | 1,740 | 1,752 |
| | COOKE | COUNTY-OTHER | 5,976 | 6,178 | 6,367 | 6,557 | 6,800 | 7,000 |
| | COOKE | GAINESVILLE | 19,705 | 20,309 | 20,590 | 21,533 | 23,237 | 24,916 |
| | COOKE | LAKE KIOWA SUD | 2,346 | 2,477 | 2,532 | 2,555 | 2,581 | 2,609 |
| | COOKE | LINDSAY | 1,718 | 1,758 | 1,777 | 1,777 | 1,776 | 1,776 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | FINAL REGION C POPULATION PROJECTIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Yes** | COOKE | MOUNTAIN SPRINGS WSC | 1,933 | 1,942 | 1,952 | 1,940 | 1,927 | 1,913 |
| | COOKE | MUENSTER | 2,139 | 2,139 | 2,139 | 2,139 | 2,139 | 2,139 |
| **Yes** | COOKE | TWO WAY SUD | 43 | 43 | 50 | 51 | 54 | 55 |
| **Yes** | COOKE | WOODBINE WSC | 6,857 | 7,116 | 7,230 | 7,260 | 7,292 | 7,328 |
| | **COOKE TOTAL** | | **44,200** | **45,693** | **46,466** | **47,694** | **49,742** | **51,732** |
| | DALLAS | ADDISON | 20,465 | 23,069 | 24,456 | 25,276 | 26,179 | 27,173 |
| **Yes** | DALLAS | AMC CREEKSIDE | 544 | 673 | 742 | 782 | 828 | 879 |
| | DALLAS | BALCH SPRINGS | 28,412 | 30,394 | 33,234 | 36,214 | 40,018 | 42,000 |
| **Yes** | DALLAS | CARROLLTON | 55,007 | 58,186 | 61,664 | 65,328 | 69,216 | 69,480 |
| | DALLAS | CEDAR HILL | 53,645 | 58,553 | 63,911 | 69,070 | 74,646 | 80,672 |
| | DALLAS | COCKRELL HILL | 3,610 | 3,380 | 3,255 | 3,176 | 3,089 | 2,993 |
| **Yes** | DALLAS | COMBINE WSC | 769 | 823 | 853 | 870 | 888 | 908 |
| **Yes** | DALLAS | COPPELL | 42,352 | 42,256 | 42,339 | 42,405 | 42,500 | 42,500 |
| | DALLAS | COUNTY-OTHER | 1,000 | 1,400 | 1,800 | 2,200 | 2,600 | 3,000 |
| **Yes** | DALLAS | DALLAS | 1,254,601 | 1,302,256 | 1,351,721 | 1,403,065 | 1,456,359 | 1,511,677 |
| | DALLAS | DESOTO | 59,901 | 63,934 | 66,069 | 67,304 | 68,664 | 70,162 |
| | DALLAS | DUNCANVILLE | 43,672 | 45,939 | 47,157 | 47,307 | 47,307 | 47,307 |
| **Yes** | DALLAS | EAST FORK SUD | 4,577 | 5,461 | 6,479 | 7,372 | 8,143 | 8,995 |
| | DALLAS | FARMERS BRANCH | 36,454 | 39,795 | 41,570 | 42,609 | 43,754 | 45,014 |
| | DALLAS | GARLAND | 259,490 | 280,255 | 292,596 | 301,612 | 303,416 | 303,416 |
| **Yes** | DALLAS | GLENN HEIGHTS | 13,834 | 15,160 | 15,864 | 16,278 | 16,732 | 17,233 |
| **Yes** | DALLAS | GRAND PRAIRIE | 146,304 | 166,714 | 188,910 | 194,371 | 201,657 | 201,657 |
| | DALLAS | HIGHLAND PARK | 9,311 | 9,311 | 9,311 | 9,311 | 9,311 | 9,311 |
| | DALLAS | HUTCHINS | 8,346 | 9,300 | 9,808 | 10,107 | 10,436 | 10,799 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | FINAL REGION C POPULATION PROJECTIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | DALLAS | IRVING | 285,073 | 302,931 | 303,163 | 303,400 | 303,641 | 303,641 |
| | DALLAS | LANCASTER | 44,667 | 47,419 | 48,875 | 49,713 | 50,637 | 51,653 |
| | DALLAS | LANCASTER MUD 1 | 2,286 | 2,844 | 3,142 | 3,321 | 3,517 | 3,734 |
| **Yes** | DALLAS | LEWISVILLE | 1,046 | 1,053 | 1,126 | 1,141 | 1,163 | 1,163 |
| | DALLAS | MESQUITE | 166,080 | 173,044 | 192,008 | 216,237 | 243,324 | 266,415 |
| **Yes** | DALLAS | OVILLA | 464 | 504 | 547 | 594 | 645 | 701 |
| **Yes** | DALLAS | RICHARDSON | 54,374 | 56,289 | 58,980 | 60,750 | 60,750 | 60,750 |
| **Yes** | DALLAS | ROCKETT SUD | 755 | 836 | 912 | 938 | 966 | 976 |
| **Yes** | DALLAS | ROWLETT | 65,945 | 69,670 | 80,411 | 84,929 | 88,280 | 88,280 |
| **Yes** | DALLAS | SACHSE | 19,762 | 21,212 | 24,032 | 25,085 | 25,770 | 25,770 |
| | DALLAS | SEAGOVILLE | 20,875 | 22,892 | 23,964 | 24,593 | 25,285 | 26,047 |
| | DALLAS | SUNNYVALE | 9,064 | 11,417 | 13,548 | 14,129 | 14,340 | 14,340 |
| | DALLAS | UNIVERSITY PARK | 25,656 | 25,656 | 25,656 | 25,656 | 25,656 | 25,656 |
| | DALLAS | WILMER | 5,902 | 6,672 | 7,081 | 7,324 | 7,591 | 7,885 |
| | **DALLAS TOTAL** | | **2,744,243** | **2,899,298** | **3,045,184** | **3,162,467** | **3,277,308** | **3,372,187** |
| **Yes** | DENTON | AMC CREEKSIDE | 2,140 | 2,686 | 3,261 | 3,846 | 4,490 | 5,199 |
| | DENTON | ARGYLE WSC | 13,736 | 17,803 | 23,593 | 29,159 | 33,250 | 36,250 |
| | DENTON | AUBREY | 8,276 | 14,448 | 24,810 | 33,745 | 40,586 | 40,586 |
| | DENTON | BLACK ROCK WSC | 1,560 | 1,959 | 2,377 | 2,804 | 3,274 | 3,791 |
| **Yes** | DENTON | BOLIVAR WSC | 9,399 | 11,786 | 14,299 | 16,855 | 20,524 | 25,205 |
| **Yes** | DENTON | CARROLLTON | 86,261 | 91,375 | 96,677 | 102,308 | 108,261 | 108,673 |
| **Yes** | DENTON | CELINA | 1,265 | 2,170 | 3,739 | 3,970 | 5,005 | 6,054 |
| **Yes** | DENTON | COPPELL | 1,425 | 1,376 | 1,418 | 1,452 | 1,500 | 1,500 |
| | DENTON | CORINTH | 29,174 | 31,493 | 39,215 | 40,348 | 42,000 | 42,000 |
| | DENTON | COUNTY-OTHER | 51,205 | 80,964 | 110,723 | 140,482 | 185,121 | 214,880 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | FINAL REGION C POPULATION PROJECTIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | DENTON | CROSS TIMBERS WSC | 9,808 | 12,310 | 14,944 | 17,622 | 20,802 | 25,403 |
| **Yes** | DENTON | DALLAS | 34,543 | 42,657 | 53,054 | 64,065 | 76,324 | 89,553 |
| | DENTON | DENTON | 179,044 | 229,192 | 283,800 | 337,235 | 403,484 | 468,260 |
| | DENTON | DENTON COUNTY FWSD 10 | 6,246 | 6,246 | 6,246 | 6,246 | 6,246 | 6,246 |
| | DENTON | DENTON COUNTY FWSD 11-C | 5,406 | 8,467 | 11,690 | 14,965 | 18,573 | 22,547 |
| | DENTON | DENTON COUNTY FWSD 1-A | 23,532 | 31,738 | 33,928 | 34,388 | 35,057 | 35,057 |
| | DENTON | DENTON COUNTY FWSD 7 | 12,779 | 13,500 | 13,500 | 13,500 | 13,500 | 13,500 |
| **Yes** | DENTON | FLOWER MOUND | 94,783 | 118,816 | 144,099 | 144,099 | 144,099 | 144,099 |
| **Yes** | DENTON | FORT WORTH | 26,302 | 39,396 | 48,326 | 60,243 | 73,369 | 87,826 |
| **Yes** | DENTON | FRISCO | 136,967 | 166,055 | 167,552 | 167,552 | 167,552 | 167,552 |
| | DENTON | HACKBERRY | 5,999 | 8,480 | 11,092 | 13,748 | 16,673 | 19,894 |
| | DENTON | HIGHLAND VILLAGE | 16,656 | 17,822 | 18,020 | 18,020 | 18,020 | 18,020 |
| | DENTON | JUSTIN | 6,949 | 9,741 | 13,654 | 19,140 | 26,830 | 37,608 |
| | DENTON | KRUM | 7,146 | 9,532 | 12,715 | 16,961 | 22,625 | 30,180 |
| | DENTON | LAKE CITIES MUNICIPAL UTILITY AUTHORITY | 17,721 | 21,502 | 22,513 | 22,753 | 22,897 | 22,897 |
| **Yes** | DENTON | LEWISVILLE | 114,210 | 114,924 | 122,855 | 124,518 | 126,942 | 126,942 |
| | DENTON | LITTLE ELM | 44,322 | 42,372 | 44,739 | 46,710 | 48,000 | 48,000 |
| **Yes** | DENTON | MOUNTAIN SPRINGS WSC | 68 | 86 | 103 | 122 | 142 | 164 |
| **Yes** | DENTON | MUSTANG SUD | 105,046 | 149,073 | 199,398 | 249,230 | 289,198 | 323,398 |
| | DENTON | NORTHLAKE | 26,264 | 29,172 | 36,205 | 42,530 | 48,940 | 53,700 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | FINAL REGION C POPULATION PROJECTIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | DENTON | PALOMA CREEK NORTH | 5,853 | 5,853 | 5,853 | 5,853 | 5,853 | 5,853 |
| | DENTON | PALOMA CREEK SOUTH | 9,088 | 9,088 | 9,088 | 9,088 | 9,088 | 9,088 |
| **Yes** | DENTON | PILOT POINT | 6,229 | 8,047 | 13,854 | 19,888 | 21,454 | 21,454 |
| **Yes** | DENTON | PLANO | 8,311 | 8,643 | 9,518 | 9,804 | 9,804 | 9,804 |
| | DENTON | PONDER | 4,798 | 6,403 | 8,093 | 9,811 | 11,703 | 13,786 |
| **Yes** | DENTON | PROSPER | 16,171 | 19,746 | 23,468 | 24,348 | 25,630 | 25,630 |
| | DENTON | PROVIDENCE VILLAGE WCID | 7,235 | 7,235 | 7,235 | 7,235 | 7,235 | 7,235 |
| | DENTON | ROANOKE | 13,999 | 13,658 | 13,952 | 14,185 | 14,524 | 14,524 |
| | DENTON | SANGER | 11,153 | 14,002 | 17,000 | 22,119 | 27,933 | 35,269 |
| **Yes** | DENTON | SOUTHLAKE | 699 | 648 | 582 | 513 | 440 | 367 |
| | DENTON | TERRA SOUTHWEST | 3,143 | 3,996 | 4,895 | 5,808 | 6,814 | 7,922 |
| | DENTON | THE COLONY | 51,496 | 60,502 | 67,600 | 67,600 | 67,600 | 67,600 |
| **Yes** | DENTON | TROPHY CLUB MUD 1 | 13,252 | 13,252 | 13,252 | 13,252 | 13,252 | 13,252 |
| | **DENTON TOTAL** | | **1,229,659** | **1,498,214** | **1,772,935** | **1,998,120** | **2,244,614** | **2,456,768** |
| | ELLIS | AVALON WATER SUPPLY & SEWER SERVICE | 992 | 1,109 | 1,236 | 1,360 | 1,498 | 1,650 |
| | ELLIS | BUENA VISTA-BETHEL SUD | 7,152 | 8,701 | 10,384 | 12,081 | 13,948 | 16,004 |
| | ELLIS | COUNTY-OTHER | 6,500 | 6,960 | 7,420 | 7,880 | 8,340 | 8,800 |
| | ELLIS | EAST GARRETT WSC | 1,806 | 2,295 | 2,825 | 3,363 | 3,954 | 4,605 |
| | ELLIS | ENNIS | 20,220 | 21,227 | 22,316 | 23,303 | 24,413 | 25,655 |
| | ELLIS | FERRIS | 2,455 | 2,602 | 2,761 | 2,907 | 3,072 | 3,256 |
| **Yes** | ELLIS | FILES VALLEY WSC | 848 | 1,024 | 1,214 | 1,406 | 1,617 | 1,850 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | FINAL REGION C POPULATION PROJECTIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Yes** | ELLIS | GLENN HEIGHTS | 8,344 | 10,749 | 13,364 | 16,019 | 18,936 | 22,144 |
| **Yes** | ELLIS | HILCO UNITED SERVICES | 605 | 651 | 701 | 748 | 801 | 860 |
| | ELLIS | ITALY | 1,939 | 1,942 | 1,944 | 1,933 | 1,923 | 1,915 |
| **Yes** | ELLIS | MANSFIELD | 581 | 698 | 824 | 951 | 1,091 | 1,245 |
| | ELLIS | MIDLOTHIAN | 33,669 | 38,530 | 45,987 | 52,996 | 60,311 | 66,058 |
| **Yes** | ELLIS | MOUNTAIN PEAK SUD | 21,088 | 28,150 | 35,829 | 43,651 | 52,242 | 61,684 |
| | ELLIS | NASH FORRESTON WSC | 2,095 | 2,514 | 2,970 | 3,428 | 3,933 | 4,489 |
| **Yes** | ELLIS | OVILLA | 4,974 | 6,323 | 7,790 | 9,277 | 10,911 | 12,710 |
| | ELLIS | PALMER | 2,543 | 3,053 | 3,606 | 4,162 | 4,775 | 5,449 |
| | ELLIS | RED OAK | 12,039 | 15,009 | 18,237 | 21,502 | 25,093 | 29,044 |
| **Yes** | ELLIS | RICE WATER SUPPLY AND SEWER SERVICE | 5,565 | 6,678 | 7,888 | 9,106 | 10,446 | 11,922 |
| **Yes** | ELLIS | ROCKETT SUD | 37,615 | 44,938 | 53,859 | 62,009 | 74,775 | 85,142 |
| | ELLIS | SARDIS LONE ELM WSC | 20,865 | 25,783 | 31,135 | 32,524 | 32,524 | 32,524 |
| **Yes** | ELLIS | SOUTH ELLIS COUNTY WSC | 1,458 | 1,750 | 2,067 | 2,386 | 2,737 | 3,124 |
| | ELLIS | WAXAHACHIE | 48,394 | 59,800 | 72,197 | 84,724 | 98,504 | 113,667 |
| | **ELLIS TOTAL** | | **241,747** | **290,486** | **346,554** | **397,716** | **455,844** | **513,797** |
| | FANNIN | ARLEDGE RIDGE WSC | 1,364 | 1,474 | 1,531 | 1,578 | 1,629 | 1,684 |
| **Yes** | FANNIN | BOIS D ARC MUD | 3,031 | 3,180 | 3,269 | 3,325 | 3,386 | 3,453 |
| | FANNIN | BONHAM | 12,465 | 15,204 | 21,585 | 28,467 | 37,686 | 45,834 |
| | FANNIN | COUNTY-OTHER | 3,800 | 3,838 | 4,069 | 4,333 | 4,760 | 5,000 |
| **Yes** | FANNIN | DELTA COUNTY MUD | 72 | 84 | 90 | 96 | 102 | 109 |
| **Yes** | FANNIN | DESERT WSC | 798 | 905 | 957 | 1,006 | 1,059 | 1,119 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | FINAL REGION C POPULATION PROJECTIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Yes** | FANNIN | FROGNOT WSC | 30 | 42 | 48 | 53 | 60 | 67 |
| **Yes** | FANNIN | HICKORY CREEK SUD | 274 | 252 | 245 | 232 | 217 | 202 |
| | FANNIN | HONEY GROVE | 1,782 | 1,828 | 1,828 | 1,828 | 1,828 | 1,828 |
| | FANNIN | LADONIA | 774 | 953 | 1,373 | 2,026 | 2,500 | 2,500 |
| | FANNIN | LEONARD | 2,799 | 3,019 | 3,580 | 4,187 | 5,000 | 6,000 |
| **Yes** | FANNIN | NORTH HUNT SUD | 107 | 112 | 116 | 117 | 119 | 122 |
| | FANNIN | SAVOY | 711 | 704 | 706 | 698 | 689 | 678 |
| **Yes** | FANNIN | SOUTHWEST FANNIN COUNTY SUD | 6,879 | 7,606 | 7,967 | 8,289 | 8,643 | 9,030 |
| | FANNIN | TRENTON | 798 | 857 | 889 | 913 | 940 | 970 |
| **Yes** | FANNIN | WEST LEONARD WSC | 1,914 | 2,301 | 2,478 | 2,661 | 2,862 | 3,082 |
| | FANNIN | WHITE SHED WSC | 2,344 | 2,460 | 2,528 | 2,571 | 2,618 | 2,670 |
| **Yes** | FANNIN | WHITEWRIGHT | 78 | 98 | 107 | 117 | 127 | 139 |
| **Yes** | FANNIN | WOLFE CITY | 49 | 38 | 30 | 24 | 19 | 15 |
| | **FANNIN TOTAL** | | **40,069** | **44,955** | **53,396** | **62,521** | **74,244** | **84,502** |
| | FREESTONE | BUTLER WSC | 838 | 830 | 818 | 794 | 767 | 737 |
| | FREESTONE | COUNTY-OTHER | 3,337 | 3,063 | 2,622 | 2,661 | 2,675 | 2,657 |
| | FREESTONE | FAIRFIELD | 4,932 | 4,782 | 4,639 | 4,338 | 4,039 | 3,742 |
| **Yes** | FREESTONE | FLO COMMUNITY WSC | 150 | 150 | 150 | 150 | 150 | 150 |
| **Yes** | FREESTONE | PLEASANT GROVE WSC | 1,323 | 1,430 | 1,574 | 1,530 | 1,482 | 1,429 |
| **Yes** | FREESTONE | POINT ENTERPRISE WSC | 842 | 834 | 823 | 823 | 823 | 823 |
| | FREESTONE | SOUTH FREESTONE COUNTY WSC | 2,598 | 2,720 | 2,880 | 2,799 | 2,708 | 2,608 |
| **Yes** | FREESTONE | SOUTHERN OAKS WATER SUPPLY | 675 | 856 | 1,099 | 1,073 | 1,043 | 1,009 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | FINAL REGION C POPULATION PROJECTIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | FREESTONE | TEAGUE | 3,437 | 3,142 | 2,738 | 2,646 | 2,545 | 2,435 |
| | FREESTONE | WORTHAM | 925 | 841 | 724 | 700 | 673 | 644 |
| | **FREESTONE TOTAL** | | **19,057** | **18,648** | **18,067** | **17,514** | **16,905** | **16,234** |
| | GRAYSON | BELLS | 1,743 | 1,900 | 2,031 | 2,147 | 2,275 | 2,416 |
| | GRAYSON | COLLINSVILLE | 2,641 | 2,907 | 3,129 | 3,331 | 3,552 | 3,794 |
| | GRAYSON | COUNTY-OTHER | 11,157 | 10,489 | 11,085 | 11,680 | 12,800 | 13,000 |
| | GRAYSON | DENISON | 45,619 | 58,130 | 69,278 | 80,563 | 95,278 | 103,443 |
| **Yes** | GRAYSON | DESERT WSC | 701 | 765 | 818 | 864 | 915 | 972 |
| | GRAYSON | DORCHESTER | 1,287 | 1,322 | 1,350 | 1,361 | 1,376 | 1,394 |
| | GRAYSON | GUNTER | 1,940 | 2,258 | 2,523 | 2,782 | 3,064 | 3,371 |
| | GRAYSON | HOWE | 4,785 | 5,735 | 6,531 | 7,320 | 8,178 | 9,111 |
| | GRAYSON | KENTUCKYTOWN WSC | 2,863 | 3,139 | 3,368 | 3,574 | 3,801 | 4,050 |
| | GRAYSON | LUELLA SUD | 2,717 | 2,717 | 2,717 | 2,717 | 2,717 | 2,717 |
| **Yes** | GRAYSON | MUSTANG SUD | 2,344 | 3,424 | 4,396 | 5,368 | 6,088 | 6,808 |
| | GRAYSON | NORTHWEST GRAYSON COUNTY WCID 1 | 2,032 | 2,265 | 2,459 | 2,640 | 2,838 | 3,054 |
| | GRAYSON | OAK RIDGE SOUTH GALE WSC | 2,811 | 2,875 | 2,927 | 2,942 | 2,962 | 2,988 |
| **Yes** | GRAYSON | PILOT POINT | 125 | 153 | 283 | 394 | 438 | 438 |
| | GRAYSON | PINK HILL WSC | 2,210 | 2,449 | 2,648 | 2,832 | 3,033 | 3,253 |
| | GRAYSON | POTTSBORO | 3,613 | 3,938 | 4,210 | 4,450 | 4,715 | 5,007 |
| **Yes** | GRAYSON | RED RIVER AUTHORITY OF TEXAS | 1,052 | 1,265 | 1,443 | 1,621 | 1,814 | 2,024 |
| | GRAYSON | SHERMAN | 46,811 | 50,903 | 54,318 | 57,317 | 60,622 | 64,264 |
| **Yes** | GRAYSON | SOUTH GRAYSON SUD | 4,034 | 4,496 | 4,882 | 5,240 | 5,631 | 6,061 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | FINAL REGION C POPULATION PROJECTIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | GRAYSON | SOUTHMAYD | 964 | 992 | 1,015 | 1,026 | 1,039 | 1,055 |
| **Yes** | GRAYSON | SOUTHWEST FANNIN COUNTY SUD | 1,534 | 1,673 | 1,788 | 1,891 | 2,003 | 2,127 |
| | GRAYSON | STARR WSC | 2,325 | 2,533 | 2,708 | 2,862 | 3,032 | 3,219 |
| | GRAYSON | TIOGA | 1,773 | 2,106 | 2,386 | 2,662 | 2,961 | 3,288 |
| | GRAYSON | TOM BEAN | 1,113 | 1,113 | 1,113 | 1,113 | 1,113 | 1,113 |
| **Yes** | GRAYSON | TWO WAY SUD | 6,004 | 6,357 | 7,569 | 8,275 | 9,187 | 9,756 |
| | GRAYSON | VAN ALSTYNE | 8,398 | 16,284 | 25,925 | 31,829 | 41,706 | 49,029 |
| **Yes** | GRAYSON | WESTMINSTER SUD | 30 | 36 | 41 | 46 | 53 | 58 |
| | GRAYSON | WHITESBORO | 4,847 | 5,280 | 5,642 | 5,960 | 6,311 | 6,699 |
| **Yes** | GRAYSON | WHITEWRIGHT | 2,220 | 2,421 | 2,588 | 2,737 | 2,899 | 3,079 |
| **Yes** | GRAYSON | WOODBINE WSC | 87 | 96 | 103 | 110 | 117 | 125 |
| | **GRAYSON TOTAL** | | **169,780** | **200,021** | **231,274** | **257,654** | **292,518** | **317,713** |
| **Yes** | HENDERSON | ATHENS | 12,998 | 15,700 | 20,673 | 24,945 | 30,100 | 33,252 |
| **Yes** | HENDERSON | B B S WSC | 17 | 17 | 17 | 17 | 17 | 17 |
| **Yes** | HENDERSON | BETHEL ASH WSC | 3,053 | 3,205 | 3,238 | 3,316 | 3,403 | 3,499 |
| **Yes** | HENDERSON | BRUSHY CREEK WSC | 681 | 702 | 719 | 733 | 750 | 768 |
| | HENDERSON | COUNTY-OTHER | 5,000 | 6,000 | 7,000 | 8,000 | 9,000 | 10,000 |
| | HENDERSON | CRESCENT HEIGHTS WSC | 1,801 | 1,857 | 2,064 | 2,099 | 2,137 | 2,178 |
| | HENDERSON | DOGWOOD ESTATES WATER | 1,179 | 1,154 | 1,226 | 1,239 | 1,253 | 1,267 |
| | HENDERSON | EAST CEDAR CREEK FWSD | 23,746 | 25,120 | 25,323 | 25,882 | 26,501 | 27,183 |
| | HENDERSON | EUSTACE | 3,105 | 3,399 | 3,333 | 3,441 | 3,562 | 3,696 |
| | HENDERSON | LOG CABIN | 671 | 671 | 702 | 712 | 723 | 735 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | FINAL REGION C POPULATION PROJECTIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Yes** | HENDERSON | MABANK | 3,474 | 3,826 | 3,737 | 3,863 | 4,004 | 4,161 |
| | HENDERSON | MALAKOFF | 2,416 | 2,562 | 2,689 | 2,727 | 2,766 | 2,809 |
| | HENDERSON | TRINIDAD | 1,134 | 1,152 | 1,191 | 1,213 | 1,236 | 1,261 |
| **Yes** | HENDERSON | VIRGINIA HILL WSC | 1,547 | 1,594 | 1,633 | 1,667 | 1,704 | 1,744 |
| **Yes** | HENDERSON | WEST CEDAR CREEK MUD | 4,847 | 4,501 | 4,969 | 4,973 | 4,973 | 4,968 |
| | **HENDERSON TOTAL** | | **65,669** | **71,460** | **78,514** | **84,827** | **92,129** | **97,538** |
| | JACK | COUNTY-OTHER | 4,500 | 4,300 | 4,000 | 3,800 | 3,600 | 3,400 |
| | JACK | JACKSBORO | 3,714 | 3,657 | 3,770 | 3,940 | 4,259 | 4,387 |
| | **JACK TOTAL** | | **8,214** | **7,957** | **7,770** | **7,740** | **7,859** | **7,787** |
| **Yes** | KAUFMAN | ABLES SPRINGS SUD | 5,944 | 6,183 | 7,218 | 8,131 | 9,208 | 9,669 |
| | KAUFMAN | BECKER JIBA WSC | 4,425 | 6,986 | 9,459 | 11,174 | 13,077 | 15,179 |
| | KAUFMAN | COLLEGE MOUND SUD | 12,664 | 14,078 | 19,045 | 29,451 | 40,174 | 50,886 |
| **Yes** | KAUFMAN | COMBINE WSC | 2,835 | 3,271 | 3,825 | 4,439 | 5,121 | 5,876 |
| | KAUFMAN | COUNTY-OTHER | 13,740 | 15,926 | 21,310 | 24,949 | 32,058 | 36,575 |
| | KAUFMAN | CRANDALL | 5,598 | 12,005 | 20,084 | 29,172 | 41,195 | 49,395 |
| | KAUFMAN | ELMO WSC | 2,332 | 2,733 | 3,243 | 3,810 | 4,440 | 5,137 |
| | KAUFMAN | FORNEY | 29,597 | 38,044 | 47,108 | 55,621 | 61,829 | 61,829 |
| | KAUFMAN | FORNEY LAKE WSC | 19,207 | 22,100 | 23,000 | 25,000 | 25,500 | 26,000 |
| | KAUFMAN | GASTONIA SCURRY SUD | 12,512 | 14,583 | 19,563 | 32,939 | 48,748 | 59,846 |
| **Yes** | KAUFMAN | HEATH | 193 | 271 | 379 | 388 | 388 | 388 |
| **Yes** | KAUFMAN | HIGH POINT WSC | 19,458 | 30,077 | 43,664 | 59,266 | 76,390 | 95,209 |
| | KAUFMAN | KAUFMAN | 7,626 | 8,606 | 12,368 | 15,632 | 18,682 | 21,791 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | FINAL REGION C POPULATION PROJECTIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | KAUFMAN | KAUFMAN COUNTY DEVELOPMENT DISTRICT 1 | 3,842 | 4,083 | 6,318 | 9,791 | 14,527 | 16,798 |
| | KAUFMAN | KAUFMAN COUNTY MUD 11 | 4,340 | 5,159 | 6,629 | 8,374 | 10,269 | 11,378 |
| | KAUFMAN | KAUFMAN COUNTY MUD 14 | 6,300 | 6,300 | 6,300 | 6,300 | 6,300 | 6,300 |
| | KAUFMAN | KEMP | 1,611 | 1,671 | 1,745 | 1,813 | 1,894 | 1,987 |
| **Yes** | KAUFMAN | MABANK | 6,335 | 6,398 | 6,461 | 6,467 | 6,498 | 6,549 |
| **Yes** | KAUFMAN | MACBEE SUD | 276 | 336 | 412 | 498 | 592 | 696 |
| | KAUFMAN | MARKOUT WSC | 2,958 | 3,514 | 4,903 | 7,062 | 9,422 | 12,571 |
| | KAUFMAN | NORTH KAUFMAN WSC | 3,448 | 4,535 | 5,920 | 7,495 | 9,231 | 11,141 |
| **Yes** | KAUFMAN | POETRY WSC | 1,856 | 2,392 | 3,856 | 6,149 | 9,670 | 11,584 |
| | KAUFMAN | ROSE HILL SUD | 4,968 | 6,001 | 7,087 | 8,151 | 9,005 | 9,948 |
| | KAUFMAN | TALTY SUD | 12,151 | 13,567 | 20,000 | 28,710 | 39,600 | 46,568 |
| | KAUFMAN | TERRELL | 24,866 | 28,404 | 34,827 | 40,479 | 47,940 | 53,769 |
| **Yes** | KAUFMAN | WEST CEDAR CREEK MUD | 227 | 276 | 339 | 410 | 488 | 575 |
| | **KAUFMAN TOTAL** | | **209,309** | **257,499** | **335,063** | **431,671** | **542,246** | **627,644** |
| | NAVARRO | B AND B WSC | 1,871 | 2,060 | 2,217 | 2,364 | 2,525 | 2,701 |
| | NAVARRO | BLOOMING GROVE | 1,038 | 1,078 | 1,168 | 1,251 | 1,355 | 1,465 |
| **Yes** | NAVARRO | BRANDON IRENE WSC | 76 | 90 | 100 | 111 | 122 | 135 |
| | NAVARRO | CHATFIELD WSC | 3,318 | 3,572 | 3,782 | 3,967 | 4,172 | 4,396 |
| | NAVARRO | CORBET WSC | 2,465 | 2,647 | 2,797 | 2,928 | 3,072 | 3,232 |
| | NAVARRO | CORSICANA | 27,916 | 29,886 | 31,517 | 32,925 | 34,477 | 36,187 |
| | NAVARRO | COUNTY-OTHER | 6,928 | 7,261 | 7,776 | 8,390 | 9,400 | 10,000 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | FINAL REGION C POPULATION PROJECTIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | NAVARRO | DAWSON | 825 | 834 | 842 | 839 | 837 | 835 |
| | NAVARRO | KERENS | 1,469 | 1,359 | 1,257 | 1,163 | 1,076 | 995 |
| | NAVARRO | M E N WSC | 3,732 | 4,307 | 4,782 | 5,255 | 5,771 | 6,334 |
| **Yes** | NAVARRO | NAVARRO MILLS WSC | 2,814 | 3,021 | 3,193 | 3,343 | 3,507 | 3,689 |
| **Yes** | NAVARRO | PLEASANT GROVE WSC | 122 | 130 | 137 | 144 | 151 | 159 |
| **Yes** | NAVARRO | POST OAK SUD | 505 | 472 | 445 | 408 | 367 | 325 |
| **Yes** | NAVARRO | RICE WATER SUPPLY AND SEWER SERVICE | 3,953 | 4,697 | 5,581 | 6,632 | 7,881 | 9,365 |
| **Yes** | NAVARRO | SOUTH ELLIS COUNTY WSC | 68 | 83 | 94 | 106 | 118 | 132 |
| **Yes** | NAVARRO | SOUTHERN OAKS WATER SUPPLY | 163 | 221 | 269 | 320 | 375 | 435 |
| | **NAVARRO TOTAL** | | **57,263** | **61,718** | **65,957** | **70,146** | **75,206** | **80,385** |
| | PARKER | ALEDO | 7,847 | 8,462 | 10,380 | 11,847 | 13,500 | 14,500 |
| | PARKER | ANNETTA | 3,180 | 3,810 | 4,439 | 5,068 | 5,698 | 6,327 |
| **Yes** | PARKER | AZLE | 3,347 | 4,258 | 5,287 | 6,382 | 7,584 | 8,906 |
| **Yes** | PARKER | COMMUNITY WSC | 39 | 60 | 82 | 107 | 135 | 165 |
| | PARKER | COUNTY-OTHER | 69,436 | 111,025 | 163,883 | 223,591 | 298,000 | 355,000 |
| **Yes** | PARKER | FORT WORTH | 3,751 | 4,321 | 4,438 | 4,856 | 5,321 | 5,835 |
| | PARKER | HORSESHOE BEND WATER SYSTEM | 1,304 | 1,474 | 1,864 | 2,452 | 3,334 | 4,367 |
| | PARKER | HUDSON OAKS | 5,500 | 5,693 | 5,851 | 6,044 | 6,300 | 6,500 |
| **Yes** | PARKER | MINERAL WELLS | 1,801 | 1,900 | 1,999 | 2,099 | 2,099 | 2,099 |
| **Yes** | PARKER | NORTH RURAL WSC | 1,391 | 1,684 | 2,015 | 2,364 | 2,747 | 3,170 |
| | PARKER | PARKER COUNTY SUD | 9,100 | 12,400 | 16,800 | 22,592 | 30,900 | 41,800 |
| **Yes** | PARKER | RENO (PARKER) | 4,194 | 5,107 | 6,138 | 7,226 | 8,424 | 9,741 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | FINAL REGION C POPULATION PROJECTIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | PARKER | SANTO SUD | 155 | 186 | 219 | 256 | 297 | 340 |
| | PARKER | SPRINGTOWN | 5,436 | 7,245 | 10,032 | 12,229 | 14,192 | 15,677 |
| **Yes** | PARKER | STURDIVANT PROGRESS WSC | 23 | 21 | 19 | 16 | 13 | 10 |
| **Yes** | PARKER | WALNUT CREEK SUD | 20,927 | 22,831 | 31,740 | 47,518 | 66,114 | 84,631 |
| | PARKER | WEATHERFORD | 45,410 | 54,197 | 64,123 | 74,543 | 86,019 | 98,660 |
| | PARKER | WILLOW PARK | 8,080 | 9,714 | 11,560 | 13,501 | 15,638 | 17,991 |
| | **PARKER TOTAL** | | **190,921** | **254,388** | **340,869** | **442,691** | **566,315** | **675,719** |
| **Yes** | ROCKWALL | BEAR CREEK SUD | 1,967 | 3,266 | 3,728 | 4,060 | 4,458 | 4,458 |
| | ROCKWALL | BLACKLAND WSC | 4,634 | 4,824 | 5,199 | 6,029 | 6,491 | 6,988 |
| **Yes** | ROCKWALL | CASH SUD | 2,977 | 3,950 | 5,128 | 6,367 | 7,730 | 9,229 |
| | ROCKWALL | COUNTY-OTHER | 2,650 | 2,193 | 3,269 | 3,768 | 5,843 | 7,294 |
| **Yes** | ROCKWALL | EAST FORK SUD | 2,737 | 3,267 | 3,877 | 4,411 | 4,873 | 5,383 |
| | ROCKWALL | FATE | 25,597 | 36,969 | 50,748 | 65,318 | 81,326 | 98,927 |
| **Yes** | ROCKWALL | HEATH | 11,635 | 15,447 | 20,471 | 20,975 | 20,975 | 20,975 |
| **Yes** | ROCKWALL | HIGH POINT WSC | 1,853 | 2,687 | 3,698 | 4,768 | 5,943 | 7,235 |
| | ROCKWALL | MOUNT ZION WSC | 2,079 | 2,148 | 2,226 | 2,294 | 2,373 | 2,462 |
| **Yes** | ROCKWALL | NEVADA SUD | 226 | 284 | 430 | 921 | 1,652 | 2,220 |
| | ROCKWALL | R C H WSC | 5,684 | 6,457 | 8,240 | 10,994 | 13,407 | 16,350 |
| | ROCKWALL | ROCKWALL | 55,075 | 67,561 | 89,991 | 120,077 | 124,696 | 124,696 |
| **Yes** | ROCKWALL | ROWLETT | 11,930 | 12,265 | 14,770 | 15,942 | 16,815 | 16,815 |
| **Yes** | ROCKWALL | ROYSE CITY | 26,943 | 53,046 | 68,545 | 74,175 | 82,398 | 80,859 |
| | **ROCKWALL TOTAL** | | **155,987** | **214,364** | **280,320** | **340,099** | **378,980** | **403,891** |
| | TARRANT | ARLINGTON | 443,307 | 482,455 | 513,986 | 539,421 | 574,231 | 591,297 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | FINAL REGION C POPULATION PROJECTIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Yes** | TARRANT | AZLE | 12,981 | 14,517 | 15,787 | 16,787 | 17,888 | 19,099 |
| | TARRANT | BEDFORD | 52,345 | 56,345 | 57,255 | 60,166 | 60,166 | 60,166 |
| | TARRANT | BENBROOK WATER AUTHORITY | 27,156 | 29,353 | 31,526 | 33,698 | 35,871 | 38,044 |
| **Yes** | TARRANT | BETHESDA WSC | 349 | 386 | 417 | 441 | 467 | 496 |
| | TARRANT | BLUE MOUND | 2,690 | 2,976 | 3,213 | 3,398 | 3,602 | 3,826 |
| **Yes** | TARRANT | BURLESON | 9,765 | 10,956 | 11,941 | 12,718 | 13,573 | 14,513 |
| | TARRANT | COLLEYVILLE | 28,000 | 28,000 | 28,000 | 28,000 | 28,000 | 28,000 |
| **Yes** | TARRANT | COMMUNITY WSC | 4,084 | 4,570 | 4,972 | 5,289 | 5,638 | 6,021 |
| | TARRANT | COUNTY-OTHER | 30,000 | 44,000 | 58,000 | 72,000 | 86,000 | 100,000 |
| **Yes** | TARRANT | CROWLEY | 22,194 | 26,367 | 29,831 | 32,630 | 35,703 | 39,078 |
| | TARRANT | DALWORTHINGTON GARDENS | 2,303 | 2,326 | 2,343 | 2,344 | 2,348 | 2,352 |
| | TARRANT | EDGECLIFF | 3,761 | 3,761 | 3,761 | 3,761 | 3,761 | 3,761 |
| | TARRANT | EULESS | 60,820 | 60,820 | 60,820 | 60,820 | 60,820 | 60,820 |
| | TARRANT | EVERMAN | 6,600 | 6,600 | 6,600 | 6,600 | 6,600 | 6,600 |
| **Yes** | TARRANT | FLOWER MOUND | 907 | 1,060 | 1,321 | 1,382 | 1,456 | 1,456 |
| | TARRANT | FOREST HILL | 15,535 | 17,189 | 18,556 | 19,624 | 20,798 | 22,093 |
| **Yes** | TARRANT | FORT WORTH | 1,091,983 | 1,287,121 | 1,310,518 | 1,401,360 | 1,501,256 | 1,611,117 |
| **Yes** | TARRANT | GRAND PRAIRIE | 77,247 | 83,733 | 92,502 | 95,043 | 98,744 | 98,744 |
| | TARRANT | GRAPEVINE | 54,037 | 54,037 | 54,037 | 54,037 | 54,037 | 54,037 |
| | TARRANT | HALTOM CITY | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 |
| | TARRANT | HASLET | 6,540 | 8,959 | 11,803 | 12,845 | 14,000 | 14,000 |
| | TARRANT | HURST | 40,912 | 40,821 | 40,900 | 40,962 | 41,053 | 41,053 |
| **Yes** | TARRANT | JOHNSON COUNTY SUD | 2,706 | 3,147 | 3,266 | 3,386 | 3,511 | 3,642 |
| | TARRANT | KELLER | 51,130 | 51,974 | 51,974 | 51,974 | 51,974 | 51,974 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | FINAL REGION C POPULATION PROJECTIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | TARRANT | KENNEDALE | 10,713 | 14,532 | 19,028 | 23,760 | 28,592 | 33,035 |
| | TARRANT | LAKE WORTH | 5,861 | 6,414 | 6,809 | 7,145 | 7,474 | 7,767 |
| | TARRANT | LAKESIDE | 2,144 | 2,144 | 2,144 | 2,144 | 2,144 | 2,144 |
| **Yes** | TARRANT | MANSFIELD | 102,621 | 108,197 | 131,234 | 185,294 | 185,154 | 185,000 |
| | TARRANT | NORTH RICHLAND HILLS | 80,119 | 85,636 | 87,051 | 88,170 | 89,800 | 89,800 |
| | TARRANT | PANTEGO | 2,653 | 2,653 | 2,653 | 2,653 | 2,653 | 2,653 |
| | TARRANT | PELICAN BAY | 2,958 | 3,967 | 5,320 | 7,134 | 9,567 | 12,830 |
| **Yes** | TARRANT | RENO (PARKER) | 79 | 88 | 95 | 101 | 106 | 113 |
| | TARRANT | RICHLAND HILLS | 9,616 | 10,622 | 11,452 | 12,911 | 14,217 | 15,655 |
| | TARRANT | RIVER OAKS | 8,077 | 8,053 | 8,106 | 8,149 | 8,210 | 8,210 |
| | TARRANT | SAGINAW | 29,916 | 32,879 | 33,167 | 33,395 | 33,727 | 33,727 |
| | TARRANT | SANSOM PARK | 6,087 | 6,736 | 7,272 | 7,690 | 8,152 | 8,659 |
| **Yes** | TARRANT | SOUTHLAKE | 35,117 | 39,471 | 42,199 | 44,631 | 47,071 | 49,365 |
| **Yes** | TARRANT | TROPHY CLUB MUD 1 | 995 | 1,282 | 1,521 | 1,717 | 1,933 | 2,169 |
| | TARRANT | WATAUGA | 24,525 | 24,525 | 24,525 | 24,525 | 24,525 | 24,525 |
| | TARRANT | WESTLAKE | 3,052 | 4,001 | 4,791 | 5,441 | 6,152 | 6,933 |
| | TARRANT | WESTOVER HILLS | 676 | 674 | 677 | 679 | 682 | 682 |
| | TARRANT | WESTWORTH VILLAGE | 3,129 | 3,203 | 3,406 | 3,582 | 3,755 | 3,912 |
| | TARRANT | WHITE SETTLEMENT | 20,351 | 22,469 | 24,218 | 25,582 | 27,083 | 28,738 |
| | **TARRANT TOTAL** | | **2,446,041** | **2,749,019** | **2,878,997** | **3,093,389** | **3,272,494** | **3,438,106** |
| | WISE | ALVORD | 3,020 | 3,736 | 4,375 | 4,888 | 5,453 | 6,073 |
| **Yes** | WISE | BOLIVAR WSC | 952 | 1,047 | 1,133 | 1,199 | 1,272 | 1,351 |
| | WISE | BOYD | 1,477 | 1,879 | 2,574 | 3,202 | 3,800 | 4,200 |
| | WISE | BRIDGEPORT | 5,814 | 5,958 | 6,093 | 6,165 | 6,246 | 6,337 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | FINAL REGION C POPULATION PROJECTIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | WISE | CHICO | 2,054 | 2,054 | 2,054 | 2,054 | 2,054 | 2,054 |
| | WISE | COUNTY-OTHER | 52,332 | 80,325 | 120,420 | 166,350 | 227,000 | 270,000 |
| | WISE | DECATUR | 10,796 | 12,824 | 17,299 | 21,328 | 27,000 | 31,300 |
| **Yes** | WISE | FORT WORTH | 2,480 | 2,862 | 2,948 | 3,243 | 3,567 | 3,924 |
| | WISE | NEWARK | 1,238 | 1,571 | 2,274 | 3,323 | 4,941 | 6,310 |
| | WISE | RHOME | 2,290 | 2,958 | 4,367 | 6,339 | 9,332 | 12,443 |
| | WISE | RUNAWAY BAY | 1,878 | 2,304 | 2,826 | 3,467 | 4,253 | 5,217 |
| **Yes** | WISE | WALNUT CREEK SUD | 3,707 | 3,965 | 5,477 | 8,249 | 11,667 | 14,935 |
| | WISE | WEST WISE SUD | 4,047 | 4,438 | 4,789 | 5,056 | 5,349 | 5,672 |
| | **WISE TOTAL** | | **92,085** | **125,921** | **176,629** | **234,863** | **311,934** | **369,816** |
| | ***REGION C TOTAL*** | | ***9,133,116*** | ***10,504,043*** | ***11,804,305*** | ***13,000,417*** | ***14,163,968*** | ***15,126,596*** |

# Attachment Two

## *Projected Population for WUGs in Multiple Counties or Regions*

***ATTACHMENT 2 - PROJECTED POPULATION FOR WUGS IN MULTIPLE COUNTIES OR REGIONS***

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL 2026 REGION C POPULATION | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| C | KAUFMAN | ABLES SPRINGS SUD | 5,944 | 6,183 | 7,218 | 8,131 | 9,208 | 9,669 |
| D | HUNT | ABLES SPRINGS SUD | 619 | 670 | 715 | 753 | 792 | 830 |
| D | VAN ZANDT | ABLES SPRINGS SUD | 35 | 37 | 39 | 42 | 44 | 46 |
| | | **ABLES SPRINGS SUD TOTAL** | **6,598** | **6,890** | **7,972** | **8,926** | **10,044** | **10,545** |
| C | DALLAS | AMC CREEKSIDE | 544 | 673 | 742 | 782 | 828 | 879 |
| C | DENTON | AMC CREEKSIDE | 2,140 | 2,686 | 3,261 | 3,846 | 4,490 | 5,199 |
| | | **AMC CREEKSIDE TOTAL** | **2,684** | **3,359** | **4,003** | **4,628** | **5,318** | **6,078** |
| C | HENDERSON | ATHENS | 12,998 | 15,700 | 20,673 | 24,945 | 30,100 | 33,252 |
| I | HENDERSON | ATHENS | 210 | 213 | 211 | 211 | 211 | 211 |
| | | **ATHENS TOTAL** | **13,208** | **15,913** | **20,884** | **25,156** | **30,311** | **33,463** |
| C | PARKER | AZLE | 3,347 | 4,258 | 5,287 | 6,382 | 7,584 | 8,906 |
| C | TARRANT | AZLE | 12,981 | 14,517 | 15,787 | 16,787 | 17,888 | 19,099 |
| | | **AZLE TOTAL** | **16,328** | **18,775** | **21,074** | **23,169** | **25,472** | **28,005** |
| C | HENDERSON | B B S WSC | 17 | 17 | 17 | 17 | 17 | 17 |
| I | ANDERSON | B B S WSC | 1,064 | 1,061 | 1,048 | 1,035 | 1,021 | 1,008 |
| | | **B B S WSC TOTAL** | **1,081** | **1,078** | **1,065** | **1,052** | **1,038** | **1,025** |
| C | COLLIN | BEAR CREEK SUD | 25,815 | 45,451 | 51,976 | 56,600 | 62,043 | 62,043 |
| C | ROCKWALL | BEAR CREEK SUD | 1,967 | 3,266 | 3,728 | 4,060 | 4,458 | 4,458 |
| | | **BEAR CREEK SUD TOTAL** | **27,782** | **48,717** | **55,704** | **60,660** | **66,501** | **66,501** |
| C | HENDERSON | BETHEL ASH WSC | 3,053 | 3,205 | 3,238 | 3,316 | 3,403 | 3,499 |
| I | HENDERSON | BETHEL ASH WSC | 2,752 | 2,773 | 2,885 | 2,932 | 2,978 | 3,022 |
| D | VAN ZANDT | BETHEL ASH WSC | 1,706 | 1,877 | 2,041 | 2,206 | 2,373 | 2,543 |
| | | **BETHEL ASH WSC TOTAL** | **7,511** | **7,855** | **8,164** | **8,454** | **8,754** | **9,064** |
| C | TARRANT | BETHESDA WSC | 349 | 386 | 417 | 441 | 467 | 496 |
| G | JOHNSON | BETHESDA WSC | 34,818 | 40,277 | 45,753 | 50,713 | 56,282 | 62,536 |
| | | **BETHESDA WSC TOTAL** | **35,167** | **40,663** | **46,170** | **51,154** | **56,749** | **63,032** |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL 2026 REGION C POPULATION | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| C | FANNIN | BOIS D ARC MUD | 3,031 | 3,180 | 3,269 | 3,325 | 3,386 | 3,453 |
| D | LAMAR | BOIS D ARC MUD | 16 | 16 | 16 | 16 | 16 | 16 |
| | | **BOIS D ARC MUD TOTAL** | **3,047** | **3,196** | **3,285** | **3,341** | **3,402** | **3,469** |
| C | COOKE | BOLIVAR WSC | 1,869 | 2,045 | 2,112 | 2,154 | 2,196 | 2,244 |
| C | DENTON | BOLIVAR WSC | 9,399 | 11,786 | 14,299 | 16,855 | 20,524 | 25,205 |
| C | WISE | BOLIVAR WSC | 952 | 1,047 | 1,133 | 1,199 | 1,272 | 1,351 |
| | | **BOLIVAR WSC TOTAL** | **12,220** | **14,878** | **17,544** | **20,208** | **23,992** | **28,800** |
| C | NAVARRO | BRANDON IRENE WSC | 76 | 90 | 100 | 111 | 122 | 135 |
| G | HILL | BRANDON IRENE WSC | 1,923 | 1,979 | 2,018 | 2,057 | 2,100 | 2,151 |
| | | **BRANDON IRENE WSC TOTAL** | **1,999** | **2,069** | **2,118** | **2,168** | **2,222** | **2,286** |
| C | HENDERSON | BRUSHY CREEK WSC | 681 | 702 | 719 | 733 | 750 | 768 |
| I | HENDERSON | BRUSHY CREEK WSC | 30 | 31 | 30 | 30 | 30 | 30 |
| I | ANDERSON | BRUSHY CREEK WSC | 2,812 | 2,808 | 2,771 | 2,736 | 2,701 | 2,666 |
| | | **BRUSHY CREEK WSC TOTAL** | **3,493** | **3,510** | **3,490** | **3,469** | **3,451** | **3,434** |
| C | TARRANT | BURLESON | 9,765 | 10,956 | 11,941 | 12,718 | 13,573 | 14,513 |
| G | JOHNSON | BURLESON | 42,201 | 49,590 | 57,011 | 63,777 | 71,371 | 79,894 |
| | | **BURLESON TOTAL** | **51,966** | **60,546** | **68,952** | **76,495** | **84,944** | **94,407** |
| C | COLLIN | CADDO BASIN SUD | 2,289 | 11,747 | 18,804 | 21,710 | 24,225 | 25,047 |
| D | HUNT | CADDO BASIN SUD | 15,886 | 14,328 | 16,734 | 17,259 | 17,109 | 18,651 |
| | | **CADDO BASIN SUD TOTAL** | **18,175** | **26,075** | **35,538** | **38,969** | **41,334** | **43,698** |
| C | DALLAS | CARROLLTON | 55,007 | 58,186 | 61,664 | 65,328 | 69,216 | 69,480 |
| C | DENTON | CARROLLTON | 86,261 | 91,375 | 96,677 | 102,308 | 108,261 | 108,673 |
| | | **CARROLLTON TOTAL** | **141,268** | **149,561** | **158,341** | **167,636** | **177,477** | **178,153** |
| C | ROCKWALL | CASH SUD | 2,977 | 3,950 | 5,128 | 6,367 | 7,730 | 9,229 |
| D | HOPKINS | CASH SUD | 212 | 246 | 273 | 336 | 351 | 419 |
| D | HUNT | CASH SUD | 19,404 | 22,046 | 24,600 | 26,370 | 26,351 | 27,704 |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL 2026 REGION C POPULATION | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| D | RAINS | CASH SUD | 917 | 1,010 | 1,196 | 1,472 | 1,707 | 1,978 |
| | | **CASH SUD TOTAL** | **23,510** | **27,252** | **31,197** | **34,545** | **36,139** | **39,330** |
| C | COLLIN | CELINA | 65,403 | 114,328 | 190,491 | 198,744 | 245,262 | 296,640 |
| C | DENTON | CELINA | 1,265 | 2,170 | 3,739 | 3,970 | 5,005 | 6,054 |
| | | **CELINA TOTAL** | **66,668** | **116,498** | **194,230** | **202,714** | **250,267** | **302,694** |
| C | DALLAS | COMBINE WSC | 769 | 823 | 853 | 870 | 888 | 908 |
| C | KAUFMAN | COMBINE WSC | 2,835 | 3,271 | 3,825 | 4,439 | 5,121 | 5,876 |
| | | **COMBINE WSC TOTAL** | **3,604** | **4,094** | **4,678** | **5,309** | **6,009** | **6,784** |
| C | PARKER | COMMUNITY WSC | 39 | 60 | 82 | 107 | 135 | 165 |
| C | TARRANT | COMMUNITY WSC | 4,084 | 4,570 | 4,972 | 5,289 | 5,638 | 6,021 |
| | | **COMMUNITY WSC TOTAL** | **4,123** | **4,630** | **5,054** | **5,396** | **5,773** | **6,186** |
| C | DALLAS | COPPELL | 42,352 | 42,256 | 42,339 | 42,405 | 42,500 | 42,500 |
| C | DENTON | COPPELL | 1,425 | 1,376 | 1,418 | 1,452 | 1,500 | 1,500 |
| | | **COPPELL TOTAL** | **43,777** | **43,632** | **43,757** | **43,857** | **44,000** | **44,000** |
| C | TARRANT | CROWLEY | 22,194 | 26,367 | 29,831 | 32,630 | 35,703 | 39,078 |
| G | JOHNSON | CROWLEY | 178 | 262 | 349 | 429 | 520 | 622 |
| | | **CROWLEY TOTAL** | **22,372** | **26,629** | **30,180** | **33,059** | **36,223** | **39,700** |
| C | COLLIN | DALLAS | 53,145 | 59,190 | 65,922 | 73,420 | 81,771 | 91,072 |
| C | DALLAS | DALLAS | 1,254,601 | 1,302,256 | 1,351,721 | 1,403,065 | 1,456,359 | 1,511,677 |
| C | DENTON | DALLAS | 34,543 | 42,657 | 53,054 | 64,065 | 76,324 | 89,553 |
| | | **DALLAS TOTAL** | **1,342,289** | **1,404,103** | **1,470,697** | **1,540,550** | **1,614,454** | **1,692,302** |
| C | FANNIN | DELTA COUNTY MUD | 72 | 84 | 90 | 96 | 102 | 109 |
| D | DELTA | DELTA COUNTY MUD | 1,901 | 1,927 | 1,953 | 1,979 | 2,006 | 2,033 |
| | | **DELTA COUNTY MUD TOTAL** | **1,973** | **2,011** | **2,043** | **2,075** | **2,108** | **2,142** |
| C | COLLIN | DESERT WSC | 365 | 401 | 440 | 480 | 524 | 572 |
| C | FANNIN | DESERT WSC | 798 | 905 | 957 | 1,006 | 1,059 | 1,119 |
| C | GRAYSON | DESERT WSC | 701 | 765 | 818 | 864 | 915 | 972 |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL 2026 REGION C POPULATION | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | | **DESERT WSC TOTAL** | **1,864** | **2,071** | **2,215** | **2,350** | **2,498** | **2,663** |
| C | COLLIN | EAST FORK SUD | 17,422 | 20,787 | 24,665 | 28,063 | 30,999 | 34,243 |
| C | DALLAS | EAST FORK SUD | 4,577 | 5,461 | 6,479 | 7,372 | 8,143 | 8,995 |
| C | ROCKWALL | EAST FORK SUD | 2,737 | 3,267 | 3,877 | 4,411 | 4,873 | 5,383 |
| | | **EAST FORK SUD TOTAL** | **24,736** | **29,515** | **35,021** | **39,846** | **44,015** | **48,621** |
| C | ELLIS | FILES VALLEY WSC | 848 | 1,024 | 1,214 | 1,406 | 1,617 | 1,850 |
| G | HILL | FILES VALLEY WSC | 2,494 | 2,568 | 2,616 | 2,665 | 2,721 | 2,784 |
| | | **FILES VALLEY WSC TOTAL** | **3,342** | **3,592** | **3,830** | **4,071** | **4,338** | **4,634** |
| C | FREESTONE | FLO COMMUNITY WSC | 150 | 150 | 150 | 150 | 150 | 150 |
| H | LEON | FLO COMMUNITY WSC | 3,009 | 2,801 | 2,595 | 2,405 | 2,194 | 1,956 |
| | | **FLO COMMUNITY WSC TOTAL** | **3,159** | **2,951** | **2,745** | **2,555** | **2,344** | **2,106** |
| C | DENTON | FLOWER MOUND | 94,783 | 118,816 | 144,099 | 144,099 | 144,099 | 144,099 |
| C | TARRANT | FLOWER MOUND | 907 | 1,060 | 1,321 | 1,382 | 1,456 | 1,456 |
| | | **FLOWER MOUND TOTAL** | **95,690** | **119,876** | **145,420** | **145,481** | **145,555** | **145,555** |
| C | DENTON | FORT WORTH | 26,302 | 39,396 | 48,326 | 60,243 | 73,369 | 87,826 |
| G | JOHNSON | FORT WORTH | 0 | 0 | 5,081 | 8,066 | 10,001 | 9,917 |
| C | PARKER | FORT WORTH | 3,751 | 4,321 | 4,438 | 4,856 | 5,321 | 5,835 |
| C | TARRANT | FORT WORTH | 1,091,983 | 1,287,121 | 1,310,518 | 1,401,360 | 1,501,256 | 1,611,117 |
| C | WISE | FORT WORTH | 2,480 | 2,862 | 2,948 | 3,243 | 3,567 | 3,924 |
| | | **FORT WORTH TOTAL** | **1,124,516** | **1,333,700** | **1,371,311** | **1,477,768** | **1,593,514** | **1,718,619** |
| C | COLLIN | FRISCO | 183,058 | 221,642 | 222,104 | 222,104 | 222,104 | 222,104 |
| C | DENTON | FRISCO | 136,967 | 166,055 | 167,552 | 167,552 | 167,552 | 167,552 |
| | | **FRISCO TOTAL** | **320,025** | **387,697** | **389,656** | **389,656** | **389,656** | **389,656** |
| C | COLLIN | FROGNOT WSC | 2,077 | 2,593 | 3,181 | 3,772 | 4,422 | 5,138 |
| C | FANNIN | FROGNOT WSC | 30 | 42 | 48 | 53 | 60 | 67 |
| D | HUNT | FROGNOT WSC | 23 | 29 | 34 | 40 | 45 | 52 |
| | | **FROGNOT WSC TOTAL** | **2,130** | **2,664** | **3,263** | **3,865** | **4,527** | **5,257** |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL 2026 REGION C POPULATION | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| C | DALLAS | GLENN HEIGHTS | 13,834 | 15,160 | 15,864 | 16,278 | 16,732 | 17,233 |
| C | ELLIS | GLENN HEIGHTS | 8,344 | 10,749 | 13,364 | 16,019 | 18,936 | 22,144 |
| | | **GLENN HEIGHTS TOTAL** | **22,178** | **25,909** | **29,228** | **32,297** | **35,668** | **39,377** |
| C | DALLAS | GRAND PRAIRIE | 146,304 | 166,714 | 188,910 | 194,371 | 201,657 | 201,657 |
| C | TARRANT | GRAND PRAIRIE | 77,247 | 83,733 | 92,502 | 95,043 | 98,744 | 98,744 |
| | | **GRAND PRAIRIE TOTAL** | **223,551** | **250,447** | **281,412** | **289,414** | **300,401** | **300,401** |
| C | KAUFMAN | HEATH | 193 | 271 | 379 | 388 | 388 | 388 |
| C | ROCKWALL | HEATH | 11,635 | 15,447 | 20,471 | 20,975 | 20,975 | 20,975 |
| | | **HEATH TOTAL** | **11,828** | **15,718** | **20,850** | **21,363** | **21,363** | **21,363** |
| C | COLLIN | HICKORY CREEK SUD | 99 | 128 | 161 | 194 | 230 | 271 |
| C | FANNIN | HICKORY CREEK SUD | 274 | 252 | 245 | 232 | 217 | 202 |
| D | HUNT | HICKORY CREEK SUD | 3,454 | 3,960 | 4,540 | 5,205 | 5,968 | 6,842 |
| | | **HICKORY CREEK SUD TOTAL** | **3,827** | **4,340** | **4,946** | **5,631** | **6,415** | **7,315** |
| C | KAUFMAN | HIGH POINT WSC | 19,458 | 30,077 | 43,664 | 59,266 | 76,390 | 95,209 |
| C | ROCKWALL | HIGH POINT WSC | 1,853 | 2,687 | 3,698 | 4,768 | 5,943 | 7,235 |
| | | **HIGH POINT WSC TOTAL** | **21,311** | **32,764** | **47,362** | **64,034** | **82,333** | **102,444** |
| C | ELLIS | HILCO UNITED SERVICES | 605 | 651 | 701 | 748 | 801 | 860 |
| G | BOSQUE | HILCO UNITED SERVICES | 1,295 | 1,390 | 1,492 | 1,601 | 1,718 | 1,844 |
| G | HILL | HILCO UNITED SERVICES | 4,589 | 4,726 | 4,812 | 4,904 | 5,007 | 5,122 |
| | | **HILCO UNITED SERVICES TOTAL** | **6,489** | **6,767** | **7,005** | **7,253** | **7,526** | **7,826** |
| C | TARRANT | JOHNSON COUNTY SUD | 2,706 | 3,147 | 3,266 | 3,386 | 3,511 | 3,642 |
| G | JOHNSON | JOHNSON COUNTY SUD | 69,832 | 88,295 | 98,435 | 107,461 | 117,620 | 129,052 |
| | | **JOHNSON COUNTY SUD TOTAL** | **72,538** | **91,442** | **101,701** | **110,847** | **121,131** | **132,694** |
| C | COLLIN | JOSEPHINE | 5,389 | 11,989 | 17,424 | 19,491 | 21,800 | 21,800 |
| D | HUNT | JOSEPHINE | 155 | 180 | 204 | 225 | 245 | 267 |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL 2026 REGION C POPULATION | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | | **JOSEPHINE TOTAL** | **5,544** | **12,169** | **17,628** | **19,716** | **22,045** | **22,067** |
| C | DALLAS | LEWISVILLE | 1,046 | 1,053 | 1,126 | 1,141 | 1,163 | 1,163 |
| C | DENTON | LEWISVILLE | 114,210 | 114,924 | 122,855 | 124,518 | 126,942 | 126,942 |
| | | **LEWISVILLE TOTAL** | **115,256** | **115,977** | **123,981** | **125,659** | **128,105** | **128,105** |
| C | HENDERSON | MABANK | 3,474 | 3,826 | 3,737 | 3,863 | 4,004 | 4,161 |
| C | KAUFMAN | MABANK | 6,335 | 6,398 | 6,461 | 6,467 | 6,498 | 6,549 |
| D | VAN ZANDT | MABANK | 328 | 368 | 407 | 448 | 490 | 531 |
| | | **MABANK TOTAL** | **10,137** | **10,592** | **10,605** | **10,778** | **10,992** | **11,241** |
| C | KAUFMAN | MACBEE SUD | 276 | 336 | 412 | 498 | 592 | 696 |
| D | HUNT | MACBEE SUD | 312 | 326 | 337 | 345 | 353 | 361 |
| D | VAN ZANDT | MACBEE SUD | 8,316 | 10,289 | 12,731 | 15,752 | 19,490 | 24,115 |
| | | **MACBEE SUD TOTAL** | **8,904** | **10,951** | **13,480** | **16,595** | **20,435** | **25,172** |
| C | ELLIS | MANSFIELD | 581 | 698 | 824 | 951 | 1,091 | 1,245 |
| C | TARRANT | MANSFIELD | 102,621 | 108,197 | 131,234 | 185,294 | 185,154 | 185,000 |
| G | JOHNSON | MANSFIELD | 6,512 | 9,258 | 12,029 | 14,640 | 17,563 | 20,835 |
| | | **MANSFIELD TOTAL** | **109,714** | **118,153** | **144,087** | **200,885** | **203,808** | **207,080** |
| C | PARKER | MINERAL WELLS | 1,801 | 1,900 | 1,999 | 2,099 | 2,099 | 2,099 |
| G | PALO PINTO | MINERAL WELLS | 16,926 | 17,863 | 18,795 | 19,737 | 19,737 | 19,737 |
| | | **MINERAL WELLS TOTAL** | **18,727** | **19,763** | **20,794** | **21,836** | **21,836** | **21,836** |
| C | ELLIS | MOUNTAIN PEAK SUD | 21,088 | 28,150 | 35,829 | 43,651 | 52,242 | 61,684 |
| G | JOHNSON | MOUNTAIN PEAK SUD | 4,710 | 5,852 | 7,271 | 9,035 | 11,226 | 13,949 |
| | | **MOUNTAIN PEAK SUD TOTAL** | **25,798** | **34,002** | **43,100** | **52,686** | **63,468** | **75,633** |
| C | COOKE | MOUNTAIN SPRINGS WSC | 1,933 | 1,942 | 1,952 | 1,940 | 1,927 | 1,913 |
| C | DENTON | MOUNTAIN SPRINGS WSC | 68 | 86 | 103 | 122 | 142 | 164 |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL 2026 REGION C POPULATION | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | | **MOUNTAIN SPRINGS WSC TOTAL** | **2,001** | **2,028** | **2,055** | **2,062** | **2,069** | **2,077** |
| C | DENTON | MUSTANG SUD | 105,046 | 149,073 | 199,398 | 249,230 | 289,198 | 323,398 |
| C | COLLIN | MUSTANG SUD | 3,517 | 5,124 | 6,520 | 7,970 | 9,133 | 10,213 |
| C | GRAYSON | MUSTANG SUD | 2,344 | 3,424 | 4,396 | 5,368 | 6,088 | 6,808 |
| | | **MUSTANG SUD TOTAL** | **110,907** | **157,621** | **210,314** | **262,568** | **304,419** | **340,419** |
| C | NAVARRO | NAVARRO MILLS WSC | 2,814 | 3,021 | 3,193 | 3,343 | 3,507 | 3,689 |
| G | Hill | NAVARRO MILLS WSC | 17 | 19 | 18 | 19 | 19 | 20 |
| | | **NAVARRO MILLS WSC TOTAL** | **2,831** | **3,040** | **3,211** | **3,362** | **3,526** | **3,709** |
| C | COLLIN | NEVADA SUD | 5,579 | 7,080 | 10,527 | 22,206 | 39,638 | 53,270 |
| C | ROCKWALL | NEVADA SUD | 226 | 284 | 430 | 921 | 1,652 | 2,220 |
| | | **NEVADA SUD TOTAL** | **5,805** | **7,364** | **10,957** | **23,127** | **41,290** | **55,490** |
| C | FANNIN | NORTH HUNT SUD | 107 | 112 | 116 | 117 | 119 | 122 |
| D | DELTA | NORTH HUNT SUD | 203 | 202 | 200 | 199 | 195 | 192 |
| D | HUNT | NORTH HUNT SUD | 2,320 | 2,277 | 2,244 | 2,180 | 2,117 | 2,055 |
| | | **NORTH HUNT SUD TOTAL** | **2,630** | **2,591** | **2,560** | **2,496** | **2,431** | **2,369** |
| C | PARKER | NORTH RURAL WSC | 1,391 | 1,684 | 2,015 | 2,364 | 2,747 | 3,170 |
| G | PALO PINTO | NORTH RURAL WSC | 1,636 | 1,638 | 1,621 | 1,612 | 1,602 | 1,591 |
| | | **NORTH RURAL WSC TOTAL** | **3,027** | **3,322** | **3,636** | **3,976** | **4,349** | **4,761** |
| C | DALLAS | OVILLA | 464 | 504 | 547 | 594 | 645 | 701 |
| C | ELLIS | OVILLA | 4,974 | 6,323 | 7,790 | 9,277 | 10,911 | 12,710 |
| | | **OVILLA TOTAL** | **5,438** | **6,827** | **8,337** | **9,871** | **11,556** | **13,411** |
| C | DENTON | PILOT POINT | 6,229 | 8,047 | 13,854 | 19,888 | 21,454 | 21,454 |
| C | GRAYSON | PILOT POINT | 125 | 153 | 283 | 394 | 438 | 438 |
| | | **PILOT POINT TOTAL** | **6,354** | **8,200** | **14,137** | **20,282** | **21,892** | **21,892** |
| C | COLLIN | PLANO | 277,913 | 279,472 | 307,762 | 316,996 | 316,996 | 316,996 |
| C | DENTON | PLANO | 8,311 | 8,643 | 9,518 | 9,804 | 9,804 | 9,804 |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL 2026 REGION C POPULATION | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | | **PLANO TOTAL** | **286,224** | **288,115** | **317,280** | **326,800** | **326,800** | **326,800** |
| C | FREESTONE | PLEASANT GROVE WSC | 1,323 | 1,430 | 1,574 | 1,530 | 1,482 | 1,429 |
| C | NAVARRO | PLEASANT GROVE WSC | 122 | 130 | 137 | 144 | 151 | 159 |
| | | **PLEASANT GROVE WSC TOTAL** | **1,445** | **1,560** | **1,711** | **1,674** | **1,633** | **1,588** |
| C | KAUFMAN | POETRY WSC | 1,856 | 2,392 | 3,856 | 6,149 | 9,670 | 11,584 |
| D | HUNT | POETRY WSC | 2,011 | 2,306 | 2,547 | 2,719 | 2,267 | 2,281 |
| | | **POETRY WSC TOTAL** | **3,867** | **4,698** | **6,403** | **8,868** | **11,937** | **13,865** |
| C | FREESTONE | POINT ENTERPRISE WSC | 842 | 834 | 823 | 823 | 823 | 823 |
| G | LIMESTONE | POINT ENTERPRISE WSC | 469 | 455 | 435 | 418 | 400 | 380 |
| | | **POINT ENTERPRISE WSC TOTAL** | **1,311** | **1,289** | **1,258** | **1,241** | **1,223** | **1,203** |
| C | NAVARRO | POST OAK SUD | 505 | 472 | 445 | 408 | 367 | 325 |
| G | HILL | POST OAK SUD | 866 | 892 | 908 | 925 | 944 | 966 |
| G | LIMESTONE | POST OAK SUD | 124 | 117 | 109 | 100 | 90 | 80 |
| | | **POST OAK SUD TOTAL** | **1,495** | **1,481** | **1,462** | **1,433** | **1,401** | **1,371** |
| C | COLLIN | PROSPER | 39,104 | 45,350 | 54,280 | 56,527 | 59,802 | 59,802 |
| C | DENTON | PROSPER | 16,171 | 19,746 | 23,468 | 24,348 | 25,630 | 25,630 |
| | | **PROSPER TOTAL** | **55,275** | **65,096** | **77,748** | **80,875** | **85,432** | **85,432** |
| C | GRAYSON | RED RIVER AUTHORITY OF TEXAS | 1,052 | 1,265 | 1,443 | 1,621 | 1,814 | 2,024 |
| A | CHILDRESS | RED RIVER AUTHORITY OF TEXAS | 1,579 | 1,474 | 1,419 | 1,414 | 1,407 | 1,399 |
| A | COLLINGSWORTH | RED RIVER AUTHORITY OF TEXAS | 352 | 313 | 270 | 235 | 200 | 165 |
| A | DONLEY | RED RIVER AUTHORITY OF TEXAS | 333 | 303 | 271 | 248 | 226 | 203 |
| A | HALL | RED RIVER AUTHORITY OF TEXAS | 203 | 181 | 157 | 134 | 111 | 88 |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL 2026 REGION C POPULATION | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| B | CLAY | RED RIVER AUTHORITY OF TEXAS | 667 | 612 | 562 | 516 | 474 | 435 |
| B | COTTLE | RED RIVER AUTHORITY OF TEXAS | 74 | 79 | 92 | 92 | 92 | 92 |
| B | FOARD | RED RIVER AUTHORITY OF TEXAS | 107 | 107 | 106 | 106 | 106 | 106 |
| B | HARDEMAN | RED RIVER AUTHORITY OF TEXAS | 546 | 481 | 424 | 379 | 335 | 295 |
| B | KING | RED RIVER AUTHORITY OF TEXAS | 167 | 160 | 168 | 172 | 177 | 181 |
| B | MONTAGUE | RED RIVER AUTHORITY OF TEXAS | 88 | 82 | 102 | 104 | 106 | 106 |
| B | WILBARGER | RED RIVER AUTHORITY OF TEXAS | 2,674 | 2,590 | 2,508 | 2,429 | 2,352 | 2,278 |
| G | KNOX | RED RIVER AUTHORITY OF TEXAS | 53 | 49 | 41 | 36 | 30 | 23 |
| O | MOTLEY | RED RIVER AUTHORITY OF TEXAS | 8 | 6 | 6 | 6 | 6 | 6 |
| O | DICKENS | RED RIVER AUTHORITY OF TEXAS | 5 | 5 | 5 | 4 | 3 | 2 |
| | | **RED RIVER AUTHORITY OF TEXAS TOTAL** | **7,908** | **7,707** | **7,574** | **7,496** | **7,439** | **7,403** |
| C | PARKER | RENO (PARKER) | 4,194 | 5,107 | 6,138 | 7,226 | 8,424 | 9,741 |
| C | TARRANT | RENO (PARKER) | 79 | 88 | 95 | 101 | 106 | 113 |
| | | **RENO (PARKER) TOTAL** | **4,273** | **5,195** | **6,233** | **7,327** | **8,530** | **9,854** |
| C | ELLIS | RICE WATER SUPPLY AND SEWER SERVICE | 5,565 | 6,678 | 7,888 | 9,106 | 10,446 | 11,922 |
| C | NAVARRO | RICE WATER SUPPLY AND SEWER SERVICE | 3,953 | 4,697 | 5,581 | 6,632 | 7,881 | 9,365 |
| | | **RICE WATER SUPPLY AND SEWER SERVICE TOTAL** | **9,518** | **11,375** | **13,469** | **15,738** | **18,327** | **21,287** |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL 2026 REGION C POPULATION | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| C | COLLIN | RICHARDSON | 63,141 | 66,547 | 72,087 | 74,250 | 74,250 | 74,250 |
| C | DALLAS | RICHARDSON | 54,374 | 56,289 | 58,980 | 60,750 | 60,750 | 60,750 |
| | | **RICHARDSON TOTAL** | **117,515** | **122,836** | **131,067** | **135,000** | **135,000** | **135,000** |
| C | DALLAS | ROCKETT SUD | 755 | 836 | 912 | 938 | 966 | 976 |
| C | ELLIS | ROCKETT SUD | 37,615 | 44,938 | 53,859 | 62,009 | 74,775 | 85,142 |
| | | **ROCKETT SUD TOTAL** | **38,370** | **45,774** | **54,771** | **62,947** | **75,741** | **86,118** |
| C | DALLAS | ROWLETT | 65,945 | 69,670 | 80,411 | 84,929 | 88,280 | 88,280 |
| C | ROCKWALL | ROWLETT | 11,930 | 12,265 | 14,770 | 15,942 | 16,815 | 16,815 |
| | | **ROWLETT TOTAL** | **77,875** | **81,935** | **95,181** | **100,871** | **105,095** | **105,095** |
| C | COLLIN | ROYSE CITY | 8,394 | 15,496 | 22,376 | 24,692 | 27,747 | 27,747 |
| C | ROCKWALL | ROYSE CITY | 26,943 | 53,046 | 68,545 | 74,175 | 82,398 | 80,859 |
| D | HUNT | ROYSE CITY | 4,136 | 5,910 | 7,450 | 8,967 | 10,495 | 12,034 |
| | | **ROYSE CITY TOTAL** | **39,473** | **74,452** | **98,371** | **107,834** | **120,640** | **120,640** |
| C | COLLIN | SACHSE | 9,745 | 10,386 | 11,796 | 12,331 | 12,692 | 12,692 |
| C | DALLAS | SACHSE | 19,762 | 21,212 | 24,032 | 25,085 | 25,770 | 25,770 |
| | | **SACHSE TOTAL** | **29,507** | **31,598** | **35,828** | **37,416** | **38,462** | **38,462** |
| C | PARKER | SANTO SUD | 155 | 186 | 219 | 256 | 297 | 340 |
| G | HOOD | SANTO SUD | 10 | 7 | 5 | 4 | 3 | 2 |
| G | PALO PINTO | SANTO SUD | 1,972 | 1,973 | 1,954 | 1,943 | 1,931 | 1,917 |
| | | **SANTO SUD TOTAL** | **2,137** | **2,166** | **2,178** | **2,203** | **2,231** | **2,259** |
| C | ELLIS | SOUTH ELLIS COUNTY WSC | 1,458 | 1,750 | 2,067 | 2,386 | 2,737 | 3,124 |
| C | NAVARRO | SOUTH ELLIS COUNTY WSC | 68 | 83 | 94 | 106 | 118 | 132 |
| | | **SOUTH ELLIS COUNTY WSC TOTAL** | **1,526** | **1,833** | **2,161** | **2,492** | **2,855** | **3,256** |
| C | COLLIN | SOUTH GRAYSON SUD | 1,269 | 1,671 | 2,128 | 2,586 | 3,092 | 3,649 |
| C | GRAYSON | SOUTH GRAYSON SUD | 4,034 | 4,496 | 4,882 | 5,240 | 5,631 | 6,061 |
| | | **SOUTH GRAYSON SUD TOTAL** | **5,303** | **6,167** | **7,010** | **7,826** | **8,723** | **9,710** |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL 2026 REGION C POPULATION | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| C | FREESTONE | SOUTHERN OAKS WATER SUPPLY | 675 | 856 | 1,099 | 1,073 | 1,043 | 1,009 |
| C | NAVARRO | SOUTHERN OAKS WATER SUPPLY | 163 | 221 | 269 | 320 | 375 | 435 |
| | | **SOUTHERN OAKS WATER SUPPLY TOTAL** | **838** | **1,077** | **1,368** | **1,393** | **1,418** | **1,444** |
| C | DENTON | SOUTHLAKE | 699 | 648 | 582 | 513 | 440 | 367 |
| C | TARRANT | SOUTHLAKE | 35,117 | 39,471 | 42,199 | 44,631 | 47,071 | 49,365 |
| | | **SOUTHLAKE TOTAL** | **35,816** | **40,119** | **42,781** | **45,144** | **47,511** | **49,732** |
| C | FANNIN | SOUTHWEST FANNIN COUNTY SUD | 6,879 | 7,606 | 7,967 | 8,289 | 8,643 | 9,030 |
| C | GRAYSON | SOUTHWEST FANNIN COUNTY SUD | 1,534 | 1,673 | 1,788 | 1,891 | 2,003 | 2,127 |
| | | **SOUTHWEST FANNIN COUNTY SUD TOTAL** | **8,413** | **9,279** | **9,755** | **10,180** | **10,646** | **11,157** |
| C | PARKER | STURDIVANT PROGRESS WSC | 23 | 21 | 19 | 16 | 13 | 10 |
| G | PALO PINTO | STURDIVANT PROGRESS WSC | 2,259 | 2,262 | 2,238 | 2,226 | 2,212 | 2,197 |
| | | **STURDIVANT PROGRESS WSC TOTAL** | **2,282** | **2,283** | **2,257** | **2,242** | **2,225** | **2,207** |
| C | TARRANT | TROPHY CLUB MUD 1 | 995 | 1,282 | 1,521 | 1,717 | 1,933 | 2,169 |
| C | DENTON | TROPHY CLUB MUD 1 | 13,252 | 13,252 | 13,252 | 13,252 | 13,252 | 13,252 |
| | | **TROPHY CLUB MUD 1 TOTAL** | **14,247** | **14,534** | **14,773** | **14,969** | **15,185** | **15,421** |
| C | COOKE | TWO WAY SUD | 43 | 43 | 50 | 51 | 54 | 55 |
| C | GRAYSON | TWO WAY SUD | 6,004 | 6,357 | 7,569 | 8,275 | 9,187 | 9,756 |
| | | **TWO WAY SUD TOTAL** | **6,047** | **6,400** | **7,619** | **8,326** | **9,241** | **9,811** |
| C | HENDERSON | VIRGINIA HILL WSC | 1,547 | 1,594 | 1,633 | 1,667 | 1,704 | 1,744 |
| I | HENDERSON | VIRGINIA HILL WSC | 1,693 | 1,752 | 1,788 | 1,827 | 1,865 | 1,903 |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL 2026 REGION C POPULATION | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | | **VIRGINIA HILL WSC TOTAL** | **3,240** | **3,346** | **3,421** | **3,494** | **3,569** | **3,647** |
| C | PARKER | WALNUT CREEK SUD | 20,927 | 22,831 | 31,740 | 47,518 | 66,114 | 84,631 |
| C | WISE | WALNUT CREEK SUD | 3,707 | 3,965 | 5,477 | 8,249 | 11,667 | 14,935 |
| | | **WALNUT CREEK SUD TOTAL** | **24,634** | **26,796** | **37,217** | **55,767** | **77,781** | **99,566** |
| C | HENDERSON | WEST CEDAR CREEK MUD | 4,847 | 4,501 | 4,969 | 4,973 | 4,973 | 4,968 |
| C | KAUFMAN | WEST CEDAR CREEK MUD | 227 | 276 | 339 | 410 | 488 | 575 |
| | | **WEST CEDAR CREEK MUD TOTAL** | **5,074** | **4,777** | **5,308** | **5,383** | **5,461** | **5,543** |
| C | COLLIN | WEST LEONARD WSC | 337 | 422 | 518 | 614 | 720 | 837 |
| C | FANNIN | WEST LEONARD WSC | 1,914 | 2,301 | 2,478 | 2,661 | 2,862 | 3,082 |
| D | HUNT | WEST LEONARD WSC | 36 | 41 | 46 | 52 | 56 | 60 |
| | | **WEST LEONARD WSC TOTAL** | **2,287** | **2,764** | **3,042** | **3,327** | **3,638** | **3,979** |
| C | COLLIN | WESTMINSTER SUD | 2,138 | 2,674 | 3,283 | 3,894 | 4,567 | 5,309 |
| C | GRAYSON | WESTMINSTER SUD | 30 | 36 | 41 | 46 | 53 | 58 |
| | | **WESTMINSTER SUD TOTAL** | **2,168** | **2,710** | **3,324** | **3,940** | **4,620** | **5,367** |
| C | FANNIN | WHITEWRIGHT | 78 | 98 | 107 | 117 | 127 | 139 |
| C | GRAYSON | WHITEWRIGHT | 2,220 | 2,421 | 2,588 | 2,737 | 2,899 | 3,079 |
| | | **WHITEWRIGHT TOTAL** | **2,298** | **2,519** | **2,695** | **2,854** | **3,026** | **3,218** |
| C | FANNIN | WOLFE CITY | 49 | 38 | 30 | 24 | 19 | 15 |
| D | HUNT | WOLFE CITY | 1,589 | 1,619 | 1,647 | 1,657 | 1,666 | 1,677 |
| | | **WOLFE CITY TOTAL** | **1,638** | **1,657** | **1,677** | **1,681** | **1,685** | **1,692** |
| C | COOKE | WOODBINE WSC | 6,857 | 7,116 | 7,230 | 7,260 | 7,292 | 7,328 |
| C | GRAYSON | WOODBINE WSC | 87 | 96 | 103 | 110 | 117 | 125 |
| | | **WOODBINE WSC TOTAL** | **6,944** | **7,212** | **7,333** | **7,370** | **7,409** | **7,453** |

# Attachment Three

## *Region C Projected Municipal Demand by WUG, by County*

***ATTACHMENT 3 - REGION C PROJECTED MUNICIPAL DEMAND BY WUG, BY COUNTY***

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | REGION C FINAL MUNICIPAL DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | COLLIN | ALLEN | 25,556 | 28,533 | 28,533 | 28,533 | 28,533 | 28,533 |
| | COLLIN | ANNA | 6,639 | 10,722 | 13,577 | 16,162 | 18,686 | 20,034 |
| **Yes** | COLLIN | BEAR CREEK SUD | 2,980 | 5,223 | 5,973 | 6,504 | 7,130 | 7,130 |
| | COLLIN | BLUE RIDGE | 278 | 362 | 459 | 556 | 663 | 781 |
| **Yes** | COLLIN | CADDO BASIN SUD | 287 | 1,464 | 2,344 | 2,706 | 3,020 | 3,122 |
| **Yes** | COLLIN | CELINA | 13,445 | 23,452 | 39,076 | 40,769 | 50,311 | 60,850 |
| | COLLIN | COPEVILLE WSC | 931 | 1,466 | 2,155 | 2,365 | 2,641 | 2,918 |
| | COLLIN | COUNTY-OTHER | 571 | 754 | 939 | 1,125 | 1,311 | 1,497 |
| | COLLIN | CULLEOKA WSC | 1,316 | 1,503 | 1,812 | 2,054 | 2,312 | 2,554 |
| **Yes** | COLLIN | DALLAS | 11,730 | 13,022 | 14,503 | 16,153 | 17,990 | 20,037 |
| **Yes** | COLLIN | DESERT WSC | 59 | 64 | 70 | 77 | 84 | 91 |
| **Yes** | COLLIN | EAST FORK SUD | 2,071 | 2,459 | 2,918 | 3,320 | 3,667 | 4,051 |
| | COLLIN | FAIRVIEW | 4,646 | 5,863 | 7,199 | 7,199 | 7,199 | 7,199 |
| | COLLIN | FARMERSVILLE | 659 | 1,618 | 3,206 | 3,648 | 4,130 | 4,562 |
| **Yes** | COLLIN | FRISCO | 43,641 | 52,705 | 52,815 | 52,815 | 52,815 | 52,815 |
| **Yes** | COLLIN | FROGNOT WSC | 208 | 259 | 318 | 377 | 441 | 513 |
| **Yes** | COLLIN | HICKORY CREEK SUD | 16 | 21 | 26 | 31 | 37 | 44 |
| **Yes** | COLLIN | JOSEPHINE | 1,136 | 2,523 | 3,667 | 4,101 | 4,587 | 4,587 |
| | COLLIN | LUCAS | 3,226 | 3,681 | 3,771 | 3,771 | 3,771 | 3,771 |
| | COLLIN | MCKINNEY | 48,864 | 57,687 | 73,839 | 92,883 | 92,883 | 92,883 |
| | COLLIN | MELISSA | 9,505 | 14,123 | 18,969 | 23,555 | 25,761 | 25,761 |
| | COLLIN | MILLIGAN WSC | 387 | 404 | 474 | 553 | 641 | 714 |
| | COLLIN | MURPHY | 4,832 | 4,914 | 5,428 | 6,017 | 6,658 | 7,128 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | REGION C FINAL MUNICIPAL DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Yes** | COLLIN | MUSTANG SUD | 518 | 753 | 959 | 1,172 | 1,343 | 1,502 |
| **Yes** | COLLIN | NEVADA SUD | 537 | 678 | 1,007 | 2,125 | 3,793 | 5,098 |
| | COLLIN | NORTH COLLIN SUD | 1,080 | 1,216 | 1,485 | 1,783 | 2,078 | 2,422 |
| | COLLIN | NORTH FARMERSVILLE WSC | 99 | 117 | 152 | 177 | 200 | 211 |
| | COLLIN | PARKER | 2,913 | 3,714 | 5,126 | 5,958 | 5,958 | 5,958 |
| **Yes** | COLLIN | PLANO | 70,410 | 70,627 | 77,776 | 80,110 | 80,110 | 80,110 |
| | COLLIN | PRINCETON | 5,085 | 10,783 | 14,621 | 16,324 | 17,769 | 17,769 |
| **Yes** | COLLIN | PROSPER | 10,137 | 11,731 | 14,041 | 14,623 | 15,470 | 15,470 |
| **Yes** | COLLIN | RICHARDSON | 15,573 | 16,366 | 17,729 | 18,261 | 18,261 | 18,261 |
| **Yes** | COLLIN | ROYSE CITY | 1,257 | 2,311 | 3,337 | 3,683 | 4,138 | 4,138 |
| **Yes** | COLLIN | SACHSE | 1,734 | 1,840 | 2,090 | 2,185 | 2,249 | 2,249 |
| | COLLIN | SEIS LAGOS UD | 656 | 633 | 665 | 691 | 707 | 709 |
| **Yes** | COLLIN | SOUTH GRAYSON SUD | 151 | 197 | 251 | 305 | 365 | 431 |
| | COLLIN | VERONA SUD | 442 | 555 | 685 | 816 | 961 | 1,120 |
| **Yes** | COLLIN | WEST LEONARD WSC | 44 | 55 | 67 | 79 | 93 | 108 |
| **Yes** | COLLIN | WESTMINSTER SUD | 404 | 504 | 618 | 733 | 860 | 1,000 |
| | COLLIN | WYLIE | 6,935 | 6,830 | 7,157 | 7,372 | 7,372 | 7,372 |
| | COLLIN | WYLIE NORTHEAST SUD | 1,851 | 2,278 | 2,807 | 3,006 | 3,086 | 3,086 |
| | **COLLIN TOTAL** | | **302,809** | **364,010** | **432,644** | **474,677** | **500,084** | **518,589** |
| **Yes** | COOKE | BOLIVAR WSC | 255 | 278 | 287 | 293 | 299 | 305 |
| | COOKE | CALLISBURG WSC | 141 | 146 | 149 | 150 | 151 | 152 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | REGION C FINAL MUNICIPAL DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | COOKE | COUNTY-OTHER | 763 | 785 | 809 | 833 | 864 | 889 |
| | COOKE | GAINESVILLE | 2,741 | 2,812 | 2,851 | 2,981 | 3,217 | 3,450 |
| | COOKE | LAKE KIOWA SUD | 942 | 993 | 1,015 | 1,024 | 1,035 | 1,046 |
| | COOKE | LINDSAY | 216 | 220 | 223 | 223 | 223 | 223 |
| **Yes** | COOKE | MOUNTAIN SPRINGS WSC | 317 | 317 | 319 | 317 | 315 | 312 |
| | COOKE | MUENSTER | 357 | 355 | 355 | 355 | 355 | 355 |
| **Yes** | COOKE | TWO WAY SUD | 6 | 6 | 6 | 7 | 7 | 7 |
| **Yes** | COOKE | WOODBINE WSC | 703 | 725 | 737 | 740 | 743 | 747 |
| | **COOKE TOTAL** | | **6,441** | **6,637** | **6,751** | **6,923** | **7,209** | **7,486** |
| | DALLAS | ADDISON | 8,324 | 9,360 | 9,922 | 10,255 | 10,622 | 11,025 |
| **Yes** | DALLAS | AMC CREEKSIDE | 37 | 45 | 50 | 53 | 56 | 59 |
| | DALLAS | BALCH SPRINGS | 2,854 | 3,033 | 3,316 | 3,614 | 3,993 | 4,191 |
| **Yes** | DALLAS | CARROLLTON | 9,995 | 10,527 | 11,157 | 11,820 | 12,523 | 12,571 |
| | DALLAS | CEDAR HILL | 10,544 | 11,467 | 12,517 | 13,527 | 14,619 | 15,799 |
| | DALLAS | COCKRELL HILL | 525 | 489 | 471 | 460 | 447 | 433 |
| **Yes** | DALLAS | COMBINE WSC | 70 | 75 | 78 | 79 | 81 | 83 |
| **Yes** | DALLAS | COPPELL | 11,021 | 10,958 | 10,980 | 10,997 | 11,021 | 11,021 |
| | DALLAS | COUNTY-OTHER | 2,037 | 2,851 | 3,665 | 4,479 | 5,294 | 6,108 |
| **Yes** | DALLAS | DALLAS | 276,907 | 286,506 | 297,389 | 308,685 | 320,410 | 332,580 |
| | DALLAS | DESOTO | 10,093 | 10,729 | 11,088 | 11,295 | 11,523 | 11,775 |
| | DALLAS | DUNCANVILLE | 6,037 | 6,319 | 6,487 | 6,507 | 6,507 | 6,507 |
| **Yes** | DALLAS | EAST FORK SUD | 544 | 646 | 766 | 872 | 963 | 1,064 |
| | DALLAS | FARMERS BRANCH | 10,602 | 11,536 | 12,050 | 12,352 | 12,683 | 13,049 |
| | DALLAS | GARLAND | 40,812 | 43,884 | 45,816 | 47,228 | 47,510 | 47,510 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | REGION C FINAL MUNICIPAL DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Yes** | DALLAS | GLENN HEIGHTS | 1,486 | 1,620 | 1,695 | 1,740 | 1,788 | 1,842 |
| **Yes** | DALLAS | GRAND PRAIRIE | 23,012 | 26,086 | 29,559 | 30,414 | 31,554 | 31,554 |
| | DALLAS | HIGHLAND PARK | 4,144 | 4,139 | 4,139 | 4,139 | 4,139 | 4,139 |
| | DALLAS | HUTCHINS | 1,841 | 2,037 | 2,148 | 2,214 | 2,286 | 2,365 |
| | DALLAS | IRVING | 60,093 | 63,617 | 63,666 | 63,715 | 63,766 | 63,766 |
| | DALLAS | LANCASTER | 7,427 | 7,847 | 8,088 | 8,226 | 8,379 | 8,547 |
| | DALLAS | LANCASTER MUD 1 | 275 | 341 | 376 | 398 | 421 | 447 |
| **Yes** | DALLAS | LEWISVILLE | 176 | 177 | 189 | 191 | 195 | 195 |
| | DALLAS | MESQUITE | 24,067 | 24,950 | 27,685 | 31,178 | 35,084 | 38,413 |
| **Yes** | DALLAS | OVILLA | 109 | 118 | 128 | 139 | 151 | 165 |
| **Yes** | DALLAS | RICHARDSON | 13,410 | 13,844 | 14,505 | 14,941 | 14,941 | 14,941 |
| **Yes** | DALLAS | ROCKETT SUD | 86 | 95 | 103 | 106 | 110 | 111 |
| **Yes** | DALLAS | ROWLETT | 9,781 | 10,287 | 11,872 | 12,539 | 13,034 | 13,034 |
| **Yes** | DALLAS | SACHSE | 3,516 | 3,759 | 4,258 | 4,445 | 4,566 | 4,566 |
| | DALLAS | SEAGOVILLE | 2,217 | 2,416 | 2,529 | 2,596 | 2,669 | 2,749 |
| | DALLAS | SUNNYVALE | 3,010 | 3,782 | 4,488 | 4,680 | 4,750 | 4,750 |
| | DALLAS | UNIVERSITY PARK | 7,518 | 7,502 | 7,502 | 7,502 | 7,502 | 7,502 |
| | DALLAS | WILMER | 814 | 913 | 969 | 1,003 | 1,039 | 1,079 |
| | **DALLAS TOTAL** | | **553,384** | **581,955** | **609,651** | **632,389** | **654,626** | **673,940** |
| **Yes** | DENTON | AMC CREEKSIDE | 144 | 181 | 219 | 258 | 302 | 349 |
| | DENTON | ARGYLE WSC | 2,674 | 3,458 | 4,583 | 5,664 | 6,458 | 7,041 |
| | DENTON | AUBREY | 949 | 1,650 | 2,833 | 3,853 | 4,634 | 4,634 |
| | DENTON | BLACK ROCK WSC | 374 | 469 | 569 | 671 | 783 | 907 |
| **Yes** | DENTON | BOLIVAR WSC | 1,285 | 1,604 | 1,946 | 2,294 | 2,793 | 3,430 |
| **Yes** | DENTON | CARROLLTON | 15,674 | 16,532 | 17,491 | 18,510 | 19,587 | 19,662 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | REGION C FINAL MUNICIPAL DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Yes** | DENTON | CELINA | 260 | 445 | 767 | 814 | 1,027 | 1,242 |
| **Yes** | DENTON | COPPELL | 371 | 357 | 368 | 377 | 389 | 389 |
| | DENTON | CORINTH | 4,884 | 5,255 | 6,543 | 6,732 | 7,008 | 7,008 |
| | DENTON | COUNTY-OTHER | 6,119 | 9,640 | 13,184 | 16,727 | 22,043 | 25,586 |
| | DENTON | CROSS TIMBERS WSC | 2,103 | 2,634 | 3,198 | 3,771 | 4,451 | 5,436 |
| **Yes** | DENTON | DALLAS | 7,624 | 9,385 | 11,672 | 14,095 | 16,792 | 19,702 |
| | DENTON | DENTON | 31,573 | 40,291 | 49,891 | 59,284 | 70,931 | 82,318 |
| | DENTON | DENTON COUNTY FWSD 10 | 1,158 | 1,155 | 1,155 | 1,155 | 1,155 | 1,155 |
| | DENTON | DENTON COUNTY FWSD 11-C | 363 | 569 | 786 | 1,006 | 1,248 | 1,515 |
| | DENTON | DENTON COUNTY FWSD 1-A | 3,979 | 5,348 | 5,717 | 5,794 | 5,907 | 5,907 |
| | DENTON | DENTON COUNTY FWSD 7 | 3,194 | 3,367 | 3,367 | 3,367 | 3,367 | 3,367 |
| **Yes** | DENTON | FLOWER MOUND | 23,525 | 29,430 | 35,693 | 35,693 | 35,693 | 35,693 |
| **Yes** | DENTON | FORT WORTH | 5,081 | 7,584 | 9,304 | 11,598 | 14,125 | 16,908 |
| **Yes** | DENTON | FRISCO | 32,653 | 39,487 | 39,843 | 39,843 | 39,843 | 39,843 |
| | DENTON | HACKBERRY | 1,435 | 2,025 | 2,648 | 3,282 | 3,981 | 4,750 |
| | DENTON | HIGHLAND VILLAGE | 3,667 | 3,914 | 3,957 | 3,957 | 3,957 | 3,957 |
| | DENTON | JUSTIN | 1,196 | 1,671 | 2,342 | 3,284 | 4,603 | 6,452 |
| | DENTON | KRUM | 1,559 | 2,074 | 2,767 | 3,691 | 4,923 | 6,567 |
| | DENTON | LAKE CITIES MUNICIPAL UTILITY AUTHORITY | 2,411 | 2,913 | 3,050 | 3,082 | 3,102 | 3,102 |
| **Yes** | DENTON | LEWISVILLE | 19,229 | 19,269 | 20,598 | 20,877 | 21,283 | 21,283 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | REGION C FINAL MUNICIPAL DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | DENTON | LITTLE ELM | 5,915 | 5,620 | 5,934 | 6,195 | 6,366 | 6,366 |
| **Yes** | DENTON | MOUNTAIN SPRINGS WSC | 11 | 14 | 17 | 20 | 23 | 27 |
| **Yes** | DENTON | MUSTANG SUD | 15,484 | 21,922 | 29,322 | 36,650 | 42,527 | 47,556 |
| | DENTON | NORTHLAKE | 5,222 | 5,783 | 7,177 | 8,431 | 9,701 | 10,645 |
| | DENTON | PALOMA CREEK NORTH | 1,198 | 1,194 | 1,194 | 1,194 | 1,194 | 1,194 |
| | DENTON | PALOMA CREEK SOUTH | 1,841 | 1,835 | 1,835 | 1,835 | 1,835 | 1,835 |
| **Yes** | DENTON | PILOT POINT | 827 | 1,065 | 1,834 | 2,632 | 2,839 | 2,839 |
| **Yes** | DENTON | PLANO | 2,106 | 2,184 | 2,405 | 2,478 | 2,478 | 2,478 |
| | DENTON | PONDER | 692 | 921 | 1,164 | 1,411 | 1,683 | 1,982 |
| **Yes** | DENTON | PROSPER | 4,192 | 5,108 | 6,071 | 6,298 | 6,630 | 6,630 |
| | DENTON | PROVIDENCE VILLAGE WCID | 909 | 904 | 904 | 904 | 904 | 904 |
| | DENTON | ROANOKE | 3,915 | 3,810 | 3,892 | 3,957 | 4,052 | 4,052 |
| | DENTON | SANGER | 1,505 | 1,882 | 2,285 | 2,972 | 3,754 | 4,740 |
| **Yes** | DENTON | SOUTHLAKE | 286 | 265 | 238 | 210 | 180 | 150 |
| | DENTON | TERRA SOUTHWEST | 235 | 297 | 364 | 432 | 507 | 589 |
| | DENTON | THE COLONY | 7,638 | 8,939 | 9,988 | 9,988 | 9,988 | 9,988 |
| **Yes** | DENTON | TROPHY CLUB MUD 1 | 5,006 | 4,998 | 4,998 | 4,998 | 4,998 | 4,998 |
| | **DENTON TOTAL** | | **230,466** | **277,448** | **324,113** | **360,284** | **400,044** | **435,176** |
| | ELLIS | AVALON WATER SUPPLY & SEWER SERVICE | 122 | 136 | 151 | 166 | 183 | 202 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | REGION C FINAL MUNICIPAL DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | ELLIS | BUENA VISTA-BETHEL SUD | 1,961 | 2,382 | 2,842 | 3,307 | 3,818 | 4,381 |
| | ELLIS | COUNTY-OTHER | 772 | 823 | 877 | 931 | 986 | 1,040 |
| | ELLIS | EAST GARRETT WSC | 291 | 369 | 454 | 540 | 635 | 740 |
| | ELLIS | ENNIS | 3,721 | 3,892 | 4,092 | 4,272 | 4,476 | 4,704 |
| | ELLIS | FERRIS | 474 | 501 | 531 | 559 | 591 | 626 |
| **Yes** | ELLIS | FILES VALLEY WSC | 166 | 200 | 237 | 275 | 316 | 362 |
| **Yes** | ELLIS | GLENN HEIGHTS | 896 | 1,149 | 1,428 | 1,712 | 2,024 | 2,367 |
| **Yes** | ELLIS | HILCO UNITED SERVICES | 124 | 133 | 143 | 152 | 163 | 175 |
| | ELLIS | ITALY | 249 | 248 | 248 | 247 | 246 | 245 |
| **Yes** | ELLIS | MANSFIELD | 157 | 188 | 221 | 256 | 293 | 335 |
| | ELLIS | MIDLOTHIAN | 7,672 | 8,752 | 10,446 | 12,038 | 13,700 | 15,005 |
| **Yes** | ELLIS | MOUNTAIN PEAK SUD | 6,543 | 8,720 | 11,099 | 13,522 | 16,183 | 19,108 |
| | ELLIS | NASH FORRESTON WSC | 230 | 274 | 324 | 374 | 429 | 489 |
| **Yes** | ELLIS | OVILLA | 1,169 | 1,484 | 1,828 | 2,177 | 2,561 | 2,983 |
| | ELLIS | PALMER | 276 | 329 | 389 | 449 | 515 | 588 |
| | ELLIS | RED OAK | 1,753 | 2,177 | 2,645 | 3,119 | 3,640 | 4,213 |
| **Yes** | ELLIS | RICE WATER SUPPLY AND SEWER SERVICE | 647 | 773 | 913 | 1,054 | 1,209 | 1,379 |
| **Yes** | ELLIS | ROCKETT SUD | 4,285 | 5,094 | 6,105 | 7,029 | 8,476 | 9,652 |
| | ELLIS | SARDIS LONE ELM WSC | 5,534 | 6,825 | 8,242 | 8,610 | 8,610 | 8,610 |
| **Yes** | ELLIS | SOUTH ELLIS COUNTY WSC | 542 | 649 | 767 | 885 | 1,016 | 1,159 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | REGION C FINAL MUNICIPAL DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | ELLIS | WAXAHACHIE | 8,654 | 10,663 | 12,873 | 15,107 | 17,564 | 20,267 |
| | **ELLIS TOTAL** | | **46,238** | **55,761** | **66,855** | **76,781** | **87,634** | **98,630** |
| | FANNIN | ARLEDGE RIDGE WSC | 230 | 248 | 257 | 265 | 274 | 283 |
| **Yes** | FANNIN | BOIS D ARC MUD | 341 | 356 | 366 | 372 | 379 | 387 |
| | FANNIN | BONHAM | 1,944 | 2,362 | 3,353 | 4,422 | 5,855 | 7,120 |
| | FANNIN | COUNTY-OTHER | 404 | 406 | 430 | 458 | 503 | 529 |
| **Yes** | FANNIN | DELTA COUNTY MUD | 7 | 8 | 9 | 10 | 10 | 11 |
| **Yes** | FANNIN | DESERT WSC | 128 | 145 | 153 | 161 | 169 | 179 |
| **Yes** | FANNIN | FROGNOT WSC | 3 | 4 | 5 | 5 | 6 | 7 |
| **Yes** | FANNIN | HICKORY CREEK SUD | 44 | 41 | 40 | 37 | 35 | 33 |
| | FANNIN | HONEY GROVE | 278 | 284 | 284 | 284 | 284 | 284 |
| | FANNIN | LADONIA | 117 | 144 | 207 | 305 | 377 | 377 |
| | FANNIN | LEONARD | 383 | 412 | 488 | 571 | 682 | 819 |
| **Yes** | FANNIN | NORTH HUNT SUD | 16 | 16 | 17 | 17 | 17 | 18 |
| | FANNIN | SAVOY | 94 | 93 | 93 | 92 | 91 | 89 |
| **Yes** | FANNIN | SOUTHWEST FANNIN COUNTY SUD | 669 | 735 | 770 | 801 | 835 | 872 |
| | FANNIN | TRENTON | 144 | 154 | 160 | 164 | 169 | 174 |
| **Yes** | FANNIN | WEST LEONARD WSC | 248 | 297 | 320 | 344 | 370 | 398 |
| | FANNIN | WHITE SHED WSC | 245 | 256 | 263 | 267 | 272 | 277 |
| **Yes** | FANNIN | WHITEWRIGHT | 14 | 18 | 19 | 21 | 23 | 25 |
| **Yes** | FANNIN | WOLFE CITY | 5 | 4 | 3 | 2 | 2 | 2 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | REGION C FINAL MUNICIPAL DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | **FANNIN TOTAL** | | **5,314** | **5,983** | **7,237** | **8,598** | **10,353** | **11,884** |
| | FREESTONE | BUTLER WSC | 180 | 177 | 175 | 170 | 164 | 158 |
| | FREESTONE | COUNTY-OTHER | 326 | 297 | 254 | 258 | 259 | 257 |
| | FREESTONE | FAIRFIELD | 1,007 | 973 | 944 | 883 | 822 | 762 |
| **Yes** | FREESTONE | FLO COMMUNITY WSC | 18 | 18 | 18 | 18 | 18 | 18 |
| **Yes** | FREESTONE | PLEASANT GROVE WSC | 126 | 136 | 149 | 145 | 141 | 136 |
| **Yes** | FREESTONE | POINT ENTERPRISE WSC | 116 | 115 | 113 | 113 | 113 | 113 |
| | FREESTONE | SOUTH FREESTONE COUNTY WSC | 250 | 260 | 275 | 267 | 258 | 249 |
| **Yes** | FREESTONE | SOUTHERN OAKS WATER SUPPLY | 121 | 154 | 197 | 192 | 187 | 181 |
| | FREESTONE | TEAGUE | 575 | 524 | 457 | 441 | 424 | 406 |
| | FREESTONE | WORTHAM | 128 | 116 | 100 | 96 | 92 | 89 |
| | **FREESTONE TOTAL** | | **2,847** | **2,770** | **2,682** | **2,583** | **2,478** | **2,369** |
| | GRAYSON | BELLS | 179 | 194 | 207 | 219 | 232 | 246 |
| | GRAYSON | COLLINSVILLE | 280 | 306 | 329 | 351 | 374 | 399 |
| | GRAYSON | COUNTY-OTHER | 1,372 | 1,282 | 1,355 | 1,428 | 1,565 | 1,589 |
| | GRAYSON | DENISON | 11,860 | 15,077 | 17,969 | 20,896 | 24,712 | 26,830 |
| **Yes** | GRAYSON | DESERT WSC | 113 | 122 | 131 | 138 | 146 | 155 |
| | GRAYSON | DORCHESTER | 222 | 228 | 232 | 234 | 237 | 240 |
| | GRAYSON | GUNTER | 305 | 354 | 395 | 436 | 480 | 528 |
| | GRAYSON | HOWE | 438 | 522 | 595 | 667 | 745 | 830 |
| | GRAYSON | KENTUCKYTOWN WSC | 345 | 376 | 404 | 428 | 456 | 485 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | REGION C FINAL MUNICIPAL DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | GRAYSON | LUELLA SUD | 275 | 274 | 274 | 274 | 274 | 274 |
| **Yes** | GRAYSON | MUSTANG SUD | 346 | 504 | 646 | 789 | 895 | 1,001 |
| | GRAYSON | NORTHWEST GRAYSON COUNTY WCID 1 | 199 | 221 | 240 | 257 | 277 | 298 |
| | GRAYSON | OAK RIDGE SOUTH GALE WSC | 236 | 239 | 244 | 245 | 247 | 249 |
| **Yes** | GRAYSON | PILOT POINT | 17 | 20 | 37 | 52 | 58 | 58 |
| | GRAYSON | PINK HILL WSC | 246 | 272 | 294 | 314 | 336 | 361 |
| | GRAYSON | POTTSBORO | 596 | 647 | 692 | 732 | 775 | 823 |
| **Yes** | GRAYSON | RED RIVER AUTHORITY OF TEXAS | 254 | 304 | 347 | 390 | 436 | 486 |
| | GRAYSON | SHERMAN | 11,274 | 12,225 | 13,046 | 13,766 | 14,560 | 15,434 |
| **Yes** | GRAYSON | SOUTH GRAYSON SUD | 479 | 531 | 577 | 619 | 665 | 716 |
| | GRAYSON | SOUTHMAYD | 103 | 106 | 108 | 109 | 111 | 112 |
| **Yes** | GRAYSON | SOUTHWEST FANNIN COUNTY SUD | 149 | 162 | 173 | 183 | 194 | 205 |
| | GRAYSON | STARR WSC | 230 | 249 | 266 | 281 | 298 | 316 |
| | GRAYSON | TIOGA | 236 | 279 | 316 | 353 | 392 | 435 |
| | GRAYSON | TOM BEAN | 205 | 204 | 204 | 204 | 204 | 204 |
| **Yes** | GRAYSON | TWO WAY SUD | 783 | 825 | 983 | 1,074 | 1,193 | 1,267 |
| | GRAYSON | VAN ALSTYNE | 946 | 1,825 | 2,905 | 3,567 | 4,674 | 5,494 |
| **Yes** | GRAYSON | WESTMINSTER SUD | 6 | 7 | 8 | 9 | 10 | 11 |
| | GRAYSON | WHITESBORO | 571 | 619 | 661 | 699 | 740 | 785 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | REGION C FINAL MUNICIPAL DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Yes** | GRAYSON | WHITEWRIGHT | 399 | 433 | 463 | 490 | 519 | 551 |
| **Yes** | GRAYSON | WOODBINE WSC | 9 | 10 | 10 | 11 | 12 | 13 |
| | **GRAYSON TOTAL** | | **32,673** | **38,417** | **44,111** | **49,215** | **55,817** | **60,395** |
| **Yes** | HENDERSON | ATHENS | 2,591 | 3,119 | 4,108 | 4,956 | 5,981 | 6,607 |
| **Yes** | HENDERSON | B B S WSC | 2 | 2 | 2 | 2 | 2 | 2 |
| **Yes** | HENDERSON | BETHEL ASH WSC | 299 | 312 | 315 | 323 | 331 | 340 |
| **Yes** | HENDERSON | BRUSHY CREEK WSC | 104 | 107 | 109 | 112 | 114 | 117 |
| | HENDERSON | COUNTY-OTHER | 437 | 521 | 608 | 695 | 782 | 869 |
| | HENDERSON | CRESCENT HEIGHTS WSC | 150 | 154 | 171 | 174 | 177 | 180 |
| | HENDERSON | DOGWOOD ESTATES WATER | 175 | 170 | 181 | 183 | 185 | 187 |
| | HENDERSON | EAST CEDAR CREEK FWSD | 3,591 | 3,799 | 3,829 | 3,914 | 4,007 | 4,111 |
| | HENDERSON | EUSTACE | 322 | 351 | 344 | 356 | 368 | 382 |
| | HENDERSON | LOG CABIN | 114 | 114 | 119 | 121 | 123 | 125 |
| **Yes** | HENDERSON | MABANK | 677 | 743 | 725 | 750 | 777 | 808 |
| | HENDERSON | MALAKOFF | 270 | 285 | 299 | 303 | 308 | 312 |
| | HENDERSON | TRINIDAD | 159 | 161 | 167 | 170 | 173 | 177 |
| **Yes** | HENDERSON | VIRGINIA HILL WSC | 184 | 189 | 194 | 198 | 202 | 207 |
| **Yes** | HENDERSON | WEST CEDAR CREEK MUD | 1,037 | 963 | 1,063 | 1,064 | 1,064 | 1,063 |
| | **HENDERSON TOTAL** | | **10,112** | **10,990** | **12,234** | **13,321** | **14,594** | **15,487** |
| | JACK | COUNTY-OTHER | 486 | 461 | 429 | 408 | 386 | 365 |
| | JACK | JACKSBORO | 790 | 776 | 800 | 836 | 903 | 931 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | REGION C FINAL MUNICIPAL DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | **JACK TOTAL** | | **1,276** | **1,237** | **1,229** | **1,244** | **1,289** | **1,296** |
| **Yes** | KAUFMAN | ABLES SPRINGS SUD | 399 | 416 | 485 | 546 | 619 | 650 |
| | KAUFMAN | BECKER JIBA WSC | 390 | 611 | 828 | 978 | 1,145 | 1,329 |
| | KAUFMAN | COLLEGE MOUND SUD | 1,291 | 1,435 | 1,941 | 3,002 | 4,095 | 5,187 |
| **Yes** | KAUFMAN | COMBINE WSC | 260 | 298 | 348 | 404 | 467 | 535 |
| | KAUFMAN | COUNTY-OTHER | 1,460 | 1,685 | 2,254 | 2,639 | 3,391 | 3,869 |
| | KAUFMAN | CRANDALL | 992 | 2,121 | 3,548 | 5,153 | 7,277 | 8,725 |
| | KAUFMAN | ELMO WSC | 190 | 221 | 263 | 309 | 360 | 416 |
| | KAUFMAN | FORNEY | 4,304 | 5,511 | 6,823 | 8,056 | 8,956 | 8,956 |
| | KAUFMAN | FORNEY LAKE WSC | 3,061 | 3,512 | 3,655 | 3,972 | 4,052 | 4,131 |
| | KAUFMAN | GASTONIA SCURRY SUD | 1,430 | 1,666 | 2,235 | 3,763 | 5,570 | 6,838 |
| **Yes** | KAUFMAN | HEATH | 62 | 87 | 122 | 125 | 125 | 125 |
| **Yes** | KAUFMAN | HIGH POINT WSC | 1,707 | 2,627 | 3,814 | 5,177 | 6,673 | 8,316 |
| | KAUFMAN | KAUFMAN | 1,252 | 1,408 | 2,024 | 2,558 | 3,057 | 3,565 |
| | KAUFMAN | KAUFMAN COUNTY DEVELOPMENT DISTRICT 1 | 905 | 959 | 1,484 | 2,300 | 3,412 | 3,945 |
| | KAUFMAN | KAUFMAN COUNTY MUD 11 | 720 | 853 | 1,096 | 1,385 | 1,698 | 1,882 |
| | KAUFMAN | KAUFMAN COUNTY MUD 14 | 1,714 | 1,712 | 1,712 | 1,712 | 1,712 | 1,712 |
| | KAUFMAN | KEMP | 281 | 290 | 303 | 315 | 329 | 345 |
| **Yes** | KAUFMAN | MABANK | 1,234 | 1,242 | 1,254 | 1,255 | 1,261 | 1,271 |
| **Yes** | KAUFMAN | MACBEE SUD | 32 | 39 | 48 | 58 | 69 | 81 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | REGION C FINAL MUNICIPAL DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | KAUFMAN | MARKOUT WSC | 504 | 597 | 833 | 1,200 | 1,602 | 2,137 |
| | KAUFMAN | NORTH KAUFMAN WSC | 232 | 305 | 398 | 504 | 620 | 749 |
| **Yes** | KAUFMAN | POETRY WSC | 217 | 279 | 450 | 717 | 1,128 | 1,351 |
| | KAUFMAN | ROSE HILL SUD | 410 | 492 | 581 | 668 | 738 | 815 |
| | KAUFMAN | TALTY SUD | 1,946 | 2,166 | 3,192 | 4,583 | 6,321 | 7,433 |
| | KAUFMAN | TERRELL | 4,128 | 4,698 | 5,760 | 6,695 | 7,929 | 8,893 |
| **Yes** | KAUFMAN | WEST CEDAR CREEK MUD | 49 | 59 | 73 | 88 | 104 | 123 |
| | **KAUFMAN TOTAL** | | **29,170** | **35,289** | **45,524** | **58,162** | **72,710** | **83,379** |
| | NAVARRO | B AND B WSC | 307 | 337 | 363 | 387 | 413 | 442 |
| | NAVARRO | BLOOMING GROVE | 170 | 176 | 191 | 204 | 221 | 239 |
| **Yes** | NAVARRO | BRANDON IRENE WSC | 21 | 25 | 27 | 30 | 33 | 37 |
| | NAVARRO | CHATFIELD WSC | 344 | 368 | 389 | 408 | 429 | 452 |
| | NAVARRO | CORBET WSC | 211 | 225 | 238 | 249 | 261 | 275 |
| | NAVARRO | CORSICANA | 6,265 | 6,688 | 7,053 | 7,368 | 7,716 | 8,098 |
| | NAVARRO | COUNTY-OTHER | 756 | 787 | 843 | 910 | 1,019 | 1,084 |
| | NAVARRO | DAWSON | 134 | 135 | 137 | 136 | 136 | 135 |
| | NAVARRO | KERENS | 169 | 155 | 143 | 133 | 123 | 114 |
| | NAVARRO | M E N WSC | 512 | 589 | 654 | 718 | 789 | 866 |
| **Yes** | NAVARRO | NAVARRO MILLS WSC | 288 | 308 | 325 | 341 | 357 | 376 |
| **Yes** | NAVARRO | PLEASANT GROVE WSC | 12 | 12 | 13 | 14 | 14 | 15 |
| **Yes** | NAVARRO | POST OAK SUD | 113 | 106 | 100 | 91 | 82 | 73 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | REGION C FINAL MUNICIPAL DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Yes** | NAVARRO | RICE WATER SUPPLY AND SEWER SERVICE | 459 | 543 | 646 | 767 | 912 | 1,084 |
| **Yes** | NAVARRO | SOUTH ELLIS COUNTY WSC | 25 | 31 | 35 | 39 | 44 | 49 |
| **Yes** | NAVARRO | SOUTHERN OAKS WATER SUPPLY | 29 | 40 | 48 | 57 | 67 | 78 |
| | **NAVARRO TOTAL** | | **9,815** | **10,525** | **11,205** | **11,852** | **12,616** | **13,417** |
| | PARKER | ALEDO | 1,410 | 1,515 | 1,858 | 2,121 | 2,417 | 2,596 |
| | PARKER | ANNETTA | 445 | 531 | 619 | 707 | 795 | 883 |
| **Yes** | PARKER | AZLE | 512 | 649 | 805 | 972 | 1,155 | 1,357 |
| **Yes** | PARKER | COMMUNITY WSC | 6 | 9 | 12 | 16 | 20 | 24 |
| | PARKER | COUNTY-OTHER | 8,769 | 13,957 | 20,602 | 28,108 | 37,463 | 44,628 |
| **Yes** | PARKER | FORT WORTH | 725 | 832 | 854 | 935 | 1,024 | 1,123 |
| | PARKER | HORSESHOE BEND WATER SYSTEM | 179 | 201 | 255 | 335 | 456 | 597 |
| | PARKER | HUDSON OAKS | 1,872 | 1,934 | 1,987 | 2,053 | 2,140 | 2,208 |
| **Yes** | PARKER | MINERAL WELLS | 353 | 372 | 391 | 410 | 410 | 410 |
| **Yes** | PARKER | NORTH RURAL WSC | 149 | 179 | 214 | 252 | 292 | 337 |
| | PARKER | PARKER COUNTY SUD | 937 | 1,271 | 1,722 | 2,316 | 3,167 | 4,285 |
| **Yes** | PARKER | RENO (PARKER) | 282 | 343 | 413 | 486 | 566 | 655 |
| **Yes** | PARKER | SANTO SUD | 21 | 25 | 29 | 34 | 40 | 46 |
| | PARKER | SPRINGTOWN | 1,182 | 1,572 | 2,177 | 2,653 | 3,079 | 3,401 |
| **Yes** | PARKER | STURDIVANT PROGRESS WSC | 2 | 2 | 2 | 2 | 1 | 1 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | REGION C FINAL MUNICIPAL DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Yes** | PARKER | WALNUT CREEK SUD | 3,228 | 3,511 | 4,880 | 7,306 | 10,166 | 13,013 |
| | PARKER | WEATHERFORD | 8,205 | 9,760 | 11,548 | 13,424 | 15,491 | 17,767 |
| | PARKER | WILLOW PARK | 1,228 | 1,471 | 1,750 | 2,044 | 2,368 | 2,724 |
| | **PARKER TOTAL** | | **29,505** | **38,134** | **50,118** | **64,174** | **81,050** | **96,055** |
| **Yes** | ROCKWALL | BEAR CREEK SUD | 227 | 375 | 428 | 467 | 512 | 512 |
| | ROCKWALL | BLACKLAND WSC | 916 | 950 | 1,024 | 1,188 | 1,279 | 1,376 |
| **Yes** | ROCKWALL | CASH SUD | 376 | 496 | 644 | 800 | 971 | 1,159 |
| | ROCKWALL | COUNTY-OTHER | 415 | 342 | 510 | 588 | 912 | 1,139 |
| **Yes** | ROCKWALL | EAST FORK SUD | 325 | 386 | 459 | 522 | 576 | 637 |
| | ROCKWALL | FATE | 4,426 | 6,376 | 8,752 | 11,265 | 14,025 | 17,061 |
| **Yes** | ROCKWALL | HEATH | 3,751 | 4,971 | 6,587 | 6,749 | 6,749 | 6,749 |
| **Yes** | ROCKWALL | HIGH POINT WSC | 163 | 235 | 323 | 416 | 519 | 632 |
| | ROCKWALL | MOUNT ZION WSC | 403 | 415 | 430 | 443 | 458 | 476 |
| **Yes** | ROCKWALL | NEVADA SUD | 22 | 27 | 41 | 88 | 158 | 212 |
| | ROCKWALL | R C H WSC | 1,179 | 1,336 | 1,705 | 2,275 | 2,775 | 3,384 |
| | ROCKWALL | ROCKWALL | 10,089 | 12,332 | 16,427 | 21,919 | 22,762 | 22,762 |
| **Yes** | ROCKWALL | ROWLETT | 1,769 | 1,811 | 2,181 | 2,354 | 2,483 | 2,483 |
| **Yes** | ROCKWALL | ROYSE CITY | 4,035 | 7,912 | 10,223 | 11,063 | 12,289 | 12,060 |
| | **ROCKWALL TOTAL** | | **28,096** | **37,964** | **49,734** | **60,137** | **66,468** | **70,642** |
| | TARRANT | ARLINGTON | 74,649 | 80,933 | 86,223 | 90,489 | 96,329 | 99,192 |
| **Yes** | TARRANT | AZLE | 1,985 | 2,211 | 2,405 | 2,557 | 2,725 | 2,909 |
| | TARRANT | BEDFORD | 9,733 | 10,445 | 10,614 | 11,153 | 11,153 | 11,153 |
| | TARRANT | BENBROOK WATER AUTHORITY | 6,152 | 6,633 | 7,124 | 7,615 | 8,106 | 8,597 |
| **Yes** | TARRANT | BETHESDA WSC | 72 | 79 | 86 | 90 | 96 | 102 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | REGION C FINAL MUNICIPAL DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | TARRANT | BLUE MOUND | 195 | 214 | 231 | 244 | 258 | 275 |
| **Yes** | TARRANT | BURLESON | 1,516 | 1,695 | 1,847 | 1,967 | 2,099 | 2,245 |
| | TARRANT | COLLEYVILLE | 10,775 | 10,758 | 10,758 | 10,758 | 10,758 | 10,758 |
| **Yes** | TARRANT | COMMUNITY WSC | 602 | 671 | 730 | 776 | 828 | 884 |
| | TARRANT | COUNTY-OTHER | 6,760 | 9,888 | 13,034 | 16,180 | 19,326 | 22,472 |
| **Yes** | TARRANT | CROWLEY | 3,202 | 3,788 | 4,286 | 4,688 | 5,130 | 5,615 |
| | TARRANT | DALWORTHINGTON GARDENS | 901 | 908 | 915 | 915 | 917 | 919 |
| | TARRANT | EDGECLIFF | 636 | 634 | 634 | 634 | 634 | 634 |
| | TARRANT | EULESS | 9,840 | 9,801 | 9,801 | 9,801 | 9,801 | 9,801 |
| | TARRANT | EVERMAN | 544 | 540 | 540 | 540 | 540 | 540 |
| **Yes** | TARRANT | FLOWER MOUND | 225 | 263 | 327 | 342 | 361 | 361 |
| | TARRANT | FOREST HILL | 1,595 | 1,755 | 1,895 | 2,004 | 2,124 | 2,256 |
| **Yes** | TARRANT | FORT WORTH | 210,962 | 247,795 | 252,300 | 269,789 | 289,020 | 310,171 |
| **Yes** | TARRANT | GRAND PRAIRIE | 12,150 | 13,102 | 14,474 | 14,872 | 15,451 | 15,451 |
| | TARRANT | GRAPEVINE | 18,743 | 18,691 | 18,691 | 18,691 | 18,691 | 18,691 |
| | TARRANT | HALTOM CITY | 5,335 | 5,303 | 5,303 | 5,303 | 5,303 | 5,303 |
| | TARRANT | HASLET | 2,574 | 3,513 | 4,629 | 5,037 | 5,490 | 5,490 |
| | TARRANT | HURST | 6,792 | 6,748 | 6,761 | 6,771 | 6,787 | 6,787 |
| **Yes** | TARRANT | JOHNSON COUNTY SUD | 360 | 417 | 433 | 449 | 465 | 482 |
| | TARRANT | KELLER | 12,863 | 13,043 | 13,043 | 13,043 | 13,043 | 13,043 |
| | TARRANT | KENNEDALE | 1,852 | 2,503 | 3,277 | 4,093 | 4,925 | 5,690 |
| | TARRANT | LAKE WORTH | 1,259 | 1,372 | 1,457 | 1,529 | 1,599 | 1,662 |
| | TARRANT | LAKESIDE | 583 | 582 | 582 | 582 | 582 | 582 |
| **Yes** | TARRANT | MANSFIELD | 27,654 | 29,081 | 35,273 | 49,803 | 49,765 | 49,724 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | REGION C FINAL MUNICIPAL DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | TARRANT | NORTH RICHLAND HILLS | 13,934 | 14,841 | 15,086 | 15,280 | 15,562 | 15,562 |
| | TARRANT | PANTEGO | 673 | 671 | 671 | 671 | 671 | 671 |
| | TARRANT | PELICAN BAY | 199 | 267 | 358 | 479 | 643 | 862 |
| **Yes** | TARRANT | RENO (PARKER) | 5 | 6 | 6 | 7 | 7 | 8 |
| | TARRANT | RICHLAND HILLS | 1,273 | 1,400 | 1,509 | 1,701 | 1,873 | 2,063 |
| | TARRANT | RIVER OAKS | 882 | 874 | 880 | 885 | 891 | 891 |
| | TARRANT | SAGINAW | 3,974 | 4,344 | 4,382 | 4,412 | 4,456 | 4,456 |
| | TARRANT | SANSOM PARK | 646 | 711 | 767 | 811 | 860 | 914 |
| **Yes** | TARRANT | SOUTHLAKE | 14,382 | 16,137 | 17,253 | 18,247 | 19,245 | 20,182 |
| **Yes** | TARRANT | TROPHY CLUB MUD 1 | 376 | 484 | 574 | 648 | 729 | 818 |
| | TARRANT | WATAUGA | 2,730 | 2,716 | 2,716 | 2,716 | 2,716 | 2,716 |
| | TARRANT | WESTLAKE | 3,519 | 4,611 | 5,521 | 6,271 | 7,090 | 7,990 |
| | TARRANT | WESTOVER HILLS | 919 | 916 | 920 | 922 | 927 | 927 |
| | TARRANT | WESTWORTH VILLAGE | 442 | 451 | 479 | 504 | 528 | 550 |
| | TARRANT | WHITE SETTLEMENT | 2,400 | 2,636 | 2,841 | 3,001 | 3,177 | 3,371 |
| | **TARRANT TOTAL** | | **476,863** | **534,431** | **561,636** | **607,270** | **641,681** | **673,770** |
| | WISE | ALVORD | 412 | 509 | 596 | 666 | 742 | 827 |
| **Yes** | WISE | BOLIVAR WSC | 130 | 142 | 154 | 163 | 173 | 184 |
| | WISE | BOYD | 240 | 305 | 417 | 519 | 616 | 681 |
| | WISE | BRIDGEPORT | 986 | 1,006 | 1,029 | 1,041 | 1,055 | 1,070 |
| | WISE | CHICO | 396 | 395 | 395 | 395 | 395 | 395 |
| | WISE | COUNTY-OTHER | 6,075 | 9,274 | 13,903 | 19,206 | 26,208 | 31,172 |
| | WISE | DECATUR | 2,890 | 3,426 | 4,621 | 5,697 | 7,212 | 8,361 |

| IN MULTIPLE COUNTIES OR REGIONS? | COUNTY | WATER USER GROUP (WUG) | REGION C FINAL MUNICIPAL DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Yes** | WISE | FORT WORTH | 479 | 551 | 568 | 624 | 687 | 755 |
| | WISE | NEWARK | 131 | 166 | 240 | 351 | 522 | 666 |
| | WISE | RHOME | 385 | 495 | 731 | 1,061 | 1,562 | 2,083 |
| | WISE | RUNAWAY BAY | 676 | 829 | 1,016 | 1,247 | 1,529 | 1,876 |
| **Yes** | WISE | WALNUT CREEK SUD | 572 | 610 | 842 | 1,268 | 1,794 | 2,296 |
| | WISE | WEST WISE SUD | 481 | 525 | 566 | 598 | 632 | 670 |
| | **WISE TOTAL** | | **13,853** | **18,233** | **25,078** | **32,836** | **43,127** | **51,036** |
| | ***REGION C TOTAL*** | | ***1,778,862*** | ***2,019,784*** | ***2,250,802*** | ***2,460,446*** | ***2,651,780*** | ***2,813,551*** |

# Attachment Four

## *Municipal Demand for WUGs in Multiple Counties or Regions*

***ATTACHMENT 4 - PROJECTED MUNICIPAL DEMAND FOR WUGS IN MULTIPLE COUNTIES OR REGIONS***

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL DEMAND FOR 2026 REGION C PLAN | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| C | KAUFMAN | ABLES SPRINGS SUD | 399 | 416 | 485 | 546 | 619 | 650 |
| D | HUNT | ABLES SPRINGS SUD | 42 | 45 | 48 | 51 | 53 | 56 |
| D | VAN ZANDT | ABLES SPRINGS SUD | 2 | 2 | 3 | 3 | 3 | 3 |
| | | **ABLES SPRINGS SUD TOTAL** | **443** | **463** | **536** | **600** | **675** | **709** |
| C | DALLAS | AMC CREEKSIDE | 37 | 45 | 50 | 53 | 56 | 59 |
| C | DENTON | AMC CREEKSIDE | 144 | 181 | 219 | 258 | 302 | 349 |
| | | **AMC CREEKSIDE TOTAL** | **181** | **226** | **269** | **311** | **358** | **408** |
| C | HENDERSON | ATHENS | 2,591 | 3,119 | 4,108 | 4,956 | 5,981 | 6,607 |
| I | HENDERSON | ATHENS | 42 | 42 | 42 | 42 | 42 | 42 |
| | | **ATHENS TOTAL** | **2,633** | **3,161** | **4,150** | **4,998** | **6,023** | **6,649** |
| C | PARKER | AZLE | 512 | 649 | 805 | 972 | 1,155 | 1,357 |
| C | TARRANT | AZLE | 1,985 | 2,211 | 2,405 | 2,557 | 2,725 | 2,909 |
| | | **AZLE TOTAL** | **2,497** | **2,860** | **3,210** | **3,529** | **3,880** | **4,266** |
| C | HENDERSON | B B S WSC | 2 | 2 | 2 | 2 | 2 | 2 |
| I | ANDERSON | B B S WSC | 138 | 137 | 135 | 133 | 132 | 130 |
| | | **B B S WSC TOTAL** | **140** | **139** | **137** | **135** | **134** | **132** |
| C | COLLIN | BEAR CREEK SUD | 2,980 | 5,223 | 5,973 | 6,504 | 7,130 | 7,130 |
| C | ROCKWALL | BEAR CREEK SUD | 227 | 375 | 428 | 467 | 512 | 512 |
| | | **BEAR CREEK SUD TOTAL** | **3,207** | **5,598** | **6,401** | **6,971** | **7,642** | **7,642** |
| C | HENDERSON | BETHEL ASH WSC | 299 | 312 | 315 | 323 | 331 | 340 |
| I | HENDERSON | BETHEL ASH WSC | 269 | 270 | 281 | 285 | 290 | 294 |
| D | VAN ZANDT | BETHEL ASH WSC | 168 | 184 | 200 | 216 | 233 | 249 |
| | | **BETHEL ASH WSC TOTAL** | **736** | **766** | **796** | **824** | **854** | **883** |
| C | TARRANT | BETHESDA WSC | 72 | 79 | 86 | 90 | 96 | 102 |
| G | JOHNSON | BETHESDA WSC | 7,272 | 8,384 | 9,523 | 10,556 | 11,715 | 13,017 |
| | | **BETHESDA WSC TOTAL** | **7,344** | **8,463** | **9,609** | **10,646** | **11,811** | **13,119** |
| C | FANNIN | BOIS D ARC MUD | 341 | 356 | 366 | 372 | 379 | 387 |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL DEMAND FOR 2026 REGION C PLAN | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| D | LAMAR | BOIS D ARC MUD | 2 | 2 | 2 | 2 | 2 | 2 |
| | | **BOIS D ARC MUD TOTAL** | **343** | **358** | **368** | **374** | **381** | **389** |
| C | COOKE | BOLIVAR WSC | 255 | 278 | 287 | 293 | 299 | 305 |
| C | DENTON | BOLIVAR WSC | 1,285 | 1,604 | 1,946 | 2,294 | 2,793 | 3,430 |
| C | WISE | BOLIVAR WSC | 130 | 142 | 154 | 163 | 173 | 184 |
| | | **BOLIVAR WSC TOTAL** | **1,670** | **2,024** | **2,387** | **2,750** | **3,265** | **3,919** |
| C | NAVARRO | BRANDON IRENE WSC | 21 | 25 | 27 | 30 | 33 | 37 |
| G | HILL | BRANDON IRENE WSC | 532 | 546 | 557 | 568 | 580 | 594 |
| | | **BRANDON IRENE WSC TOTAL** | **553** | **571** | **584** | **598** | **613** | **631** |
| C | HENDERSON | BRUSHY CREEK WSC | 104 | 107 | 109 | 112 | 114 | 117 |
| I | HENDERSON | BRUSHY CREEK WSC | 5 | 5 | 5 | 5 | 5 | 5 |
| I | ANDERSON | BRUSHY CREEK WSC | 430 | 427 | 422 | 416 | 411 | 406 |
| | | **BRUSHY CREEK WSC TOTAL** | **539** | **539** | **536** | **533** | **530** | **528** |
| C | TARRANT | BURLESON | 1,516 | 1,695 | 1,847 | 1,967 | 2,099 | 2,245 |
| G | JOHNSON | BURLESON | 6,647 | 7,781 | 8,946 | 10,007 | 11,199 | 12,536 |
| | | **BURLESON TOTAL** | **8,163** | **9,476** | **10,793** | **11,974** | **13,298** | **14,781** |
| C | COLLIN | CADDO BASIN SUD | 287 | 1,464 | 2,344 | 2,706 | 3,020 | 3,122 |
| D | HUNT | CADDO BASIN SUD | 1,989 | 1,786 | 2,086 | 2,152 | 2,133 | 2,325 |
| | | **CADDO BASIN SUD TOTAL** | **2,276** | **3,250** | **4,430** | **4,858** | **5,153** | **5,447** |
| C | DALLAS | CARROLLTON | 9,995 | 10,527 | 11,157 | 11,820 | 12,523 | 12,571 |
| C | DENTON | CARROLLTON | 15,674 | 16,532 | 17,491 | 18,510 | 19,587 | 19,662 |
| | | **CARROLLTON TOTAL** | **25,669** | **27,059** | **28,648** | **30,330** | **32,110** | **32,233** |
| C | ROCKWALL | CASH SUD | 376 | 496 | 644 | 800 | 971 | 1,159 |
| D | HOPKINS | CASH SUD | 27 | 31 | 34 | 42 | 44 | 53 |
| D | HUNT | CASH SUD | 2,448 | 2,769 | 3,090 | 3,312 | 3,310 | 3,480 |
| D | RAINS | CASH SUD | 116 | 127 | 150 | 185 | 214 | 248 |
| | | **CASH SUD TOTAL** | **2,967** | **3,423** | **3,918** | **4,339** | **4,539** | **4,940** |
| C | COLLIN | CELINA | 13,445 | 23,452 | 39,076 | 40,769 | 50,311 | 60,850 |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL DEMAND FOR 2026 REGION C PLAN | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| C | DENTON | CELINA | 260 | 445 | 767 | 814 | 1,027 | 1,242 |
| | | **CELINA TOTAL** | **13,705** | **23,897** | **39,843** | **41,583** | **51,338** | **62,092** |
| C | DALLAS | COMBINE WSC | 70 | 75 | 78 | 79 | 81 | 83 |
| C | KAUFMAN | COMBINE WSC | 260 | 298 | 348 | 404 | 467 | 535 |
| | | **COMBINE WSC TOTAL** | **330** | **373** | **426** | **483** | **548** | **618** |
| C | PARKER | COMMUNITY WSC | 6 | 9 | 12 | 16 | 20 | 24 |
| C | TARRANT | COMMUNITY WSC | 602 | 671 | 730 | 776 | 828 | 884 |
| | | **COMMUNITY WSC TOTAL** | **608** | **680** | **742** | **792** | **848** | **908** |
| C | DALLAS | COPPELL | 11,021 | 10,958 | 10,980 | 10,997 | 11,021 | 11,021 |
| C | DENTON | COPPELL | 371 | 357 | 368 | 377 | 389 | 389 |
| | | **COPPELL TOTAL** | **11,392** | **11,315** | **11,348** | **11,374** | **11,410** | **11,410** |
| C | TARRANT | CROWLEY | 3,202 | 3,788 | 4,286 | 4,688 | 5,130 | 5,615 |
| G | JOHNSON | CROWLEY | 26 | 38 | 50 | 62 | 75 | 89 |
| | | **CROWLEY TOTAL** | **3,228** | **3,826** | **4,336** | **4,750** | **5,205** | **5,704** |
| C | COLLIN | DALLAS | 11,730 | 13,022 | 14,503 | 16,153 | 17,990 | 20,037 |
| C | DALLAS | DALLAS | 276,907 | 286,506 | 297,389 | 308,685 | 320,410 | 332,580 |
| C | DENTON | DALLAS | 7,624 | 9,385 | 11,672 | 14,095 | 16,792 | 19,702 |
| | | **DALLAS TOTAL** | **296,261** | **308,913** | **323,564** | **338,933** | **355,192** | **372,319** |
| C | FANNIN | DELTA COUNTY MUD | 7 | 8 | 9 | 10 | 10 | 11 |
| D | DELTA | DELTA COUNTY MUD | 191 | 194 | 196 | 199 | 201 | 204 |
| | | **DELTA COUNTY MUD TOTAL** | **198** | **202** | **205** | **209** | **211** | **215** |
| C | COLLIN | DESERT WSC | 59 | 64 | 70 | 77 | 84 | 91 |
| C | FANNIN | DESERT WSC | 128 | 145 | 153 | 161 | 169 | 179 |
| C | GRAYSON | DESERT WSC | 113 | 122 | 131 | 138 | 146 | 155 |
| | | **DESERT WSC TOTAL** | **300** | **331** | **354** | **376** | **399** | **425** |
| C | COLLIN | EAST FORK SUD | 2,071 | 2,459 | 2,918 | 3,320 | 3,667 | 4,051 |
| C | DALLAS | EAST FORK SUD | 544 | 646 | 766 | 872 | 963 | 1,064 |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL DEMAND FOR 2026 REGION C PLAN | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| C | ROCKWALL | EAST FORK SUD | 325 | 386 | 459 | 522 | 576 | 637 |
| | | **EAST FORK SUD TOTAL** | **2,940** | **3,491** | **4,143** | **4,714** | **5,206** | **5,752** |
| C | ELLIS | FILES VALLEY WSC | 166 | 200 | 237 | 275 | 316 | 362 |
| G | HILL | FILES VALLEY WSC | 706 | 725 | 738 | 752 | 768 | 785 |
| | | **FILES VALLEY WSC TOTAL** | **872** | **925** | **975** | **1,027** | **1,084** | **1,147** |
| C | FREESTONE | FLO COMMUNITY WSC | 18 | 18 | 18 | 18 | 18 | 18 |
| H | LEON | FLO COMMUNITY WSC | 377 | 362 | 349 | 340 | 331 | 322 |
| | | **FLO COMMUNITY WSC TOTAL** | **395** | **380** | **367** | **358** | **349** | **340** |
| C | DENTON | FLOWER MOUND | 23,525 | 29,430 | 35,693 | 35,693 | 35,693 | 35,693 |
| C | TARRANT | FLOWER MOUND | 225 | 263 | 327 | 342 | 361 | 361 |
| | | **FLOWER MOUND TOTAL** | **23,750** | **29,693** | **36,020** | **36,035** | **36,054** | **36,054** |
| C | DENTON | FORT WORTH | 5,081 | 7,584 | 9,304 | 11,598 | 14,125 | 16,908 |
| G | JOHNSON | FORT WORTH | 0 | 0 | 978 | 1,553 | 1,925 | 1,909 |
| C | PARKER | FORT WORTH | 725 | 832 | 854 | 935 | 1,024 | 1,123 |
| C | TARRANT | FORT WORTH | 210,962 | 247,795 | 252,300 | 269,789 | 289,020 | 310,171 |
| C | WISE | FORT WORTH | 479 | 551 | 568 | 624 | 687 | 755 |
| | | **FORT WORTH TOTAL** | **217,247** | **256,762** | **264,004** | **284,499** | **306,781** | **330,866** |
| C | COLLIN | FRISCO | 43,641 | 52,705 | 52,815 | 52,815 | 52,815 | 52,815 |
| C | DENTON | FRISCO | 32,653 | 39,487 | 39,843 | 39,843 | 39,843 | 39,843 |
| | | **FRISCO TOTAL** | **76,294** | **92,192** | **92,658** | **92,658** | **92,658** | **92,658** |
| C | COLLIN | FROGNOT WSC | 208 | 259 | 318 | 377 | 441 | 513 |
| C | FANNIN | FROGNOT WSC | 3 | 4 | 5 | 5 | 6 | 7 |
| D | HUNT | FROGNOT WSC | 2 | 3 | 3 | 4 | 4 | 5 |
| | | **FROGNOT WSC TOTAL** | **213** | **266** | **326** | **386** | **451** | **525** |
| C | DALLAS | GLENN HEIGHTS | 1,486 | 1,620 | 1,695 | 1,740 | 1,788 | 1,842 |
| C | ELLIS | GLENN HEIGHTS | 896 | 1,149 | 1,428 | 1,712 | 2,024 | 2,367 |
| | | **GLENN HEIGHTS TOTAL** | **2,382** | **2,769** | **3,123** | **3,452** | **3,812** | **4,209** |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL DEMAND FOR 2026 REGION C PLAN | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| C | DALLAS | GRAND PRAIRIE | 23,012 | 26,086 | 29,559 | 30,414 | 31,554 | 31,554 |
| C | TARRANT | GRAND PRAIRIE | 12,150 | 13,102 | 14,474 | 14,872 | 15,451 | 15,451 |
| | | **GRAND PRAIRIE TOTAL** | **35,162** | **39,188** | **44,033** | **45,286** | **47,005** | **47,005** |
| C | KAUFMAN | HEATH | 62 | 87 | 122 | 125 | 125 | 125 |
| C | ROCKWALL | HEATH | 3,751 | 4,971 | 6,587 | 6,749 | 6,749 | 6,749 |
| | | **HEATH TOTAL** | **3,813** | **5,058** | **6,709** | **6,874** | **6,874** | **6,874** |
| C | COLLIN | HICKORY CREEK SUD | 16 | 21 | 26 | 31 | 37 | 44 |
| C | FANNIN | HICKORY CREEK SUD | 44 | 41 | 40 | 37 | 35 | 33 |
| D | HUNT | HICKORY CREEK SUD | 566 | 647 | 742 | 851 | 975 | 1,118 |
| | | **HICKORY CREEK SUD TOTAL** | **626** | **709** | **808** | **919** | **1,047** | **1,195** |
| C | KAUFMAN | HIGH POINT WSC | 1,707 | 2,627 | 3,814 | 5,177 | 6,673 | 8,316 |
| C | ROCKWALL | HIGH POINT WSC | 163 | 235 | 323 | 416 | 519 | 632 |
| | | **HIGH POINT WSC TOTAL** | **1,870** | **2,862** | **4,137** | **5,593** | **7,192** | **8,948** |
| C | ELLIS | HILCO UNITED SERVICES | 124 | 133 | 143 | 152 | 163 | 175 |
| G | BOSQUE | HILCO UNITED SERVICES | 267 | 286 | 307 | 330 | 354 | 380 |
| G | HILL | HILCO UNITED SERVICES | 950 | 976 | 994 | 1,013 | 1,034 | 1,058 |
| | | **HILCO UNITED SERVICES TOTAL** | **1,341** | **1,395** | **1,444** | **1,495** | **1,551** | **1,613** |
| C | TARRANT | JOHNSON COUNTY SUD | 360 | 417 | 433 | 449 | 465 | 482 |
| G | JOHNSON | JOHNSON COUNTY SUD | 9,290 | 11,697 | 13,041 | 14,236 | 15,582 | 17,097 |
| | | **JOHNSON COUNTY SUD TOTAL** | **9,650** | **12,114** | **13,474** | **14,685** | **16,047** | **17,579** |
| C | COLLIN | JOSEPHINE | 1,136 | 2,523 | 3,667 | 4,101 | 4,587 | 4,587 |
| D | HUNT | JOSEPHINE | 33 | 38 | 43 | 47 | 52 | 56 |
| | | **JOSEPHINE TOTAL** | **1,169** | **2,561** | **3,710** | **4,148** | **4,639** | **4,643** |
| C | DALLAS | LEWISVILLE | 176 | 177 | 189 | 191 | 195 | 195 |
| C | DENTON | LEWISVILLE | 19,229 | 19,269 | 20,598 | 20,877 | 21,283 | 21,283 |
| | | **LEWISVILLE TOTAL** | **19,405** | **19,446** | **20,787** | **21,068** | **21,478** | **21,478** |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL DEMAND FOR 2026 REGION C PLAN | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| C | HENDERSON | MABANK | 677 | 743 | 725 | 750 | 777 | 808 |
| C | KAUFMAN | MABANK | 1,234 | 1,242 | 1,254 | 1,255 | 1,261 | 1,271 |
| D | VAN ZANDT | MABANK | 64 | 72 | 80 | 88 | 96 | 104 |
| | | **MABANK TOTAL** | **1,975** | **2,057** | **2,059** | **2,093** | **2,134** | **2,183** |
| C | KAUFMAN | MACBEE SUD | 32 | 39 | 48 | 58 | 69 | 81 |
| D | HUNT | MACBEE SUD | 37 | 38 | 40 | 41 | 42 | 43 |
| D | VAN ZANDT | MACBEE SUD | 976 | 1,208 | 1,495 | 1,849 | 2,288 | 2,831 |
| | | **MACBEE SUD TOTAL** | **1,045** | **1,285** | **1,583** | **1,948** | **2,399** | **2,955** |
| C | ELLIS | MANSFIELD | 157 | 188 | 221 | 256 | 293 | 335 |
| C | TARRANT | MANSFIELD | 27,654 | 29,081 | 35,273 | 49,803 | 49,765 | 49,724 |
| G | JOHNSON | MANSFIELD | 1,755 | 2,488 | 3,233 | 3,935 | 4,721 | 5,600 |
| | | **MANSFIELD TOTAL** | **29,566** | **31,757** | **38,727** | **53,994** | **54,779** | **55,659** |
| C | PARKER | MINERAL WELLS | 353 | 372 | 391 | 410 | 410 | 410 |
| G | PALO PINTO | MINERAL WELLS | 3,321 | 3,493 | 3,675 | 3,860 | 3,860 | 3,860 |
| | | **MINERAL WELLS TOTAL** | **3,674** | **3,865** | **4,066** | **4,270** | **4,270** | **4,270** |
| C | ELLIS | MOUNTAIN PEAK SUD | 6,543 | 8,720 | 11,099 | 13,522 | 16,183 | 19,108 |
| G | JOHNSON | MOUNTAIN PEAK SUD | 1,461 | 1,813 | 2,252 | 2,799 | 3,477 | 4,321 |
| | | **MOUNTAIN PEAK SUD TOTAL** | **8,004** | **10,533** | **13,351** | **16,321** | **19,660** | **23,429** |
| C | COOKE | MOUNTAIN SPRINGS WSC | 317 | 317 | 319 | 317 | 315 | 312 |
| C | DENTON | MOUNTAIN SPRINGS WSC | 11 | 14 | 17 | 20 | 23 | 27 |
| | | **MOUNTAIN SPRINGS WSC TOTAL** | **328** | **331** | **336** | **337** | **338** | **339** |
| C | DENTON | MUSTANG SUD | 15,484 | 21,922 | 29,322 | 36,650 | 42,527 | 47,556 |
| C | COLLIN | MUSTANG SUD | 518 | 753 | 959 | 1,172 | 1,343 | 1,502 |
| C | GRAYSON | MUSTANG SUD | 346 | 504 | 646 | 789 | 895 | 1,001 |
| | | **MUSTANG SUD TOTAL** | **16,348** | **23,179** | **30,927** | **38,611** | **44,765** | **50,059** |
| C | NAVARRO | NAVARRO MILLS WSC | 288 | 308 | 325 | 341 | 357 | 376 |
| G | Hill | NAVARRO MILLS WSC | 2 | 2 | 2 | 2 | 2 | 2 |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL DEMAND FOR 2026 REGION C PLAN | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | | **NAVARRO MILLS WSC TOTAL** | **290** | **310** | **327** | **343** | **359** | **378** |
| C | COLLIN | NEVADA SUD | 537 | 678 | 1,007 | 2,125 | 3,793 | 5,098 |
| C | ROCKWALL | NEVADA SUD | 22 | 27 | 41 | 88 | 158 | 212 |
| | | **NEVADA SUD TOTAL** | **559** | **705** | **1,048** | **2,213** | **3,951** | **5,310** |
| C | FANNIN | NORTH HUNT SUD | 16 | 16 | 17 | 17 | 17 | 18 |
| D | DELTA | NORTH HUNT SUD | 30 | 30 | 29 | 29 | 29 | 28 |
| D | HUNT | NORTH HUNT SUD | 342 | 336 | 331 | 322 | 312 | 303 |
| | | **NORTH HUNT SUD TOTAL** | **388** | **382** | **377** | **368** | **358** | **349** |
| C | PARKER | NORTH RURAL WSC | 149 | 179 | 214 | 252 | 292 | 337 |
| G | PALO PINTO | NORTH RURAL WSC | 177 | 176 | 174 | 173 | 172 | 171 |
| | | **NORTH RURAL WSC TOTAL** | **326** | **355** | **388** | **425** | **464** | **508** |
| C | DALLAS | OVILLA | 109 | 118 | 128 | 139 | 151 | 165 |
| C | ELLIS | OVILLA | 1,169 | 1,484 | 1,828 | 2,177 | 2,561 | 2,983 |
| | | **OVILLA TOTAL** | **1,278** | **1,602** | **1,956** | **2,316** | **2,712** | **3,148** |
| C | DENTON | PILOT POINT | 827 | 1,065 | 1,834 | 2,632 | 2,839 | 2,839 |
| C | GRAYSON | PILOT POINT | 17 | 20 | 37 | 52 | 58 | 58 |
| | | **PILOT POINT TOTAL** | **844** | **1,085** | **1,871** | **2,684** | **2,897** | **2,897** |
| C | COLLIN | PLANO | 70,410 | 70,627 | 77,776 | 80,110 | 80,110 | 80,110 |
| C | DENTON | PLANO | 2,106 | 2,184 | 2,405 | 2,478 | 2,478 | 2,478 |
| | | **PLANO TOTAL** | **72,516** | **72,811** | **80,181** | **82,588** | **82,588** | **82,588** |
| C | FREESTONE | PLEASANT GROVE WSC | 126 | 136 | 149 | 145 | 141 | 136 |
| C | NAVARRO | PLEASANT GROVE WSC | 12 | 12 | 13 | 14 | 14 | 15 |
| | | **PLEASANT GROVE WSC TOTAL** | **138** | **148** | **162** | **159** | **155** | **151** |
| C | KAUFMAN | POETRY WSC | 217 | 279 | 450 | 717 | 1,128 | 1,351 |
| D | HUNT | POETRY WSC | 236 | 269 | 297 | 317 | 264 | 266 |
| | | **POETRY WSC TOTAL** | **453** | **548** | **747** | **1,034** | **1,392** | **1,617** |
| C | FREESTONE | POINT ENTERPRISE WSC | 116 | 115 | 113 | 113 | 113 | 113 |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL DEMAND FOR 2026 REGION C PLAN | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| G | LIMESTONE | POINT ENTERPRISE WSC | 65 | 63 | 60 | 58 | 55 | 52 |
| | | **POINT ENTERPRISE WSC TOTAL** | **181** | **178** | **173** | **171** | **168** | **165** |
| C | NAVARRO | POST OAK SUD | 113 | 106 | 100 | 91 | 82 | 73 |
| G | HILL | POST OAK SUD | 197 | 202 | 206 | 210 | 214 | 219 |
| G | LIMESTONE | POST OAK SUD | 29 | 28 | 27 | 26 | 24 | 24 |
| | | **POST OAK SUD TOTAL** | **339** | **336** | **333** | **327** | **320** | **316** |
| C | COLLIN | PROSPER | 10,137 | 11,731 | 14,041 | 14,623 | 15,470 | 15,470 |
| C | DENTON | PROSPER | 4,192 | 5,108 | 6,071 | 6,298 | 6,630 | 6,630 |
| | | **PROSPER TOTAL** | **14,329** | **16,839** | **20,112** | **20,921** | **22,100** | **22,100** |
| C | GRAYSON | RED RIVER AUTHORITY OF TEXAS | 254 | 304 | 347 | 390 | 436 | 486 |
| A | CHILDRESS | RED RIVER AUTHORITY OF TEXAS | 382 | 358 | 352 | 361 | 369 | 378 |
| A | COLLINGSWORTH | RED RIVER AUTHORITY OF TEXAS | 90 | 88 | 83 | 79 | 75 | 72 |
| A | DONLEY | RED RIVER AUTHORITY OF TEXAS | 82 | 76 | 70 | 67 | 64 | 60 |
| A | HALL | RED RIVER AUTHORITY OF TEXAS | 51 | 48 | 45 | 42 | 39 | 36 |
| B | CLAY | RED RIVER AUTHORITY OF TEXAS | 402 | 372 | 340 | 314 | 289 | 264 |
| B | COTTLE | RED RIVER AUTHORITY OF TEXAS | 24 | 23 | 22 | 23 | 23 | 23 |
| B | FOARD | RED RIVER AUTHORITY OF TEXAS | 56 | 51 | 49 | 47 | 45 | 44 |
| B | HARDEMAN | RED RIVER AUTHORITY OF TEXAS | 160 | 150 | 142 | 134 | 127 | 121 |
| B | KING | RED RIVER AUTHORITY OF TEXAS | 50 | 50 | 51 | 53 | 55 | 56 |
| B | MONTAGUE | RED RIVER AUTHORITY OF TEXAS | 35 | 36 | 36 | 37 | 38 | 38 |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL DEMAND FOR 2026 REGION C PLAN | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| B | WILBARGER | RED RIVER AUTHORITY OF TEXAS | 272 | 264 | 254 | 242 | 232 | 222 |
| G | KNOX | RED RIVER AUTHORITY OF TEXAS | 13 | 13 | 12 | 11 | 10 | 8 |
| O | MOTLEY | RED RIVER AUTHORITY OF TEXAS | 2 | 1 | 1 | 1 | 1 | 1 |
| O | DICKENS | RED RIVER AUTHORITY OF TEXAS | 1 | 1 | 1 | 1 | 1 | 0 |
| | | **RED RIVER AUTHORITY OF TEXAS TOTAL** | **1,874** | **1,835** | **1,805** | **1,802** | **1,804** | **1,809** |
| C | PARKER | RENO (PARKER) | 282 | 343 | 413 | 486 | 566 | 655 |
| C | TARRANT | RENO (PARKER) | 5 | 6 | 6 | 7 | 7 | 8 |
| | | **RENO (PARKER) TOTAL** | **287** | **349** | **419** | **493** | **573** | **663** |
| C | ELLIS | RICE WATER SUPPLY AND SEWER SERVICE | 647 | 773 | 913 | 1,054 | 1,209 | 1,379 |
| C | NAVARRO | RICE WATER SUPPLY AND SEWER SERVICE | 459 | 543 | 646 | 767 | 912 | 1,084 |
| | | **RICE WATER SUPPLY AND SEWER SERVICE TOTAL** | **1,106** | **1,316** | **1,559** | **1,821** | **2,121** | **2,463** |
| C | COLLIN | RICHARDSON | 15,573 | 16,366 | 17,729 | 18,261 | 18,261 | 18,261 |
| C | DALLAS | RICHARDSON | 13,410 | 13,844 | 14,505 | 14,941 | 14,941 | 14,941 |
| | | **RICHARDSON TOTAL** | **28,983** | **30,210** | **32,234** | **33,202** | **33,202** | **33,202** |
| C | DALLAS | ROCKETT SUD | 86 | 95 | 103 | 106 | 110 | 111 |
| C | ELLIS | ROCKETT SUD | 4,285 | 5,094 | 6,105 | 7,029 | 8,476 | 9,652 |
| | | **ROCKETT SUD TOTAL** | **4,371** | **5,189** | **6,208** | **7,135** | **8,586** | **9,763** |
| C | DALLAS | ROWLETT | 9,781 | 10,287 | 11,872 | 12,539 | 13,034 | 13,034 |
| C | ROCKWALL | ROWLETT | 1,769 | 1,811 | 2,181 | 2,354 | 2,483 | 2,483 |
| | | **ROWLETT TOTAL** | **11,550** | **12,098** | **14,053** | **14,893** | **15,517** | **15,517** |
| C | COLLIN | ROYSE CITY | 1,257 | 2,311 | 3,337 | 3,683 | 4,138 | 4,138 |
| C | ROCKWALL | ROYSE CITY | 4,035 | 7,912 | 10,223 | 11,063 | 12,289 | 12,060 |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL DEMAND FOR 2026 REGION C PLAN | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| D | HUNT | ROYSE CITY | 619 | 881 | 1,111 | 1,337 | 1,565 | 1,795 |
| | | **ROYSE CITY TOTAL** | **5,911** | **11,104** | **14,671** | **16,083** | **17,992** | **17,993** |
| C | COLLIN | SACHSE | 1,734 | 1,840 | 2,090 | 2,185 | 2,249 | 2,249 |
| C | DALLAS | SACHSE | 3,516 | 3,759 | 4,258 | 4,445 | 4,566 | 4,566 |
| | | **SACHSE TOTAL** | **5,250** | **5,599** | **6,348** | **6,630** | **6,815** | **6,815** |
| C | PARKER | SANTO SUD | 21 | 25 | 29 | 34 | 40 | 46 |
| G | HOOD | SANTO SUD | 1 | 1 | 1 | 1 | 0 | 0 |
| G | PALO PINTO | SANTO SUD | 269 | 268 | 265 | 264 | 262 | 260 |
| | | **SANTO SUD TOTAL** | **291** | **294** | **295** | **299** | **302** | **306** |
| C | ELLIS | SOUTH ELLIS COUNTY WSC | 542 | 649 | 767 | 885 | 1,016 | 1,159 |
| C | NAVARRO | SOUTH ELLIS COUNTY WSC | 25 | 31 | 35 | 39 | 44 | 49 |
| | | **SOUTH ELLIS COUNTY WSC TOTAL** | **567** | **680** | **802** | **924** | **1,060** | **1,208** |
| C | COLLIN | SOUTH GRAYSON SUD | 151 | 197 | 251 | 305 | 365 | 431 |
| C | GRAYSON | SOUTH GRAYSON SUD | 479 | 531 | 577 | 619 | 665 | 716 |
| | | **SOUTH GRAYSON SUD TOTAL** | **630** | **728** | **828** | **924** | **1,030** | **1,147** |
| C | FREESTONE | SOUTHERN OAKS WATER SUPPLY | 121 | 154 | 197 | 192 | 187 | 181 |
| C | NAVARRO | SOUTHERN OAKS WATER SUPPLY | 29 | 40 | 48 | 57 | 67 | 78 |
| | | **SOUTHERN OAKS WATER SUPPLY TOTAL** | **150** | **194** | **245** | **249** | **254** | **259** |
| C | DENTON | SOUTHLAKE | 286 | 265 | 238 | 210 | 180 | 150 |
| C | TARRANT | SOUTHLAKE | 14,382 | 16,137 | 17,253 | 18,247 | 19,245 | 20,182 |
| | | **SOUTHLAKE TOTAL** | **14,668** | **16,402** | **17,491** | **18,457** | **19,425** | **20,332** |
| C | FANNIN | SOUTHWEST FANNIN COUNTY SUD | 669 | 735 | 770 | 801 | 835 | 872 |
| C | GRAYSON | SOUTHWEST FANNIN COUNTY SUD | 149 | 162 | 173 | 183 | 194 | 205 |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL DEMAND FOR 2026 REGION C PLAN | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | | **SOUTHWEST FANNIN COUNTY SUD TOTAL** | **818** | **897** | **943** | **984** | **1,029** | **1,077** |
| C | PARKER | STURDIVANT PROGRESS WSC | 2 | 2 | 2 | 2 | 1 | 1 |
| G | PALO PINTO | STURDIVANT PROGRESS WSC | 237 | 236 | 234 | 232 | 231 | 229 |
| | | **STURDIVANT PROGRESS WSC TOTAL** | **239** | **238** | **236** | **234** | **232** | **230** |
| C | TARRANT | TROPHY CLUB MUD 1 | 376 | 484 | 574 | 648 | 729 | 818 |
| C | DENTON | TROPHY CLUB MUD 1 | 5,006 | 4,998 | 4,998 | 4,998 | 4,998 | 4,998 |
| | | **TROPHY CLUB MUD 1 TOTAL** | **5,382** | **5,482** | **5,572** | **5,646** | **5,727** | **5,816** |
| C | COOKE | TWO WAY SUD | 6 | 6 | 6 | 7 | 7 | 7 |
| C | GRAYSON | TWO WAY SUD | 783 | 825 | 983 | 1,074 | 1,193 | 1,267 |
| | | **TWO WAY SUD TOTAL** | **789** | **831** | **989** | **1,081** | **1,200** | **1,274** |
| C | HENDERSON | VIRGINIA HILL WSC | 184 | 189 | 194 | 198 | 202 | 207 |
| I | HENDERSON | VIRGINIA HILL WSC | 202 | 208 | 212 | 217 | 221 | 226 |
| | | **VIRGINIA HILL WSC TOTAL** | **386** | **397** | **406** | **415** | **423** | **433** |
| C | PARKER | WALNUT CREEK SUD | 3,228 | 3,511 | 4,880 | 7,306 | 10,166 | 13,013 |
| C | WISE | WALNUT CREEK SUD | 572 | 610 | 842 | 1,268 | 1,794 | 2,296 |
| | | **WALNUT CREEK SUD TOTAL** | **3,800** | **4,121** | **5,722** | **8,574** | **11,960** | **15,309** |
| C | HENDERSON | WEST CEDAR CREEK MUD | 1,037 | 963 | 1,063 | 1,064 | 1,064 | 1,063 |
| C | KAUFMAN | WEST CEDAR CREEK MUD | 49 | 59 | 73 | 88 | 104 | 123 |
| | | **WEST CEDAR CREEK MUD TOTAL** | **1,086** | **1,022** | **1,136** | **1,152** | **1,168** | **1,186** |
| C | COLLIN | WEST LEONARD WSC | 44 | 55 | 67 | 79 | 93 | 108 |
| C | FANNIN | WEST LEONARD WSC | 248 | 297 | 320 | 344 | 370 | 398 |
| D | HUNT | WEST LEONARD WSC | 5 | 5 | 6 | 7 | 7 | 8 |
| | | **WEST LEONARD WSC TOTAL** | **297** | **357** | **393** | **430** | **470** | **514** |
| C | COLLIN | WESTMINSTER SUD | 404 | 504 | 618 | 733 | 860 | 1,000 |
| C | GRAYSON | WESTMINSTER SUD | 6 | 7 | 8 | 9 | 10 | 11 |

| REGION | COUNTY | WATER USER GROUP (WUG) | FINAL DEMAND FOR 2026 REGION C PLAN | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | | **WESTMINSTER SUD TOTAL** | **410** | **511** | **626** | **742** | **870** | **1,011** |
| C | FANNIN | WHITEWRIGHT | 14 | 18 | 19 | 21 | 23 | 25 |
| C | GRAYSON | WHITEWRIGHT | 399 | 433 | 463 | 490 | 519 | 551 |
| | | **WHITEWRIGHT TOTAL** | **413** | **451** | **482** | **511** | **542** | **576** |
| C | FANNIN | WOLFE CITY | 5 | 4 | 3 | 2 | 2 | 2 |
| D | HUNT | WOLFE CITY | 163 | 165 | 168 | 169 | 170 | 171 |
| | | **WOLFE CITY TOTAL** | **168** | **169** | **171** | **171** | **172** | **173** |
| C | COOKE | WOODBINE WSC | 703 | 725 | 737 | 740 | 743 | 747 |
| C | GRAYSON | WOODBINE WSC | 9 | 10 | 10 | 11 | 12 | 13 |
| | | **WOODBINE WSC TOTAL** | **712** | **735** | **747** | **751** | **755** | **760** |

# Attachment Five

## *Population Served by Major Water Providers and Projected Dry-Year Water Demand for Major Water Providers by Use Category*

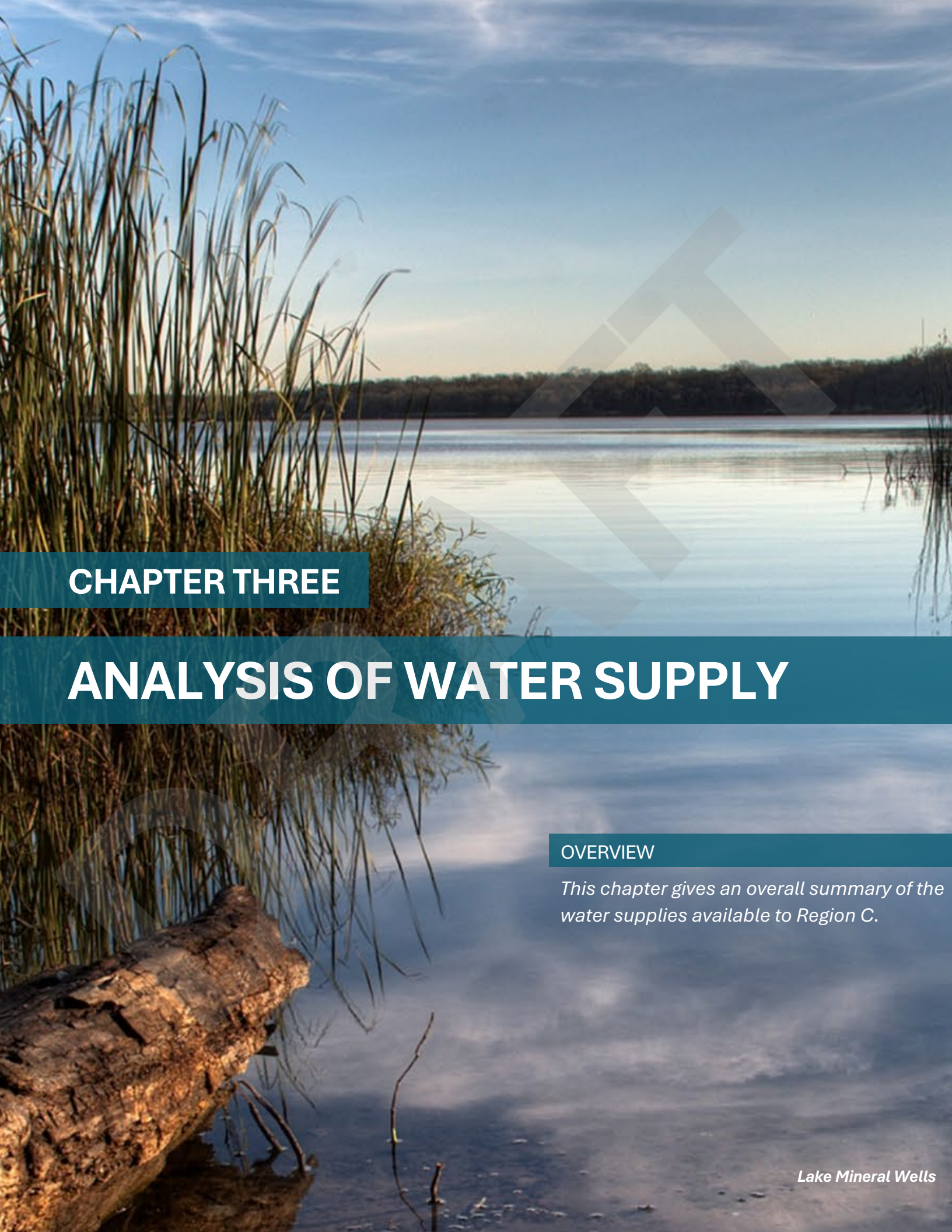
***ATTACHMENT 5 – POPULATION SERVED AND PROJECTED DRY-YEAR WATER DEMAND FOR MAJOR WATER PROVIDERS***

| MAJOR WATER PROVIDER/USE CATEGOTY | POPULATION & PROJECTED DRY-YEAR DEMAND INCLUDING CUSTOMERS (DEMAND IN ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|
| | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Dallas (Dallas Water Utilities)** | | | | | | |
| Population Served | **2,254,713** | **2,379,680** | **2,520,181** | **2,629,684** | **2,749,303** | **2,852,949** |
| Municipal Demand | 513,559 | 547,184 | 584,685 | 609,096 | 635,172 | 658,067 |
| Manufacturing Demand | 15,558 | 16,133 | 16,730 | 17,348 | 17,990 | 18,656 |
| Irrigation Demand | 5,086 | 4,921 | 4,756 | 4,569 | 4,383 | 4,196 |
| Steam Electric Power Demand | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| **TOTAL DWU DEMAND** | ***535,203*** | ***569,238*** | ***607,171*** | ***632,013*** | ***658,545*** | ***681,919*** |
| **Fort Worth** | | | | | | |
| Population Served | **1,963,071** | **2,262,344** | **2,390,100** | **2,557,799** | **2,741,084** | **2,918,802** |
| Municipal Demand | 325,278 | 373,916 | 393,639 | 423,469 | 458,471 | 489,929 |
| Manufacturing Demand | 9,831 | 10,205 | 10,593 | 10,994 | 11,411 | 11,842 |
| Irrigation Demand | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Mining Demand | 525 | 106 | 115 | 121 | 129 | 136 |
| ***TOTAL FORT WORTH DEMAND*** | ***337,634*** | ***386,227*** | ***405,801*** | ***436,584*** | ***471,381*** | ***503,907*** |
| **North Texas Municipal Water District** | | | | | | |
| Population Served | **2,483,249** | **2,963,810** | **3,463,995** | **3,886,689** | **4,188,937** | **4,385,100** |
| Municipal Demand | 478,727 | 560,146 | 646,309 | 716,845 | 759,646 | 786,101 |
| Manufacturing Demand | 12,995 | 13,473 | 13,971 | 14,485 | 15,019 | 15,622 |
| Irrigation Demand | 2,312 | 2,312 | 2,312 | 2,312 | 2,312 | 2,312 |
| Steam Electric Power Demand | 1,161 | 1,161 | 1,161 | 1,161 | 1,161 | 1,161 |
| ***TOTAL NTMWD DEMAND*** | ***495,195*** | ***577,092*** | ***663,753*** | ***734,803*** | ***778,138*** | ***805,196*** |
| **Tarrant Regional Water District** | | | | | | |
| Population Served | **2,798,277** | **3,181,021** | **3,411,124** | **3,730,087** | **4,036,611** | **4,314,992** |
| Municipal Demand | 542,271 | 612,862 | 658,638 | 723,348 | 781,139 | 833,331 |
| Manufacturing Demand | 12,305 | 13,134 | 13,894 | 14,601 | 15,302 | 16,090 |
| Irrigation Demand | 1,395 | 1,395 | 1,395 | 1,395 | 1,395 | 1,395 |
| Steam Electric Power Demand | 11,505 | 24,035 | 24,035 | 24,035 | 24,035 | 24,035 |
| Mining Demand | 995 | 985 | 1,561 | 2,157 | 3,104 | 4,574 |
| ***TOTAL TRWD DEMAND*** | ***568,471*** | ***652,411*** | ***699,523*** | ***765,536*** | ***824,975*** | ***879,425*** |
| **Trinity River Authority** | | | | | | |
| Population Served | **436,071** | **466,350** | **490,356** | **516,560** | **542,995** | **569,848** |
| Municipal Demand | 179,627 | 183,263 | 181,814 | 180,726 | 179,093 | 177,460 |
| Manufacturing Demand | 3,940 | 4,003 | 4,068 | 4,135 | 4,206 | 4,278 |
| Irrigation Demand | 125 | 125 | 125 | 125 | 125 | 125 |

| MAJOR WATER PROVIDER/USE CATEGOTY | POPULATION & PROJECTED DRY-YEAR DEMAND INCLUDING CUSTOMERS (DEMAND IN ACRE-FEET PER YEAR) | | | | | |
|---|---|---|---|---|---|---|
| | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| Steam Electric Power Demand | 1,854 | 1,854 | 1,854 | 1,854 | 1,854 | 1,854 |
| ***TOTAL TRA DEMAND*** | ***185,546*** | ***189,245*** | ***187,861*** | ***186,840*** | ***185,278*** | ***183,717*** |
| **Upper Trinity Regional Water District** | | | | | | |
| Population Served | **369,797** | **520,859** | **689,607** | **823,271** | **930,798** | **1,019,222** |
| Municipal Demand | 68,527 | 95,661 | 126,140 | 148,290 | 166,281 | 181,072 |
| Manufacturing Demand | 30 | 31 | 33 | 34 | 35 | 36 |
| Irrigation Demand | 1,457 | 2,018 | 3,137 | 3,137 | 3,137 | 3,137 |
| ***TOTAL UTRWD DEMAND*** | ***70,014*** | ***97,710*** | ***129,310*** | ***151,461*** | ***169,453*** | ***184,245*** |

# Agenda Item V.C – Attachment

## Draft IPP Chapter 3



# CHAPTER THREE

# ANALYSIS OF WATER SUPPLY

## OVERVIEW

*This chapter gives an overall summary of the water supplies available to Region C.*

***Lake Mineral Wells***

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# 3 ANALYSIS OF WATER SUPPLY

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| Section 3.3 | Groundwater Availability |
| Section 3.4 | Currently Available Water Supplies |
| Section 3.5 | Water Availability by Major Water Providers (MWP) |
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| Section 3.7 | Summary of Current Water Supplies in Region C |
| **RELATED APPENDICES** | |
| Appendix D | DB22 Reports |
| Appendix E | Water Supply Available |

This chapter gives an overall summary of the water supplies available to Region C. **Appendix E** includes further details on the development of this information. Under the Texas Water Development Board (TWDB) regional water planning guidelines [1], each region is to identify currently available water supplies to the region by source and user. The supplies available by source are based on the supply available during drought of record conditions.

For surface water reservoirs, available supply is generally the equivalent of firm yield supply or permitted amount (whichever is lower). However, several providers in Region C have chosen to use alternative yields such as safe yields and yields that consider droughts worse than the drought of record as the available supply. The alternative yields are less than the firm yield and are discussed in more detail in **Section 3.2** and **Appendix E**. For run-of-the-river supplies, available supply is the minimum supply available in a month over the historical record. Livestock and mining local supplies is based on the maximum historical use from 2015-2019[6,7].

Available groundwater supplies are defined by county and aquifer. Generally, groundwater supply is the supply available with acceptable long-term impacts as defined by the Desired Future Conditions adopted by the Groundwater Management Areas (GMAs). Modeled Available Groundwater (MAG) numbers have been developed by the TWDB to define the long-term available groundwater supply[2]. Updated MAG numbers were not available for "Other aquifer." These supply amounts were based on historical pumping data obtained from the TWDB [3] and were assumed to be the same as the amounts used in the *2021 Region C Water Plan* [4]. MAG numbers were also not available for the Cross Timbers aquifer and Nacatoch aquifer and the availability for these aquifers was assumed to be the same as the amounts used in the *2021 Region C Water Plan* [4].

Currently available water supplies are those water supplies that have been permitted or contracted and that have infrastructure in place to transport and treat the water. This is the supply that is distributed to water users and used to assess water needs.

Some water supplies that are permitted or contracted for use do not yet have the infrastructure in place. Connecting such supplies is considered a water management strategy and water management strategies are discussed in **Chapter 5** of this report.

## 3.1 Overall Water Supply Availability

**Table 3.1** and **Figure 3.1** summarize the overall water supply availability in Region C, including both connected and unconnected water sources. Some observations include:

- About 58 percent of the water supply available to Region C is from in-region reservoirs in 2030.
- Groundwater is approximately 7 percent of the overall supply available to Region C.
- Local supplies (limited, individual supplies such as stock tanks) are less than 1 percent of the overall supply available to Region C.
- Authorized reuse in 2030 is about 18 percent of the overall supply available to Region C. A complete list of the recommended reuse strategies is included in **Chapter 5B**. Available reuse quantities are dependent on return flows over time, which can increase as water demands increase due to growth but can also decrease if conservation strategies reduce return flows.
- Importation of water from reservoirs and groundwater in other regions is approximately 16 percent of the water available to Region C in 2030.
- **Section 3.4** discuses currently available water supplies which are supplies that can be used with currently existing water rights, contracts, and facilities. Currently available supplies are less than overall water supplies because the facilities needed to use some supplies have not been developed yet.
- The sources of information in **Table 3.1** and **Figure 3.1** (overall water supply availability not limited to infrastructure constraints) are discussed in greater detail in the following section.

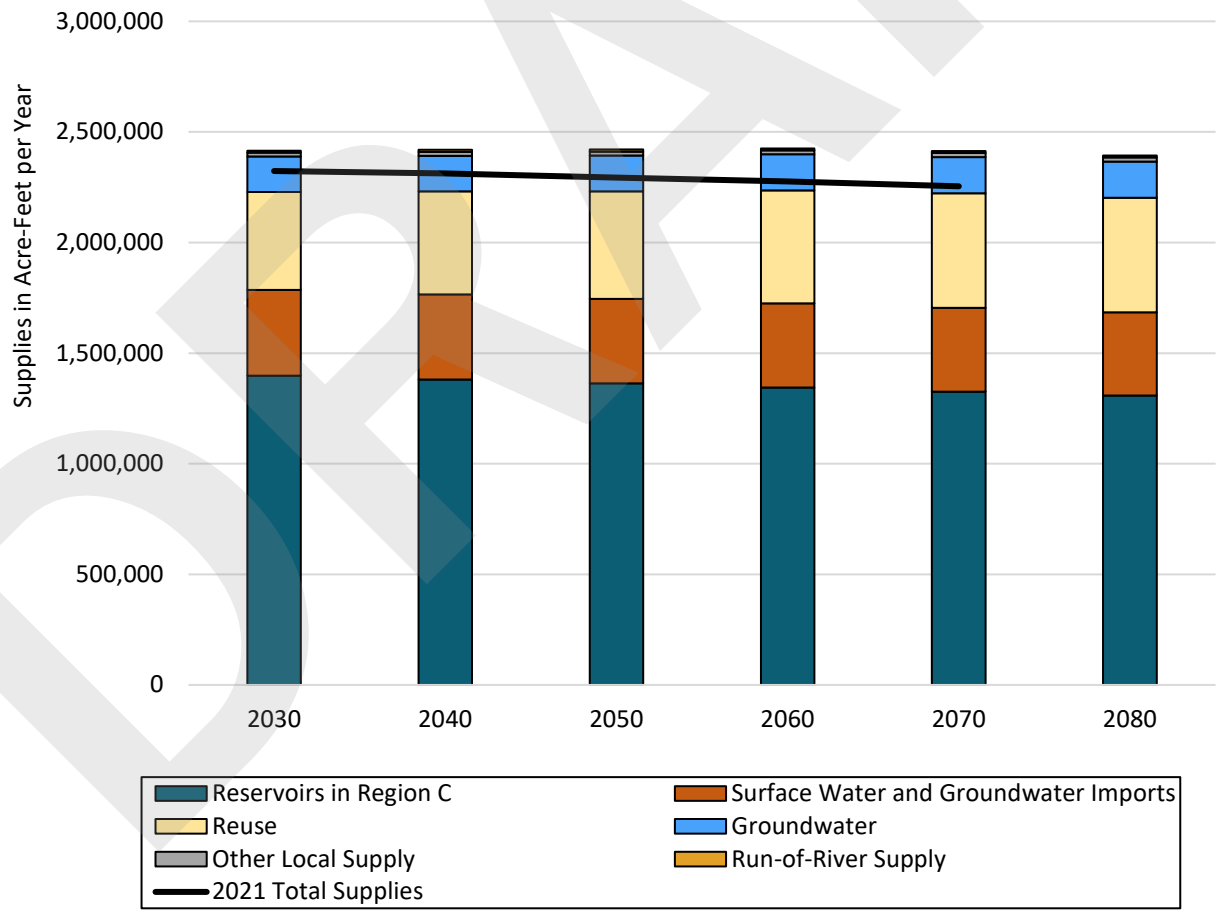
*LAKE BARDWELL IN ENNIS*

***TABLE 3.1 OVERALL WATER SUPPLY AVIALABLITY IN REGION C***

| SOURCE | VALUES IN ACRE-FEET PER YEAR | | | | | |
|---|---|---|---|---|---|---|
| | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Reservoirs in Region C**[a] | 1,398,766 | 1,380,776 | 1,362,780 | 1,344,910 | 1,325,851 | 1,308,305 |
| **Run-of-River Supply** | 9,197 | 9,197 | 9,197 | 9,197 | 9,197 | 9,197 |
| **Other Local Supply** | 17,628 | 17,628 | 17,628 | 17,628 | 17,628 | 17,628 |
| **Groundwater** | 159,525 | 160,586 | 161,649 | 162,712 | 163,670 | 163,670 |
| **Reuse** | 443,045 | 465,941 | 486,019 | 510,099 | 518,884 | 518,723 |
| **Surface Water and Groundwater Imports** | 387,256 | 385,085 | 383,152 | 380,818 | 378,454 | 375,950 |
| ***REGION C TOTAL*** | ***2,415,417*** | ***2,419,213*** | ***2,420,425*** | ***2,425,364*** | ***2,413,684*** | ***2,393,473*** |

[a]*Includes NTMWD portion of Chapman. Although this Reservoir is physically located in another region, this source has been combined with other NTWMD supplies into a system in DB27 and is now included in the DB27 reports for Region C sources.*

***FIGURE 3.1 OVERALL WATER SUPPLY AVAILABILITY IN REGION C***



## 3.2 Surface Water Availability

### 3.2.1 Reservoirs

For surface water reservoirs, the available supply is generally the equivalent of firm yield supply or permitted amount, whichever is lower. However, several providers in Region C have chosen to use alternative yields to firm yield for planning purposes. Tarrant Regional Water District (TRWD) and Dallas Water Utilities (DWU) have elected to use safe yields for their sources (which is less than the firm yield and leaves a reserve at the end of the drought of record) as the available supply. Additionally, the Texas Legislature authorized the regional water planning groups to consider droughts worse than the drought of record in its planning efforts, which can reflect expected climatic uncertainties and trends in water availability. North Texas Municipal Water District (NTMWD) requested the use of the results of this type of analysis for the allocation and distribution of surface water supplies[5].

In the guidelines for Regional Water Planning [1], the TWDB requires that water availability for reservoirs be based on results of the TCEQ-approved Water Availability Models (WAMs). In Region C, most of the in-region reservoirs are located in the Trinity River Basin. Region C also uses water supplies originating in the Neches, Red, Sabine, Brazos, and Sulphur River Basins.

The WAM models were developed for the purpose of reviewing and granting new surface water right permits. The assumptions in the WAM models are based on the legal interpretation of water rights, and in some cases do not accurately reflect current operations. For planning purposes, adjustments were made to the WAMs to better reflect current and future surface water conditions in the region. These adjustments were approved by the Executive Administrator (EA) of the Texas Water Development Board in a letter to the Chairman of the Region C Water Planning Group, dated October 26, 2023. This letter and the requested hydrologic variances are included in **Appendix E, Attachment E-1**.

Generally, changes made to the WAM included:

- Assessment of reservoir sedimentation rates and calculation of area-capacity conditions for current and future conditions.
- Inclusion of subordination agreements.
- Inclusion of system operations where appropriate.
- Use of minimum storage elevations for U.S. Army Corps of Engineers reservoirs, where appropriate.
- Other specific corrections by river basin, as appropriate.

**Table 3.2** lists the reservoir water supplies currently available for use in Region C (not limited to infrastructure constraints). More detail on the determination of available supplies from reservoirs is included in **Appendix E**.

*TABLE 3.2 SURFACE WATER SUPPLIES CURRENTLY AVAILABLE TO REGION C*

| RESERVOIR | PERMITTED DIVERSION/ CONTRACTED AMOUNT | VALUES IN ACRE-FEET PER YEAR | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Systems in Region C** | | | | | | | |
| Lost Creek/Jacksboro System | 1,397 | 1,397 | 1,397 | 1,397 | 1,397 | 1,397 | 1,397 |
| West Fork (includes Bridgeport Local)[a] | 265,888 | 96,161 | 95,561 | 94,961 | 94,428 | 93,894 | 93,361 |
| Elm Fork/Lewisville/Ray Roberts/Grapevine (Dallas)[a] | 1,246,429 | 174,899 | 174,109 | 173,319 | 172,059 | 170,799 | 169,539 |
| **Subtotal of Systems in Region C** | **1,513,714** | **272,457** | **271,067** | **269,677** | **267,884** | **266,090** | **264,297** |
| **Reservoirs in Region C** | | | | | | | |
| Cedar Creek[a] | 175,000 | 157,150 | 155,340 | 153,530 | 151,797 | 150,063 | 148,330 |
| Richland-Chambers (TRWD)[a] | 210,000 | 190,000 | 188,266 | 186,531 | 184,781 | 183,030 | 181,280 |
| Richland-Chambers (Corsicana) and Halbert | 17,653 | 13,843 | 13,833 | 13,823 | 13,803 | 13,783 | 13,763 |
| Moss | 7,740 | 4,900 | 4,800 | 4,700 | 4,633 | 4,567 | 4,500 |
| Texoma (Texas' Share - NTMWD) | 197,000 | 197,000 | 197,000 | 197,000 | 197,000 | 197,000 | 197,000 |
| Texoma (Texas' Share - GTUA) | 83,200 | 83,200 | 83,200 | 83,200 | 83,200 | 83,200 | 83,200 |
| Texoma (Texas' Share - Denison) | 24,400 | 24,400 | 24,400 | 24,400 | 24,400 | 24,400 | 24,400 |
| Texoma (Texas' Share - Luminant) | 16,400 | 16,400 | 16,400 | 16,400 | 16,400 | 16,400 | 16,400 |
| Texoma (Texas' Share - RRA) | 2,250 | 2,250 | 2,250 | 2,250 | 2,250 | 2,250 | 2,250 |
| Randell | 5,280 | 1,600 | 1,600 | 1,600 | 1,600 | 1,600 | 1,600 |
| Valley | 16,400 | 2,800 | 2,800 | 2,800 | 2,800 | 2,800 | 2,800 |
| Bonham | 5,340 | 3,800 | 3,700 | 3,600 | 3,533 | 3,467 | 3,400 |
| Ray Roberts (Denton) | 207,896 | 18,600 | 18,480 | 18,360 | 18,207 | 18,053 | 17,900 |
| Lewisville (Denton) | 58,424 | 5,200 | 5,075 | 4,950 | 4,800 | 4,650 | 4,500 |
| Benbrook[a] | 6,833 | 3,371 | 3,371 | 3,371 | 3,371 | 3,371 | 3,371 |
| Weatherford | 5,220 | 2,860 | 2,810 | 2,760 | 2,717 | 2,673 | 2,630 |
| Grapevine (DCPCM) | 50,000 | 17,300 | 17,125 | 16,950 | 16,750 | 16,550 | 16,350 |
| Grapevine (Grapevine) | 26,250 | 2,050 | 2,025 | 2,000 | 1,960 | 1,920 | 1,880 |
| Arlington[a] | 22,720 | 7,500 | 7,385 | 7,270 | 7,157 | 7,043 | 6,930 |
| Joe Pool | 17,000 | 14,050 | 13,725 | 13,400 | 13,133 | 12,867 | 12,600 |
| Mountain Creek | 6,400 | 6,400 | 6,400 | 6,400 | 6,400 | 6,400 | 6,400 |

| RESERVOIR | PERMITTED DIVERSION/ CONTRACTED AMOUNT | VALUES IN ACRE-FEET PER YEAR | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| North | 1,000 | 70 | 70 | 70 | 70 | 70 | 70 |
| Ray Hubbard (Dallas)[a] | 208,067 | 46,239 | 45,450 | 44,660 | 43,927 | 43,194 | 42,461 |
| White Rock[a] | 8,703 | 2,540 | 2,375 | 2,210 | 2,023 | 1,837 | 1,650 |
| Terrell | 5,800 | 2,410 | 2,395 | 2,380 | 2,370 | 2,360 | 2,350 |
| Clark | 450 | 210 | 210 | 210 | 210 | 210 | 210 |
| Bardwell | 9,600 | 9,410 | 9,010 | 8,610 | 8,287 | 7,963 | 7,640 |
| Waxahachie | 3,570 | 2,980 | 2,910 | 2,840 | 2,773 | 2,707 | 2,640 |
| Forest Grove | 9,500 | 650 | 328 | 5 | 3 | 2 | - |
| Trinidad | 4,000 | 2,950 | 2,950 | 2,950 | 2,950 | 2,950 | 2,950 |
| Navarro Mills | 19,400 | 17,000 | 15,975 | 14,950 | 13,817 | 12,683 | 11,550 |
| Fairfield | 14,150 | 6,395 | 6,163 | 5,930 | 5,725 | 5,520 | 5,315 |
| Bryson | 90 | - | - | - | - | - | - |
| Mineral Wells | 2,520 | 2,495 | 2,483 | 2,470 | 2,458 | 2,445 | 2,433 |
| Teague City | 605 | 189 | 189 | 189 | 189 | 189 | 189 |
| Lavon[c] | 118,670 | 88,111 | 83,963 | 79,927 | 75,892 | 70,959 | 67,148 |
| Bois d'Arc[c] | 175,000 | 89,456 | 86,878 | 84,187 | 81,497 | 78,918 | 76,228 |
| Muenster | 500 | 250 | 250 | 250 | 250 | 250 | 250 |
| Ralph Hall | 45,000 | 40,580 | 40,525 | 40,470 | 40,393 | 40,317 | 40,240 |
| Chapman (NTMWD)[b,c] | 57,214 | 39,700 | 37,600 | 35,500 | 33,500 | 31,100 | 29,200 |
| **Subtotal of Reservoirs in Region C** | **1,845,245** | **1,126,309** | **1,109,709** | **1,093,103** | **1,077,026** | **1,059,761** | **1,044,008** |
| **Imports** | | | | | | | |
| Chapman (Irving) | 54,000 | 38,644 | 37,725 | 36,805 | 35,886 | 34,967 | 34,048 |
| Chapman (Upper Trinity MWD) | 16,106 | 11,522 | 11,248 | 10,974 | 10,700 | 10,425 | 10,151 |
| Tawakoni (Dallas) | 190,480 | 104,200 | 115,947 | 117,101 | 118,204 | 119,381 | 120,572 |
| Fork (Dallas) | 120,000 | 120,000 | 108,253 | 107,099 | 105,996 | 104,819 | 103,628 |
| Upper Sabine (NTMWD) | 11,210 | 10,313 | 9,865 | 9,529 | 9,080 | 8,632 | 8,295 |
| Palestine (Dallas) | 114,337 | 96,204 | 95,086 | 93,967 | 92,874 | 91,778 | 90,673 |
| Lake Athens (Athens) | 5,477 | 588 | 1,151 | 1,804 | 2,144 | 2,431 | 2,549 |
| Brazos River Authority | - | 3,224 | 3,271 | 3,332 | 3,386 | 3,410 | 3,411 |

| RESERVOIR | PERMITTED DIVERSION/ CONTRACTED AMOUNT | VALUES IN ACRE-FEET PER YEAR | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| Lake Aquilla | - | 436 | 484 | 545 | 599 | 623 | 624 |
| Main Stem Lake/Reservoir System | - | 2,788 | 2,787 | 2,787 | 2,787 | 2,787 | 2,787 |
| Parker County (from Lake Palo Pinto) | - | 1,519 | 1,506 | 1,492 | 1,479 | 1,465 | 1,447 |
| **Subtotal of Imports** | 511,610 | **386,214** | **384,052** | **382,103** | **379,749** | **377,308** | **374,774** |
| ***TOTAL*** | 3,870,569 | ***1,784,980*** | ***1,764,828*** | ***1,744,883*** | ***1,724,659*** | ***1,703,159*** | ***1,683,079*** |

[a]*Amounts reported are safe yields.*
[b]*Although this Reservoir is physically located in another region; this source has been combined with other NTWMD supplies into a system in DB27 and is now included in the DB27 reports for Region C sources.*
[c]*Amounts reported consider droughts worse than the drought of record.*

### 3.2.2 Other Local Supplies

Other local supplies include run-of-the-river supplies associated with water rights and used for irrigation, manufacturing, mining, municipal, and steam electric power generation. They also include local surface water supplies used for livestock and mining. The reliable supply from run-of-the-river diversions was calculated using the minimum diversion from WAM Run 3 for the permitted water rights. For livestock and mining local supplies, the available supplies were revised considering the TWDB maximum historical use from 2015-2019[6,7] and projected demands.

**Table 3.3** lists the run-of-river diversions and other local supplies currently available for use in Region C. More details on other local supplies is included in **Appendix E**.

***TABLE 3.3 RUN-OF-THE-RIVER AND OTHER LOCAL WATER SUPPLIES***

| COUNTY | VALUES IN ACRE-FEET PER YEAR | | | | | | |
|---|---|---|---|---|---|---|---|
| | RUN-OF-THE-RIVER SUPPLY | | | | | OTHER LOCAL SUPPLY | |
| | IRRIGA-TION | MANUFA-CTURING | MINING | MUNICIAL | STEAM ELECTRIC | LIVE-STOCK | MINING |
| **Collin** | 265 | 0 | 0 | 0 | 0 | 776 | 0 |
| **Cooke** | 0 | 0 | 0 | 0 | 0 | 1,339 | 0 |
| **Dallas** | 309 | 0 | 0 | 0 | 1,423 | 51 | 0 |
| **Denton** | 0 | 0 | 0 | 0 | 0 | 618 | 764 |
| **Ellis** | 1 | 0 | 0 | 0 | 0 | 931 | 0 |
| **Fannin** | 2,295 | 0 | 75 | 45 | 0 | 141 | 0 |
| **Freestone** | 91 | 0 | 0 | 41 | 0 | 1,335 | 32 |
| **Grayson** | 768 | 0 | 3 | 0 | 0 | 933 | 0 |
| **Henderson** | 1,246 | 0 | 0 | 0 | 0 | 430 | 0 |
| **Jack** | 0 | 0 | 0 | 0 | 0 | 598 | 0 |
| **Kaufman** | 83 | 0 | 0 | 0 | 0 | 1,426 | 1,162 |
| **Navarro** | 535 | 0 | 0 | 252 | 0 | 1,492 | 0 |
| **Parker** | 134 | 0 | 0 | 0 | 0 | 1,381 | 1,242 |
| **Rockwall** | 0 | 0 | 0 | 0 | 0 | 136 | 0 |
| **Tarrant** | 513 | 0 | 0 | 0 | 1,079 | 351 | 1,280 |
| **Wise** | 39 | 0 | 0 | 0 | 0 | 1,210 | 0 |
| ***TOTAL*** | ***6,279*** | ***0*** | ***78*** | ***338*** | ***2,502*** | ***13,148*** | ***4,480*** |

### 3.2.3 Reuse

The reuse supply considered as available to the region is from existing projects based on current permits, authorizations, and facilities. The available reuse supplies are limited to the supply available during drought of record conditions. Categories of reuse include currently permitted and operating indirect reuse projects, in which water is reused after being returned to the stream; existing direct reuse projects for industrial purposes (including recycled water for mining use and purple pipe); and authorized direct reuse projects for which facilities are already developed. The specific reuse projects and source methodology are discussed in **Appendix E**.

Indirect reuse project sponsors in Region C include NTMWD, Trinity River Authority (TRA), TRWD, Upper Trinity Regional Water District (UTRWD), DWU, Denton, Ennis, Grapevine, and Weatherford. In addition, there are a number of existing direct reuse projects for landscape irrigation, golf course irrigation, cooling water, park irrigation, and natural gas industry use in Region C.

It is anticipated that reuse will increase in Region C over the next 50 years, but proposed and potential reuse projects are not included as currently available supplies. There are a number of reuse projects considered as potentially feasible management strategies as part of this planning process. Recommended water management strategies for reuse are discussed in **Chapter 5B** of this report. **Table 3.4** summarizes the currently permitted reuse supplies by county in Region C. Note that in some cases, currently available reuse supplies are expected to increase over time with increasing return flows.

***TABLE 3.4 CURRENTLY PERMITTED REUSE SUPPLIES BY COUNTY***

| COUNTY | VALUES IN ACRE-FEET PER YEAR | | | | | |
|---|---|---|---|---|---|---|
| | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Collin** | 74,637 | 78,143 | 78,143 | 78,143 | 78,143 | 78,143 |
| **Cooke** | 4 | 4 | 4 | 4 | 4 | 4 |
| **Dallas** | 71,974 | 84,371 | 95,995 | 107,595 | 107,741 | 107,741 |
| **Denton** | 65,241 | 70,259 | 78,570 | 91,035 | 99,655 | 99,494 |
| **Ellis** | 7,593 | 8,825 | 8,825 | 8,825 | 8,825 | 8,825 |
| **Fannin** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Freestone** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Grayson** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Henderson** | 32 | 32 | 32 | 32 | 32 | 32 |
| **Jack** | 26 | 26 | 25 | 24 | 24 | 24 |
| **Kaufman** | 112,630 | 112,734 | 112,755 | 112,755 | 112,755 | 112,755 |
| **Navarro** | 100,465 | 100,465 | 100,465 | 100,465 | 100,465 | 100,465 |
| **Parker** | 3,266 | 3,866 | 4,004 | 4,023 | 4,043 | 4,043 |
| **Rockwall** | 672 | 672 | 672 | 672 | 672 | 672 |
| **Tarrant** | 6,505 | 6,544 | 6,529 | 6,526 | 6,525 | 6,525 |
| **Wise** | 0 | 0 | 0 | 0 | 0 | 0 |
| ***TOTAL*** | ***443,045*** | ***465,941*** | ***486,019*** | ***510,099*** | ***518,884*** | ***518,723*** |

## 3.3 Groundwater Availability

Groundwater supplies in Region C are obtained from two major aquifers (Carrizo-Wilcox and Trinity), four minor aquifers (Woodbine, Nacatoch, Cross Timbers, and Queen City), and locally undifferentiated formations, referred to as "Other aquifer."

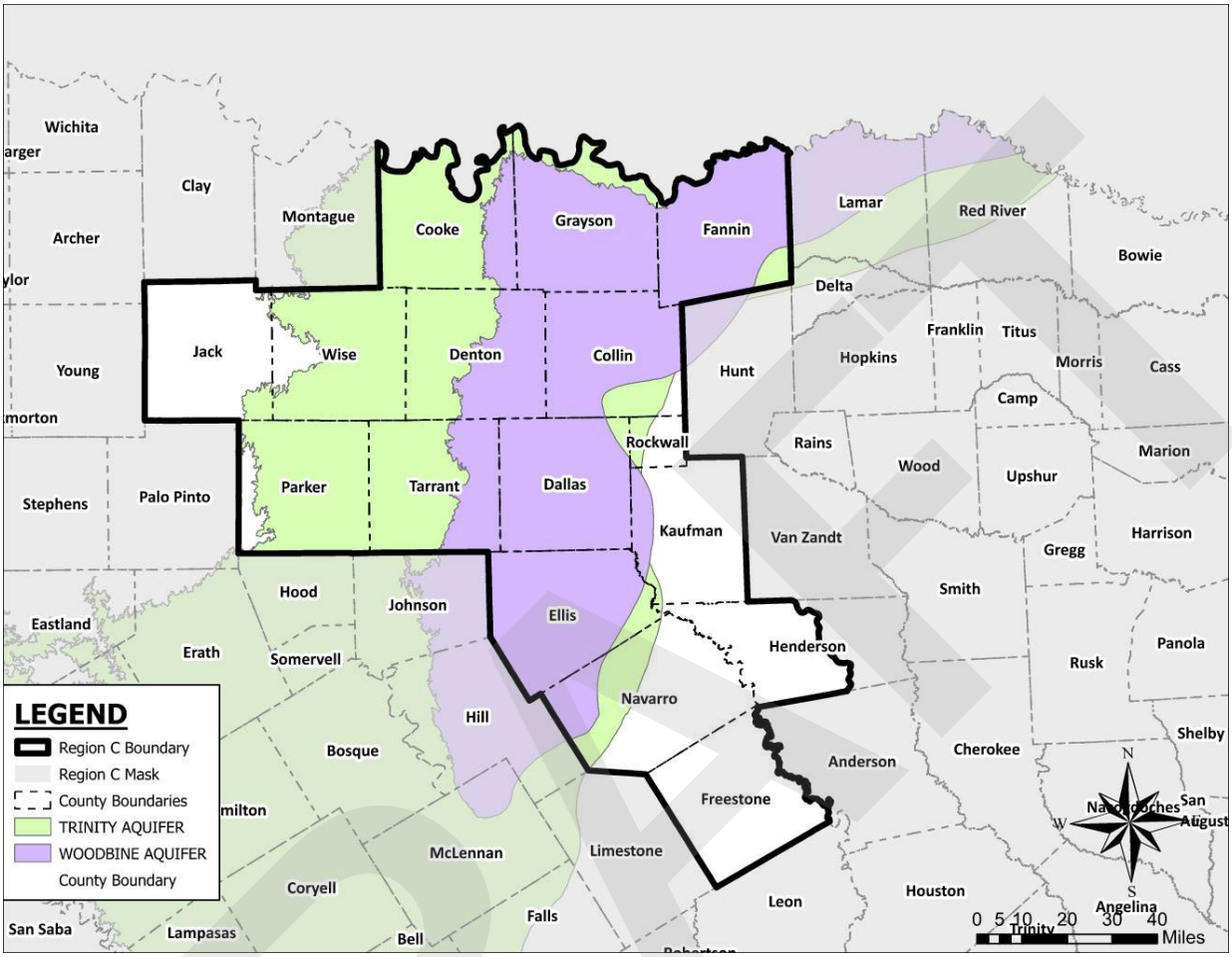
The TWDB guidelines [1] state that Modeled Available Groundwater (MAG) estimates[2] provided by the TWDB are to be used to determine available groundwater supplies. MAG estimates are developed by the TWDB using Desired Future Conditions (DFCs) submitted by Groundwater Management Areas (GMAs). The TWDB created sixteen GMAs in Texas. There are four GMAs that cover portions of Region C. GMA 8 covers most of Region C except for Henderson County, Jack County, and small portions of Navarro, Parker, and Wise County. GMA 6 covers most of Jack County and small portions of Wise and Parker County. GMA 11 covers Henderson County and GMA 12 covers a small portion of Navarro County. The GMAs are responsible for developing DFCs for aquifers within their respective areas. The TWDB quantifies MAG estimates based on the DFCs provided by the GMAs.

### 3.3.1 Trinity and Woodbine Aquifers

Trinity aquifer is the most heavily used aquifer in Region C and supplies most of the groundwater used in the region. The Trinity aquifer is in Collin, Cooke, Dallas, Denton, Ellis, Fannin, Grayson, Jack, Kaufman, Navarro, Parker, Rockwall, Tarrant, and Wise Counties in Region C. The Trinity aquifer is sometimes called the Trinity Sands and includes the Paluxy, Glen Rose, Twin Mountains, Travis Peak, Hensell, Hosston, and Antlers formations. Most of the pumping from the Trinity aquifer in Region C is from three layers: Paluxy, Hensel, and Hosston.

The Woodbine aquifer overlies the Trinity aquifer, shown in **Figure 3.2**.The Woodbine aquifer is the second most used aquifer in Region C. The Woodbine aquifer is in Collin, Cooke, Dallas, Denton, Ellis, Fannin, Grayson, Kaufman, Navarro, Rockwall, and Tarrant Counties in Region C. MAG estimates provided by the TWDB were used to determine groundwater availability from the Trinity and Woodbine aquifers. These availability numbers are shown in **Table 3.5**.

*FIGURE 3.2 TRINITY AND WOODBINE AQUIFERS*

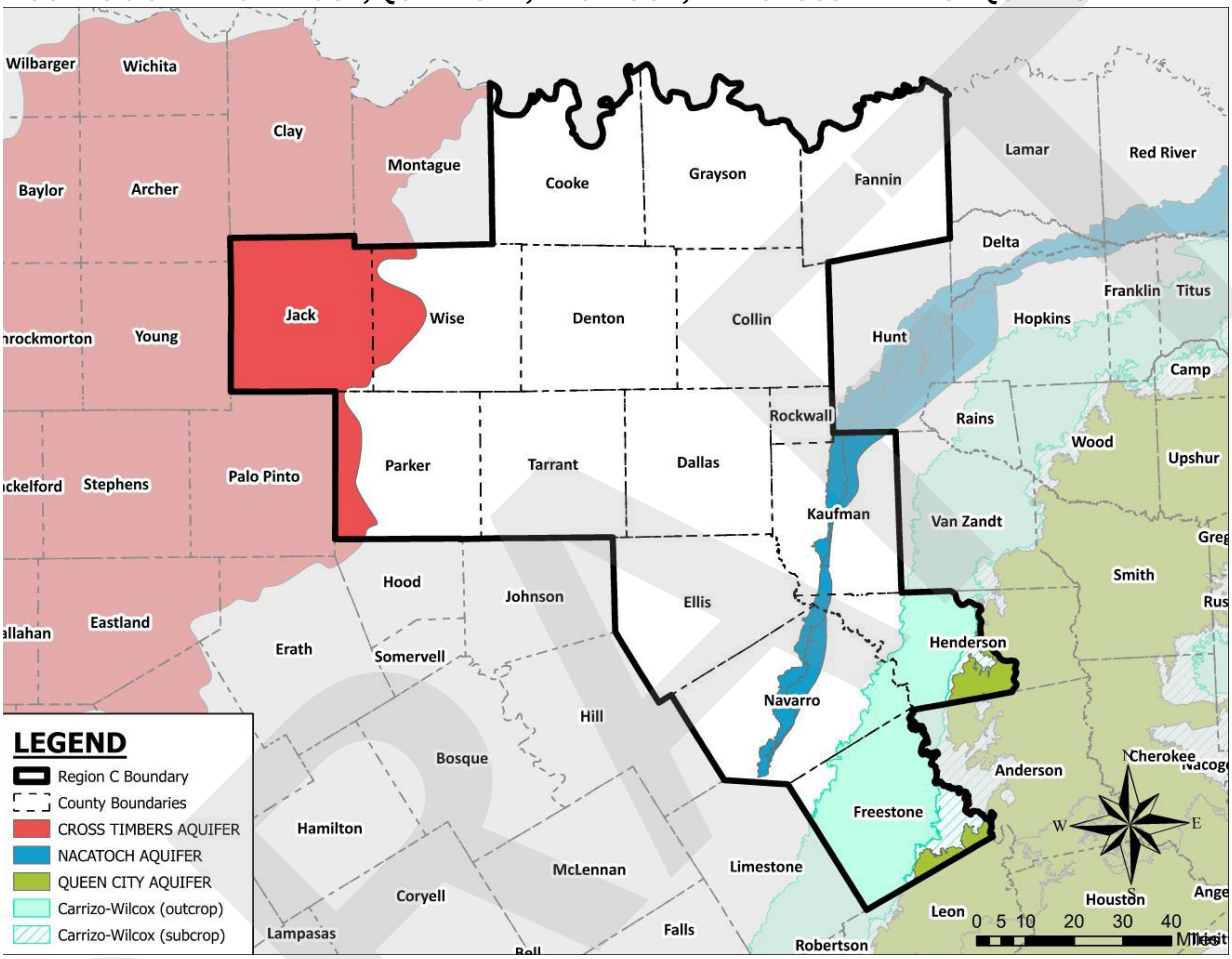



## 3.3.2 Carrizo-Wilcox, Queen City, Nacatoch, and Cross Timbers Aquifers

**Figure 3.3** shows the Carrizo-Wilcox, Queen City, Nacatoch, and Cross Timbers Aquifers. Supplies from the Carrizo-Wilcox aquifer are available in Freestone, Henderson, and Navarro Counties in Region C. Supplies from the Queen City aquifer are available in Freestone and Henderson County in Region C. The Nacatoch aquifer underlies Ellis, Kaufman, Navarro, and Rockwall Counties in Region C. MAG estimates provided by the TWDB were used to determine groundwater availability from the Carrizo-Wilcox and Queen City aquifers. GMA 8 and GMA 11 deemed the Nacatoch aquifer "non-relevant", and new water availability estimates for this aquifer were not included in the MAGs developed by TWDB. Therefore, availability for this aquifer was assumed to be the same as the amounts used in the *2021 Region C Water Plan*[4]. The Cross Timbers aquifer was designated as a new minor aquifer in 2017. No desired future conditions have been established by the groundwater conservation district for this aquifer, therefore no MAG amounts are available. For this reason, the availability from this aquifer is assumed to be the same amounts used in the *2021 Region C Water Plan*[4].

**Table 3.5** shows the groundwater availability by county to Region C from these aquifers. As with reservoirs, this number represents the amount of water available from the aquifer, without considering limitations imposed by, or current availability due to, the capacity of wells and other facilities. The amount of groundwater currently available in Region C is discussed in **Section 3.4.**

***FIGURE 3.3 CARRIZO-WILCOX, QUEEN CITY, NACATOCH, AND CROSS TIMBERS AQUIFERS***



### 3.3.3 Other Aquifers

There are several locally undifferentiated formations in Region C, referred to as "Other aquifer." "Other aquifer" supplies are used in Fannin, Kaufman, and Navarro Counties in Region C. Available supplies from these undifferentiated formations are not included in the MAG numbers. Other aquifer available supply amounts are based on historical use and are assumed to be the same as the amounts used in the *2021 Region C Water Plan*[4]. In the historical pumping data obtained from the TWDB[3], there are significant amounts of groundwater classified as "Other aquifer" or "Unknown aquifer." In many cases, it is believed the "Other aquifer" use should be classified as part of a differentiated formation but was not. In these cases, other aquifer supplies were not shown to be available despite the "availability" shown in the historical data.

### 3.3.4 Groundwater Conservation Districts

There are currently seven Groundwater Conservation Districts (GCDs) that include one or more Region C counties. These GCDs are listed below and shown in **Figure 3.4**.

- Upper Trinity GCD (Wise and Parker Counties)
- Northern Trinity GCD (Tarrant County)
- Neches and Trinity Valleys GCD (includes Henderson County)
- Mid-East Texas GCD (includes Freestone County)
- Prairielands GCD (includes Ellis County)
- North Texas GCD (Collin, Cooke, and Denton Counties)
- Red River GCD (Grayson and Fannin Counties)

### 3.3.5 Summary

In Region C, new MAG estimates for the Trinity, Woodbine, Carrizo-Wilcox, and Queen City aquifers were available for this cycle of regional water planning. New MAG estimates were not available for the Nacatoch aquifer and the availability for this aquifer was assumed to be the same as the amounts used in the *2021 Region C Water Plan*[4]. No MAG amounts were available for the Cross Timbers aquifer and the availability was assumed to be the same amounts used in the *2021 Region C Water Plan*[4] . MAG estimates were not available for "Other aquifer", and groundwater supplies were based on historical use and are assumed to be the same amounts used in the *2021 Region C Water Plan*[4]. The total available supply from groundwater in Region C is 159,525 acre-feet per year in 2030, changing to 163,670 acre-feet per year in 2080. About 71 percent of the available groundwater in Region C is from the Trinity aquifer, 17 percent from the Woodbine aquifer, 7 percent from the Carrizo-Wilcox aquifer, and 5 percent from minor and undesignated aquifers. More detail on the determination of available supplies from groundwater is included in **Appendix E**.

*FIGURE 3.4 GROUNDWATER CONSERVATION DISTRICTS IN REGION C*

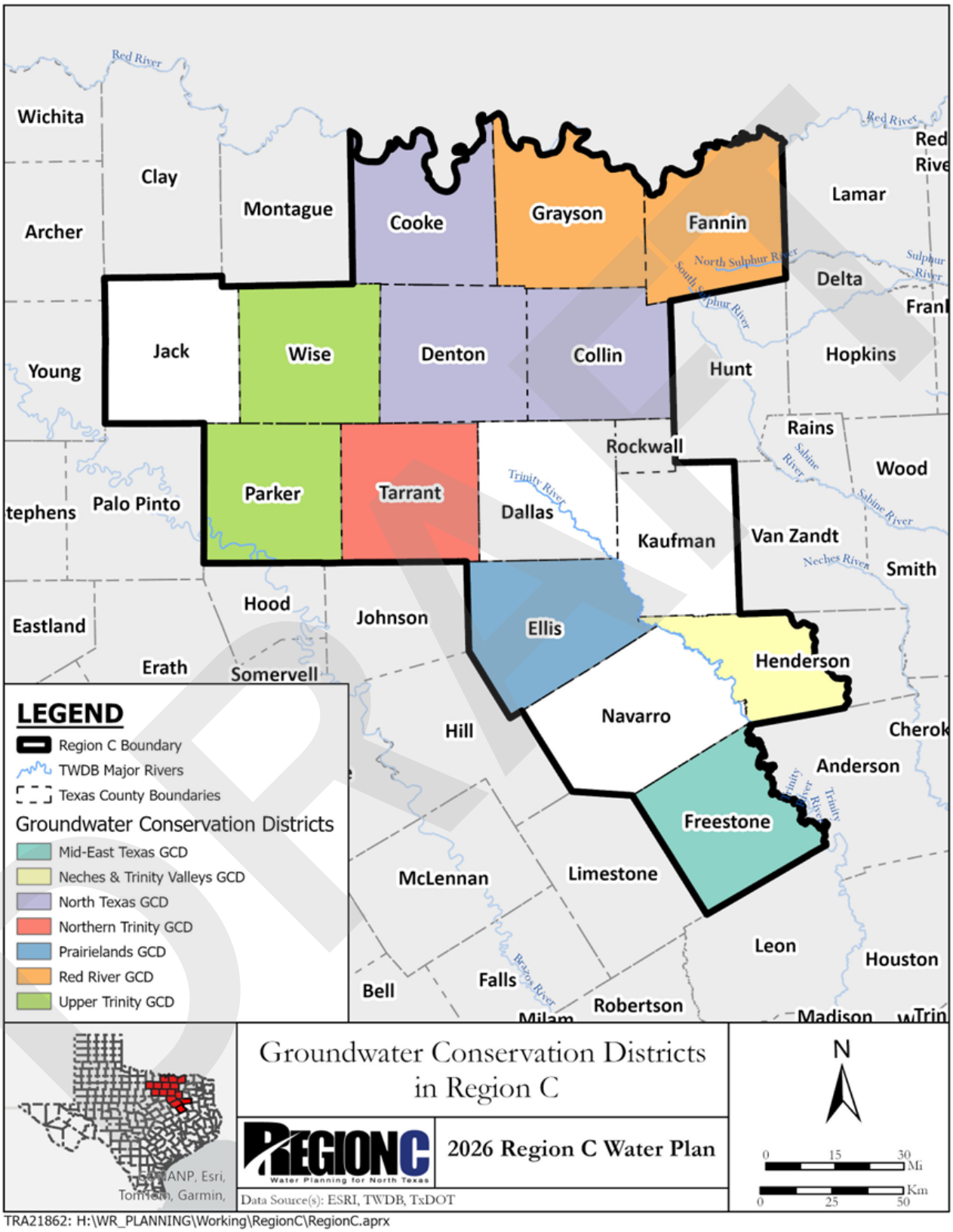


*TABLE 3.5 GROUNDWATER AVAILABILITY IN REGION C*

| AQUIFER | COUNTY | VALUES IN ACRE-FEET PER YEAR | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Carrizo-Wilcox** | Freestone | 7,203 | 8,255 | 9,307 | 10,359 | 11,304 | 11,304 |
| **Carrizo-Wilcox** | Henderson | 3,226 | 3,226 | 3,226 | 3,226 | 3,226 | 3,226 |
| **Carrizo-Wilcox** | Navarro | 105 | 114 | 125 | 136 | 149 | 149 |
| **Carrizo-Wilcox Subtotal** | | **10,534** | **11,595** | **12,658** | **13,721** | **14,679** | **14,679** |
| **Trinity** | Collin | 5,795 | 5,795 | 5,795 | 5,795 | 5,795 | 5,795 |
| **Trinity** | Cooke | 10,521 | 10,521 | 10,521 | 10,521 | 10,521 | 10,521 |
| **Trinity** | Dallas | 3,691 | 3,691 | 3,691 | 3,691 | 3,691 | 3,691 |
| **Trinity** | Denton | 30,091 | 30,091 | 30,091 | 30,091 | 30,091 | 30,091 |
| **Trinity** | Ellis | 6,168 | 6,168 | 6,168 | 6,168 | 6,168 | 6,168 |
| **Trinity** | Fannin | 2,088 | 2,088 | 2,088 | 2,088 | 2,088 | 2,088 |
| **Trinity** | Grayson | 10,716 | 10,716 | 10,716 | 10,716 | 10,716 | 10,716 |
| **Trinity** | Jack | 637 | 637 | 637 | 637 | 637 | 637 |
| **Trinity** | Kaufman | - | - | - | - | - | - |
| **Trinity** | Navarro | - | - | - | - | - | - |
| **Trinity** | Parker | 14,449 | 14,449 | 14,449 | 14,449 | 14,449 | 14,449 |
| **Trinity** | Rockwall | - | - | - | - | - | - |
| **Trinity** | Tarrant | 17,926 | 17,926 | 17,926 | 17,926 | 17,926 | 17,926 |
| **Trinity** | Wise | 11,452 | 11,452 | 11,452 | 11,452 | 11,452 | 11,452 |
| **Trinity Subtotal** | **113,534** | **113,534** | **113,534** | **113,534** | **113,534** | **113,534** | **113,534** |
| **Woodbine** | Collin | 4,254 | 4,254 | 4,254 | 4,254 | 4,254 | 4,254 |
| **Woodbine** | Cooke | 801 | 801 | 801 | 801 | 801 | 801 |
| **Woodbine** | Dallas | 2,798 | 2,798 | 2,798 | 2,798 | 2,798 | 2,798 |
| **Woodbine** | Denton | 3,609 | 3,609 | 3,609 | 3,609 | 3,609 | 3,609 |
| **Woodbine** | Ellis | 2,074 | 2,074 | 2,074 | 2,074 | 2,074 | 2,074 |
| **Woodbine** | Fannin | 4,924 | 4,924 | 4,924 | 4,924 | 4,924 | 4,924 |
| **Woodbine** | Grayson | 7,526 | 7,526 | 7,526 | 7,526 | 7,526 | 7,526 |
| **Woodbine** | Kaufman | - | - | - | - | - | - |
| **Woodbine** | Navarro | 68 | 68 | 68 | 68 | 68 | 68 |
| **Woodbine** | Rockwall | - | - | - | - | - | - |
| **Woodbine** | Tarrant | 1,139 | 1,139 | 1,139 | 1,139 | 1,139 | 1,139 |
| **Woodbine Subtotal** | | **27,193** | **27,193** | **27,193** | **27,193** | **27,193** | **27,193** |
| **Cross Timbers** | Jack | 934 | 934 | 934 | 934 | 934 | 934 |
| **Cross Timbers** | Parker | 50 | 50 | 50 | 50 | 50 | 50 |
| **Nacatoch** | Ellis | 20 | 20 | 20 | 20 | 20 | 20 |
| **Nacatoch** | Kaufman | 926 | 926 | 926 | 926 | 926 | 926 |
| **Nacatoch** | Navarro | 980 | 980 | 980 | 980 | 980 | 980 |
| **Nacatoch** | Rockwall | 13 | 13 | 13 | 13 | 13 | 13 |
| **Queen City** | Freestone | 77 | 77 | 77 | 77 | 77 | 77 |
| **Queen City** | Henderson | 154 | 154 | 154 | 154 | 154 | 154 |
| **Other** | Fannin | 2,919 | 2,919 | 2,919 | 2,919 | 2,919 | 2,919 |

| AQUIFER | COUNTY | VALUES IN ACRE-FEET PER YEAR | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Other** | Kaufman | 1,756 | 1,756 | 1,756 | 1,756 | 1,756 | 1,756 |
| **Other** | Navarro | 435 | 435 | 435 | 435 | 435 | 435 |
| **Minor and Other Subtotal** | | **8,264** | **8,264** | **8,264** | **8,264** | **8,264** | **8,264** |
| ***TOTAL*** | | ***159,525*** | ***160,586*** | ***161,649*** | ***162,712*** | ***163,670*** | ***163,670*** |

## 3.4 Currently Available Water Supplies

**Table 3.6** and **Figure 3.5** show the currently available water supplies in Region C by different source types. **Table 3.7** shows the currently available supplies for water user groups by county. Currently available supplies are supplies that can be used with currently existing water rights, contracts, and facilities. They are less than the overall supplies available to the region because the facilities needed to use some supplies have not yet been developed. Common constraints limiting currently available supplies include the availability and capacity of transmission systems, treatment plants, and wells.

The difference between currently available supply and that which is available to users is due primarily to transmission and treatment plant capacity limitations. In 2080, approximately one-third of the Region C total supplies are not currently connected to water supply systems. The connection of these supplies will be considered as water management strategies and are discussed in more detail in **Chapter 5**.

***TABLE 3.6 CURRENTLY AVAILABLE WATER SUPPLIES TO WATER USERS BY SOURCE TYPE***

| CATEGORY | VALUES IN ACRE-FEET PER YEAR | | | | | |
|---|---|---|---|---|---|---|
| | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Reservoirs in Region C**[a] | 1,091,059 | 1,064,150 | 1,048,978 | 1,036,779 | 1,016,737 | 999,674 |
| **Run-of-River Supply** | 7,170 | 7,170 | 7,170 | 7,170 | 7,170 | 7,170 |
| **Other Local Supply** | 17,198 | 17,198 | 17,198 | 17,198 | 17,198 | 17,198 |
| **Groundwater** | 93,682 | 94,141 | 95,026 | 95,823 | 96,615 | 97,560 |
| **Reuse** | 296,190 | 316,645 | 327,378 | 342,092 | 352,982 | 354,874 |
| **Surface Water and Groundwater Imports** | 240,063 | 239,939 | 240,372 | 240,374 | 240,364 | 240,173 |
| ***REGION C TOTAL*** | ***1,745,362*** | ***1,739,243*** | ***1,736,122*** | ***1,739,436*** | ***1,731,066*** | ***1,716,649*** |

[a]*Includes NTMWD portion of Chapman. Although this Reservoir is physically located in another region, this source has been combined with other NTWMD supplies into a system in DB27 and is now included in the DB27 reports for Region C sources.*

*FIGURE 3.5 CURRENTLY AVAILABLE SUPPLIES FOR REGION C WATER USERS*

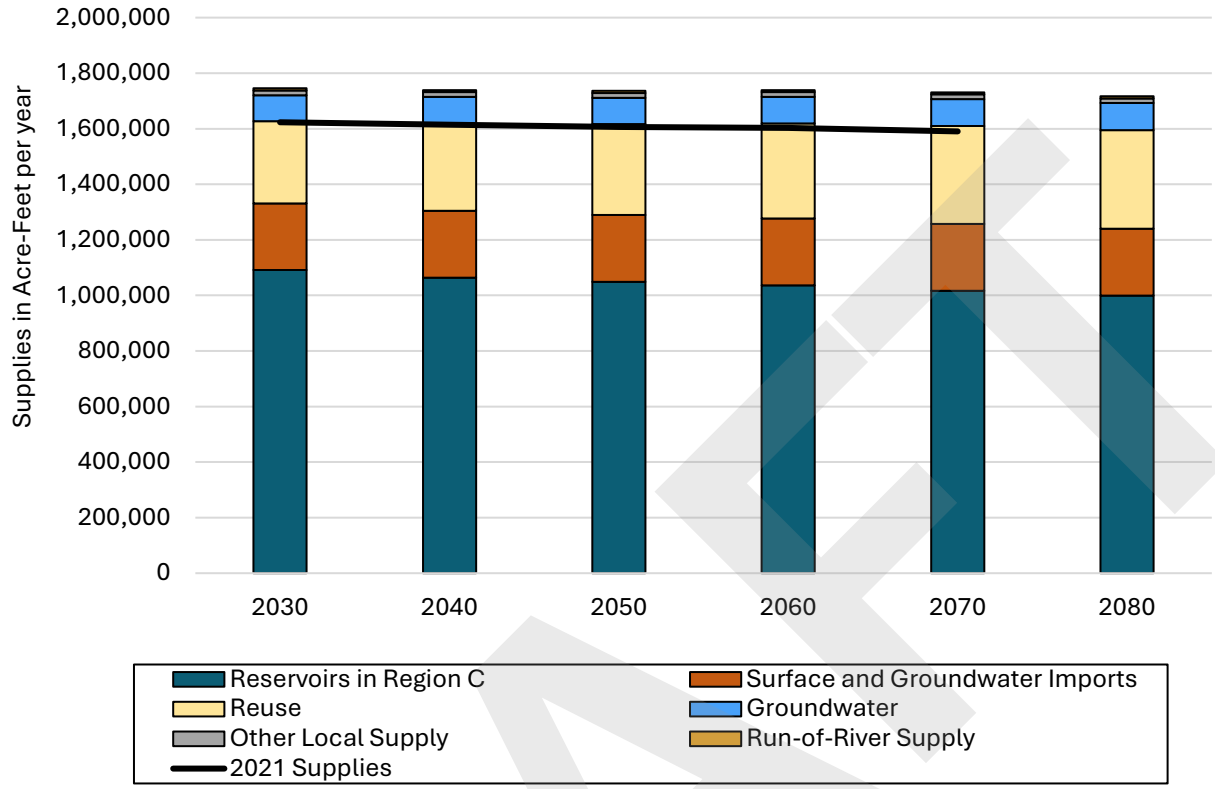



*TABLE 3.7 CURRENTLY AVAILABLE SUPPLIES BY COUNTY*

| COUNTY | VALUES IN ACRE-FEET PER YEAR | | | | | |
|---|---|---|---|---|---|---|
| | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Collin** | 284,016 | 287,124 | 285,555 | 281,574 | 271,576 | 263,264 |
| **Cooke** | 9,080 | 9,217 | 9,294 | 9,445 | 9,706 | 9,885 |
| **Dallas** | 540,508 | 525,308 | 512,667 | 512,020 | 510,982 | 505,817 |
| **Denton** | 218,933 | 218,190 | 217,303 | 214,833 | 214,481 | 213,942 |
| **Ellis** | 49,425 | 52,712 | 56,993 | 59,845 | 62,034 | 63,592 |
| **Fannin** | 12,264 | 12,717 | 13,684 | 13,828 | 13,735 | 13,640 |
| **Freestone** | 16,811 | 19,137 | 18,836 | 18,531 | 18,222 | 17,911 |
| **Grayson** | 42,845 | 43,725 | 44,424 | 44,788 | 45,422 | 46,148 |
| **Henderson** | 8,853 | 9,296 | 9,988 | 10,264 | 10,571 | 10,683 |
| **Jack** | 5,944 | 5,572 | 5,332 | 5,072 | 4,869 | 4,708 |
| **Kaufman** | 42,181 | 42,748 | 45,126 | 48,500 | 53,148 | 55,964 |
| **Navarro** | 14,993 | 15,452 | 15,397 | 15,348 | 15,310 | 15,292 |
| **Parker** | 31,534 | 32,574 | 34,309 | 35,325 | 36,496 | 37,664 |
| **Rockwall** | 26,825 | 30,370 | 33,621 | 35,807 | 36,393 | 36,530 |
| **Tarrant** | 423,263 | 417,508 | 415,124 | 415,272 | 408,118 | 400,514 |
| **Wise** | 17,887 | 17,593 | 18,469 | 18,984 | 20,003 | 21,095 |
| **Subtotal** | **1,745,362** | **1,739,243** | **1,736,122** | **1,739,436** | **1,731,066** | **1,716,649** |
| **Other Regions** | 23,002 | 24,192 | 25,583 | 25,792 | 26,217 | 26,936 |
| ***TOTAL*** | ***1,768,364*** | ***1,763,435*** | ***1,761,705*** | ***1,765,228*** | ***1,757,283*** | ***1,743,585*** |

## 3.5 Water Availability by Major Water Provider (MWP)

As part of the Senate Bill One planning process, the Texas Water Development Board requires development of water availability for each designated major water provider. The major water provider (MWP) is defined as "a water user group or a wholesale water provider of particular significance to the region's water supply as determined by the regional water planning group." The designated entities can include public or private entities from any water use category. The MWP designation does not replace the wholesale water provider (WWP) designation used in previous rounds of planning but is intended to serve as a way to summarize the demands, sales, and WMS data related to WUGs and WWPs. The Region C Water Planning Group designated six entities as MWPs. These MWPs are DWU, City of Fort Worth, NTMWD, TRWD, TRA, and UTRWD. These entities were included as MWPs because of the large number of people served and the large quantities of water provided. The Region C Water Planning Group also designated two entities as Regional Water Providers (RWP), City of Corsicana and Greater Texoma Utility Authority (GTUA). These six MWPs and two RWPs comprise 90% of total water sales in Region C.

**Table 3.8** gives a summary of the supplies currently available to major water providers. As discussed in **Section 3.1,** currently available supplies are limited by existing physical facilities.

*LAKE TEXOMA*

***TABLE 3.8 CURRENTLY AVAILABLE SUPPLIES TO REGION C MAJOR AND REGIONAL WATER PROVIDERS***

| PROVIDER | SOURCE | VALUES IN ACRE-FEET PER YEAR | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| **Dallas Water Utilities** | Elm Fork/Lewisville/ Ray Roberts/Grapevine System[a] | 174,899 | 174,109 | 173,319 | 172,059 | 170,799 | 169,539 |
| | Lake Ray Hubbard[a] | 46,239 | 45,450 | 44,660 | 43,927 | 43,194 | 42,461 |
| | Lake Tawakoni | 104,200 | 115,947 | 117,101 | 118,204 | 119,381 | 120,572 |
| | Lake Fork | 120,000 | 108,253 | 107,099 | 105,996 | 104,819 | 103,628 |
| | Direct Reuse (Golf courses) | 1,121 | 1,121 | 1,121 | 1,121 | 1,121 | 1,121 |
| | White Rock Lake (Irrigation Only)[a] | 2,540 | 2,375 | 2,210 | 2,023 | 1,837 | 1,650 |
| | Indirect Reuse | 49,167 | 52,547 | 57,540 | 69,313 | 77,705 | 77,705 |
| | ***DWU TOTAL*** | ***498,166*** | ***499,802*** | ***503,050*** | ***512,643*** | ***518,856*** | ***516,676*** |
| **City of Fort Worth** | TRWD Supplies | 278,569 | 278,569 | 278,569 | 278,569 | 278,569 | 278,569 |
| | Direct Reuse | 2,546 | 2,546 | 2,546 | 2,546 | 2,546 | 2,546 |
| | ***FORT WORTH TOTAL*** | ***281,115*** | ***281,115*** | ***281,115*** | ***281,115*** | ***281,115*** | ***281,115*** |
| **North Texas Municipal Water District** | Bois d'Arc Lake[b] | 89,456 | 86,878 | 84,187 | 81,497 | 78,918 | 76,228 |
| | Lake Lavon[b] | 88,111 | 83,963 | 79,927 | 75,892 | 70,959 | 67,148 |
| | Lake Texoma[b] | 68,464 | 68,076 | 67,185 | 66,253 | 65,034 | 64,032 |
| | Chapman Lake[b] | 39,700 | 37,600 | 35,500 | 33,500 | 31,100 | 29,200 |
| | Lavon Watershed Reuse | 69,502 | 73,008 | 73,008 | 73,008 | 73,008 | 73,008 |
| | Lake Bonham[c] | 1,949 | 2,367 | 3,358 | 3,533 | 3,467 | 3,400 |
| | East Fork Reuse | 102,000 | 102,000 | 102,000 | 102,000 | 102,000 | 102,000 |
| | Upper Sabine Basin | 10,313 | 9,865 | 9,529 | 9,080 | 8,632 | 8,295 |
| | Direct Reuse | 5,350 | 5,350 | 5,350 | 5,350 | 5,350 | 5,350 |
| | ***NTMWD TOTAL*** | ***474,845*** | ***469,107*** | ***460,044*** | ***450,113*** | ***438,468*** | ***428,661*** |
| **Tarrant Regional Water District** | West Fork System[a] | 96,161 | 95,561 | 94,961 | 94,428 | 93,894 | 93,361 |
| | Lake Benbrook[a] | 3,371 | 3,371 | 3,371 | 3,371 | 3,371 | 3,371 |
| | Lake Arlington[a] | 7,500 | 7,385 | 7,270 | 7,157 | 7,043 | 6,930 |
| | Cedar Creek Lake[a] | 157,150 | 155,340 | 153,530 | 151,797 | 150,063 | 148,330 |
| | Richland-Chambers Reservoir[a] | 190,000 | 188,266 | 186,531 | 184,781 | 183,030 | 181,280 |
| | Richland-Chambers Reuse | 30,148 | 41,321 | 43,057 | 44,808 | 46,560 | 48,311 |
| | ***TRWD TOTAL*** | **484,330** | **491,244** | **488,720** | **486,342** | **483,961** | **481,583** |
| **Trinity River Authority** | Joe Pool Lake | | | | | | |
| | *Midlothian* | 5,506 | 5,379 | 5,251 | 5,147 | 5,043 | 4,938 |
| | *Grand Prairie* | 1,184 | 1,149 | 1,115 | 1,087 | 1,059 | 1,031 |
| | *Grand Prairie Raw* | 300 | 300 | 300 | 300 | 300 | 300 |
| | *Cedar Creek* | 6,071 | 5,931 | 5,790 | 5,675 | 5,560 | 5,444 |
| | *Duncanville* | 989 | 966 | 944 | 924 | 905 | 887 |
| | Navarro Mills Lake | 17,000 | 15,975 | 14,950 | 13,817 | 12,683 | 11,550 |

| PROVIDER | SOURCE | VALUES IN ACRE-FEET PER YEAR | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2030 | 2040 | 2050 | 2060 | 2070 | 2080 |
| | Bardwell Lake | 9,410 | 9,010 | 8,610 | 8,287 | 7,963 | 7,640 |
| | Reuse (Region C) | 132,918 | 147,781 | 159,281 | 170,781 | 170,781 | 170,781 |
| | **Subtotal** | **173,378** | **186,491** | **196,241** | **206,018** | **204,294** | **202,571** |
| | TRWD | 37,361 | 33,878 | 31,561 | 29,102 | 26,951 | 25,288 |
| | ***TRA TOTAL IN REGION C*** | ***210,739*** | ***220,369*** | ***227,802*** | ***235,120*** | ***231,245*** | ***227,859*** |
| **Upper Trinity Regional Water District** | Chapman Lake | 11,292 | 11,023 | 10,755 | 10,486 | 10,217 | 9,948 |
| | DWU Contract | 45,159 | 50,590 | 55,751 | 55,811 | 55,249 | 53,505 |
| | Chapman Reuse | 5,646 | 5,512 | 5,378 | 5,767 | 6,130 | 5,969 |
| | Direct Reuse | 897 | 897 | 897 | 897 | 897 | 897 |
| | Ralph Hall | 40,580 | 40,525 | 40,470 | 40,393 | 40,317 | 40,240 |
| | Ralph Hall Indirect Reuse | 20,290 | 20,263 | 20,235 | 22,216 | 24,190 | 24,144 |
| | ***UTRWD TOTAL*** | ***123,864*** | ***128,810*** | ***133,486*** | ***135,570*** | ***137,000*** | ***134,703*** |
| **Corsicana** | Lake Halbert and Richland-Chambers System | 2,242 | 2,242 | 2,242 | 2,242 | 2,242 | 2,242 |
| | Navarro Mills Reservoir | 11,210 | 11,210 | 11,210 | 11,210 | 11,210 | 11,210 |
| | ***CORSICANA TOTAL*** | ***13,452*** | ***13,452*** | ***13,452*** | ***13,452*** | ***13,452*** | ***13,452*** |
| | Lake Texoma with Raw Transmission System Constraint | 19,057 | 19,057 | 19,057 | 19,057 | 19,057 | 19,057 |
| | NTMWD (Collin-Grayson MA) | 5,400 | 5,400 | 5,400 | 5,400 | 5,400 | 5,400 |
| | ***GTUA TOTAL*** | ***24,457*** | ***24,457*** | ***24,457*** | ***24,457*** | ***24,457*** | ***24,457*** |

[a]*The available supply reported for these sources is the safe yield.*
[b]*The available supply reported for these sources consider droughts worse than the drought of record.*
[c]*The available supply reported for these sources is limited to the connected demands.*

## 3.6 Water Availability by Water User Group (WUG)

As part of the regional water planning process, the TWDB requires development of information on currently available water supplies for each water user group (WUG) by river basin and county. The availability figures by water user group are limited by contracts and existing physical facilities, including transmission facilities, groundwater wells, and water treatment facilities. The supplies available to each WUG are shown in the TWDB database reports in **Appendix D**.

As the information on currently available water supply for WUGs was developed, several important points became apparent:

- Most water user groups in Region C will need additional water supplies over the next 50 years to meet growing demands.
- There are some significant water supplies that can be made available by the development of additional water transmission facilities. An example is the full development of DWU's share of Lake Palestine in the Neches Basin.

## 3.7 Summary of Current Water Supplies in Region C

Region C water suppliers are currently using approximately 72 percent of the reliable supply available from existing sources. The projected overall water supplies available to Region C in 2080 from current sources is over 2.39 million acre-feet per year (not considering supply limitations due to the capacities of current raw water transmission facilities and wells).

The sources of supply for Region C in 2030 include:

- 58% from in-region reservoirs
- 7% from groundwater
- 1% from local supplies including run-or-river
- 18% from reuse
- 16% from imports from other regions

Considering supply limitations due to the capacities of current raw water transmission facilities and wells, the currently available supply for Region C water users in 2080 is approximately 1.72 million acre-feet per year, with an additional 27,000 acre-feet per year available from Region C for water users in other regions. The total available supply is over 2.39 million acre-feet per year, which is approximately 677,000 acre-feet per year more than the currently available supply. The difference between currently available supply and total available supply is due primarily to transmission and treatment plant capacity limitations.

Most water user groups and wholesale water providers in Region C will have to make improvements to their facilities to meet projected needs. The supply currently available to Region C from existing sources in 2080 (about 1.72 million acre-feet per year) is significantly less than the projected 2080 total water demand, which is nearly 3.03 million acre-feet per year.

## 3.8 Chapter 3 List of References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(7) Texas Water Development Board: *2010-2019 Historical Water Use Estimates: Mining by Region-County*, (August 2022).