REGION C WATER PLANNING GROUP

TO: REGION C WATER PLANNING GROUP

FROM: J. KEVIN WARD, CHAIR

- SUBJECT: NOVEMBER 7th, 2022 PUBLIC MEETING
- DATE: OCTOBER 25, 2022

This memorandum will serve as a notice that the Region C Water Planning Group (RCWPG) is holding a public meeting at 1:30 P.M. on Monday NOVEMBER 7th, 2022, at the North Central Texas Council of Governments, 616 Six Flags Drive, Centerpoint Two Building, First Floor Transportation Council Room, Arlington, Texas, 76011¹. 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 MAY 23rd, 2022
- III. PUBLIC COMMENTS (Limited to 3 minutes per speaker)
- IV. PRIMARY ACTION ITEMS FOR CONSIDERATION
 - A. Receive request for consistency waiver from Files Valley WSC.

Files Valley WSC is seeking approval for a consistency waiver for new groundwater wells. Files Valley WSC has a need for additional water due to rapid growth in connections and reduction of supply from Aquilla WSD. The recommended strategy in the Region C Water Plan (receive supply through Waxahachie) cannot be implemented within the timeframe the water is needed.

B. Announcement of Region C RWPG voting member vacancies: Drew Satterwhite, Representing Water Districts. Call for nominations to fill vacancies and vote to fill vacancies.

This action item will consider recommendations for replacement of RCWPG members who have resigned. Drew Satterwhite resigned from the Region C Water Planning Group effective October 31, 2022. Drew nominated Paul Sigle to fill the water districts interest vacancy.

C. Announcement of Region C Interregional Planning Council Alternate vacancy: Call for nominations to fill vacancy and vote to fill vacancy.

With the resignation of Drew Satterwhite, there is now a vacancy for the alternate representative for Region C on the Interregional Planning Council. This action item will consider recommendations for the vacant Region C Interregional Planning Council Alternate position.

D. Accept nominations for slate of officers for 2023; Consider election of 2023 Region C Water Planning Group Officers.

The RCWPG Nominating Committee will present its recommendations for officers to serve during the calendar year 2023. The RCWPG will consider election of officers for the calendar year 2023.

E. Presentation on non-municipal projections.

TWDB provided draft livestock, manufacturing, and steam electric power demands in January 2022. Draft irrigation and mining demands were released in August 2022. The consultant team has reviewed TWDB's initial non-municipal projections using TWDB guidelines and additional information. Consultants will present this information, along with recommended revisions. The planning group will consider the recommended changes and approval of the projections. The RCWPG may choose to authorize the Consultants to make minor revisions prior to submittal to TWDB as necessary.

V. OTHER ITEMS (MAY RESULT IN ACTIONS)

- A. Schedule Overview.
- B. Update on Region C Website.
- C. Status of contracts with TWDB, TRA, and Consultants.

VI. OTHER DISCUSSION

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

VII. ADJOURNMENT

The following items are enclosed with this memorandum:

- I. RCWPG Agenda November 7, 2022
- II. Meeting Handouts
 - A. Agenda Item II RCWPG Minutes from May 23, 2022
 - B. Agenda Item IV.A. Files Valley WSC Consistency Waiver
 - C. Agenda Item IV.B. Recommendation for Paul Sigle as the replacement for Drew Satterwhite
 - D. Agenda Item IV.F. Non-Municipal Projections Technical Memorandums

REGION C WATER PLANNING GROUP

OPEN PUBLIC MEETING

MONDAY, NOVEMBER 7, 2022 AT 1:30 P.M.

THE MEETING WILL BE HELD AT NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS 616 SIX FLAGS DRIVE, CENTERPOINT TWO BUILDING FIRST FLOOR TRANSPORTATION COUNCIL ROOM ARLINGTON, TX 76011¹

<u>AGENDA</u>

- I. ROLL CALL
- II. APPROVAL OF MINUTES MAY 23, 2022
- III. PUBLIC COMMENTS (Limited to 3 minutes per speaker)
- IV. PRIMARY ACTION ITEMS FOR CONSIDERATION
 - A. Request for consistency waiver from Files Valley WSC.
 - B. Announcement of Region C RWPG voting member vacancies: Drew Satterwhite Representing Water Districts; Call for nominations to fill vacancies, and vote to fill vacancies.
 - C. Announcement of Region C Interregional Planning Council alternate vacancy: Call for nominations to fill vacancy, and vote to fill vacancy.
 - D. Accept nominations for slate of officers for 2023; Consider election of 2023 Region C Water Planning Group Officers.
 - E. Presentation on non-municipal projections.
- V. OTHER ITEMS (MAY RESULT IN ACTIONS)
 - A. Schedule Overview.
 - B. Update on Region C Website.
 - C. Status of contracts with TWDB, TRA, and Consultants.

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

RCRWPG AGENDA for NOVEMBER 7, 2022 PAGE 2

VI. OTHER DISCUSSION

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

SUBMITTED BY:

J. KEVIN WARD, Administrative Officer

DATE: October 31, 2022

POSTED BY:_____

DATE: _____

TIME: _____

LOCATION: _____

Agenda Item II – Attachment

RCWPG Minutes from May 23, 2022

REGION C WATER PLANNING GROUP

MINUTES OF AN OPEN PUBLIC MEETING May 23, 2022

The Region C Water Planning Group (RCWPG) met in an open public meeting on Monday, May 23, 2022, 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	R. J. Muraski (Alternate for J. Covington)
Dan Buhman	Denis Qualls (Alternate for Richard Wagner)
Wendy Chi-Babulal (Alternate for C.Harder)	Ron Sellman (Alternate for Drew Satterwhite)
Grace Darling	Rick Shaffer
Gary Douglas	Gary Spicer
Harold Latham	Connie Standridge
Steve Mundt	Kevin Ward

Kevin Smith, TWDB, Katie Dahlberg, TWDB, and Adam Whisenant, TPWD were present. The registration lists signed by guests in attendance are attached.

II. APPROVAL OF MINUTES – November 1, 2021

The minutes of the November 1, 2021, RCWPG meeting were approved by consensus upon a motion by Gary Spicer and a second by Dan Buhman.

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: Richard Wagner Representing Municipalities; Pritam Deshmukh Representing Municipalities; Call for nominations to fill vacancies, and vote to fill vacancies.

Chairman Ward led the discussion of this action item to consider recommendations for replacement of RCRWPG members who have resigned. R. J. Muraski nominated Denis Qualls to fill the Municipalities position that became vacant when Richard Wagner resigned from the Region C Water Planning Group effective December 10, 2021. Grace Darling nominated Stephen Gay to fill the Municipalities position that became vacant when Pritam Deshmukh resigned from the Region C Water Planning Group effective September 30, 2021. Chairman Ward asked if there were any other nominations from the floor. Hearing none, Chairman Ward asked for a vote on the nominations.

There were no public comments on this action item.

Upon a motion by Gary Spicer, and a second by Rick Shaffer, the RCWPG voted unanimously to appoint Denis Qualls to fill the municipal interest vacancy left by the resignation of Richard Wagner, and Stephen Gay to fill the municipal interest vacancy left by the resignation of Pritam Deskmukh.

B. Announcement of Region C RWPG Liaison vacancies: Region C to Regions B and D; Call for nominations to fill vacancies; and vote to fill vacancies.

This action item considered recommendations for currently vacant Region C RWPG Liaison positions. Larry Patterson recommended Ronna Hartt as the Region C to Region D liaison. Denis Qualls recommended Doug Shaw as the Region C to Region B liaison.

There were no public comments on this action item.

Upon a motion by Rick Shaffer, and a second by R. J. Muraski, the RCWPG voted unanimously to appoint Doug Shaw as the Region C to Region B liaison, and Ronna Hartt as the Region C to Region D liaison.

C. Certify and authorize TRA to submit administrative expenses to the TWDB for reimbursement for the remainder of the sixth planning cycle.

There were no public comments on this item.

Simone Kiel, FNI, advised that only actual expenses, e.g. copying, etc., will be submitted for reimbursement. Kevin Smith, TWDB, added that for the first time limited labor expenses can be submitted.

Upon a motion by Steve Mundt, and a second by Grace Darling, the RCWPG voted unanimously to certify and authorize TRA to submit administrative expenses to the TWDB for reimbursement for the remainder of the sixth planning cycle.

D. Authorize TRA to negotiate and execute an amendment to the TWDB contract to incorporate the full scope of work and total project cost for the 2026 Regional Water Plans, and to amend and execute the associated Consultant's subcontract to include this additional scope of work and funding.

There were no public comments on this item.

Upon a motion by Dan Buhman, and a second by Denis Qualls, the RCWPG voted unanimously to authorize TRA to negotiate and execute an amendment to the TWDB contract to incorporate the full scope of work and total project cost for the 2026 Regional Water Plans, and to amend and execute the associated Consultant's subcontract to include this additional scope of work and funding.

E. Review historical data and consider ratifying changes to the water user group (WUG) list that must be submitted to TWDB by the July 29, 2022 deadline.

Abbie Gardner, FNI, led this discussion to review historical data and consider ratifying changes to the WUG list as presented by the technical consultants. Ms. Gardner pointed out that the historical data (2010 - 2020) is based on the following criteria:

- Historical Population
- Census Population (2010 and 2020)
- Net Use
- Gallons per Capita per Day (GPCD)
- Connections
- Systems in County-Other

Ms. Gardner added that a request for population and municipal demand projections is not due until 2023. Also explained were the following guidelines for revising municipal water demand projections:

- 1. Per Capita water use from a more recent year (2015-2019) would be more appropriate as the baseline because that year was more representative of dry-year conditions.
- 2. Errors identified in the historical water use or GPCD.
- 3. Base dry-year water use was abnormal.
- 4. Trends indicate per capita water use has increased substantially in recent years and will continue to rise.
- 5. Water efficiency and conservation savings that have been implemented are not reflected in the baseline GPCD.
- 6. The number of installations of water-efficient fixtures and appliances between 2010 and 2020 is substantially different than TWDB projections.
- 7. Future water efficiency savings are projected much higher than the draft projections.

Ms. Gardner advised that the WUG list needing approval includes the following:

- 263 Municipal WUGs in 2021 Region C Regional Water Plan
- 274 Proposed Municipal WUGs in 2026 Region C Regional Water Plan
- 11 New WUGs Proposed
- 25 Interregional WUGs with different Primary Region (Majority of demand is in another Region)

New WUGs

- > AMC Creekside
- City of Blue Mound
- City of Log Cabin
- City of Savoy
- Denton County FWSD 11-C

- Kaufman County MUD 14
- Lancaster MUD 1
- Nash Forreston WSC
- Southern Oaks Water Supply
- Terra Southwest
- Federal Correctional Institution Seagoville

Interregional WUGs

With Different Primary Region (from last Round)

Region B

Red River Authority of Texas

Region D

- > BHP WSC
- Caddo Basin SUD
- Cash SUD
- Delta County MUD
- Hickory Creek SUD
- Macbee SUD
- North Hunt SUD
- Poetry WSC
- Wolfe City

Region G

- Bethesda WSC
- Brandon Irene WSC
- > Burleson
- Mineral Wells
- Files Valley WSC
- Hilco United Services
- Johnson County SUD
- North Rural WSC
- Post Oak SUD
- > Santo SUD
- > Venus

Region H

Flo Community WSC

Region I

- > BBS WSC
- Bethel Ash WSC
- County Other, Henderson

WUG Name Updates

- Copeville SUD to Copeville WSC
- Westminster WSC to Westminster SUD

- Ables Springs WSC to Ables Springs SUD
- College Mound WSC to College Mound SUD

Other Requested Changes

Request to combine Marilee SUD with Mustang SUD (Marilee SUD has been acquired by Mustang SUD)

There were no public comments on this item.

Upon a motion by Ron Sellman, and a second by Denis Qualls, the RCWPG voted unanimously to ratify changes to the WUG list for submittal to the TWDB by the July 29, 2022 deadline.

- V. OTHER ITEMS (MAY RESULT IN ACTIONS)
 - A. Schedule Overview Simone Kiel, FNI, presented the following information:

Working Timeline - 2026 RWP Cycle

- January 2022 Non-Municipal Demand Projections •
- May 23, 2022
- September 2022 •
- February 2023
- 2022 2023
- March 4, 2024
- March 5, 2025
- October 20, 2025

- **RCWPG Meeting**
- Irrigation/Mining Projections
 - **Population/Municipal Demand Projections**
- Complete Various Scope of Work Tasks
- **Technical Memo Due**
- Initially Prepared Plan Due
- **Regional Water Plan Due**

Upcoming Key Dates

- July 29, 2022: Submit changes to WUG List
- September 2022: TWDB Releases Irrigation & Mining Projections
- February 2023: TWDB Releases Population Projections, Plumbing Code Savings, Municipal Demand
- > July 2023: Submit request of revisions for Non-Municipal Demand Projections
- August 2023: Submit request of revisions for Population and Municipal **Demand Projections**
- B. Review of Members and Alternates Simone Kiel, FNI, recommended that the board members whose alternate positions are vacant email Chairman Ward with their recommendations. Ms. Kiel added that the alternates do not have to be approved by the Region C WPG board members.

- C. Presentation on Projections Methodology and Region C Non-Municipal Projections -Katie Dahlberg, TWDB, gave this presentation. Ms. Dahlberg's agenda included:
 - Overview of the Projections Process
 - TWDB drafts projections using statewide methodologies
 - Share data with Regional Water Planning Groups (RWPGs)
 - RWPGs review and request revisions
 - o TWDB reviews requests
 - Finalize projections
 - TWDB presents projections to Board
 - Any changes thereafter are amendments
 - Projections Data Release Schedule
 - Projections Methodologies
 - Non-Municipal Water Demands
 - Population
 - Municipal Water Demand
- D. Update on Region C Website Colby Walton, Cooksey Communications, provided the Planning Group a report on the progress of the new Region C website. Mr. Walton outlined the following rebuild objectives and progress:

Website Rebuild: Objectives

- Complete rebuild on WordPress platform
- Modeled after RFPG site (trinityrfpg.org)
- More visually appealing
- Mobile-responsive/adaptive
- Intuitive user navigability, document access
- More easily updated and maintained
- Includes content created in 5th planning cycle
- Includes plug-in for Spanish language translation
- Meets TWDB rules, public engagement best practices

Website Rebuild: Progress Update

- Completed
 - Site architecture
 - Design of homepage and interior pages
 - Copywriting for new content
 - Gathering of materials
- Currently Underway
 - Back-end programming
- Next Steps
 - Document loading

- Soft launch
- Testing and debugging
- Full site launch: End of June
- Website address: regioncwater.org

VI. OTHER DISCUSSION

- A. Updates from the Chair Chairman Ward referenced a letter from Jim Thompson, Chair, Region D WPG, notifying Region C WPG of a potential conflict between the two regions' water plans. Mr. Thompson requests in his letter dated November 11, 2021 (copy provided to Planning Group under tab VI.A) that the two regions begin discussions early in the planning process in order to avoid conflicts. Kevin Smith, TWDB, added that Region C has an avenue to coordinate discussions and resolutions with Region D via the Interregional Planning Council.
- B. Report from Regional Liaisons
 - Region B None
 - Region D None
 - Region G None
 - Region H Chairman Ward stated that Region H met on May 4, 2022. Jim Sims, Alternate to Kevin Ward, attended this meeting. Region H approved a Minor Amendment to the 2021 Regional Water Plan for submission to the TWDB for approval.
 - Region I None
- C. Report from Texas Water Development Board Kevin Smith, TWDB, addressed the following topics:
 - 1. Chairs Conference Call 1/26
 - Meeting report to be emailed and uploaded to RWPG website
 - 2. SWIFT Funding
 - Abridged application period closed 2/1. Six full applications submitted from Region C sponsors.
 - 3. RWP Contract Amendments
 - Anticipated summer 2022
 - Amendment will include:
 - Anticipated total project cost (full contract amount for the cycle)
 - Full scope of work
 - Updated contract guidance documents (Exhibits C and D)

4. Regional Water Planning Rulemaking

- April 11, 2022, TWDB Board adopted amendments to regional water planning rules (31 TAC Chapter 357) and state water planning rules (31 TAC Chapter 358).
- Proposed rules published December 31, 2021, in Texas Register; public comment period ended January 31, 2022; effective May 1, 2022.
- As a result of public comments, two rule revisions originally included in the rule proposal for Chapter 357 were not adopted. No changes to Chapter 358 as a result of public comments.

- Board item with detailed information available on the TWDB website: <u>https://www.twdb.texas.gov/board/2022/04/Board/Brd04.pdf</u>
- 5. Key Rule Changes to 31 TAC Chapter 357
 - An allowance is made for minor amendments to include an increase in unmet needs or new unmet needs if the amendment is the result of removing infeasible WMSs or WMSPs.
 - Clarification is provided that the EA will establish a deadline for RWPGs to submit amendments associated with infeasible WMSs that may be identified in the previously adopted RWP and that these amendments must include a summary of changes to unmet needs, if applicable.
 - An allowance is made for RWPGs to adopt errata to a final RWP to correct minor errors identified after adoption of the final RWP but prior to adoption of the corresponding State Water Plan.
- 6. Key Rule Changes to 31 TAC Chapter 358
 - Clarification is provided that RWPGs may, at the discretion of the RWPG, plan for drought conditions worse than the drought of record.
 - The term 'water management strategy projects' is added through the section to align the state water planning guidance principles terminology with regional water planning rules.
- D. Report from Texas Department of Agriculture None
- E. Report from Texas Parks and Wildlife Department None
- F. Other Reports None
- G. Confirm Date and Location of Next Meeting TBD; NCTCOG, 616 Six Flags Drive, Centerpoint Two Building, First Floor Transportation Council Room, Arlington, Texas 76011
- H. Public Comments None
- VII. ADJOURNMENT

There being no further business, the meeting of the Region C WPG adjourned at approximately 3:47 P.M.

KEVIN WARD, Chairman

Agenda Item IV.A. – Attachments:

Files Valley WSC Consistency Waiver

Simone Kiel

Subject:

FW: Files Valley Water Supply Corporation - Consistency Waiver

From: Lea Sanders <lsanders@hilco.coop>
Sent: Wednesday, October 26, 2022 2:48 PM
To: Simone Kiel <SFK@freese.com>; wardk@trinityra.org; slobodinh@trinityra.org
Cc: Abigail Gardner <Abigail.Gardner@freese.com>; Kevin Smith <kevin.smith@twdb.texas.gov>; Tony Smith
<TLSmith@carollo.com>
Subject: RE: Files Valley Water Supply Corporation - Consistency Waiver

Good afternoon,

Thank you for the email below. I would like to attend the November 7th Region C meeting. Please let me know the time and location of this meeting.

FVWSC would like the consistency waiver to include the current well under construction and future wells. In regards to the current well, the land has been purchased, permits obtained from Prairielands Groundwater Conservation District, TCEQ has approved of the well and pump station, and the well driller is currently onsite, drilling a test well. Our hope is this test well will be completed before Thanksgiving. This will give us a better idea of the water capacity the well will produce. The well currently being drilled in Ellis County is being funded with cash on hand and a loan through CoBank. FVWSC does not plan to seek any sort of grant money for this particular well. We are requesting a consistency waiver to include this new well being drilled because currently, the Regional Water Plans indicate FVWSC purchases all surface water from Aquilla WSD. Once this well is fully functional in 2023, both surface and groundwater will be the source of water for FVWSC and I was informed both Region C and Brazos G needed to be aware of this change.

Future wells will need to be included in the consistency waiver as well as FVWSC does anticipate seeking grant funding to help finance future wells. At this time, FVWSC does not know exactly where these will be drilled (in Hill or Ellis County) as the Engineering Firm, Childress Engineering, will be involved in site selection based on where it will make the most sense to try and acquire land for such a project based on the system's current water line sizes. At this time, the best estimation for the amount of water needed within the next ten years is .5 MGD to replace the amount FVWSC will lose from Aquilla WSD in 2031 and an additional .25 MGD for growth. We do not know if one well will be able to provide that amount of water or if multiple wells will be needed. Therefore, it is unknown at this time what aquifer will be sourced or which region (Region C or Brazos G) will be impacted. We do know that FVWSC will need to begin working on future wells before the next State Water Plan is published in five years.

The 2021 Region C Water Plan includes one recommended strategy for FVWSC which is to purchase water from TRWD through Waxahachie. FVWSC does not wish to take this option out of the current plan or future plans as it certainly will consider the cost of this option. However, that option is only viable if the proposed pipeline from the City of Waxahachie to the City of Italy is constructed and that the Robert W. Sokoll Water Treatment is expanded. It is our understanding that neither of these things have occurred to date.

With the knowledge that FVWSC will be losing .5 MGD of water capacity in 2031, groundwater wells appear to be the best way to ensure this water can be replaced within our timeframe. Of course whatever options are available will be explored and costs will be considered, but ultimately the water that will be lost must be replaced to ensure the **existing** members of FVWSC have the necessary water capacity.

Please let me know if you have any additional questions that I need to answer at this time. I appreciate everyone's assistance.

Sincerely,

Lea Sanders, SPHR, SHRM-SCP, FPQP Chief Human Resources Officer 115 E. Main Street/P.O. Box 127, Itasca, TX 76055 Isanders@hilco.coop (800) 338-6425 ext. 1126 or Cell (254) 479-0520



From: Simone Kiel <<u>SFK@freese.com</u>>
Sent: Tuesday, October 25, 2022 9:32 AM
To: Lea Sanders <<u>Isanders@hilco.coop</u>>; wardk@trinityra.org; slobodinh@trinityra.org
Cc: Abigail Gardner <<u>Abigail.Gardner@freese.com</u>>; Kevin Smith <<u>kevin.smith@twdb.texas.gov</u>>
Subject: RE: Files Valley Water Supply Corporation - Consistency Waiver

Ms. Sanders,

Thank you for this information. We can add you to the agenda for Region C on November 7 but we need some additional information for the Region C Water Planning Group (RCWPG). I am assuming that someone from Files Valley WSC or a representative will be giving the presentation and request to the RCWPG. The RCWPG will vote on granting the waiver and then prepare a letter to the TWDB summarizing the request and outcome of the waiver request. If you plan to present at the November 7th meeting, please confirm and provide your materials (slides and/or handouts) by October 31, 2022 to be included in the agenda packets.

I have contacted our TWDB representative to clarify what information is needed for consideration of a consistency waiver. I have copied his response below my email. I believe you have provided most of the information needed.

I have briefly reviewed the materials you provided. Based on this information, I understand the following:

- There is a need for additional water due to rapid growth in connections and reduction of supply from Aquilla WSD.
- Files Valley WSC is currently constructing a well in the Trinity Aquifer in Ellis County. This well is permitted for 50 MG per year, which will help meet the immediate needs but is insufficient to meet projected growth and the loss of 0.5 MGD of supply from Aquilla WSD in 2031.
- Files Valley WSC will be pursuing additional groundwater. Details on this additional supply are not specified.
- Files Valley WSC is seeking funding for the groundwater wells and needs a consistency waiver from the regional water planning group since groundwater development is not a recommended strategy.
- The 2021 regional water plans show one recommended strategy which is to purchase water from TRWD through Waxahachie.

For Region C to consider this consistency request, can you please provide the following information:

- Confirmation the consistency waiver includes the current well and additional wells.
- If the consistency waiver includes the additional wells, confirmation of aquifer, location (county), and an estimate of the amount of water seeking (acre-feet per year) for the additional wells. This estimate can be based on your projected need for the additional supply.
- Explanation on the whether the proposed strategy in the Region C water plan is still valid. If yes, when would it be implemented? The Region C plan shows it on line in 2030. If no, explain why it is no longer valid or cannot be implemented within the timeframe needed for the water.

• Anything else specified below in Kevin Smith's email. (I have written in red the current status and responsibility of each of these requirements.)

From Kevin Smith (TWDB Project Manager), October 24, 2022:

Before granting a consistency waiver the TWDB will seek input on the waiver request from the regional water planning group members in any affected region, in the form of a letter from the planning group(s). Therefore, since Files Valley WSC wishes to seek a consistency waiver, they will need to provide the Region C RWPG with sufficient information to allow the RWPG to provide input to TWDB on the waiver request.

This will require that Files Valley WSC coordinate with the RWPG to have an associated item be placed on the RWPG meeting agenda to discuss the project and take action regarding planning group support of the waiver. Files Valley WSC should be prepared to explain why the consistency waiver is requested, and the technical material that will be submitted to the TWDB (see below):

1. A statement of the need for the project, including the water source; the expected supply volumes to be generated by the project and, whether there are sufficient available supplies for the project to be developed. (See above for data needed from Files Valley WSC. Region C consultants can assess if there is sufficient supply available.)

2. A summary of the extent/service area of the project. If the WSC's service area falls within more than one regional water planning area, the consistency waiver request should state whether or not the service area affected by this project is limited to only one planning area and only impacts one regional water plan. Your service area is provided in your letter. The letter implies the water from this strategy would be used to serve customers in both regions. Please confirm and Region C can draft a statement to this effect.

3. A statement as to why this project was not reflected in the most currently adopted Region C Regional Water Plans. This is provided in your letter.

4. A summary of the current status of any loan (if applicable), including timelines for closing on the loan, beginning construction, TCEQ enforcement actions, etc. There is no information regarding loan applications in the letter or attached information. Please provide. If you have not begun the application process, please state that.

5. A summary of the WSC's interactions with the regional water planning group, including when the waiver request was presented to the RWPG, the action taken by the RWPG, and any interactions with the RWPG's technical consultants on how the project would impact the currently adopted Region C Regional Water Plan. The Region C planning group will provide this information.

The TWDB requests that the RWPG input include at a minimum, a general opinion regarding the availability of water at the proposed project location as well as an indication of whether the RWPG supports or opposes the waiver request. After taking action on the waiver request, the RWPG should submit a letter to the TWDB Executive Administrator (EA), and copy the TWDB project manager stating the outcome of their consideration. The Region C planning group will provide this information in the letter to the TWDB.

Please let me know if you have any questions.

Thank you, Simone

Simone Kiel, P.E. (817) 735-7446 (o) (817) 729-6223 (m) <u>sfk@freese.com</u>

FILES VALLEY WATER SUPPLY CORPORATION, INC.

254-687-2331 P O Box 127 Fax: 254-687-2428 Itasca, TX 76055

October 20, 2022

Kevin Ward General Manager Trinity River Authority P.O. Box 60 Arlington, TX 76044

Dear Mr. Ward,

As Board President of Files Valley Water Supply Corporation, Inc. (FVWSC), I respectfully request a Consistency Waiver from the 2021 Region C Water Plan and the 2022 State Water Plan.

FVWSC's CCN covers approximately 83,000 acres in Hill and Ellis Counties. Currently, 100% of FVWSC water is purchased from Aquilla Water Supply District. The FVWSC service territory encompasses the area along the I-35 corridor and is experiencing rapid development. Between 2016 and 2020, FVWSC averaged 37 new meters a year. In 2021, FVWSC experienced unprecedented growth with 161 new meters. At this time, it became clear additional water capacity was needed and FVWSC began meeting with the Brazos River Authority (BRA) and others about obtaining additional surface water.

After discussions with Chatt Water Supply Corporation, Hill County Water Supply Corporation, Brandon-Irene Water Supply Corporation, the City of Hillsboro, the City of Cleburne, Aquilla Water Supply District, and the BRA, it was determined that there was no available surface water to be purchased from Aquilla Water Supply District. All of the water in Lake Aquilla is allocated and there are no plans in the near future to raise the level of the lake. Groundwater is the only option in the short term.

FVWSC has obtained the approval and permits from Prairielands Groundwater Conservation District to drill and construct a new water well in Ellis County. The 2,400 foot well will be in the Travis Peak/Twin Mountains, Hensell & Hosston layer of the aquifer. Having obtained Texas Commission on Environmental Quality (TCEQ) approval and after a contractor bid process, a test well is currently being drilled.

In November of 2021, Childress Engineers provided a supply capacity analysis report indicating FVWSC was at 96% capacity with 1,282 connections based on the TCEQ Rules in Chapter 290.45(a), a water supply is required to furnish a potable water supply of 0.6 gpm/connection. Today, FVWSC has 1,455 active meters with another 180 meters waiting to be connected. At this time, it is unknown how much water the new well will produce; however, it is estimated to be able to meet the needs of approximately 500

connections. If that is accurate, once the well is complete and assuming no additional meters are requested, this new well will already be supplying water over 300 connections and FVWSC will need to begin the process of drilling yet another new well to meet future demand.

In addition to planning for water capacity needed for future growth, FVWSC will also need to drill additional wells to meet the needs of CURRENT members as the system will be losing 500,000 gpd of its current 1.5 million gpd allotment from Aquilla Water Supply District in 2031.

In 2011, FVWSC and the City of Hillsboro entered into an agreement for FVWSC to purchase 500,000 gpd from Aquilla Water Supply District out of the water actually assigned to the City of Hillsboro. The term of the contract was twenty years and officials from the City of Hillsboro have already provided FVWSC notification that due to expected demand in their own service area, the City will not be extending this contract. As mentioned before, there is no additional water available to purchase from Aquilla Water Supply District; therefore, it will be necessary to replace this existing surface water with groundwater.

Knowing the new well currently under construction will not be able to meet the needs of the existing meters, additional wells will be required. For this reason, FVWSC requests the regional planning group to approve the consistency waiver for the 2021 Regional Water Plan and the 2022 State Water Plan.

Attached please find documentation supporting statements made as part of the request. Please let me know if additional information is needed at this time.

Sincerely,

Dyhthe

Dwight Lloyd President



Lea Sanders

From:	Karol Bowers <kbowers@prairielandsgcd.org></kbowers@prairielandsgcd.org>		
Sent:	Tuesday, January 18, 2022 3:36 PM		
To:	Lea Sanders		
Cc:	Childress Engineer (Ben Shanklin) (bens@childress-engineers.com)		
Subject:	OP-22-021 - Files Valley WSC - Approved!		
Attachments:	OP-22-021_Files Valley WSC_Cover Letter_01.18.22.pdf; OP-22-021_Files Valley WSC_Operating Permit_01.18.22.pdf; OP-22-021_Files Valley WSC_2022 1st Quarter Water Use Fees_Invoice_01.18.22.pdf		
Importance:	High		

Good afternoon, Lea.

I am pleased to inform you that your Operating Permit Application OP-22-021 to register, drill and construct a new well (PGCD-002691) with production authorization for Files Valley WSC has been approved by the Board. Please see attached cover letter, Operating Permit that requires your signature and the invoice for your 1st Quarter 2022 Water Use Fees. Signature of the permit and payment are due immediately.

As soon as we receive the executed copy from you, I'll send you back the final copy with our General Manager's signature for your records.

Let me know if you have any questions.

Thank you!

Karol

WE HAVE MOVED! We ask that you update your records to reflect our change in address shown below.

Karol Bowers Permitting Assistant

PRAIRIELANDS GROUNDWATER CONSERVATION DISTRICT 208 Kimberly Drive Cleburne, Texas 76031 Phone 817.556.2299 Fax 817.556.2305 www.prairielandsgcd.org



ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST

DOVE ROAD DEEP WELL AND PUMP STATION TO SERVE FILES VALLEY W.S.C.

and the second se					
ITEM				UNIT	EST CONSTR
NO.	DESCRIPTION	QUANTITY	UNIT	PRICE	COST
1	Deep Trinity Sands Well & Pump Equipment	1	LS	\$2,250,000.00	\$2,250,000,00
2	250K Ground Storage Tank & Pump Station	1	LS	\$1,550,000.00	\$1,550,000,00
3	SCADA Controls	1	LS	\$25,000.00	\$25,000.00
4	3-Phase Power Extension	1	LS	\$75,000.00	\$75.000.00
	Sub-Total, Well & Pump Station Construction				\$3,900,000.00
	TOTAL EST. CONSTRUCTION COST Plus 10% Contingencies Prairielands Fee Legal 1% Engineering & Surveying Fees TOTAL ESTIMATED PROJECT COST				\$3,900,000.00 \$390,000.00 \$1,500.00 \$39,000.00 <u>\$292,500.00</u> \$4,623,000.00



Benjamin S. Shanklin, P.E.

li 1-18-22 Date



OPERATING PERMIT Permit No. <u>OP-22-021</u>

I. PERMITTEE:

Files Valley WSC Attn: Lea Sanders 115 E Main Street Itasca, TX 76055

II. AUTHORIZATION: Registration, drilling, and construction of a new well; Authorize production not to exceed 12.5 MG in 2022 and 50 MGY annually in 2023→2026

III. PERMIT TERM:

Date of Issue:	January 18, 2022
Expiration Date:	December 31, 2026

IV. NUMBER OF WELLS COVERED BY PERMIT: ____1

V. AUTHORIZED ANNUAL GROUNDWATER WITHDRAWAL:

Not to exceed <u>12.5 MG in 2022</u>, and 50 MG on an annualized basis for the calendar years $2023 \rightarrow 2026$.

This authorized withdrawal amount is contingent on the amount of contiguous controlled acreage, which is designated above in this permit, for the permittee's well under the District's rules at the well site. If at any time the permittee fails to maintain ownership or lease of the sufficient amount of contiguous controlled acreage, or if the amount of contiguous controlled acreage, or if the amount of contiguous controlled acreage otherwise becomes insufficient in the future for a permittee that is a retail public utility because of a change in service area or political subdivision boundaries, additional wells being authorized for persons other than the permittee within those boundaries, or otherwise as set forth under Section 5 of the District Rules, this authorized withdrawal amount under this permit will be reduced accordingly.

VI. PURPOSE OF USE: Municipal/Public Water Supply

VII. WELL CONSTRUCTION AUTHORIZATION:

Permittee is authorized to drill, construct, and equip a new well that is consistent with the location, diameter, depth, maximum designed production capacity, completion, and other specifications applied for in the well registration.

VIII. LOCATION OF WELL(S):

Well Site Address:

1.27 miles west of FM 308 located on Dove Road, Milford, TX 76670

Well Site Coordinates: Latitude: 32.2123616 Longitude: -97.0258895

IX. WELL REGISTRATION NUMBER(S): PGCD-002691

X. CONTIGUOUS CONTROLLED ACREAGE AT WELL SITE: 83,102 acres

Retail Water CCN (or other political subdivision public water system) in which contiguous controlled acreage is located: Files Valley WSC #10902

XI. OTHER PERMITS AND APPLICABLE EXCEPTIONS (Historic Use Permit associated with the well or the contiguous controlled acreage, approved tract size or well spacing exceptions, compliance order, or other):

Maximum Historic Use Claim: None

XII. PROVISIONS:

- I. This permit is issued in accordance with the provisions of the District Rules, and acceptance of this permit constitutes an acknowledgement and agreement that the permittee will comply with the District Rules and the terms and conditions of this permit and that the permittee is bound by such rules, terms and conditions; such acknowledgement and agreement by the permittee is a condition precedent to the granting and issuance of this permit.
- 2. This permit confers only the right to use the permit in accordance with the terms of the permit and the rules of the District. The issuance of this permit does not grant to the permittee the right to use private property, or public property, for the production or conveyance of water for which the permittee does not otherwise have a lawful right to use. The permittee must obtain such rights independent of this permit. This permit does not authorize the violation of federal, state, or local laws or regulations. Other governmental entities may have their own laws or regulations governing the drilling or operation of water wells with which the permittee must also comply.
- 3. The permittee has one hundred eighty (180) days from the effective date of this permit to complete the drilling, equipping, well completion, or well alteration activities authorized in the permit, unless an extension is requested and granted in accordance with District Rule 3.9. A well completion report must be filed with the District within sixty (60) days of completion as required by Rule 3.13. The well may only be drilled at a location that is within thirty (30) feet of the location specified in the permit but must nonetheless be actually drilled in compliance with the minimum well spacing requirements in the District Rules unless a well spacing exception was approved. Failure to do so may result in enforcement action by the District, including without limitation revoking or suspending the permit, requiring the well to be plugged, or prohibiting any continued drilling activity or the operation of the well. Permittee must retain ownership of the acreage or groundwater rights necessary to maintain compliance with the well spacing requirements for the permit to remain valid.
- 4. All water withdrawn under this permit must be put to beneficial use at all times without waste, as those terms are defined in the District Rules.

- 5. The site or any well covered by this permit must be accessible to District representatives for inspection, and the permittee agrees to cooperate fully in any reasonable inspection of any well or well site by District representatives.
- 6. The well registration and permit applications pursuant to which this permit has been issued are incorporated in this permit, and this permit is issued on the basis of and contingent upon the accuracy of the information supplied in that application. A finding that false information has been supplied in the application is grounds for immediate suspension, revocation, or amendment of this permit.
- 7. A substantial change to this permit may be made only after application to and approval by the District to so amend, including substantially altering the size or capacity of a pump or well, changing the type of use of the water produced or the location of its use, changing the location of a well, a change in ownership of a well, adding a new well to an already permitted well system, or a change in the contiguous controlled acreage associated with the well.
- 8. The permittee shall equip the well or wells covered by this permit with a meter or meters prior to producing from the well and comply with all requirements for metering in accordance with the provisions of Section 8 of the District Rules.
- 9. The continuing validity of this permit is contingent upon payment by the permittee of the applicable fees as set forth under Section 7 of the District Rules.
- 10. The permittee shall submit a monthly Water Production Report on a form provided by the District or through the District's online Groundwater Management System in accordance with District Rule 3.15. The owner of two (2) or more well systems shall file a separate report for each well system. The report shall be sworn to by the owner or a legally authorized representative of the owner verifying the accuracy of the information contained in the report.
- 11. This permit is issued subject to: (1) protection of Historic Use Permits issued by the District; (2) exempt uses; (3) the District's Management Plan; (4) the District's Rules as they exist now or as they may be amended in the future; and (5) the continuing right of the District to supervise and regulate groundwater production from the aquifers within the District's boundaries as authorized by Chapter 36, Texas Water Code, as amended, and the District Rules, the District Management Plan, or Chapter 36, Texas Water Code, including without limitation reducing the amount of authorized production under the permit as described in Section 5 of the District Rules or otherwise. Any violation by the permittee of the terms or conditions in this permit shall be grounds for enforcement by the District.
- 12. All other matters requested in the application, which are not specifically granted by this permit, are denied.
- 13. The District makes no representations and shall have no responsibility with respect to the availability or quality of water authorized to be produced under this permit.
- 14. This permit is subject to the pumping reduction regulations set forth in District Rule 5.4. The Board may impose additional limitations on the production of groundwater from the aquifer or layer of an aquifer applicable to this permit also set forth in the District Rule 5.4. The permittee expressly assumes the risk of this occurrence in applying for the permit and in drilling, operating, or otherwise investing in the well or the water to be produced from it.

15. This Operating Permit expires on the expiration date noted in the permit unless the permit is renewed prior to that date or until the conclusion of a pending enforcement action or permit amendment process as set forth in District Rule 3.11. The permittee must provide a certificate verifying the accuracy of the meter(s) within the five-year permit term as a condition of permit renewal.

DATED, ISSUED, AND EXECUTED, TO BE EFFECTIVE ON THE 18th DAY OF JANUARY 2022.

PERMITTEE:

Dy ht Lul Signature

Dwight Llonp Printed Name

Pres. Title

2-1-2022 Date

DISTRICT:

15 2/11/22

Kathy Turner Jones General Manager Prairielands Groundwater Conservation District

Jon Niermann, *Chairman* Emily Lindley, *Commissioner* Bobby Janecka, *Commissioner* Toby Baker, *Executive Director*



PWS_1090035_CO_20220623_Plan Ltr

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY Protecting Texas by Reducing and Preventing Pollution

June 23, 2022

Mr. Benjamin S. Shanklin, P.E. Childress Engineers, Inc. 211 North Ridgeway Drive Cleburne, TX 76033

Re: Files Valley Water Supply Corporation (WSC) - Public Water System ID No. 1090035 Proposed - Dovie Road Well and Pump Engineer Contact Telephone: (817) 645-1118 Plan Review Log No. P-04252022-158 Hill County, Texas

CN601366370; RN102693207

Dear Mr. Shanklin:

On April 25, 2022, the Texas Commission on Environmental Quality (TCEQ) received planning material with your letter dated April 19, 2022 for the proposed Dovie Road Well and Pump. Based on our review of the information submitted, the project generally meets the minimum requirements of Title 30 Texas Administrative Code (TAC) Chapter 290 – <u>Rules and Regulations for Public Water Systems</u> and is **conditionally approved for construction** if the project plans and specifications meet the following requirement(s):

Corrosive indices will be used to calculate corrosivity of the water from new source(s). Corrosive or aggressive water could result in aesthetic problems, increased levels of toxic metals, and deterioration of household plumbing and fixtures. **If the water appears to be corrosive**, the system will be required to conduct a study and submit an engineering report that addresses corrosivity issues or may choose to install corrosion control treatment **before use may be granted**. All changes in treatment require submittal of plans and specifications for approval by TCEQ.

Texas Water Code Section 36.0015 allows for the creation of groundwater conservation districts (GCDs) as the preferred method of groundwater management. GCDs manage groundwater in many counties and are authorized to regulate production and spacing of water wells. **Public water systems drilling wells within an existing GCD are responsible for meeting the GCD's requirements.** The authorization provided in this letter does not affect GCD authority to manage groundwater or issue permits.

The design engineer or water system representative is required to notify the Plan Review Team in writing by fax at (512) 239-6972 or by emailing david.yager@tceq.texas.gov and cc: vera.poe@tceq.texas.gov at least 48 hours before the well casing pressure cementing begins. If pressure cementing is to begin on Monday, then they must give notification on the preceding Thursday. If pressure cementing is to begin on Tuesday, then they must give notification on the preceding Friday.

P.O. Box 13087 • Austin, Texas 78711-3087 • 512-239-1000 • tceq.texas.gov

PWS_1090035_CO_20220908_Plan Ltr

Jon Niermann, Chairman Emily Lindley, Commissioner Bobby Janecka, Commissioner Toby Baker, Executive Director



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

September 8, 2022

Mr. Benjamin S. Shanklin, P.E. Childress Engineers 211 North Ridgeway Drive Cleburne, Texas 76033

Re: Files Valley WSC - Public Water System ID No. 1090035 Proposed Dovie Road Pump Station and Ground Storage Tank Engineer Contact Telephone: (817) 645-1118 Plan Review Log No. P-07082022-060 Hill County, Texas

CN601366370; RN102693207

Dear Mr. Shanklin:

On July 8, 2022, the Texas Commission on Environmental Quality (TCEQ) received planning material with your letter dated July 7, 2022 for the proposed Dovie Road Pump Station and Ground Storage Tank (GST). Based on our review of the information submitted, the project generally meets the minimum requirements of Title 30 Texas Administrative Code (TAC) Chapter 290 – <u>Rules and Regulations for Public Water Systems</u> and is **conditionally approved for construction**.

The submittal consisted of 27 sheets of engineering drawings and technical specifications. The approved project consists of:

- One (1) 300,000 gallon American Water Works Association (AWWA) D100 Welded Carbon Steel GST;
- Two (2) 550 gallon per minute (gpm) service pumps;
- Gas chlorination consisting of:
 - Two (2) 50 pound per day (ppd) chlorinators with automatic switchover;
 - Two (2) 150 pound gas cylinders;
- One (1) 300 KW generator; and,
- Various valves, fittings, and related appurtenances.

E CHILDRESS ENGINEERS ENGINEERS

TEXAS REGISTERED ENGINEERING FIRM F-702

ROBERT T. CHILDRESS, JR., P.E. • BENJAMIN S. SHANKLIN, P.E. • ROBERT T. CHILDRESS III, P.E.

November 8, 2021

Mr. Tommy Bradley Files Valley Water Supply Corporation P.O. Box 127 Itasca, Texas 76055

Re:

Supply Capacity Analysis

Files Valley W.S.C.

Dear Mr. Bradley,

In response to your request, please accept this letter as a supply capacity analysis for the Files Valley Water Supply Corporation (FVWSC).

Based on the information provided by HILCO staff, the available water supply from Files Valley's wholesale contract with the Aquilla Water Supply District is 1,026,230 gal/day (712 gpm) and the temporary contract with the City of Hillsboro (until 2031) for their unused Aquilla water is 500,000 gal/day (347 gpm) totaling 1,059 gpm of total supply. The wholesale contracts with Milford are for 75,000 gal/day and Parker's contract is for 300,000 gal/day that leaves 1,151,230 gal/day (799.5 gpm) available for other FVWSC customers. Based on the TCEQ Rules in Chapter 290.45 (a), a water supply is required to furnish a potable water supply of 0.6 gpm/connection. The remaining supply of 1,282 connections (96% of supply), that leaves 50 connections. We understand that there are additional requests for service being made at this time.

We are currently updating a cost estimate and preparing an engineering services contract for a new well and pump station at the Dove Road Site that is owned by the FVWSC. We anticipate that the new well at the Dove Road Site can supply approximately 400 more connections and should be available by the end of 2022.

Please call if you have any questions on this matter.

Very truly yours,

CHILDRESS ENGINEERS

an A. Grandi

Benjamin S. Shanklin, P.E.

BSS/cv cc: Lea Sanders

WATER ASSIGNMENT AGREEMENT

This Water Assignment Agreement (the "Agreement") is entered into as of the 1st day of September, 2011, by and between FILES VALLEY WATER SUPPLY CORPORATION, a non-profit water supply corporation, ("Files") and CITY OF HILLSBORO, TEXAS, a home rule municipality, ("Hillsboro") (collectively "Parties").

1. <u>Recitals</u>. Files and Hillsboro agree that the following recitals and factual statements are true and correct and that they form a part of this Agreement:

a. Hillsboro entered into that certain contract dated October 20, 1981, with Aquilla Water Supply District (the "*District*"), for the treatment and delivery of water from Aquilla Lake to Hillsboro. That contract and all subsequent amendments thereto are hereinafter collectively referred to as the "*Hillsboro-District Contract*."

b. Files entered into a contract with the District for the treatment and delivery of water from Aquilla Lake to Files, dated October 19, 1981. That contract and all subsequent amendments thereto are hereinafter collectively referred to as the "*Files-District Contract*."

c. The Hillsboro-District Contract provides that Hillsboro can purchase up to 3.75 million gallons of treated water per day from the District. The Files-District Contract provides that Files can purchase up to 1.00 million gallons of treated water per day from the District. Based on the current usage of water by both Hillsboro and Files and the expected growth in the population served by both entities for the next twenty (20) years, it is contemplated that Hillsboro will have excess water for its needs for the next twenty (20) years and that Files will need additional water to meet its needs during the same time period.

d. Hillsboro is agreeing to assign a portion of its right under the Hillsboro-District Contract to purchase treated water to Files, conditioned on Files developing alternative or replacement water supplies prior to the expiration of the twenty year term of their Agreement.

e. Files acknowledges that it is obligated to develop alternative or replacement water supplies prior to the expiration of the twenty year term of this Agreement and acknowledges that at the expiration of the twenty (20) year term of the Agreement, Hillsboro is not obligated to continue the assignment of any portion of its right under the Hillsboro-District Contract to purchase water to Files or to supply Files any water.

f. The Parties acknowledge and agree that Files' agreement to locate and secure an alternate water supply within the term of this Agreement provided the inducement for the City to assign a portion of its right under the Hillsboro-District Contract to Files and execute this Agreement.

2. <u>Assignment of Right to Purchase Water.</u> Hillsboro hereby assigns, grants and conveys unto Files for the Term (as defined below) its right according to the Hillsboro-District Contract to purchase from District Five Hundred Thousand (500,000) gallons of water per day (the "Assigned Quantity").

1

3. <u>Term</u>. This Agreement shall be effective on October 1, 2011, and shall terminate on September 30, 2031 (the "*Term*"), subject to the Condition Precedent in Section 8 herein. Files shall have no further rights to the Assigned Quantity after the expiration of the Term. Further, Files hereby acknowledges and agrees that it is obligated to develop alternate or replacement supplies of water to replace the Assigned Quantity (the "*Replacement Obligation*") prior to the expiration of the Term.

4. Payment Obligations.

a. Files shall pay to Hillsboro the sum of Two Hundred Fifty Thousand Dollars and 00/100 (\$250,000.00) on September 1, 2011 (the "*Lump Sum Payment*") for the Assigned Quantity.

b. Files shall pay to District the cost of water purchased from the Brazos River Authority due to the Assigned Quantity that would otherwise be payable by Hillsboro to District under the Hillsboro-District Contract associated with the Assigned Quantity (the "Assigned Quantity Costs") and shall also pay to District the treated water costs for all water delivered by District to Files. Although it is the intent of the Parties that District bill Files directly for all Assigned Quantity Costs, if District does fail to do so or if District shall instead at any point during the Term bill Hillsboro for such Assigned Quantity Costs, then Files shall immediately pay Hillsboro such costs and indemnify and hold Hillsboro harmless from any and all such costs.

5. Water Supply Planning and Replacement Obligation.

a. Files acknowledges that the supply of water pursuant to this Agreement is for a specified term of years and that Hillsboro will need the Assigned Quantity to meet its own future water supply needs. Files agrees that Hillsboro has no obligation to extend the Agreement or enter into another water assignment agreement for the benefit of Files.

b. Consistent with Texas Water Code Section 11.036, Files agrees to plan for its water supply needs beyond the Term of this Agreement. In so doing, Files agrees to submit to Hillsboro at least three (3) years before the expiration of this Agreement a list of identified alternative or replacement water supply strategies. At least one (1) year before the expiration of this Agreement, Files agrees and covenants that it will complete all land acquisition, construction, and physical improvements necessary to realize any such alternative or replacement water supply to replace the water supply provided through this Agreement.

c. Files acknowledges that it has sufficient time to secure alternative or replacement water supplies to replace the water supply provided through this Agreement.

6. <u>Events of Default</u>. If Files fails to (a) pay the Lump Sum Payment or any Assigned Quantity Costs whenever such becomes due and payable hereunder; or (b) abide by each of the provisions and obligation of Section 5 of the Agreement (either, an "*Event of Default*"), then Hillsboro may terminate this Agreement upon thirty (30) days prior written notice to Files if Files fails to cure such Event of Default within such thirty (30) day period, and Hillsboro may also pursue any and all other legal and equitable remedies available to it as may be permitted from time to time by applicable laws. The Parties acknowledge that if the Event of Default is failure to abide by any of the provisions and obligations of Section 5 of the Agreement, Hillsboro would be
Agenda Item IV.B – Attachment

Recommendation for Paul Sigle as the replacement for Drew Satterwhite



GREATER TEXOMA UTILITY AUTHORITY

5100 Airport Drive Denison TX 75020 Ph. (903) 786-4433 Fax (903) 786-8211 gtua@gtua.org

September 19, 2022

Dear Mr. Kevin Ward and Members of the Region C RWPG:

I am writing this letter to offer my resignation on the Region C Regional Water Planning Group. I have accepted another position with the Canadian River Municipal Water Authority (CRMWA). This is an opportunity that I could not pass up as it will place my family within 45 minutes of both sets of my children's grandparents. I will be starting at CRMWA effective 10/31/2022.

I would like to recommend my successor, Paul Sigle, at the Greater Texoma Utility Authority (GTUA) be nominated as my replacement for the Water District position on the Region C Water Planning Group. Paul has worked for GTUA for the past five (5) years and came to GTUA from the North Plains Groundwater Conservation District. Paul has a bachelor's degree in Biological and Agricultural Engineering from Texas A&M University and a master's in engineering with an emphasis in water resources from the University of Arkansas. Paul is a very qualified and capable individual that I believe would be an asset to the group and would attend the meetings regularly. I have spoken with Harold Latham who also serves on the Region C Water Planning Group and he is also willing to vouch for Paul's qualifications.

I have thoroughly enjoyed my time serving with you all and wish you all the best going forward.

Thank you,

Drew Satterwhite Outgoing General Manager Greater Texoma Utility Authority

Agenda Item IV.F – Attachment

Non-Municipal Projections Technical Memorandums



Innovative approaches Practical results Outstanding service

801 Cherry Street, Suite 2800 + Fort Worth, Texas 76102 + 817-735-7300 + FAX 817-735-7491

www.freese.com

TO:Region C Regional Water Planning GroupDRAFTCC:FileFROM:Freese and Nichols, Inc.SUBJECT:Memorandum on Draft Irrigation Water Use ProjectionsDATE:11/2/2022PROJECT:TRA21862

1.0 BACKGROUND

The Texas Water Development Board (TWDB) provided the planning groups with draft irrigation demand projections in August of 2022. The draft projections will be reviewed by the individual planning groups and recommendations will be provided to the TWDB to be considered. The final projections will ultimately be adopted by the planning groups and the TWDB and incorporated into the 2027 State Water Plan (SWP). The purpose of this technical memorandum is to document information related to historical irrigation usage and provide information supporting recommended modifications to the draft irrigation demands.

Irrigation water use is defined by the TWDB as irrigation of agricultural crops and golf courses. Historically, irrigation has accounted for approximately 27 percent of all non-municipal water use in Region C¹. According to the *Region C Regional Water Plan*, the irrigation water use in Region C primarily represents the use of raw water for golf courses².

1.1 Historical Irrigation Water Use Estimates

As of August 2022, historical data estimates are available through the year 2019. The historical 2015-2019 use estimates are based on crops, acreage, climatic conditions, observations by local agricultural representatives, historical irrigation water right diversions, and data provided by irrigation and groundwater districts. Irrigation water use for golf courses that are not supplied by municipalities are also considered in the irrigation water estimates. If a golf course is supplied by municipal water, this use is incorporated into the municipality's gpcd and included as municipal water use. Since 2015, the regionwide irrigation water use estimates have ranged from 27,983 to 36,753 acre-feet per year (Figure 1).

¹ Based on historical water use estimates from the TWDB.

² <u>https://www.twdb.texas.gov/waterplanning/rwp/plans/2021/index.asp#region-c</u>





1.2 TWDB Draft Irrigation Water Demand Projections

TWDB's draft non-municipal irrigation demand projections for the 2027 State Water Plan utilize an average of the 2015-2019 irrigation water use estimates and are either:

- held constant between 2030 and 2080 or
- in counties where the total groundwater availability over the planning period is projected to be less than the groundwater-portion of the baseline water demand projections, the irrigation water demand projections are held constant for 10 years beyond the point that the groundwater availability falls below the baseline demand after projected demands will begin to decline, depending on and corresponding with the groundwater availability.

1.3 Criteria for Revising the Draft Irrigation Water Demand Projections

One or more of the following criteria must be verified by the Planning Group and the Executive Administrator for consideration of revising the irrigation water demand projections:

- Evidence that irrigation water use estimates for a county from another information source or more recent modeled available groundwater volumes are more accurate than those used in the draft projections.
- Evidence that recent (10 years or less) irrigation trends are more indicative of future trends than the draft groundwater resource-constrained water demand projections.
- Evidence that the baseline projection is more likely as a future demand than the draft groundwater resource-constrained water demand projections.
- Region or county-specific studies that have developed water demand projections or trends for the planning period, or part of the planning period, and are deemed more accurate than the draft projections.
- Evidence of errors identified in historical water use, including volumes of reuse (treated effluent) or brackish groundwater that were not included in the draft projections.

Memorandom on Draft Irrigation Water Use Projections November 2, 2022 Page 3 of 13

During the review process, the TWDB also imposed one other restriction on revisions of the draft irrigation water demand projections: Projections for all counties must have the same basis. For example, if the Planning Group recommends using the average of the 2010-2019 irrigation water use estimates to project future water demand, then it must recommend this basis for all counties. The Planning Group must provide the following data associated with the identified criteria to the Executive Administrator for justifying any adjustments to the irrigation water demand projections: Historical water use, diversion, or pumpage volumes for irrigation by county.

Acreage and water use data for irrigated crops grown in a region as published by the Texas Agricultural Statistics Service, the Texas Agricultural Extension Service, the Farm Service Agency or other sources. Available economic, technical, and/or water supply-related evidence that may provide a basis for adjustments in the default baseline projection and/or the future rate of change in irrigation water demand.

Alternative projected water availability volumes that may constrain water demand projections. Other data that the RWPG considers adequate to justify an adjustment to the irrigation water demand projections.

1.4 Data Used in the Evaluation of Draft Irrigation Demands

Data used to evaluate the draft irrigation demands were obtained from the following sources:

- NOAH historical rainfall at DFW airport (surrogate for regional precipitation)
- TWDB historical irrigation water use, 2010-2019
- 2021 Regional Water Plan Water Demand Projections by County for 2020-2070
- Projected total groundwater availability volumes based on the available MAG and non-MAG values as of July 2022.

2.0 RCWPG RECOMMENDED REVISIONS TO DRAFT WATER DEMAND PROJECTIONS

As noted above, the TWDB irrigation water use methodology utilizes estimates of crop acreages, crop types and climatic conditions. Irrigation use does vary considerably with climatic conditions. The TWDB uses the average of the historical water use over the period of 2015 through 2019. These years represent an above average rainfall period. Figure 2 shows the historical irrigation water use and the annual precipitation at DFW airport from 2010 through 2019. To confirm this pattern as it pertains to irrigation, the total precipitation during the growing season (defined as from April to October) is also shown as a gray line. Based on this graphic, it is clear there was higher irrigation water use from 2010 through 2014 then the latter five-year interval for the region as a whole.





A comparison of the draft projections for the 2026 RWP (provided by TWDB) with the final 2021 RWP projections shows a 27 percent decrease in projected irrigation use for the region. This is most likely due to using the average historical water use during a wet period as the basis for future demands. Since the regional water plans are to consider water use during drought of record conditions, this approach is not appropriate. Another concern is the use of the average water use rather than the highest water use. There can be justification for using the average water use, but this should be considered during a dry period. It is uncertain whether the future irrigation use will remain constant over the next 50 years. As the region continues to grow it is likely that current irrigated acreage will transition to other uses. However, the demand for additional golf courses will increase, but it is uncertain whether these golf courses will be self-supplied or provided water from municipalities. Due to this uncertainty, having the irrigation demand remain constant may be a conservative estimate.

Considering the TWDB methodology for irrigation demands and the unique aspects for Region C, it is recommended that the 2026 projected irrigation demands be based on the maximum amount between the TWDB draft irrigation projections and the average historical water use during the dry period from 2010 through 2014. Taking the maximum amount accounts for any additional acreage that was added since the last plan. A comparison of the draft projections for the 2026 RWP (provided by TWDB), the final 2021 RWP projections, and the proposed RCWPG revisions to the 2026 SWP projections is presented in Table 1 and Figure 3.

County Name	2021 RWP Projections (ac-ft/yr)						Draft Projections for 2026 RWP (ac-ft/yr)						Recommended RWPG Revisions (ac-ft/yr)						
	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	
Collin	3,340	3,340	3,340	3,340	3,340	3,340	2,445	2,445	2,445	2,445	2,445	2,445	2,811	2,811	2,811	2,811	2,811	2,811	
Cooke	1,100	1,100	1,100	1,100	1,100	1,100	635	635	635	635	635	635	1,038	1,038	1,038	1,038	1,038	1,038	
Dallas	10,122	10,122	10,122	10,122	10,122	10,122	7,428	7,428	7,428	7,428	7,428	7,428	10,468	10,468	10,468	10,468	10,468	10,468	
Denton	3,003	3,003	3,003	3,003	3,003	3,003	2,593	2,593	2,593	2,593	2,593	2,593	2,973	2,973	2,973	2,973	2,973	2,973	
Ellis	1,367	1,367	1,367	1,367	1,367	1,367	2,725	2,725	2,725	2,725	2,725	2,725	2,725	2,725	2,725	2,725	2,725	2,725	
Fannin	11,553	11,553	11,553	11,553	11,553	11,553	5,598	5,598	5,598	5,598	5,598	5,598	11,186	11,186	11,186	11,186	11,186	11,186	
Freestone	569	569	569	569	569	569	448	448	448	448	448	448	565	565	565	565	565	565	
Grayson	4,477	4,477	4,477	4,477	4,477	4,477	1,998	1,998	1,998	1,998	1,998	1,998	4,450	4,450	4,450	4,450	4,450	4,450	
Henderson	582	582	582	582	582	582	743	743	743	743	743	743	743	743	743	743	743	743	
Jack	98	98	98	98	98	98	67	67	67	67	67	67	84	84	84	84	84	84	
Kaufman	285	285	285	285	285	285	353	353	353	353	353	353	353	353	353	353	353	353	
Navarro	75	75	75	75	75	75	447	447	447	447	447	447	447	447	447	447	447	447	
Parker	773	773	773	773	773	773	1,136	1,136	1,136	1,136	1,136	1,136	1,136	1,136	1,136	1,136	1,136	1,136	
Rockwall	234	234	234	234	234	234	36	36	36	36	36	36	201	201	201	201	201	201	
Tarrant	4,926	4,926	4,926	4,926	4,926	4,926	3,735	3,735	3,735	3,735	3,735	3,735	4,964	4,964	4,964	4,964	4,964	4,964	
Wise	1,406	1,406	1,406	1,406	1,406	1,406	1,402	1,402	1,402	1,402	1,402	1,402	1,440	1,440	1,440	1,440	1,440	1,440	
Total	43,910	43,910	43,910	43,910	43,910	43,910	31,789	31,789	31,789	31,789	31,789	31,789	45,583	45,583	45,583	45,583	45,583	45,583	

Table 1. Comparison of Region C Irrigation Demand Projections

Grey text indicates that the was no change from the TWDB Draft projections.

- TWDB Irrigation Historical Data (2015-2019) Draft 2026 RWP Irrigation Projections RWPG Recommended Projections 2021 RWP Irrigation Projections Previous TWDB Irrigation Data I I 2080 2070 I I 2060 1 2050 1 1 1 2040 I I 2030 I I 2020 1 2010 15,000 45,000 55,000 50,000 40,000 35,000 30,000 25,000 20,000 (tl-cs) smuloV

Figure 3. Region C Irrigation – Comparison of Water Use Estimates, 2021 Region C Water Plan Projection, Proposed Projections, and Revised Projections

Attachment A Irrigation Demand by County Historical Usage and Projections















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TO:Region C Regional Water Planning GroupDRAFTCC:FileFROM:Freese and Nichols, Inc.SUBJECT:Memorandum on Draft Livestock Water Use ProjectionsDATE:11/2/2022PROJECT:TRA21862

1.0 BACKGROUND

The Texas Water Development Board (TWDB) provided the planning groups with draft livestock demand projections in January of 2022. The draft projections will be reviewed by the individual planning groups and recommendations will be provided to the TWDB to be considered. The final projections will ultimately be adopted by the planning groups and the TWDB and incorporated into the 2027 State Water Plan (SWP). The purpose of this technical memorandum is to document information related to historical livestock usage and provide information supporting recommended modifications to the draft livestock demands.

Livestock water use is defined by the TWDB as water used in the production of livestock, both for drinking and for cleaning or environmental purposes. It does not include the processing of livestock for food. Livestock processing water use is considered as part of the manufacturing water use. Historically, livestock has accounted for approximately 12 percent of all non-municipal water use in Region C¹. Generally, most livestock water use in Region C is associated with ranching.

1.1 Historical Livestock Water Use Estimates

The historical 2015-2019 livestock water use estimates are based on a combination of TWDB Water Use Surveys and estimates derived from applying a water use coefficient for each livestock category to county-level inventory estimates from the National Agricultural Statistical Service and the Texas Department of Agriculture.

As of January 2022, historical data estimates are available through the year 2019. Since the year 2015, the region-wide livestock water use estimates have ranged from 15,648 to 16,155 acre-feet per year (Figure 1).

¹ Based on historical water use estimates from the TWDB.



1.2 TWDB Draft Livestock Water Demand Projections

TWDB's draft non-municipal livestock demand projections for the 2027 State Water Plan utilize an average of the 2015-2019 livestock water use estimates as a base (2030 projection), and the rate of change for projections from the *2021 Region C Water Plan* is applied to the base for the years 2030-2080.²

1.3 Criteria for Revising the Draft Livestock Water Demand Projections

One or more of the following criteria must be verified by the Planning Group and the Executive Administrator for consideration of revising the livestock water demand projections:

- Evidence that livestock water use estimates for a county from another source are more accurate than those used in the draft projections.
- Plans for the construction of a confined livestock feeding operation in a county at some future date.
- Documentation of an existing confined livestock feeding operation not captured in the draft projections.
- Other evidence of change in livestock inventory or water requirements that would justify an adjustment in the projected future rate of change in livestock water demand.
- Evidence of errors identified in historical water use, including volumes of reuse (treated effluent) or brackish groundwater that were not included in the draft projections.

² In 2019, the TWDB updated water use estimates for 2015-2019 using updated geographic splits (region/county/basin), assumed water use parameters for five types of livestock, and broiler chicken inventory estimates.

Memorandom on Draft Livestock Water Use Projections November 2, 2022 Page 3 of 12

During the review process, the TWDB also imposes one other restriction on revisions of the draft livestock water demand projections: Projections for all counties must have the same basis. For example, if the Planning Group recommends using the average of the 2015-2019 livestock water use estimates to project future water demand, then it must recommend this basis for all counties.

The Planning Group must provide the following data associated with the identified criteria to the Executive Administrator for justifying any adjustments to the livestock water demand projections:

- Documentation of plans for the construction of a confined livestock feeding facility in a county at some future date will include the following:
 - Confirmation of land purchase or lease arrangements for the facility.
 - The construction schedule including the date the livestock feeding facility will become operational.
 - The daily water requirements of the planned livestock feeding facility.
- Other evidence that would document an expected increase or decrease in the livestock inventory in the county.
- Other data that the RWPG considers adequate to justify an adjustment to the livestock water demand projections.

2.0 RCWPG-RECOMMENDED REVISIONS TO DRAFT Livestock Water DEMAND PROJECTIONS

A comparison of the draft projections for the 2026 RWP (provided by TWDB) and the final 2021 RWP projections is presented in Table 1 and Figure 2. After reviewing the available data, the Planning Group recommends no changes to the draft projections for the 2026 RWP.

County Name	2021 RWP Projections (ac-ft/yr)						Draft Projections for 2026 RWP (ac-ft/yr)						Recommended RWPG Revisions (ac-ft/yr)						
	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	
Collin	912	912	912	912	912	912	801	801	801	801	801	801	801	801	801	801	801	801	
Cooke	1,330	1,330	1,330	1,330	1,330	1,330	1,508	1,508	1,508	1,508	1,508	1,508	1,508	1,508	1,508	1,508	1,508	1,508	
Dallas	758	758	758	758	758	758	248	248	248	248	248	248	248	248	248	248	248	248	
Denton	769	769	769	769	769	769	840	840	840	840	840	840	840	840	840	840	840	840	
Ellis	1,140	1,140	1,140	1,140	1,140	1,140	923	923	923	923	923	923	923	923	923	923	923	923	
Fannin	1,411	1,411	1,411	1,411	1,411	1,411	1,375	1,375	1,375	1,375	1,375	1,375	1,375	1,375	1,375	1,375	1,375	1,375	
Freestone	1,207	1,207	1,207	1,207	1,207	1,207	1,430	1,430	1,430	1,430	1,430	1,430	1,430	1,430	1,430	1,430	1,430	1,430	
Grayson	1,143	1,143	1,143	1,143	1,143	1,143	1,106	1,106	1,106	1,106	1,106	1,106	1,106	1,106	1,106	1,106	1,106	1,106	
Henderson	1,261	1,261	1,261	1,261	1,261	1,261	694	694	694	694	694	694	694	694	694	694	694	694	
Jack	785	785	785	785	785	785	685	685	685	685	685	685	685	685	685	685	685	685	
Kaufman	1,570	1,570	1,570	1,570	1,570	1,570	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	
Navarro	1,691	1,691	1,691	1,691	1,691	1,691	1,512	1,512	1,512	1,512	1,512	1,512	1,512	1,512	1,512	1,512	1,512	1,512	
Parker	1,634	1,634	1,634	1,634	1,634	1,634	1,503	1,503	1,503	1,503	1,503	1,503	1,503	1,503	1,503	1,503	1,503	1,503	
Rockwall	111	111	111	111	111	111	106	106	106	106	106	106	106	106	106	106	106	106	
Tarrant	627	627	627	627	627	627	341	341	341	341	341	341	341	341	341	341	341	341	
Wise	1,198	1,198	1,198	1,198	1,198	1,198	1,415	1,415	1,415	1,415	1,415	1,415	1,415	1,415	1,415	1,415	1,415	1,415	
Total	17,547	17,547	17,547	17,547	17,547	17,547	15,900	15,900	15,900	15,900	15,900	15,900	15,900	15,900	15,900	15,900	15,900	15,900	

Table 1. Comparison of Region C Livestock Demand Projections

Grey text indicates that the was no change from the TWDB Draft projections.





Attachment A Livestock Demand by County Historical Usage and Projections














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TO:Region C Regional Water Planning GroupDRAFTCC:FileFROM:Freese and Nichols, Inc.SUBJECT:Memorandum on Draft Manufacturing Water Use ProjectionsDATE:11/2/2022PROJECT:TRA21862

1.0 BACKGROUND

The Texas Water Development Board (TWDB) provided the planning groups with draft manufacturing demand projections in January of 2022. The draft projections will be reviewed by the individual planning groups and recommendations will be provided to the TWDB to be considered. The final projections will ultimately be adopted by the planning groups and the TWDB and incorporated into the 2027 State Water Plan (SWP). The purpose of this technical memorandum is to document information related to historical manufacturing usage and provide information supporting recommended modifications to the draft manufacturing demands.

Manufacturing water use is defined by the TWDB as water used in the production process of manufactured products, including water used by employees for drinking and sanitation purposes. The manufacturing water use category does not include water use by all manufacturers, as described in the following section. Manufacturing demands in Region C includes larger manufacturing facilities, food processing operations, defense industry operations, and others. Historically, manufacturing has accounted for approximately 30 percent of all non-municipal water use in Region C¹.

1.1 Historical Manufacturing Water Use Estimates

The TWDB's manufacturing water use estimates are obtained from manufacturing facilities that complete TWDB Water Use Surveys and from manufacturing use volumes reported by surveyed municipal water sellers. The TWDB historical manufacturing water use estimates focus on facilities that use large amounts of water and/or are self-supplied by groundwater or surface water. Facilities with smaller uses that are supplied by public utilities and cannot easily be tracked separately are included in municipal water demands.

As of January 2022, historical data estimates are available through the year 2019. Since 2015, the region-wide manufacturing water use estimates have ranged from 39,519 to 40,850 acre-feet per year (Figure 1). This represents approximately 3.6% of the total state manufacturing water use.

¹ Based on historical water use estimates from the TWDB.





1.2 TWDB Draft Manufacturing Water Demand Projections

TWDB's draft 2026 manufacturing demand projections are based on the maximum annual manufacturing water use that occurred in each county during 2015-2019 plus an estimate of the non-surveyed water use. Non-surveyed water use was determined using the U.S. Census Bureau's Business Patterns (CBP)² and an inventory of the industries from the Water Use Survey.

To obtain the 2030 demand projections, the 2020 demand projections were multiplied by the statewide annual historic water use rate of change from 2010-2019, which was determined to be 0.96%. This was to account for potential changes in production and water use that may occur between the baseline water use values and the first projected decade. For each planning decade after 2030, a statewide manufacturing growth proxy of 0.37% was applied annually to project increases in manufacturing water demands. This growth proxy was based on the CBP historical number of establishments in the manufacturing sector from 2010-2019. Both of these growth factors (0.96% and 0.37%) were applied equally by county across the state.

The draft projected manufacturing water demands for the 2026 Region C Plan by county and the decadal increases are shown in Table 1.

² U.S. Census Bureau, *CBP Datasets*. URL: <u>https://www.census.gov/programs-surveys/cbp/data/datasets.html</u>, accessed January 2022.



County		Draft N	/lanufactı	uring Dem	ands (ac-	ft/yr)		Increase from Baseline (ac-ft/yr)						
Name	Baseline	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070		
Collin	4,518	4,952	5,135	5,325	5,522	5,726	5,938	434	617	807	1,004	1,208		
Cooke	127	139	144	149	155	161	167	12	17	22	28	34		
Dallas	18,436	20,206	20,954	21,729	22,533	23,367	24,232	1,770	2,518	3,293	4,097	4,931		
Denton	552	605	627	650	674	699	725	53	75	98	122	147		
Ellis	5,164	5,660	5,869	6,086	6,311	6,545	6,787	496	705	922	1,147	1,381		
Fannin	5	5	5	5	5	5	5	0	0	0	0	0		
Freestone	50	55	57	59	61	63	65	5	7	9	11	13		
Grayson	2,501	2,741	2,842	2,947	3,056	3,169	3,286	240	341	446	555	668		
Henderson	1,158	1,269	1,316	1,365	1,416	1,468	1,522	111	158	207	258	310		
Jack	0	0	0	0	0	0	0	0	0	0	0	0		
Kaufman	1,074	1,177	1,221	1,266	1,313	1,362	1,412	103	147	192	239	288		
Navarro	991	1,086	1,126	1,168	1,211	1,256	1,302	95	135	177	220	265		
Parker	78	85	88	91	94	97	101	7	10	13	16	19		
Rockwall	6	7	7	7	7	7	7	1	1	1	1	1		
Tarrant	10,858	11,900	12,340	12,797	13,270	13,761	14,270	1,042	1,482	1,939	2,412	2,903		
Wise	232	254	263	273	283	293	304	22	31	41	51	61		
TOTAL	45,750	50,141	51,994	53,917	55,911	57,979	60,123	4,391	6,244	8,167	10,161	12,229		

Table 1. TWDB Draft Manufacturing Water Demands

1.3 Criteria for Revising the Draft Manufacturing Water Demand Projections

One or more of the following criteria must be verified by the Planning Group and the Executive Administrator for consideration of revising the manufacturing water demand projections:

- A new or existing facility that has not been included in the TWDB water use survey.
- An industrial facility has recently closed its operation in a county.
- Plans for new construction or expansion of an existing industrial facility in a county at some future date.
- Evidence of a long-term projected water demand of a facility or industry within a county that is substantially different than the draft projections.
- Evidence of errors identified in historical water use, including volumes of reuse (treated effluent) or brackish groundwater that were not included in the draft projections.

The Planning Group must provide the following data associated with the identified criteria to the Executive Administrator for justifying any adjustments to the manufacturing water demand projections:

- Historical water use data and the 6-digit North American Industrial Classification System (NAICS) code of a manufacturing facility. The NAICS code classifies establishments by type of activity in which they are engaged as defined by the U.S. Office of Management and Budget and is a successor of the Standard Industrial Classification (SIC).
- Documentation and analysis that justify that the new manufacturing facility not included in the Water Use Survey database will increase the future manufacturing water demand for the county above the draft projections.
- The 6-digit NAICS code of the industrial facility that has recently located in a county and annual water use volume.

Memorandom on Draft Manufacturing Water Use Projections November 2, 2022 Page 4 of 14

- Documentation of plans for a manufacturing facility to locate in a county at some future date will include the following data:
 - \circ The quantity of water required by the planned facility on an annual basis.
 - The proposed construction schedule for the facility including the date the facility will become operational.
 - The 6-digit NAICS code for the planned facility.
- Other data that the RWPG considers adequate to justify an adjustment to the manufacturing water demand projections.

2.0 RCWPG RECOMMENDED REVISIONS TO DRAFT Manufacturing Water DEMAND PROJECTIONS

Manufacturing water use is a small fraction of Region C's total water use, but it is an important component especially in the more rural counties. The North Texas area is a prime area to attract new businesses, including manufacturing in the electronic and high-tech sectors. There have been at least 10 new manufacturing facilities announced within the last one to two years within the region. Many are in the computer and electronics field. A facility currently under design is the Texas Instruments Semiconductor facility in Sherman (Grayson County). This facility is expected to use 780 acre-feet of water for manufacturing wafers for computers this year, increasing to over 6,000 acre-feet per year by 2026 and nearly 13,000 acre-feet per year by 2046. This is just one of several water manufacturing facilities locating to Grayson County. Another facility, Global Wafer, is expected to be online by 2026 and will use 2,200 acre-feet per year of water. Its production is planned to double by 2031 with the potential to double again during the planning period. This increase in water use is not reflected in the draft projections provided by the TWDB.

A list of new facilities in Region C announced by the Office of the Texas Governor³ and those included in local publications is included in Table 2. This list does not necessarily represent all the expected new facilities in Region C in the next few years.

Facility	County	Process Type	NAICS	Expected Water Use ¹ (ac-ft/yr)
TI Semiconductor Plant	Grayson	Electronics	334	13,000
Global Wafer	Grayson	Electronics	334	8,800
GAF Roofing Materials	Navarro	Recycling	327	500
Delta Electronics	Collin	Electronics	334	200
Mouser Electronics	Tarrant	Electronics	334	200
Chewters Chocolates	Rockwall	Food	311	400
Clevon (automotives)	Tarrant	Automotives	336	200
Niagara Bottling Plant	Dallas	Beverage	312	400
Raytheon	Collin	Electronics	334	150
Pratt Industries	Dallas	Packaging	322	50

Table 2. List of Newly Announced Manufacturing Facilities in Region C

1. Expected water use is based on data provided by the water provider or estimated based on similar facilities.

³ <u>Recent Project Announcements | Texas Economic Development | Office of the Texas Governor | Greg Abbott</u>

Memorandom on Draft Manufacturing Water Use Projections November 2, 2022 Page 5 of 14

The assumption of a state-wide average growth applied uniformly across the state does not accurately capture the manufacturing growth in North Texas. It also does not accurately capture the projected water use. This is demonstrated through the projected manufacturing water use in Grayson County. Water use by facility can vary significantly and projecting which industries may locate in specific counties is difficult at best. Without more specific data, an estimated growth approach seems reasonable. However, this growth should reflect current trends within the region.

To better capture current and future manufacturing growth Region C requests to increase the water demands for counties with known new facilities expected to be operating within the next two to five years. This includes known projected expansions of these facilities. The state-wide growth rate (0.96%) for 2030 would be applied to the new baseline. For subsequent decades, the state-wide manufacturing growth proxy (0.37%) would be applied. For Grayson County, the growth factors are applied to the TWDB baseline and the demands are adjusted to incorporate the projected demand for the two new facilities in Sherman, Texas, because the state-wide growth rates do not accurately reflect the planned expansions for these facilities.

A comparison of the draft projections for the 2026 RWP (provided by TWDB), the final 2021 RWP projections, and the proposed RCWPG revisions to the 2026 RWP projections is presented in Table 3 and Figure 2.

County Name	2021 RWP Projections (ac-ft/yr)							Draft Proj	ections for	r 2026 RWI	P (ac-ft/yr)		Recommended RWPG Revisions (ac-ft/yr)						
	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	
Collin	2,246	2,602	2,602	2,602	2,602	2,602	4,952	5,135	5,325	5,522	5,726	5,938	5 <i>,</i> 335	5,532	5,737	5,949	6,169	6,397	
Cooke	116	128	128	128	128	128	139	144	149	155	161	167	139	144	149	155	161	167	
Dallas	21,834	23,073	23,073	23,073	23,073	23,073	20,206	20,954	21,729	22,533	23,367	24,232	20,699	21,465	22,259	23,083	23,937	24,823	
Denton	374	440	440	440	440	440	605	627	650	674	699	725	605	627	650	674	699	725	
Ellis	5,414	6,549	6,549	6,549	6,549	6,549	5,660	5 <i>,</i> 869	6,086	6,311	6,545	6,787	5,660	5,869	6,086	6,311	6,545	6,787	
Fannin	12	12	12	12	12	12	5	5	5	5	5	5	5	5	5	5	5	5	
Freestone	19	19	19	19	19	19	55	57	59	61	63	65	55	57	59	61	63	65	
Grayson	2,951	3,009	3,009	3,009	3,009	3,009	2,741	2,842	2,947	3,056	3,169	3,286	17,314	20,105	24,807	24,916	25,029	25,146	
Henderson	806	985	985	985	985	985	1,269	1,316	1,365	1,416	1,468	1,522	1,269	1,316	1,365	1,416	1,468	1,522	
Jack	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
Kaufman	946	1,109	1,109	1,109	1,109	1,109	1,177	1,221	1,266	1,313	1,362	1,412	1,177	1,221	1,266	1,313	1,362	1,412	
Navarro	894	1,062	1,062	1,062	1,062	1,062	1,086	1,126	1,168	1,211	1,256	1,302	1,634	1,694	1,757	1,822	1,889	1,959	
Parker	87	103	103	103	103	103	85	88	91	94	97	101	85	88	91	94	97	101	
Rockwall	31	36	36	36	36	36	7	7	7	7	7	7	445	461	478	496	514	533	
Tarrant	12,197	13,301	13,301	13,301	13,301	13,301	11,900	12,340	12,797	13,270	13,761	14,270	12,339	12,796	13,269	13,760	14,269	14,797	
Wise	454	501	501	501	501	501	254	263	273	283	293	304	254	263	273	283	293	304	
Total	48,382	52,930	52,930	52,930	52,930	52,930	50,141	51,994	53,917	55,911	57,979	60,123	67,015	71,643	78,251	80,338	82,500	84,743	

Table 3. Comparison of Region C Manufacturing Demand Projections

Grey text indicates that the was no change from the TWDB Draft projections.

Figure 2. Region C Manufacturing – Comparison of Water Use Estimates, 2021 Region C Water Plan Projection, Proposed Projections, and Revised Projections Draft 2026 RWP Manufacturing Projections 2021 RWP Manufacturing Projections TWDB Manufacturing Historical Data (2015-2019) Previous TWDB Manufacturing Data RWPG Recommended Projections I I 2080 2070 I I I 2060 I I I 2050 2040 I I I 2030 ł ١ 2020 2010 30,000 40,000 90,000 80,000 70,000 60,000 50,000 (fl-วธ) 9muloV

Attachment A Manufacturing Demand by County Historical Usage and Projections

















MEMORANDUM



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TO:Region C Regional Water Planning GroupDRAFTCC:FileFROM:Freese and Nichols, Inc.SUBJECT:Memorandum on Draft Mining Water Use ProjectionsDATE:11/2/2022PROJECT:TRA21862

1.0 BACKGROUND

The Texas Water Development Board (TWDB) provided the planning groups with draft mining demand projections in August of 2022. These projections were developed in conjunction with a special study on mining water use authorized by the TWDB. This study evaluated water use for the oil and gas industry, coal mining, and aggregate mining within Texas. The draft mining demand projections are presented by county and will be reviewed by the individual planning groups. Any recommended changes to these projections will be provided to the TWDB for consideration, and the final projections will ultimately be adopted by the planning groups and the TWDB. Historically, mining has accounted for approximately 10 percent of all non-municipal water use in Region C¹.

1.1 Historical Mining Water Use Estimates

The TWDB publishes historical annual mining water use estimates for each county. Mining water use is water used for oil and gas development, as well as coal and lignite, sand aggregate, and other resource extraction. Since the year 2015, the region-wide mining water use estimates have ranged from 5,812 to 9,116 acre-feet per year (Figure 1). As of August 2022, historical data estimates were available through the year 2019.

¹ Based on historical water use estimates from the TWDB.





1.2 TWDB Draft Mining Water Demand Projections

TWDB's draft mining water demand projections for the 2026 Regional Water Plan (RWP) were developed from a 2022 TWDB-contracted mining use study with the Bureau of Economic Geology (BEG) and U.S. Geological Survey (USGS).²

The mining use study estimated current mining water use and projected use across the planning horizon using data collected from trade organizations, government agencies, and other industry representatives. The projections include information from three mining categories: oil and gas industry, coal mining, and aggregates mining. Figure 2 shows Region C mining use projections by type. The mining use study projects Region C mining use to gradually increase through 2080 due to increased demand for aggregate industry products. Oil and gas mining use is projected to decrease in 2040 as major oil and gas development matures. Currently, there are no active coal mines in Region C. In the past there were two lignite coal mines located in Freestone County, Turlington Strip Mine and Big Brown Strip, which closed in 2011 and 2017 respectively.

Data used to evaluate the draft mining demands in the mining use study were obtained from the following sources:

- Texas Water Development Board (TWDB)
- Texas Commission on Environmental Quality (TCEQ)
- Railroad Commission of Texas (RRC)
 - Information Handling Services (IHS)³
 - B3 Insight⁴
- United States Geological Survey (USGS)
- FracFocus (referenced above)

³ <u>https://ihsmarkit.com/</u>

² Bureau of Economic Geology and U.S. Geological Survey, *Water Use by the Mining Industry in Texas*, prepared for Texas Water Development Board, August 2022.

⁴ <u>https://www.b3insight.com/</u>





1.3 Criteria for Revising the Draft Mining Water Demand Projections

One or more of the following criteria must be verified by the Planning Group and the Executive Administrator for consideration of revising the mining water demand projections:

- Evidence that mining water use in a county is substantially different than the draft projections. This could include trends in water use data from FracFocus national online registry,⁵ the Texas Railroad Commission, or other sources.
- Evidence of new facilities coming online, reported closures in surveyed facilities that may impact county projections
- Evidence of errors identified in historical water use, including volumes of reuse (treated effluent) water or brackish groundwater that were not included in the draft projections.

The Planning Group must provide the following data associated with the identified criteria to the Executive Administrator for justifying any adjustments to the mining water demand projections:

- Historical (2015-2019) water use data and description of a surveyed or future facility, and any other information necessary to estimate water use.
- Reports describing alternative trends or anticipated water use for mining.
- Other data that the RWPG considers adequate to justify an adjustment to the mining water demand projections will be considered.

⁵ <u>https://fracfocus.org/</u>

2.0 RCWPG REVIEW OF DRAFT MINING WATER DEMAND PROJECTIONS

A comparison of the draft projections for the 2026 RWP (provided by TWDB) and the final 2021 RWP projections is presented in Table 1 and Figure 3. The 2021 RWP projections were originally developed from a 2011 TWDB-contracted study with the BEG⁶ and a September 2012 update to the BEG study⁷. The 2021 SWP projections for Ellis, Fannin, Grayson, Henderson, Jack, Navarro, and Tarrant Counties were then revised based on input from the Region C Water Planning Group (RCWPG).

Overall, Region C's 2026 RWP mining use projections have declined compared to the 2021 RWP projections due to a historic decline in overall mining use from 2012 through 2019 (Figure 3). Additionally, two lignite mines, Turlington Strip Mine and Big Brown Strip, closed in 2011 and 2017 respectively. Fannin and Kaufman Counties 2026 RWP mining projections have increased compared to the 2021 RWP projections due to an increase in aggregate mining. On the other hand, the 2026 RWP projections have decreased since the last RWP in Cooke, Dallas, Denton, Freestone, Parker, Tarrant, and Wise Counties due to reduced oil and gas fracking. Henderson and Jack Counties saw a decrease in water use projections due to a decrease in aggregate mining.

After reviewing the data described in the previous section, the RCWPG recommends no change to the draft county-level mining water demand projections.

⁶ Bureau of Economic Geology, *Current and Projected Water Use in the Texas Mining and Oil and Gas Industry*, prepared for Texas Water Development Board, June 2011.

⁷ Bureau of Economic Geology, *Oil and Gas Water Use in Texas: Update to the 2011 Mining Water Use Report*, prepared for Texas Water Development Board, September 2012.

County Name	2021 RWP Projections (ac-ft/yr)							Draft Proj	ections for	r 2026 RW	P (ac-ft/yr)	Recommended RWPG Revisions (ac-ft/yr)						
county Nume	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	
Collin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cooke	1,583	900	378	446	511	586	12	12	12	13	13	13	12	12	12	13	13	13	
Dallas	3,038	2,656	2,279	1,930	1,922	1,916	32	32	32	32	32	32	32	32	32	32	32	32	
Denton	4,326	2,729	3,345	4,306	5,204	6,291	259	75	87	99	111	120	259	75	87	99	111	120	
Ellis	931	547	164	123	82	55	0	0	0	0	0	0	0	0	0	0	0	0	
Fannin	574	351	128	128	128	128	1,747	2,070	2,561	3,376	4,258	5,130	1,747	2,070	2,561	3,376	4,258	5,130	
Freestone	5,347	5,115	5,251	5,286	5,356	5,582	200	200	200	200	200	200	200	200	200	200	200	200	
Grayson	312	210	107	123	142	163	295	295	295	295	295	295	295	295	295	295	295	295	
Henderson	434	506	481	484	479	469	15	16	17	19	22	26	15	16	17	19	22	26	
Jack	3,396	1,821	1,698	1,731	1,768	1,862	35	35	35	35	35	35	35	35	35	35	35	35	
Kaufman	296	386	491	646	783	951	1,453	1,736	2,101	2,679	3,357	4,134	1,453	1,736	2,101	2,679	3,357	4,134	
Navarro	1,193	1,238	1,282	1,572	1,806	2,076	1,748	1,915	2,125	2,352	2,723	3,293	1,748	1,915	2,125	2,352	2,723	3,293	
Parker	3,182	4,029	4,006	4,073	4,124	4,364	1,062	1,126	1,385	1,712	2,060	2,411	1,062	1,126	1,385	1,712	2,060	2,411	
Rockwall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Tarrant	11,535	6,562	1,589	1,537	1,497	1,464	525	106	115	121	129	136	525	106	115	121	129	136	
Wise	10,320	11,159	12,337	13,975	15,378	17,694	3,084	3,074	3,650	4,246	5,193	6,663	3,084	3,074	3,650	4,246	5,193	6,663	
Total	46,467	38,209	33,536	36,360	39,180	43,601	10,467	10,692	12,615	15,179	18,428	22,488	10,467	10,692	12,615	15,179	18,428	22,488	

Table 1. Comparison of Region C Mining Demand Projections

Grey text indicates that the was no change from the TWDB Draft projections.

Figure 3. Region C Mining – Comparison of Water Use Estimates, 2021 Region C Water Plan Projection, Proposed Projections, and Revised Projections



Attachment A Mining Demand by County Historical Usage and Projections














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то:	Region C Regional Water Planning Group	DRAFT							
CC:	File								
FROM:	Freese and Nichols, Inc.								
SUBJECT:	Memorandum on Draft Steam Electric Power Water Use Projections								
DATE:	11/2/2022								
PROIECT:	TRA21862								

1.0 BACKGROUND

The Texas Water Development Board (TWDB) provided the planning groups with draft non-municipal demand projections in January and August 2022. The review process of these projections includes review by the individual planning groups, with recommended changes provided to the TWDB by July 2023. The TWDB will consider the recommended changes from the planning groups, and the final projections will ultimately be adopted by the TWDB and incorporated into the 2027 State Water Plan (SWP). The purpose of this technical memorandum is to document information related to historical steam electric power (SEP) usage and provide information supporting recommended modifications, if needed, to the draft SEP demands.

SEP water use is defined by the TWDB as consumed water used in the production process of SEP, including water used by employees for drinking and sanitation purposes. It does not include cooling water that is returned to a lake or stream. Historically, SEP has accounted for approximately 21 percent of all non-municipal water use in Region C¹.

1.1 Historical Steam Electric Power Water Use Estimates

The TWDB's SEP water use estimates are obtained from SEP facilities that complete TWDB Water Use Surveys. These typically include large power generation plants that sell power on the open market and do not include cogeneration plants for manufacturing or mining processes. SEP water uses reported by municipal users in their Water Use Surveys are also included in the SEP water use estimates.

As of January 2022, historical data estimates are available through the year 2019. Since the year 2015, the region-wide SEP water use estimates have ranged from 14,783 to 37,475 acre-feet (Figure 1). The TWDB historical SEP water use estimates include water provided by reuse programs.

¹ Based on historical water use estimates from the TWDB.



1.2 TWDB Draft Steam Electric Power Water Demand Projections

TWDB's draft 2030 SEP demand projections for the 2026 Regional Water Plan are based on the maximum annual SEP water use that occurred in each county during 2015-2019. After 2030, the draft SEP water demand projections are held constant through 2080 with one exception: estimated water use from new SEP facilities listed in state and federal reports is added to the projections from the anticipated operation date to 2080. For new facilities, TWDB staff estimated water demand from fuel type, generation capacity, average water use information, and average operational time. Based on this information, new facilities have occurred in the following counties since the last 2021 Region C Water plan:

- Dallas (online by 2016): WM Renewable Energy LLC Skyline Gas Recovery
- Denton (online by 2018): Denton Energy Center
- Ellis (online by 2019): Ennis Power Company LLC
- Wise (Online by 2012): Wise County Power Company LLC

Water use from some of these facilities are captured in the historical SEP water use. Overall, there has been a reduction in SEP water use in Region C over the past decade. This is primarily due to the number of facilities that are no longer operating. Retired facilities since the 2021 RWP in the following counties include:

- Dallas (retired prior to 2015): Luminant Generation Company LLC North Lake Plant
- Fannin (retired prior to 2015): Valley NG Power Company LLC Valley Steam Electric Station
- Freestone (retired after 2017): Luminant Generation Company LLC Big Brown Steam Electric Station
- Parker (retired prior to 2015): Brazos Electric Power CO OP INC North Texas Plant
- Tarrant (retired prior to 2015): Luminant Generation Company LLC Eagle Mountain Steam Electric Station

[TRA21862] T:\Task 2 - Projections\Non-Municipal\Steam Electric

Memorandum on Draft Steam Electric Power Water Use Projections November 2, 2022 Page 3 of 14

For SEP plants that have not returned a Water Use Survey, water use was either obtained from the operator or water demand was estimated from kilowatt-hour output and fuel type. Power plants driven by landfill gas, wood waste biomass, battery, or renewable energy sources are not included in the draft water demand projections.

TWDB staff members have determined that holding 2030-2080 steam electric power water demands constant is "efficient, effective, and reasonable" for the following reasons:²

- 1. Basing projections on the highest county water use in recent years ensures sufficient supply for current water uses.
- Developing modeled projections would be complicated and expensive. Modeling would have to include a number of potential water use drivers, including facility replacement schedules, anticipation of generation efficiency and cooling systems, carbon capture activities, cost of various fuels, and federal environmental/regulatory policies. Each of these drivers has its own probability of occurrence and level of impact.
- 3. Projected increases in solar and wind generation capacity will offset the need to operate some water-consuming facilities.
- 4. New steam electric power plants will be more efficient than existing plants.
- 5. It would be difficult to allocate increased demands by county, because locations of new facilities listed in government reports cannot be identified. This could also lead to double counting of demands from any new facilities brought forward by the RWPG.
- 6. There will be opportunities to update the projections during each planning cycle.

Although the Region C population has increased substantially since the 1980s, the reported SEP water use has declined (Figure 1). The decline is due in part to the retiring of coal facilities that used once through cooling and the construction of more water efficient energy facilities. This declining trend also supports holding 2030-2080 SEP water demands constant.

1.3 Criteria for Revising the Draft Steam Electric Power Water Demand Projections

One or more of the following criteria must be verified by the Planning Group and the Executive Administrator for consideration of revising the SEP water demand projections:

- Documentation that the TWDB draft projections have not included a facility that warrants inclusion.
- Any local information related to new facilities or facility closures that may not have been included in Electrical Reliability Council of Texas's Capacity, Demand, and Reserves report.
- Evidence of a long-term projected water demand of a facility or in a county that is substantially different than the draft projections.
- Evidence of errors identified in historical water use, including volumes of reuse (treated effluent) water or brackish groundwater that were not included in the draft projections.
- Evidence that a currently-operating power generation facility has experienced a higher dry-year water use beyond the most recent five years, within the most recent 10 years.

² Texas Water Development Board, Methodologies for Developing Draft Irrigation, Manufacturing, and Steam-Electric Water Demand Projections, August 2022.

Memorandum on Draft Steam Electric Power Water Use Projections November 2, 2022 Page 4 of 14

The Planning Group must provide the following data associated with the identified criteria to the Executive Administrator for justifying any adjustments to the SEP water demand projections:

- Historical (2015-2019) water use data and description of a surveyed or future facility, including the fuel type, cooling process, capacity, average percent of time operating, and any other information necessary to estimate water use.
- Reports describing alternative trends or anticipated water use for steam-electric power generation.
- Specific information of an anticipated facility not listed in state or federal reports necessary to estimate the volume of water reasonably expected to be consumed. Such information would include generation method, cooling method, generation capacity and any additional information necessary to estimate the future water use.
- Other data that the RWPG considers adequate to justify an adjustment to the steam electric power water demand projections.

2.0 Proposed SEP Water Use

FNI consulted with the RWPG's electric power representative on the draft demands and approach adopted by the TWDB. Based on this input and our review of the draft projections, the following procedural changes are recommended:

- For existing facilities, use the highest use over the past ten years for each facility. This will provide representative demand during extreme hot weather, as experienced in the early 2010s.
- For facilities that have reached the end of their useful life and have recently been closed or decommissioned, the existing water supplies may be used by new facilities. Texas is growing and the need for greater electrical generation is high.
 - If a power provider retains the water right or contracted water for power generation, then include a demand equivalent to two-thirds (2/3) of the consumptive water right. The lower amount reflects a more water efficient replacement unit. However, the new power generation facility may be larger than the retired facility for less water demand.
 - If the water right is no longer retained, do not include future power demand at that location.

These changes will affect the following locations (Table 1). Table 1 shows the locations, water source and authorized consumption for power generation.

County	Power Company	Water Source	Water right	Consumptive amount (ac-ft/yr)
Fannin	NG Power	Valley Lake and Texoma Lake	CA-4900	10,000
Freestone	Big Brown	Fairfield Lake	CA-5040	14,150
Tarrant	Luminant	Eagle Mountain Lake	Contract 451, expires 2052	4,636

Table 1 Existing	Water Supplie	s for Retired	Facilities
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Memorandum on Draft Steam Electric Power Water Use Projections November 2, 2022 Page 5 of 14

For the other facilities noted retired by the TWDB, the water right for the North Lake Power Station was sold to the City of Coppell. It has retained its industrial purpose, but it will likely not be used for future power generation. The Brazos Electric Co-op facility in Parker County was on Lake Weatherford and received water from the City of Weatherford. It is no longer operating and is not expected to reinitiate operations.

Luminant holds the water rights for Forest Grove Reservoir and a contract for water from Cedar Creek Lake. However, Forest Grove Reservoir has never filled, and it is uncertain if it will be used for power generation in the future. The TWDB has no reported use for this facility over the past ten years and therefore did not consider future use in the projected demands. Since there is no active lake or power facility, the potential demands associated with the water right and contract are not included in the Region C projections.

In addition to the inclusion of the above facilities, we reviewed the steam electric power demand memorandum developed for the 2021 Region C Water Plan and correspondence with wholesale water providers. We identified several new or potential facilities that are not included in the TWDB draft demands. These include:

- Grayson (additional 2,439 ac-ft/yr): Navasota Energy Generation Holdings Van Alstyne Energy Center.
- Henderson (additional 2,060 ac-ft/yr): Halyard Energy Henderson, LLC Halyard Henderson Energy Center.

The Van Alstyne Energy Center is still in permitting and is expected to be constructed in 2022 – 2024³. The Halyard Energy Center appears to have been delayed for now.

Since the Region C area will continue to need power generation, it is recommended to include the Val Alystne Energy Center to be online by 2030 and the Halyard Henderson Energy Center to be online by 2040.

A comparison of the draft projections for the 2026 RWP (provided by TWDB), the final 2021 RWP projections, and the proposed RCWPG revisions to the 2026 SWP projections is presented in Table 2 and Figure 2.

³. <u>Van Alstyne Energy Center Power Plant, US (power-technology.com)</u>

County Name	2021 RWP Projections (ac-ft/yr)					Draft Projections for 2026 RWP (ac-ft/yr)						Recommended RWPG Revisions (ac-ft/yr)						
county Nume	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080
Collin	40	40	40	40	40	40	20	20	20	20	20	20	40	40	40	40	40	40
Cooke	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6
Dallas	1065	1065	1065	1065	1065	1065	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840
Denton	173	173	173	173	173	173	1,103	1,103	1,103	1,103	1,103	1,103	1,175	1,175	1,175	1,175	1,175	1,175
Ellis	901	901	901	901	901	901	1,854	1,854	1,854	1,854	1,854	1,854	1,854	1,854	1,854	1,854	1,854	1,854
Fannin	0	0	0	0	0	0	0	0	0	0	0	0	0	6,670	6,670	6,670	6,670	6,670
Freestone	34,432	34,432	34,432	34,432	34,432	34,432	4,831	4,831	4,831	4,831	4,831	4,831	4,831	14,269	14,269	14,269	14,269	14,269
Grayson	4,387	4,387	4,387	4,387	4,387	4,387	2,134	2,134	2,134	2,134	2,134	2,134	4,573	4,573	4,573	4,573	4,573	4,573
Henderson	3,709	3,709	3,709	3,709	3,709	3,709	70	70	70	70	70	70	132	2,192	2,192	2,192	2,192	2,192
Jack	3772	3772	3772	3772	3772	3772	3,772	3,772	3,772	3,772	3,772	3,772	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	9,793	9,793	9,793	9,793	9,793	9,793	9,793	9,793	9,793	9,793	9,793	9,793
Navarro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parker	604	604	604	604	604	604	0	0	0	0	0	0	0	0	0	0	0	0
Rockwall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tarrant	1157	4948	4948	4948	4948	4948	945	945	945	945	945	945	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	2,844	2,844	2,844	2,844	2,844	2,844	2,894	2,844	2,844	2,844	2,844	2,844
Total	62,932	66,723	66,723	66,723	66,723	66,723	29,212	29,212	29,212	29,212	29,212	29,212	32,067	53,277	53,277	53,277	53,277	53,277

Table 2. Comparison of Region C Steam Electric Power Demand Projections

Grey text indicates that the was no change from the TWDB Draft projections.

Figure 2. Region C Steam Electric Power – Comparison of Water Use Estimates, 2021 Region C Water Plan Projection, Proposed Projections, and Revised Projections



Attachment A Steam Electric Power Demand by County Historical Usage and Projections











