REGULAR MEETING
RIVERBEND WATER RESOURCES DISTRICT
PUBLIC NOTICE OF BOARD OF DIRECTORS' MEETING
WEDNESDAY, JULY 24, 2024
12:00 P.M.
228 TEXAS AVENUE, SUITE A, NEW BOSTON, TX 75570

Notice is hereby given pursuant to V.T.C.A., Government Code, Chapter 551, that the Board of Directors of the Riverbend Water Resources District will conduct a meeting; open to the public, on ***Wednesday, July 24, 2024, at 12:00 p.m.****, at the Riverbend Water Resources District ("Riverbend") office, in the Conference Room located at* ***228 Texas Avenue, Suite A, New Boston, TX 75570****.*

The Board of Directors is authorized by the Texas Open Meetings Act to convene in closed or executive session for certain purposes. These purposes include receiving legal advice from its attorney (Section 551.071); discussing real property matters (Section 551.072); discussing gifts and donations (Section 551.073); discussing personnel matters (Section 551.074); discussing security personnel or devices (Section 551.076); or discussing economic development matters (Section 551.087). If the Board of Directors makes a determination to go into executive session on any item on this agenda, the Presiding Officer will announce that an executive session will be held and will identify the item to be discussed and provision of the Open Meetings Act that authorizes the closed or executive session.

A G E N D A

I. CALL TO ORDER & ROLL CALL

II. INVOCATION & PLEDGE

III. PUBLIC COMMENTS

The Board of Directors allows individuals to speak to the Board. Prior to the meeting, speakers must sign in on the public comment sheet. The time limit is five (5) minutes per speaker.

IV. CONSENT AGENDA ITEMS

A. Discussion and possible action regarding the minutes for the June 26, 2024 Regular Meeting and the July 17, 2024 True-Up Workshop.

V. REGIONAL ENTITY REPORTS

A. Discussion and possible action regarding activities with Sulphur River Basin Authority.

B. Discussion and possible action regarding activities with TexAmericas Center.

C. Discussion and possible action regarding activities with REDI.

VI. AGENDA ITEMS FOR INDIVIDUAL CONSIDERATION

The Board of Directors will consider, discuss, and if appropriate, take action on the following item(s):

A. Discussion and possible action regarding approval of a resolution approving the third quarter FY 2024 Financial Statements.

Presentation of the third quarter FY 2024 Financial Statements will be by Tara Houck.

Action Item: Consider motion for approval of RESO 20240724-01 approving the third quarter FY 2024 Financial Statements.

B. Discussion and possible action regarding approval of a resolution approving the third quarter FY 2024 Investment Report.

Presentation of the third quarter FY 2024 Investment Report will be by Tara Houck.

Action Item: Consider motion for approval of RESO 20240724-02 approving the third quarter FY 2024 Investment Report.

C. Discussion and possible action regarding the City of Maud Service Contract True-Up.

RWRD and City of Maud staff met on Wednesday, July 17th, to discuss the True-Up to the water and wastewater services agreement. The proposed True-Up for FY 2024 results in an increase in the monthly contract amount for FY 25 of $3,295.14. This would bring the monthly contract invoice amount for FY 25 to $14,623.14. The board can act on approving the true-up at this meeting, but staff would request following the same process the board has followed historically with the TWU True-Up process. Typically, the board has chosen not to act until the September meeting when the RWRD budget is considered and approved.

Action item: Consider motion for approval of RESO 20240724-03 approving the FY 2024 City of Maud Service Contract True-Up for use in FY 2025.

D. Discussion and possible action regarding the Member Entities True Up for use in FY 2025.

TWU made their annual presentation of the Member Entities' True-Up report on Wednesday, July 17th. The proposed water production rate is shown to decrease from $1.2606/1000 Gallons used to $1.0895/1000 Gallons used. This is a 13.57% decrease overall. The administrative overhead cost is proposed to go from 6.72% to 6.49%. The board can act on approving the true-up at this meeting, but typically has chosen not to act until the September meeting when the RWRD budget is considered and approved.

Action item: Consider motion for approval of RESO 202430724-04 approving the Member Entities' True-Up for use in FY 2025.

E. Discussion regarding Regional Water Facility Fund Budget and Debt Service Rate for FY 2025.

Riverbend made the annual presentation of the Regional Water Treatment Facilities FY 25 Budget & Debt Service report on Wednesday, July 17th. The proposed debt service rate is shown to stay at the current rate for FY 25. The current rate is $2.40/1000 Gallons used. The board can act on approving the proposed debt service rate at this meeting, but typically has chosen not to act until the September meeting when the RWRD budget is considered and approved.

Action item: Consider motion for approval of RESO 202430724-05 approving the Regional Water Facility Fund Budget and Debt Service Rate for FY 2025.

F. Discussion and possible action regarding the approval of a resolution authorizing the Executive Director/CEO to execute an amendment to the contract with Carollo Engineering, LLC for technical consulting services for the 6th cycle of regional water planning on behalf of North East Texas Regional Water Planning Group (Region D).

At the October 25, 2023 RWRD Board meeting, the Board authorized the Executive Director to execute any amendment to the funding contract with the Texas Water Development Board (TWDB) for the 6th Cycle of regional water planning on behalf of the North East Texas Regional Water Planning Group (Region D). On May 20, 2024, an amendment to that contract was executed which made more funding available for remaining work on the 6th Cycle of regional water planning. TWDB, through three amendments, has adjusted the not to exceed total project cost amount to $1,332,006. $26,000 in funding is allocated to administrative expenses, so the amount available to the technical consultant is $1,306,006. This release of more funding through TWDB has led to the need to amend the contract RWRD has in place with Carollo Engineers, who are serving as the Technical Consultant for Region D. The current contract with Carollo Engineers was executed in September of 2021. The original amount of the contract was $200,691. The first amendment increased the amount of the contract to $580,747. This is the second amendment

to this contract, and would increase the contract by $725,259, taking the total contract amount to $1,306,006. Staff recommends approval.

Action Item: Consider motion for approval of RESO 20240724-06 authorizing the Executive Director/CEO to execute an amended contract with Carollo Engineers for technical consulting services for the 6th cycle of regional water planning on behalf of North East Texas Regional Water Planning Group.

VII. RIVERBEND REPORTS

A. Board Members

B. Executive Director/CEO

VIII. EXECUTIVE SESSION

The Board of Directors is authorized by the Texas Open Meetings Act to convene in closed or executive session for certain purposes. These purposes include receiving legal advice from its attorney (Section 551.071); discussing real property matters (Section 551.072); discussing gifts and donations (Section 551.073); discussing personnel matters (Section 551.074); discussing security personnel or devices (Section 551.076); or discussing economic development matters (Section 551.087). If the Board of Directors makes a determination to go into executive session on any item on this agenda, the Presiding Officer will announce that an executive session will be held and will identify the item to be discussed and provision of the Open Meetings Act that authorizes the closed or executive session.

IX. NEXT REGULAR MEETING

Riverbend Regular Meeting, August 28, 2024, at 12:00 p.m. at Riverbend Offices, 228 A Texas Avenue, New Boston, Texas 75570.

X. ADJOURNMENT

Kyle Dooley

Kyle Dooley, Executive Director/CEO
Riverbend Water Resources District

*Persons with disabilities who plan to attend the RWRD Board of Directors' meeting and who may need auxiliary aids or services are requested to contact the RWRD Administrative Offices at (903) 831-0091, as soon as possible. All reasonable efforts will be taken to make the appropriate arrangements.

CONSENT AGENDA ITEM IV. A.
June 26, 2024
Regular Meeting Minutes &
July 17, 2024
Special Called Workshop Minutes

REGULAR CALLED MEETING
RIVERBEND WATER RESOURCES DISTRICT
WEDNESDAY, JULY 24, 2024

Regular Minutes

Regular Called Meeting
Riverbend Water Resources District
Board Meeting Minutes
June 26, 2024

228 Texas Avenue, Suite A, New Boston, Texas 75570

M I N U T E S

I. Call to Order, Roll Call, and Establishment of Quorum and Certification of Notice

Pursuant to a notice posted on the District website, the Chair, Lynn Davis, Vice President of the Board, called the meeting to order at 12:06 p.m.

Directors Present:
Lynn Davis, Vice President
Sonja Hubbard, Treasurer
Van Alexander, Past President

Directors Absent:
Steve Mayo, President
Tina Veal-Gooch, Secretary

Administration Present:
Kyle Dooley, Executive Director/CEO
Eli Hunt, Director of Operations
Becky Melton, HR Manager/Executive Assistant

Public Present:

Please see the attached list for additional guests.

II. Invocation & Pledge

Lynn Davis led the invocation and the pledge of allegiance.

III. Public Comments

None.

IV. Consent Agenda Items

Item IV. A. was considered under a Consent Agenda for one single motion of approval.

A. Discussion and possible action regarding May 22, 2024 Regular Called Meeting minutes.

A motion was made by **Van Alexander** and seconded by **Sonja Hubbard** to approve the Consent Agenda Item as listed above. The motion passed unanimously.

VI. Regional Entity Reports

A. Discussion and possible action regarding activities with Sulphur River Basin Authority (SRBA).

David Weidmon, Executive Director, provided that their meeting was held yesterday. The board approved financials as well as the investment report. They also approved to amend the Clean Rivers program contract to quit taking an administrative reimbursement and put it into water quality monitoring. This will allow them to add two stations to the monitoring system. One will be at Lake Wright Patman. The board also approved amendments to the current budget as well as a draft version of the 2025 budget. They are also going to be participating in a small river authority legislative funding mission. The SRBA will work with the Angelina Neches River Authority, the Neches Red River Authority as well as the Upper Colorado River Authority to request $25 million in legislative funding to distribute over a five-year period to support planning and design for capital expenditures. The goal is to aid in the successful acquisition of necessary capital project funding. There are many entites within the basin that need the grants but they can not put together what is necessary to apply for the grant funding. This collaboration should increase chances of getting funding. No action taken.

B. Discussion and possible action regarding activities with TexAmericas Center (TAC).

Scott Norton, Executive Director, provided information on prospect activity. Eric Voyles, Executive Vice President, provided to the board that they currently have 137 prospects. The TAC footprint is the final site selection in Texas for 19 of those prospects. They are very close to closing on 3 of them. One of them is Operation Cobra, the plastic recycling company. They are waiting on a few more details to be finalized before they close. Operation Daphne, the solar panel project, has moved from leasing buildings to asking TAC to design a build-to-suit location. Operation Ozark is looking to purchase 58 acres from TAC for a chemical processing plant. TAC is one of two sites to choose from. No action taken.

C. Discussion and possible action regarding activities with Ar-Tex REDI.

Sonja Hubbard provided that they had a good meeting with Congressman Moran and Senator Hughes on moving forward with federal and state funding for the lengthening and strengthening of the runway at Texarkana Airport. No action taken.

VII. Agenda Items for Individual Consideration

No items to consider.

VIII. Riverbend Reports

A. Board Members

No reports.

B. Executive Director/CEO

Kyle Dooley provided the following updates:

Regional Water System Project: Kim Keefer with Pape Dawson provided the following update. The public meeting with Redwater to gain their concurrence for the pipeline alignment through an unused portion of the city park was a sticking point with the TWDB environmental reviewer. The Director and administrative Program Manager went to Redwater on May 20 to explain the plan to the city council and ask for their approval to use the back side if the park. On June 19, the City of Redwater agreed and Leo Whelchel endorsed the letter for TWDB. The Texas Historical Commission issued an Antiquities Permit for the alignment. This permit has strict guidelines for how to conduct the archeological investigation of the sites for pipeline and facilities. The schedule for fieldwork is to begin in mid-July with eight archeologists and an equipment operator. The location for testing will go from South of the TexAmericas Center to the USACE property at the lake edge. Finally, payment for the memorandum of agreement has been completed to USACE to begin the review of the Environmental Assessment needed for the Outgrant Lease of the USACE property. Kyle Dooley added that getting the payment instructions from USACE contributed to a lengthy delay in payment to start the review. This major milestone officially starts the coordination necessary to build the intake site and tunnel the raw water intake to the pump station. Another round of public meetings are required and will be scheduled with USACE personnel. While three good successes have occurred over the past 30 days, we are still diligently working to have TWDB recognize environmental due diligence has been met and detailed design is ready to begin. Our last hurdle before presenting our case to their environmental specialist is for USACE to concur on our use of a Nationwide Permit 58, Utility Crossing Waters of the United States. The program office would like to thank Tara Houck for her one day turnaround of key financial documents and payments over the past 45 days. Mr. Dooley provided further updates on bond issuance and closing as well as use of available funds. The timetable with the USACE has hindered us in getting the permits necessary to release official design funds, it has not delayed the project in moving forward. The TWDB met on June 12th and approved our request to extend the closure of the fourth round of bonds to August of 2026. We have closed on $125 million on the $200 million. Based on the way we will spend the funds once get the permitting finalized, we have enough funds to spend for 2 years on design. This extension is saving Riverbend added debt service payments and give us a little more time before we go up on the debt service rate. The last set of bonds were fully taxable, we believe this extension will allow us to use those taxable funds up and then open up the opportunity to have a 60/40 split between tax-exempt and taxable bonds in two years. Initial numbers show that the debt service rate could remain steady for a year instead of increasing as previously planned.

TexAmericas Center: The plastic recycling will be a water user comparable to the Army's water usage. They have switched gears from water cooling for their processes to using electric cooling. They will still be a big user but not as large as was initially planned.

Ultimate Rule Curve: The Programmatic Agreement has been signed, the environmental agreement is ready, the hydraulic and hydrological models are complete, the cultural resources study was awarded last month. There are 2 sets of calls. One call is dealing with environmental and cultural resources issues and the other is policy discussions covering any hurdles in finalizing an agreement implementing the ultimate rule curve. Up to this point, we have solely focused on the 180,000 acre feet to draw from Wright Patman. That corresponds with the storage that the Ultimate Rule Curve implementation gives us to store that water right. There is an additional 175,000 acre feet right available as well. Our thought has always been that those two need to be kept separate because there was confusion on the current 180K acre feet right established with the URC and then what would be the process to get the storage in place for the 175K acre feet from the USACE. The thought is that there would be a reallocation process to get up to 355K acre feet. The storage in Wright Patman is unique in that the lake yields more than the storage volume. Meaning we don't need 180K acre feet of storage volume to yield the 180K right that we have. This opens up a policy discussion regarding where our storage right will be parked in those elevations that they are already studying. Ultimately, we will have to have a discussion about the storage for the entirety of the 355K acre feet of water rights we will have. The fact that the Wright Patman storage availability is more than the water rights will make it interesting to see, within the high and low ends of the URC, how much storage will that yield beyond 180K acre feet.

Industrial Wastewater Plant: Now that the contract with the Army is finalized, Marti Shew with Hilltop Securities is reaching out to financial institutions, and she is hoping to have funding information available at the July meeting.

Member City True-Up: Documents will be ready for review close to July 10th. The True-Up meeting is scheduled for July 17th at 10am and the regular Riverbend Board meeting will be on July 24th at noon. Members will also receive the Riverbend debt service budget as well.

No action taken.

XI. Executive Session

The board stood at ease at 12:40 p.m.

The board reconvened in Executive Session at 12:45 p.m. with quorum pursuant to section 551.071 and 551.072 of the Texas Open Meetings Act.

The board came out of Executive Session at 1:30 p.m.

The board reconvened with quorum at 1:45 p.m.

X. Next Riverbend Meetings

Riverbend Regular Meeting, Wednesday, July 24, 2024 at 12:00 p.m. at Riverbend Offices, 228 A Texas Avenue, New Boston, Texas 75570.

XI. Adjournment

With no additional business to be discussed, the meeting adjourned at 1:45 p.m.

The minutes of the Riverbend Water Resources District Board of Directors meeting, held on June 26, 2024 were read and approved on the 24th day of July, 2024.

_____

Steve Mayo, President

Attest:

_____

Kyle Dooley, Executive Director/ CEO

REGULAR CALLED MEETING
RIVERBEND WATER RESOURCES DISTRICT
WEDNESDAY, JULY 24, 2024

True-Up Minutes

Special Called Meeting
Riverbend Water Resources District
Work Session Minutes
July 17, 2024

Riverbend Water Resources District
228 Texas Ave, Suite A, New Boston, TX 75570

M I N U T E S

I. Call to Order, Roll Call, and Establishment of Quorum and Certification of Notice

Pursuant to a notice posted on the District website, the Chair, Steve Mayo, President of the Board, called the meeting to order at 10:03 a.m.

Directors Present:
Steve Mayo, President
Lynn Davis, Vice President
Tina Veal-Gooch, Secretary
Sonja Hubbard, Treasurer

Directors Absent:
Van Alexander, Past President

Administration Present:
Kyle Dooley, Executive Director/CEO
Tara Houck, Chief Financial Officer
Eli Hunt, Operations Manager
Becky Melton, Executive Assistant/HR Manager

Public Present:
See attached list.

II. Invocation & Pledge

Kyle Dooley led the invocation and Pledge of Allegiance.

III. Agenda Items for Individual Consideration

A. Presentation and discussion regarding the Regional Water System Facilities Fund Budget and Project Update.

Tara Houck presented the Regional Water System Facilities Fund Budget for review.

Kyle Dooley presented an update on the Regional Water System project. The debt service rate will not increase for FY 2025. The Texas Water Development Board (TWDB) granted our request to extend the closure on the last set of bonds until August 31, 2026. The reason for this request was that the timetable for the US Army Corps of

Engineers completing our permitting has not lined up with the timetable needed by TWDB to release funds for design and planning. This delay in closing on the bonds will allow for a savings on bond interest and has led to the decision not to increase the debt service rate for FY 2025. Design is still moving forward. We are setting aside funds for arbitrage that will be covered by the interest income we have earned. The presented debt service pro-forma has been set very conservative. The growth rate has been basically kept flat, the usage numbers are also being kept in line with the TWU calculations. The pro-forma projects the debt out to 2057 but the most accurate calculations are within a 5-year window. Each year, as our local economy grows, we would see usage amounts as well as debt service change as well. For example, if a 3-5 million gallons per day user moves into our service area, that could lower and even cap the debt service rate to $4.20-$4.80 per 1000 gallons. The implementation of the Ultimate Rule Curve is still ongoing. The application for the new water right is administratively complete at the Texas Commission for Environmental Quality (TCEQ) but there is still an outstanding protest involving that application. The Corps has awarded the contract for the Cultural Resources Study. Preliminary wording in the FY25 Energy and Water Development Bill showed Riverbend has been placed on the tentative list to receive Texas EIP funds or $2.5 million to use on our project. We feel like there may be more Texas EIP funds available if the ceiling increases from $80 million to $200 million. The possibility of a fluoride injection is still up for discussion. Kyle, Steve Mayo, and Dr. Shambarger have visited with member entities to inform citizens about the possibility of having one in this new system. The offer was extended to the attendees that the offer still stands to have them visit to discuss it further.

No action taken.

B. Presentation and discussion of Member Cities' True-Up for use in FY 2025.

Gary Smith, of Texarkana Water Utilities (TWU), provided information specific to completed, ongoing, and future projects for both the Wright Patman Lake System as well as the Millwood Lake System. One project covered was the widening of Highway 82 to relocate the water main. The cost estimate for the project is $6-7 million with a required completion by January 2026. TWU will begin construction on a section of the highway west of De Kalb, Texas to the Red River County line in the Spring of 2025 and it should be completed by the end of the Summer of 2025.

Tricia Briggs, also of TWU, presented the Member Entities' True-up for use in FY 2025. The rate will be decreasing for FY 2025 and is quite likely to increase for 2026. Gary Smith made mention that if the member entities continue to pay the current True-Up rate, the extra funds would be allocated to further pay down the debt associated with the widening of Highway 82.

Kyle Dooley requested that any questions related to the True-Up, be directed to him and he will relay those questions to TWU for a response. He is also available to answer any questions related to the new water facility project and the Facility Fund Budget.

No action taken.

IV. Riverbend Reports

A. Board Members

No reports.

B. Executive Director/CEO

Kyle Dooley informed the Riverbend board and the guests present that the True-Up document as well as the Regional Water Facility debt rate will be reviewed at future board meetings until it is considered for a vote by the Riverbend board at a regular board meeting to be held on September 25, 2024.

V. Next Riverbend Meetings & Activities:

Riverbend Regular Meeting, Wednesday, July 24, 2024, at 12:00 p.m. at Riverbend Offices.

VI. Adjournment

With no additional business to be discussed, a motion to adjourn the meeting at 11:16 a.m. was made by Lynn Davis and seconded by Tina Veal Gooch.

The minutes of this Special Called Riverbend Water Resources District Board of Directors meeting on July 17, 2024 were read and approved on the 24th day of July 2024.

_____

Steve Mayo, President

Attest:

_____

Kyle Dooley, Executive Director/CEO

AGENDA ITEM VI. A.
RWRD RESO 20240724-01
Third Quarter FY 2024
Financial Statements

RIVERBEND RESOLUTION NO. 20240724-01

APPROVING THE 3rd QUARTER FY 2024 FINANCIAL STATEMENTS

WHEREAS, Riverbend Water Resources District is a conservation and reclamation district created under and essential to accomplish the purposes of Section 59 Article XVI, Texas Constitution, existing pursuant to and having the powers set forth in Chapter 9601 of the Special District Local Laws Code of the State of Texas; and

WHEREAS, Riverbend Water Resources District Board of Directors accepts and approves quarterly financial statements, which provide for the fiduciary guidance of Riverbend Water Resources funds.

NOW, THEREFORE, BE IT RESOLVED that the Riverbend Water Resources District accepts and approves the 3rd Quarter FY 2024 financials.

PASSED and APPROVED this 24th day of July 2024

_____
Steve Mayo, President

ATTEST:

_____
Tina Veal Gooch, Secretary

Attached: Third Quarter FY 2024 Financial Statements

RIVERBEND WATER RESOURCES DISTRICT

STATEMENT OF NET POSITION
ENTERPRISE FUNDS
JUNE 30, 2024

	Regional Water System Administration Fund	*Regional Water System Facilities Fund*	*Wet Utilities Fund*	***Total***
ASSETS				
Current assets:				
Cash and cash equivalents	$ 143,908	$ -	$ 1,298,278	$ 1,442,186
Accounts receivable	21,852	749,179	488,197	1,259,228
Interest receivable	-	647,814	-	647,814
Interfund accounts	28,821	-	51,452	80,273
Restricted assets:				
Cash and cash equivalents restricted for bond debt reserves	-	5,531,899	676,022	6,207,921
Cash and cash equivalents restricted for construction	-	69,503,089	20,049	69,523,138
Investments restricted for construction	-	39,624,920	-	39,624,920
Cash and cash equivalents restricted for operations	-	-	906,735	906,735
Prepaid expenses	-	-	53,873	53,873
Inventories	-	-	82,645	82,645
Total current assets	194,581	116,056,901	3,577,251	119,828,733
Noncurrent assets:				
Cash and cash equivalents - restricted for bond debt reserves	-	5,126,781	4,125,283	9,252,064
Right to Use Subscription asset (net of accumulated amortization)	-	-	43,952	43,952
Capital assets (net of accumulated depreciation):				
Equipment	-	-	397,912	397,912
Utility system	-	-	14,887,667	14,887,667
Intangible assets	-	-	236,789	236,789
Construction in progress	-	21,333,138	27,335	21,360,473
Total capital assets	-	21,333,138	15,549,703	36,882,841
Total noncurrent assets	-	26,459,919	19,718,938	46,178,857
TOTAL ASSETS	194,581	142,516,820	23,296,189	166,007,590
LIABILITIES				
Current liabilities:				
Accounts payable	5,291	1,385,721	67,794	1,458,806
Payroll liabilities	-	-	36,156	36,156
Interfund accounts	51,452	28,821	-	80,273
Due to North East Texas Regional Water Planning Group	3,775	-	-	3,775
Accrued interest payable	-	442,677	52,623	495,300
Accrued compensated absences - current portion	-	-	22,667	22,667
Subscription liability - current portion	-	-	22,487	22,487
Revenue bonds payable - current portion	-	3,440,000	430,000	3,870,000
Total current liabilities	60,518	5,297,219	631,727	5,989,464
Long-term liabilities:				
Accrued compensated absences - long term	-	-	62,622	62,622
Subscription liability - long term	-	-	-	-
Revenue bonds payable - long term	-	115,855,000	6,165,000	122,020,000
Total long-term liabilities	-	115,855,000	6,227,622	122,082,622
TOTAL LIABILITES	60,518	121,152,219	6,859,349	128,072,086
NET POSITION				
Net investment in capital assets	-	9,779,012	9,886,909	19,665,921
Restricted for bond reserves	-	11,612,997	4,808,054	16,421,051
Restricted for construction	-	1,413	20,049	21,462
Unrestricted	134,063	(28,821)	1,721,828	1,827,070
TOTAL NET POSITION	$ 134,063	$ 21,364,601	$ 16,436,840	$ 37,935,504

RIVERBEND WATER RESOURCES DISTRICT

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN FUND NET POSITION
ENTERPRISE FUNDS
FOR THE NINE MONTHS ENDED JUNE 30, 2024

	Regional Water System Administration Fund	*Regional Water System Facilities Fund*	*Wet Utilities Fund*	*Total*
OPERATING REVENUES				
Charges for services:				
Member fees	$ 153,276	$ -	$ -	$ 153,276
Army volumetric charge	-	-	2,481,129	2,481,129
Army water supply charge	-	-	172,050	172,050
Commercial and residential charge	-	-	185,163	185,163
Infrastructure Services	-	-	93,784	93,784
Other revenue	-	-	21,390	21,390
Total operating revenues	153,276	-	2,953,516	3,106,792
OPERATING EXPENSES				
Accounting and audit	4,200	-	-	4,200
Analyticals	-	-	107,863	107,863
Capital replacement	-	-	206,643	206,643
Community relations	3,649	-		3,649
Conferences & seminars	2,866	-	-	2,866
Consulting	137,411	-	21,390	158,801
Dues and memberships	7,385	-	-	7,385
Engineering services	10,009	-	-	10,009
Equipment maintenance, repair and fuel	-	-	24,796	24,796
Equipment rental	-	-	(9,945)	(9,945)
Insurance	-	-	49,867	49,867
Legal and professional fees	6,314	-	-	6,314
Materials	-	-	128,315	128,315
Meetings expense	3,039	-	-	3,039
Military affairs	8,250	-	-	8,250
Permits	-	-	28,292	28,292
Repairs	-	-	95,671	95,671
Salaries, wages, payroll taxes and benefits	148,018	-	827,032	975,050
Supplies	987	-	35,949	36,936
Travel and training	7,926	-	-	7,926
Utilities	-	-	141,078	141,078
Waste disposal	-	-	18,897	18,897
Water purchase cost	-	-	312,763	312,763
Web design and maintenance	853	-	-	853
Infrastructure services	-	-	128,670	128,670
Overhead allocation - water	-	-	163,676	163,676
Overhead allocation - wastewater	-	-	177,897	177,897
Overhead allocation - industrial wastewater	-	-	179,355	179,355
Total operating expenses before depreciation	340,907	-	2,638,209	2,979,116
Operating income (loss) before depreciation	(187,631)	-	315,307	127,676
Depreciation	-	-	653,999	653,999
Operating income (loss)	(187,631)	-	(338,692)	(526,323)
NONOPERATING REVENUES (EXPENSES)				
Facility charges revenue	-	-	1,113,210	1,113,210
Minimum monthly payments	-	7,406,732	-	7,406,732
Interest revenue	3	3,451,255	110,946	3,562,204
Project admin fees	-	-	16,358	16,358
Unrealized gain (loss) on investment	-	936,503	-	936,503
Gain/(Loss) on disposal of assets	-	-	10,560	10,560
Interest expense	-	(1,595,633)	(190,553)	(1,786,186)
Finance and wire fees	-	(8,112)	-	(8,112)
Franchise fees expense	-	-	(76,041)	(76,041)
Special projects expense	(27,362)	-	-	(27,362)
Total nonoperating revenues (expenses)	(27,359)	10,190,745	984,480	11,147,866
Income (loss) before transfers	(214,990)	10,190,745	645,788	10,621,543
Transfers in (out)	230,000	-	(230,000)	-
Changes in net position	15,010	10,190,745	415,788	10,621,543
Net position, beginning of year	119,053	11,173,856	16,021,052	27,313,961
Net position, end of 3rd quarter	$ 134,063	$ 21,364,601	$ 16,436,840	$ 37,935,504

RIVERBEND WATER RESOURCES DISTRICT

SUPPLEMENTARY INFORMATION
BUDGETARY COMPARISON SCHEDULE
REGIONAL WATER SYSTEM ADMINISTRATION
FOR THE NINE MONTHS ENDED JUNE 30, 2024

	Budget	*Actual*	*Variance with Budget*	% of Budget
OPERATING REVENUES				
Charges for services	$ 221,158	$ 153,276	$ (67,882)	69.31%
Total operating revenues	221,158	153,276	(67,882)	69.31%
OPERATING EXPENSES				
Advertising	1,200	-	1,200	0.00%
Accounting & audit	5,000	4,200	800	84.00%
Community relations	8,000	3,649	4,351	45.61%
Conferences & seminars	4,700	2,866	1,834	60.98%
Consulting	200,000	137,411	62,589	68.71%
Dues & memberships	9,083	7,385	1,698	81.31%
Engineering services	20,000	10,009	9,991	50.05%
Legal & professional fees	27,500	6,314	21,186	22.96%
Meetings expense	6,000	3,039	2,961	50.65%
Military affairs	11,000	8,250	2,750	75.00%
Miscellaneous	100	-	100	0.00%
Office supplies & expense	4,100	987	3,113	24.07%
Regional planning projects	60,000	-	60,000	0.00%
Salaries, wages & benefits	196,376	148,018	48,358	75.37%
Travel & training	18,000	7,926	10,074	44.03%
Web design & maintenance	4,000	853	3,147	21.33%
Total operating expenses	575,059	340,907	234,152	59.28%
NONOPERATING REVENUES (EXPENSES)				
Interest revenue	100	3	(97)	3.00%
Special projects expense	(90,000)	(27,362)	62,638	30.40%
Total nonoperating revenues (expenses)	(89,900)	(27,359)	62,541	-30.43%
Income (loss) before transfers	(443,801)	(214,990)	(228,811)	48.44%
Transfer in	280,000	230,000	(50,000)	82.14%
Use of prior year equity	119,053	-	(119,053)	0.00%
Additional transfer in if necessary	44,748	-	44,748	0.00%
Change in net position	(119,053)	15,010	(234,063)	130.59%
Net position, beginning of year	119,053	119,053	-	100.00%
Net position, end of 3rd quarter	$ -	$ 134,063	$ (234,063)	

RIVERBEND WATER RESOURCES DISTRICT

SUPPLEMENTARY INFORMATION
BUDGETARY COMPARISON SCHEDULE
REGIONAL WATER SYSTEM FACILITIES FUND
FOR THE NINE MONTHS ENDED JUNE 30, 2024

	Budget	*Actual*	*Variance with Budget*	% of Budget
OPERATING REVENUES				
Charges for services	$ -	$ -	$ -	
Total operating revenues	-	-	-	
OPERATING EXPENSES				
Expenses	-	-	-	
Total operating expenses	-	-	-	
Operating income (loss)	-	-	-	
NONOPERATING REVENUES (EXPENSES)				
Minimum monthly payments	8,617,448	7,406,732	(1,210,716)	85.95%
Interest Revenue	1,385,180	3,451,255	2,066,075	249.16%
Interest Expense	(2,104,132)	(1,595,633)	508,499	75.83%
Finance and wire fees	(2,000)	(8,112)	(6,112)	405.60%
Unrealized Gain/(Loss) on Investments	-	936,503	936,503	
Bond Issuance Costs	(1,492,000)	-	1,492,000	0.00%
Total nonoperating revenues (expenses)	6,404,496	10,190,745	3,786,249	159.12%
Change in net position before transfers	6,404,496	10,190,745	3,786,249	159.12%
Net position, beginning of year	$ 11,173,856	11,173,856	-	100.00%
Net position, end of 3rd quarter	$ 17,578,352	$ 21,364,601	$ 3,786,249	121.54%

RIVERBEND WATER RESOURCES DISTRICT

SUPPLEMENTARY INFORMATION
COMPARISON SCHEDULE
WET UTILITIES FUND
FOR THE NINEMONTHS ENDED JUNE 30, 2024

	Budget	*Actual*	*Variance with Budget*	% of Budget
OPERATING REVENUES				
Charges for services	$ 3,936,106	$ 2,932,126	$ (1,003,980)	74.49%
Other revenue	20,000	21,390	1,390	106.95%
Total operating revenues	3,956,106	2,953,516	(1,002,590)	74.66%
OPERATING EXPENSES				
Analytical	150,000	107,863	42,137	71.91%
Capital replacement	270,000	206,643	63,357	76.53%
Consulting	60,000	21,390	38,610	35.65%
Equipment maintenance, repair & fuel	52,000	24,796	27,204	47.68%
Equipment rental	11,000	(9,945)	20,945	-90.41%
Insurance	70,239	49,867	20,372	71.00%
Materials	253,200	128,315	124,885	50.68%
Miscellaneous	2,000	-	2,000	0.00%
Permits	50,500	28,292	22,208	56.02%
Repairs	280,500	95,671	184,829	34.11%
Salaries, wages, payroll taxes & benefits	1,186,390	827,032	359,358	69.71%
Supplies & materials	79,100	35,949	43,151	45.45%
Utilities	198,000	141,078	56,922	71.25%
Waste disposal	56,000	18,897	37,103	33.74%
Water purchase cost	322,000	312,763	9,237	97.13%
Infrastructure services	123,181	128,670	(5,489)	104.46%
Overhead allocation - water	204,452	163,676	40,776	80.06%
Overhead allocation - wastewater	222,216	177,897	44,319	80.06%
Overhead allocation - industrial wastewater	224,038	179,355	44,683	80.06%
Total operating expenses	3,814,816	2,638,209	1,176,607	69.16%
Operating income (loss) before depreciation	141,290	315,307	174,017	223.16%
Depreciation	844,500	653,999	190,501	77.44%
Operating income (loss)	(703,210)	(338,692)	364,518	-48.16%
NONOPERATING REVENUES (EXPENSES)				
Facility charges revenues	1,504,031	1,113,210	(390,821)	74.02%
Interest revenue	108,040	110,946	2,906	102.69%
Project Admin Fees	18,321	16,358	(1,963)	89.29%
Gain/(Loss) on disposal of assets	10,560	10,560	-	100.00%
Interest expense	(254,786)	(190,553)	64,233	74.79%
Franchise fees expense	(106,717)	(76,041)	30,676	71.25%
Total nonoperating revenues (expenses)	1,279,449	984,480	(294,969)	76.95%
Income (loss) before transfers	576,239	645,788	69,549	112.07%
Transfers in (out)	(280,000)	(230,000)	50,000	82.14%
Change in net position	296,239	415,788	119,549	140.36%
Net position, beginning of year	16,021,052	16,021,052	-	100.00%
Net position, end of 3rd quarter	$ 16,317,291	$ 16,436,840	$ 119,549	100.73%

RIVERBEND WATER RESOURCES DISTRICT

COMPARATIVE STATEMENT OF REVENUES, EXPENSES, AND CHANGE IN NET POSITION
WATER SYSTEM ADMINISTRATION
FOR THE NINE MONTHS ENDED JUNE 30, 2024

	June 30, 2024	*June 30, 2023*	*$ Change*	% Change
OPERATING REVENUES				
Charges for services:				
Member fees	$ 153,276	$ 140,522	$ 12,754	9.08%
Total operating revenues	153,276	140,522	12,754	9.08%
OPERATING EXPENSES				
Accounting & audit	4,200	4,960	(760)	-15.32%
Community relations	3,649	3,099	550	17.75%
Conferences & seminars	2,866	1,529	1,337	87.44%
Consulting	137,411	137,111	300	0.22%
Dues & memberships	7,385	8,041	(656)	-8.16%
Engineering Services	10,009	4,625	5,384	116.41%
Legal & professional fees	6,314	-	6,314	
Meetings expense	3,039	4,063	(1,024)	-25.20%
Military affairs	8,250	-	8,250	
Office supplies and expense	987	583	404	69.30%
Salaries, wages, payroll taxes & benefits	148,018	133,215	14,803	11.11%
Travel & training	7,926	8,657	(731)	-8.44%
Web design & maintenance	853	1,681	(828)	-49.26%
Total operating expenses	340,907	307,564	33,343	10.84%
Operating income (loss) before depreciation	(187,631)	(167,042)	(20,589)	-12.33%
Depreciation	-	-	-	
Operating income (loss)	(187,631)	(167,042)	(20,589)	12.33%
NONOPERATING REVENUES (EXPENSES)				
Interest revenue	3	47	(44)	-93.62%
Special projects expense	(27,362)	(12,500)	(14,862)	118.90%
Total nonoperating revenues (expenses)	(27,359)	(12,453)	(14,906)	-119.70%
Income (loss) before transfers	(214,990)	(179,495)	(35,495)	-19.77%
Transfers in (out)	230,000	230,000	-	-
Change in net position	15,010	50,505	(35,495)	70.28%
Net position, beginning of year	119,053	121,417	(2,364)	-1.95%
Net position, end of 3rd quarter	$ 134,063	$ 171,922	$ (37,859)	-22.02%

RIVERBEND WATER RESOURCES DISTRICT

COMPARATIVE STATEMENT OF REVENUES, EXPENSES, AND CHANGE IN NET POSITION
REGIONAL WATER SYSTEM FACILITIES FUND
FOR THE NINE MONTHS ENDED JUNE 30, 2024

	June 30, 2024	*June 30, 2023*	*$ Change*	% Change
OPERATING REVENUES				
Charges for services:	-	-	-	
Total operating revenues	-	-	-	
OPERATING EXPENSES				
Regional Water System capital outlay	-	-	-	
Total operating expenses	-	-	-	
Operating income (loss) before bond proceeds	-	-	-	
Bond Proceeds	-	-	-	
Operating income (loss)	-	-	-	-
NONOPERATING REVENUES (EXPENSES)			-	
Minimum monthly payments	7,406,732	3,261,241	4,145,491	127.11%
Interest Revenue	3,451,255	1,904,537	1,546,718	81.21%
Unrealized gain (loss) on investment	936,503	318,605	617,898	193.94%
Interest Expense	(1,595,633)	(1,034,687)	(560,946)	54.21%
Finance and wire fees	(8,112)	(1,497)	(6,615)	441.88%
Total nonoperating revenues (expenses)	10,190,745	4,448,199	5,742,546	129.10%
Income (loss) before capital contributions and transfe	10,190,745	4,448,199	5,742,546	129.10%
Transfers in (out)	-	-	-	0.00%
Net position, beginning of year	11,173,856	5,264,060	5,909,796	112.27%
Net position, end of 3rd quarter	$ 21,364,601	$ 9,712,259	$ 11,652,342	119.98%

RIVERBEND WATER RESOURCES DISTRICT

COMPARATIVE STATEMENT OF REVENUES, EXPENSES, AND CHANGE IN NET POSITION
WET UTILITIES FUND
FOR THE NINE MONTHS ENDED JUNE 30, 2024

	June 30, 2024	*June 30, 2023*	*$ Change*	% Change
OPERATING REVENUES				
Charges for services:				
Army volumetric charge	$ 2,481,129	$ 2,306,063	$ 175,066	7.59%
Army water supply charge	172,050	178,305	(6,255)	-3.51%
Commercial & residential charge	185,163	153,752	31,411	20.43%
Infrastructure services	93,784	85,114	8,670	10.19%
Other revenue	21,390	20,713	677	3.27%
Total operating revenues	2,953,516	2,743,947	209,569	7.64%
OPERATING EXPENSES				
Accounting and audit	-	-	-	
Analyticals	107,863	79,028	28,835	36.49%
Capital Replacment	206,643	141,004	65,639	46.55%
Consulting	21,390	4,549	16,841	370.21%
Equipment maintenance, repair & fuel	24,796	30,875	(6,079)	-19.69%
Equipment rental	(9,945)	169	(10,114)	-5984.62%
Insurance	49,867	42,207	7,660	18.15%
Materials	128,315	155,399	(27,084)	-17.43%
Permits	28,292	32,118	(3,826)	-11.91%
Repairs	95,671	135,233	(39,562)	-29.25%
Salaries, wages, payroll taxes & benefits	827,032	716,178	110,854	15.48%
Supplies & materials	35,949	51,152	(15,203)	-29.72%
Utilities	141,078	138,535	2,543	1.84%
Waste disposal	18,897	28,026	(9,129)	-32.57%
Water purchase cost	312,763	277,926	34,837	12.53%
Infrastructure services	128,670	93,394	35,276	37.77%
Overhead allocation - water	163,676	150,858	12,818	8.50%
Overhead allocation - wastewater	177,897	163,966	13,931	8.50%
Overhead allocation - industrial wastewater	179,355	165,311	14,044	8.50%
Total operating expenses	2,638,209	2,405,928	232,281	9.65%
Operating income (loss) before depreciation	315,307	338,019	(22,712)	-6.72%
Depreciation	653,999	626,668	27,331	4.36%
Operating income (loss)	(338,692)	(288,649)	(50,043)	17.34%
NONOPERATING REVENUES (EXPENSES)			-	
Facility charges revenue	1,113,210	1,097,433	15,777	1.44%
Interest revenue	110,946	48,338	62,608	129.52%
Project admin fees	16,358	10,078	6,280	62.31%
Interest expense	(190,553)	(189,890)	(663)	0.35%
Gain/(Loss) on disposal of assets	10,560	25,887	(15,327)	
Franchise fees expense	(76,041)	(79,259)	3,218	-4.06%
Total nonoperating revenues (expenses)	984,480	912,587	71,893	7.88%
Income (loss) before transfers	645,788	623,938	21,850	3.50%
Transfers in (out)	(230,000)	(230,000)	-	0.00%
Change in net position	415,788	393,938	21,850	5.55%
Net position, beginning of year	16,021,052	14,917,818	1,103,234	7.40%
Net position, end of 3rd quarter	$ 16,436,840	$ 15,311,756	$ 1,125,084	7.35%

AGENDA ITEM VI. B.
RWRD RESO 20240724-02
Third Quarter FY 2024
Investment Report

RIVERBEND RESOLUTION NO. 20240724-02

APPROVING THE 3rd QUARTER FY 2024 INVESTMENT REPORT

WHEREAS, Riverbend Water Resources District is a conservation and reclamation district created under and essential to accomplish the purposes of Section 59 Article XVI, Texas Constitution, existing pursuant to and having the powers set forth in Chapter 9601 of the Special District Local Laws Code of the State of Texas; and

WHEREAS, Riverbend Water Resources District has adopted an Investment Policy as required by law to manage the funds of Riverbend Water Resources District; and

WHEREAS, the Investment Policy Reporting Section XIII requires that the Investment Officer prepare and sign a quarterly investment report that includes activity on all interest-bearing accounts held by Riverbend Water Resources District.

NOW, THEREFORE, BE IT RESOLVED that the Riverbend Water Resources District accepts and approves the 3rd Quarter FY 2024 Investment Report.

PASSED and APPROVED this 24th day of July 2024

_____
Steve Mayo, President

ATTEST:

_____
Tina Veal Gooch, Secretary

Attached: Third Quarter FY 2024 Investment Report

RIVERBEND WATER RESOURCES DISTRICT

SCHEDULE OF INVESTMENTS
ENTERPRISE FUNDS
For the Three Months Ended June 30, 2024

Funds	Identification Number	Maturity Date	Balance 03/31/24	Interest Income 06/30/24	Transfers In/(Out) Per Policy	Net Deposits/ Withdrawals	Balance 06/30/24	Accrued Int Rec 06/30/24
Administrative Fund								
Operations	50003704	Daily checking	$ 45,977	$ -	$ (6,400)	95,530	$ 135,107	$ -
Restricted - Region D Planning	8009740	Money Market	3,771	-	-	4	3,775	-
Operations	457060	Daily savings	5,025	1	-	1	5,026	-
Wet Utilities Fund								
Operations	21695	Daily checking	1,004,029	-	(558,383)	851,216	1,296,862	-
Restricted bond sinking	21709	Daily checking	3,717,915	28,801	569,797	(126,393)	4,190,120	-
Restricted bond reserves	21217	Daily checking	611,199	4,550	(4,566)	1	611,184	-
Restricted construction funds	21741	Daily checking	20,073	51	(75)	-	20,049	-
Restricted operations	21733	Money Market	906,758	6,750	(6,773)	-	906,735	-
Regional Water System Facilities Fund								
Restricted - Minimum Monthly Payments	3011380	Daily Savings	647,907	45	(2,728,747)	2,823,086	742,291	-
Restricted - 2020A Construction	2037890	Money Market	500	12	283,694	(283,710)	496	-
Restricted - 2020B Construction	50022709	Money Market	916	76	651,101	(651,176)	917	
Restricted - 2020A Revenue	8009732	Money Market	715,597	1,436	1,773,685	0	2,490,718	-
Restricted - 2020B Revenue	8009716	Money Market	1,979,807	2,165	2,634,485	(1,679,424)	2,937,033	-
Restricted - 2020A Interest & Redemption	8009813	Money Market	3,992,613	2,691	-	(1,034,496)	2,960,808	-
Restricted - 2020B Interest & Redemption	8009724	Money Market	1,637,916	1,344	-	(111,429)	1,527,831	-
Restricted - 2020A Construction Escrow	82-4416-01-0	Bot Short-Term Cash Fund	811,088	9,566	(192,503)	761	628,912	2,707
Restricted - 2020B Construction Escrow	82-4405-01-3	Bot Short-Term Cash Fund	2,401,109	13,413	(2,063,009)	298,785	650,298	2,849
Restricted - 2022A Construction Escrow	82-5428-01-4	Bot Short-Term Cash Fund	23,057,004	359,719	(91,191)	8,670,130	31,995,662	132,594
Restricted - 2022B Construction Escrow	82-5429-01-2	Bot Short-Term Cash Fund	16,249,926	245,184	(261,115)	5,490,287	21,724,282	89,845
Restricted - 2023A Construction Escrow	82-6356-01-6	Bot Short-Term Cash Fund	8,406,530	106,298	-	742	8,513,570	35,208
Restricted - 2023B Construction Escrow	82-6357-01-4	Bot Short-Term Cash Fund	5,913,653	72,776	-	2,522	5,988,951	24,768
Restricted - 2022A Construction Escrow	82-5428-01-4	U.S. Treasury Notes	32,017,572	245,184	-	(8,487,804)	23,774,952	215,906
Restricted - 2022B Construction Escrow	82-5429-01-2	U.S. Treasury Notes	21,344,381	176,100	-	(5,670,513)	15,849,968	143,937
Total - All Funds			$ 125,491,266	$ 1,276,160	$ -	$ 188,122	$ 126,955,547	$ 647,814

The investment schedule of Riverbend Water Resources District is in compliance with the Public Funds Investment Act and the District's Investment Policy.

Tara Houck, CPA
Chief Financial Officer

AGENDA ITEM VI. C.
RWRD RESO 20240724-03
City of Maud True-Up

RIVERBEND RESOLUTION NO. 20240724-03

ADOPTING THE FY 2025 CITY OF MAUD SERVICE CONTRACT TRUE-UP

WHEREAS, Riverbend Water Resources District is a conservation and reclamation district created under and essential to accomplish the purposes of Section 59 Article XVI, Texas Constitution, existing pursuant to and having the powers set forth in Chapter 9601 of the Special District Local Laws Code of the State of Texas; and

WHEREAS, the City of Maud, Texas formed in 1941 is a General Law Municipality operating under an aldermanic form of government consisting of a mayor and five aldermen in accordance with applicable state statutes, serving a current population of 1,056 residents based on the most recent 2010 Census; and

WHEREAS, Riverbend Water Resources District and the City of Maud, Texas entered into interlocal water and wastewater services agreements on April 18, 2023 and October 1, 2022 respectively; and

WHEREAS, in compliance with the water and wastewater agreements, Riverbend Water Resources District held a meeting on July 17, 2024 at the Riverbend offices to discuss the True-Up Process and new contract amounts with the City of Maud, Texas.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Riverbend Water Resources District hereby adopts the FY 2025 City of Maud Service Contract True-Up.

PASSED and APPROVED this 24th day of July 2024

_____
Steve Mayo, President

ATTEST:

_____
Tina Veal Gooch, Secretary

Attached: 2025 City of Maud Service Contract True-Up Documents

RIVERBEND WATER RESOURCES DISTRICT

Fiscal Year 24 Maud Water and Waste Water True Up

	Waste Water	Billed	Difference	Water	Billed	Difference		Total
FY 24	Actual	Contract Cost	Actual vs.	Actual	Contract Cost	Actual vs.		Over/Under
Month	Cost	Waste Water	Billed	Cost	Water	Billed		Billed
Jun-23	$11,111.18	$9,583.00	$1,528.18	$831.77	$1,745.00	($913.23)		$614.95
Jul-23	$11,119.51	$9,583.00	$1,536.51	$88.00	$1,745.00	($1,657.00)		($120.49)
Aug-23	$24,477.19	$9,583.00	$14,894.19	$19.65	$1,745.00	($1,725.35)		$13,168.84
Sep-23	$8,306.30	$9,583.00	($1,276.70)	$182.00	$1,745.00	($1,563.00)		($2,839.70)
Oct-23	$12,100.56	$9,583.00	$2,517.56	$792.45	$1,745.00	($952.55)		$1,565.01
Nov-23	$10,575.57	$9,583.00	$992.57	$1,577.09	$1,745.00	($167.91)		$824.66
Dec-23	$14,271.33	$9,583.00	$4,688.33	$291.99	$1,745.00	($1,453.01)		$3,235.32
Jan-24	$11,006.07	$9,583.00	$1,423.07	$1,472.19	$1,745.00	($272.81)		$1,150.26
Feb-24	$14,460.01	$9,583.00	$4,877.01	$523.91	$1,745.00	($1,221.09)		$3,655.92
Mar-24	$16,753.50	$9,583.00	$7,170.50	$4,477.38	$1,745.00	$2,732.38		$9,902.88
Apr-24	$10,855.63	$9,583.00	$1,272.63	$3,470.47	$1,745.00	$1,725.47		$2,998.10
May-24	$16,519.68	$9,583.00	$6,936.68	$194.26	$1,745.00	($1,550.74)		$5,385.94
Total:	$161,556.52	$114,996.00	$46,560.52	$13,921.16	$20,940.00	($7,018.84)		$39,541.68

	Waste Water	Water	Total	
FY 24 True-Up:	$46,560.52	($7,018.84)	$39,541.68	Under billed when compared to contract amount for FY24
Monthly Cost for FY 24:	$3,880.04	($584.90)	$3,295.14	Monthly cost to be added to FY 25 amount
Current FY 24 Contract Rate:	$9,583.00	$1,745.00	$11,328.00	
Current Contract Rate w/ Prev True Up Added:	$11,753.58	$1,380.49	$13,134.07	Current FY 24 Monthly Payment
FY 25 Monthly Rate w/ True-Up Added:	$13,463.04	$1,160.10	$14,623.14	11.34% Increase from Previous Year
FY 25 Annual Rate:	$161,556.52	$13,921.16	$175,477.68	Total FY 25 Contract Amount

AGENDA ITEM VI. D.
RWRD RESO 20240724-04
Member Entities True-Up

RIVERBEND RESOLUTION NO. 20240724-04

ADOPTING THE MEMBER ENTITIES' TRUE-UP AND WHOLESALE WATER RATES AND FEES OF THE TEXARKANA WATER UTILITIES

WHEREAS, Riverbend Water Resources District is a conservation and reclamation district created under and essential to accomplish the purposes of Section 59 Article XVI, Texas Constitution, existing pursuant to and having the powers set forth in Chapter 9601 of the Special District Local Laws Code of the State of Texas; and

WHEREAS, Riverbend Water Resources District is charged with oversight of the annual True-Up conducted amongst and between the City of Texarkana, Texas and all Member Entities; and

WHEREAS, Riverbend Water Resources District held an annual True-Up meeting on July 17, 2024 at the Riverbend offices to discuss the True-Up Process and information provided by the City of Texarkana, Texas and its water department through Texarkana Water Utilities.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Riverbend Water Resources District hereby adopts the Member Entities' True-Up and wholesale water rates and fees of the Texarkana Water Utilities.

PASSED and APPROVED this 24th day of July 2024

_____
Steve Mayo, President

ATTEST:

_____
Tina Veal Gooch, Secretary

Attached: 2025 Member City Rate Calculation

Member City Water Rate Calculation

2025

City of Texarkana, Texas

Proposed Water Production Rate Assumptions

9/30/2025

Assumptions regarding the 2025 Water Rate:

1) The water rate is determined based on the adopted FY 2025 Water Department Budget.

2) The administration overhead rate has been calculated using **6.49%** of total budget water production costs using the method approved effective with the FY 2018 budget billing going forward.

3) The 2023 True up is not included in the actual water rate. Once the true up has been decided, it will be billed monthly as an amount on each individual Member City monthly billing.

4) The infrastructure cost is not included in the actual water rate. Once the cost has been decided, it will be billed monthly as an amount on each individual Member City monthly billing.

5) The debt service cost is not included in the actual water rate. Once the cost has been decided, it will be billed monthly as an amount on each individual Member City monthly billing.

6) Monthly billings will use estimated gallons as projected in the current budget.

7) The water rate calculated for 2025 excludes the amount due to Riverbend. Each City will be responsible for remitting their amount directly to Riverbend.

CALCULATION OF OVERHEAD PERCENTAGE

From FY23 Audited Amounts (Periods 1-13)

	2023 Audited Amounts
Admin Divisions:	
Administration 110	771,330
Finance 210	559,110
Engineering 710	33,428
GIS 740	19,257
Information Technology 230	56,113
Total Admin	**1,439,239**
Other Divisions:	
Customer Service 310	988,842
Water Production 410/420	6,406,168
Water Distribution 620	1,635,685
Sewer Collection 630	1,492,522
Wastewater 530/540	4,831,356
Environmental Services 750	434,911
Information Technology 230	987,015
Engineering 710	603,447
GIS 740	347,632
Composting 580	386,261
Operations Admin 610	277,151
Service Center 640,643-646	708,682
Water/Swr Constr 612	862,746
Field Services 330	768,589
Total Other	**20,731,007**
Total Expenses	**22,170,245**
Admin % of Total	**6.49%**

FY23 Audited Amounts:	
Oper Div Total	33,319,461
Less:	
Depr	(6,212,809)
Other Expenses	(4,936,407)
Total	**22,170,245**
Rounding Difference	**0**

Engineering & GIS Divisions Allocation to OH:

CALCULATION OF OVERHEAD PERCENTAGE

From FY23 Audited Amounts (Periods 1-13)

Engineering 710		636,876
GIS 740		366,889
	Total	1,003,765

FY23 Capital Project Hours:			**Engineering Division 710**	**GIS Division 740**	**Total**
WP & MW Projects	270	**5.2488%**	33,428	19,257	52,685
Other Projects	4,879	94.7512%	603,447	347,632	951,079
Total	5,149	100.0000%	636,875	366,889	1,003,764

Information Technology (IT) Division Allocation to OH:

Information Tech- Division 230		1,043,128

FY23 IT Logged Workorder Hours:			**Info Tech Division 230**
Division 410	134	4.9752%	
Division 420	11	0.4041%	
Total WP & MW	145	**5.3793%**	56,113
Other Utility Divisions	2,543	94.6207%	987,015
Total	2,687	100.0000%	1,043,128

TEXARKANA WATER UTILITIES

WRIGHT PATMAN WATER TREATMENT PLANT- 410

		Actual 22-23	*Budget 23-24*	*Revised 23-24*	*Budget 24-25*	FY 24 to FY 25 Change
EXPENDITURES						
Personal Services		1,476,101	1,734,160	1,630,194	1,755,335	
Supplies		1,692,997	1,923,850	1,893,983	1,678,000	
Repairs & Maintenance		340,493	285,250	308,341	377,300	
Contractual Services		865,585	838,338	996,550	974,113	
TOTAL		**4,375,176**	**4,781,598**	**4,829,068**	**4,784,748**	+ 0.07%
PERSONAL SERVICES						
511100	Supervision	160,131	166,674	159,245	162,693	
511111	Management-Regular	25,065	27,979	25,770	26,591	
511113	Management-Incentive	1,837	1,838	1,838	1,838	
511211	Supervision-Reg Pay	118,895	131,857	122,429	126,265	
511212	Supervision-Overtime	14,295	5,000	9,209	8,000	
511215	Supervision-Shift Diff.	38	0	0	0	
511411	Maintenance & Oper	713,989	926,205	771,577	931,336	
511412	Overtime	80,339	43,000	97,055	80,000	
511415	Shift Differential	7,561	7,500	8,058	7,500	
511611	Temporary Labor	6,078	5,000	6,000	6,000	
512111	Longevity	7,305	7,485	7,545	8,145	
512112	Group Insurance	169,003	211,114	191,674	166,304	
512114	Retirement	167,194	194,525	183,534	204,616	
512115	Social Security	74,834	88,041	81,352	94,154	
512116	Workmen's Comp	30,561	28,616	30,533	21,986	
512117	Unemployment	1,144	0	0	0	
512118	Employee Screening	271	400	370	400	
512121	Certification/License Pay	41,023	0	39,350	41,100	
512100	Education & Training	16,668	55,600	53,900	31,100	- 44.06%
512122	Training-Seminars & Other	100	500	1,000	1,000	
512123	Training-Licenses & Certifica	8,480	30,000	30,000	15,000	
512124	Travel	5,522	20,000	20,000	10,000	
512125	Books & Subscriptions	475	100	100	100	
512126	Dues	1,444	3,000	1,800	3,000	
512127	Licenses	648	2,000	1,000	2,000	
519999	Salary & Ben Transfer	0	0	0	0	
TOTAL		**1,476,101**	**1,734,160**	**1,630,194**	**1,755,335**	+ 1.22%
SUPPLIES						
521100	Office Supplies	1,634	2,650	2,707	2,600	
521111	Paper	543	500	500	500	
521112	Writing Instruments	47	150	58	100	
521113	Computer Supplies	409	1,000	1,200	1,000	
521114	Other Off Sup & Exp	635	1,000	949	1,000	
521200	Operating Supplies	11,286	10,000	8,507	10,000	
521211	Consumable Items	4,767	3,000	3,000	3,000	
521212	Non Consumable Items	6,519	7,000	5,507	7,000	

TEXARKANA WATER UTILITIES

WRIGHT PATMAN WATER TREATMENT PLANT- 410

		Actual 22-23	*Budget 23-24*	*Revised 23-24*	*Budget 24-25*	FY 24 to FY 25 Change
521400	Safety	36,320	25,500	22,485	25,500	
521411	Personal Protect Equip	15,604	3,000	1,000	3,000	
521413	Emergency Response Eq	1,029	1,500	985	1,500	
521415	Facilities Maintenance	19,594	20,000	20,000	20,000	
521417	Laboratory & Environ	0	1,000	500	1,000	
521418	Storage & Handling	0	0	0	0	
521419	Grounds Maintenance	93	0	0	0	
521700	Minor Tools	3,553	5,000	3,168	5,000	
521711	Electronic Tools	443	0	0	0	
521712	Hand Tools	1,544	3,000	1,168	3,000	
521713	Power Tools	1,565	2,000	2,000	2,000	
521900	Wearing Apparel	3,685	6,200	2,181	5,400	
521911	Uniform Cost	3,685	5,700	2,081	5,000	
521913	All Weather Gear	0	500	100	400	
521919	Other Wearing Apparel	0	0	0	0	
522300	Laundry & Janitorial	4,199	3,500	3,085	3,500	
522312	Janitorial Service	3,076	2,000	1,685	2,000	
522313	Laundry & Jan Supplies	1,123	1,500	1,400	1,500	
522500	Lab & Photo Supplies	43,025	41,000	39,922	45,000	
522511	Lab Supplies	6,094	10,000	15,000	15,000	
522512	Lab Chemicals	35,893	31,000	24,772	30,000	
522513	Lab Equipment Repairs	1,038	0	150	0	
522700	Printing	83	1,000	123	500	
522713	Other Forms	27	1,000	123	500	
522719	Other	56	0	0	0	
522800	Chemicals - Plant	1,589,213	1,821,000	1,803,804	1,572,500	- 13.65%
522811	Activated Carbon	0	0	0	0	
522812	Anhydrous Ammonia	35,092	50,000	50,000	40,000	
522813	Calcium Hypochlorinate	0	0	0	0	
522815	Caustic Soda	707,448	750,000	724,943	545,000	- 27.33%
522816	Chlorine	212,128	250,000	247,979	280,000	+ 12.00%
522817	Copper Sulphate	0	0	0	0	
522819	Hydrated Lime	0	0	0	0	
522821	Liquid Alum	589,362	670,000	700,000	630,000	- 5.97%
522822	Polymer	3,923	6,000	5,883	7,500	
522823	Potassium Permanganate	0	0	0	0	
522824	Sodium Chlorite	0	50,000	25,000	25,000	- 50.00%
522826	Zinc Ortho Phosphate	41,261	45,000	50,000	45,000	
522827	Sodium Hydroxide	0	0	0	0	
522839	Other	0	0	0	0	
522900	Chemicals - Lake	0	8,000	8,000	8,000	
522914	Carbon	0	7,500	7,500	7,500	
522917	Copper Sulphate	0	500	500	500	
522939	Other	0	0	0	0	
TOTAL		**1,692,997**	**1,923,850**	**1,893,983**	**1,678,000**	- 12.78%

TEXARKANA WATER UTILITIES

WRIGHT PATMAN WATER TREATMENT PLANT- 410

		Actual 22-23	*Budget 23-24*	*Revised 23-24*	*Budget 24-25*	FY 24 to FY 25 Change
REPAIRS & MAINTENANCE						
531200	Motor Vehicles	27,902	29,400	28,379	29,900	
531211	Antifreeze	88	100	62	100	
531212	Batteries	316	0	110	0	
531213	Filters	384	300	188	300	
531214	Fuel	24,058	25,000	25,000	25,000	
531215	Lubricates	509	500	500	500	
531216	Parts	2,063	1,500	2,000	2,000	
531217	Tires	484	2,000	519	2,000	
531218	Labor	0	0	0	0	
531219	Subcontracts	0	0	0	0	
531239	Repairs Other	0	0	0	0	
531700	Machinery & Equip	3,573	8,800	5,622	8,375	
531711	Antifreeze	0	100	0	100	
531712	Batteries	205	500	238	500	
531713	Filters	0	200	0	175	
531714	Fuel	1,162	2,000	1,563	2,000	
531715	Lubricates	655	2,000	2,094	2,000	
531716	Parts	1,185	1,500	1,000	1,500	
531717	Tires	236	500	552	600	
531718	Labor	132	2,000	175	1,500	
531719	Subcontracts	0	0	0	0	
531739	Repairs Other	0	0	0	0	
531800	Signal Equipment	1,600	9,000	4,712	8,000	
531811	Radios	0	0	0	0	
531812	Telemetry	1,600	9,000	4,712	8,000	
532100	Building	515	13,500	4,367	10,500	
532111	Heating & Cooling	515	4,500	695	4,500	
532112	Other Building	0	2,000	3,172	3,000	
532113	Grounds & Parking Lots	0	7,000	500	3,000	
533100	Water Treatment Equip	188,216	125,000	155,237	140,000	
533111	Intake	85,807	30,000	54,487	40,000	
533112	Plant	83,454	80,000	90,000	85,000	
533113	Booster Stations	18,956	15,000	10,751	15,000	
533200	Water Transmission Mains	65,547	68,000	76,251	149,000	
533211	Raw Water Mains	247	5,000	251	5,000	
533212	Treated Water Mains	5,689	3,000	1,000	3,000	
533213	Member Cities Mains	59,612	60,000	75,000	141,000	+135.00%
533600	Tanks & Reservoirs	58,615	37,000	39,262	37,000	
533611	MC Tanks & Reservoirs	26,145	25,000	28,000	25,000	
533612	Other Tanks & Reserv	32,470	12,000	11,262	12,000	
534100	Sewer Equipment R & M	0	0	0	0	
534121	Sewer Instrument R&M	0	0	0	0	
539999	Equipment Apportionment	(5,475)	(5,450)	(5,490)	(5,475)	
TOTAL		**340,493**	**285,250**	**308,341**	**377,300**	+32.27%

CONTRACTUAL SERVICES

TEXARKANA WATER UTILITIES

WRIGHT PATMAN WATER TREATMENT PLANT- 410

		Actual 22-23	*Budget 23-24*	*Revised 23-24*	*Budget 24-25*	FY 24 to FY 25 Change
541111	Accounting & Audit	9,659	6,000	9,620	9,500	
541311	Communications	14,189	11,000	15,545	15,000	
541700	Rentals	10,391	5,000	15,000	10,000	
541711	Equipment Rental	10,391	5,000	15,000	10,000	
541900	Fees and Permits	51,737	51,800	51,737	51,775	
541911	Water System Serv Fee	51,737	51,800	51,737	51,775	
543111	Garbage Hauling	3,126	3,000	3,053	3,000	
543400	Insurance	51,382	52,400	58,998	57,500	
543411	Property Insurance	44,329	45,000	51,634	50,000	
543412	Liability Insurance	3,824	4,000	3,461	3,600	
543413	Automotive Insurance	3,228	3,400	3,903	3,900	
543600	Laboratory Services	7,924	12,000	6,675	6,500	
543611	State Lab Fees	3,326	2,000	5,000	3,500	
543612	Commercial Lab Fees	4,598	10,000	1,675	3,000	
543613	Comm Lab Fees-Other	0	0	0	0	
544100	Maintenance Contracts	4,274	8,500	9,800	10,000	
544112	Software	3,280	7,500	3,800	5,000	
544113	Internet Service	0	0	0	0	
544119	Other Maint Contract	993	1,000	6,000	5,000	
544900	Postage	321	1,125	395	1,125	
544911	Postage	12	125	9	125	
544912	Special Delivery	309	1,000	386	1,000	
545200	Power Purchases	401,522	360,500	456,923	458,000	
545211	Electrical	393,959	350,000	449,844	450,000	+ 28.57%
545212	Gas	7,564	10,500	7,079	8,000	
545511	Power Purchases - Lake	310,172	325,000	367,751	350,000	
545700	Special Services	275	1,400	439	1,500	
545712	Pest Control	0	600	175	600	
545719	Other Special Services	275	800	264	500	
546311	Water Rights	613	613	613	613	
TOTAL		**865,585**	**838,338**	**996,550**	**974,113**	+ 16.20%
TOTAL BUDGET		**4,375,176**	**4,781,598**	**4,829,067**	**4,784,748**	+ 0.07%
100%	Texas				**4,784,748**	

TEXARKANA WATER UTILITIES

WRIGHT PATMAN WATER TREATMENT PLANT- 410

	Actual 22-23	*Budget 23-24*	*Revised 23-24*	*Budget 24-25*	FY 24 to FY 25 Change

22-23 Actual Exp not included on budget sheet above:	
Pay Out - Annual Leave	2,165
Pay Out - Comp Time	1,343
Pay Out - Post Ret Ins	269
Accrued Payroll	4,038
Accrued Vacation and Sick	10,235
Accrued Wearing Apparel	75
Accrued Tanks & Reservoirs	(26,145)
Accrued Power Purchases	8,708
Accrued Power Purchases- Lake	34,055
	34,743
Reconciliation:	
Total Actual Exp Above for 22-23	4,375,176
Additional Expenses for 22-23	34,743
	4,409,919
Balance on 2023 True Up Detail (pg 27)	4,409,932
Difference (Rounding)	(13)

TEXARKANA WATER UTILITIES

MILLWOOD WATER TREATMENT PLANT- 420

		Actual 22-23	*Budget 23-24*	*Revised 23-24*	*Budget 24-25*	FY 24 to FY 25 Change
EXPENDITURES						
Personal Services		404,233	350,220	374,271	383,580	
Supplies		575,633	622,575	626,978	702,950	
Repairs & Maintenance		122,930	92,925	120,629	95,875	
Contractual Services		862,556	843,644	823,072	839,100	
TOTAL		**1,965,352**	**1,909,364**	**1,944,950**	**2,021,505**	+ 5.87%
PERSONAL SERVICES						
511200	Supervision	27,462	30,317	27,710	28,929	
511111	Management-Regular	25,064	27,979	25,772	26,591	
511113	Management-Incentive	1,838	1,838	1,838	1,838	
511211	Supervision-Regular	377	0	0	0	
511212	Supervision-Overtime	183	500	100	500	
511411	Maintenance & Oper	212,296	207,614	190,806	196,868	
511412	Overtime	29,471	5,000	26,752	25,000	
511415	Shift Differential	847	500	100	500	
511611	Temporary Labor	0	5,000	5,000	5,000	
512111	Longevity	2,565	2,280	2,805	2,520	
512112	Group Insurance	37,269	29,690	31,396	28,622	
512114	Retirement	48,174	41,620	45,143	45,293	
512115	Social Security	21,922	18,837	20,204	20,842	
512116	Workmen's Comp	3,029	2,463	2,858	4,807	
512118	Employee Screening	0	0	200	200	
512121	Certification/License Pay	18,100	0	18,100	18,100	
512100	Education & Training	3,098	6,900	3,198	6,900	
512123	Training-Licenses & Certific	700	3,000	992	3,000	
512124	Travel	1,901	3,000	1,530	3,000	
512126	Dues	210	500	454	500	
512127	Licenses	287	400	222	400	
519999	Salary & Benefit Transfer	0	0	0	0	
TOTAL		**404,233**	**350,220**	**374,271**	**383,580**	+ 9.53%
SUPPLIES						
521100	Office Supplies	496	475	1,430	450	
521111	Paper	44	50	25	25	
521112	Writing Instruments	9	25	10	25	
521113	Computer Supplies	0	200	1,295	200	
521114	Other Off Sup & Exp	443	200	100	200	
521200	Operating Supplies	2,870	5,500	6,000	6,000	
521211	Consumable Items	1,429	3,000	3,000	3,000	
521212	Non Consumable Items	1,440	2,500	3,000	3,000	
521311	Botanical Supplies	0	0	0	0	
521400	Safety	24,012	22,300	12,389	22,300	
521411	Personal Protect Equip	13,676	1,500	711	1,500	

TEXARKANA WATER UTILITIES

MILLWOOD WATER TREATMENT PLANT- 420

		Actual 22-23	*Budget 23-24*	*Revised 23-24*	*Budget 24-25*	FY 24 to FY 25 Change
521413	Emergency Response Eq	286	400	100	400	
521415	Facilities Maintenance	10,050	20,000	11,478	20,000	
521419	Grounds Maintenance	0	400	100	400	
521700	Minor Tools	783	2,000	804	1,600	
521712	Hand Tools	175	1,000	304	800	
521713	Power Tools	608	1,000	500	800	
521900	Wearing Apparel	813	1,700	362	1,200	
521911	Uniform Cost	813	1,500	362	1,000	
521913	All Weather Gear	0	200	0	200	
522300	Laundry & Janitorial	2,392	1,900	2,694	2,500	
522312	Janitorial Service	2,227	1,500	2,399	2,000	
522313	Laundry & Jan Supplies	165	400	295	500	
522500	Lab & Photo Supplies	2,290	4,000	1,974	4,000	
522511	Lab Supplies	1,089	2,000	1,400	2,000	
522512	Lab Chemicals	1,201	2,000	574	2,000	
522513	Lab Equipment Repairs	0	0	0	0	
522700	Printing	0	700	0	400	
522719	Other	0	700	0	400	
522800	Chemicals - Plant	541,977	584,000	601,325	664,500	**+ 13.78%**
522811	Activated Carbon	0	0	0	0	
522812	Anhydrous Ammonia	16,106	18,000	14,577	21,000	
522813	Calcium Hypochlorinate	0	0	0	0	
522815	Caustic Soda	247,778	255,000	259,999	261,000	**+ 2.35%**
522816	Chlorine	75,760	105,000	85,880	111,000	**+ 5.71%**
522817	Copper Sulphate	0	0	0	0	
522819	Hydrated Lime	0	0	0	0	
522821	Liquid Alum	170,210	180,000	211,607	240,000	**+ 33.33%**
522822	Polymer	7,229	10,000	10,000	7,500	
522823	Potassium Permanganate	0	0	0	0	
522824	Sodium Chlorite	0	0	0	0	
522826	Zinc Ortho Phosphate	23,831	16,000	19,263	24,000	**+ 50.00%**
522839	Other Chemicals	1,064	0	0	0	
522914	Chemicals-Carbon	0	0	0	0	
TOTAL		**575,633**	**622,575**	**626,978**	**702,950**	**+ 12.91%**

REPAIRS & MAINTENANCE

531111	Office Machines & Eq	19	0	0	0	
531200	Motor Vehicles	5,321	5,200	5,291	5,800	
531211	Antifreeze	0	50	15	50	
531212	Batteries	0	100	0	100	
531213	Filters	21	50	10	50	
531214	Fuel	4,466	4,000	4,640	4,500	
531215	Lubricates	21	100	22	100	
531216	Parts	98	100	104	200	
531217	Tires	714	800	500	800	
531218	Labor	0	0	0	0	

TEXARKANA WATER UTILITIES

MILLWOOD WATER TREATMENT PLANT- 420

		Actual 22-23	*Budget 23-24*	*Revised 23-24*	*Budget 24-25*	FY 24 to FY 25 Change
531700	Machinery & Equip	16,640	20,575	14,247	19,575	
531711	Antifreeze		50	0	50	
531712	Batteries		0	0	0	
531713	Filters		25	0	25	
531714	Fuel	12,717	7,000	12,473	13,000	
531715	Lubricates	0	7,500	0	500	
531716	Parts	892	3,000	774	3,000	
531717	Tires	782	500	500	500	
531718	Labor	2,248	2,500	500	2,500	
531800	Signal Equipment	1,368	1,000	1,100	1,000	
531812	Telemetry	1,368	1,000	1,100	1,000	
532100	Building	6,526	4,000	20,040	7,500	
532111	Heating & Cooling	6,070	1,500	20,000	5,000	
532112	Other Building	455	2,500	40	2,500	
532113	Grounds & Parking Lots	0				
533100	Water Treatment Equip	92,261	59,000	79,200	59,000	
533111	Intake	907	7,000	13,000	7,000	
533112	Plant	89,580	50,000	65,000	50,000	
533113	Booster Station	1,774	2,000	1,200	2,000	
533200	Water Transmission Mains	493	2,150	501	2,500	
533211	Raw Water Mains	247	150	251	500	
533212	Treated Water Mains	247	2,000	250	2,000	
533600	Tanks & Reservoirs	0	1,000	250	500	
533612	Other Tanks & Reserv	0	1,000	250	500	
533711	Sludge Pond Maintenance	304	0	0	0	
539998	Equipment Utilization	0	0	0	0	
TOTAL		**122,930**	**92,925**	**120,629**	**95,875**	**+3.17%**
CONTRACTUAL SERVICES						
541111	Accounting & Audit	4,458	4,000	4,000	4,000	
541311	Communications	3,428	13,000	13,335	13,000	
541700	Rentals	5,536	5,000	6,500	6,000	
541711	Equipment Rental	5,536	5,000	6,500	6,000	
541900	Fees and Permits	57,855	59,050	70,290	64,000	
541911	Water System Serv Fee	56,945	59,000	63,500	63,000	
541912	Water System Permits	0	0	0	0	
541919	Other Fees & Permits	910	50	6,790	1,000	
543400	Insurance	19,739	19,744	20,622	20,250	+2.56%
543411	Property Insurance	18,457	18,462	19,502	19,000	
543412	Liability Insurance	917	917	701	800	
543413	Automotive Insurance	365	365	419	450	
543600	Laboratory Services	794	400	340	400	
543612	Comm Lab Fees-POTW	794	400	340	400	
544100	Maintenance Contracts	0	10,000	0	0	
544112	Software	0	10,000	0	0	
544113	Internet Service	0	0	0	0	

TEXARKANA WATER UTILITIES

MILLWOOD WATER TREATMENT PLANT- 420

		Actual 22-23	*Budget 23-24*	*Revised 23-24*	*Budget 24-25*	FY 24 to FY 25 Change
544912	Special Delivery Service	0	0	0	0	
545200	Power Purchases	301,707	250,000	240,904	250,000	
545211	Electrical	301,707	250,000	240,904	250,000	
545700	Special Services	15	450	165	450	
545712	Pest Control	0	400	150	400	
545719	Other Special Services	15	50	15	50	
546311	Water Rights	162,704	167,000	161,997	166,000	
546312	Water Rights-10MG	306,321	315,000	304,919	315,000	100% AR
TOTAL		**862,556**	**843,644**	**823,072**	**839,100**	**- 0.54%**
	Less: Water Rights - 10MG (100% Arkansas)	(306,321)	(315,000)	(304,919)	(315,000)	
		556,235	**528,644**	**518,153**	**524,100**	**- 0.86%**
TOTAL BUDGET		**1,659,031**	**1,594,364**	**1,640,030**	**1,706,505**	**+ 7.03%**
100%	Arkansas				**1,706,505**	

22-23 Actual Exp not included on budget sheet above:	
Pay Out - Annual Leave	0
Pay Out - Sick Leave	0
Pay Out - Post Retirement Insurance	13,632
Accrued Payroll	65
Accrued Vacation and Sick	773
Accrued Lab & Photo Supplies	1,250
Accrued Accounting & Audit	0
Accrued Chemicals	(0)
Accrued Power Purchases	(10,980)
	4,741
Reconciliation:	
Total Actual Exp Above for 22-23	1,659,031
Additional Expenses for 22-23	4,741
	1,663,771
Balance on 2023 True Up Detail (pg 27)	1,663,770
Difference (Rounding)	1

TEXARKANA WATER UTILITIES
MEMBER CITIES BILLING
WRIGHT PATMAN SLUDGE PROCESSING COST
FY 2025 ESTIMATED

Composting Costs:				
Compost Division Budget Expenses (580):				
Personal Services		231,917		
Supplies		11,800		
Repairs & Maintenance		134,140		
Contractual Services		21,865		
Total Division Expenses		399,722		
Other Labor & Benefits (530):				
Operator II (1300 Bldg)		49,197		
Plant Mechanic I (1/2)		18,912		
Total Other Labor		68,109		
Benefit Percentage	X	49.07%		
Total Benefit Cost		33,420		
Total Other Labor & Benefits		101,529		
Total Composting & Other Labor Costs		501,251		
Amount Attributable to Water Treatment Plant Sludge (TSS):				
Wright Patman Solids (Metric Tons)		663.470		
South Regional Influent Solids (Metric Tons)		3,477.090		
Water Treatment TSS Ratio			19.08119%	
Total Applicable Compost Costs				95,645
Sludge Chemical Costs:				
Total Cost of Polymer			150,000	
Water Treatment TSS Ratio			19.08119%	
Total Sludge Chemical Costs				28,622
Transportation Costs:				
200 Site Pumping Costs (Electrical)			128,631	
Amount Attributable to Water Treatment Plant Waste:				
Wright Patman Gallons Wasted (Mil Gallons)		297.946		
South Regional Influent Flows (Mil Gallons)		3,939.200		
Water Treatment Plant Volume Ratio			7.56362%	
Total Transportation Costs				9,729
Total Estimated Sludge Processing Costs Applicable to Water Plant				133,996
Less Compost Sales:				
Total Compost Sales (Estimated)			117,110	
Water Treatment TSS Ratio			19.08119%	
Sales Applicable to Water Treatment Plant Sludge				(22,346)
Net Sludge Processing Costs Applicable to Water Plant				**111,650**

TEXARKANA WATER UTILITIES

LTWSC Capital Improvement Fund

		Actual FY 2023	Proposed FY 2024	Revised FY 2024	Proposed FY 2025
BEGINNING BALANCE		**815,511**	**329,987**	**1,060,217**	**7,807**
REVENUE					
Member Cities		55,274	71,856	71,856	55,274
Transfers from Arkansas		166,506	235,131	235,131	187,719
Transfers from Texas		278,220	343,013	343,013	257,007
TML Insurance Proceeds		0	0	140,300	0
Interest Income		32,161	31,350	19,384	15,000
Miscellaneous		668	500	1,911	1,000
TOTAL REVENUE		**532,829**	**681,850**	**811,596**	**516,000**
TOTAL FUNDS AVAILABLE		**1,348,340**	**1,011,837**	**1,871,813**	**523,807**
Influent Valve & Actuator	L122104	17,580	0	0	0
WP WTP Parking Lot/Rd Repair	L122201	0	0	69,076	0
Install Vents-3.0 MG Clearwells	L122203	33,563	0	0	0
Repair outside of GST's-NB, Hooks, Dekalb	L122204	0	0	86,329	0
EIM Actuators-Annona & Avery	L122210	4,658	0	0	0
2 PLC's for Member Cities	L122211	18,192	0	0	0
#2 Low Service Valve/Actuator	L122212	24,268	0	0	0
Enclose MCC Room/AC	L122214	12,200	0	0	0
Replace #1 Low Service Pump & Motor	L122302	0	0	160,608	0
TxDot Hwy 82 Widening from US 259 to IH 30	L122304	1,290	0	421,023	0
Relocate 10" Water Line		0	0	0	0
Basin Wiring	L122305	0	15,000	0	15,000
4mA to 20mA Control Wiring Upgrade	L122306	0	10,000	0	0
Fire Resistant Uniforms	L122307	2,967	0	0	0
Electrical Tools	L122308	6,097	0	0	0
Clearwell Circulation	L122309	0	12,000	12,000	0
Allen Bradley Licensing	L122310	4,576	0	0	0
Ventrac Mower	L122314	43,081	0	0	0
#3 High Service Motor	L122315	0	0	42,937	0
(3) West Side Flocculators	L122316	0	20,000	20,000	0
Filter Plant Building Repairs	L122321	0	0	2,052	0
Admin Air Conditioning	L122322	10,511	0	0	0
#4 Low Service VFD Replacement	L122323	0	0	146,248	0
30" Intake Repair	L122324	26,561	0	0	0
Enclosed Trailer for Electrical Supplies	L122325	8,314	0	0	0
WW Meter Replace - FP	L122327	0	0	17,941	0
4TH Street Tank Fence Replacement	L122328	30,174	0	0	0
MC Pump Valve & Actuator	L122329	17,374	0	0	0
WP Sludge Rake Replacement	L122330	26,715	0	3,748	0
New Boston Pump Station Upgrade	L122401	0	225,000	0	0
Replace Windows in Filter Building	L122402	0	40,000	50,458	0
Construct Shop Building (Electrical/Storage)	L122403	0	50,000	50,000	0
Construct Low Service MCC VFD Building	L122404	0	45,000	44,707	0
Low Service Pump & Motor Rebuild	L122405	0	125,000	210,313	0
High Service Pump & Motor Rebuild	L122406	0	125,000	238	0
Incubator for Lab	L122407	0	10,000	8,650	0
Replace (1) 4WD Crew Truck	L122408	0	55,000	46,703	0
Replace (1) 1/2T Truck	L122409	0	40,000	33,478	0
Back Door Awning for Admin Building	L122410	0	10,000	5,240	0
Replace 2 Caustic Tanks	L122411	0	0	59,618	0
TML Claim New Boston Lightning Strike	L122412	0	0	150,300	0

LTWSC Capital Improvement Fund

		Actual FY 2023	Proposed FY 2024	Revised FY 2024	Proposed FY 2025
Filter Venturi for Filters #2 & #8	L122413	0	0	46,707	0
Chlorine Monorail & Hoist Replacement	L122414	0	0	37,064	0
Flocculator Vault Repair	L122416	0	0	138,568	0
Heat Tracing for Caustic Line	L122501	0	0	0	50,000
Ph & Turbidity SCADA	L122502	0	0	0	16,000
Chlorine Evacuation System Upgrade	L122503	0	0	0	9,000
(1) DR 3900 Spectrometer	L122504	0	0	0	7,000
(1) Jar Test Machine	L122505	0	0	0	6,000
Install Chlorine Analyzer Boards	L122506	0	0	0	5,000
Low Service Pump & Motor Rebuild	L122507	0	0	0	125,000
High Service Pump & Motor Rebuild	L122508	0	0	0	125,000
Basin Rehab/Repairs	L122509	0	0	0	50,000
(1) Lull Lift	L122510	0	0	0	90,000
TOTAL EXPENDITURES		**288,122**	**782,000**	**1,864,006**	**498,000**
ENDING BALANCE		**1,060,217**	**229,837**	**7,807**	**25,807**

TEXARKANA WATER UTILITIES

Millwood Water Treatment Plant Depreciation Fund

		Actual FY 2023	Proposed FY 2024	Revised FY 2024	Proposed FY 2025
BEGINNING BALANCE		**622,051**	**154,749**	**448,565**	**637,125**
REVENUE					
Transfer from Revenues		490,000	575,000	575,000	575,000
TML Insurance Proceeds		0	0	250,469	0
Plans/Specs/Scrap Metal Income		1,077	500	0	150
Interest Income		1,901	1,850	0	0
TOTAL REVENUE		**492,977**	**577,350**	**825,469**	**575,150**
TOTAL FUNDS AVAILABLE		**1,115,029**	**732,099**	**1,274,034**	**1,212,275**
EXPENDITURES					
Valve Replacement Filters 3,4,7 & 8	A/T 132003	360,123	0	0	0
SCADA Upgrade	A/T 132006	76,721	0	0	0
Basin Lining (1)	A/T 132008	2,120	0	0	0
Low Service Repair/Rebuild	A/T 132106	7,764	0	0	0
High Service Repair/Rebuild	A/T 132107	6,128	100,000	0	0
#2 Low Service Pump Bowl Rebuild	A/T 132314	29,299	0	0	0
Sludge Pond Cleaning 2022	A/T 132201	197	0	202,887	0
Valves/Actuators for (3) Sludge Lines	A/T 132301	22,206	0	0	0
Concrete Work MW Plant	A/T 132303	0	0	9,674	0
Front Gate Actuator	A/T 132305	8,800	0	0	0
Add VFD's to Low Service Pumps	A/T 132306	8,925	20,000	47,490	0
#2 High Service Actuator	A/T 132307	85,696	0	7,608	0
(2) Lagoon Pumps	A/T 132308	0	30,000	0	0
Paint Exposed Metal	A/T 132309	13,081	0	0	0
Basin Drain Electrical	A/T 132310	0	15,000	15,000	0
Valve Replacement Filters 1 & 2	A/T 132311	0	100,000	129,000	0
Concrete Basin Repair	A/T 132312	45,404	0	0	0
High Service Controls Point to Point	A/T 132401	0	30,000	30,000	0
Cover for Transfer Switch/Generator	A/T 132402	0	30,000	0	30,000
Zero Turn Mower Replacement	A/T 132403	0	16,500	14,239	0
Tractor Replacement w/Bush Hog	A/T 132404	0	80,000	70,000	0
Rebuild Low Service Pump & Motor	A/T 132405	0	100,000	11,011	0
Rebuild High Service Pump & Motor	A/T 132406	0	100,000	100,000	0
Road Repair for Loop around Plant	A/T 132407	0	100,000	0	0
Replace MW Motor Control Center (MCC)	A/T 132501	0	0	0	400,000
Replace High Service Controls	A/T 132502	0	0	0	15,000
Heating for Chlorine Building	A/T 132503	0	0	0	8,000
Cooling for High Service Building	A/T 132504	0	0	0	8,000
Wiring from High Service Building to MCC	A/T 132505	0	0	0	112,000
High Service Repair/Rebuild	A/T 132506	0	0	0	100,000
Low Service Repair/Rebuild	A/T 132507	0	0	0	100,000
Replace High Service Mag Meter	A/T 132509	0	0	0	65,000
Replace Spectrometer	A/T 132510	0	0	0	7,000
Chlorine Analyzer Boards & Install	A/T 132511	0	0	0	5,000
Sludge Pond Cleaning 2025-(2)	A/T 132512	0	0	0	200,000
Ammonia Shed	A/T 132513	0	0	0	10,000
20' X 45' Cover for Switch Gear	A/T 132514	0	0	0	25,000
Chlorine Evacuation System Upgrade	A/T 132515	0	0	0	9,000

TOTAL EXPENDITURES		**666,463**	**721,500**	**636,909**	**1,094,000**
ENDING BALANCE		**448,565**	**10,599**	**637,125**	**118,275**
Transfers from Revenue:	TX Ratio	62.56%	59.33%	59.33%	57.79%
Arkansas Share		56,160	61,005	61,005	63,315
Additional Contribution-Arkansas		0	0	0	
Arkansas Total		**56,160**	**61,005**	**61,005**	**63,315**
Texas Share		93,840	88,995	88,995	86,685
Additional Contribution-Texas		340,000	425,000	425,000	425,000
Texas Total		**433,840**	**513,995**	**513,995**	**511,685**
Total		**490,000**	**575,000**	**575,000**	**575,000**

TREATED WATER BY PLANT (000's)
FYE 9/30/24

	Wright Patman	Millwood		Total	
JUL 2023	328,695	225,719		554,414	
AUG 2023	410,891	226,708		637,599	
SEP 2023	375,032	150,295		525,327	
OCT 2023	390,673	115,249		505,922	
NOV 2023	398,938	109,467		508,405	
DEC 2023	404,297	87,512		491,809	
JAN 2024	467,648	105,992		573,640	
FEB 2024	415,227	124,940		540,167	
MAR 2024	433,689	129,074		562,763	
APR 2024	403,610	131,664		535,274	
MAY 2024	442,253	148,474		590,727	
JUN 2024	434,741	202,996		637,737	
					MW %
Total Gallons-Prior 12 Mos.	4,905,694	1,758,090		6,663,784	26.38%
Projected FY23 Ending Plant Usage	4,589,576	2,074,208	*	6,663,784	**31.13%**

Used 4 Year Average of MW Usage Instead of Projected FY23 Actual %

Millwood Plant Usage:

Revised Estimated FY24 (4yr Avg)	31.13%
Estimated FY24	26.38%
FY23 Actual	30.84%
FY22 Actual	23.79%
FY21 Actual	21.95%
FY20 Actual	47.92%

FY25 Estimated Consumption (1000 Gallons)
Oct 2023- Jun 2024 (with Jul- Sept 2023 Estimated)

	OCT/ APR	NOV/ MAY	DEC/ JUN	*Estimated based on July- Sept 2023* JAN/ JUL	FEB/ AUG	MAR/ SEP	YTD	% OF TOTAL	3 Yr Actual Average
Oak Grove, TX	1585.140 1727.140	1566.200 1728.400	2104.360 2052.790	2405.560 2243.940	2021.530 2416.000	2159.310 1172.460	23182.830	0.3479%	**25072.180**
Redwater, TX	8306.275 8661.240	7837.825 8224.630	10703.130 8965.810	10398.340 12345.400	9085.070 15549.200	9718.630 12658.750	122454.300	1.8376%	**124900.987**
Central Bowie County	15515.653 11211.243	14567.614 49406.099	11917.137 18425.408	14193.647 30974.257	13466.141 24947.385	14391.788 21397.946	240414.318	3.6078%	**231600.498**
Nash, TX	7372.000 6920.000	7303.000 7295.000	7603.000 7179.000	8227.000 9003.000	7134.000 9019.000	7591.000 5063.000	89709.000	1.3462%	**94672.667**
Macedonia Eylau	22808.522 18818.000	19803.025 16463.966	24741.242 16263.077	14405.585 35174.512	21946.685 11231.101	20971.247 11608.362	234235.324	3.5150%	**174029.284**
Red River County	0.000 0.040	0.000 8.800	0.000 0.000	965.040 0.010	30.490 516.020	0.000 58.590	1578.990	0.0237%	**17651.527**
Day & Zimmerman	1050.000 1130.000	1400.000 1010.000	1110.000 4300.000	4910.000 1120.000	3970.000 1440.000	3460.000 1180.000	26080.000	0.3914%	**9719.600**
Leary, TX	1760.410 1834.830	1649.500 2023.620	1576.300 1979.340	2900.550 2342.760	2556.840 2288.180	2363.690 2830.480	26106.500	0.3918%	**17403.390**
Mandeville, AR	2072.028 2654.894	2536.086 2510.448	2609.271 3031.845	2657.113 1830.185	3708.775 2230.840	2948.050 2500.625	31290.160	0.4696%	**29417.129**
Union Water	9114.248 11038.403	10002.710 12237.758	10671.189 12203.864	10507.481 7677.749	14308.712 10077.451	11670.094 9298.864	128808.523	1.9330%	**99998.105**
MCPWA	9900.000 7260.000	11175.000 7465.000	8985.000 6670.000	6710.000 8725.000	7650.000 10215.000	6430.000 5655.000	96840.000	1.4532%	**42410.000**
RWRD-TAC East	1945.000 1294.000	1884.000 1916.000	2519.000 2461.000	2596.000 3228.000	2242.000 3672.000	1507.000 3133.000	28397.000	0.4261%	**7213.609**
Total Wholesale	81429.276 72549.790	79724.960 110289.721	84539.629 83532.134	80876.316 114664.813	88120.243 93602.177	83210.809 76557.077	1049096.945		
New Boston, TX	28151.000 21994.978	11913.000 27457.000	13185.000 28233.000	25477.000 42571.000	24469.000 30306.000	24271.000 16360.000	294387.978	4.4177%	**385448.976**
Hooks, TX	12705.000 10393.000	11790.000 12463.000	13216.000 14507.000	17628.000 14829.000	11091.000 15907.000	12003.000 15174.000	161706.000	2.4266%	**164135.867**
DeKalb, TX	5585.000 5513.000	6928.000 5893.000	7483.000 5220.000	7029.000 6660.000	5562.000 6303.000	5705.000 5891.000	73772.000	1.1071%	**73691.000**
Wake Village, TX	12453.000 11356.000	12178.000 13606.000	11364.000 12567.000	10461.000 15958.000	10878.000 17677.000	12790.000 15394.000	156682.000	2.3512%	**165327.667**
Maud, TX	4535.000 2495.000	4514.000 3013.000	4809.000 3372.000	4878.000 6228.000	3783.000 5909.000	3026.000 4886.000	51448.000	0.7721%	**44914.000**
Avery, TX	2007.800 1479.400	1996.500 1667.400	2183.600 1402.000	2130.100 1683.000	1969.000 1598.500	2227.300 2081.500	22426.100	0.3365%	**20638.900**
Annona, TX	1872.430 909.694	1731.342 929.020	2191.960 899.590	2248.275 1083.376	2192.163 1417.121	3538.825 2492.874	21506.670	0.3227%	**8546.416**

FY25 Estimated Consumption (1000 Gallons)
Oct 2023- Jun 2024 (with Jul- Sept 2023 Estimated)

	OCT/ APR	NOV/ MAY	DEC/ JUN	*Estimated based on July- Sept 2023* JAN/ JUL	FEB/ AUG	MAR/ SEP	YTD	% OF TOTAL	3 Yr Actual Average
RWRD- (RRAD)	16522.650	17433.250	14605.680	16046.470	15821.200	13864.780			
	14458.680	13069.780	12967.450	15641.990	16840.730	15463.190	182735.850	2.7422%	**308270.383**
Total Member Cities & RWRD	83831.880	68484.092	69038.240	85897.845	75765.363	77425.905			
	68599.752	78098.200	79168.040	104654.366	95958.351	77742.564	964664.598		
Total Wholesale, Member Cities & RWRD	165261.156	148209.052	153577.869	166774.161	163885.606	160636.714			
	141149.542	188387.921	162700.174	219319.179	189560.528	154299.641	2013761.543		
Texarkana, AR	138170.012	132151.613	123939.472	171382.917	130840.986	147330.825			
	157900.510	153042.672	210498.023	172111.846	249747.326	151904.928	1939021.130	29.0979%	**1312071.443**
Texarkana, TX	202490.832	228044.335	214291.659	235482.922	245440.408	254795.461			
	236223.948	249296.407	264538.803	162982.975	198291.146	219122.431	2711001.327	40.6826%	**2206600.707**
Total Texarkana	340660.844	360195.948	338231.131	406865.839	376281.394	402126.286			
	394124.458	402339.079	475036.826	335094.821	448038.472	371027.359	4650022.457		**5563734.333**
Total All	505922.000	508405.000	491809.000	573640.000	540167.000	562763.000			
	535274.000	590727.000	637737.000	554414.000	637599.000	525327.000	6663784.000	99.9999%	

City of Texarkana, Texas
Proposed Water Production Rate By Plant
9/30/2025

	Division 410	*Sludge & Chlorine Conversion-WP*	*Total LWP*	*Division 420*	*Sludge-MW*	*Total MW*	*Total Blended*
EXPENDITURES							
Personnel Services	1,755,335		1,755,335	383,580		383,580	2,138,915
Supplies	1,678,000		1,678,000	702,950		702,950	2,380,950
Repairs & Maintenance	377,300		377,300	95,875		95,875	473,175
Contractual Services	974,113		974,113	524,100		524,100	1,498,213
Subtotal	4,784,748	-	4,784,748	1,706,505	-	1,706,505	6,491,253
Sludge Costs	-	95,645	95,645		200,000	200,000	295,645
Chlorine Conversion-TX	-	15,000	15,000		-	-	15,000
Sludge Chemical/Transp Cost		38,351	38,351		-	-	38,351
Composting Revenue	-	(22,346)	(22,346)	-	-	-	(22,346)
Subtotal	-	126,650	126,650	-	200,000	200,000	326,650
Administration Costs 6.49%	310,530	8,220	318,750	110,752	12,980	123,732	442,482
Total Water Production Cost	**5,095,278**	**134,870**	**5,230,148**	**1,817,257**	**212,980**	**2,030,237**	**7,260,385**
Estimated Gallons By Plant			4,589,576			2,074,208	6,663,784
Estimated Cost Per 1,000 Gal			1.1396			0.9788	1.0895
			LWP			**MW**	**Total**
		Prior Year	1.3701			1.0076	1.2606

City of Texarkana, Texas
Proposed Water Production Rate
9/30/2025

Water Production (both lakes)	Amount As Budgeted 2025		
Total Gallons	6,663,784	(in thousands)	
* Total Cost	7,260,385		
Water Rate	**1.0895**	(per thousand)	**-13.57% Decrease**
Prior Year Water Rate	*1.2606*		

* The total costs include the following four components of the Texarkana Water Department:

1) Wright Patman (410)

2) Millwood (420)

3) Sludge Processing - LWP and $200,000 for Millwood Sludge Pond Cleaning

4) Administrative Overhead - **6.49%** of the sum of 1, 2 and 3 as listed above

5) Chlorine Conversion Costs-TX $15,000 budgeted for FY25

City of Texarkana, Texas

Proposed Water Production Rate By City

9/30/2025

	Water Rate Calculation				
	ANNUAL			MONTHLY	
	(in thousands)				*(in thousands)*
	2025 Budgeted Gallons as Estimated by the Water Department	Budgeted Cost Total as Estimated by the Water Department	Estimated 2025 Water Rate	Monthly Billing - Water Cost Only	Monthly Gallons
New Boston	294,388	320,744	1.0895	26,729	24,532
Hooks	161,706	176,183	1.0895	14,682	13,476
Dekalb	73,772	80,377	1.0895	6,698	6,148
Wake Village	156,682	170,710	1.0895	14,226	13,057
Maud	51,448	56,054	1.0895	4,671	4,287
Avery	22,426	24,434	1.0895	2,036	1,869
Annona	21,507	23,432	1.0895	1,953	1,792
Total	781,929	851,934	1.0895	70,994	65,160
Texarkana, AR	2,195,960	2,392,562	1.0895	199,380	182,997
Texarkana, TX	3,503,160	3,816,793	1.0895	318,066	291,930
RWRD	182,736	199,096	1.0895	16,591	15,228
Total	5,881,855	6,408,451	1.0895	534,038	490,155
Total All Cities	6,663,784	7,260,385	1.0895	605,032	555,314

Cost is defined as water production cost of LWP and Millwood lakes.
Gallons above are total gallons from both lakes.

City of Texarkana, Texas
Proposed Infrastructure Rate
9/30/2025

	Original Ownership %	Revised Ownership %	Annual	Monthly
Member Cities				
New Boston	3.572227%	3.572227%	17,861.14	1,488.43
Hooks	2.275268%	2.275268%	11,376.34	948.03
DeKalb	2.143895%	2.143895%	10,719.48	893.29
Wake Village	1.632379%	1.632379%	8,161.90	680.16
Maud	1.123658%	1.123658%	5,618.29	468.19
* Avery	0.419275%			
Annona	0.307469%	0.307469%	1,537.35	128.11
Total Member Cities	11.474171%	11.054896%	55,274.50	4,606.21
Texarkana				
** Texarkana, AR	32.792567%	32.792567%	187,718.63	15,643.22
** Texarkana, TX	55.733262%	56.152537%	257,006.87	21,417.24
Total Texarkana	88.525829%	88.945104%	444,725.50	37,060.46
Grand Total	100.000000%	100.000000%	500,000.00	41,666.67

Contribution Required for 2025 projects in the LTWSC Capital Improvement Fund = $500,000

*Texarkana, TX took control of Avery's ownership interest

**Texarkana portion allocated between AR/TX based upon their FY25 Ratio of 42.21/57.79%

City of Texarkana, Texas
Proposed Debt Service Rate
Highway 82 Widening Project
9/30/2025

		Original Ownership %	Revised Ownership %	Allocation of Tex, AR Ownership % to Participating Cities	Annual	Monthly
Member Cities						
	New Boston	3.572227%	3.572227%	5.315226%	8,700.03	725.00
	Hooks	2.275268%	2.275268%	3.385441%	5,541.33	461.78
	DeKalb	2.143895%	2.143895%	3.189967%	5,221.38	435.12
	Wake Village	1.632379%	1.632379%	2.428867%	3,975.60	331.30
	Maud	1.123658%	1.123658%	1.671925%	2,736.63	228.05
###	Avery	0.419275%				
	Annona	0.307469%	0.307469%	0.457493%	748.83	62.40
	Total Member Cities	11.474171%	11.054896%	16.448919%	26,923.80	2,243.65
Texarkana						
***	Texarkana, AR	32.792567%				
	Texarkana, TX	55.733262%	56.152537%	83.551081%	136,757.48	11,396.46
	Total Texarkana	88.525829%	56.152537%	83.551081%	136,757.48	11,396.46
Grand Total		100.000000%	67.207433%	100.000000%	163,681.28	13,640.11

Debt Service for 2025 = **$163,681**

*** Texarkana, Arkansas has not claimed their ownership interest in the Highway 82 water line

Texarkana, TX took control of Avery's ownership interest

TEXARKANA WATER UTILITIES

WRIGHT PATMAN & MILLWOOD WATER TREATMENT OPERATING EXPENSES ACTUAL

For the Year Ended September 30, 2023

	Wright Patman	Millwood	Total
Personal Services:			
Management	26,902	26,902	53,804
Supervision	118,895	377	119,273
Maintenance & Operations	713,989	212,296	926,285
Overtime	94,634	29,654	124,288
Shift Differential	7,599	847	8,446
Emergency/Disaster Pay	0	0	0
Pay Out-Annual Leave	2,165	0	2,165
Pay Out-Sick Leave	0	0	0
Pay Out-Comp Time	1,343	0	1,343
Pay Out -Post Retirement Insurance	269	13,632	13,901
Temporary Labor	6,078	0	6,078
Accrued Payroll	4,038	65	4,103
Longevity	7,305	2,565	9,870
Group Insurance	169,003	37,269	206,273
Accrued Vacation & Sick Leave	10,235	773	11,008
Retirement	167,194	48,174	215,367
Social Security	74,834	21,922	96,756
Workmen's Compensation	30,561	3,029	33,590
Unemployment Benefits	1,144	0	1,144
Employee Screening	271	0	271
Certification/License Pay	41,023	18,100	59,123
Education & Training	16,471	3,098	19,569
Salary & Benefit Transfers Out	0	0	0
Total Personal Services	**1,493,954**	**418,703**	**1,912,657**
Supplies:			
Office Supplies & Expenses	1,634	496	2,129
Operating Supplies	11,286	2,870	14,156
Botanical Supplies	0	0	0
Safety	36,320	24,012	60,332
Minor Tools	3,553	783	4,335
Wearing Apparel	3,761	813	4,574
Laundry & Janitorial	4,199	2,392	6,591
Lab & Photo Supplies	43,025	3,540	46,565
Printing	83	0	83
Chemicals-Plant	1,589,213	541,977	2,131,190
Chemicals-Lake	0	0	0
Total Supplies	**1,693,072**	**576,883**	**2,269,955**
Repairs & Maintenance:			
Office Machines & Equipment	0	18	18
Motor Vehicles	27,902	5,321	33,223
Machinery & Equipment	3,573	16,640	20,213
Signal Equipment	1,600	1,368	2,967
Buildings	725	6,526	7,250
Water Treatment Equipment	188,216	92,261	280,477
Water Transmission Mains	65,547	493	66,040
Tanks & Reservoirs	32,470	0	32,470
Sewer Instruments	0	0	0
Sludge Pond Maintenance	0	304	304
Equipment Utilization	0	0	0
Equipment Apportionment	(5,475)	0	(5,475)
Total Repairs & Maintenance	**314,559**	**122,929**	**437,488**
Contractual Services:			
Accounting & Audit	9,659	4,458	14,117
Communications	14,189	3,428	17,617
Rentals	10,391	5,536	15,927
Fees & Permits	51,737	57,855	109,592
Freight Charges	0	0	0
Garbage Hauling	3,126	0	3,126
Insurance	51,382	19,739	71,121
Laboratory Services	7,924	794	8,718
Legal Advertising	0	0	0
Maintenance Contracts	4,274	0	4,274
Postage	321	0	321
Power Purchases	410,230	290,727	700,958

TEXARKANA WATER UTILITIES

WRIGHT PATMAN & MILLWOOD WATER TREATMENT OPERATING EXPENSES ACTUAL

For the Year Ended September 30, 2023

	Wright Patman	Millwood	Total
Power Purchases-Lake	344,226	0	344,226
Special Services	275	15	290
Water Rights	613	162,704	163,317
Total Contractual Services	**908,347**	**545,255**	**1,453,602**
Rounding	0	0	
Subtotals	**4,409,932**	**1,663,770**	**6,073,703**
Chlorine Conversion Costs-TX	22,022	0	22,022
Sludge Processing	127,557	0	127,557
Total Operating Expenses	**4,559,511**	**1,663,770**	**6,223,281**
Administrative Overhead	295,912	107,979	403,891
Total Operating Expenses With Overhead	**4,855,423**	**1,771,749**	**6,627,172**
Total Gallons of Water Sold - All (Consumption Report)	**3,859,824,000**	**1,720,898,000**	**5,580,722,000**
Actual Cost per 1,000 Gallons (Total Op Exp wOH / Total Gals)	1.2579388	1.0295494	1.1875116

TEXARKANA WATER UTILITIES

WRIGHT PATMAN AND MILLWOOD WATER TREATMENT OPERATING EXPENSES - ACTUAL (Audited)

For the Year Ended September 30, 2023

Wright Patman **Millwood** **Total**

TRUE-UP ADJUSTMENT CALCULATION

	Fiscal Year 2023 Billing					
	2023 Water	2023 Infrastructure	2023 Debt Service	2021 True Up	FY 2023 Annual	FY 2023 Monthly
New Boston	376,014	17,861	8,853	(9,596)	393,132	32,761
Hooks	216,134	11,376	5,639	9,431	242,580	20,215
DeKalb	88,089	10,719	5,313	4,715	108,837	9,070
Wake Village	186,728	8,162	4,045	(13,928)	185,007	15,417
Maud	46,661	5,618	2,785	(3,790)	51,274	4,273
Avery	22,508	-	-	(645)	21,863	1,822
Annona	10,503	1,537	762	2,674	15,476	1,290
RWRD	334,143	-		34,513	368,656	30,721
	$1,280,780	$55,275	$27,397	$23,374	$1,386,825	$115,569

	Fiscal Year 2023 True Up Calculation							
	Budgeted Gal (000's)	Budgeted Amt	Budgeted Rate	Actual Gal (000's)	Actual Amt	Actual Rate	Annual True Up	Monthly True Up
New Boston	304,691	376,014	1.234100	312,605	371,222	1.1875116	(4,792)	(399.37)
Hooks	175,137	216,134	1.234100	168,342	199,908	1.1875116	(16,226)	(1,352.16)
DeKalb	71,380	88,089	1.234100	70,009	83,136	1.1875116	(4,953)	(412.71)
Wake Village	151,309	186,728	1.234100	154,500	183,471	1.1875116	(3,257)	(271.45)
Maud	37,810	46,661	1.234100	47,805	56,769	1.1875116	10,108	842.33
Avery	18,239	22,508	1.234100	17,951	21,317	1.1875116	(1,191)	(99.23)
Annona	8,511	10,503	1.234100	16,242	19,288	1.1875116	8,785	732.04
RWRD	270,762	334,143	1.234100	193,968	230,339	1.1875116	(103,804)	(8,650.29)
Total	**1,037,839**	**$1,280,780**		**981,422**	**$1,165,450**		**($115,330)**	**($9,611)**

TEXARKANA WATER UTILITIES
MEMBER CITIES BILLING
WRIGHT PATMAN SLUDGE PROCESSING COST
FY 2023 ACTUAL

Composting Costs:				
Compost Division Budget Expenses (580):				
Personal Services		204,086		
Supplies		10,025		
Repairs & Maintenance		151,646		
Contractual Services		20,504		
Total Division Expenses		386,261		
Other Labor & Benefits (530):				
Operator II (1300 Bldg)		47,277		
Plant Mechanic I (1/2)		17,986		
Total Other Labor		65,264		
Benefit Percentage	X	56.25%		
Total Benefit Cost		36,712		
Total Other Labor & Benefits		101,976		
Total Composting & Other Labor Costs		488,237		
Amount Attributable to Water Treatment Plant Sludge (TSS):				
Wright Patman Solids (Metric Tons)		791.410		
South Regional Influent Solids (Metric Tons)		3,469.470		
Water Treatment TSS Ratio			22.81069%	
Total Applicable Compost Costs				111,370
Sludge Chemical Costs:				
Total Cost of Polymer			161,630	
Water Treatment TSS Ratio			22.81069%	
Total Sludge Chemical Costs				36,869
Transportation Costs:				
200 Site Pumping Costs (Electrical)			128,631	
Amount Attributable to Water Treatment Plant Waste:				
Wright Patman Gallons Wasted (Mil Gallons)		215.229		
South Regional Influent Flows (Mil Gallons)		3,678.300		
Water Treatment Plant Volume Ratio			5.85132%	
Total Transportation Costs				7,527
Total Estimated Sludge Processing Costs Applicable to Water Plant				155,766
Less Compost Sales:				
Total Compost Sales			123,667	
Water Treatment TSS Ratio			22.81069%	
Sales Applicable to Water Treatment Plant Sludge				(28,209)
Net Sludge Processing Costs Applicable to Water Plant				**127,557**

FY23 Actual Consumption (1000 Gallons)
Oct 2022- Sep 2023

	OCT/ APR	NOV/ MAY	DEC/ JUN	JAN/ JUL	FEB/ AUG	MAR/ SEP	YTD	% OF TOTAL
Oak Grove, TX	2145.810	1643.760	1809.900	1624.560	1210.740	1471.610		
	1234.510	1841.150	1924.330	2243.940	2416.000	1172.460	20738.770	0.3716%
Redwater, TX	10466.800	7767.450	9217.450	9058.350	6795.300	8893.900		
	6724.450	10608.750	10341.350	12345.400	15549.200	12658.750	120427.150	2.1579%
Central Bowie County	21635.378	18634.157	17601.436	15649.757	16495.513	17406.369		
	13157.599	21799.925	19217.702	30974.257	24947.385	21397.946	238917.424	4.2811%
Nash, TX	9202.000	7695.000	8620.000	8778.000	8128.000	8626.000		
	6352.000	9157.000	7237.000	9003.000	9019.000	5063.000	96880.000	1.7360%
Macedonia Eylau	20136.023	19375.389	21497.793	20229.356	15580.477	20076.335		
	16662.077	20369.356	19210.131	35174.512	11231.101	11608.362	231150.912	4.1420%
Red River County	0.000	23.290	567.660	406.870	64.690	161.800		
	80.020	237.110	96.770	0.010	516.020	58.590	2212.830	0.0397%
Day & Zimmerman	200.000	630.000	790.000	810.000	2160.000	1540.000		
	1150.000	510.000	1160.000	1120.000	1440.000	1180.000	12690.000	0.2274%
Leary, TX	2036.140	1810.560	2274.720	3814.630	1214.940	1634.610		
	1189.220	2005.700	1768.440	2342.760	2288.180	2830.480	25210.380	0.4517%
Mandeville, AR	2418.982	1856.228	2283.632	3755.458	769.259	1620.646		
	2015.292	2521.713	2987.615	1830.185	2230.840	2500.625	26790.475	0.4801%
Union Water	8440.340	6632.207	8281.511	12906.144	3640.839	6396.307		
	7856.129	9300.298	11827.879	7677.749	10077.451	9298.864	102335.718	1.8337%
MCPWA	7930.000	4620.000	4065.000	2820.000	6610.000	6780.000		
	5465.000	8650.000	7645.000	8725.000	10215.000	5655.000	79180.000	1.4188%
RWRD-TAC East	1660.000	1739.000	1961.000	2196.000	1811.000	1739.000		
	1679.000	1729.000	1660.000	3228.000	3672.000	3133.000	26207.000	0.4696%
Total Wholesale	86271.473	72427.041	78970.102	82049.125	64480.758	76346.577		
	63565.297	88730.002	85076.217	114664.813	93602.177	76557.077	982740.659	
New Boston, TX	29993.580	26255.000	23655.000	26180.000	20485.000	22353.000		
	19880.000	26328.000	28238.000	42571.000	30306.000	16360.000	312604.580	5.6015%
Hooks, TX	15383.000	13910.000	16518.000	13428.000	10134.000	12471.000		
	9242.000	13710.000	17636.000	14829.000	15907.000	15174.000	168342.000	3.0165%
DeKalb, TX	6530.000	5207.000	6276.000	5884.000	4791.000	5958.390		
	4259.210	6073.400	6176.000	6660.000	6303.000	5891.000	70009.000	1.2545%
Wake Village, TX	13308.000	11107.000	11555.000	11959.000	9811.000	12038.000		
	9210.000	13788.000	12695.000	15958.000	17677.000	15394.000	154500.000	2.7685%
Maud, TX	3718.000	3349.000	3631.000	3432.000	2811.000	3088.000		
	2256.000	3867.000	4630.000	6228.000	5909.000	4886.000	47805.000	0.8566%
Avery, TX	1772.100	1543.600	1482.000	1416.000	1133.500	1383.100		
	1077.700	1459.400	1320.800	1683.000	1598.500	2081.500	17951.200	0.3217%

FY23 Actual Consumption (1000 Gallons)
Oct 2022- Sep 2023

	OCT/ APR	NOV/ MAY	DEC/ JUN	JAN/ JUL	FEB/ AUG	MAR/ SEP	YTD	% OF TOTAL
Annona, TX	858.049 1493.698	993.377 2256.930	1176.031 1146.852	1351.933 1083.376	996.912 1417.121	974.801 2492.874	16241.954	0.2910%
RWRD- (RRAD)	17614.286 13844.170	14532.174 16124.870	17516.016 20190.890	16690.118 15641.990	12819.006 16840.730	16690.754 15463.190	193968.194	3.4757%
Total Member Cities & RWRD	89177.015 61262.778	76897.151 83607.600	81809.047 92033.542	80341.051 104654.366	62981.418 95958.351	74957.045 77742.564	981421.928	
Total Wholesale, Member Cities & RWRD	175448.488 124828.075	149324.192 172337.602	160779.149 177109.759	162390.176 219319.179	127462.176 189560.528	151303.622 154299.641	1964162.587	
Texarkana, AR	120079.590 101164.995	93210.609 116368.078	110328.808 152038.633	106438.025 172111.846	63733.137 249747.326	89424.537 151904.928	1526550.512	27.3540%
Texarkana, TX	199432.922 165295.930	154509.199 187695.320	160723.043 237697.608	107593.799 162982.975	158375.687 198291.146	138288.841 219122.431	2090008.901	37.4505%
Total Texarkana	319512.512 266460.925	247719.808 304063.398	271051.851 389736.241	214031.824 335094.821	222108.824 448038.472	227713.378 371027.359	3616559.413	
Total All	494961.000 391289.000	397044.000 476401.000	431831.000 566846.000	376422.000 554414.000	349571.000 637599.000	379017.000 525327.000	5580722.000	100.0001%

City of Texarkana, Texas
Proposed Water Cost Recap
9/30/2025

	2025 Annual Cost					2024 Annual Cost	Increase/
	Water	Infrastructure	Debt Service	2023 True Up	Total	Total	(Decrease)
New Boston	320,744	17,861	8,700	(4,792)	342,513	370,071	(27,558)
Hooks	176,183	11,376	5,541	(16,226)	176,875	230,811	(53,936)
DeKalb	80,377	10,719	5,221	(4,953)	91,365	92,044	(679)
Wake Village	170,710	8,162	3,976	(3,257)	179,590	204,158	(24,568)
Maud	56,054	5,618	2,737	10,108	74,517	57,296	17,221
Avery	24,434	-	-	(1,191)	23,243	22,602	641
Annona	23,432	1,537	749	8,785	34,503	19,224	15,279
Texarkana, AR	2,392,562	187,719			2,580,280	2,368,847	211,433
Texarkana, TX	3,816,793	257,007	136,757		4,210,558	4,144,375	66,183
RWRD	199,096			(103,804)	95,292	224,977	(129,685)
	$ 7,260,385	$ 500,000	$ 163,681	$ (115,330)	$ 7,808,736	$ 7,734,405	$ 74,331

	2025 Monthly Cost					2024 Monthly Cost	Increase/
	Water	Infrastructure	Debt Service	2023 True Up	Total	Total	(Decrease)
New Boston	26,729	1,488	725	(399)	28,543	30,839	(2,297)
Hooks	14,682	948	462	(1,352)	14,740	19,234	(4,495)
DeKalb	6,698	893	435	(413)	7,614	7,670	(57)
Wake Village	14,226	680	331	(271)	14,966	17,013	(2,047)
Maud	4,671	468	228	842	6,210	4,775	1,435
Avery	2,036	-	-	(99)	1,937	1,884	53
Annona	1,953	128	62	732	2,875	1,602	1,273
Texarkana, AR	199,380	15,643			215,023	197,404	17,619
Texarkana, TX	318,066	21,417	11,396		350,880	345,365	5,515
RWRD	16,591			(8,650)	7,941	18,748	(10,807)
	$ 605,032	$ 41,667	$ 13,640	$ (9,611)	$ 650,728	$ 644,534	$ 6,194

AGENDA ITEM VI. E.
RWRD RESO 20240726-05
Regional Water System
Debt Service Rate

RIVERBEND RESOLUTION NO. 20240724-05

ADOPTING THE FY 2025 REGIONAL WATER TREATMENT FACILITY DEBT SERVICE RATE

WHEREAS, Riverbend Water Resources District is a conservation and reclamation district created under and essential to accomplish the purposes of Section 59 Article XVI, Texas Constitution, existing pursuant to and having the powers set forth in Chapter 9601 of the Special District Local Laws Code of the State of Texas; and

WHEREAS, Riverbend Water Resources District presented the Regional Water Facility Fund budget on July 17, 2024 to discuss the project progress including the debt service rate;

WHEREAS, Due to the extension of bond closing dates, the proposed debt service rate is shown to stay at the current rate of $2.40/1000 gallons used for FY 25.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Riverbend Water Resources District hereby adopts the FY 25 Regional Water Treatment Facility Debt Service Rate of $2.40/1000 gallons.

PASSED and APPROVED this 24th day of July 2024

_____
Steve Mayo, President

ATTEST:

_____
Tina Veal Gooch, Secretary

Attached: Riverbend Water Treatment Project Debt Rate Structure

RIVERBEND WATER RESOURCES DISTRICT

Riverbend Water Resources District
Preliminary Debt Service Pro-Forma $497,900,000 TWDB Financing
Updated 7/10/24

FYE Year	Payment Month	RWRD Rate	Fund Balance	Growth Rate	Gallons Used	Total Projected Revenue	Total Combined P & I Pmts
2025	October	$2.40	$13,131,729	1.0066	3589768.255	$ 4,307,722	4,482,424
	April		$12,957,027			$ 4,307,722	1,049,475
2026	October	$3.60	$16,215,274	1.0066	3613460.725	$ 6,504,229	4,499,475
	April		$18,220,028			$ 6,504,229	1,035,278
2027	October	$4.80	$23,688,980	1.0066	3951986	$ 9,484,766	4,505,278
	April		$28,668,468			$ 9,484,766	7,420,244
2028	October	$6.00	$30,732,991	1.0066	3978069.108	$ 11,934,207	18,378,736
	April		$24,288,463			$ 11,934,207	7,918,093
2029	October	$6.00	$28,304,577	1.0066	4004324.364	$ 12,012,973	18,533,093
	April		$21,784,457			$ 12,012,973	7,766,502
2030	October	$6.15	$26,030,928	1.0066	4030752.905	$ 12,394,565	18,691,502
	April		$19,733,991			$ 12,394,565	7,607,271
2031	October	$6.15	$24,521,285	1.0066	4057355.874	$ 12,476,369	18,867,271
	April		$18,130,383			$ 12,476,369	7,440,734
2032	October	$6.15	$23,166,019	1.0066	4084134.422	$ 12,558,713	19,035,734
	April		$16,688,998			$ 12,558,713	7,266,593
2033	October	$6.25	$21,981,118	1.0066	4111089.71	$ 12,847,155	19,216,593
	April		$15,611,681			$ 12,847,155	7,084,605
2034	October	$6.25	$21,374,231	1.0066	4138222.902	$ 12,931,947	19,409,605
	April		$14,896,573			$ 12,931,947	6,894,428
2035	October	$6.25	$20,934,092	1.0066	4165535.173	$ 13,017,297	19,609,428
	April		$14,341,962			$ 13,017,297	6,695,956
2036	October	$6.25	$20,663,304	1.0066	4193027.705	$ 13,103,212	19,810,956
	April		$13,955,559			$ 13,103,212	6,489,215
2037	October	$6.25	$20,569,557	1.0066	4220701.688	$ 13,189,693	20,024,215
	April		$13,735,035			$ 13,189,693	6,274,135
2038	October	$6.25	$20,650,593	1.0066	4248558.319	$ 13,276,745	20,244,135
	April		$13,683,203			$ 13,276,745	6,050,918
2039	October	$6.25	$20,909,030	1.0066	4276598.804	$ 13,364,371	20,475,918
	April		$13,797,483			$ 13,364,371	5,818,828
2040	October	$6.25	$21,343,027	1.0066	4304824.356	$ 13,452,576	20,713,828
	April		$14,081,775			$ 13,452,576	5,577,355
2041	October	$6.15	$21,956,997	1.0066	4333236.197	$ 13,324,701	20,977,355
	April		$14,304,344			$ 13,324,701	5,325,919
2042	October	$6.15	$22,303,126	1.0066	4361835.556	$ 13,412,644	21,235,919
	April		$14,479,851			$ 13,412,644	5,064,511
2043	October	$6.00	$22,827,985	1.0066	4390623.67	$ 13,171,871	21,509,511
	April		$14,490,345			$ 13,171,871	4,793,058
2044	October	$6.00	$22,869,158	1.0066	4419601.787	$ 13,258,805	21,788,058
	April		$14,339,905			$ 13,258,805	4,511,214
2045	October	$6.00	$23,087,496	1.0066	4448771.158	$ 13,346,313	22,081,214
	April		$14,352,595			$ 13,346,313	4,218,573
2046	October	$6.00	$23,480,336	1.0066	4478133.048	$ 13,434,399	22,378,573

	April			$14,536,163			$ 13,434,399	3,914,826
2047	October		$6.00	$24,055,737	1.0066	4507688.726	$ 13,523,066	22,699,826
	April			$14,878,977			$ 13,523,066	3,599,415
2048	October		$6.00	$24,802,629	1.0066	4537439.472	$ 13,612,318	23,019,415
	April			$15,395,532			$ 13,612,318	3,272,209
2049	October		$6.00	$25,735,642	1.0066	4567386.572	$ 13,702,160	23,377,209
	April			$16,060,593			$ 13,702,160	2,932,231
2050	October		$5.50	$26,830,522	1.0066	4597531.324	$ 12,643,211	23,712,231
	April			$15,761,502			$ 12,643,211	2,579,696
2051	October		$5.50	$25,825,018	1.0066	4627875.03	$ 12,726,656	24,089,696
	April			$14,461,979			$ 12,726,656	2,213,531
2052	October		$5.50	$24,975,104	1.0066	4658419.006	$ 12,810,652	24,463,531
	April			$13,322,226			$ 12,810,652	1,833,537
2053	October		$5.50	$24,299,341	1.0066	4689164.571	$ 12,895,203	20,118,537
	April			$17,076,007			$ 12,895,203	1,484,359
2054	October		$5.50	$28,486,851	1.0066	4720113.057	$ 12,980,311	20,484,359
	April			$20,982,803			$ 12,980,311	1,121,275
2055	October		$3.50	$32,841,839	1.0066	4751265.803	$ 8,314,715	20,011,275
	April			$21,145,279			$ 8,314,715	761,875
2056	October		$2.70	$28,698,119	1.0066	4782624.158	$ 6,456,543	20,386,875
	April			$14,767,787			$ 6,456,543	388,288
2057	October		$0.00	$20,836,042	1.0066	4814189.477	$ -	20,773,288
	April			$62,754			$ -	-
								$ 787,154,366

AGENDA ITEM VI. F.
RWRD RESO 20240724-06
Carollo Contract Amendment

RIVERBEND RESOLUTION NO. 20240724-06

AUTHORIZING THE EXECUTIVE DIRECTOR/CEO TO EXECUTE AN AMENDED CONTRACT WITH CAROLLO ENGINEERS FOR TECHNICAL CONSULTING SERVICES FOR THE 6th CYCLE OF REGIONAL WATER PLANNING ON BEHALF OF NORTH EAST TEXAS REGIONAL WATER PLANNING GROUP

WHEREAS, Riverbend Water Resources District is a conservation and reclamation district created under and essential to accomplish the purposes of Section 59 Article XVI, Texas Constitution, existing pursuant to and having the powers set forth in Chapter 9601 of the Special District Local Laws Code of the State of Texas; and

WHEREAS, The North East Texas Regional Water Planning Group ("NETxRWPG" or "Region D") was established by the Texas Water Development Board (TWDB) on February 19, 1998, and any subsequent additional appointments by the initial coordinating body. The purpose of the NETxRWPG shall be to provide comprehensive regional water planning and to carry out the related responsibilities placed on regional water planning groups by state law, including Texas Water Code Chapter 16 and TWDB rules, including 31 TAC Chapter 355, 357, and 358, in and for the North East Texas Regional Water Planning Area; and

WHEREAS, on August 25, 2021, the Riverbend Board authorized Kyle Dooley, the Executive Director/CEO to execute a contract for technical consulting services with Carollo Engineers and further amended that contract on May 24, 2023; and

WHEREAS, Riverbend has a need to amend that contract to account for additional funds that have been made available through TWDB for the 6th cycle of regional water planning.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Riverbend Water Resources District hereby authorizes the Executive Director/CEO to execute an amendment to the contract with Carollo Engineers for technical consulting services for the 6th cycle of regional water planning on behalf of North East Texas Regional Water Planning Group.

PASSED and APPROVED this 24th day of July 2024

_____
Steve Mayo, President

ATTEST:

RIVERBEND WATER RESOURCES DISTRICT

_____
Tina Veal Gooch, Secretary

Attached: Carollo Engineers Contract Amendment

RIVERBEND WATER RESOURCES DISTRICT
with Carollo Engineers, Inc.
AMENDMENT NO. 2

This Amendment No. 2 to the Agreement between the RIVERBEND WATER RESOURCES DISTRICT of New Boston, Texas, (hereinafter "OWNER"), and Carollo Engineers, Inc., (hereinafter "ENGINEER") is issued by the OWNER and accepted by ENGINEER pursuant to the mutual promises, covenants and conditions contained in the Agreement between the above named parties dated the 4th day of August, 2021, and first amended effective June 1, 2023.

WITNESSETH:

WHEREAS, OWNER, as the political subdivision designated by the North East Texas Regional Water Planning Group (hereinafter "NETRWPG"), has entered into a contract with the Texas Water Development Board (TWDB), to complete tasks associated with the development of a Regional Water Plan for the NETRWPG as defined by 31 TAC Chapters 355, 357 & 358.

(hereinafter "Project"), and

WHEREAS, the contract between OWNER and the TWDB (TWDB Contract No. 2148302556; hereinafter the "TWDB Contract") is attached hereto as Attachment A; and

WHEREAS, the TWDB Contract between OWNER and the TWDB has been first amended (effective November 17, 2022; hereinafter "First Amended TWDB Contract") and is attached hereto as Attachment B; and

WHEREAS, the TWDB Contract between OWNER and the TWDB has been second amended (effective October 27, 2023, hereinafter "Second Amended TWDB Contract") and is attached hereto as Attachment C; and

WHEREAS, the TWDB Contract between OWNER and the TWDB has been third amended (effective May 20, 2024, hereinafter "Third Amended TWDB Contract") and is attached hereto as Attachment D; and

WHEREAS, the TWDB made additional committed funds in the amount of $580,207.00 available by the First and Second Amended TWDB Contracts, bringing the total COMMITTED FUNDS amount to $1,186,954.00; and

WHEREAS, OWNER has allocated $26,000.00 for administrative expenses, bringing the total ENGINEER COMMITTED FUNDS amount to 1,160,954.00; and

WHEREAS, a total of $290,103.50 identified by TWDB as Committed Funds will not become available until September 1, 2024; and

WHEREAS, the TWDB increased the not to exceed cost (TOTAL PROJECT COST) to $1,332,006.00; and

WHEREAS, ENGINEER shall receive $1,306,006.00 of the $1,332,006.00 in TOTAL PROJECT COST for performance of its obligations under the Agreement; and

WHEREAS, OWNER on behalf of the NETRWPG has retained ENGINEER, on the terms and conditions set forth in the Agreement, for the furnishing of Engineering Services in connection with preparing a Regional Water Plan for the NETRWPG as defined by 31 TAC Chapters 355, 357 & 358; and

WHEREAS, OWNER and ENGINEER have determined that additional scope activities and additional contract compensation are required; and

WHEREAS, OWNER and ENGINEER desire to amend the terms of the Agreement to ensure consistency with the First, Second, and Third Amended TWDB Contract.

NOW THEREFORE, for the considerations hereinafter set forth, and the understanding of each party to the other, OWNER and ENGINEER, acting as aforesaid and each binding itself, its successors and assigns, do mutually covenant, promise, and agree to amend the Agreement as follows:

1. Additional committed funding in the amount of $725,259.00, for a total not-to-exceed Agreement price of $1,306,006.00, for performance of Work under the Agreement is hereby made available.

2. The Agreement is hereby amended to be consistent with all changes and modifications set forth in the First, Second, and Third Amended TWDB Contract, attached hereto and incorporated by reference herein for all purposes as Attachments A, B, C, and D, and ENGINEER shall be responsible for complying with all such changes and modifications.

3. The Task and Expense Budgets in Exhibit “A” of the Agreement is hereby replaced with the Second Amended Task and Expense Budgets set forth in Attachment “E”, attached hereto and incorporated herein by reference for all purposes.

4. The General Guidelines for Development of the 2026 Regional Water Plans in Exhibit “B” of the Agreement is hereby replaced with the Second Amended General Guidelines for Development of the 2026 Regional Water Plans set forth in Attachment “F”, attached hereto and incorporated herein by reference for all purposes.

5. The Guidelines for 2026 Regional Water Plan Data Deliverables in Exhibit “C” of the Agreement is hereby replaced with the First Amended Guidelines for 2026 Regional Water Plan Data Deliverables set forth in Attachment “G”, attached hereto and incorporated herein by reference for all purposes.

6. Task Order 2 is hereby replaced with Task Order 3 set forth in Attachment “H”, attached hereto and incorporated herein by reference for all purposes.

The Scope of Services, Time of Performance, and Compensation are amended by the aforesaid Task Order 3, consistent with the First, Second, and Third Amended TWDB Contract.

All other provisions of the Agreement shall remain in force and unchanged.

Nothing herein shall be construed as creating any personal liability on the part of any officer, director, or agent of the District.

IN WITNESS WHEREOF, duly authorized representatives of the parties have signed in confirmation of this Amendment, with effective date the 14TH day of June, 2024.

CAROLLO ENGINEERS, INC.

By: _____

David K. Harkins, Ph.D., P.E.
Vice-President
PE #87732

ATTEST:

By: _____

Scott P. Hoff, P.E.
Senior Vice President
PE #89056

OWNER

By: _____

Kyle Dooley, P.E.
Executive Director

Attachment A

Contract between Riverbend Water Resources District and Texas Water Development Board

TEXAS WATER DEVELOPMENT BOARD

CONTRACT INITIATION FORM

TWDB Contact Information	
Contract Manager	Ron Ellis
Office/Division/Section	WSI/WSP/RWP
Phone Number	512-463-4146

Requested Action		
	X	New Contract
		Amendment
		Amendment No. (if applicable)

Payable/Receivable Contract Relationship

Payable or Receivable TWDB Contract Number(s) that this Contract is related to:

Contract Information and Funds Expiration

Contract No.	2148302556	Grant	Yes
Payable	X	Receivable	

Contract Dates

Board Approval Date (N/A if no date)	Start Date	Expiration Date
06/03/21	**02/01/21**	**08/31/26**

Most Recent Amendment Execution Date:		Original Contract Expiration Date:	

External Contract No.	
CFDA No.	

Contractor Information

Proposal Number	00005260
Vendor ID # (aka: Tax Payer ID#)	12636685401
Vendor Name	Riverbend Water Resources District
Street Address	228 Texas Avenue, Suite A
City, State, Zip	New Boston, Texas 75570
Telephone Number	903-831-0091
Vendor Contract Mgr/Email Address	Kyle Dooley/kyledooley@rwrd.org
Signer of Contract/Email Address	Kyle Dooley/kyledooley@rwrd.org

List of Counties for Study Area (Enter names, statewide, or non specific). If statewide, community count = 254

Bowie, Camp, Cass, Delta, Franklin, Gregg, Harrison, Hopkins, Hunt, Lamar, Marion, Morris, Rains, Red River, Smith (partial), Titus, Upshur, VanZandt, and Wood

Retainage for Contract

Retainage %	5%
Special Instructions	Retainage held until submittal of the final regional water plan.

Anticipated Budget

Contractor Share of Costs	$	-
TWDB Share of Costs	$	205,691.00
Receivable Share of Costs	$	-
Total Contract Costs	$	205,691.00

Detailed Description of Contract

Development of the 2026 Regional Water Plan - Region D

Detailed Description of Amendment

NA

Procurement & Contract Services

Vendor Checks

Please Initial each Item		
DC	USAS (PYADDR/PYHOLD)	
N/A	Franchise Tax Search	
N/A	SAM Check	Expiration Date: N/A
DC	Debarred Vendor List	
DC	Boycott Israel	
DC	Ties to Sudan/Iran/Foreign Terrorist Organizations/Designated Foreign Terrorist Org	
N/A	W-9 Received (new contractor only-if applicable)	

Best Value Standard - Procurement Method (X method used)

Method	X	Announcement/Publication
RFQ/RFP/RFA/RFO	X	580-21-RFA-0013
Interagency/Local		
Purchase		
Receivable Grant		
PCC CODE - For Finance Review		

If no PCC Code, DocType will be 9 and a legal cite is required.

Legal Cite:

BUDGET USE ONLY

TWDB SHARE

FUND (4-XXXX)	COBJ (4-XXXX)	MOF (3-XXX)	DEPT (4-XXXX)	PCA (5-XXXXX)	Work # (6-XXXXXX)	AY 2021	AY 2022	AY 2023	Total	Funds Expire
4830	7613	00	G710	21430	E02011	$ 205,691.00	$ -	$ -	$ 205,691.00	n/a
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
					TWDB Subtotal	$ 205,691.00	$ -	$ -	$ 205,691.00	

RECEIVABLE SHARE

FUND (4-XXXX)	COBJ (4-XXXX)	MOF (3-XXX)	DEPT (4-XXXX)	PCA (5-XXXXX)	Work # (6-XXXXXX)	AY 2021	AY 2022	AY 2023	Total	Funds Expire
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
					Receivable Subtotal	$ -	$ -	$ -	$ -	
					Contractor Subtotal	$ -	$ -	$ -	$ -	
					Contract Total	**$ 205,691.00**	**$ -**	**$ -**	**$ 205,691.00**	

APPROVAL SIGNATURES and CONFIRMATION OF COMPLIANCE WITH AGENCY POLICY & THE STATE OF TEXAS CONTRACT MANAGEMENT GUIDE

By signing this form, you are certifying that this contract packet and its contents meet with your approval

Contract Approval	Printed Name	Signature	Date
Procurement & Contract Services	Cameron Turner		7/7/2021
Budget Director [and Budget Officer]	Chris Hayden JM: JM	Christopher H. Hayden	7/10/2021
Contract Manager	Ron Ellis	Ron Ellis	7/8/2021
Program Manager	Sarah Backhouse	Sarah Backhouse	7/12/2021
Division Director	Temple McKinnon	Temple McKinnon	7/12/2021
Legal Counsel	Kaye Schultz	Kaye Schultz	7/7/2021
Accounting/Finance	LeeRoy Lopez LM: LM EE: EE	LeeRoy Lopez	7/12/2021
Deputy Executive Administrator	Jessica Pena	for AP	7/12/2021
Executive Administrator [or Designee]	Jeff Walker [or Amanda Lavin] AL	Jeff Walker	7/13/2021

Revised 4/27/21

STATE OF TEXAS

COUNTY OF TRAVIS

TWDB Contract No. 2148302556

RESEARCH AND PLANNING FUND

REGIONAL WATER PLANNING

This Contract, (hereinafter "CONTRACT"), between the Texas Water Development Board (hereinafter "TWDB") and Riverbend Water Resources District, the political subdivision designated by the REGIONAL WATER PLANNING GROUP as its representative (hereinafter "CONTRACTOR"), is composed of two parts: Section I - Specific Conditions and Exceptions to the Standard Agreement; and Section II - Standard Agreement. In the event of any conflict, the terms and conditions set forth in Section I will prevail over terms and conditions in Section II.

SECTION I. SPECIFIC CONDITIONS AND EXCEPTIONS TO STANDARD AGREEMENT

ARTICLE I. DEFINITIONS:

For the purposes of this CONTRACT, the following terms or phrases are defined as follows:

A. TWDB – the Texas Water Development Board, or its designated representative.

B. TWDB APPROVAL DATE – June 3, 2021

C. COMMITTED FUNDS – $205,691.00 is currently available to CONTRACTOR pursuant to the terms of this CONTRACT for development of the TECHNICAL MEMORANDUM and the REGIONAL WATER PLAN. The COMMITTED FUNDS include necessary and direct costs incurred on or after contract execution, and certain eligible costs related to Task 10 incurred on or after the CONTRACT INITIATION DATE.

D. CONTRACT INITIATION DATE (START DATE)– February 1, 2021

E. CONTRACTOR – Riverbend Water Resources District

F. DEADLINE FOR CONTRACT EXECUTION – August 31, 2021

G. EXECUTIVE ADMINISTRATOR – the Executive Administrator of TWDB or a designated representative.

H. TECHNICAL MEMORANDUM – a memorandum to be prepared by CONTRACTOR and submitted to the EXECUTIVE ADMINISTRATOR in accordance with 31 Texas Administrative Code §§ 357.10(34) and 357.12(c).

I. TECHNICAL MEMORANDUM DEADLINE – March 4, 2024

J. INITIALLY PREPARED REGIONAL WATER PLAN – the Regional Water Plan to be initially prepared by CONTRACTOR and submitted to the EXECUTIVE ADMINISTRATOR for comments pursuant to the CONTRACT.

K. INITIALLY PREPARED REGIONAL WATER PLAN DEADLINE (PROJECT COMPLETION DATE) – March 3, 2025

L. REGIONAL WATER PLAN – a plan including any amendments that have been adopted by the REGIONAL WATER PLANNING GROUP and that meets the requirements contained in Texas Water Code § 16.053 and 31 Texas Administrative Code Chapters 357 and 358 and is submitted to TWDB for approval.

M. FINAL REGIONAL WATER PLAN DEADLINE – October 20, 2025.

N. FIRST REIMBURSEABLE EXPENSE DATE – The first day that work performed under this CONTRACT is eligible for reimbursement will be the CONTRACT INITIATION DATE for limited administrative costs associated with public notices. For activities involving technical work under this CONTRACT, the eligible reimbursement date will be the date that the required public meeting to receive preplanning input from the public is held by the REGIONAL WATER PLANNING GROUP per 31 Texas Administrative Code §357.12(a) and following the TWDB APPROVAL DATE. TWDB will not reimburse expenses associated with Exhibit A, Scope of Work, until after contract execution.

O. FINAL REIMBURSEABLE EXPENSE DATE – The last day that work performed under this CONTRACT is eligible for reimbursement will be February 27, 2026.

P. FINAL PAYMENT REQUEST DEADLINE – The latest day that the final payment request may be submitted for reimbursement will be April 30, 2026.

Q. CONTRACT EXPIRATION DATE – This CONTRACT expires on August 31, 2026. The last day that any budget amendment requests may be submitted under the CONTRACT will be July 31, 2026.

R. REGIONAL WATER PLANNING AREA – Region D, designated under Texas Water Code § 16.053 and 31 Texas Administrative Code § 357.11.

S. REGIONAL WATER PLANNING GROUP – Region D, North East Texas, Regional Water Planning Group, designated under and in compliance with Texas Water Code §16.053 and 31 Texas Administrative Code § 357.11 to develop regional water plans.

T. STATE WATER PLANNING DATABASE – A database developed and maintained by TWDB that stores data related to water planning. It is used to collect, analyze, and disseminate regional and statewide water planning data.

U. TOTAL PROJECT COST – The full appropriation anticipated to be received over the five-year planning cycle for necessary and direct planning costs for development of the REGIONAL WATER PLAN.

V. PAYMENT REQUEST SCHEDULE – A minimum of quarterly.

ARTICLE II. OTHER SPECIAL CONDITIONS AND EXCEPTIONS TO STANDARD AGREEMENT OF THIS CONTRACT.

A. TWDB will not be liable for any expenses incurred in excess of COMMITTED FUNDS.

At the time of the execution of this CONTRACT, TWDB was not appropriated sufficient funds for CONTRACTOR to complete the REGIONAL WATER PLAN. TWDB hereby makes available to CONTRACTOR pursuant to the terms of this CONTRACT an amount sufficient to complete the initial Scope of Work. If additional funds are appropriated to TWDB for the purpose of making grants for preparation of regional water plans, the EXECUTIVE ADMINISTRATOR and CONTRACTOR may amend this CONTRACT to provide additional COMMITTED FUNDS and an additional Scope of Work to complete preparation of the TECHNICAL MEMORANDUM, INITIALLY PREPARED REGIONAL WATER PLAN, and REGIONAL WATER PLAN.

If at any time the EXECUTIVE ADMINISTRATOR determines that there will not be sufficient additional appropriated funds to complete the REGIONAL WATER PLAN, the EXECUTIVE ADMINISTRATOR will either issue an order to terminate this CONTRACT pursuant to the terms of Section II, Article VII or negotiate amendments to the scope of work. CONTRACTOR agrees to use its best efforts to timely negotiate any required amendments.

This CONTRACT does not require CONTRACTOR to incur costs beyond those that can be paid with COMMITTED FUNDS. However, this provision does not relieve the REGIONAL WATER PLANNING GROUP from its duty under Texas Water Code § 16.053 to prepare a regional water plan.

B. Other provisions specific to each region: None.

C. Exhibit D – *Guidelines for 2026 Regional Water Plan Data Deliverables,* is currently being updated and will be incorporated once the final document is developed by TWDB.

SECTION II. STANDARD AGREEMENT

ARTICLE I. RECITALS

Whereas, CONTRACTOR has been designated by the REGIONAL WATER PLANNING GROUP as its representative to enter into Contracts with TWDB for financial assistance to develop a REGIONAL WATER PLAN for the REGIONAL WATER PLANNING AREA; and

Whereas, CONTRACTOR applied to TWDB for a planning grant to develop a REGIONAL WATER PLAN; and

Whereas, CONTRACTOR is the entity acting as administrator of TWDB's planning grant and responsible for the execution of this CONTRACT; and

Whereas, on TWDB APPROVAL DATE, TWDB approved CONTRACTOR's application for financial assistance;

Now, therefore, TWDB and CONTRACTOR agree as follows:

ARTICLE II. PROJECT DESCRIPTION AND SERVICES TO BE PERFORMED

A. CONTRACTOR must develop a TECHNICAL MEMORANDUM, INITIALLY PREPARED REGIONAL WATER PLAN, and REGIONAL WATER PLAN for the REGIONAL WATER PLANNING AREA according to:
   1. Exhibit A – Initial Scope of Work
   2. Exhibit B – Task and Expense Budgets
   3. Exhibit C – General Guidelines for Development of the 2026 Regional Water Plans
   4. Exhibit D – Guidelines for 2026 Regional Water Plan Data Deliverables
   5. Exhibit E – Original Application (cover pages as a reference to the full, original grant application)

B. The EXECUTIVE ADMINISTRATOR will provide technical assistance to CONTRACTOR within available resources if such assistance is requested for performing regional water planning activities; and, as necessary, will facilitate resolution of conflicts within the REGIONAL WATER PLANNING AREA or between regions.

C. CONTRACTOR must provide for public participation in the planning process as specified in Texas Water Code § 16.053 and 31 Texas Administrative Code § 357.21.

D. CONTRACTOR must provide its best efforts as determined by the EXECUTIVE ADMINISTRATOR to produce a REGIONAL WATER PLAN that has been adopted by the REGIONAL WATER PLANNING GROUP and that was developed in accordance with the statutory and rule requirements identified in this CONTRACT.

E. CONTRACTOR must obtain prior approval of the REGIONAL WATER PLANNING GROUP for all potentially feasible water management strategies and water management strategy projects to be evaluated as part of the REGIONAL WATER PLAN development.

ARTICLE III. SCHEDULE, REPORTS, AND OTHER PRODUCTS

A. CONTRACTOR must execute this CONTRACT on or before the DEADLINE FOR CONTRACT EXECUTION or TWDB's commitment to pay COMMITTED FUNDS will be rescinded.

B. This CONTRACT begins on the CONTRACT INITIATION DATE and expires on the CONTRACT EXPIRATION DATE.

C. CONTRACTOR must provide written progress reports according to the PAYMENT REQUEST SCHEDULE with each payment reimbursement request or release of advance funds. The progress reports must include:
   1. a brief statement of the overall progress made since the last progress report for each task budget item;
   2. a brief description of any problems that have been encountered during the previous reporting period that may affect the project, delay the timely completion of any portion of this CONTRACT, or inhibit the completion of or cause a change in any of the project's products or objects; and
   3. a description of any action CONTRACTOR plans to take to correct any problems that have been encountered or identified.

D. CONTRACTOR must complete the TECHNICAL MEMORANDUM according to Article II, Paragraph A of this Section. CONTRACTOR must submit the TECHNICAL MEMORANDUM to the REGIONAL WATER PLANNING GROUP for approval at a REGIONAL WATER PLANNING GROUP meeting. After such approval, CONTRACTOR must submit the TECHNICAL MEMORANDUM to the EXECUTIVE ADMINISTRATOR, if the REGIONAL WATER PLANNING GROUP authorizes such submittal. CONTRACTOR must deliver two electronic copies of the TECHNICAL MEMORANDUM, one (1) in searchable Portable Document Format (PDF) and one (1) in Microsoft Word (MSWord) Format, to the EXECUTIVE ADMINISTRATOR no later than the TECHNICAL MEMORANDUM DEADLINE.

   CONTRACTOR must populate TWDB's state water planning database with associated data, prior to submission of the TECHNICAL MEMORANDUM in accordance with this CONTRACT.

   The TECHNICAL MEMORANDUM DEADLINE may be extended at the discretion of the EXECUTIVE ADMINISTRATOR either on the EXECUTIVE ADMINISTRATOR's initiative or upon a written request received from CONTRACTOR, at least thirty (30) days prior to the deadline, stating good cause for the extension.

   TWDB will not accept a TECHNICAL MEMORANDUM or consider it administratively complete until the associated data in TWDB's state water planning database is complete and accurate, and the required database reports are included in the TECHNICAL MEMORANDUM in accordance with this CONTRACT.

   After a 30-day review period, the EXECUTIVE ADMINISTRATOR will either accept or reject the TECHNICAL MEMORANDUM based on administrative completeness. If the TECHNICAL MEMORANDUM is rejected, the rejection letter sent to CONTRACTOR

will state the reasons for rejection and the steps CONTRACTOR needs to take to have the TECHNICAL MEMORANDUM accepted.

In the event CONTRACTOR has produced a TECHNICAL MEMORANDUM that, despite CONTRACTOR'S best efforts, has not been authorized for submittal by the REGIONAL WATER PLANNING GROUP, CONTRACTOR must provide all data, material, reports, and work accomplished under the CONTRACT to TWDB.

E. CONTRACTOR or CONTRACTOR's representative (e.g., Subcontractor) must attend at least one state water planning database training session provided by TWDB staff at times and locations to be determined by TWDB.

F. CONTRACTOR must complete the INITIALLY PREPARED REGIONAL WATER PLAN according to Article II, Paragraph A of this Section. CONTRACTOR must submit the INITIALLY PREPARED REGIONAL WATER PLAN to the REGIONAL WATER PLANNING GROUP and allow the REGIONAL WATER PLANNING GROUP to conduct a public hearing to receive and consider comments on the INITIALLY PREPARED REGIONAL WATER PLAN. CONTRACTOR must submit the adopted and certified INITIALLY PREPARED REGIONAL WATER PLAN to the EXECUTIVE ADMINISTRATOR after the REGIONAL WATER PLANNING GROUP authorizes such submittal. The REGIONAL WATER PLANNING GROUP may submit the INITIALLY PREPARED REGIONAL WATER PLAN prior to the required public hearing but must assure the EXECUTIVE ADMINISTRATOR that the hearing will be completed in time to meet the FINAL REGIONAL WATER PLAN DEADLINE for submission of an adopted REGIONAL WATER PLAN. CONTRACTOR must deliver two (2) bound double-sided copies and two electronic copies of a INITIALLY PREPARED REGIONAL WATER PLAN, one (1) in searchable Portable Document Format (PDF) and one (1) in Microsoft Word (MSWord) Format, to the EXECUTIVE ADMINISTRATOR no later than the INITIALLY PREPARED REGIONAL WATER PLAN DEADLINE. The EXECUTIVE ADMINISTRATOR will provide any written comments to CONTRACTOR within 120 calendar days.

CONTRACTOR must populate the state water planning database, including resolution of data checks and appeals, by the INITIALLY PREPARED REGIONAL WATER PLAN DEADLINE, in accordance with this CONTRACT. CONTRACTOR must incorporate the required online planning database reports from the state water planning database within the submitted INITIALLY PREPARED REGIONAL WATER PLAN in accordance with this CONTRACT.

The INITIALLY PREPARED REGIONAL WATER PLAN DEADLINE may be extended at the discretion of the EXECUTIVE ADMINISTRATOR either on their own initiative or upon written request received from CONTRACTOR at least thirty (30) days prior to the deadline, stating good cause for the extension.

G. CONTRACTOR must include a copy of the EXECUTIVE ADMINISTRATOR's comments on the INITIALLY PREPARED REGIONAL WATER PLAN in the adopted REGIONAL WATER PLAN, with a summary of all other comments received on the INITIALLY PREPARED REGIONAL WATER PLAN, including written explanations of how the

REGIONAL WATER PLAN was revised in response to comments or why changes recommended in a comment were not warranted.

CONTRACTOR must submit:

- one (1) electronic copy of all files on which the plan is based (e.g. spreadsheets, maps);
- two (2) electronic copies of the entire REGIONAL WATER PLAN, one (1) in searchable Portable Document Format (PDF) and one (1) in Microsoft Word (MSWord) Format. In compliance with 1 Texas Administrative Code Chapters 206 and 213 (related to Accessibility and Usability of State Web Sites, Web Content Accessibility Guidelines (WCAG) 2.1 Level AA Standard – WCAG 2.1 Quick Reference, which can be found at: https://www.w3.org/WAI/WCAG21/quickref/), the electronic copy of the REGIONAL WATER PLAN must comply with the requirements and standards specified in statute; and,
- five (5) bound, double-sided copies of the REGIONAL WATER PLAN to the EXECUTIVE ADMINISTRATOR no later than the FINAL REGIONAL WATER PLAN DEADLINE.

H. CONTRACTOR must make corrections, updates, or modifications, to the TWDB state water planning database, as necessary, prior to the FINAL REGIONAL WATER PLAN DEADLINE in accordance with this CONTRACT. TWDB will not accept a REGIONAL WATER PLAN or consider it administratively complete until the associated data in TWDB's state water planning database is complete and accurate and the relevant state water planning database reports are included in the REGIONAL WATER PLAN. CONTRACTOR also must transfer copies of all data and reports generated by the planning process and used in developing the REGIONAL WATER PLAN to the EXECUTIVE ADMINISTRATOR no later than the FINAL REGIONAL WATER PLAN DEADLINE. The REGIONAL WATER PLAN and the data collected and transmitted for the REGIONAL WATER PLAN must be prepared in the format and according to specifications prescribed in Regional Water Planning Guidance Documents to this CONTRACT. In the event CONTRACTOR has produced a REGIONAL WATER PLAN, that despite CONTRACTOR'S best efforts has not been adopted by the REGIONAL WATER PLANNING GROUP, CONTRACTOR must provide all data, material, reports, and work accomplished under the CONTRACT to TWDB.

I. Delivery of a REGIONAL WATER PLAN that meets statutory and rule requirements as determined by the EXECUTIVE ADMINISTRATOR on or before the FINAL REGIONAL WATER PLAN DEADLINE constitutes completion of the terms of this CONTRACT by CONTRACTOR.

J. After a 90-day review period, the EXECUTIVE ADMINISTRATOR will either accept or reject the adopted final REGIONAL WATER PLAN. If the final plan is rejected, the rejection letter sent to CONTRACTOR will state the reasons for rejection and the steps CONTRACTOR must take to have the adopted final REGIONAL WATER PLAN accepted and the retainage released.

K. ANNUAL AUDIT. During the term of this CONTRACT, TWDB reserves the right to request that CONTRACTOR submit an annual audit of the general purpose financial statements prepared in accordance with generally accepted auditing standards by a certified public accountant or licensed public accountant.

ARTICLE IV. COMPENSATION AND REIMBURSEMENT

A. TWDB agrees to compensate and reimburse CONTRACTOR in a total amount not to exceed the COMMITTED FUNDS for costs incurred and paid by CONTRACTOR pursuant to performance of this CONTRACT, as specified in Section I, Article I.

B. Eligible expenses incurred by CONTRACTOR from the FIRST REIMBURSEABLE EXPENSE DATE through FINAL REIMBURSEABLE EXPENSE DATE will be reimbursed by TWDB. CONTRACTOR will be eligible for reimbursement only for the categories set forth in the budget for this CONTRACT. All requests for reimbursement must be accompanied by copies of invoices and receipts. TWDB will reimburse the actual expenses allowed herein during the term of the CONTRACT.

C. Requests for Advance or Reimbursement for Subcontractor Expenses. Requests for advance or reimbursement for subcontractor expenses will only be considered where such subcontracts or agreements have been determined by the EXECUTIVE ADMINISTRATOR to be consistent with the terms of this CONTRACT. The purpose of this review is solely to ensure that the subcontracts and agreements are consistent with this CONTRACT and that the rights of TWDB, particularly in regard to ownership of data, are protected. CONTRACTOR understands that CONTRACTOR should obtain its own legal review of subcontracts and agreements that CONTRACTOR enters into. CONTRACTOR agrees that TWDB assumes no legal obligations under CONTRACTOR's subcontracts or agreements and is merely a third-party beneficiary of the same. CONTRACTOR is fully responsible for paying all eligible charges by subcontractors prior to reimbursement by TWDB.

Each subcontract or agreement must include a task and expense budget estimate in a format similar to Exhibit B to this CONTRACT, with specific cost details for each task or specific item of work to be performed by the subcontractor and for each category of reimbursable expenses. The subcontracts and agreements must conform to the terms of the CONTRACT and include provisions which require subcontractor compliance with TWDB rules. The subcontracts and agreements must provide that in the event of any conflict with the provisions of this CONTRACT the provisions of the CONTRACT will prevail. In addition, each subcontract or agreement that in any manner involves the collection or manipulation of data must include the provisions in Paragraph D of this Article below.

D. CONTRACTOR must adhere to all requirements in state law and TWDB rules pertaining to the procurement of professional services, including 31 TAC § 355.92(d). Expenses incurred under subcontracts or agreements that have not been approved by the EXECUTIVE ADMINISTRATOR or do not otherwise comply with the terms of this CONTRACT are not eligible for reimbursement.

E. CONTRACTOR has budget flexibility within task and expense budget categories to the extent that the amount billed in any one task or expense category does not exceed 35 percent of the total authorized amount for the task or expense budget category, with the exception of funds allocated to the expense budget category Subcontractor Services. Larger deviations require submission of a written request and approval by the REGIONAL WATER PLANNING GROUP and the EXECUTIVE ADMINISTRATOR or designee, which will be documented through an Approved Budget Memorandum to the TWDB contract file. CONTRACTOR will be required to provide written explanation for the overage and reallocation of the task and expense amount. Associated shifts in amounts between budget task and expense categories authorized under this paragraph will not change the COMMITTED FUNDS amount. For all reimbursement billings, including any SUBCONTRACTOR expenses, EXECUTIVE ADMINISTRATOR must have determined that the SUBCONTRACTS between CONTRACTOR and SUBCONTRACTOR(s) are consistent with the terms of this CONTRACT. CONTRACTOR is fully responsible for paying all charges by SUBCONTRACTOR(s) prior to reimbursement by TWDB.

F. CONTRACTOR and its SUBCONTRACTOR(s) must maintain and retain all records relating to the performance of the CONTRACT, including supporting fiscal documents adequate to ensure that claims for funds are in accordance with applicable State of Texas requirements. These records must be maintained and retained by CONTRACTOR for a period of four (4) years after the CONTRACT expiration date or until all audit, claim, and litigation matters are resolved, whichever is later. TWDB reserves the right to direct CONTRACTOR to retain documents for a longer period of time or transfer certain records to TWDB custody when it is determined the records possess longer term retention value. CONTRACTOR must include the substance of this clause in all subawards and subcontracts.

G. CONTRACTOR must provide information to an entity or person who is independent of CONTRACTOR and who is selected by the REGIONAL WATER PLANNING GROUP sufficient to allow that person or entity to routinely provide reports of expenses and use of planning funds to the REGIONAL WATER PLANNING GROUP. The person to whom the information is provided may be a member of the REGIONAL WATER PLANNING GROUP. CONTRACTOR must allow such person or entity full access to all records relating to this CONTRACT, including all financial records.

H. Within thirty (30) days after the execution of this CONTRACT, the EXECUTIVE ADMINISTRATOR will advance to CONTRACTOR twenty percent of the COMMITTED FUNDS, unless CONTRACTOR requests and the EXECUTIVE ADMINISTRATOR approves advances of less than twenty percent.

I. All advanced funds received must be deposited into an interest-bearing account by CONTRACTOR.

J. When CONTRACTOR has paid expenses equal to ninety (90) percent of the previous advance, CONTRACTOR may submit a written request to the EXECUTIVE

ADMINISTRATOR for another twenty percent advance of the COMMITTED FUNDS (or less if requested by CONTRACTOR and approved by the EXECUTIVE ADMINISTRATOR). CONTRACTOR must attach to the request a written progress report described in Article III, Paragraph C of this Section, a listing of actual expenses incurred and documents showing payment of such expenses (including those for force labor activities valued at rates consistent with those ordinarily paid for similar work in CONTRACTOR's organization), and statements or documents showing any interest earned on the previous advance. Any interest earned by CONTRACTOR will be considered part of TWDB's payment of COMMITTED FUNDS and used only for COMMITTED FUNDS.

K. Within thirty (30) days of approving the request, the EXECUTIVE ADMINISTRATOR will advance another twenty percent of the COMMITTED FUNDS, up to ninety-five percent of the total COMMITTED FUNDS. The remaining five percent of COMMITTED FUNDS (retainage) will be held until CONTRACTOR submits a REGIONAL WATER PLAN, as described in Article III, Paragraphs G and H of this Section. If the EXECUTIVE ADMINISTRATOR determines that CONTRACTOR has utilized its best efforts to have a REGIONAL WATER PLAN adopted by the REGIONAL WATER PLANNING GROUP for submittal to TWDB, but has been unable despite those best efforts to do so, the EXECUTIVE ADMINISTRATOR has the discretion to release the five percent retainage.

L. CONTRACTOR must submit payment requests and documentation for reimbursement in accordance with the approved task and expense budgets contained in Exhibit B to this CONTRACT. For all reimbursement billings, including any subcontractor's expenses, the EXECUTIVE ADMINISTRATOR must have provided written approval of all CONTRACTS or agreements between CONTRACTOR and the SUBCONTRACTOR(s). CONTRACTOR is fully responsible for paying all eligible charges by SUBCONTRACTOR(s) prior to reimbursement by TWDB.

M. The written progress report required by Article III, Paragraph C of this Section, and the following documentation for the COMMITTED FUNDS, must be submitted by CONTRACTOR to the EXECUTIVE ADMINISTRATOR in support of its requests for reimbursement. CONTRACTOR must submit a progress report and the following documentation for the COMMITTED FUNDS for the reporting period:

1. Completed and Signed Payment Request Checklist which includes the following:
   (a) TWDB CONTRACT Number;
   (b) Total expenses for the billing period; beginning (date) to ending (date);
   (c) Total Services for this billing period;
   (d) Total In-kind services;
   (e) Less Local Share of the COMMITTED FUNDS for the billing period;
   (f) Total of TWDB's share of the COMMITTED FUNDS for the billing period;
   (g) Amount of retainage to be withheld for the billing period;
   (h) Total costs to be reimbursed by TWDB for the billing period; and

(i) Certification, signed by CONTRACTOR's authorized representative, that the expenses submitted for the billing period are a true and correct representation of amounts paid for work performed directly related to this CONTRACT.

2. For direct expenses incurred by CONTRACTOR other than subcontracted work:
   (a) A spreadsheet showing the tasks that were performed; the percent and cost of each task completed; a total cost figure for each direct expense category including labor, fringe, overhead, travel, and other expenses such as communication and postage, technical and computer services, expendable supplies, printing and reproduction; and
   (b) Copies of invoices for other expenses.

3. For direct expenses incurred by CONTRACTOR for subcontracted work:
   (a) Copies of invoices from the SUBCONTRACTOR(S) to CONTRACTOR
   (b) A spreadsheet showing the tasks that were performed; the percent and cost of each task completed; a total cost figure for each direct expense category including labor, fringe, overhead, travel, and other expenses such as communication and postage, technical and computer services, expendable supplies, printing and reproduction; and the total dollar amount due to the SUBCONTRACTOR(S); and
   (c) Copies of invoices for other expenses.

4. For travel expenses for CONTRACTOR and/or subcontractor(s):
   (a) Names, dates, work locations, time periods at work locations, itemization of subsistence expenses of each employee, which will be reimbursed at rates authorized for state employees by the General Appropriations Act, Tex. Leg. Regular Session, 2019, Article IX, Part 5, as amended or superseded. Receipts required for lodging. Any eligible travel expenses related to a subcontract may be reimbursed at the current rate for State of Texas employees which can be found at: https://fmx.cpa.state.tx.us/fmx/travel/textravel/trans/personal.php
   (b) Copies of invoices or tickets for transportation costs or, if not available, names, dates, and points of travel of individuals; and
   (c) All other reimbursable travel expenses - invoices or purchase vouchers showing reason for expense with receipts to evidence the amount incurred.

5. Incomplete requests will be returned to CONTRACTOR if deficiencies are not resolved within ten (10) business days.

6. If for some reason the reimbursement request cannot be processed due to the need for an amendment to the CONTRACT, CONTRACTOR must resubmit the Payment Request Checklist dated after the execution of the amendment.

N. CONTRACTOR must provide a final reconciliation of expended amounts under the CONTRACT. Within thirty (30) days of the EXECUTIVE ADMINISTRATOR'S final accounting of the amounts expended by CONTRACTOR and the amounts advanced by the TWDB to CONTRACTOR, CONTRACTOR must refund to TWDB any advances not used for expenses approved by the EXECUTIVE ADMINISTRATOR, and any interest earned but not expended on such approved expenses. If the amounts expended by CONTRACTOR exceed the amounts advanced by TWDB, the EXECUTIVE ADMINISTRATOR will reimburse the difference, provided the reimbursement does not exceed the COMMITTED FUNDS.

ARTICLE V. INTELLECTUAL PROPERTY: OWNERSHIP, PUBLICATION, AND ACKNOWLEGEMENT

A. "Use" of a work product, whether a Contractor Work, a Subcontractor Work or otherwise, means and includes, without limitation, any lawful use, copying or dissemination of the work product, or any lawful development, use, copying or dissemination of derivative works of the work product, in any media or forms, whether now known or later existing.

B. "No Compensation Obligation" means there is no obligation on the part of one co-owner or licensee of a work, whether a Contractor Work, a Subcontractor Work or otherwise, to compensate other co-owners, licensees or licensors of the work for any use of the work by the using co-owner or licensee, including but not limited to compensation for or in the form of: royalties; co-owner or licensee accounting; sharing of revenues or profits among co-owners, licensees or licensors; or any other form of compensation to the other co-owners, licensees or licensors on account of any use of the work.

C. "Dissemination" includes, without limitation, any and all manner of: physical distribution; publication; broadcast; electronic transmission; Internet streaming; posting on the Internet or world wide web; or any other form of communication, transmission, distribution, sending or providing, in any forms or formats, and in or using any media, whether now known or later existing.

D. TWDB has an unlimited, unrestricted, perpetual, irrevocable, non-exclusive royalty-free right to access and receive in usable form and format, and to use all technical or other data or information developed by CONTRACTOR and SUBCONTRACTOR in, or otherwise resulting from, the performance of services under this CONTRACT.

E. For purposes of this Article, "Contractor Works" are work products developed by CONTRACTOR and Subcontractor(s) using funds provided under this CONTRACT or otherwise rendered in or related to the performance in whole or in part of this CONTRACT, including but not limited to reports, drafts of reports, or other material, data, drawings, studies, analyses, notes, plans, computer programs and codes, or other work products, whether final or intermediate.

1. It is agreed that all Contractor Works are the joint property of TWDB and CONTRACTOR.
2. The parties hereby agree that, if recognized as such by applicable law, the Contractor Works are intended to and are works-made-for-hire with joint ownership between TWDB and CONTRACTOR as such works are created in whole or in part.
3. If the Contractor Works do not qualify as works-made-for-hire under applicable law, CONTRACTOR hereby conveys co-ownership interest in such works to TWDB as they are created in whole or in part. If present conveyance is ineffective under applicable law, CONTRACTOR agrees to convey a co-ownership interest in the Contractor Works to TWDB after creation in whole or in part of such works, and to provide written documentation of such conveyance upon request by TWDB.
4. TWDB and CONTRACTOR acknowledge that the copyright in and to a copyrightable Contractor Work exists upon creation of the Contractor Work and its fixing in any tangible medium. CONTRACTOR or TWDB may register the copyrights to such Works jointly in the names of CONTRACTOR and TWDB.
5. TWDB and CONTRACTOR each have full and unrestricted rights to use a Contractor Work with No Compensation Obligation.

F. For purposes of this Article, "Subcontractor Works" include all work product developed in whole or in part by or on behalf of SUBCONTRACTOR(S) engaged by CONTRACTOR to perform work for or on behalf of CONTRACTOR under this CONTRACT (or by the SUBCONTRACTOR'S SUBCONTRACTOR(S) hereunder, and so on). CONTRACTOR must secure in writing from any SUBCONTRACTOR(S) so engaged:

1. unlimited, unrestricted, perpetual, irrevocable, royalty-free rights of TWDB (and, if desired, of CONTRACTOR) to access and receive, and to use, any and all technical or other data or information developed in or resulting from the performance of services under such engagement, with No Compensation Obligation; and either:
2. assignment by SUBCONTRACTOR to TWDB (and, if desired by them, jointly to CONTRACTOR) of ownership (or joint ownership with CONTRACTOR) of all Subcontractor Works, with No Compensation Obligation; or
3. grant by SUBCONTRACTOR of a non-exclusive, unrestricted, unlimited, perpetual, irrevocable, world-wide, royalty-free license to TWDB (and, if desired by them, CONTRACTOR) to use any and all Subcontractor Works, including the right to sublicense use to third parties, with No Compensation Obligation.

G. No unauthorized patents. Contractor Works and Subcontractor Works or other work product developed or created in the performance of this CONTRACT or otherwise using funds provided hereunder must not be patented by CONTRACTOR or its SUBCONTRACTOR(s) unless the Executive Administrator consents in writing to submission of an application for patent on such works; and provided that, unless otherwise agreed in writing:

1. any application made for patent must include and name TWDB (and, as applicable and desired by them, both CONTRACTOR and the SUBCONTRACTOR(S)) as co-owners of the patented work;
2. no patent granted will in any way limit, or be used by CONTRACTOR or SUBCONTRACTOR(S) to limit or bar TWDB's rights hereunder to access and receive in useable form and format, and right to use, any and all technical or other data or information developed in or resulting from performance pursuant to this CONTRACT or Subcontract or the use of funds provided hereunder; and
3. TWDB (and, if applicable, CONTRACTOR) has No Compensation Obligation to any other co-owners or licensees of any such patented work.

H. CONTRACTOR must include terms and conditions in all CONTRACTS or other engagement agreements with any SUBCONTRACTOR(S) as are necessary to secure these rights and protections for TWDB; and must require that its Subcontractors include similar such terms and conditions in any CONTRACTS or other engagements with its Subcontractors. For the purposes of this section, "SUBCONTRACTOR(S)" includes independent contractors (including consultants) and also employees working outside the course and scope of employment.

I. Any work products subject to a TWDB copyright or joint copyright and produced or developed by CONTRACTOR or its SUBCONTRACTOR(S) pursuant to this CONTRACT or Subcontract or using any funding provided by TWDB may be reproduced in any media, forms or formats by TWDB or CONTRACTOR at their own cost, and be disseminated in any medium, format or form by any party at its sole cost and in its sole discretion. CONTRACTOR may utilize such work products as it deems appropriate, including dissemination of such work products or parts thereof under its own name, provided that any TWDB copyright is noted on the materials.

J. CONTRACTOR agrees to acknowledge TWDB in any news releases or other publications relating to the work performed under this CONTRACT.

ARTICLE VI. SUBCONTRACTS

Each Subcontract entered into to perform required work under this CONTRACT must contain the following information and provisions:

A. **Contract Dates** –There must be a starting date and ending date for work under the Subcontract.

B. **Contract Amount** – The subcontract must list the total dollar value.

C. **Terms of Reimbursement** – Subcontracts must be cost reimbursable. Lump sum agreements are not permitted for services. Please also note that TWDB does not reimburse "handling costs" (mark-ups) on any expenses. Any eligible travel expenses related to a subcontract will be reimbursed at the current rate for State of Texas employees, which can be found at: https://fmx.cpa.texas.gov/fmx/travel/textravel/

D. **Scope of Work** – The terms of the scope of work must be consistent with the scope of work of the CONTRACT.

E. **Task Budget** – as appropriate. The task budget must be consistent with the task budget specified in the TWDB CONTRACT.

F. **Expense Budget** – as appropriate. The expense budget must be consistent with the expense budget specified in the TWDB CONTRACT.

G. **Signatures** – Each subcontract must be executed appropriately by signature, by each party to the agreement.

H. **State Auditor's Right to Audit -** The state auditor may conduct an audit or investigation of any entity receiving funds from the state directly under the CONTRACT or indirectly through a Subcontract under the CONTRACT. The acceptance of funds directly under the CONTRACT or indirectly through a Subcontract under the CONTRACT acts as acceptance of the authority of the state auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds. Under the direction of the legislative audit committee, an entity that is the subject of an audit or investigation by the state auditor must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

I. **Financial Records:** SUBCONTRACTOR(s) and any contracted parties must maintain satisfactory financial accounting documents and records, including copies of invoices and receipts, and must make them available for examination and audit by the EXECUTIVE ADMINISTRATOR of TWDB. Accounting by the SUBCONTRACTOR(s) and any contracted parties must be in a manner consistent with generally accepted accounting principles.

J. **Excess Obligations Prohibited/No Debt Against the State:** Any SUBCONTRACT is subject to termination or cancellation without penalty to TWDB, either in whole or in part, subject to the availability of state funds.

K. **License, Permits, and Insurance:** For the purpose of this SUBCONTRACT, SUBCONTRACTOR is an independent CONTRACTOR and therefore solely responsible for liability resulting from negligent acts or omissions. SUBCONTRACTOR must obtain all necessary insurance, in the judgment of the SUBCONTRACTOR, to protect itself, CONTRACTOR, TWDB, and employees and officials of TWDB from liability arising out of this SUBCONTRACT. SUBCONTRACTOR must indemnify and hold TWDB and the State of Texas harmless, to the extent SUBCONTRACTOR may do so in accordance with state law, from any and all losses, damages, liability, or claims therefore, on account of personal injury, death, or property damage of any nature whatsoever caused by the SUBCONTRACTOR, arising out of the activities under this SUBCONTRACT. SUBCONTRACTOR must be solely and entirely responsible for

procuring all necessary licenses and permits which may be required for the SUBCONTRACTOR to perform the subject work.

L. **Ownership**: It is agreed that all reports, drafts of reports, or other material, data, drawings, computer programs and codes associated with this SUBCONTRACT and developed by SUBCONTRACTOR pursuant to this SUBCONTRACT will become the joint property of the REGIONAL WATER PLANNING GROUP, CONTRACTOR, SUBCONTRACTOR, and the Texas Water Development Board. These materials must not be copyrighted or patented by the SUBCONTRACTOR. SUBCONTRACTOR agrees that neither the REGIONAL WATER PLANNING GROUP nor the Texas Water Development Board are parties to this SUBCONTRACT and agrees that that these entities have no liability under the terms of this SUBCONTRACT. The Texas Water Development Board is solely a third-party beneficiary under this SUBCONTRACT.

M. **Compliance with TWDB Rules and State Law:** SUBCONTRACTOR must comply with TWDB rules and adhere to all requirements in state law pertaining to the procurement of professional services.

ARTICLE VII. AMENDMENT, TERMINATION, AND STOP ORDERS

A. This CONTRACT may be altered or amended by mutual written consent or terminated by the EXECUTIVE ADMINISTRATOR at any time by written notice to CONTRACTOR. The EXECUTIVE ADMINISTRATOR may terminate this CONTRACT if the REGIONAL WATER PLANNING GROUP withdraws its designation of CONTRACTOR as the CONTRACT representative of the REGIONAL WATER PLANNING GROUP. Upon receipt of such termination notice, CONTRACTOR must, unless the notice directs otherwise, immediately discontinue all work in connection with the performance of this CONTRACT and cancel all existing orders insofar as such orders are chargeable to this CONTRACT. CONTRACTOR must submit a statement showing in detail the work performed under this CONTRACT up to the date of termination. TWDB, at its discretion, will pay CONTRACTOR for the work actually performed under this CONTRACT, less all payments that have been previously made and any approved by the EXECUTIVE ADMINISTRATOR to conclude the CONTRACT. Thereupon, copies of all work accomplished under this CONTRACT must be delivered promptly to TWDB.

B. Any request to amend the CONTRACT Scope of Work (Exhibit A) must be submitted in writing by CONTRACTOR to TWDB following approval by the REGIONAL WATER PLANNING GROUP [31 TAC § 357.12(a)(3)].

C. The EXECUTIVE ADMINISTRATOR may issue a Stop Work Order to CONTRACTOR at any time. Upon receipt of such order, CONTRACTOR must discontinue all work and cancel all orders under to this CONTRACT, unless the Stop Work Order directs otherwise. If the EXECUTIVE ADMINISTRATOR does not issue a Restart Order within 60 days after receipt by CONTRACTOR of the Stop Work Order, this CONTRACT is terminated in accordance with the foregoing provisions.

ARTICLE IX. LICENSES, PERMIT, AND INSURANCE

A. For the purpose of this CONTRACT, CONTRACTOR is an independent contractor and therefore solely responsible for liability resulting from negligent acts or omissions.

B. CONTRACTOR is solely and entirely responsible for procuring all necessary licenses and permits which may be required for CONTRACTOR to perform the subject work.

ARTICLE X. SEVERANCE PROVISION

Should any one or more provisions of this CONTRACT be held to be null, void, voidable, or for any reason whatsoever of no force and effect, such provision(s) will be construed as severable from the remainder of this CONTRACT and will not affect the validity of all other provisions of this CONTRACT, which will remain of full force and effect.

ARTICLE XI. GENERAL TERMS AND CONDITIONS

1. GENERAL TERMS

A. **Disaster Recovery Plan.** Upon request of TWDB, CONTRACTOR must provide descriptions or copies of its business continuity and disaster recovery plans.

B. **Dispute Resolution.** The dispute resolution process provided for in Texas Government Code Chapter 2009 is available to the parties to resolve any dispute arising under the CONTRACT.

C. **Excess Obligations Prohibited/No Debt Against the State.** This Contract is subject to termination or cancellation without penalty to TWDB, either in whole or in part, subject to the availability of state funds

D. **False Statements.** If CONTRACTOR signs its application with a false statement or it is subsequently determined that CONTRACTOR has violated any of the representations, guarantees, warranties, certifications or affirmations included in its application, CONTRACTOR will be in default under the CONTRACT and TWDB may terminate or void the CONTRACT.

E. **Force Majeure**. Neither CONTRACTOR nor TWDB will be liable to the other for any delay in or failure of performance of any requirement contained in this CONTRACT caused by force majeure. The existence of such causes of delay or failure will extend the period of performance until after the causes of delay or failure have been removed, provided the non-performing party exercises all reasonable due diligence to perform. Force majeure is defined as acts of God, war, fires, explosions, hurricanes, floods, failure of transportation or other causes that are beyond the reasonable control of either party and that by exercise of due foresight such party could not reasonably have been expected

to avoid, and which, by the exercise of all reasonable due diligence, such party is unable to overcome.

F. **Governing Law and Venue.** This CONTRACT is governed by and construed in accordance with the laws of the State of Texas, without regard to the conflicts of law provisions. The venue of any suit arising under this CONTRACT is fixed in any court of competent jurisdiction in Travis County, Texas, unless the specific venue is otherwise identified in a statute which directly names or otherwise identifies its applicability to TWDB.

G. **Indemnification.** CONTRACTOR AGREES TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE STATE OF TEXAS AND TWDB, AND/OR THEIR OFFICERS, AGENTS, EMPLOYEES, REPRESENTATIVES, CONTRACTORS, ASSIGNEES, AND/OR DESIGNEES FROM ANY AND ALL LIABILITY, ACTIONS, CLAIMS, DEMANDS, OR SUITS, AND ALL RELATED COSTS, ATTORNEY FEES, AND EXPENSES ARISING OUT OF, OR RESULTING FROM ANY ACTS OR OMISSIONS OF CONTRACTOR OR ITS AGENTS, EMPLOYEES, SUBCONTRACTORS, ORDER FULFILLERS, OR SUPPLIERS OF SUBCONTRACTORS IN THE EXECUTION OR PERFORMANCE OF THE CONTRACT AND ANY PURCHASE ORDERS ISSUED UNDER THE CONTRACT. THE DEFENSE MUST BE COORDINATED BY CONTRACTOR WITH THE OFFICE OF THE TEXAS ATTORNEY GENERAL WHEN TEXAS STATE AGENCIES ARE NAMED DEFENDANTS IN ANY LAWSUIT, AND CONTRACTORMAY NOT AGREE TO ANY SETTLEMENT WITHOUT FIRST OBTAINING CONCURRENCE FROM THE OFFICE OF THE TEXAS ATTORNEY GENERAL. CONTRACTOR AND TWDB AGREE TO FURNISH TIMELY WRITTEN NOTICE TO EACH OTHER OF ANY SUCH CLAIM.

H. **Public Information Act.** CONTRACTOR understands that TWDB will comply with the Texas Public Information Act, Texas Government Code Chapter 552, as interpreted by judicial rulings and opinions of the Attorney General of the State of Texas. Information, documentation and other material in connection with this CONTRACT may be subject to public disclosure pursuant to the Texas Public Information Act. In accordance with Texas Government Code § 2252.907, CONTRACTOR is required to make any information created or exchanged with the State pursuant to this CONTRACT, and not otherwise excepted from disclosure under the Texas Public Information Act, available in a format that is accessible by the public at no additional charge to the State.

I. **State Auditor's Right to Audit.** The state auditor may conduct an audit or investigation of any entity receiving funds from the state directly under the contract or indirectly through a subcontract under the contract. The acceptance of funds directly under the contract or indirectly through a subcontract under the contract acts as acceptance of the authority of the state auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds. Under the direction of the legislative audit committee, an entity that is the subject of an audit or

investigation by the state auditor must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

2. STANDARDS OF PERFORMANCE

A. **Personnel.** CONTRACTOR must assign only qualified personnel to perform the services required under this CONTRACT. CONTRACTOR is responsible for ensuring that any Subcontractor utilized also assigns only qualified personnel. Qualified personnel are persons who are properly licensed to perform the work and who have sufficient knowledge, skill and ability to perform the tasks and services required herein according to the standards of performance and care for their trade or profession.

B. **Professional Standards.** CONTRACTOR must provide the services and deliverables in accordance with applicable professional standards. CONTRACTOR represents and warrants that it is authorized to acquire Subcontractors with the requisite qualifications, experience, personnel and other resources to perform in the manner required by this CONTRACT.

C. **Procurement Laws**. CONTRACTOR must comply with applicable State of Texas procurement laws, rules and policies, including but not limited to competitive bidding and the Professional Services Procurement Act, Texas Government Code Chapter 2254, relating to contracting with persons whose services are within the scope of practice of: accountants, architects, landscape architects, land surveyors, medical doctors, optometrists, professional engineers, real estate appraisers, professional nurses, and certified public accountants.

D. **Independent Contractor**. Both parties hereto, in the performance of this CONTRACT, act in an individual capacity and not as agents, employees, partners, joint ventures or associates of one another. The employees or agents of one party will not be deemed or construed to be the employees or agents of the other party for any purposes whatsoever.

E. **Proprietary and Confidential Information.** CONTRACTOR warrants and represents that any information that is proprietary or confidential and is received by CONTRACTOR from TWDB or any governmental entity will not be disclosed to third parties without the written consent of TWDB or applicable governmental entity, whose consent will not be unreasonably withheld.

F. **Contract Administration.** TWDB will designate a contract manager for this CONTRACT. The contract manager will serve as the point of contact between TWDB and CONTRACTOR. TWDB's contract manager will supervise TWDB's review of CONTRACTOR's technical work, deliverables, draft reports, the final REGIONAL WATER PLAN, payment requests, schedules, financial and budget administration, and similar matters. The contract manager does not have any

express or implied authority to vary the terms of the CONTRACT, amend the CONTRACT in any way or waive strict performance of the terms or conditions of the CONTRACT.

G. **Nepotism.** CONTRACTOR must comply with Texas Government Code Chapter 573 by ensuring that no officer, employee or member of CONTRACTOR's governing body votes or confirm the employment of any person related within the second degree of affinity or the third degree of consanguinity to any member of the governing body or to any other officer or employee authorized to employ or supervise such person. This prohibition does not prohibit the employment of a person who has been continuously employed for a period of two years prior to the election or appointment of the officer, employee or governing body member related to such person in the prohibited degree.

H. **Open Meetings.** CONTRACTOR must comply with Texas Government Code Chapter 551, which requires all regular, special or called meetings of governmental bodies to be open to the public, except as otherwise provided by law.

3. AFFIRMATIONS AND CERTIFICATIONS

A. **Antitrust Affirmation.** CONTRACTOR represents and warrants that, in accordance with Texas Government Code § 2155.005, neither CONTRACTOR nor any firm, corporation, partnership, or institution represented by CONTRACTOR, or anyone acting for such a firm, corporation, partnership, or institution has (1) violated any provision of the Texas Free Enterprise and Antitrust Act of 1983, Chapter 15 of the Texas Business & Commerce Code, or the federal antitrust laws; or (2) communicated directly or indirectly the contents of the proposal resulting in this CONTRACT to any competitor or any other person engaged in the same line of business as CONTRACTOR.

B. **Child Support Obligation Affirmation.** CONTRACTOR represents and warrants that it will include the following clause in the award documents for every subaward and subcontract and will require subrecipients and subcontractors to certify accordingly: "Under Texas Family Code § 231.006, contractor certifies that the individual or business entity named in this contract, bid or application is not ineligible to receive the specified grant, loan, or payment and acknowledges that this contract may be terminated and payment may be withheld if this certification is inaccurate. A bid or an application for a contract, grant, or loan paid from state funds must include the name and social security number of the individual or sole proprietor and each partner, shareholder, or owner with an ownership interest of at least 25 percent of the business entity submitting the bid or application."

C. **Dealings With Public Servants.** Pursuant to Texas Government Code § 2155.003, CONTRACTOR represents and warrants that it has not given, offered to give, nor intends to give at any time hereafter any economic opportunity,

future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with the goods or services being supplied.

D. **Debts and Delinquencies Affirmation.** CONTRACTOR agrees that any payments due under the CONTRACT will be applied towards any debt or delinquency that is owed to the State of Texas.

E. **E-Verify Program.** CONTRACTOR certifies that for contracts for services, CONTRACTOR will utilize the U.S. Department of Homeland Security's E-Verify system during the term of the CONTRACT to determine the eligibility of: 1) all persons employed by CONTRACTOR to perform duties within Texas; and 2) all persons, including Subcontractors, assigned by CONTRACTOR to perform work pursuant to the CONTRACT within the United States of America.

F. **Entities that Boycott Israel.** Pursuant to Texas Government Code § 2270.002, CONTRACTOR certifies that either (i) it meets one of the exemption criteria under § 2270.002; or (ii) it does not boycott Israel and will not boycott Israel during the term of the contract resulting from this solicitation. CONTRACTOR must state any facts that make it exempt from the boycott certification.

G. **Excluded Parties.** CONTRACTOR certifies that it is not listed on the federal government's terrorism watch list as described in Executive Order 13224.

H. **Executive Head of a State Agency Affirmation.** In accordance with Texas Government Code § 669.003, relating to contracting with the executive head of a state agency, CONTRACTOR certifies that it is not: 1) the executive head of TWDB; 2) a person who at any time during the four years before the date of this CONTRACT was the executive head of TWDB; or 3) a person who employs a current or former executive head of TWDB.

If Section 669.003 applies, CONTRACTOR must provide the following information:

Name of Former Executive:
_____
Name of State Agency:
_____
Date of Separation from State Agency:
_____
Position with Contractor:
_____
Date of Employment with Contractor:
_____

I. **Financial Participation Prohibited.** Pursuant to Texas Government Code § 2155.004(a), CONTRACTOR certifies that neither CONTRACTOR nor any person or entity represented by CONTRACTOR has received compensation from TWDB or any agency of the State of Texas for participation in the

preparation of the specifications or solicitation on which this CONTRACT is based. Under Texas Government Code § 2155.004(b), CONTRACTOR certifies that the individual or business entity named in this CONTRACT is not ineligible to receive the specified contract and acknowledges that this CONTRACT may be terminated and payment withheld if this certification is inaccurate.

J. **Foreign Terrorist Organizations.** CONTRACTOR represents and warrants that it is not engaged in business with Iran, Sudan, or a foreign terrorist organization, as prohibited by Texas Government Code § 2252.152.

K. **Human Trafficking Prohibition**. Under Texas Government Code § 2155.0061, CONTRACTOR certifies that the individual or business entity named in this CONTRACT is not ineligible to receive the specified contract and acknowledges that this Contract may be terminated and payment withheld if this certification is inaccurate.

L. **Lobbying Prohibition.** CONTRACTOR represents and warrants that TWDB's payments to CONTRACTOR and CONTRACTOR's receipt of appropriated or other funds under the contract are not prohibited by Texas Government Code §§ 556.005 or 556.0055, related to the prohibition on payment of state funds to a lobbyist or for lobbying activities.

M. **No Conflict of Interest.** CONTRACTOR represents and warrants that the provision of goods and services or other performance under this CONTRACT will not constitute an actual or potential conflict of interest or reasonably create an appearance of impropriety. CONTRACTOR also represents and warrants that, during the term of this CONTRACT, CONTRACTOR will immediately notify TWDB, in writing, of any existing or potential conflict of interest relative to the performance of the CONTRACT.

O. **Suspension and Debarment.** CONTRACTOR certifies that it and its principals are not suspended or debarred from doing business with the state or federal government as listed on the State of Texas Debarred Vendor List maintained by the Texas Comptroller of Public Accounts and the System for Award Management (SAM) maintained by the General Services Administration.

ARTICLE XII. CORRESPONDENCE

All correspondence between the parties must be made to the following addresses:

For **TWDB:**

Contract Issues:
Texas Water Development Board
Attention: Procurement & Contract Services
P.O. Box 13231
Austin, Texas 78711-3231
Email: contracts@twdb.texas.gov

Payment Request Submission:
Texas Water Development Board
Attention: Accounts Payable
P.O. Box 13231
Austin, Texas 78711-3231
Email: invoice@twdb.texas.gov

Physical Address:
Stephen F. Austin Building
1700 N. Congress Avenue, 6th Floor
Austin, Texas 78701

For **CONTRACTOR:**

Contract Issues:
Kyle Dooley
Riverbend Water Resources District
228 Texas Ave., Suite A
New Boston, TX 75570
Email: kyledooley@rwrd.org

Payment Request Submission:
Kyle Dooley
Riverbend Water Resources District
228 Texas Ave., Suite A
New Boston, TX 75570
Email: kyledooley@rwrd.org

Physical Address:
228 Texas Ave., Suite A
New Boston, TX 75570

IN WITNESS WHEREOF, the parties have caused this CONTRACT to be duly executed.

TEXAS WATER DEVELOPMENT BOARD

Jeff Walker

Jeff Walker
Executive Administrator

Date: 7/13/2021

RIVERBEND WATER RESOURCES DISTRICT

Kyle Dooley

Kyle Dooley
Executive Director/CEO

Date: 7/13/2021

Exhibit A

Scope of Work

2026 Regional Water Plans

NOTE:
SCOPE OF WORK TO BE AMENDED TO INCORPORATE REMAINING PLANNING TASKS NECESSARY TO COMPLETE THE 2026 REGIONAL WATER PLANS AT A LATER DATE.

June 2021

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[1] Requirements for each task are further explained in the *General Guidelines for Development of the 2026 Regional Water Plans*.

Task 1- Planning Area Description

The objective of this task is to prepare a standalone chapter (in accordance with 31 Texas Administrative Code (TAC) §357.22(b)) to be included in the 2026 Regional Water Plan that describes the regional water planning area.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.30.

This Task includes, but is not limited to, performing all work in accordance with Texas Water Development Board (TWDB) rules and guidance required to:

1) Designate major water providers in the regional water planning area for planning purposes.
2) Identify wholesale water providers in the regional water planning area for planning purposes.
3) Review and summarize relevant existing planning documents in the region including those that have been developed since adoption of the previous regional water plan. Documents to be summarized include those referenced under 31 TAC §357.22.
4) Prepare a chapter that describes the regional water planning area including the following:
    a. social and economic aspects of a region such as information on current population, economic activity and economic sectors heavily dependent on water resources;
    b. current water use and major water demand centers;
    c. current groundwater, surface water, and reuse supplies including major springs that are important for water supply or protection of natural resources;
    d. major water providers;
    e. agricultural and natural resources;
    f. identified water quality problems;
    g. identified threats to agricultural and natural resources due to water quantity problems or water quality problems related to water supply;
    h. summary of existing local and regional water plans;
    i. the identified historic drought(s) of record within the planning area;
    j. current preparations for drought within the regional water planning area;
    k. information compiled by the TWDB from water loss audits performed by Retail Public Utilities pursuant to 31 TAC §358.6 (relating to Water Loss Audits); and
    l. an identification of each threat to agricultural and natural resources and a discussion of how that threat will be addressed or affected by the water management strategy evaluated in the plan.
5) Disseminate the chapter document and related information to regional water planning group members for review.
6) Modify the chapter document based on regional water planning group, public, and/or agency comments.
7) Submit the chapter document to the TWDB for review and approval; and
8) Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 1 describing the regional water planning area must be included in the Initially Prepared Plan and final 2026 Regional Water Plan.

Task 2A - Non-Municipal Water Demand Projections

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) to be combined with Task 2B and included in the 2026 Regional Water Plan that describes the projected population and water demands in the regional water planning area.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.31.

TWDB staff will develop draft non-municipal water demand projections for 2030-2080 for all water demand categories unrelated to population (e.g. mining, manufacturing, irrigation, steam-electric power, and livestock) based on the most recent TWDB historical water use estimates. The same methodologies used for the 2022 State Water Plan will be applied to the 2027 State Water Plan projections, except for mining demands. The draft mining demand projections will be prepared based on an updated methodology to be developed by the Bureau of Economic Geology through a contracted mining water use study funded by the United States Geological Survey.

TWDB staff will provide draft water demand projections for all associated non-municipal water user groups to the regional water planning groups for their review and input.

Each regional water planning group will review the draft projections and may provide input to the TWDB or request specific changes to the draft projections from TWDB along with justifications and supporting data as specified in the guidance document *General Guidelines for Development of the 2026 Regional Water Plans.* The emphasis of this effort will be on identifying appropriate revisions based on relevant changed conditions that have occurred since the development of the projections used in the 2022 State Water Plan.

If adequate justification is provided by the regional water planning group to the TWDB, draft water demand projections may be adjusted by the TWDB in consultation with the Texas Department of Agriculture, Texas Commission on Environmental Quality, and Texas Parks and Wildlife Department. Once regional water planning group input and requested changes are considered, final water demand projections will be adopted by the TWDB's governing Board (Board). The adopted projections will then be provided to each regional water planning group. Planning groups must use the Board-adopted projections when preparing their regional water plans.

TWDB will directly populate the state water planning database (DB27) with all water user group-level projections and make related changes to DB27 based on Board-adopted projections.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1) Receive and make publicly available the draft non-municipal water demand projections provided by the TWDB.
2) Evaluate draft non-municipal water demand projections provided by the TWDB.
3) Review comments received from local entities and the public for compliance with TWDB requirements.
4) Prepare detailed feedback on draft non-municipal water demand projections, as necessary, including justification and documentation supporting requested changes from the regional

water planning group and/or local entities with a focus on relevant changed conditions that have occurred since the development of the projections used in the 2022 State Water Plan.

5) Submit numerical requests for revisions of draft non-municipal water demand projections in an electronic tabular template provided by the TWDB along with required documentation and justification of requested revisions from the regional water planning group, based on, for example, requests received from local entities, in accordance with the contract guidance document *General Guidelines for Development of the 2026 Regional Water Plans.*
6) Communicate and/or meet with TWDB staff and/or local entities requesting revisions, as necessary.
7) Assist the TWDB, as necessary, in resolving final allocations of water demands to water user groups to conform with any control totals defined by the TWDB, for example, by county and/or region.
8) Prepare non-municipal water demand projection summaries for water user groups using final, Board-adopted projections to be provided by the TWDB, as necessary. Any regional water planning group-created data tables should match the appropriate final data as reported by DB27.
9) Modify any associated non-municipal water demand projections for major water providers, as necessary based on final, Board-adopted water user group water demand projections.
10) Review the TWDB *Water Demand* report(s) from DB27 and incorporate this planning database report(s), unmodified, into any technical memorandum, initially prepared plan, and final regional water plan.
11) Update wholesale water provider contractual obligations to supply water to other entities and report this information along with projected demands, including within DB27 and within any planning memorandums or reports, as appropriate.
12) Review aggregated water demand projections for major water providers provided by the TWDB. This will include retail demand data if the major water provider is a water user group, and contract demand data based on data entered by the planning group into DB27 if the major water provider is a wholesale water provider.
13) Summarize and present projected water demands for major water providers by category of use for each planning decade and incorporate this table into any technical memorandum, initially prepared plan, and final regional water plan.
14) Disseminate the chapter document and related information to regional water planning group members for review.
15) Modify the chapter document based on regional water planning group, public, and/or agency comments.
16) Submit the chapter document to the TWDB for review and approval; and
17) Make all efforts required to obtain final approval of the regional water plan chapter by the TWDB.

Deliverables: A completed Chapter 2 (including work from both Tasks 2A and 2B) presenting the projected population and water demands must be included in the Initially Prepared Plan and final 2026 Regional Water Plan.

Task 2B - Population and Municipal Water Demand Projections

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) to be combined with Task 2A and included in the 2026 Regional Water Plan that describes the projected population and water demands in the regional water planning area.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.31.

TWDB staff will prepare a new municipal water user group entity list including collective reporting units for each regional water planning group based on the water user group criteria under 31 TAC §357.10(43) with associated historical population and water use estimates and Gallons Per Capita Daily (GPCD) and provide them to regional water planning groups for their review and input.

Regional water planning groups will then review the draft municipal water user group list and historical population and water use and provide input to the TWDB or request specific changes to the water user group list including water systems included in collective reporting unit list and changes/corrections to historical population, water use estimates, or GPCDs.

Once the municipal water user group list is finalized TWDB staff will develop draft population and associated municipal water demand projections for 2030-2080 for all municipal water user groups using data based on the 2020 decennial Census, updated county-level population projections from the Texas Demographic Center, and historical population and water use estimates and growth.

TWDB staff will provide draft population projections and associated water demand projections for all municipal water user groups based on utility service boundaries to regional water planning groups for their review and input. If adequate justification is provided by the regional water planning groups to the TWDB, draft population and/or municipal water demand projections may be adjusted by the TWDB in consultation with Texas Department of Agriculture, Texas Commission on Environmental Quality, and Texas Parks and Wildlife Department. Once planning group input and requested changes are considered, final population and associated municipal water demand projections will be adopted by the Board. The adopted projections, based on utility service areas, will be provided to regional water planning groups. Regional water planning groups must use the Board-adopted projections when preparing their regional water plans.

TWDB will directly populate DB27 with all water user group-level projections and make related changes to DB27 if revisions are made.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1) Receive and review a draft municipal water user group entity list and detailed public water system list within each collective reporting unit provided by the TWDB and submit identified corrections to water user group-water systems relations or water user group names to the TWDB. Once finalized, the municipal water user group entity list will be populated into DB27.
2) Receive and review historical population and water use estimates and GPCDs provided by the TWDB and submit identified corrections to the TWDB.
3) Receive and make publicly available the draft population and associated municipal water demand projections provided by the TWDB that are based on utility service areas.
4) Evaluate draft population, GPCDs, Plumbing Code Savings (PC Savings) and associated municipal water demand projections provided by the TWDB.
5) Review and summarize comments received from local entities and the public for compliance with TWDB requirements.
6) Provide detailed revision requests to the TWDB for population, GPCDs, PC Savings and associated municipal water demand projections, as necessary, including justification and

documentation supporting suggested changes with a focus on relevant changed conditions that have occurred since the development of the projections used in the 2022 State Water Plan.

7) Submit numerical requests for revisions of draft population, GPCDs, PC Savings and municipal water demand projections in an electronic tabular template provided by the TWDB along with required documentation and justification of requested revisions from the regional water planning group, based on, for example, requests received from local entities, in accordance with the contract guidance document *General Guidelines for Development of the 2026 Regional Water Plans.*
8) Communicate and/or meet with TWDB staff and/or local entities requesting revisions, as necessary.
9) Assist the TWDB, as necessary, in resolving final allocations of population and municipal water demands to water user groups to conform with any control totals defined by the TWDB, for example, by county and/or region.
10) Prepare population and municipal water demand projection summaries for water user groups using final, Board-adopted projections to be provided by the TWDB, as necessary. Any regional water planning group-created data tables must match the appropriate final data as reported by DB27.
11) Modify any associated population and municipal water demand projections for major water providers, as necessary based on final, Board-adopted water user group population and water demand projections.
12) Review the TWDB *Population and Water Demand* reports from DB27 and incorporate these planning database reports, unmodified, into any technical memorandum, initially prepared plan, and final regional water plan.
13) Update wholesale water provider contractual obligations to supply water to other entities and report this information along with projected demands including within DB27 and within any planning memorandums or reports, as appropriate.
14) Review aggregated water demand projections for major water providers provided by the TWDB. This will include retail demand data if the major water provider is a water user group, and contract demand data based on data entered by the regional water planning group, into DB27 if the major water provider is a wholesale water provider.
15) Summarize and present projected water demands for major water providers by category of use for each planning decade and incorporate this table into any technical memorandum, initially prepared plan, and final regional water plan.
16) Disseminate the chapter document and related information to regional water planning group members for review.
17) Modify the chapter document based on regional water planning group, public, and/or agency comments.
18) Submit the chapter document to the TWDB for review and approval; and
19) Make all efforts required to obtain final approval of the regional water plan chapter by the TWDB.

Deliverables: A completed Chapter 2 (including work from both Tasks 2A and 2B) presenting the projected population and water demands must be included in the Initially Prepared Plan and final 2026 Regional Water Plan.

Task 8 - Recommendations Regarding Unique Stream Segments and/or Reservoir Sites and Legislative & Regional Policy Issues

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) that presents the regional water planning group's unique stream segment, unique reservoir site, legislative, administrative, and regulatory recommendations.

In addition to generally meeting all applicable rule and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.43 and §358.2.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1) Receive and consider TWDB feedback on the implementation of the regional water planning group's legislative, administrative, and regulatory recommendations, as applicable to the TWDB, in the previous regional water plan.
2) Receive and consider recommendations from the Interregional Planning Council to the regional water planning groups.
3) Consider relevant plans referenced under 31 TAC §357.22 in developing this chapter.
4) Consider and discuss potential recommendations for designation of ecologically unique stream segments within the regional water planning area, based on the criteria in 31 TAC §358.2.
5) If applicable, prepare a recommendation package following the requirements in 31 TAC §357.43(b) recommending which stream segments in the region, if any, should be recommended for designation as ecologically unique stream segments. Evaluate and incorporate comments from the regional water planning group. Upon approval by the regional water planning group, submit the recommendation package to the Texas Parks and Wildlife Department for comments.
6) Include the recommendation package and Texas Parks and Wildlife Department's written evaluation on the unique stream segment(s) recommendation in the final adopted regional water plan. An updated Texas Parks and Wildlife Department evaluation must be included in each regional water plan, even for those stream segments that have been recommended in previous plans but not designated by the Legislature.
7) For each recommended or previously designated unique stream segment, include a quantitative analysis of the impact of the regional water plan on the stream segments based upon the assessment criteria in 31 TAC §357.43(b)(2).
8) Consider and discuss potential recommendations for designation of unique reservoir sites within the regional water planning area.
9) For each recommended unique reservoir site, include a description of the site, reasons for the unique designation, and expected beneficiaries of water supplies developed at a given site in accordance with 31 TAC §357.43(c).
10) Consider and discuss potential regional policy issues; identify recommendations for legislative, administrative, and regulatory rule changes; including recommendations to improve the state and regional planning process.
11) Disseminate the chapter document and related information to regional water planning group members for review.
12) Modify the chapter document based on regional water planning group, public, and or agency comments.
13) Submit the chapter document to the TWDB for review and approval; and

14) Make all efforts required to obtain final approval of the regional water plan chapter by the TWDB.

Deliverables: A completed Chapter 8 presenting regional water planning group unique stream segment, unique reservoir site, legislative, administrative, and regulatory recommendations must be included in the Initially Prepared Plan and final 2026 Regional Water Plan.

Task 10 - Public Participation and Plan Adoption

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) to address public participation, public meetings, eligible administrative and technical support activities, and other requirements and activities eligible for reimbursement, complete and submit a technical memorandum, initially prepared plan, and final regional water plan, and obtain TWDB approval of the regional water plan.

In addition to generally meeting all applicable statute requirements governing regional and state water planning this portion of work must, in particular, include all technical and administrative support activities necessary to meet all the requirements of 31 TAC Chapters 355, 357, and 358 that are not already addressed under the scope of work associated with other contract tasks but that are necessary and or required to complete and deliver a technical memorandum, initially prepared plan, and final adopted regional water plan to TWDB and obtain approval of the adopted regional water plan by the TWDB.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

A) Plan Development Activities

1) Organize, support, facilitate, and document all meetings/hearings associated with activities necessary and eligible to complete and submit a technical memorandum, initially prepared plan, and final regional water plan to the TWDB, including but not limited to: regular regional water planning group meetings, committee meetings, or subcommittee meetings; pre-planning meeting; meetings associated with revision of draft projections; public meeting for the consideration of the process for identifying potentially feasible water management strategies and the presentation of the analysis of infeasible water management strategies; consideration of a substitution of alternative water management strategies; public hearing on the initially prepared plan; adoption of the final regional water plan, and consideration of regional water plan amendments, alternative WMS substitutions, or Board-directed revisions.
2) Include a deliberate discussion on how the planning group will conduct interregional coordination and collaboration regarding water management strategies during both the preplanning meeting required under 31 TAC §357.12(a)(1) and meeting to consider the process for identifying potentially feasible water management strategies required under 31 TAC §357.12(b).
3) Collect and evaluate information, including any information gathering surveys from water suppliers or water user groups, (e.g., on existing infrastructure; existing water supplies; potentially feasible water management strategies) and/or maintenance of contact lists for regional planning information in the region.
4) Conduct intraregional and interregional coordination and communication, and or facilitation required within the regional water planning area and with other regional water planning groups to develop a regional water plan including with water suppliers or other

relevant entities such as groundwater conservation districts, water user groups, and or wholesale water providers. This includes gathering and documenting information on potential interregional opportunities or issues.

5) Incorporate all required DB27 reports into the technical memorandum, initially prepared plan and final regional water plan. Note that all DB27 reports are required to be grouped together in one appendix to the regional water plan and that the regional water plan Executive Summary must reference the location of the DB27 reports.
6) Develop and include an Executive Summary in both the initially prepared plan and final regional water plan, not to exceed 30 pages.
7) Make modifications to the regional water plan documents based on regional water planning group, public, and/or agency comments.
8) Prepare a regional water plan chapter summarizing Task 10 activities including review by the RWPG and modification of document as necessary.
9) Prepare and transmit correspondence, for example, directly related to public comments on regional water plan documents.
10) Develop draft and final responses for regional water planning group approval to public questions or comments as well as approval of the final responses to comments on regional water plan documents.
11) Produce, distribute, and submit all draft and final regional water plan-related planning documents for the regional water planning group, public and agency review, including in hard-copy format when required.
12) Assemble, compile, and produce of the completed initially prepared plan and final regional water plan documents that meet all requirements of statute, 31 TAC Chapters 355, 357 and 358, regional water planning contract and associated contract guidance documents.
13) Submit the regional water plan documents in required formats to the TWDB for review and approval; and all effort required to obtain final approval of the regional water plan by the TWDB.

B) Technical Support and Administrative Activities

1) Support and accommodate periodic presentations by the TWDB for the purpose of orientation, training, and retraining as determined and provided by the TWDB during regular regional water planning group meetings.
2) Consider recommendations in the *Best Management Practices Guide(s) for Regional Water Planning Group Political Subdivisions*, as prepared and updated by the TWDB.
3) Attendance and participation of technical consultants in TWDB-provided DB27 trainings, including individualized trainings and review of technical and data-related contract guidance documents in the TWDB regional water planning contract.
4) Develop agendas, presentations, and handout materials for the public meetings and hearings to provide to regional water planning group members and the public.
5) Attendance and participation of technical consultants at regional water planning group, committee, subcommittee, and other meetings and hearings necessary for regional water plan development including preparation and follow-up activities.
6) Develop technical and other presentations and handout materials for regional water planning group meetings and hearings to provide technical and explanatory data to the regional water planning group and its subcommittees, including follow-up activities.
7) Perform administrative and technical support including coordination of and participation in RWPG activities, and documentation of any regional water planning group meetings, hearings, workshops, workgroups, subgroup and/or subcommittee activities.
8) Provide status reports to the TWDB for work performed under this Contract.

9) Meet all public notice requirements in accordance with the Texas Open Meetings Act, statute, 31 TAC §357.21, and any other applicable public notice requirements.

C) Other Activities

1) Develop and maintain a regional water planning group website or regional water planning group-dedicated webpage on the regional water planning group administrator's website for posting planning group meeting notices, agendas, materials, and plan information.
2) Perform maintenance of the regional water planning group website; reimbursement limited to non-labor, direct costs.
3) Document meetings and hearings to include recorded minutes and or audio recordings as required by the regional water planning group bylaws and archiving and provision of minutes to public.
4) Promote consensus decisions through conflict resolution efforts including monitoring and facilitation required to resolve issues between and among regional water planning group members and stakeholders in the event that issues arise during the process of developing the regional water plan, including mediation between regional water planning group members, if necessary.
5) Perform regional water planning group membership solicitation activities.
6) Solicit, review, and disseminate public input, as necessary.
7) Perform any additional efforts required, but not otherwise addressed in other scope of work tasks that may be required to complete an regional water plan in accordance with all statute and rule requirements.

Deliverables:

- A draft Chapter 10 summarizing public participation activities to date included in the Initially Prepared Plan.
- A completed Chapter 10 summarizing public participation activities and appendices with public and agency comments and regional water planning group responses to comments in the final 2026 regional water plan.
- A complete Initially Prepared Plan and final 2026 Regional Water Plan.

Exhibit B

Task and Expense Budgets

2026 Regional Water Plans

June 2021

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CONTRACTOR TASK BUDGET

CAS Item No.	Regional Water Planning Task No.	Task Description	Amount
1	1	Planning Area Description	$16,231.00
2	2A	Non-Municipal Water Demand Projections	$28,414.00
3	2B	Population and Municipal Water Demand Projections	$47,482.00
4	8	Recommendations Regarding Unique Stream Segments and/or Reservoir Sites and Legislative & Regional Policy Issues	$10,648.00
5	10	Public Participation and Plan Adoption	$102,916.00
		Total	**$205,691.00**

CONTRACTOR EXPENSE BUDGET

CATEGORY	AMOUNT
Other Expenses [1]	$5,000.00
Subcontract Services	$200,691.00
Voting Planning Member Travel [2]	$0.00
Political Subdivision Travel [3]	$0.00
Total Study Cost [4]	**$205,691.00**

[1] Eligible Other Expenses as described in 31 TAC §355.92(c) include the following administrative costs that may be billed under Task 10 associated with the RWPG's Political Subdivision if the RWPG or its chairperson certifies, during a public meeting, that the expenses are eligible for reimbursement and are correct and necessary:

a. Direct costs, excluding personnel costs, for placing public notices for the legally required public meetings, maintaining a website, and of providing copies of information for the public and for members of the RWPG as needed for the efficient performance of planning work such as:
    1. expendable supplies consumed in direct support of the planning process;
    2. direct communication charges;
    3. limited direct costs/fees of maintaining RWPG website domain, website hosting, and/or website – not to exceed $250.00 per calendar year;
    4. direct non-labor costs of storing or posting of audio-visual files (e.g., meeting recordings) – this is not not limited by cap stated in item a.3 above;
    5. direct non-labor costs and fees associated with the initial development of a website – this is not limited by cap stated in item a.3 above, but must be reasonable by professional standards and not detract from plan development;
    6. reproduction of materials directly associated with notification or planning activities (currently 10¢ per copy or the actual non-labor direct costs as documented by the Contractor);
    7. other direct costs of public meetings, all of which must be directly related to planning (e.g., newspaper and other public notice posting costs, and facility rentals); and
    8. direct postage (e.g., postage for mailed notification of funding applications or meetings).

b. Costs associated with providing translators and accommodations for persons with disabilities for public meetings when required by law or deemed necessary by the RWPGs and certified by the chairperson.
c. Food, drink, or lodging (excluding tips and alcoholic beverages) for Political Subdivision staff designated to be the representative for the RWPG and travel to support participation in legislatively required or Board requested meetings, as specifically authorized by the RWPG and TWDB Executive Administrator;
d. Limited labor, reproduction, or distribution of newsletters – not to exceed 3% of the Task 10 budget for the full period of the contract nor a total of $5,000;
e. The RWPG Political Subdivision's personnel costs for the staff hours that are directly spent providing, preparing for, and posting public notice for RWPG meetings and hearings, including labor, fringe, overhead, and other expenses for their support of and attendance at such RWPG meetings and hearings. This may not exceed: $5,000 per regular RWPG meeting nor a total of 10% of the total study cost budget for the full period of the contract or a total of $60,000, whichever is lower.

[2] Voting Planning Member Travel Expenses are limited to the maximum amounts authorized for state employees by the General Appropriations Act, Tex. Leg. Regular Session, 2019, Article IX, Part 5, as amended or superseded. These expenses are defined as:

a. eligible mileage expenses incurred by RWPG members, or their designee, to attend RWPG meetings that cannot be reimbursed by any other entity, political subdivision, etc. as certified by the voting member, or their designee, and
b. food, drink, lodging, or airfare of designated RWPG member travel to support participation in legislatively-required or Board-requested meetings, as specifically authorized by the RWPG and TWDB Executive Administrator.

[3] Political Subdivision Travel Expenses is defined as eligible mileage expenses incurred by political subdivisions for work associated with regional water plan development. Travel must be specifically authorized by the RWPG and TWDB Executive Administrator. The reimbursed amount is limited to the maximum amounts authorized for state employees by the General Appropriations Act, Tex. Leg. Regular Session, 2019, Article IX, Part 5, as amended or superseded.

[4] Ineligible Expenses include funding any of the activities specified in 31 TAC 355.92(a), as well as the following items as applicable to RWPG members and Political Subdivisions:

a. Compensation for the time or expenses of RWPGs members' service on or for the RWPG;
b. Costs of administering the RWPGs, other than those eligible and authorized under Eligible Expenses;
c. Costs for training;
d. Costs of administering the regional water planning grant and associated contracts;
e. Costs associated with development of an application for a regional water planning grant or reviewing materials developed due to this grant;
f. Food, drink, or lodging for RWPG members (including tips and alcoholic beverages), unless eligible and authorized under item [2]b above;
g. Purchase, rental, or depreciation of equipment (e.g., computers, copiers, fax machines);
h. General purchases of office supplies not documented as consumed directly for the planning process; and
i. Costs associated with social events or tours.

Exhibit C

General Guidelines for Development of the 2026 Regional Water Plans

NOTE:

THIS DOCUMENT CURRENLTY INCLUDES ONLY THE GUIDANCE ASSOCIATED WITH THE INTIAL SCOPE OF WORK TASKS. SECTIONS 3 – 9, 11, AND 12 WILL BE INCORPORATED INTO GUIDANCE UPON AMENDMENT OF THE FULL SCOPE OF WORK

June 2021

This document is subject to future revision based upon any future Legislative actions.

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Table of Contents

SECTION 1 – Introduction

1.1 Background

The sixth cycle of regional and state water planning as defined by Senate Bill 1 of the 75th Texas Legislature commenced in 2021 and will extend through 2026. Regional water planning groups must prepare the 2026 Regional Water Plans that, once approved, will become the basis for the 2027 State Water Plan.

While the regional water plan development is directed by the regional water planning groups, in order to ensure that the regional water plans follow a consistent and credible approach, the TWDB's Executive Administrator prepared the following guidelines to assist with the planning process. These guidelines augment the Texas Water Code (TWC) and the administrative rules related to regional water planning and are part of the regional water planning grant contracts.

1.2 Purpose

These guidelines build upon and provide additional information and greater detail about how to implement the administrative rules, including regarding the required methods, content, and format of information to be contained and presented in each RWP to meet rule and contractual requirements including the scope of work. For convenience, the sections of this document include direct links to the relevant regional water planning rules and the Exhibit A: Scope of Work tasks, followed by 'Guidance' content provided by the Executive Administrator.

While each regional water plan is unique to its region, this guidance is intended to ensure that the 16 regional water plans are developed in a generally consistent and similar manner to produce information that may be combined and aggregated, at the state level, to support the development of a meaningful and credible state water plan. The intent is to ensure that the 16 regions generally produce and provide 'apples to apples' data across the entire state including key information that will support the Texas Water Development Board's (TWDB) development of the state water plan.

Depending upon the nature of particular water planning rules or contract tasks, this guidance intentionally varies in its degree of specificity and flexibility. These guidelines include specific requirements that must be complied with by regional water planning groups as they prepare the regional water plan as well as guidance that the regional water planning groups may "consider", and that leaves certain considerations to the discretion of the planning groups.

The Initially Prepared Plans (IPP) and the final adopted regional water plans will be reviewed by TWDB based on statute, regional water planning rules, as well as requirements that are included in this and all other contract documents including the scope of work.

This document augments existing statute and rules that govern regional water planning. Provisions of TWC §16.053 and 31 Texas Administrative Code (TAC) Chapters 355, 357,

and 358 serve as the foundation for information in this document and are not superseded or abridged by anything contained within or excluded from this document.

1.3 General format and content of this document

This guidance consists of the following sections:

1. **Section 1 – Introduction** includes background material and a general document cross-refence that illustrates how the administrative rules, contract scope of work, and guidance documents all relate and align with one another.
2. **Section 2 – Scope of Work Task-Specific Guidelines** includes guidance organized by Scope of Work tasks and related rules sections. The section identifies various summary tables that are required to be included in the IPP and final RWP.
3. **Section 3 – Appendices** includes appendices that accompany sections 1 and 2.

1.4 General guidance

1. Development of the regional water plans will be guided by the State Water Plan Guidance Principles.
2. The regional water plans must include an Executive Summary including key findings and recommendations, not to exceed 30 pages.
3. This guidance document includes the minimum reporting requirements where information and data are available. A regional water planning group may present more information and findings in their plan than is required by this guidance.
4. Regional water planning groups must submit all data identified in Exhibit D: Guidelines for 2026 Regional Water Planning Data Deliverables to the TWDB. The regional water plans are intended to include data reflective of a planning level analysis.

1.5 Documents and files that accompany and are integral to implementing this guidance

1. **Exhibit C Tables**: An excel template file called "2026 RWP Exhibit C Tables" will be developed to accompany this guidance document and will include the summary tables that are required to be included in the IPP and final regional water plan. The excel spreadsheet must be filled in and submitted with the in the IPP and final regional water plan with associated information.
2. **Exhibit D: Guidelines for 2026 Regional Water Plan Data Deliverables –** this is a separate document that will be developed to support this guidance. Exhibit D will be incorporated into contracts via a future contract amendment that incorporates the remaining Scope of Work tasks. Guidelines for the development of the previous regional water plans may be found *here*.

1.6 General document cross-reference for regional water plans

For convenience the table below illustrates how contract tasks, guidance, administrative rules, and regional water plan chapters generally relate.[1] The chapter breakdown for each plan is specifically required under 31 TAC §357.22(b). Plans that are not organized in this manner will be considered administratively incomplete and will not be reviewed. **Please note that this table includes anticipated scope of work tasks for the 2026 Regional Water Plan development. This table (including any items marked TBD) is subject to revision upon incorporation of the full SOW. Items marked with an asterisk are anticipated to be removed following the TWDB's implementation of House Bill 1905, 87th Legislative Session.**

[1] Some rules (e.g., TAC §358; §357.22) apply more broadly to all regional water planning activities.

Regional Water Planning Contract Document References			2026 Regional Water Plan Chapter, Associated TAC Sections, and Content		
TWDB Contract Reimbursement Accounting Number ('CAS')	Exhibit A - Contract Scope of Work Task	Exhibit C - General Guidelines for Development of the 2026 Regional Water Plans	Regional Water Plan Chapter Number	Primary TAC Section	General Content
1	1	1	**1**	§357.30	Description of the Regional Water Planning Area
2	2A	2	**2**	§357.31	Projected Non-Municipal Water Demands
3	2B			§357.31	Projected Population and Municipal Water Demands
TBD	TBD	3	**3**	§357.32	Water Supply Analysis
TBD	TBD	4	**4**	§357.33	Identification of Water Needs
TBD	TBD	NA	**TBD**	§357.12	Identification of Infeasible Water Management Strategies
TBD	TBD	NA	**NA**	contract	Technical Memorandum Deliverable
TBD	TBD	5	**5**	§357.34	Identification of Potentially Feasible Water Management Strategies
TBD	TBD			§357.34; §357.35	Evaluations of Potentially Feasible Water Management Strategies, Recommended Water Management Strategies and Projects, and Alternative Water Management Strategies and Projects
TBD	TBD			§357.34	Conservation Recommendations *[as an individual subchapter]*
TBD	TBD	6	**6**	§357.40	Impacts of Regional Water Plan
				§357.41	Consistency with Protection of Water Resources, Agricultural Resources, and Natural Resources
TBD	TBD	7	**7**	§357.42	Drought Response Information, Activities, and Recommendations
4	8	8	**8**	§357.43	Policy Recommendations & Unique Sites
TBD	TBD	9	**9**	§357.44	Infrastructure Financing Analysis*
5	10	10	**10**	§357.21; §357.50	Public Participation and Plan Adoption
TBD	TBD	11	**11**	§357.45	Implementation and Comparison to the Previous Regional Water Plan
TBD	TBD	12	**N/A**	§357.46	RWPG Prioritization of Recommended Water Management Strategy Projects *

1.7 Definitions of Terms

1.7.1 Regional Water Planning rule definitions

Many of the regional water planning specific terms and acronyms used in this guidance document are defined in 31 TAC §357.10. These may be viewed online at: https://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=31&pt=10&ch=357&rl=10

1.7.2 Groundwater Management rule definitions

Many of the groundwater related terms and acronyms used in this guidance document are defined in 31 TAC §356.10. These may be viewed online at: https://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=31&pt=10&ch=356&rl=10

1.7.3 Non-rule definitions pertinent to regional water planning

Aquifer – Geologic formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs. The formation could be sand, gravel, limestone, sandstone, or fractured igneous rocks.

Aquifer recharge – Water that infiltrates to the water table of an aquifer.

Aquifer storage and recovery – The practice of injecting water, when available, into an aquifer where it is stored for later use.

Brackish water – Water containing total dissolved solids between 1,000 and 10,000 milligrams per liter.

Capital cost – Portion of the estimated cost of a water management strategy that includes both the direct costs of constructing facilities, such as materials, labor, and equipment, and the indirect costs associated with construction activities, such as engineering studies, legal counsel, land acquisition, contingencies, environmental mitigation, interest during construction, and permitting.

Desalination – Process of removing salt and other dissolved solids from seawater or brackish water.

Drought – Generally applied to periods of less than average precipitation over a certain period of time. Associated definitions include meteorological drought (abnormally dry weather), agricultural drought (adverse impact on crop or range production), and hydrologic drought (below-average water content in aquifers and/or reservoirs).

Environmental flows – An environmental flow is an amount of water that should remain in a stream or river for the benefit of the environment of the river, bay, and estuary, while balancing human needs.

Estuary – A bay or inlet, often at the mouth of a river and may be bounded by barrier islands, where freshwater and seawater mix together providing for economically and ecologically important habitats and species and which also yield essential ecosystem services.

Firm diversion (run of river availability) – Evaluated for municipal sole-source water use (i.e. not firmed up with other sources) is defined as the minimum monthly diversion amount that is available 100 percent of the time during a repeat of the drought of record. Evaluated for all other water users, the 'firm diversion' is defined as the minimum annual diversion, which is the lowest annual summation of the monthly diversions reported by the Water Availability Model over the simulation period (lowest annual summation being the calendar year within the simulation that represents the lowest diversion available).

Group quarter – A place where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories.

Infrastructure – Physical means for meeting water and wastewater needs, such as dams, wells, conveyance systems, and water treatment plants.

Instream Flow – Water flow and water quality regime adequate to maintain an ecologically sound environment in streams and rivers.

Local groundwater supplies – Supplies found in local groundwater areas usually not associated with a major, minor, or other aquifer (e.g., a small local alluvial aquifer) that may still be used as a non-municipal water supply source (e.g., for livestock use), but that the groundwater management area determined to be small enough to not go through the desired future condition process.

Local surface water supplies – Limited, unnamed individual surface water supplies that, separately, are available only to particular non-municipal water user groups, such as livestock.

Non-relevant aquifer – An aquifer/region/county/basin geographic unit or a sub-portion of such a geographic aquifer unit where the groundwater management area did not assign a desired future condition. This results in this geographic unit (or sub-portion) not having an associated modeled available groundwater volume. In addition, this means that the associated aquifer/region/county/basin geographic unit may or may not have a non-modeled available groundwater volume (as determined by the planning group) associated with it.

Other aquifer – An aquifer that has not been designated as major or minor.

Rainwater harvesting – An ancient practice involving the capture, diversion, and storage of rainwater for landscape irrigation, drinking and domestic use, aquifer recharge, and in modern times, stormwater abatement.

Seawater – Water typically containing total dissolved solids of 35,000 milligrams per liter or greater. The volume of total dissolved solids may be lower than 35,000 milligrams per liter.

Sedimentation – Action or process of depositing sediment in a reservoir, usually silts, sands, or gravel.

Storage – Natural or artificial impoundment and accumulation of water in surface or underground reservoirs, usually for later withdrawal or release.

System gain – The amount of permitted water a system creates that would otherwise be unavailable if the reservoirs were operated independently and this volume must be reported separately. For multi-reservoir systems, the minimum system gain during drought of record conditions may be considered additional water available, if permitted.

Water availability model – Numerical computer program used to determine the availability of surface water within each river basin for permitting in the state.

2 SECTION 2 – Scope of work task specific guidelines

Included in this section is guidance specifically addressing the following scope of work tasks[2]. Items marked with an asterisk are anticipated to be removed following TWDB's implementation of House Bill 1905, 87th Legislative Session. Corresponding agency rules are also shown below for convenience and reference:

- Task 1 – Description of the Regional Water Planning Area (§357.30)
- Task 2A and 2B – Projected Population and Water Demands (§357.31)
- Water Supply Analysis (§357.32)
- Needs Analysis: Comparison of Water Supplies and Demands (§357.33)
- Identification of Infeasible Water Management Strategies (§357.12)
- Identification and Evaluation of Potentially Feasible Water Management Strategies and Water Management Strategy Projects (31 TAC §357.34); Recommended Water Management Strategies and Alternative Water Management Strategy Projects (§357.35)
- Impacts of Regional Water Plan (§357.40); Consistency with Long-term Protection of Water Resources, Agricultural Resources, and Natural Resources (§357.41)
- Drought Response Information, Activities, and Recommendations (§357.42)
- Task 8 – Regulatory, Administrative, or Legislative Recommendations (§357.43)
- Infrastructure Financing Analysis (§357.44)*
- Task 10 – Adoption, Submittal, and Approval of Regional Water Plans (§357.50 and §357.21)
- Implementation and Comparison to the Previous Regional Water Plan (§357.45)
- Prioritization of Projects by RWPGs (TAC §357.46)*

2.1 Planning area description (Task 1)

Rule and scope of work requirements:

- §357.30: Description of the Regional Water Planning Area
- Scope of work Task 1: Planning Area Description

Guidance:

Each regional water plan must include a description of the regional water planning area including the following items:

1. social and economic aspects of a region such as information on current population, economic activity and economic sectors heavily dependent on water resources;
2. current water use and major water demand centers;
3. current groundwater, surface water, and reuse supplies including major springs that are important for water supply or protection of natural resources;
4. major water providers;
5. agricultural and natural resources;
6. identified water quality problems;

[2] The initial regional water planning contracts include only SOW tasks 1, 2A-2B, 8, and 10. The remaining SOW tasks numbers and related sections of this guidance document will be incorporated via a future contract amendment.

7. identified threats to agricultural and natural resources due to water quantity problems or water quality problems related to water supply;
8. summary of existing local and regional water plans;
9. the identified historic drought(s) of record within the planning area;
10. current preparations for drought within the planning area;
11. information provided by the TWDB from water loss audits performed by Retail Public Utilities pursuant to 31 TAC §358.6 (relating to water loss audits); and,
12. an identification of each threat to agricultural and natural resources and a discussion of how that threat will be addressed or affected by the water management strategies evaluated in the plan.

Major water providers

Major water providers for the planning area are a subset of water user groups and/or wholesale water providers identified by the regional water planning groups to be of particular significance to the region's water supply. Each region must decide which entities are designated as major water providers. If the region decides not to designate any entities as major water providers, the plan needs to include discussion in chapter one of the plan as to why the planning group determined it does not have any water user groups or wholesale water providers of significance to the region's water supply.

Wholesale water providers

Entities designated as a wholesale water provider for planning purposes must sell or deliver (or plan to sell or deliver) wholesale water at some point in the 50-year planning horizon. Regional water planning groups will determine which wholesale water providers they want to utilize in their plan development. Data analysis and evaluations described throughout this document are relevant to the water user groups and wholesale water providers of the planning area. Data analyses of identified wholesale water providers will occur in the evaluation of contractual obligations to supply water, the demands associated with water user groups served by the wholesale water provider, the evaluation of the wholesale water provider's existing water supplies, and the evaluation of water management strategies and projects, for example.

Water user group and wholesale water provider data will support compiling results to describe the major water providers of the planning area. Even though the regional water planning group is not required to specifically report basic information on wholesale water provider demands and supplies in the regional water plan, it will need to do so in at least two specific instances:

1. if that same entity is also designated by the planning group as a major water provider, or
2. if that wholesale water provider is designated as the "sponsor" of any recommended water management strategy project in the plan, through TWDB-generated data reports. The wholesale water provider information will provide the basis for the wholesale water provider strategy or project.

These are minimum reporting requirements, however a regional water planning group may present more wholesale water provider information utilized in the development of

their plan. The extent to which planning groups report on additional wholesale water providers that have not been designated as major water providers is left largely to the discretion of the planning groups.

Drought(s) of record

When presenting information on historic drought(s) of record, the regional water planning group may identify other relevant (e.g., basin-level) droughts of record that impact water supplies in the planning area in addition to identifying the overall historic drought of record in the planning area.

Water loss audits

Information provided by the TWDB from water loss audits may be presented, for example, as a summary in tabular form along with a description of the information and how the regional water planning group considered the information in developing the regional water plan. Examples of water loss audit data presented include the number of entities submitting water loss audits, the total quantity of water produced, the total reported quantity of water lost, and the percent of water loss.

2.2 Population and water demand projections (Tasks 2A and 2B)

Rule and scope of work requirements:

- §357.31: Projected Population and Water Demands
- Scope of work Task 2A: Non-Municipal Water Demand Projections
- Scope of work Task 2B: Population and Municipal Water Demand Projections

Guidance:

The TWDB will provide an updated water user group list for use in the 2026 Regional Water Plans and 2027 State Water Plan. The definition of water user groups can be found in 31 TAC §357.10(43).

The TWDB will prepare draft population and municipal water demand projections for 2030-2080 for all municipal water user groups using data based on the new decennial census, new county-level population projections from the Texas Demographic Center, and the most recent utility boundary information.

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

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

The initial list of water user groups will be prepared and provided to each regional water planning group along with historical water use and population data for their review. The

regional water planning groups will review the water user group list and historical data from the TWDB and provide corrections and feedback to the TWDB.

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

The regional water planning groups must use the Board-adopted projections when preparing their regional water plans. The TWDB will directly populate the state water planning database (DB27) with all Board-adopted water user group-level projections and the TWDB will make any related changes to DB27 if subsequent revisions are approved by the Board.

Regional water planning groups may request revisions to Board-adopted projections if the request demonstrates the projections no longer represent a reasonable estimate of anticipated conditions based on changed conditions or new information in accordance with 31 TAC §357.31(e)(2)[3]. However, planning groups will need to manage the timelines required for agency review and Board action with the subsequent revisions to their reginal plans in order to meet all contractual deliverable deadlines.

2.2.1 Population projections

The draft population projections will include permanent residential population including 'group quarter' population residing in institutional facilities (military, prisons, schools, or nursing homes) who are served by municipal water user groups or rely on their own water sources. Seasonal population, including tourist or seasonal workers, are not included in the draft projections although the associated seasonal water use is necessarily reflected in the per capita water use rates.

Prior to the release of the draft projections, the TWDB will analyze the most recent population projections from the Texas Demographic Center in comparison to the 2022 State Water Plan projections to determine the maximum region-wide, net population changes that may be considered by the regional water planning groups.

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

2.2.1.1 Municipal water user group list

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

Criteria for adjustment:

A proposed water user group must meet the definition in 31 TAC §357.10(43) and the following criteria to be included as a new, discrete entity in the 2026 Regional Water Plan. One or more of the following criteria must be verified by the regional water planning group and the Executive Administrator:

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

Data requirements:

The regional water planning group must provide the following data to the Executive Administrator associated with the identified criteria to be included in the 2026 Regional Water Plan:

1. Annual water intake, sales, or metered use volumes for recent years for the public water system.
2. Documentation supporting changes of the name or ownership of a public water system or utility.
3. Documentation supporting collective reporting units with the geographic designation along with a list of the utilities or public water systems that have a common association for the purposes of water planning.
4. Documentation supporting that a system or utility within a collective reporting unit boundary should be planned for as a stand-alone water user group.

2.2.1.2 Regional-level population projections

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

Criteria for adjustment:

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

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

Data requirements:

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

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

2.2.1.3 County-level population projections

Any net adjustments to a county-total population projection due to adjustments to sub-county water user group-level projections within that county must be justified in a similar manner and will require an accompanying, justifiable redistribution of the projected county population within the same region so that the net, summed regional total remains unchanged unless an accompanying net total adjustment to the regional total is also requested, justified and approved (see Section 2.2.1.2).

Criteria for adjustment:

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

1. A possible Census undercount took place in the county and action is currently being pursued to request a U.S. Census Bureau correction.
2. If there is evidence that the most recent years (2015-2020) net migration rate was significantly different than the net migration rate used for the draft projections.

3. If there is evidence that the 2020-2030 net migration rate will be significantly different than the net migration rate used for the draft projections.
4. There are statistically significant birth and survival rate differences (by appropriate cohorts) between the county and the State.
5. The most recent county population growth rate (2015-2020) is significantly different than draft county's projections.

Data requirements:

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

1. Documentation of an action requesting the U.S. Census Bureau correct an undercount of population within a county.
2. Most recent in-migration and out-migration of a county, indicating that the net migration of a county over the most recent years (2015-2020) is significantly different than the net migration rates used for the draft projections.
3. Birth and/or survival rates for a county population between 2010-2020 by gender, race/ethnicity and single-year age cohorts.
4. County population estimates from the Texas Demographic Center or the U.S. Census Bureau.
5. Other data and evidence that the regional water planning group believes provides a reasonable basis for justifying changes to the net total county-level population projection.

2.2.1.4 Water user group (entity) population projections

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

Criteria for adjustment:

One or more of the following criteria must be verified by the regional water planning group and the Executive Administrator for consideration in adjusting individual water user group population projections:

1. An adjustment to the population estimates for utilities or rural areas due to official adjustment to the 2020 Census population.
2. The 2010 or 2020 permanent population-served estimate by a municipal water user group is significantly different than the 2010 or 2020 baseline population estimate used in the draft projections.

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

Data requirements:

The regional water planning group must provide the following data to the Executive Administrator associated with the identified criteria for justifying any adjustment to the water user group-level population projections:

1. The verified number of residential connections or permanent population of utilities or public water systems that are associated with a water user group and result in correcting the TWDB's Water Use Survey or historical estimates.
2. Updates or corrections to a water user group's group quarter population or the location of institutional facilities.
3. Population estimates for cities developed and published by the Texas Demographic Center or by a regional Council of Governments will be considered for utilities serving these respective cities.
4. Documentation from an official of a city or utility that describes the conditions expected to limit population growth and estimates the maximum expected population for a utility and the potential timeframe for buildout.
5. Documentation or maps that verify and display changes in the utility service area.
6. Documentation demonstrating near-term growth, expansion, or new construction such as platting of new subdivisions, annexation agreements, building permits or impact fee reports.
7. Documentation of potential future growth, such as utility master plans, capital improvement plans, land use and zoning plans, maps of vacant lands with number of dwelling units per acre or number of households and average household size.
8. Other data and evidence that the regional water planning group believes provides a reasonable basis for justifying changes to an individual water user group-level population projection.

2.2.2 Water demand projections

2.2.2.1 Municipal water demand projections

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

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

The TWDB-generated draft municipal water demand projections shall incorporate limited, anticipated future water savings **due only to the transition to more water-efficient plumbing fixtures and appliances, as detailed in relevant legislation and provided to the regional water planning groups by the TWDB**. Any additional anticipated future water savings due to conservation programs undertaken by utilities or county-other water user groups shall be quantified and considered as a potential, recommended water management strategy by the regional water planning group.

Dry-year and baseline GPCD

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

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

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

Criteria for adjustment:

One or more of the following criteria must be verified by the regional water planning group and the Executive Administrator for consideration of revising the municipal water demand projections:

1. Evidence that 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. Evidence of errors identified in the historical water use or GPCD for a utility or public water system, including evidence that volumes of reuse (potable reuse) water used for municipal purposes should be or should not be included in the draft projections.
3. Evidence that the base dry-year water use was abnormal due to temporary infrastructure constraints or water restriction triggered by utility's drought management plan.
4. Trends indicating that per capita water use for a utility or rural area of a county have increased substantially in recent years, and evidence that these trends will continue to rise in the short-term future due to commercial development.
5. Evidence that the most recent water efficiency and conservation savings that have already been implemented are not reflected in the default baseline GPCD.
6. Evidence that the number of installations of water-efficient fixtures and appliances between 2010 and 2020 is substantially different than the TWDB estimate or evidence that the projected replacement rate of water-efficient fixtures and appliances is substantially different than the TWDB projections.
7. Evidence that future water efficiency savings are projected much higher than the draft projections due to a utility's conservation plans that accelerate the replacement of the existing outdated plumbing fixtures and appliances.

Data requirements:

The regional water planning group must provide the following data to the Executive Administrator associated with the identified criteria for justifying any adjustments to the municipal water demand projections:

1. Annual municipal water intake (total surface water diversions and/or groundwater pumpage and water purchased from other entities) for a utility measured in acre-feet.
2. The volume of water sales by a utility to other water users (utilities, industries, public water systems, etc.) measured in acre-feet.
3. Net annual municipal water use, defined as total water production less sales to other water users (utilities, industries, public water systems, etc.) measured in acre-feet.
4. Documentation of temporary infrastructure, drought restrictions, or other water supply constraints that were in place.
5. Drought index or seasonal rainfall data to document a year different than the designated dry-year as a more appropriate base year for projections.
6. Conservation plans or other documentation that show the number or rate of water-efficient fixtures replaced or planned to be replaced for the future.
7. Estimated water efficiency or conservation savings implemented.
8. To verify increasing or decreasing per capita water use trends for a utility or rural area of a county and therefore revising projections of per capita water use to reflect the trend, the following data should be provided with the request from the RWPG:

a. Historical per capita water use estimates based on net annual municipal water use for a utility or rural area of a county, beginning in 2015.
b. A trend analysis which takes into account the variation in annual rainfall.
c. Revised projections of per capita water use for a utility or rural area of a county, that demonstrate an increasing or decreasing trend of per capita water use.
d. Growth data in the residential, commercial and/or public sectors that would justify an increase or decrease in per capita water use.
e. Convincing documentation of planned future growth that would result in higher per capita water use.

9. Other data and evidence that the regional water planning group considers reasonable and adequate to justify an adjustment to the municipal water demand projections.

2.2.2.2 Manufacturing water demand projections

Manufacturing water use is defined as water used to produce manufactured goods. Manufacturing facilities report their water use to the TWDB annually through the Water Use Survey. Different manufacturing sectors are denoted by North American Industrial Classification System (NAICS) codes. The baseline for draft manufacturing water demand projections is based on the highest county-aggregated manufacturing water use in the most recent five years (2015-2019). The most recent 10-year projections for employment growth from the Texas Workforce Commission or other relevant economic measures available are used as proxy for growth between 2030 and 2040. After 2040, the draft manufacturing water demand are held constant through 2080 reflecting future efficiencies.

Criteria for adjustment:

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

1. Evidence of a new or existing facility that has not been included in the TWDB's Water Use Survey.
2. Evidence of an industrial facility that has recently closed its operation in a county.
3. Plans for new construction, or expansion or closure of an existing industrial facility in a county at some future date.
4. Evidence of a long-term projected water demand of a facility or industry within a county that is substantially different than the draft projections.
5. 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.

Data requirements:

The regional water planning group must provide the following data to the Executive Administrator associated with the identified criteria for justifying any adjustments to the manufacturing water demand projections.

1. Historical water use data and the 6-digit NAICS code of a manufacturing facility.

2. Documentation and analysis that justify that a new manufacturing facility not included in the Water Use Survey database will increase future manufacturing water demand for the county above the draft projections.
3. The 6-digit NAICS code of the industrial facility that has recently located in a county and annual water use volume.
4. Documentation of plans for a manufacturing facility to locate in a county at some future date, including the following data:
   a. The quantity of water required by the planned facility on an annual basis,
   b. The proposed construction schedule for the facility including the date the facility will become operational, and
   c. The 6-digit NAICS code for the planned facility.
5. Reports or research documents describing alternative trends or anticipated water use for manufacturing.
6. Specific information regarding incorrect location for a facility.
7. Other data and evidence that the RWPG considers reasonable and adequate to justify an adjustment to the manufacturing water demand projections.

2.2.2.3 Steam-electric power generation water demand projections

Water use for steam-electric power generation is consumptive use reported to the TWDB through the annual Water Use Survey. Steam-electric power water demand projections do not include water used in cogeneration facilities (included in manufacturing projections) or facilities which do not require water for production (wind, solar, dry-cooled generation), or hydro-electric generation facilities.

The baseline for draft water demand projections are based on the highest county-aggregated historical steam-electric power water use in the most recent five years (2015-2019). Subsequent demand projections after 2030 are held constant throughout the planning period. The anticipated water use of future facilities listed in state and federal reports is added to the demand projections from the anticipated operation date through 2080. The reported water use of power generation facilities scheduled for retirement in the state and federal reports is subtracted from the baseline or the decade in which they are projected to retire.

Criteria for adjustment:

One or more of the following criteria must be verified by the regional water planning group and the Executive Administrator for consideration of revising the power generation water demand projections:

1. Documentation that the draft projections have not included a facility that warrants inclusion.
2. Any local information related to new facilities or facility closures that may not have been included in U.S. Energy Information Administration report.
3. Evidence of a long-term projected water demand of a facility or a county that is substantially different than the draft projections.
4. 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.

5. 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.

Data requirements:

The regional water planning group must provide the following data to the Executive Administrator associated with the identified criteria for justifying any adjustments to the steam-electric water demand projections.

1. Historical 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.
2. Reports or research documents describing alternative trends or anticipated water use for steam-electric power generation.
3. Documentation of an anticipated new facility not listed in state or federal reports necessary to estimate the volume of water reasonably expected to be consumed. Such information should include power generation method, cooling method, generation capacity and any additional information necessary to reasonably estimate the future water use.
4. Documentation regarding facility closures that may impact county projections.
5. Specific information regarding incorrect location for a facility.
6. Other data and evidence that the regional water planning group considers reasonable and adequate to justify an adjustment to the steam-electric power water demand projections.

2.2.2.4 Mining water demand projections

Mining water demand includes water used for oil and gas development, as well as extraction of coal and lignite, sand aggregate, and other resources. Projections do not include water use required for the transportation or refining of materials. The TWDB's annual mining water use estimates are comprised of data from both surveyed and non-surveyed entities and are based on the mining study conducted in partnership with the U.S. Geological Survey and the University of Texas Bureau of Economic Geology.

Criteria for adjustment:

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

1. Evidence that mining water use in a county is substantially different than the draft projections. This could include trends in water use data from the FracFocus national online registry, the Texas Railroad Commission, or other sources.
2. Evidence of new facilities coming online or reported closures in surveyed facilities that may impact county projections.
3. 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.

4. Evidence of a long-term projected water demand of a facility or industry within a county that is substantially different than the draft projections.

Data requirements:

The regional water planning group must provide the following data to the Executive Administrator associated with the identified criteria for justifying any adjustments to the mining water demand projections.

1. Historical water use data and description of a surveyed or future facility, and any other information necessary to estimate water use.
2. Reports describing alternative trends or anticipated water use for mining.
3. Documentation of an anticipated new mining facility or new mining activities.
4. Specific information regarding facility closures that may impact county projections.
5. Specific information regarding incorrect location for a facility.
6. Reports or research documents describing alternative trends or anticipated water use for mining.
7. Other data and evidence that the regional water planning group considers reasonable and adequate to justify an adjustment to the mining water demand projections.

2.2.2.5 Irrigation water demand projections

Irrigation water demand projections include the water necessary for irrigation activities, primarily field crops, but also include orchards, pasture, turf grass, vineyards, and self-supplied golf courses. Note that for the purposes of regional water planning, irrigation demands account for the amount of water pumped for irrigation, not the water needed or used by the crop or associated with dry-land farming.

The baseline methodology for draft irrigation water demand projections is the average of the most recent five-years (2015-2019) of water use estimates held constant between 2030 and 2080. 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 draft irrigation water demand projections will begin to decline starting in 2040, or a later decade, commensurate with the decline in the associated groundwater availability.

Criteria for adjustment:

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

1. 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.
2. Evidence that recent (10 years or less) irrigation trends are more indicative of future trends than the draft water demand projections.
3. Evidence that the baseline irrigation demand projection is more likely to reflect the future irrigation demand than the groundwater resource-constrained water

demand projection (especially where economically feasible water supply strategies have been identified).
4. 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 to be more reasonable estimates than the TWDB-generated draft projections.
5. 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.

Data requirements:

The regional water planning group must provide the following data to the Executive Administrator associated with the identified criteria for justifying any adjustments to the irrigation water demand projections:

1. Historical water use, diversion, or pumpage volumes for irrigation by county.
2. 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.
3. 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.
4. Alternative projected water availability volumes that may constrain water demand projections.
5. Updated modeled available groundwater volumes.
6. Other data and evidence that the regional water planning group considers reasonable and adequate to justify an adjustment to the irrigation water demand projections.

2.2.2.6 Livestock water demand projections

Livestock water use is defined as water used in the production of livestock, both for consumption and for cleaning and cooling purposes and aquaculture operations. The TWDB produces annual water use estimates for livestock, based on daily water demand per head assumptions for cattle (beef and dairy), hogs, poultry, horses, sheep, and goats. Additional facilities, such as aquaculture operations, report water use estimates through the TWDB Water Use Survey.

Draft water demand projections for each county are based on the average of the most recent five-years (2015-2019) of water use estimates. The rate of change for 2020-2070 from the 2022 State Water Plan will be applied to the new baseline.

Criteria for adjustment:

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

1. Evidence that livestock water use estimates for a county from another source are more accurate than those used in the draft projections.

2. Plans for the construction, expansion, or closure of a confined livestock feeding operation in a county at some future date.
3. 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.
4. 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.

Data requirements:

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

1. Documentation of plans for the construction of a confined livestock feeding facility in a county at some future date and includes the following:
    a. Confirmation of land purchase or lease arrangements for the facility.
    b. The construction schedule including the date the livestock feeding facility will become operational.
    c. The daily water requirements of the planned livestock feeding facility.
2. Other evidence that would document an expected increase or decrease in the livestock inventory in the county, such as facility closures.
3. Documentation of an existing confined livestock feeding operation not captured in the draft projections.
4. Other data and evidence that the regional water planning group considers reasonable and adequate to justify an adjustment to the livestock water demand projections.

2.2.3 Major water provider demands

Planning groups will review aggregated water demand projections for major water providers provided by the TWDB. Regional water planning groups must summarize and present the projected demands for major water providers by category of use and planning decade. The TWDB will provide retail water demand data if the major water provider is a water user group, and contract demand data based on data entered by the planning group into DB27 if the major water provider is a wholesale water provider.

2.2.4 Representation of county-other sub-water user groups in regional water plans

Subject to their own time and financial resource constraints and at the discretion of each regional water planning group, county-other water user groups may be sub-divided into sub-county-other water users and presented in the regional water plans as such. However, for the development of the 2026 regional water plans, **this discrete level of information will not be eligible to be entered into DB27 but may be presented in the plan in a manner of the RWPG choice**. Any such entity identified by the planning group will inherently represented in DB27 under the associated umbrella, county-other water user group. Therefore, any presentation of these entities in the regional water plans will solely

be based on information analyzed and presented in narrative or tabular form by the regional water planning group. The TWDB will provide historical water use estimates and connection data for individual public water systems that may fall within the county-other water user group and that may be of interest to the planning groups to present as sub-county-other-water user groups in the narrative of their plan. However, planning groups would need to conduct their own analyses with this information to distribute such water demands across their sub-county-other water user groups of interest in a manner that maintains the integrity of the projected net total demand for that county-other water user group.

2.3 Water availability and existing water supplies

Guidelines for this section (Water Availability and Existing Water Supplies) will be incorporated into this document via a future contract amendment that incorporates the related scope of work task. Guidelines for the development of the previous (2021) regional water plans may be found here.

2.4 Identification of water needs

Guidelines for this section (Identification of Water Needs) will be incorporated into this document via a future contract amendment that incorporates the related scope of work task. Guidelines for the development of the previous regional water plans may be found here.

2.5 Water management strategies and water management strategy projects

Guidelines for this section (Water Management Strategies and Water Management Strategy Projects) will be incorporated into this document via a future contract amendment that incorporates the related scope of work task. Guidelines for the development of the previous regional water plans may be found here.

2.6 Impacts of the regional water plan

Guidelines for this section (Impacts of the Regional Water Plan) will be incorporated into this document via a future contract amendment that incorporates the related scope of work task. Guidelines for the development of the previous regional water plans may be found here.

2.7 Drought response information, activities, and recommendations

Note: Guidelines for this section (Drought Response Information, Activities, and Recommendations) will be incorporated into this document via a future contract amendment that incorporates the related scope of work task. Guidelines for the development of the previous regional water plans may be found here.

2.8 Unique stream segments and reservoir sites and other recommendations (Task 8)

Links to rule and scope of work requirements:

- §357.43: Regulatory, Administrative, or Legislative Recommendations
- Scope of work Task 8: Recommendations Regarding Unique Stream Segments and/or Reservoir Sites and Legislative & Regional Policy Issues

Guidance:

Regional water planning groups may make recommendations for designating river and stream segments of unique ecological value and unique sites for reservoir construction; however, the Texas Legislature is responsible for making the official designations of these sites.

2.8.1 Unique stream segments

Regional water planning groups may recommend all or parts of river and stream segments in their respective regions as having "unique ecological values." To recommend this designation, planning groups must justify the recommendation based on the following criteria:

1. biological function measured as stream segments displaying significant habitat value including both quantity and quality considering degrees of biodiversity, age, and uniqueness including terrestrial, wetland, aquatic, or estuarine habitats;
2. hydrologic function measured as stream segments fringed by habitats that perform valuable hydrologic functions relating to water quality, flood attenuation, flow stabilization, or groundwater recharge and discharge;
3. riparian conservation areas measured as stream segments fringed by significant areas in public ownership including state and federal refuges, wildlife management areas, preserves, parks, mitigation areas, or other areas held by governmental organizations for conservation purposes, or stream segments fringed by other areas managed for conservation purposes under governmentally approved conservation plans;
4. high water quality, exceptional aquatic life, high aesthetic value and spring resources that are significant due to unique or critical habitats and exceptional aquatic life uses dependent on or associated with high water quality; or
5. threatened or endangered species and unique communities defined as sites along streams where water development projects would have significant detrimental effects on state or federally listed threatened and endangered species, and sites along streams significant due to the presence of unique, exemplary, or unusually extensive natural communities.

Regional water planning groups seeking a designation shall forward a recommendation package to the Texas Parks and Wildlife Department, who will in turn provide a written evaluation of the proposal within 30 days. If the planning group is recommending stream segments that were recommended in a previous plan but not designated by the legislature, the recommendation package must be resubmitted to Texas Parks and Wildlife Department

for an updated written evaluation. Final adopted regional water plans must include the Texas Parks and Wildlife Department's written evaluation.

Recommendation packages must include a physical description giving the location of the stream segment, along with maps, photographs, and documentation with supporting literature and data that characterizes a site's unique ecological value addressing criteria in 31 TAC §357.43(b) and §358.2(6).

If a river or stream segment has been recommended in a previous plan, the planning group may incorporate references of supporting materials developed for the previous plan into the current plan. References must be precise and include a summary of the information presented in the previous plan.

Recommendations regarding unique river or stream segments presented in the regional water plans must be specific as to a) which unique river or stream segments have been previously designated by the legislature and b) which are being recommended for designation by the planning group.

If the Texas Legislature designates a stream or river segment as unique; or if a planning group recommends that a stream or river segment be classified as unique, the regional water planning group must quantitatively assess how recommended water management strategies in the regional water plan would affect flows deemed important (by the planning group) to the stream or river segment in question. Furthermore, assessments shall describe how a regional water plan would affect the unique features and criteria cited by a planning group as the impetus for a legislative designation.

2.8.2 Unique reservoir sites

Regional water planning groups may recommend sites for reservoir construction that have "unique value" based on the following criteria:

1. site specific reservoir development is recommended as a specific water management strategy or as a unique reservoir site in a final adopted RWP; or
2. factors such as location, hydrologic, geologic, topographic, water availability, water quality, environmental, cultural, and current development characteristics make a site uniquely suited for either reservoir development to provide water supply for the current planning period, or where it might reasonably be needed to meet water needs beyond the 50-year planning period.

For recommendations regarding unique reservoir sites, the regional water plan must be specific as to a) which unique reservoir sites have been previously designated by the legislature; b) which are being recommended for designation by the RWPG; and c) whether the RWPG is recommending that the legislature re-designate a previously designated unique reservoir site. The adopted regional water plans must also include a description of the site, reasons for the unique designation, and expected beneficiaries of water supplies developed at a given site.

2.8.3 Other recommendations

Regional water plans may include any additional regulatory, administrative, or legislative recommendations developed by the planning group including but not limited to the following topics:

- facilitate the orderly development, management, and conservation of water resources in Texas and to prepare for and respond to drought conditions,
- achieve the goals of state and regional water planning including ways the planning group believes the state and regional planning process would be improved,
- facilitate more voluntary water transfers in the region,
- information regarding the potential impacts of recommendations enacted into law once proposed changes are in effect.

In the development of other recommendations, the regional water planning groups should consider TWDB feedback on the implementation of the planning group's legislative, administrative, and regulatory recommendations, as applicable to the TWDB, in the previous regional water plan.

The regional water planning groups should also consider recommendations from the Interregional Planning Council as directed to the planning groups.

2.9 Reporting of Financing Mechanisms for Water Management Strategies

Note: This section (Reporting of Financing Mechanisms for Water Management Strategies) is anticipated to be removed following TWDB's implementation of House Bill 1905, 87th Legislative Session. Guidelines for the development of the previous regional water plans may be found here.

2.10 Adoption of Plan and Public Participation (Task 10)

Links to rule and scope of work requirements:

- §357.50: Adoption, Submittal, and Approval of Regional Water Plans
- Scope of work Task 10: Public Participation and Plan Adoption

Guidance:

As required by 31 TAC §357.21, regional water planning groups must conduct all business in meetings posted and held in accordance with the Texas Open Meetings Act, Texas Government Code Chapter 551, with a copy of all materials presented or discussed available for public inspection prior to and following public meetings. Additional notice requirements referenced in 31 TAC §357.21 shall also be followed when applicable.

The regional water planning groups must adopt regional water plans and accommodate public participation in the regional water development process in accordance with administrative rules, the contract, statute, and the planning group's bylaws. The TWDB has published several documents on its website that contain helpful public notice guidance.

This task includes all work required to prepare for and hold meetings and include public input and participation in development of the regional water plan, including but not limited to:

1. holding regional water planning group meetings;
2. holding committee meetings;
3. holding special meetings;
4. posting public notices;
5. holding public input meetings and hearing on the draft plan as required by statute and rules;
6. soliciting and considering public input;
7. technical work required to prepare for and participate in regional water planning group meetings, workshops, and any other committee or other meetings during the development of the regional water plan;
8. conducting surveys of water suppliers or water user groups;
9. coordinating with and collecting information from entities involved with water planning in the region;
10. assembling, producing, and submitting the Technical Memorandum, IPP, and final regional water plan and responding to comments and resubmitting as necessary to ensure the plan can be approved by the TWDB; and,
11. interregional cooperation and interregional conflict resolution efforts.

In addition to regular regional water planning group meetings and committee meetings, there are certain special meetings that each regional water planning group much hold each cycle. These include:

- Holding a preplanning public meeting to receive suggestions and recommendations from the public regarding issues that should be addressed in the next regional or SWP. This meeting must occur near the beginning of each cycle and prior to technical work commencing. During this meeting the regional water planning group will also be required to discuss how the planning group will conduct interregional coordination and collaboration regarding water management strategies . The TWDB will provide an initial list of regional water management strategies to all planning groups to assist in this effort.
- Present to the public the process for identifying potentially feasible WMS and the presentation of the analysis of infeasible water management strategies. The process will be documented and address any public input on the process.
- Holding a public hearing and receiving written comments on the IPP.

2.11 Implementation and comparison to the previous regional water plan

Note: Guidelines for this section (Implementation and Comparison to the Previous Regional Water Plan) will be incorporated into this document via a future contract amendment that incorporates the related scope of work task. Guidelines for the development of the previous regional water plans may be found here.

2.12 Prioritization of recommended water management strategy projects by regional water planning groups

Note: This section (Prioritization of Recommended Water Management Strategy Projects by Regional Water Planning Groups) is anticipated to be removed following TWDB's implementation of House Bill 1905, 87th Legislative Session. Guidelines for the development of the previous regional water plans may be found here.

2.13 Deliverables

Regional water planning groups must prepare and submit a Technical Memorandum, an IPP, and a final adopted regional water plan.

Guidelines for this section will be incorporated into this document via a future contract amendment. Guidelines for the development of the previous regional water plans may be found here.

2.14 Regional Water Planning Data Provisions and Data Reporting

Guidelines for this section will be incorporated into this document via a future contract amendment. Guidelines for the development of the previous regional water plans may be found here.

3 Appendices

3.1 TWDB data sources for regional water plan development

1. **Planning Data Dashboards**
   http://www.twdb.texas.gov/waterplanning/data/dashboard/index.asp

2. **Historical Water Use Estimates**
   http://www.twdb.texas.gov/waterplanning/waterusesurvey/estimates/index.asp
   a. Water use summaries (by region, county, basin, cities, utilities)
   b. Annual reports by industry type (NAICS Code)
   c. Water reuse reports by reuse type and planning region
   d. Municipal and industrial water intake reports by planning region

3. **Historical Groundwater Pumpage Estimates**
   http://www.twdb.texas.gov/waterplanning/waterusesurvey/historical-pumpage.asp

4. **Mining Water Use Study**
   https://www.twdb.texas.gov/waterplanning/data/projections/MiningStudy/index.asp

5. **Water Data for Texas** – Historic and current reservoir data, drought status and resources, groundwater well level, and coastal hydrology data.
   http://www.waterdatafortexas.org/reservoirs/statewide

6. **TWDB Groundwater Availability Models**
   http://www.twdb.texas.gov/groundwater/models/gam/index.asp

7. **TWDB Research Projects in Support of Groundwater Models**
   http://www.twdb.texas.gov/groundwater/models/research/index.asp

8. **Groundwater Joint Planning** – Desired future conditions and modeled available groundwater.
   http://www.twdb.texas.gov/groundwater/dfc/index.asp

9. **TWDB Groundwater Database Reports** – The purpose of the TWDB's data collection efforts over the years has been to gain representative information about aquifers in the state in order to support water planning from the local to a more regional perspective.
   http://www.twdb.texas.gov/groundwater/data/gwdbrpt.asp

10. **TWDB Groundwater Data Viewer** – GIS datasets relating to groundwater resources, including brackish groundwater data.
    http://www2.twdb.texas.gov/apps/waterdatainteractive/groundwaterdataviewer

11. **Statewide Survey of Aquifer Suitability for Aquifer Storage and Recovery Projects or Aquifer Recharge Projects**
    https://www.twdb.texas.gov/innovativewater/asr/projects/Statewide/index.asp

12. **Brackish Resources Aquifer Characterization (BRACS)**
    http://www.twdb.texas.gov/groundwater/bracs/studies.asp
    a. Brackish Groundwater Production Zones
       http://www.twdb.texas.gov/groundwater/bracs/HB30.asp

13. **Texas Instream Flows Program (SB2) and Related Documents**
    http://www.twdb.texas.gov/surfacewater/flows/instream/index.asp

14. **Texas Environmental Flows (SB3) and Related Documents**
    http://www.twdb.texas.gov/surfacewater/flows/environmental/index.asp

15. **Freshwater Inflow Needs and Related Documents**
    http://www.twdb.texas.gov/surfacewater/flows/freshwater/index.asp

16. **Innovative Water Technologies**
    http://www.twdb.texas.gov/innovativewater/index.asp
    a. Aquifer Storage and Recovery
    b. Desalination
    c. Rainwater Harvesting
    d. Water Reuse

17. **Water Conservation**

    http://www.twdb.texas.gov/conservation/index.asp
    e. Water Conservation Advisory Council and BMPs
    f. Water loss audit information
    g. Water conservation plans

18. **Other water planning data resources**

    http://www.twdb.texas.gov/waterplanning/data/resources/index.asp
    h. Population data links
    i. Socio-economic data links
    j. TCEQ water utility database link

19. **TWDB-funded research relevant to regional water planning**

    http://www.twdb.texas.gov/waterplanning/rwp/research/index.asp

Exhibit D

Guidelines for 2026 Regional Water Plan Data Deliverables

NOTE:

THIS DOCUMENT IS BEING DEVELOPED AND WILL BE INCORPORATED INTO THE CONTRACT UPON AMENDMENT OF THE FULL SCOPE OF WORK

DATA GUIDELINES FOR THE DEVELOPMENT OF THE PREVIOUS REGIONAL WATER PLANS MAY BE FOUND HERE.

Exhibit E

Cover Page

(Original application in contract file)

SIXTH CYCLE 2026 REGIONAL WATER PLANNING CONTRACTS – TWDB INTERNAL PRE-DOCUSIGN APPROVALS

Please enter vendor contact info and other special instructions in the README.txt for each contract in the shared drive review directory.

REGION	PCS (Cameron Turner)	Legal (Kaye Schultz)	Contract Manager	Program Manager (Sarah Backhouse)	Budget Officer (Joseph Monyer)	Budget Director (Chris Hayden)	Division Director (Temple McKinnon)	DEA (Jessica Pena)	Accounts Payable (Eldrisha Eubanks)	Accounting Manager (Letty Molina)
A: Panhandle Regional Plan Commission 2148302553	ct 7/1/2021	KS 7/1/2021	WA 7/2/21	SB 7/2/21	jcm 06/30/2021	CHH 7.5.21	[DOCUSIGN] 7/12/2021	[DOCUSIGN] 7/12/2021	EE 7/6/21	LM 07/06/21
B: Red River Authority 2148302554	ct 7/1/2021	KS 7/1/2021	KS 7/2/21	SB 7/2/21	jcm 06/30/2021	CHH 7.5.21	[DOCUSIGN] 7/12/2021	[DOCUSIGN] 7/12/2021	EE 7/6/21	LM 07/06/21
C: Trinity River Authority 2148302555	ct 7/1/2021	KS 7/1/2021	KS 7/2/21	SB 7/2/21	jcm 06/30/2021	CHH 7.5.21	[DOCUSIGN] 7/12/2021	[DOCUSIGN] 7/12/2021	EE 7/6/21	LM 07/06/21
D: Riverbend Water Resources District 2148302556	ct 7/1/2021	KS 7/1/2021	RE 7/2/21	SB 7/2/21	jcm 06/30/2021	CHH 7.5.21	[DOCUSIGN] 7/12/2021	[DOCUSIGN] 7/12/2021	EE 7/6/21	LM 07/06/21
E: Rio Grande Council of Governments 2148302557	ct 7/1/2021	KS 7/1/2021	SB for EM 7/2/21	SB 7/2/21	jcm 06/30/2021	CHH 7.5.21	[DOCUSIGN] 7/12/2021	[DOCUSIGN] 7/12/2021	EE 7/6/21	LM 07/06/21
F: Colorado River Municipal Water District 2148302558	ct 7/1/2021	KS 7/1/2021	SB for EM 7/2/21	SB 7/2/21	jcm 06/30/2021	CHH 7.5.21	[DOCUSIGN] 7/12/2021	[DOCUSIGN] 7/12/2021	EE 7/6/21	LM 07/06/21
G: Brazos River Authority 2148302559	ct 7/1/2021	KS 7/1/2021	JD 7/2/21	SB 7/2/21	jcm 06/30/2021	CHH 7.5.21	[DOCUSIGN] 7/12/2021	[DOCUSIGN] 7/12/2021	EE 7/6/21	LM 07/06/21
H: San Jacinto River Authority 2148302560	ct 7/1/2021	KS 7/1/2021	SB for LB 7/2/21	SB 7/2/21	jcm 06/30/2021	CHH 7.5.21	[DOCUSIGN] 7/12/2021	[DOCUSIGN] 7/12/2021	EE 7/6/21	LM 07/06/21

SIXTH CYCLE 2026 REGIONAL WATER PLANNING CONTRACTS – TWDB INTERNAL PRE-DOCUSIGN APPROVALS

Please enter vendor contact info and other special instructions in the README.txt for each contract in the shared drive review directory.

REGION	PCS (Cameron Turner)	Legal (Kaye Schultz)	Contract Manager	Program Manager (Sarah Backhouse)	Budget Officer (Joseph Monyer)	Budget Director (Chris Hayden)	Division Director (Temple McKinnon)	DEA (Jessica Pena)	Accounts Payable (Eldrisha Eubanks)	Accounting Manager (Letty Molina)
I: City of Nacogdoches 2148302561	ct 7/1/2021	KS 7/1/2021	SB for LB 7/2/21	SB 7/2/21	jcm 06/30/2021	CHH 7.5.21	[DOCUSIGN] 7/12/2021	[DOCUSIGN] 7/12/2021	EE 7/6/21	LM 07/06/21
J: Upper Guadalupe River Authority 2148302562	ct 7/1/2021	KS 7/1/2021	WA 7/2/21	SB 7/2/21	jcm 06/30/2021	CHH 7.5.21	[DOCUSIGN] 7/12/2021	[DOCUSIGN] 7/12/2021	EE 7/6/21	LM 07/06/21
K: Lower Colorado River Authority 2148302563	ct 7/1/2021	KS 7/1/2021	SB for LB 7/2/21	SB 7/2/21	jcm 06/30/2021	CHH 7.5.21	[DOCUSIGN] 7/12/2021	[DOCUSIGN] 7/12/2021	EE 7/6/21	LM 07/06/21
L: San Antonio River Authority 2148302564	ct 7/1/2021	KS 7/1/2021	SB for EM 7/2/21	SB 7/2/21	jcm 06/30/2021	CHH 7.5.21	[DOCUSIGN] 7/12/2021	[DOCUSIGN] 7/12/2021	EE 7/6/21	LM 07/06/21
M: Lower Rio Grande Valley Development Council 2148302565	ct 7/1/2021	KS 7/1/2021	WA 7/2/21	SB 7/2/21	jcm 06/30/2021	CHH 7.5.21	[DOCUSIGN] 7/12/2021	[DOCUSIGN] 7/12/2021	EE 7/6/21	LM 07/06/21
N: Nueces River Authority 2148302566	ct 7/1/2021	KS 7/1/2021	KS 7/2/21	SB 7/2/21	jcm 06/30/2021	CHH 7.5.21	[DOCUSIGN] 7/12/2021	[DOCUSIGN] 7/12/2021	EE 7/6/21	LM 07/06/21
O: South Plains Association of Governments 2148302567	ct 7/1/2021	KS 7/1/2021	JD 7/2/21	SB 7/2/21	jcm 06/30/2021	CHH 7.5.21	[DOCUSIGN] 7/12/2021	[DOCUSIGN] 7/12/2021	EE 7/6/21	LM 07/06/21
P: Lavaca-Navidad River Authority 2148302568	ct 7/1/2021	KS 7/1/2021	JD 7/2/21	SB 7/2/21	jcm 06/30/2021	CHH 7.5.21	[DOCUSIGN] 7/12/2021	[DOCUSIGN] 7/12/2021	EE 7/6/21	LM 07/06/21

Attachment B

First Amended
Contract between Riverbend Water Resources District and Texas Water Development Board

TEXAS WATER DEVELOPMENT BOARD

CONTRACT INITIATION FORM

TWDB Contact Information	
Contract Manager	Ron Ellis
Office/Division/Section	OoP/WSP/RWP
Phone Number	512-463-4146

Requested Action		
		New Contract
	X	Amendment
	1	Amendment No. (if applicable)

Contract Information and Funds Expiration

Contract No.	2148302556	Grant	Yes
Payable	X	Receivable	

Payable/Receivable Contract Relationship

Payable or Receivable TWDB Contract Number(s) that this Contract is related to:

Contract Dates

Board Approval Date (N/A if no date)	Start Date	Expiration Date
07/07/22	**02/01/21**	**08/31/26**

Most Recent Amendment Execution Date:	NA	Original Contract Expiration Date:	8/31/2026

External Contract No.	
CFDA No.	

Contractor Information

Proposal Number	00005260
Vendor ID # (aka: Tax Payer ID#)	12636685401
Vendor Name	Riverbend Water Resources District
Street Address	228 Texas Avenue, Suite A
City, State, Zip	New Boston, Texas 75570
Telephone Number	903-831-0091
Vendor Contract Mgr/Email Address	Kyle Dooley/kyledooley@rwrd.org
Signer of Contract/Email Address	Kyle Dooley/kyledooley@rwrd.org

List of Counties for Study Area (Enter names, statewide, or non specific). If statewide, community count = 254

Bowie, Camp, Cass, Delta, Franklin, Gregg, Harrison, Hopkins, Hunt, Lamar, Marion, Morris, Rains, Red River, Smith (partial), Titus, Upshur, VanZandt, and Wood

Retainage for Contract

Retainage %	5%
Special Instructions	Retainage held until submittal of the final regional water plan.

Anticipated Budget

Contractor Share of Costs	$	-
TWDB Share of Costs	$	606,747.00
Receivable Share of Costs	$	-
Total Contract Costs	$	606,747.00

Detailed Description of Contract

Development of the 2026 Regional Water Plan - Region D

Detailed Description of Amendment

Adds total project cost, increases committed funds, and amends task and expense budget, scope of work, and Exhibits C and D

Procurement & Contract Services

Vendor Checks

Please Initial each Item		
MA	USAS (PYADDR/PYHOLD)	
MA	Franchise Tax Search	
MA	SAM Check	Expiration Date:
MA	Debarred Vendor List	
MA	Boycott Israel	
MA	Ties to Sudan/Iran/Foreign Terrorist Organizations/Designated Foreign Terrorist Org	
	W-9 Received (new contractor only-if applicable)	

Best Value Standard - Procurement Method (X method used)

Method	X	Announcement/Publication
RFQ/RFP/RFA/RFO	X	580-21-RFA-0013
Interagency/Local		
Purchase		
Receivable Grant		

PCC CODE - For Finance Review

If no PCC Code, DocType will be 9 and a legal cite is required.

Legal Cite:

BUDGET USE ONLY

TWDB SHARE

FUND (4-XXXX)	COBJ (4-XXXX)	MOF (3-XXX)	DEPT (4-XXXX)	PCA (5-XXXXX)	Work # (6-XXXXXX)	AY 2021	AY 2022	AY 2023	Total	Funds Expire
4830	7613	00	G710	21430	E02011	$ 205,691.00	$ 200,528.00		$ 406,219.00	n/a
4830	7613	00	N910	21430	E02011	$ -	$ -	$ 200,528.00	$ 200,528.00	n/a
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
					TWDB Subtotal	$ 205,691.00	$ 200,528.00	$ 200,528.00	$ 606,747.00	

RECEIVABLE SHARE

FUND (4-XXXX)	COBJ (4-XXXX)	MOF (3-XXX)	DEPT (4-XXXX)	PCA (5-XXXXX)	Work # (6-XXXXXX)	AY 2021	AY 2022	AY 2023	Total	Funds Expire
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
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						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
						$ -	$ -	$ -	$ -	
					Receivable Subtotal	$ -	$ -	$ -	$ -	
					Contractor Subtotal	$ -	$ -	$ -	$ -	
					Contract Total	**$ 205,691.00**	**$ 200,528.00**	**$ 200,528.00**	**$ 606,747.00**	

APPROVAL SIGNATURES and CONFIRMATION OF COMPLIANCE WITH AGENCY POLICY & THE STATE OF TEXAS CONTRACT MANAGEMENT GUIDE

By signing this form, you are certifying that this contract packet and its contents meet with your approval

Contract Approval	Printed Name			Signature	Date
Procurement & Contract Services	Cameron Turner				10/12/2022
Budget Director [and Budget Officer]	Loren Sammon	EM	EM	Loren Sammon	10/17/2022
Contract Manager	Ron Ellis			Ron Ellis	10/14/2022
Program Manager	Sarah Lee			Sarah Lee	10/17/2022
Division Director	Temple McKinnon			Sarah Lee	10/17/2022
Legal Counsel	Kaye Schultz			Kaye Schultz	10/17/2022
Accounting/Finance	Letty Molina	EE	EE	Letty Molina	10/17/2022
Deputy Executive Administrator	Matt Nelson			Matt Nelson	10/24/2022
Executive Administrator [or Designee]	Jeff Walker	AL	AL	Jeff Walker	11/17/2022

Revised 4/27/21

TWDB Contract No. 2148302556

STATE OF TEXAS

TRAVIS COUNTY

TEXAS WATER DEVELOPMENT BOARD (TWDB)

and

RIVERBEND WATER RESOURCES DISTRICT

AMENDMENT NO. 1

This Contract, executed on July 13, 2021, is hereby amended as follows:

1. SECTION I, ARTICLE I, Paragraph C, COMMITTED FUNDS, is increased by $401,056.00, bringing the total COMMITTED FUNDS amount to $606,747.00.

2. SECTION I, ARTICLE I, Paragraph U is replaced with the following:

   U. TOTAL PROJECT COST – Not to exceed $1,102,903.00 or 100 percent of the necessary and direct planning costs for the development of the REGIONAL WATER PLAN, whichever is less.

3. SECTION I, ARTICLE II, Paragraph A is replaced with the following:

   A. TWDB will not be liable for any expenses incurred in excess of COMMITTED FUNDS.

   At the time of the execution of this CONTRACT, TWDB was not appropriated sufficient funds to provide the TOTAL PROJECT COST to CONTRACTOR. Of the TOTAL PROJECT COST, TWDB hereby makes available to CONTRACTOR, pursuant to the terms of this CONTRACT, an amount not to exceed COMMITTED FUNDS. If additional funds become available to TWDB for the purpose of making grants for preparation of regional water plans, TWDB will allocate additional COMMITTED FUNDS to CONTRACTOR, not to exceed the TOTAL PROJECT COST.

   If at any time the EXECUTIVE ADMINISTRATOR determines that there will not be sufficient additional appropriated funds to complete the REGIONAL WATER PLAN, the EXECUTIVE ADMINISTRATOR will either issue an order to terminate this CONTRACT pursuant to the terms of Section II, Article VII or negotiate amendments to the scope of work. CONTRACTOR agrees to use its best efforts to timely negotiate any required amendments.

   This CONTRACT does not require CONTRACTOR to incur costs beyond those that can be paid with COMMITTED FUNDS. However, this provision does not relieve the REGIONAL WATER PLANNING GROUP from its duty under Texas Water Code § 16.053 to prepare a regional water plan.

4. SECTION I, ARTICLE II, Paragraph C, is replaced with the following:

C. Task 5B, Evaluation and Recommendation of Water Management Strategies and Projects, is a contingent budget item that requires a written "Notice to Proceed" from the EXECUTIVE ADMINISTRATOR prior to commencement of work by CONTRACTOR. Upon receipt of the "Notice to Proceed" from the EXECUTIVE ADMINISTRATOR, CONTRACTOR may commence work under the related Scope of Work item. Expenses for work performed related to this task prior to receipt of the written "Notice to Proceed" may be ineligible for reimbursement, at the EXECUTIVE ADMINISTRATOR'S discretion. The budget flexibility described under Section II, Article IV, Item E does not apply to this task budget unless reimbursement of the associated task budget is authorized by a written "Notice to Proceed".

6. SECTION II, ARTICLE II, Paragraph A, is replaced with the following:

A. CONTRACTOR must develop a TECHNICAL MEMORANDUM, INITIALLY PREPARED REGIONAL WATER PLAN, and REGIONAL WATER PLAN for the REGIONAL WATER PLANNING AREA according to:

1. Exhibit A – First Amended Scope of Work
2. Exhibit B –First Amended Task and Expense Budgets
3. Exhibit C – First Amended General Guidelines for Development of the 2026 Regional Water Plans[1]
4. Exhibit D – Guidelines for 2026 Regional Water Plan Data Deliverables[1]
5. Exhibit E – Original Application (cover pages as a reference to the full, original grant application)

7. SECTION II, ARTICLE III, Paragraph G, is replaced with the following:

G. CONTRACTOR must include a copy of the EXECUTIVE ADMINISTRATOR's comments on the INITIALLY PREPARED REGIONAL WATER PLAN in the adopted REGIONAL WATER PLAN, with a summary of all other comments received on the INITIALLY PREPARED REGIONAL WATER PLAN, including written explanations of how the REGIONAL WATER PLAN was revised in response to comments or why changes recommended in a comment were not warranted.

CONTRACTOR must submit:

- one (1) electronic copy of all files on which the plan is based (e.g. spreadsheets, maps); and
- two (2) electronic copies of the entire REGIONAL WATER PLAN, one (1) in searchable Portable Document Format (PDF) and one (1) in Microsoft Word (MSWord) Format. In compliance with 1 Texas Administrative Code Chapters 206 and 213 (related to Accessibility and Usability of State Web Sites, Web

[1] Exhibit C, First Amended General Guidelines for Development of the 2026 Regional Water Plans and Exhibit D, Guidelines for 2026 Regional Water Plan Data Deliverables, will be posted on the TWDB website at: https://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2026/documents.asp. The RWPGs must utilize the latest version posted on the website.

Content Accessibility Guidelines (WCAG) 2.1 Level AA Standard – WCAG 2.1 Quick Reference, which can be found at: https://www.w3.org/WAI/WCAG21/quickref/), the electronic copy of the REGIONAL WATER PLAN must comply with the requirements and standards specified in statute.

8. SECTION II, ARTICLE XI, Item 3, Paragraph N is added as follows:

   N. CONTRACTOR certifies that it is not prohibited from receiving state funds under Texas Penal Code § 1.10(d) (related to federal laws regulating firearms, firearm accessories, and firearm ammunition). CONTRACTOR also agrees that, during the term of this CONTRACT, CONTRACTOR will immediately notify TWDB, in writing, of any suit against it by the Attorney General of Texas under Texas Penal Code § 1.10(f).

9. SECTION II, ARTICLE XI, Item 3, Paragraph P is added as follows:

   P. CONTRACTOR certifies that it is not prohibited from receiving state grant funds under Texas Government Code § 2.103 (related to the regulation of firearm suppressors). CONTRACTOR also agrees that, during the term of this CONTRACT, CONTRACTOR will immediately notify TWDB, in writing, of any suit against it by the Attorney General of Texas under Texas Government Code § 2.104.

10. Exhibit A, Scope of Work, is replaced with First Amended Scope of Work, included as Attachment 1 to this amendment.

11. Exhibit B, Task and Expense Budgets, is replaced with First Amended Task and Expense Budgets, included as Attachment 2 to this amendment.

12. Exhibit C, General Guidelines for Development of the 2026 Regional Water Plans, will be revised and placed on TWDB website and denoted as First Amended General Guidelines for Development of the 2026 Regional Water Plans.

13. Exhibit D, Guidelines for 2026 Regional Water Plan Data Deliverables, will be placed on TWDB website and denoted as Guidelines for 2026 Regional Water Plan Data Deliverables.

All other terms and conditions of TWDB Contract No. 2148302556 remain the same in full force.

IN WITNESS WHEREOF, the parties hereto cause this Amendment to be duly executed.

TEXAS WATER DEVELOPMENT BOARD

By: Jeff Walker
Jeff Walker
Executive Administrator

Date: 11/17/2022

RIVERBEND WATER RESOURCES DISTRICT

By: Kyle Dooley
Kyle Dooley
Executive Director

Date: 11/17/2022

Exhibit A

First Amended Scope of Work

2026 Regional Water Plans

August 2022

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Table of Contents[1]

[1] Requirements for each task are further explained in the *First Amended General Guidelines for Development of the 2026 Regional Water Plans*.

Task 1- Planning Area Description

The objective of this task is to prepare a standalone chapter (in accordance with 31 Texas Administrative Code (TAC) §357.22(b)) to be included in the 2026 Regional Water Plan (RWP) that describes the regional water planning area (RWPA).

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.30.

This Task includes, but is not limited to, performing all work in accordance with Texas Water Development Board (TWDB) rules and guidance required to:

1. Designate major water providers (MWP) in the RWPA for planning purposes.
2. Identify wholesale water providers (WWP) in the RWPA for planning purposes.
3. Review and summarize relevant existing planning documents in the region including those that have been developed since adoption of the previous regional water plan. Documents to be summarized include those referenced under 31 TAC §357.22.
4. Prepare a chapter that describes the RWPA including the following:
    a. social and economic aspects of a region such as information on current population, economic activity and economic sectors heavily dependent on water resources;
    b. current water use and major water demand centers;
    c. current groundwater, surface water, and reuse supplies including major springs that are important for water supply or protection of natural resources;
    d. MWPs;
    e. agricultural and natural resources;
    f. identified water quality problems;
    g. identified threats to agricultural and natural resources due to water quantity problems or water quality problems related to water supply;
    h. summary of existing local and regional water plans;
    i. the identified historic drought(s) of record within the planning area;
    j. current preparations for drought within the RWPA;
    k. information compiled by the TWDB from water loss audits performed by Retail Public Utilities pursuant to 31 TAC §358.6 (relating to Water Loss Audits); and
    l. an identification of each threat to agricultural and natural resources and a discussion of how that threat will be addressed or affected by the water management strategy (WMS) evaluated in the plan.
5. Disseminate the chapter document and related information to regional water planning group (RWPG) members for review.
6. Modify the chapter document based on RWPG, public, and/or agency comments.
7. Submit the chapter document to the TWDB for review and approval.
8. Make all efforts required to obtain final approval of the regional water plan (RWP) chapter by the TWDB.

Deliverables: A completed Chapter 1 describing the RWPA must be included in the Initially Prepared Plan (IPP) and final 2026 RWP.

Task 2A - Non-Municipal Water Demand Projections

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) to be combined with Task 2B and included in the 2026 RWP that describes the projected population and water demands in the RWPA.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.31.

TWDB staff will develop draft non-municipal water demand projections for 2030-2080 for all water demand categories unrelated to population (mining, manufacturing, irrigation, steam-electric power, and livestock) based on the most recent TWDB historical water use estimates. The same methodologies used for the 2022 State Water Plan will be applied to the 2027 State Water Plan projections, except for mining demands. The draft mining demand projections will be prepared based on an updated methodology to be developed by the Bureau of Economic Geology through a contracted mining water use study funded by the United States Geological Survey.

TWDB staff will provide draft water demand projections for all associated non-municipal water user group (WUG) to the RWPGs for their review and input.

Each RWPG will review the draft projections and may provide input to the TWDB or request specific changes to the draft projections from TWDB along with justifications and supporting data as specified in the guidance document *First Amended General Guidelines for Development of the 2026 Regional Water Plans.* The emphasis of this effort will be on identifying appropriate revisions based on relevant changed conditions that have occurred since the development of the projections used in the 2022 State Water Plan.

If adequate justification is provided by the RWPG to the TWDB, draft water demand projections may be adjusted by the TWDB in consultation with the Texas Department of Agriculture, Texas Commission on Environmental Quality, and Texas Parks and Wildlife Department. Once RWPG input and requested changes are considered, final water demand projections will be adopted by the TWDB's governing Board (Board). The adopted projections will then be provided to each RWPG. Planning groups must use the Board-adopted projections when preparing their RWPs.

TWDB will directly populate the state water planning database (DB27) with all WUG-level projections and make related changes to DB27 based on Board-adopted projections.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Receive and make publicly available the draft non-municipal water demand projections provided by the TWDB.
2. Evaluate draft non-municipal water demand projections provided by the TWDB.
3. Review comments received from local entities and the public for compliance with TWDB requirements.
4. Prepare detailed feedback on draft non-municipal water demand projections, as necessary, including justification and documentation supporting requested changes from the RWPG and/or local entities with a focus on relevant changed conditions that have occurred since the development of the projections used in the 2022 State Water Plan.
5. Submit numerical requests for revisions of draft non-municipal water demand projections in an electronic tabular template provided by the TWDB along with required documentation and justification of requested revisions from the RWPG, based on, for example, requests received from local entities, in accordance with the contract guidance

document *First Amended General Guidelines for Development of the 2026 Regional Water Plans.*

6. Communicate and/or meet with TWDB staff and/or local entities requesting revisions, as necessary.
7. Assist the TWDB, as necessary, in resolving final allocations of water demands to WUGs to conform with any control totals defined by the TWDB, for example, by county and/or region.
8. Prepare non-municipal water demand projection summaries for WUGs using final, Board-adopted projections to be provided by the TWDB, as necessary, and incorporate into any Technical Memorandum, IPP, and final RWP. Any RWPG-created data tables should match the appropriate final data as reported by DB27.
9. Modify any associated non-municipal water demand projections for MWPs, as necessary based on final, Board-adopted WUG water demand projections.
10. Review the TWDB *Water Demand* report(s) from DB27 and incorporate these agency planning database report(s) (including as populated by the RWPG consultant), unmodified, into the Technical Memorandum. The IPP and final RWP must incorporate these standard TWDB DB27 reports, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
11. Update WWP contractual obligations to supply water to other entities and report this information along with projected demands, including within DB27 and within any planning memorandums or reports, as appropriate.
12. Review aggregated water demand projections for MWPs provided by the TWDB. This will include retail demand data if the MWP is a WUG, and contract demand data based on data entered by the planning group into DB27 if the MWP is a WWP.
13. Summarize and present projected water demands for MWPs by category of use for each planning decade and incorporate this table into the IPP and final RWP.
14. Disseminate the chapter document and related information to RWPG members for review.
15. Modify the chapter document based on RWPG, public, and/or agency comments.
16. Submit the chapter document to the TWDB for review and approval; and
17. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 2 (including work from both Tasks 2A and 2B) presenting the projected population and water demands must be included in the IPP and final 2026 RWP.

Task 2B - Population and Municipal Water Demand Projections

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) to be combined with Task 2A and included in the 2026 RWP that describes the projected population and water demands in the RWPA.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.31.

TWDB staff will prepare a new municipal WUG entity list including collective reporting units for each RWPG based on the WUG criteria under 31 TAC §357.10(43) with associated historical population and water use estimates and Gallons Per Capita Daily (GPCD) and provide them to RWPGs for their review and input.

RWPGs will then review the draft municipal WUG list and historical population and water use and provide input to the TWDB or request specific changes to the WUG list including water systems included in collective reporting unit list and changes/corrections to historical population, water use estimates, or GPCDs.
Once the municipal WUG list is finalized TWDB staff will develop draft population and associated municipal water demand projections for 2030-2080 for all municipal WUGs using data based on the 2020 decennial Census, updated county-level population projections from the Texas Demographic Center, and historical population and water use estimates and growth.

TWDB staff will provide draft population projections and associated water demand projections for all municipal WUGs based on utility service boundaries to RWPGs for their review and input. If adequate justification is provided by the RWPGs to the TWDB, draft population and/or municipal water demand projections may be adjusted by the TWDB in consultation with Texas Department of Agriculture, Texas Commission on Environmental Quality, and Texas Parks and Wildlife Department. Once planning group input and requested changes are considered, final population and associated municipal water demand projections will be adopted by the Board. The adopted projections, based on utility service areas, will be provided to RWPGs. RWPGs must use the Board-adopted projections when preparing their RWPs.

TWDB will directly populate DB27 with all WUG-level projections and make related changes to DB27 if revisions are made.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Receive and review a draft municipal WUG entity list and detailed public water system list within each collective reporting unit provided by the TWDB and submit identified corrections to WUG-water systems relations or WUG names to the TWDB. Once finalized, the municipal WUG entity list will be populated into DB27.
2. Receive and review historical population and water use estimates and GPCDs provided by the TWDB and submit identified corrections to the TWDB.
3. Receive and make publicly available the draft population and associated municipal water demand projections provided by the TWDB that are based on utility service areas.
4. Evaluate draft population, GPCDs, Plumbing Code Savings (PC Savings) and associated municipal water demand projections provided by the TWDB.
5. Review and summarize comments received from local entities and the public for compliance with TWDB requirements.
6. Provide detailed revision requests to the TWDB for population, GPCDs, PC Savings and associated municipal water demand projections, as necessary, including justification and documentation supporting suggested changes with a focus on relevant changed conditions that have occurred since the development of the projections used in the 2022 State Water Plan.
7. Submit numerical requests for revisions of draft population, GPCDs, PC Savings and municipal water demand projections in an electronic tabular template provided by the TWDB along with required documentation and justification of requested revisions from the RWPG, based on, for example, requests received from local entities, in accordance with the contract guidance document *First Amended General Guidelines for Development of the 2026 Regional Water Plans.*
8. Communicate and/or meet with TWDB staff and/or local entities requesting revisions, as necessary.

9. Assist the TWDB, as necessary, in resolving final allocations of population and municipal water demands to WUGs to conform with any control totals defined by the TWDB, for example, by county and/or region.
10. Prepare population and municipal water demand projection summaries for WUGs using final, Board-adopted projections to be provided by the TWDB, as necessary, and incorporate into any Technical Memorandum, IPP, and final RWP. Any RWPG-created data tables must match the appropriate final data as reported by DB27.
11. Modify any associated population and municipal water demand projections for MWPs, as necessary based on final, Board-adopted WUG population and water demand projections.
12. Review the TWDB *Population and Water Demand* reports from DB27 and incorporate these agency planning database report(s) (including as populated by the RWPG consultant), unmodified, into the Technical Memorandum. The IPP and final RWP must incorporate these standard TWDB DB27 reports, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
13. Update WWP contractual obligations to supply water to other entities and report this information along with projected demands including within DB27 and within any planning memorandums or reports, as appropriate.
14. Review aggregated water demand projections for MWPs provided by the TWDB. This will include retail demand data if the MWP is a WUG, and contract demand data based on data entered by the RWPG, into DB27 if the MWP is a WWP.
15. Summarize and present projected water demands for MWPs by category of use for each planning decade and incorporate this table into the IPP and final RWP.
16. Disseminate the chapter document and related information to RWPG members for review.
17. Modify the chapter document based on RWPG, public, and/or agency comments.
18. Submit the chapter document to the TWDB for review and approval.
19. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 2 (including work from both Tasks 2A and 2B) presenting the projected population and water demands must be included in the IPP and final 2026 RWP.

Task 3 - Water Supply Analysis

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) to be included in the 2026 RWP that documents the evaluation of the region's source availability and existing water supplies.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.32.

This task involves updating or adding groundwater, surface water, reuse, and other water source availability estimates, and existing WUG and WWP water supplies that were included in the 2021 RWP, in accordance with methodology described in Section 2.3 of the *First Amended General Guidelines for Development of the 2026 Regional Water Plans* for estimating surface water, groundwater, systems, reuse, and other supplies during drought of record conditions. All water availability and water supply estimates will be extended through 2080. This task also includes all work required to coordinate with other planning regions to develop and allocate estimates of water availability and existing water supplies.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

A. Estimate Surface Water Availability and Existing WUG and WWP Surface Water Supplies

1. Select hydrologic assumptions, models, and operational procedures for modeling the region's river basins and reservoirs using the most current TCEQ Water Availability Models (WAMs) in a manner appropriate for assessment of existing surface water supply and regional water planning purposes. Reservoir systems[2] and their yields must be modeled in accordance with the *First Amended General Guidelines for Development of the 2026 Regional Water Plans.*
2. Obtain TWDB Executive Administrator approval of hydrologic assumptions or models and for any variations from modeling requirements in the *First Amended General Guidelines for Development of the 2026 Regional Water Plans.*
3. As necessary and appropriate, modify or update associated WAMs or other models to reflect recent changes to permits, transfers, legal requirements, new water rights, and/or specified operational requirements. Note that incorporating anticipated sedimentation into firm yield analyses is a required modification that does not require a hydrologic variance approval from the Executive Administrator.
4. Assign available water supplies, as appropriate, to WUGs and WWPs including conducting supply analyses for WWPs.
5. Apply the TCEQ WAMs, as modified and approved by TWDB, and/or other appropriate models to quantify firm yield for major reservoirs, reservoir systems, and firm diversion for run-of-river water rights, as determined on at least a monthly time-step basis. Reservoir firm yield must be quantified based on the most recent measured capacity and estimated capacity in year 2080.
6. Evaluate TCEQ Water System Data Reports[3] from the Drinking Water Watch or Safe Drinking Water Information System (SDWIS) website for municipal WUGs that use surface water and identify any physical constraints limiting existing water supplies to WUGs and/or WWPs. Consider constraints that limit delivering treated water to WUGs. Other information that the RWPGs collect, for example, survey results, may be included in the evaluation of infrastructure capacity or limitations in delivering treated water to WUGs.
7. Update information on WWP contractual obligations to supply water to other entities in DB27. Unless the RWPG considers it unlikely that a specific contract will be renewed, water supplies based on contractual agreements must be assumed to renew at the contract termination date, for example, if the contract provides for renewal or extensions. Report this information within any planning memorandums or reports, as appropriate.
8. Based on the source water availability, existing infrastructure capacity, and associated physical, operational, and legal limitations, determine the existing surface water supply available from each surface water source to each WUG and WWP (including newly identified WUGs and WWPs) during a drought of record.
9. Complete and update all required data elements for DB27 through the web interface.
10. Compile firm yield and diversion information by source, WUG, WWP, county, river basin, and planning region as necessary to obtain decadal estimates of existing surface water supply throughout the planning period. This will be facilitated by *TWDB DB27 Source Availability* and associated *TWDB DB27 WUG Existing Water Supply* reports using data

[2] Reservoir systems must be approved by TWDB and identified as such in DB27.
[3] Available from TCEQ at http://dww2.tceq.texas.gov/DWW/.

provided by RWPGs and made available to all RWPGs through the TWDB Database Reports application.

11. Review the TWDB *Source Availability and WUG Existing Water Supply* reports from DB27 and incorporate these agency planning database report(s) (including as populated by the RWPG consultant), unmodified, into the Technical Memorandum. The IPP and final RWP must incorporate these standard TWDB DB27 reports, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
12. Prepare summaries of water availability by source and incorporate into any Technical Memorandum, IPP, and final RWP.
13. Prepare summaries of existing supplies for WUGs and incorporate into any Technical Memorandum, IPP, and final RWP.
14. Summarize and present existing water supplies for MWPs by category of use for each planning decade and incorporate this table into the IPP and final RWP.

B. Estimate Groundwater Availability and Existing WUG and WWP Groundwater Supplies:

1. Obtain and review the modeled available groundwater (MAG) volumes that are developed by TWDB based on the desired future conditions (DFCs) adopted by groundwater management areas (GMAs). Note that MAG volumes for each aquifer will be entered into DB27 directly by the TWDB, including as split into discrete geographic-aquifer units by: Aquifer; County; River Basin; and Region.
2. In RWPAs in which no Groundwater Conservation District (GCD) exists[4], develop RWPG-estimated groundwater availability for Board review and approval prior to inclusion in the IPP[5] and in accordance with the *First Amended General Guidelines for Development of the 2026 Regional Water Plans.*
3. Develop RWPG-estimated groundwater availability for aquifers or portions of aquifers that do not have a DFC or associated MAG. Consider the impacts of the annual MAG volumes on the RWP including how it impacts existing water supplies.
4. In areas with GCDs, obtain GCD Management Plans and GCD information[6] to be considered when estimating existing supplies and water management strategies under future tasks. Attend GCD and/or GMA meetings as necessary.
5. Assign available water supplies, as appropriate, to WUGs and WWPs including conducting supply analyses for WWPs.
6. Select hydrologic and other assumptions for distribution of available groundwater for potential future use by WUGs (e.g., via a pro-rationing policy) as existing supply based on models and operational procedures appropriate for assessment of water supply and regional water planning purposes. A specific hydrologic variance request, in accordance with the *First Amended General Guidelines for Development of the 2026 Regional Water Plans,* is required to utilize a MAG Peak Factor to accommodate temporary increases in existing annual availability for planning purposes.
7. Evaluate TCEQ Water System Data Reports[7] from the Drinking Water Watch or SDWIS website for municipal WUGs using groundwater and identify any physical constraints limiting existing water supplies to WUGs and/or WWPs. Limitations to be considered based

[4] Related to 84(R) SB 1101 requirements. As of June 2022 these requirements only apply to the North East Texas (Region D) RWPG, as it is the only region currently in the state with no GCDs in its RWPA.
[5] 31 TAC §357.32(d)(2).
[6] https://www.twdb.texas.gov/groundwater/index.asp
[7] Available from TCEQ at http://dww2.tceq.texas.gov/DWW/

on delivering treated water to WUGs. Other information that the RWPGs collect, for example, survey results, may be included in the evaluation of infrastructure capacity or limitations in delivering treated water to WUGs.

8. Update information on WWP contractual obligations to supply water to other entities in DB27. Unless the RWPG considers it unlikely that a specific contract will be renewed, water supplies based on contractual agreements shall be assumed to renew at the contract termination date, for example, if the contract provides for renewal or extensions. Report this information within any planning memorandums or reports, as appropriate.
9. Compile and/or update information regarding acquisitions of groundwater rights, for example, for transfer to municipal use, and account for same in the assessment of both availability and existing groundwater supplies.
10. Based on the source water availability, existing infrastructure capacity, and associated physical, operational, and legal limitations, determine the existing groundwater supply available from each water source to each WUG and WWP (including newly identified WUGs and WWPs) during a drought of record.
11. Complete and update all required data elements for DB27 through the web interface in accordance with the *Guidelines for 2026 Regional Water Planning Data Deliverables*.
12. Compile groundwater availability information by source, WUG, WWP county, river basin, and planning region as necessary to obtain decadal estimates of supply throughout the planning period. This will be facilitated by *TWDB DB27 Source Availability* and associated *TWDB DB27 WUG Existing Water Supply* reports using data provided by RWPGs and made available to all RWPGs through the TWDB Database Reports application
13. Review the TWDB *Source Availability and WUG Existing Water Supply* reports from DB27 and incorporate these agency planning database report(s) (including as populated by the RWPG consultant), unmodified, into the Technical Memorandum. The IPP and final RWP must incorporate these standard TWDB DB27 reports, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
14. Prepare summaries of water availability by source and incorporate into any Technical Memorandum, IPP, and final RWP.
15. Prepare summaries of existing supplies for WUGs and incorporate into any Technical Memorandum, IPP, and final RWP.
16. Summarize and present existing water supplies for MWPs by category of use for each planning decade and incorporate this table into the IPP and final RWP.

C. Estimate System, Reuse, and Other Types of Existing Supplies:

1. Integrate firm water supplies for WUGs using a system of supply sources (e.g., surface water, storage, and groundwater).
2. Research and quantify existing supplies and commitments of treated effluent through direct and indirect reuse.
3. Compile system, reuse, and other availability information by source, WUG, WWP, county, river basin, and planning region as necessary to obtain decadal estimates of supply throughout the planning period.
4. Assign available water supplies, as appropriate, to WUGs and WWPs including conducting demand analyses for WWPs.
5. Identify and sub-categorize existing sources in DB27 to extract unique sources. For example, in addition to surface water, groundwater, and reuse, further clarify the source types in DB27 to subcategorize other specific water sources, such as desalinated groundwater or desalinated surface water, and seawater desalination, and any other supply types that are connected supplies.

6. Identify any physical constraints limiting delivery of treated supplies to WUGs and/or WWPs including based on TCEQ Water System Data Reports[8]. Other information that the RWPGs collect, for example, survey results, may be included in the evaluation of infrastructure capacity or limitations in delivering treated water to WUGs.
7. Update information on WWP contractual obligations to supply water to other entities in DB27. Unless the RWPG considers it unlikely that a specific contract will be renewed, water supplies based on contractual agreements shall be assumed to renew at the contract termination date, for example, if the contract provides for renewal or extensions. Report this information within any planning memorandums or reports, as appropriate.
8. Based on the source water availability, existing infrastructure capacity, and associated physical, operational, and legal limitations, determine the existing system, reuse, and other water supplies available from each water source to each WUG and WWP (including newly identified WUGs and WWPs) during a drought of record.
9. Complete and update all required data elements for DB27 through the web interface.
10. Compile these supplies by source, WUG, WWP, county, river basin, and planning region as necessary to obtain decadal estimates of existing surface water supply throughout the planning period. This will be facilitated by *TWDB DB27 Source Availability* and associated *TWDB DB27 WUG Existing Water Supply* reports using data provided by RWPGs and made available to all RWPGs through the TWDB Database Reports application.
11. Review the TWDB *Source Availability and WUG Existing Water Supply* reports from DB27 and incorporate these agency planning database report(s) (including as populated by the RWPG consultant), unmodified, into the Technical Memorandum. The IPP and final RWP must incorporate these standard TWDB DB27 reports, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
12. Prepare summaries of water availability by source and incorporate into any Technical Memorandum, IPP, and final RWP.
13. Prepare summaries of existing supplies for WUGs and incorporate into any Technical Memorandum, IPP, and final RWP.
14. Summarize and present existing water supplies for MWPs by category of use for each planning decade and incorporate this table into the IPP and final RWP.

D. Additional Task 3 Requirements:

1. In addition to submitting all electronic model input/output files used in determining water availability (in sufficient detail for another party to replicate the resulting availability estimates that are incorporated into the plan), the Technical Memorandum, IPP, and final RWP must include a table summarizing the details of any hydrologic models used, including the model name, version date, model input/output files used, date model run, and any relevant comments
2. Disseminate the chapter document and related information to RWPG members for review.
3. Modify the chapter document based on RWPG, public, and/or agency comments.
4. Submit the chapter document to the TWDB for review and approval.
5. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 3 presenting the region's water availability and supplies must be included in the IPP and final 2026 RWP.

[8] Available from TCEQ at http://dww2.tceq.texas.gov/DWW/

Task 4A - Water Needs Analysis

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) that presents the water supply needs (i.e., potential shortages) for the planning area.

In addition to generally meeting all applicable rule and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.33.

Based upon updated projections of existing water supply and projected water demands under Tasks 2 and 3, and the associated data entered into DB27, the TWDB will automatically update computations of identified water needs (potential shortages) by WUGs and WUG customers of WWPs as decadal estimates of needs by county, river basin, and planning region. The results of this computation will be made available to all RWPGs through the TWDB Database Reports application and is considered the base, identified 'water need' that must be reported in the regional (and state water plan). A secondary needs analysis will be calculated by TWDB based on DB27 for all WUGs and WWPs for which conservation or direct reuse water management strategies are recommended.

Regions may also request additional, unique water needs analysis (e.g., for a WWP) that the RWPG considers warranted. Such reports will be provided by TWDB, if feasible based on the DB27 constraints and TWDB resources.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Calculate and report the water needs for MWPs. Supporting data to assist the RWPGs analysis of identifying MWP needs may be requested from the TWDB. The RWPG will need to enter or provide any additional data into DB27 that may be necessary to develop these evaluations.
2. Review the TWDB *WUG Needs/Surplus* report from DB27 and incorporate this agency planning database report(s) (including as populated by the RWPG consultant), unmodified, into the Technical Memorandum. The IPP and final RWP must incorporate the TWDB *WUG Needs/Surplus and WUG Second-Tier Identified Water Need* reports from DB27 by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
3. Prepare summaries of identified needs for WUGs and incorporate into any Technical Memorandum, IPP, and final RWP.
4. Summarize and present the RWPG-identified water needs for MWPs by category of use for each planning decade into the IPP and final RWP.
5. Summarize and present a secondary needs analysis for each MWP by decade.
6. Disseminate the chapter document and related information to RWPG members for review.
7. Modify the chapter document based on RWPG, public, and/or agency comments.
8. Submit the chapter document to the TWDB for review and approval.
9. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 4 presenting RWPG water supply needs must be included in the IPP and final 2026 RWP.

Task 4B – Identification of Infeasible Water Management Strategies in the previously adopted 2021 Regional Water Plan

The objective of this task is to conduct a one-time, mid-cycle analysis of the *previous* RWP to identify any newly infeasible WMSs and water management strategy projects (WMSP) that were feasible and recommended at the time of the adoption of the *previous* RWP but which have since become infeasible and must be modified or amended out of the previous RWP.[9]

In addition to generally meeting all applicable rule and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.12(b)-(c) and 31 TAC §357.45.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Review WMSs and WMSPs in the previous RWP and coordinate with project sponsors to determine implementation status and determine infeasibility, when applicable.
2. Present the results of the analysis, including documentation of the region's process for determining infeasible WMSs and WMSPs, at a RWPG meeting subject to a 14-day notice in accordance with 31 TAC §357.21(g)(2). These results must be presented at the same meeting where the RWPG presents its process for identifying potentially feasible WMSs in the current plan under Task 5A.
3. Include a list of identified WMSs and WMSPs that were recommended in the previous RWP but which are no longer considered feasible in the Technical Memorandum developed and submitted under Task 4C.
4. Amend the previous RWP to modify and/or remove any WMSs or WMSPs that were determined to be infeasible in accordance with existing amendment procedures outlined in 31 TAC §357.51.
5. If applicable or required, identify and evaluate a new WMS or WMSP that would be needed to meet the identified water need that had been met by the WMS or WMSP that is going to be removed due to infeasibility.
6. The previous RWP may be amended to:
    a. remove an infeasible WMS or WMSP;
    b. revise an infeasible WMS or WMSP to make the WMS or WMSP feasible; and/or
    c. incorporate a new WMS or WMSP to address the identified water need previously met by an infeasible WMS or WMSP that was removed due to infeasibility.
7. The RWPG must submit the RWPG adopted amendments associated with this task to the TWDB no later than three (3) months following the due date of the Technical Memorandum.

Task 4C – Technical Memorandum

The objective of this task is to prepare a Technical Memorandum.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Prepare a concise Technical Memorandum in accordance with 31 TAC §357.12(c) and including content specified in Section 2.13.1 of the *First Amended General Guidelines for Development of the 2026 Regional Water Plans.*
2. Disseminate the Technical Memorandum to RWPG members for review.

[9] Per Senate Bill 1511 85th Texas Legislature.

3. Approve submittal of the Technical Memorandum to TWDB at a RWPG meeting subject to a 14 day notice in accordance with 31 TAC §357.21(g)(2). The Technical Memorandum must be submitted to TWDB by the deadline listed in Section I Article I of the contract.

Task 5A – Identification of Potentially Feasible Water Management Strategies and Projects

The objective of this task is to identify potentially feasible WMS and WMSPs to meet identified needs in the planning area and to prepare a chapter (in accordance with 31 TAC §357.22(b)) to be combined with Task 5B and 5C and included in the 2026 RWP that identifies, evaluates, and recommends WMSs and management strategy projects (WMSP).

In addition to generally meeting all applicable rule and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.12 (b) and 31 TAC §357.34(a)(b)(c).

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Revise and update documentation of the process used in the 2021 RWP to identify potentially feasible WMSs and WMSPs to meet a need.
2. Receive public comment at a RWPG meeting subject to a 14 day notice in accordance with 31 TAC §357.21(g)(2) on a proposed process to be used by the RWPG to identify potentially feasible WMSs for the 2026 RWP and receive planning group approval of the process.
3. Document the process of identifying potentially feasible WMSs selected by the RWPG in the Technical Memorandum, the IPP, and final RWPs.
4. Consider the TWDB Water Loss Audit Report, conservation best management practices, and drought management when considering potentially feasible WMSs as required by rules.
5. Update relevant portions of the RWP summary of existing water supply plans for local and regional entities. This task requires obtaining and considering existing water supply plans. Include the updated summary in the IPP and final RWPs.
6. Consider existing planning efforts, programs, and goals in developing WMSs including those referenced under 31 TAC §357.22(a).
7. If no potentially feasible strategy can be identified for a WUG or WWP with a need, document the reason for this in the Technical Memorandum, IPP, and final RWPs.
8. Consider recent studies and describe any significant changes in WMSs described as being in the implementation phase in the 2026 RWP as well as any new projects in the implementation phase prior to adoption of the IPP.
9. Identify potential WMSs to meet needs for all WUGs and WWPs with identified needs.
10. Present a list of the potentially feasible WMSs, in table or list format, within the Technical Memorandum, IPP, and final RWPs.

Deliverables: A completed subchapter of Chapter 5 (including work from Tasks 5A-5C) must be included in the IPP and final 2026 RWP.

Task 5B – Evaluation and Recommendation of Water Management Strategies and Projects

The objective of this task is to evaluate and recommend WMSs and their associated WMSPs, and to prepare a separate chapter (in accordance with 31 TAC §357.22(b)) to be combined with Task 5A and 5C and included in the 2026 RWP that identifies, evaluates, and recommends WMSs and

WMSPs. Work includes presenting alternative WMSs and WMSPs and includes all technical evaluations.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.22(a), §357.34, and §357.35 that is not already included under Tasks 5Aor 5C.

Performance of work associated with any 5B subtasks will be <u>contingent upon a written notice-to-proceed in the form of a contract amendment.</u> This task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Perform technical evaluations of all potentially feasible WMSs including previously identified or recommended WMSs and newly identified WMSs, including drought management and conservation WMSs; WMS and WMSP documentation must include a strategy description, discussion of associated facilities, project map, and technical evaluation addressing all considerations and factors required under 31 TAC §357.34(e)-(i) and §357.35. If an identified potentially feasible WMS is, at any point, determined to be not potentially feasible by the planning group and therefore not evaluated, the plan must provide documentation of why the WMS was not evaluated.
2. Include documentation of the RWPG's process for selecting recommended WMSs and associated WMSPs including development of WMS evaluations matrices and other tools required to assist the RWPG in comparing and selecting recommended WMSs and WMSPs. Include this documentation in the IPP and final RWP.
3. Consider water conservation plans and drought contingency plans from each WUG, as necessary, to inform WMS evaluations and recommendations.
4. Ensure necessary communication, coordination, and facilitation occurs within the RWPA and with other RWPGs to develop recommendations.
5. Update descriptions and associated technical analyses and documentation of any WMSs and WMSPs that are carried forward from the previous RWP to address:
    a. Changed conditions or project configuration.
    b. Changes to sponsor of WMS and WMSP(s).
    c. Updated costs (based on use of required costing tool[10]).
    d. Other changes that must be addressed to meet requirements of 31 TAC §357.34 and §357.35.
6. Assign all recommended WMS water supplies to meet projected needs of specific WUGs.
7. Document the evaluation and selection of all recommended WMS and WMSPs, including an explanation for why certain types of strategies (e.g., aquifer storage and recovery, seawater desalination, brackish groundwater desalination) may not have been recommended.
8. Determine whether the region has 'significant' identified water needs and if so, assess the potential for aquifer storage and recovery to meet those needs. The plan must include at a minimum, the methodology used by the planning group to determine what volume constitutes a 'significant' water need in their region.
9. Provide documentation of the implementation status, in a separate chapter subsection and in table format, of the status of certain recommended WMSs. *First Amended General Guidelines for Development of the 2026 Regional Water Plans Section 2.5.2.7* outlines the

[10] See Section 2.5.2.12 under 'Financial Costs' in *First Amended General Guidelines for Development of the 2026 Regional Water Plans.*

required WMS types[11] that implementation status must be provided for and outlines the required minimum table contents depicting key milestones.

10. Coordinate with sponsoring WUGs, WWPs, and/or other resource agencies regarding any changed conditions in terms of projected needs, strategy modifications, planned facilities, market costs of water supply, endangered or threatened species, etc.
11. If TWC §11.085 applies to the proposed inter-basin transfer (IBT), determine the "highest practicable level" of water conservation and efficiency achievable (as existing conservation or proposed within a WMS) for each WUG or WWP WUG customer recommended to rely on a WMS involving the IBT. Recommended conservation WMSs associated with this analysis shall be presented by WUG.
12. Present the water supply plans in the RWP for each WUG and WWP relying on the recommended WMSs and WMSPs.
13. Consider alternative WMSs and WMSPs for inclusion in the plan. Alternative water management strategies must be fully evaluated in accordance with 31 TAC §357.34(e)-(i). Technical evaluations of alternative WMSs must be included in the plans and the data associated with alternative WMS must be entered into DB27.
14. Review the TWDB reports (report numbers 10-19) from DB27 and incorporate these agency planning database reports (including as populated final RWP must incorporate these standard TWDB DB27 reports, in the IPP and final RWP, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
15. Submit data through DB27 to include the following work:
    a. Review of the data.
    b. Confirm that data is accurate.
16. Disseminate the chapter document and related information to RWPG members for review.
17. Modify the chapter document based on RWPG, public, and/or agency comments.
18. Submit the chapter document to the TWDB for review and approval.
19. Make all efforts required to obtain final approval of the RWP chapter and associated DB27data by the TWDB.
20. *[REGION-SPECIFIC SCOPE OF WORK TO BE APPROVED AT FUTURE DATE BY TWDB EXECUTIVE ADMINISTRATOR PRIOR TO NOTICE-TO-PROCEED]*

Scope of Work to be amended based on specific Task 5B scope of work to be developed and negotiated with TWDB. Work under Task 5B to be performed only after approval and incorporation of Task 5B scope of work amendment and written notice-to-proceed.
NOTE: Work effort associated with preparing and submitting a proposed Task 5B scope of work for the purpose of obtaining a written 'notice-to-proceed' from TWDB is not included in Task 5B and may <u>not</u> be reimbursed under the Contract.

Deliverables: A completed Chapter 5 (including work from Tasks 5A-5C) including technical analyses of all evaluated WMSs and WMSPs must be included in the IPP and final 2026 RWP. Data must be submitted and finalized through DB27 in accordance with the *Guidelines for 2026 Regional Water Planning Data Deliverables*.

[11] The list of WMS types is subject to change based upon legislative direction.

Task 5C – Conservation Recommendations

The objective of this task is to prepare a separate subchapter[12] of Chapter 5 that consolidates conservation-related recommendations, provides the region's GPCD goals, and provides model water conservation plans to be included in the 2026 RWP .

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.34(i).

Note that the evaluation of conservation WMSs and WMSPs should be performed under Task 5B and the region must receive a written notice-to-proceed associated with conservation WMSs under Task 5B.

Work shall include but not be limited to the following:

1. Consider water conservation plans from each WUG, as necessary, to inform conservation WMSs and other recommendations.
2. Develop water loss mitigation WMSs distinctly separate from water use reduction WMSs.
3. If applicable, explain the RWPG's basis for not recommending a conservation WMS for WUGs that had identified water needs.
4. If applicable, present what level of water conservation (as existing conservation or proposed within a WMS) is considered by the RWPG as the "highest practicable level" of water conservation for each WUG and WWP WUG customer that are dependent upon water management strategies involving inter-basin transfers to which TWC 11.085 applies.
5. Include model water conservation plans. Model water conservation plans may be referenced in this subchapter by using internet links instead of included in hard copy .
6. Recommend GPCD goals for each municipal WUG or specified groupings of municipal WUGs for each planning decade. GPCD goals must be based on drought conditions to align with guidance principles in §358.3
7. Disseminate the subchapter content and related information to RWPG members for review.
8. Modify the subchapter document based on RWPG, public, and/or agency comments.
9. Submit the subchapter as part of Chapter 5 to the TWDB for review and approval.
10. Make all efforts required to obtain final approval of the RWP subchapter by the TWDB.

Deliverables: A completed subchapter of Chapter 5 (including work from Tasks 5A-5C) must be included in the IPP and final 2026 RWP.

Task 6 – Impacts of the Regional Water Plan and Consistency with Protection of Resources

The objective of this task is to prepare a separate chapter (in accordance with 31 TAC §357.22(b)) to be included in the 2026 RWP that describes the potential impacts of the RWP and how the plan is consistent with long-term protection of water resources, agricultural resources, and natural resources.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.40 and §357.41.

[12] This must be a separate subchapter as required by 31 TAC §357.34(j).

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Include a quantitative description of the socioeconomic impacts of not meeting the identified water needs. Upon request, TWDB will perform a socioeconomic analysis of the impacts of not meeting the identified water needs and update and summarize potential social and economic effects under this Task. This report will be provided to RWPGs as part of this Task and incorporated into the final RWPs.
2. If the RWPG chooses to develop its own socioeconomic analysis, the resulting socioeconomic report, with documented methodology, must be incorporated into the IPP and final RWP by the RWPG.
3. Include an evaluation of the estimated cumulative impacts of the RWP, for example on groundwater levels, spring discharges, bay and estuary inflows, and instream flows.
4. Describe the impacts of the RWP regarding all factors in §357.40(b).
5. Describe how the RWP is consistent with the long-term protection of resources in accordance with §357.41.
6. Review the TWDB *WUG Unmet Needs* report from DB27 and incorporate this agency planning database report (including as populated by the RWPG consultant) by reference, as part of the IPP and final RWP by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
7. Disseminate the chapter document and related information to RWPG members for review.
8. Modify the chapter document based on RWPG, public, and/or agency comments.
9. Submit the chapter document to the TWDB for review and approval; and
10. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 6 must be included in the IPP and final 2026 RWP.

Task 7 – Drought Response Information, Activities, and Recommendations

The objective of this task is to prepare a separate chapter (in accordance with 31 TAC §357.22(b)) to be included in the 2026 RWP that: presents information regarding historical droughts and preparations for drought in the region; identifies triggers and responses to the onset of drought conditions in the region; evaluates potential emergency responses to local drought conditions; and includes various other drought-related evaluations and recommendations considered important by the RWPG.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.42.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Consider existing plans, including those referenced under 31 TAC §357.22(a), in developing this chapter.
2. Collect information on previous and current responses to drought in the region including reviewing drought contingency plans received from each WUG.
3. Consider drought contingency plans from each WUG, as necessary, to inform WMS evaluations and recommendations and to determine which drought response efforts are unnecessary or counterproductive.

4. Coordinate and communicate, as necessary, with entities in the region to gather information required to summarize existing triggers and actions, identify existing and potential emergency interconnects, and to identify potential emergency response to local drought conditions or loss of existing supplies.
5. Summarize potentially feasible drought management WMS, recommended drought management WMS, and or alterative drought management WMSs, if any, associated with work performed under Task 5A and 5B.
6. If applicable, explain the RWPG's basis for not recommending drought management strategies for WUGs that had identified water needs.
7. Develop region-specific model drought contingency plans consistent with TCEQ requirements. Plans for municipal users must, at a minimum, identify triggers for and responses to the most severe drought response stages commonly referred as severe and critical/emergency drought conditions.
8. Summarize any other drought management measures recommended by the RWPG.
9. Include a separate chapter subsection that provides documentation of how the planning group addressed uncertainties in the RWP (if applicable), how the planning group addressed a drought worse than the DOR in the RWP (if applicable), and potential measures and responses that would likely be available to users in the region, in the event of a drought worse than the DOR. *First Amended General Guidelines for Development of the 2026 Regional Water Plans Section 2.7.2* outlines the specific plan contents that must be included in the IPP and final RWP to meet this requirement.
10. Prepare tabular data as applicable for inclusion in chapter.
11. Disseminate the chapter document and related information to RWPG members for review.
12. Modify the chapter document based on RWPG, public, and/or agency comments.
13. Submit the chapter document to the TWDB for review and approval.
14. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 7 summarizing drought response information, activities, and recommendations must be included in the IPP and final 2026 RWP

Task 8 - Recommendations Regarding Unique Stream Segments and/or Reservoir Sites and Legislative & Regional Policy Issues

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) that presents the RWPG's unique stream segment, unique reservoir site, legislative, administrative, and regulatory recommendations.

In addition to generally meeting all applicable rule and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.43 and §358.2.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Receive and consider TWDB feedback on the implementation of the RWPG's legislative, administrative, and regulatory recommendations, as applicable to the TWDB, in the previous RWP.
2. Receive and consider recommendations from the Interregional Planning Council to the RWPGs.
3. Consider relevant plans referenced under 31 TAC §357.22 in developing this chapter.

4. Consider and discuss potential recommendations for designation of ecologically unique stream segments within the RWPA, based on the criteria in 31 TAC §358.2.
5. If applicable, prepare a recommendation package following the requirements in 31 TAC §357.43(b) recommending which stream segments in the region, if any, should be recommended for designation as ecologically unique stream segments. Evaluate and incorporate comments from the RWPG. Upon approval by the RWPG, submit the recommendation package to the Texas Parks and Wildlife Department for comments.
6. Include the recommendation package and Texas Parks and Wildlife Department's written evaluation on the unique stream segment(s) recommendation in the final RWP. An updated Texas Parks and Wildlife Department evaluation must be included in each RWP, even for those stream segments that have been recommended in previous plans but not designated by the Legislature.
7. For each recommended or previously designated unique stream segment, include a quantitative analysis of the impact of the RWP on the stream segments based upon the assessment criteria in 31 TAC §357.43(b)(2).
8. Consider and discuss potential recommendations for designation of unique reservoir sites within the RWPA.
9. For each recommended unique reservoir site, include a description of the site, reasons for the unique designation, and expected beneficiaries of water supplies developed at a given site in accordance with 31 TAC §357.43(c).
10. Consider and discuss potential regional policy issues; identify recommendations for legislative, administrative, and regulatory rule changes; including recommendations to improve the state and regional planning process.
11. Disseminate the chapter document and related information to RWPG members for review.
12. Modify the chapter document based on RWPG, public, and or agency comments.
13. Submit the chapter document to the TWDB for review and approval.
14. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 8 presenting RWPG unique stream segment, unique reservoir site, legislative, administrative, and regulatory recommendations must be included in the IPP and final 2026 RWP.

Task 9 – Implementation and Comparison to the Previous Regional Water Plan

The objective of this task is to prepare a separate chapter (in accordance with 31 TAC §357.22(b)) to be included in the 2026 RWP that reports on the degree of implementation of WMSs from the previous RWP and summarizes how the new RWP compares to the previous RWP.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must, include all work necessary to meet all the requirements of 31 TAC §357.45.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Implementation (31 TAC §357.45(a)):
    a. Coordinate and communicate with RWPG representatives and sponsors of WMSs, including WUGs and WWPs.
    b. Document the level of implementation of each WMS that was recommend in the previous RWP and impediments to implementation.

   c. Submit implementation results data in the format to be specified by the TWDB.
2. Comparison to the previous regional water plan (31 TAC §357.45(b)):
   a. Assess the region's progress in encouraging cooperation between WUGs for the purpose of achieving economies of scale and incentivizing WMSs that benefit the entire planning area.
   b. Compare the RWP to the previous RWP regarding water demand projections, droughts of record and modeling assumptions, availability, existing supplies, needs, and WMSs and WMSPs.
   c. Summarize differences quantitatively or qualitatively in accordance with rule.
   d. Present information in graphical, tabular, and written format as applicable.
3. Disseminate the chapter document and related information to RWPG members for review.
4. Modify the chapter document based on RWPG, public, and/or agency comments.
5. Submit the chapter document to the TWDB for review and approval.
6. Make all efforts required to obtain final approval of the RWP chapter and associated DB27 data by the TWDB.

Deliverables: A completed Chapter 9 must be included in the IPP and final 2026 RWP.

Task 10 - Public Participation and Plan Adoption

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) to address public participation, public meetings, eligible administrative and technical support activities, and other requirements and activities eligible for reimbursement, complete and submit a Technical Memorandum, IPP, and final RWP, and obtain TWDB approval of the RWP.

In addition to generally meeting all applicable statute requirements governing regional and state water planning this portion of work must, in particular, include all technical and administrative support activities necessary to meet all the requirements of 31 TAC Chapters 355, 357, and 358 that are not already addressed under the scope of work associated with other contract tasks but that are necessary and or required to complete and deliver a Technical Memorandum, IPP, and final RWP to TWDB and obtain approval of the final RWP by the TWDB.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

A. Plan Development Activities

1. Organize, support, facilitate, and document all meetings and hearings associated with activities necessary and eligible to complete and submit a Technical Memorandum, IPP, and final RWP to the TWDB, including but not limited to: regular RWPG meetings, committee meetings, or subcommittee meetings; pre-planning meeting; meetings associated with revision of draft projections; public meeting for the consideration of the process for identifying potentially feasible water management strategies and the presentation of the analysis of infeasible water management strategies; consideration of a substitution of alternative water management strategies; public hearing on the IPP; adoption of the final RWP, and consideration of RWP amendments, alternative WMS substitutions, or TWDB Board-directed revisions.
2. Include a deliberate discussion on how the planning group will conduct interregional coordination and collaboration regarding water management strategies during the preplanning meeting required under 31 TAC §357.12(a)(1).
3. Collect and evaluate information, including any information gathering surveys from water suppliers or WUGs, (e.g., on existing infrastructure; existing water supplies; potentially

feasible water management strategies) and/or maintenance of contact lists for regional planning information in the region.

4. Conduct intraregional and interregional coordination and communication, and or facilitation required within the RWPA and with other RWPGs to develop a RWP including with water suppliers or other relevant entities such as groundwater conservation districts, WUGs, and or WWPs. This includes gathering and documenting information on potential interregional opportunities or issues.
5. Incorporate all required DB27 reports (including as populated by the RWPG consultant) into the Technical Memorandum. The IPP and final RWP must incorporate these standard TWDB DB27 reports, by reference in the Executive Summary, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application. Additional specifications are provided in the *First Amended General Guidelines for Development of the 2026 Regional Water Plans.*
6. Develop and include an Executive Summary in both the IPP and final RWP, not to exceed 30 pages.
7. Make modifications to the RWP documents based on RWPG, public, and/or agency comments.
8. Prepare a RWP chapter summarizing Task 10 activities including review by the RWPG and modification of document as necessary.
9. Prepare and transmit correspondence, for example, directly related to public comments on RWP documents.
10. Develop draft and final responses for RWPG approval to public questions or comments as well as approval of the final responses to comments on RWP documents.
11. Produce, distribute, and submit all draft and final RWP-related planning documents for the RWPG, public and agency review, including in hard-copy format when required.
12. Assemble, compile, and produce of the completed IPP and final RWP documents that meet all requirements of statute, 31 TAC Chapters 355, 357 and 358, regional water planning contract and associated contract guidance documents.
13. Submit the RWP documents in required formats to the TWDB for review and approval, by the deadlines listed in Section I Article I of the contract and make all efforts required to obtain final approval of the RWP by the TWDB.

B. Technical Support and Administrative Activities

1. Support and accommodate periodic presentations by the TWDB for the purpose of orientation, training, and retraining as determined and provided by the TWDB during regular RWPG meetings.
2. Consider recommendations in the *Administrative Guidance for RWPG Sponsors (Designated Political Subdivisions*), as prepared and updated by the TWDB.
3. Technical consultants must attend and participate in TWDB-provided DB27 trainings, including individualized trainings and review of technical and data-related contract guidance documents in the TWDB regional water planning contract.
4. Develop agendas, presentations, and handout materials for the public meetings and hearings to provide to RWPG members and the public.
5. Technical consultants must attend and participate in RWPG, committee, subcommittee, and other meetings and hearings necessary for RWP development including preparation and follow-up activities.
6. Develop technical and other presentations and handout materials for RWPG meetings and hearings to provide technical and explanatory data to the RWPG and its subcommittees, including follow-up activities.

7. Perform administrative and technical support, including coordination of and participation in RWPG activities, and documentation of any RWPG meetings, hearings, workshops, workgroups, subgroup and/or subcommittee activities.
8. Provide status reports to the TWDB for work performed under this Contract.
9. Meet all public notice requirements in accordance with the Texas Open Meetings Act, statute, 31 TAC §357.21, and any other applicable public notice requirements.

C. Other Activities

1. Develop and maintain a RWPG website or RWPG-dedicated webpage on the RWPG administrator's website for posting planning group meeting notices, agendas, materials, and plan information.
2. Perform maintenance of the RWPG website; reimbursement is limited to non-labor, direct costs.
3. Document meetings and hearings to include recorded minutes and or audio recordings as required by the RWPG bylaws and archiving and providing minutes to public.
4. Promote consensus decisions through conflict resolution efforts including monitoring and facilitation required to resolve issues between and among RWPG members and stakeholders in the event that issues arise during the process of developing the RWP, including mediation between RWPG members, if necessary.
5. Perform RWPG membership solicitation activities.
6. Solicit, review, and disseminate public input, as necessary.
7. Perform any additional efforts required, but not otherwise addressed in other scope of work tasks that may be required to complete a RWP in accordance with all statute and rule requirements.

Deliverables:

- A draft Chapter 10 summarizing public participation activities to date included in the IPP.
- A completed Chapter 10 summarizing public participation activities and appendices with public and agency comments and RWPG responses to comments in the final 2026 RWP.
- A complete IPP and final 2026 RWP.

Exhibit B
First Amended Task and Expense Budgets

TASK BUDGET

CAS Item No.	SOW Task No.	Task Description	ORIGINAL BUDGET	REVISED BUDGET	AMOUNT CHANGED
1	1	Planning Area Description	$16,231.00	$16,231.00	$0.00
2	2A	Non-Municipal Water Demand Projections	$28,414.00	$28,414.00	$0.00
3	2B	Population and Municipal Water Demand Projections	$47,482.00	$47,482.00	$0.00
4	8	Recommendations Regarding Unique Stream Segments and/or Reservoir Sites and Legislative & Regional Policy Issues	$10,648.00	$10,648.00	$0.00
5	10	Public Participation and Plan Adoption	$102,916.00	$234,797.00	$131,881.00
6	3	Water Supply Analysis	$0.00	$139,038.00	$139,038.00
7	4A	Water Needs Analysis	$0.00	$23,124.00	$23,124.00
8	4B	Identification of Infeasible Water Management Strategies in the previously adopted 2021 Regional Water Plan	$0.00	$22,152.00	$22,152.00
9	4C	Technical Memorandum	$0.00	$25,674.00	$25,674.00
10	5A	Identification of Potentially Feasible Water Management Strategies and Projects	$0.00	$20,853.00	$20,853.00
11	5B	Evaluation and Recommendation of Water Management Strategies and Projects	$0.00	$386,239.00	$386,239.00
12	5C	Conservation Recommendations	$0.00	$27,546.00	$27,546.00
13	6	Impacts of the Regional Water Plan and Consistency with Protection of Resources	$0.00	$36,176.00	$36,176.00
14	7	Drought Response Information, Activities, and Recommendations	$0.00	$66,894.00	$66,894.00
15	9	Implementation and Comparison to the Previous Regional Water Plan	$0.00	$17,635.00	$17,635.00
		Total	**$205,691.00**	**$1,102,903.00**	**$897,212.00**

CONTRACTOR EXPENSE BUDGET

EXPENSE BUDGET CATEGORY	ORIGINAL BUDGET	REVISED BUDGET	AMOUNT CHANGED
Contractor (Political Subdivision) Other Expenses [1]	$5,000.00	$21,000.00	$16,000.00
Contractor (Political Subdivision) Salaries and Wages[2]	***category did not previously exist***	$5,000.00	$5,000.00
Subcontract Services	$200,691.00	$1,076,903.00	$876,212.00
Voting Planning Member Travel [3]	$0.00	$0.00	$0.00
Contractor (Political Subdivision) Travel [4]	$0.00	$0.00	$0.00
Total Project Cost	**$205,691.00**	**$1,102,903.00**	**$897,212.00**

[1]Contractor (Political Subdivision) Other Expenses as described in 31 TAC §355.92(c) include the following administrative costs that may be billed under Task 10 associated with the RWPG's Political Subdivision if the RWPG or its chairperson certifies, during a public meeting, that the expenses are eligible for reimbursement and are correct and necessary:

a. Direct costs, excluding personnel costs, for placing public notices for the legally required public meetings, maintaining a website, and of providing copies of information for the public and for members of the RWPG as needed for the efficient performance of planning work such as:
   i. expendable supplies consumed in direct support of the planning process;
   ii. direct communication charges;
   iii. direct costs/fees of maintaining RWPG website domain, website hosting, and/or website;
   iv. direct costs of storing or posting of audio-visual files (e.g., meeting recordings);
   v. reproduction of materials directly associated with notification or planning activities (the actual non-labor direct costs as documented by the Contractor (Political Subdivision);
   vi. other direct costs of public meetings, all of which must be directly related to planning (e.g., newspaper and other public notice posting costs, and facility rentals); and
   vii. direct postage (e.g., postage for mailed notification of funding applications or meetings).
b. Costs associated with providing translators and accommodations for persons with disabilities for public meetings when required by law or deemed necessary by the RWPGs and certified by the chairperson.
c. Direct non-labor costs associated with the reproduction or distribution of newsletters.
d. Proportional costs of purchasing audio/visual equipment for hybrid RWPG meetings (requested reimbursement costs must be prorated based on the amount of use of the equipment for RWPG meetings relative to all other uses of the equipment). These costs must be specifically pre-authorized by the TWDB Executive Administrator prior to equipment purchase.

[2]Contractor (Political Subdivision) Salaries and Wages as described in 31 TAC § 355.92(c)(5) include the following administrative costs if the RWPG or its chairperson certifies, during a public meeting, that the expenses are eligible for reimbursement and are correct and necessary:

the RWPG Political Subdivision's personnel costs for the staff hours that are directly spent providing, preparing for, and posting public notice for RWPG meetings and hearings, including labor, fringe, overhead, and other expenses for their support of and attendance at such RWPG meetings and hearings. This may not exceed: $5,000 per regular RWPG meeting nor a total of $60,000 over the planning cycle.

[3]Voting Planning Member Travel Expenses are limited to the maximum amounts authorized for state employees by the General Appropriations Act, Tex. Leg. Regular Session, 2021, Article IX, Part 5, as amended or superseded. These expenses are defined as:

a. eligible mileage expenses incurred by RWPG members, or their designee, to attend RWPG meetings that cannot be reimbursed by any other entity, political subdivision, etc. as certified by the voting member, or their designee, and
b. food, drink, lodging, mileage, or airfare of designated RWPG member travel to support participation in legislatively required or Board-requested meetings, as specifically authorized by the RWPG and TWDB Executive Administrator.

[4] Contractor (Political Subdivision) Travel Expenses are limited to the maximum amounts authorized for state employees by the General Appropriations Act, Tex. Leg. Regular Session, 2021, Article IX, Part 5, as amended or superseded. These expenses must be specifically authorized by the RWPG and TWDB Executive Administrator and are defined as:

a. eligible mileage expenses incurred by Political Subdivision staff for work associated with regional water plan development, and
b. Food, drink, or lodging (excluding tips and alcoholic beverages), mileage, or airfare for Political Subdivision staff designated to be the representative for the RWPG to support participation in legislatively required or Board requested meetings.

Ineligible Expenses include funding any of the activities specified in 31 TAC 355.92(a), as well as the following items as applicable to RWPG members and Political Subdivisions:

a. Compensation for the time or expenses of RWPGs members' service on or for the RWPG, or for the salary of a RWPG member who is also an employee of the Contractor (Political Subdivision);
b. Costs of administering the RWPGs, other than those eligible and authorized under Contractor (Political Subdivision) Other Expenses;
c. Costs for training;
d. Costs of administering the regional water planning grant and associated contracts;
e. Costs associated with development of an application for a regional water planning grant or reviewing materials developed due to this grant;
f. Food, drink, or lodging for RWPG members (including tips and alcoholic beverages), unless eligible and specifically authorized under Voting Planning Member Travel Expenses item b;
g. Purchase, rental, or depreciation of equipment (e.g., computers, copiers, fax machines), with the exception of audio/visual equipment for hybrid RWPG meetings as specifically authorized under Contractor (Political Subdivision) Other Expenses item d;
h. General purchases of office supplies not documented as consumed directly for the planning process as defined in Contractor (Political Subdivision) Other Expenses item a.i; and
i. Costs associated with social events or tours.

Requisition

Requisition Details

Requisition Details

Requisition Summary

Business Unit	58000	**Requisition Name**	2148302556 RWP Amd 1 Rgn D
Date	09/20/2022	**Requisition ID**	0000000178
Request State	Approved	**Total Amount**	401,056.00 USD
Requested For	00010094077	**Pre-Encumbrance Balance**	401056.00 USD

Header Comments

Comment 1: Attach CIF, Board item contract amendment

Expand lines to review shipping and accounting details

Requisition Lines

Line	Item Description	Source Status	Amount Only	Quantity		Price	Status	Total
1	Regional Water Planning Cont...	Available	Yes	1	EACH	401056.00 USD	Approved	401,056.00

Shipping Line 1

Ship To SFAHQ
1700 Congress Avenue
6th Floor - TWDB
Austin, TX 78701

Attention To Sarah Lee

Due Date 09/30/2022

Quantity 1

Price 401,056.00

Price Adjustment

Accounting Lines

Distribute By Amt

Liquidate By Amt

Accounting Lines

1-2 of 2

Details | **More Details** | More Details 2 | Asset Information | Budget Information

Oper Unit	Fund	Dept	Program	Appn/PCA	Appn Year	Product	PC Bus Unit	Project	Activity
	4830	N910	00	21430	2023		58000	E02011	

Regional Water Planning Contract Amendments – TWDB INTERNAL PRE-DOCUSIGN APPROVALS

Please initial and date to confirm your review/approval of the Contract Amendment documents.

EEcJTMKSContractor Name/Contract #	Shared Drive Link to Access Documents	PCS Contract Specialist (Rishi Teli)	PCS Director (Cameron Turner)	Legal (Kaye Schultz)	Contract Manager	Program Manager (Sarah Lee)	Program Director (Temple McKinnon)	Budget Analyst/Director (Erin Moczygemba & Loren Sammon)	Financial Operations AP/AR (Eldrisha Eubanks)	Financial Operations Director (Letty Molina)	Exec. Matt Nelson	Amanda Lavin, Assistant Executive Administrator	Jeff Walker, Executive Administrator
1. Panhandle Regional Planning Commission/2148302553	S:\Shared\90Temp\Contracts\PENDING RT\RWP BATCH AMD\RWP Contract Amendment Packets\2148302553_PanhandleRP_JEAN_DEVLIN	RT 9/12/2022	ct 9/22/22	KS 9/15/2022	JD 9/6/22	SL 9/7/22	TMc 9/7/22	LS 9/28/22	EE 9/29/22	DocuSign	DocuSign	DocuSign	DocuSign
2. Red River Authority/ 2148302554	S:\Shared\90Temp\Contracts\PENDING RT\RWP BATCH AMD\RWP Contract Amendment Packets\2148302554_RedRiverAuthority_KEVIN_SMITH	RT 9/12/2022	ct 9/22/22	KS 9/15/2022	KS 8/31/22	SL 9/1/22	TMc 9/1/22	LS 9/28/22	EE 9/29/22	DocuSign	DocuSign	DocuSign	DocuSign
3. Trinity River Authority/2148302555	S:\Shared\90Temp\Contracts\PENDING RT\RWP BATCH AMD\RWP Contract Amendment Packets\2148302555_TrinityRiverAuthority_KEVIN_SMITH	RT 9/12/2022	ct 9/22/22	KS 9/15/2022	KS 8/31/22	SL 9/1/22	TMc 9/1/22	LS 9/28/22	EE 9/29/22	DocuSign	DocuSign	DocuSign	DocuSign

Regional Water Planning Contract Amendments – TWDB INTERNAL PRE-DOCUSIGN APPROVALS

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4. Riverbend Water/ 2148302556	S:\Shared\90Temp\Contracts\PENDING RT\RWP BATCH AMD\RWP Contract Amendment Packets\2148302556_RiverbendWater_RON_ELLIS	RT 9/12/2022	ct 9/22/22	KS 9/15/2022	RE 9/2/22	SL 9/6/22	TMc 9/7/22	LS 9/28/22	EE 9/29/22	DocuSign LM 10/17/2022	DocuSign MN 10/24/2022	DocuSign 11/17/2022	DocuSign 11/17/2022
5. RGCOG/2148302557	S:\Shared\90Temp\Contracts\PENDING RT\RWP BATCH AMD\RWP Contract Amendment Packets\2148302557_RGCOG_ELIZABETH_MCCOY	RT 9/12/2022	ct 9/22/22	KS 9/15/2022	EM 8/31/22	SL 9/1/22	TMc 9/1/22	LS 9/28/22	EE 9/29/22	DocuSign	DocuSign	DocuSign	DocuSign
6. Colorado River Municipal/ 2148302558	S:\Shared\90Temp\Contracts\PENDING RT\RWP BATCH AMD\RWP Contract Amendment Packets\2148302558_ColoradoRiverMunicipal_ELIZABETH_MCCOY	RT 9/12/2022	ct 9/22/22	KS 9/15/2022	EM 8/31/22	SL 9/1/22	TMc 9/1/22	LS 9/28/22	EE 9/29/22	DocuSign	DocuSign	DocuSign	DocuSign

Regional Water Planning Contract Amendments – TWDB INTERNAL PRE-DOCUSIGN APPROVALS

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7. Brazos River Authority/2148302559	S:\Shared\90Temp\Contracts\PENDING RT\RWP BATCH AMD\RWP Contract Amendment Packets\2148302559_BrazosRiver Authority_JEAN_DEVLIN	RT 9/12/2022	ct 9/22/22	KS 9/15/2022	JD 9/6/22	SL 9/7/22	TMc 9/7/22	LS 9/28/22	EE 9/29/22	DocuSign	DocuSign	DocuSign	DocuSign
8. San Jacinto River Auth/ 2148302560	S:\Shared\90Temp\Contracts\PENDING RT\RWP BATCH AMD\RWP Contract Amendment Packets\2148302560_SanJacintoRiverAuth_LANN_BOOKOUT	RT 9/12/2022	ct 9/22/22	KS 9/15/2022	LB 9/2/22	SL 9/2/22	TMc 9/2/22	LS 9/28/22	EE 9/29/22	DocuSign	DocuSign	DocuSign	DocuSign
9. Nacogdoches River Auth/ 2148302561	S:\Shared\90Temp\Contracts\PENDING RT\RWP BATCH AMD\RWP Contract Amendment Packets\2148302561_Nacogdoches_LANN_BOOKOUT	RT 9/12/2022	ct 9/22/22	KS 9/15/2022	LB 9/2/22	SL 9/2/22	TMc 9/2/22	LS 9/28/22	EE 9/29/22	DocuSign	DocuSign	DocuSign	DocuSign

Regional Water Planning Contract Amendments – TWDB INTERNAL PRE-DOCUSIGN APPROVALS

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10. Upper Guadalupe River Auth/ 2148302562	S:\Shared\90Temp\Contracts\PENDING RT\RWP BATCH AMD\RWP Contract Amendment Packets\2148302562_UpperGuadalupe_RON_ELLIS	RT 9/12/2022	ct 9/22/22	KS 9/15/2022	RE 9/2/22	SL 9/6/22	TMc 9/7/22	LS 9/28/22	EE 9/29/22	DocuSign	DocuSign	DocuSign	DocuSign
11. LCRA/ 2148302563	S:\Shared\90Temp\Contracts\PENDING RT\RWP BATCH AMD\RWP Contract Amendment Packets\2148302563_LCRA_LAN_BOOKOUT	RT 9/12/2022	ct 9/22/22	KS 9/14/2022	LB 9/2/22	SL 9/2/22	TMc 9/2/22	LS 9/28/22	EE 9/29/22	DocuSign	DocuSign	DocuSign	DocuSign
12. San Antonio River Auth/ 2148302564	S:\Shared\90Temp\Contracts\PENDING RT\RWP BATCH AMD\RWP Contract Amendment Packets\2148302564_SanAntonioRiverAuth_ELIZABETH_MCCOY	RT 9/12/2022	ct 9/22/22	KS 9/14/2022	EM 8/31/22	SL 9/1/22	TMc 9/1/22	LS 9/28/22	EE 9/29/22	DocuSign	DocuSign	DocuSign	DocuSign

Regional Water Planning Contract Amendments – TWDB INTERNAL PRE-DOCUSIGN APPROVALS

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13. LRGVD/ 2148302565	S:\Shared\90Temp\Contracts\PENDING RT\RWP BATCH AMD\RWP Contract Amendment Packets\2148302565_LRGVD_KEVIN_SMITH	RT 9/12/2022	ct 9/22/22	KS 9/14/2022	KS 9/1/22	SL 9/2/22	TMc 9/2/22	LS 9/28/22	EE 9/29/22	DocuSign	DocuSign	DocuSign	DocuSign
14. Nueces River Auth/ 2148302566	S:\Shared\90Temp\Contracts\PENDING RT\RWP BATCH AMD\RWP Contract Amendment Packets\2148302566_NuecesRiverAuth_KEVIN_SMITH	RT 9/12/2022	ct 9/22/22	KS 9/13/2022	KS 8/31/22	SL 9/1/22	TMc 9/1/22	LS 9/28/22	EE 9/29/22				
15. South Plains Association/ 2148302567	S:\Shared\90Temp\Contracts\PENDING RT\RWP BATCH AMD\RWP Contract Amendment Packets\2148302567_SouthPlainsAssoci_JEAN_DEVLIN	RT 9/12/2022	ct 9/22/22	KS 9/13/2022	JD 9/6/22	SL 9/7/22	TMc 9/7/22	LS 9/28/22	EE 9/29/22				

Regional Water Planning Contract Amendments – TWDB INTERNAL PRE-DOCUSIGN APPROVALS

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16. Lavaca Navidad/ 2148302568	S:\Shared\90Temp\Contracts\PENDING RT\RWP BATCH AMD\RWP Contract Amendment Packets\2148302568_AMD_Lavaca-Navidad_JEAN_DEVLIN	RT 9/12/2022	ct 9/22/22	KS 9/13/2022	JD 9/6/22	SL 9/7/22	TMc 9/7/22	LS 9/28/22	EE 9/29/22				

Attachment C

Second Amended
Contract between Riverbend Water Resources District and Texas Water Development Board

TEXAS WATER DEVELOPMENT BOARD

CONTRACT INITIATION FORM

1645

TWDB Contact Information	
Contract Manager	Ron Ellis
Office/Division/Section	OoP/WSP/RWP
Phone Number	512-463-4146

Contract Information and Funds Expiration			
Contract No.	**2148302556**	Grant	Yes
Payable	**X**	Receivable	

Contract Dates		
Board Approval Date (N/A if no date)	Start Date	Expiration Date
07/07/22	**02/01/21**	**08/31/26**

Most Recent Amendment Execution Date:	11/17/2022	**Original Contract Expiration Date:**	8/31/2026

Contractor Information	
Proposal Number	00005260
Vendor ID # (aka: Tax Payer ID#)	12636685401
Vendor Name	Riverbend Water Resources District
Street Address	228 Texas Avenue, Suite A
City, State, Zip	New Boston, Texas 75570
Telephone Number	903-831-0091
Vendor Contract Mgr/Email Address	Kyle Dooley/kyledooley@rwrd.org
Signer of Contract/Email Address	Kyle Dooley/kyledooley@rwrd.org

Anticipated Budget		
Contractor Share of Costs	$	-
TWDB Share of Costs	$	1,186,954.00
Receivable Share of Costs	$	-
Total Contract Costs	$	1,186,954.00

Procurement & Contract Services

Vendor Checks

Please Initial each Item		
MA	USAS (PYADDR/PYHOLD)	
MA	Franchise Tax Search	
MA	SAM Check	Expiration Date:
MA	Debarred Vendor List	
MA	Boycott Israel	
MA	Ties to Sudan/Iran/Foreign Terrorist Organizations/Designated Foreign Terrorist Org	
	W-9 Received (new contractor only-if applicable)	

Requested Action		
		New Contract
	X	Amendment
	2	Amendment No. (if applicable)

Payable/Receivable Contract Relationship

Payable or Receivable TWDB Contract Number(s) that this Contract is related to:

External Contract No.	
CFDA No.	

List of Counties for Study Area (Enter names, statewide, or non specific). If statewide, community count = 254

Bowie, Camp, Cass, Delta, Franklin, Gregg, Harrison, Hopkins, Hunt, Lamar, Marion, Morris, Rains, Red River, Smith (partial), Titus, Upshur, VanZandt, and Wood

Retainage for Contract

Retainage %	5%
Special Instructions	Retainage held until submittal of the final regional water plan.

Detailed Description of Contract

Development of the 2026 Regional Water Plan - Region D

Detailed Description of Amendment

Increases committed funds for FY24-25 and increases total project cost. Amends SOW, task and expense budget, and Exh C.

Best Value Standard - Procurement Method (X method used)

Method	X	Announcement/Publication
RFQ/RFP/RFA/RFO	X	580-21-RFA-0013
Interagency/Local		
Purchase		
Receivable Grant		
PCC CODE - For Finance Review		

If no PCC Code, DocType will be 9 and a legal cite is required.

Legal Cite:

BUDGET USE ONLY

TWDB SHARE

FUND (4-XXXX)	COBJ (4-XXXX)	MOF (3-XXX)	DEPT (4-XXXX)	PCA (5-XXXXX)	Work # (6-XXXXXX)	AY 2021-2022	AY 2023	AY 2024	AY 2025	Total	Funds Expire
4830	7613	00	G710	21430	E02011	$ 406,219.00	$ -	$ -	$ -	$ 406,219.00	n/a
4830	7613	00	N910	21430	E02011	$ -	$ 200,528.00			$ 200,528.00	n/a
4830	7613	00	N910	30430	E02011	$ -	$ -	$290,103.50	$290,103.50	$ 580,207.00	n/a
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
					TWDB Subtotal	$ 406,219.00	$ 200,528.00	$ 290,103.50	$ 290,103.50	$ 1,186,954.00	

RECEIVABLE SHARE

FUND (4-XXXX)	COBJ (4-XXXX)	MOF (3-XXX)	DEPT (4-XXXX)	PCA (5-XXXXX)	Work # (6-XXXXXX)	AY 2021-2022	AY 2023	AY 2024	AY 2025	Total	Funds Expire
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
					Receivable Subtotal	$ -	$ -		$ -	$ -	
					Contractor Subtotal	$ -	$ -		$ -	$ -	
					Contract Total	**$ 406,219.00**	**$ 200,528.00**	**$ 290,103.50**	**$ 290,103.50**	**$ 1,186,954.00**	

APPROVAL SIGNATURES and CONFIRMATION OF COMPLIANCE WITH AGENCY POLICY & THE STATE OF TEXAS CONTRACT MANAGEMENT GUIDE

By signing this form, you are certifying that this contract packet and its contents meet with your approval

Contract Approval	Printed Name		Signature	Date
Procurement & Contract Services	Cameron Turner			10/18/2023
Budget Director [and Budget Officer]	Perry Ball	EM	Perry Ball	10/19/2023
Contract Manager	Ron Ellis		Ron Ellis	10/18/2023
Program Manager	Sarah Lee		Sarah Lee	10/18/2023
Division Director	Temple McKinnon		Temple McKinnon	10/18/2023
Legal Counsel	Kaye Schultz		kaye Schultz	10/18/2023
Accounting/Finance	Letty Molina	EE	Letty Molina	10/18/2023
Deputy Executive Administrator	Matt Nelson		Matt Nelson	10/26/2023
Executive Administrator [or Designee]	Jeff Walker	AL	Amanda Lavin	10/27/2023

Revised 4/27/21

Business Unit: 58000
Requisition: 0000001645
Requisition Name: CONT_Amd2_2148302556_2024_RegD
Requester: 00010094077
Requested By: Ronald L Ellis
Entered Date: 9/20/23
Status: Approved
Currency: USD
Requisition Total: 290,103.50

Header Comments:
Contract amendment increases committed funds for FY24 and FY25. Requisition is for FY24 funds. New requisition will be routed in FY25.
Contract amendment increases committed funds for FY24 and FY25. Requisition is for FY24 funds. New requisition will be routed in FY25.

Line: 1 **Item Description:** Regional Water Planning Contract Amendment 2 Region D **Quantity:** 1.0000 **UOM:** EA **Price:** 290103.5000 **Line Total:** 290,103.50
Line Status: Approved

Ship Line: 1
Attention: Ronald L Ellis
Ship Via: VENDOR
Ship To: SFAHQ
Due Date:
Freight Terms:FOB DESTIN
Address:
1700 Congress Avenue
6th Floor - TWDB
Austin TX 78701
United States
Shipping Quantity: 1.0000
Shipping Total: 290,103.50

Dist	Status	Location	Qty	PCT	Amount	GL Unit	Account
1	Open	SFAHQ	1.0000	100.00	290,103.50	58000	7613

Dept	Fund	Program	Class	Budget Ref
N910	4830	00	30430	2024

Open QTY	PC BU	Project	Open Amt
1.0000	58000	E02011	0.0000

GL Base Amount	Currency	Sequence	Capitalize
290,103.50	USD	0	N

Chartfield 2
7613

TWDB Contract No. 2148302556

STATE OF TEXAS

TRAVIS COUNTY

TEXAS WATER DEVELOPMENT BOARD

and

RIVERBEND WATER RESOURCES DISTRICT

AMENDMENT NO. 2

This Contract, executed on July 13, 2021 and amended on November 17, 2022, is hereby amended as follows:

1. SECTION I, ARTICLE I, Paragraph C, COMMITTED FUNDS, is increased by $580,207.00, bringing the total COMMITTED FUNDS amount to $1,186,954.00.

2. SECTION I, ARTICLE I, Paragraph U, TOTAL PROJECT COST, the not to exceed cost is increased to $1,332,006.00.

3. SECTION I, ARTICLE II, Paragraph D, is added as follows:

   D. A total of $290,103.50 identified as Committed Funds under SECTION I, ARTICLE I, Paragraph C will not become available until September 1, 2024.

4. SECTION II, ARTICLE II, Paragraph A, is replaced with the following:

   A. CONTRACTOR must develop a TECHNICAL MEMORANDUM, INITIALLY PREPARED REGIONAL WATER PLAN, and REGIONAL WATER PLAN for the REGIONAL WATER PLANNING AREA according to:

      1. Exhibit A – Second Amended Scope of Work
      2. Exhibit B – Second Amended Task and Expense Budgets
      3. Exhibit C – Second Amended General Guidelines for Development of the 2026 Regional Water Plans[1]
      4. Exhibit D – Guidelines for 2026 Regional Water Plan Data Deliverables[1]
      5. Exhibit E – Original Application (cover pages as a reference to the full, original grant application)

[1] Exhibit C, Second Amended General Guidelines for Development of the 2026 Regional Water Plans and Exhibit D, Guidelines for 2026 Regional Water Plan Data Deliverables, will be posted on the TWDB website at: https://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2026/documents.asp. The RWPGs must utilize the latest version posted on the website.

5. Exhibit A, First Amended Scope of Work, is replaced with Second Amended Scope of Work. Replacement exhibits are attached.

6. Exhibit B, First Amended Task and Expense Budgets, is replaced with Second Amended Task and Expense Budgets. Replacement exhibits are attached.

7. Exhibit C, First Amended General Guidelines for Development of the 2026 Regional Water Plans, will be revised and placed on the TWDB website and denoted as Second Amended General Guidelines for Development of the 2026 Regional Water Plans.

All other terms and conditions of TWDB Contract No. 2148302556 remain the same in full force.

IN WITNESS WHEREOF, the parties hereto cause this Amendment to be duly executed.

TEXAS WATER DEVELOPMENT BOARD	RIVERBEND WATER RESOURCES DISTRICT
By: Amanda Lavin	By: Kyle Dooley
Jeff Walker Executive Administrator	Kyle Dooley Executive Director
Date: 10/27/2023	Date: 10/26/2023

Exhibit A

Second Amended Scope of Work

2026 Regional Water Plans

September 2023

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[1] Requirements for each task are further explained in the *Second Amended General Guidelines for Development of the 2026 Regional Water Plans*.

Task 1- Planning Area Description

The objective of this task is to prepare a standalone chapter (in accordance with 31 Texas Administrative Code (TAC) §357.22(b)) to be included in the 2026 Regional Water Plan (RWP) that describes the regional water planning area (RWPA).

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.30.

This Task includes, but is not limited to, performing all work in accordance with Texas Water Development Board (TWDB) rules and guidance required to:

1. Designate major water providers (MWP) in the RWPA for planning purposes.
2. Identify wholesale water providers (WWP) in the RWPA for planning purposes.
3. Review and summarize relevant existing planning documents in the region including those that have been developed since adoption of the previous regional water plan. Documents to be summarized include those referenced under 31 TAC §357.22.
4. Prepare a chapter that describes the RWPA including the following:
    a. social and economic aspects of a region such as information on current population, economic activity and economic sectors heavily dependent on water resources;
    b. current water use and major water demand centers;
    c. current groundwater, surface water, and reuse supplies including major springs that are important for water supply or protection of natural resources;
    d. MWPs;
    e. agricultural and natural resources;
    f. identified water quality problems;
    g. identified threats to agricultural and natural resources due to water quantity problems or water quality problems related to water supply;
    h. summary of existing local and regional water plans;
    i. the identified historic drought(s) of record within the planning area;
    j. current preparations for drought within the RWPA;
    k. information compiled by the TWDB from water loss audits performed by Retail Public Utilities pursuant to 31 TAC §358.6 (relating to Water Loss Audits); and
    l. an identification of each threat to agricultural and natural resources and a discussion of how that threat will be addressed or affected by the water management strategy (WMS) evaluated in the plan.
5. Disseminate the chapter document and related information to regional water planning group (RWPG) members for review.
6. Modify the chapter document based on RWPG, public, and/or agency comments.
7. Submit the chapter document to the TWDB for review and approval.
8. Make all efforts required to obtain final approval of the regional water plan (RWP) chapter by the TWDB.

Deliverables: A completed Chapter 1 describing the RWPA must be included in the Initially Prepared Plan (IPP) and final 2026 RWP.

Task 2A - Non-Municipal Water Demand Projections

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) to be combined with Task 2B and included in the 2026 RWP that describes the projected population and water demands in the RWPA.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.31.

TWDB staff will develop draft non-municipal water demand projections for 2030-2080 for all water demand categories unrelated to population (mining, manufacturing, irrigation, steam-electric power, and livestock) based on the most recent TWDB historical water use estimates. The same methodologies used for the 2022 State Water Plan will be applied to the 2027 State Water Plan projections, except for mining demands. The draft mining demand projections will be prepared based on an updated methodology to be developed by the Bureau of Economic Geology through a contracted mining water use study funded by the United States Geological Survey.

TWDB staff will provide draft water demand projections for all associated non-municipal water user group (WUG) to the RWPGs for their review and input.

Each RWPG will review the draft projections and may provide input to the TWDB or request specific changes to the draft projections from TWDB along with justifications and supporting data as specified in the guidance document *Second Amended General Guidelines for Development of the 2026 Regional Water Plans.* The emphasis of this effort will be on identifying appropriate revisions based on relevant changed conditions that have occurred since the development of the projections used in the 2022 State Water Plan.

If adequate justification is provided by the RWPG to the TWDB, draft water demand projections may be adjusted by the TWDB in consultation with the Texas Department of Agriculture, Texas Commission on Environmental Quality, and Texas Parks and Wildlife Department. Once RWPG input and requested changes are considered, final water demand projections will be adopted by the TWDB's governing Board (Board). The adopted projections will then be provided to each RWPG. Planning groups must use the Board-adopted projections when preparing their RWPs.

TWDB will directly populate the state water planning database (DB27) with all WUG-level projections and make related changes to DB27 based on Board-adopted projections.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Receive and make publicly available the draft non-municipal water demand projections provided by the TWDB.
2. Evaluate draft non-municipal water demand projections provided by the TWDB.
3. Review comments received from local entities and the public for compliance with TWDB requirements.
4. Prepare detailed feedback on draft non-municipal water demand projections, as necessary, including justification and documentation supporting requested changes from the RWPG and/or local entities with a focus on relevant changed conditions that have occurred since the development of the projections used in the 2022 State Water Plan.
5. Submit numerical requests for revisions of draft non-municipal water demand projections in an electronic tabular template provided by the TWDB along with required documentation and justification of requested revisions from the RWPG, based on, for example, requests received from local entities, in accordance with the contract guidance

document *Second Amended General Guidelines for Development of the 2026 Regional Water Plans.*

6. Communicate and/or meet with TWDB staff and/or local entities requesting revisions, as necessary.
7. Assist the TWDB, as necessary, in resolving final allocations of water demands to WUGs to conform with any control totals defined by the TWDB, for example, by county and/or region.
8. Prepare non-municipal water demand projection summaries for WUGs using final, Board-adopted projections to be provided by the TWDB, as necessary, and incorporate into any Technical Memorandum, IPP, and final RWP. Any RWPG-created data tables should match the appropriate final data as reported by DB27.
9. Modify any associated non-municipal water demand projections for MWPs, as necessary based on final, Board-adopted WUG water demand projections.
10. Review the TWDB *Water Demand* report(s) from DB27 and incorporate these agency planning database report(s) (including as populated by the RWPG consultant), unmodified, into the Technical Memorandum. The IPP and final RWP must incorporate these standard TWDB DB27 reports, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
11. Update WWP contractual obligations to supply water to other entities and report this information along with projected demands, including within DB27 and within any planning memorandums or reports, as appropriate.
12. Review aggregated water demand projections for MWPs provided by the TWDB. This will include retail demand data if the MWP is a WUG, and contract demand data based on data entered by the planning group into DB27 if the MWP is a WWP.
13. Summarize and present projected water demands for MWPs by category of use for each planning decade and incorporate this table into the IPP and final RWP.
14. Disseminate the chapter document and related information to RWPG members for review.
15. Modify the chapter document based on RWPG, public, and/or agency comments.
16. Submit the chapter document to the TWDB for review and approval; and
17. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 2 (including work from both Tasks 2A and 2B) presenting the projected population and water demands must be included in the IPP and final 2026 RWP.

Task 2B - Population and Municipal Water Demand Projections

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) to be combined with Task 2A and included in the 2026 RWP that describes the projected population and water demands in the RWPA.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.31.

TWDB staff will prepare a new municipal WUG entity list including collective reporting units for each RWPG based on the WUG criteria under 31 TAC §357.10(43) with associated historical population and water use estimates and Gallons Per Capita Daily (GPCD) and provide them to RWPGs for their review and input.

RWPGs will then review the draft municipal WUG list and historical population and water use and provide input to the TWDB or request specific changes to the WUG list including water systems included in collective reporting unit list and changes/corrections to historical population, water use estimates, or GPCDs.
Once the municipal WUG list is finalized TWDB staff will develop draft population and associated municipal water demand projections for 2030-2080 for all municipal WUGs using data based on the 2020 decennial Census, updated county-level population projections from the Texas Demographic Center, and historical population and water use estimates and growth.

TWDB staff will provide draft population projections and associated water demand projections for all municipal WUGs based on utility service boundaries to RWPGs for their review and input. If adequate justification is provided by the RWPGs to the TWDB, draft population and/or municipal water demand projections may be adjusted by the TWDB in consultation with Texas Department of Agriculture, Texas Commission on Environmental Quality, and Texas Parks and Wildlife Department. Once planning group input and requested changes are considered, final population and associated municipal water demand projections will be adopted by the Board. The adopted projections, based on utility service areas, will be provided to RWPGs. RWPGs must use the Board-adopted projections when preparing their RWPs.

TWDB will directly populate DB27 with all WUG-level projections and make related changes to DB27 if revisions are made.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Receive and review a draft municipal WUG entity list and detailed public water system list within each collective reporting unit provided by the TWDB and submit identified corrections to WUG-water systems relations or WUG names to the TWDB. Once finalized, the municipal WUG entity list will be populated into DB27.
2. Receive and review historical population and water use estimates and GPCDs provided by the TWDB and submit identified corrections to the TWDB.
3. Receive and make publicly available the draft population and associated municipal water demand projections provided by the TWDB that are based on utility service areas.
4. Evaluate draft population, GPCDs, Plumbing Code Savings (PC Savings) and associated municipal water demand projections provided by the TWDB.
5. Review and summarize comments received from local entities and the public for compliance with TWDB requirements.
6. Provide detailed revision requests to the TWDB for population, GPCDs, PC Savings and associated municipal water demand projections, as necessary, including justification and documentation supporting suggested changes with a focus on relevant changed conditions that have occurred since the development of the projections used in the 2022 State Water Plan.
7. Submit numerical requests for revisions of draft population, GPCDs, PC Savings and municipal water demand projections in an electronic tabular template provided by the TWDB along with required documentation and justification of requested revisions from the RWPG, based on, for example, requests received from local entities, in accordance with the contract guidance document *Second Amended General Guidelines for Development of the 2026 Regional Water Plans.*
8. Communicate and/or meet with TWDB staff and/or local entities requesting revisions, as necessary.

9. Assist the TWDB, as necessary, in resolving final allocations of population and municipal water demands to WUGs to conform with any control totals defined by the TWDB, for example, by county and/or region.
10. Prepare population and municipal water demand projection summaries for WUGs using final, Board-adopted projections to be provided by the TWDB, as necessary, and incorporate into any Technical Memorandum, IPP, and final RWP. Any RWPG-created data tables must match the appropriate final data as reported by DB27.
11. Modify any associated population and municipal water demand projections for MWPs, as necessary based on final, Board-adopted WUG population and water demand projections.
12. Review the TWDB *Population and Water Demand* reports from DB27 and incorporate these agency planning database report(s) (including as populated by the RWPG consultant), unmodified, into the Technical Memorandum. The IPP and final RWP must incorporate these standard TWDB DB27 reports, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
13. Update WWP contractual obligations to supply water to other entities and report this information along with projected demands including within DB27 and within any planning memorandums or reports, as appropriate.
14. Review aggregated water demand projections for MWPs provided by the TWDB. This will include retail demand data if the MWP is a WUG, and contract demand data based on data entered by the RWPG, into DB27 if the MWP is a WWP.
15. Summarize and present projected water demands for MWPs by category of use for each planning decade and incorporate this table into the IPP and final RWP.
16. Disseminate the chapter document and related information to RWPG members for review.
17. Modify the chapter document based on RWPG, public, and/or agency comments.
18. Submit the chapter document to the TWDB for review and approval.
19. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 2 (including work from both Tasks 2A and 2B) presenting the projected population and water demands must be included in the IPP and final 2026 RWP.

Task 3 - Water Supply Analysis

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) to be included in the 2026 RWP that documents the evaluation of the region's source availability and existing water supplies.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.32.

This task involves updating or adding groundwater, surface water, reuse, and other water source availability estimates, and existing WUG and WWP water supplies that were included in the 2021 RWP, in accordance with methodology described in Section 2.3 of the *Second Amended General Guidelines for Development of the 2026 Regional Water Plans* for estimating surface water, groundwater, systems, reuse, and other supplies during drought of record conditions. All water availability and water supply estimates will be extended through 2080. This task also includes all work required to coordinate with other planning regions to develop and allocate estimates of water availability and existing water supplies.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

A. Estimate Surface Water Availability and Existing WUG and WWP Surface Water Supplies

1. Select hydrologic assumptions, models, and operational procedures for modeling the region's river basins and reservoirs using the most current TCEQ Water Availability Models (WAMs) in a manner appropriate for assessment of existing surface water supply and regional water planning purposes. Reservoir systems[2] and their yields must be modeled in accordance with the *Second Amended General Guidelines for Development of the 2026 Regional Water Plans.*
2. Obtain TWDB Executive Administrator approval of hydrologic assumptions or models and for any variations from modeling requirements in the *Second Amended General Guidelines for Development of the 2026 Regional Water Plans.*
3. As necessary and appropriate, modify or update associated WAMs or other models to reflect recent changes to permits, transfers, legal requirements, new water rights, and/or specified operational requirements. Note that incorporating anticipated sedimentation into firm yield analyses is a required modification that does not require a hydrologic variance approval from the Executive Administrator.
4. Assign available water supplies, as appropriate, to WUGs and WWPs including conducting supply analyses for WWPs.
5. Apply the TCEQ WAMs, as modified and approved by TWDB, and/or other appropriate models to quantify firm yield for major reservoirs, reservoir systems, and firm diversion for run-of-river water rights, as determined on at least a monthly time-step basis. Reservoir firm yield must be quantified based on the most recent measured capacity and estimated capacity in year 2080.
6. Evaluate TCEQ Water System Data Reports[3] from the Drinking Water Watch or Safe Drinking Water Information System (SDWIS) website for municipal WUGs that use surface water and identify any physical constraints limiting existing water supplies to WUGs and/or WWPs. Consider constraints that limit delivering treated water to WUGs. Other information that the RWPGs collect, for example, survey results, may be included in the evaluation of infrastructure capacity or limitations in delivering treated water to WUGs.
7. Update information on WWP contractual obligations to supply water to other entities in DB27. Unless the RWPG considers it unlikely that a specific contract will be renewed, water supplies based on contractual agreements must be assumed to renew at the contract termination date, for example, if the contract provides for renewal or extensions. Report this information within any planning memorandums or reports, as appropriate.
8. Based on the source water availability, existing infrastructure capacity, and associated physical, operational, and legal limitations, determine the existing surface water supply available from each surface water source to each WUG and WWP (including newly identified WUGs and WWPs) during a drought of record.
9. Complete and update all required data elements for DB27 through the web interface.
10. Compile firm yield and diversion information by source, WUG, WWP, county, river basin, and planning region as necessary to obtain decadal estimates of existing surface water supply throughout the planning period. This will be facilitated by *TWDB DB27 Source Availability* and associated *TWDB DB27 WUG Existing Water Supply* reports using data

[2] Reservoir systems must be approved by TWDB and identified as such in DB27.
[3] Available from TCEQ at http://dww2.tceq.texas.gov/DWW/.

provided by RWPGs and made available to all RWPGs through the TWDB Database Reports application.

11. Review the TWDB *Source Availability and WUG Existing Water Supply* reports from DB27 and incorporate these agency planning database report(s) (including as populated by the RWPG consultant), unmodified, into the Technical Memorandum. The IPP and final RWP must incorporate these standard TWDB DB27 reports, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
12. Prepare summaries of water availability by source and incorporate into any Technical Memorandum, IPP, and final RWP.
13. Prepare summaries of existing supplies for WUGs and incorporate into any Technical Memorandum, IPP, and final RWP.
14. Summarize and present existing water supplies for MWPs by category of use for each planning decade and incorporate this table into the IPP and final RWP.

B. Estimate Groundwater Availability and Existing WUG and WWP Groundwater Supplies:

1. Obtain and review the modeled available groundwater (MAG) volumes that are developed by TWDB based on the desired future conditions (DFCs) adopted by groundwater management areas (GMAs). Note that MAG volumes for each aquifer will be entered into DB27 directly by the TWDB, including as split into discrete geographic-aquifer units by: Aquifer; County; River Basin; and Region.
2. In RWPAs in which no Groundwater Conservation District (GCD) exists[4], develop RWPG-estimated groundwater availability for Board review and approval prior to inclusion in the IPP[5] and in accordance with the *Second Amended General Guidelines for Development of the 2026 Regional Water Plans.*
3. Develop RWPG-estimated groundwater availability for aquifers or portions of aquifers that do not have a DFC or associated MAG. Consider the impacts of the annual MAG volumes on the RWP including how it impacts existing water supplies.
4. In areas with GCDs, obtain GCD Management Plans and GCD information[6] to be considered when estimating existing supplies and water management strategies under future tasks. Attend GCD and/or GMA meetings as necessary.
5. Assign available water supplies, as appropriate, to WUGs and WWPs including conducting supply analyses for WWPs.
6. Select hydrologic and other assumptions for distribution of available groundwater for potential future use by WUGs (e.g., via a pro-rationing policy) as existing supply based on models and operational procedures appropriate for assessment of water supply and regional water planning purposes. A specific hydrologic variance request, in accordance with the *Second Amended General Guidelines for Development of the 2026 Regional Water Plans,* is required to utilize a MAG Peak Factor to accommodate temporary increases in existing annual availability for planning purposes.
7. Evaluate TCEQ Water System Data Reports[7] from the Drinking Water Watch or SDWIS website for municipal WUGs using groundwater and identify any physical constraints limiting existing water supplies to WUGs and/or WWPs. Limitations to be considered based

[4] Related to 84(R) SB 1101 requirements. As of September 2023, these requirements only apply to the North East Texas (Region D) RWPG, as it is the only region currently in the state with no GCDs in its RWPA.
[5] 31 TAC §357.32(d)(2).
[6] https://www.twdb.texas.gov/groundwater/index.asp
[7] Available from TCEQ at http://dww2.tceq.texas.gov/DWW/

on delivering treated water to WUGs. Other information that the RWPGs collect, for example, survey results, may be included in the evaluation of infrastructure capacity or limitations in delivering treated water to WUGs.

8. Update information on WWP contractual obligations to supply water to other entities in DB27. Unless the RWPG considers it unlikely that a specific contract will be renewed, water supplies based on contractual agreements shall be assumed to renew at the contract termination date, for example, if the contract provides for renewal or extensions. Report this information within any planning memorandums or reports, as appropriate.
9. Compile and/or update information regarding acquisitions of groundwater rights, for example, for transfer to municipal use, and account for same in the assessment of both availability and existing groundwater supplies.
10. Based on the source water availability, existing infrastructure capacity, and associated physical, operational, and legal limitations, determine the existing groundwater supply available from each water source to each WUG and WWP (including newly identified WUGs and WWPs) during a drought of record.
11. Complete and update all required data elements for DB27 through the web interface in accordance with the *Guidelines for 2026 Regional Water Planning Data Deliverables*.
12. Compile groundwater availability information by source, WUG, WWP county, river basin, and planning region as necessary to obtain decadal estimates of supply throughout the planning period. This will be facilitated by *TWDB DB27 Source Availability* and associated *TWDB DB27 WUG Existing Water Supply* reports using data provided by RWPGs and made available to all RWPGs through the TWDB Database Reports application
13. Review the TWDB *Source Availability and WUG Existing Water Supply* reports from DB27 and incorporate these agency planning database report(s) (including as populated by the RWPG consultant), unmodified, into the Technical Memorandum. The IPP and final RWP must incorporate these standard TWDB DB27 reports, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
14. Prepare summaries of water availability by source and incorporate into any Technical Memorandum, IPP, and final RWP.
15. Prepare summaries of existing supplies for WUGs and incorporate into any Technical Memorandum, IPP, and final RWP.
16. Summarize and present existing water supplies for MWPs by category of use for each planning decade and incorporate this table into the IPP and final RWP.

C. Estimate System, Reuse, and Other Types of Existing Supplies:

1. Integrate firm water supplies for WUGs using a system of supply sources (e.g., surface water, storage, and groundwater).
2. Research and quantify existing supplies and commitments of treated effluent through direct and indirect reuse.
3. Compile system, reuse, and other availability information by source, WUG, WWP, county, river basin, and planning region as necessary to obtain decadal estimates of supply throughout the planning period.
4. Assign available water supplies, as appropriate, to WUGs and WWPs including conducting demand analyses for WWPs.
5. Identify and sub-categorize existing sources in DB27 to extract unique sources. For example, in addition to surface water, groundwater, and reuse, further clarify the source types in DB27 to subcategorize other specific water sources, such as desalinated groundwater or desalinated surface water, and seawater desalination, and any other supply types that are connected supplies.

6. Identify any physical constraints limiting delivery of treated supplies to WUGs and/or WWPs including based on TCEQ Water System Data Reports[8]. Other information that the RWPGs collect, for example, survey results, may be included in the evaluation of infrastructure capacity or limitations in delivering treated water to WUGs.
7. Update information on WWP contractual obligations to supply water to other entities in DB27. Unless the RWPG considers it unlikely that a specific contract will be renewed, water supplies based on contractual agreements shall be assumed to renew at the contract termination date, for example, if the contract provides for renewal or extensions. Report this information within any planning memorandums or reports, as appropriate.
8. Based on the source water availability, existing infrastructure capacity, and associated physical, operational, and legal limitations, determine the existing system, reuse, and other water supplies available from each water source to each WUG and WWP (including newly identified WUGs and WWPs) during a drought of record.
9. Complete and update all required data elements for DB27 through the web interface.
10. Compile these supplies by source, WUG, WWP, county, river basin, and planning region as necessary to obtain decadal estimates of existing surface water supply throughout the planning period. This will be facilitated by *TWDB DB27 Source Availability* and associated *TWDB DB27 WUG Existing Water Supply* reports using data provided by RWPGs and made available to all RWPGs through the TWDB Database Reports application.
11. Review the TWDB *Source Availability and WUG Existing Water Supply* reports from DB27 and incorporate these agency planning database report(s) (including as populated by the RWPG consultant), unmodified, into the Technical Memorandum. The IPP and final RWP must incorporate these standard TWDB DB27 reports, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
12. Prepare summaries of water availability by source and incorporate into any Technical Memorandum, IPP, and final RWP.
13. Prepare summaries of existing supplies for WUGs and incorporate into any Technical Memorandum, IPP, and final RWP.
14. Summarize and present existing water supplies for MWPs by category of use for each planning decade and incorporate this table into the IPP and final RWP.

D. Additional Task 3 Requirements:

1. In addition to submitting all electronic model input/output files used in determining water availability (in sufficient detail for another party to replicate the resulting availability estimates that are incorporated into the plan), the Technical Memorandum, IPP, and final RWP must include a table summarizing the details of any hydrologic models used, including the model name, version date, model input/output files used, date model run, and any relevant comments
2. Disseminate the chapter document and related information to RWPG members for review.
3. Modify the chapter document based on RWPG, public, and/or agency comments.
4. Submit the chapter document to the TWDB for review and approval.
5. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 3 presenting the region's water availability and supplies must be included in the IPP and final 2026 RWP.

[8] Available from TCEQ at http://dww2.tceq.texas.gov/DWW/

Task 4A - Water Needs Analysis

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) that presents the water supply needs (i.e., potential shortages) for the planning area.

In addition to generally meeting all applicable rule and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.33.

Based upon updated projections of existing water supply and projected water demands under Tasks 2 and 3, and the associated data entered into DB27, the TWDB will automatically update computations of identified water needs (potential shortages) by WUGs and WUG customers of WWPs as decadal estimates of needs by county, river basin, and planning region. The results of this computation will be made available to all RWPGs through the TWDB Database Reports application and is considered the base, identified 'water need' that must be reported in the regional (and state water plan). A secondary needs analysis will be calculated by TWDB based on DB27 for all WUGs and WWPs for which conservation or direct reuse water management strategies are recommended.

Regions may also request additional, unique water needs analysis (e.g., for a WWP) that the RWPG considers warranted. Such reports will be provided by TWDB, if feasible based on the DB27 constraints and TWDB resources.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Calculate and report the water needs for MWPs. Supporting data to assist the RWPGs analysis of identifying MWP needs may be requested from the TWDB. The RWPG will need to enter or provide any additional data into DB27 that may be necessary to develop these evaluations.
2. Review the TWDB *WUG Needs/Surplus* report from DB27 and incorporate this agency planning database report(s) (including as populated by the RWPG consultant), unmodified, into the Technical Memorandum. The IPP and final RWP must incorporate the TWDB *WUG Needs/Surplus and WUG Second-Tier Identified Water Need* reports from DB27 by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
3. Prepare summaries of identified needs for WUGs and incorporate into any Technical Memorandum, IPP, and final RWP.
4. Summarize and present the RWPG-identified water needs for MWPs by category of use for each planning decade into the IPP and final RWP.
5. Summarize and present a secondary needs analysis for each MWP by decade.
6. Disseminate the chapter document and related information to RWPG members for review.
7. Modify the chapter document based on RWPG, public, and/or agency comments.
8. Submit the chapter document to the TWDB for review and approval.
9. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 4 presenting RWPG water supply needs must be included in the IPP and final 2026 RWP.

Task 4B – Identification of Infeasible Water Management Strategies in the previously adopted 2021 Regional Water Plan

The objective of this task is to conduct a one-time, mid-cycle analysis of the *previous* RWP to identify any newly infeasible WMSs and water management strategy projects (WMSP) that were feasible and recommended at the time of the adoption of the *previous* RWP but which have since become infeasible and must be modified or amended out of the previous RWP.[9]

In addition to generally meeting all applicable rule and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.12(b)-(c) and 31 TAC §357.45.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Review WMSs and WMSPs in the previous RWP and coordinate with project sponsors to determine implementation status and determine infeasibility, when applicable.
2. Present the results of the analysis, including documentation of the region's process for determining infeasible WMSs and WMSPs, at a RWPG meeting subject to a 14-day notice in accordance with 31 TAC §357.21(g)(2). These results must be presented at the same meeting where the RWPG presents its process for identifying potentially feasible WMSs in the current plan under Task 5A.
3. Include a list of identified WMSs and WMSPs that were recommended in the previous RWP but which are no longer considered feasible in the Technical Memorandum developed and submitted under Task 4C.
4. Amend the previous RWP to modify and/or remove any WMSs or WMSPs that were determined to be infeasible in accordance with existing amendment procedures outlined in 31 TAC §357.51.
5. If applicable or required, identify and evaluate a new WMS or WMSP that would be needed to meet the identified water need that had been met by the WMS or WMSP that is going to be removed due to infeasibility.
6. The previous RWP may be amended to:
    a. remove an infeasible WMS or WMSP;
    b. revise an infeasible WMS or WMSP to make the WMS or WMSP feasible; and/or
    c. incorporate a new WMS or WMSP to address the identified water need previously met by an infeasible WMS or WMSP that was removed due to infeasibility.
7. The RWPG must submit the RWPG adopted amendments associated with this task to the TWDB no later than three (3) months following the due date of the Technical Memorandum.

Task 4C – Technical Memorandum

The objective of this task is to prepare a Technical Memorandum.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Prepare a concise Technical Memorandum in accordance with 31 TAC §357.12(c) and including content specified in Section 2.12.1 of the *Second Amended General Guidelines for Development of the 2026 Regional Water Plans.*
2. Disseminate the Technical Memorandum to RWPG members for review.

[9] Per Senate Bill 1511 85th Texas Legislature.

3. Approve submittal of the Technical Memorandum to TWDB at a RWPG meeting subject to a 14 day notice in accordance with 31 TAC §357.21(g)(2). The Technical Memorandum must be submitted to TWDB by the deadline listed in Section I Article I of the contract.

Task 5A – Identification of Potentially Feasible Water Management Strategies and Projects

The objective of this task is to identify potentially feasible WMS and WMSPs to meet identified needs in the planning area and to prepare a chapter (in accordance with 31 TAC §357.22(b)) to be combined with Task 5B and 5C and included in the 2026 RWP that identifies, evaluates, and recommends WMSs and management strategy projects (WMSP).

In addition to generally meeting all applicable rule and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.12 (b) and 31 TAC §357.34(a)(b)(c).

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Revise and update documentation of the process used in the 2021 RWP to identify potentially feasible WMSs and WMSPs to meet a need.
2. Receive public comment at a RWPG meeting subject to a 14 day notice in accordance with 31 TAC §357.21(g)(2) on a proposed process to be used by the RWPG to identify potentially feasible WMSs for the 2026 RWP and receive planning group approval of the process.
3. Document the process of identifying potentially feasible WMSs selected by the RWPG in the Technical Memorandum, the IPP, and final RWPs.
4. Consider the TWDB Water Loss Audit Report, conservation best management practices, and drought management when considering potentially feasible WMSs as required by rules.
5. Update relevant portions of the RWP summary of existing water supply plans for local and regional entities. This task requires obtaining and considering existing water supply plans. Include the updated summary in the IPP and final RWPs.
6. Consider existing planning efforts, programs, and goals in developing WMSs including those referenced under 31 TAC §357.22(a).
7. If no potentially feasible strategy can be identified for a WUG or WWP with a need, document the reason for this in the Technical Memorandum, IPP, and final RWPs.
8. Consider recent studies and describe any significant changes in WMSs described as being in the implementation phase in the 2026 RWP as well as any new projects in the implementation phase prior to adoption of the IPP.
9. Identify potential WMSs to meet needs for all WUGs and WWPs with identified needs.
10. Present a list of the potentially feasible WMSs, in table or list format, within the Technical Memorandum, IPP, and final RWPs.
11. Identify those potentially feasible WMSs, if any, included on the list above that, in addition to providing water supply, could potentially provide non-trivial flood mitigation[10] benefits or that might be the best potential candidates for exploring ways that they might be combined with flood mitigation features to leverage planning efforts to achieve potential cost savings or other combined water supply and flood mitigation benefits. The work

[10] The implementation of actions, including both structural and non-structural solutions, to reduce flood risk to protect against the loss of life and property (31 TAC §361.10(k)).

required to identify these WMSs will be based entirely on a high-level, qualitative assessment and should not require modeling or other additional technical analyses.

12. Prepare a region-specific scope of work for potential WMS evaluations after identifying water needs and identifying potentially feasible WMS. The proposed scope of work must be developed in accordance with the guidelines and template included in Section 2.5.6 of *Second Amended General Guidelines for Development of the 2026 Regional Water Plans* and if approved by the RWPG and TWDB the region-specific scope of work will be incorporated into Task 5B.

Deliverables: A completed subchapter of Chapter 5 (including work from Tasks 5A-5C) must be included in the IPP and final 2026 RWP.

Task 5B – Evaluation and Recommendation of Water Management Strategies and Projects

The objective of this task is to evaluate and recommend WMSs and their associated WMSPs, and to prepare a separate chapter (in accordance with 31 TAC §357.22(b)) to be combined with Task 5A and 5C and included in the 2026 RWP that identifies, evaluates, and recommends WMSs and WMSPs. Work includes presenting alternative WMSs and WMSPs and includes all technical evaluations.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.22(a), §357.34, and §357.35 that is not already included under Tasks 5A or 5C.

Performance of work associated with any 5B subtasks will be <u>contingent upon a written notice-to-proceed in the form of a contract amendment.</u> This task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Perform technical evaluations of all potentially feasible WMSs including previously identified or recommended WMSs and newly identified WMSs, including drought management and conservation WMSs; WMS and WMSP documentation must include a strategy description, discussion of associated facilities, project map, and technical evaluation addressing all considerations and factors required under 31 TAC §357.34(e)-(i) and §357.35. If an identified potentially feasible WMS is, at any point, determined to be not potentially feasible by the planning group and therefore not evaluated, the plan must provide documentation of why the WMS was not evaluated.
2. Include documentation of the RWPG's process for selecting recommended WMSs and associated WMSPs including development of WMS evaluations matrices and other tools required to assist the RWPG in comparing and selecting recommended WMSs and WMSPs. Include this documentation in the IPP and final RWP.
3. Consider water conservation plans and drought contingency plans from each WUG, as necessary, to inform WMS evaluations and recommendations.
4. Ensure necessary communication, coordination, and facilitation occurs within the RWPA and with other RWPGs to develop recommendations.
5. Update descriptions and associated technical analyses and documentation of any WMSs and WMSPs that are carried forward from the previous RWP to address:
    a. Changed conditions or project configuration.
    b. Changes to sponsor of WMS and WMSP(s).

   c. Updated costs (based on use of required costing tool[11]).
   d. Other changes that must be addressed to meet requirements of 31 TAC §357.34 and §357.35.
6. Assign all recommended WMS water supplies to meet projected needs of specific WUGs.
7. Document the evaluation and selection of all recommended WMS and WMSPs, including an explanation for why certain types of strategies (e.g., aquifer storage and recovery, seawater desalination, brackish groundwater desalination) may not have been recommended.
8. Determine whether the region has 'significant' identified water needs and if so, assess the potential for aquifer storage and recovery to meet those needs. The plan must include at a minimum, the methodology used by the planning group to determine what volume constitutes a 'significant' water need in their region.
9. Provide documentation of the implementation status, in a separate chapter subsection and in table format, of the status of certain recommended WMSs. *Second Amended General Guidelines for Development of the 2026 Regional Water Plans Section 2.5.2.7* outlines the required WMS types that implementation status must be provided for and outlines the required minimum table contents depicting key milestones.
10. Coordinate with sponsoring WUGs, WWPs, rural entities, and/or other resource agencies regarding any changed conditions in terms of projected needs, strategy modifications, planned facilities, market costs of water supply, endangered or threatened species, etc.
11. If TWC §11.085 applies to the proposed inter-basin transfer (IBT), determine the "highest practicable level" of water conservation and efficiency achievable (as existing conservation or proposed within a WMS) for each WUG or WWP WUG customer recommended to rely on a WMS involving the IBT. Recommended conservation WMSs associated with this analysis shall be presented by WUG.
12. Present the water supply plans in the RWP for each WUG and WWP relying on the recommended WMSs and WMSPs.
13. Consider alternative WMSs and WMSPs for inclusion in the plan. Alternative water management strategies must be fully evaluated in accordance with 31 TAC §357.34(e)-(i). Technical evaluations of alternative WMSs must be included in the plans and the data associated with alternative WMS must be entered into DB27.
14. Review the TWDB reports (report numbers 10-19) from DB27 and incorporate these agency planning database reports (including as populated final RWP must incorporate these standard TWDB DB27 reports, in the IPP and final RWP, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
15. Submit data through DB27 to include the following work:
   a. Review of the data.
   b. Confirm that data is accurate.
16. Disseminate the chapter document and related information to RWPG members for review.
17. Modify the chapter document based on RWPG, public, and/or agency comments.
18. Submit the chapter document to the TWDB for review and approval.
19. Make all efforts required to obtain final approval of the RWP chapter and associated DB27data by the TWDB.
20. *[REGION-SPECIFIC SCOPE OF WORK TO BE APPROVED AT FUTURE DATE BY TWDB EXECUTIVE ADMINISTRATOR PRIOR TO NOTICE-TO-PROCEED]*

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[11] See Section 2.5.2.12 under 'Financial Costs' in *Second Amended General Guidelines for Development of the 2026 Regional Water Plans.*

Scope of Work to be amended based on region-specific Task 5B scope of work to be developed and negotiated with TWDB. Work under Task 5B to be performed only after approval and incorporation of Task 5B scope of work amendment and written notice-to-proceed.

Deliverables: A completed Chapter 5 (including work from Tasks 5A-5C) including technical analyses of all evaluated WMSs and WMSPs must be included in the IPP and final 2026 RWP. Data must be submitted and finalized through DB27 in accordance with the *Guidelines for 2026 Regional Water Planning Data Deliverables*.

Task 5C – Conservation Recommendations

The objective of this task is to prepare a separate subchapter[12] of Chapter 5 that consolidates conservation-related recommendations, provides the region's GPCD goals, and provides model water conservation plans to be included in the 2026 RWP.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.34(i).

Note that the evaluation of conservation WMSs and WMSPs should be performed under Task 5B and the region must receive a written notice-to-proceed associated with conservation WMSs under Task 5B.

Work shall include but not be limited to the following:

1. Consider water conservation plans from each WUG, as necessary, to inform conservation WMSs and other recommendations.
2. Develop water loss mitigation WMSs distinctly separate from water use reduction WMSs.
3. If applicable, explain the RWPG's basis for not recommending a conservation WMS for WUGs that had identified water needs.
4. If applicable, present what level of water conservation (as existing conservation or proposed within a WMS) is considered by the RWPG as the "highest practicable level" of water conservation for each WUG and WWP WUG customer that are dependent upon water management strategies involving inter-basin transfers to which TWC 11.085 applies.
5. Include model water conservation plans. Model water conservation plans may be referenced in this subchapter by using internet links instead of included in hard copy .
6. Recommend GPCD goals for each municipal WUG or specified groupings of municipal WUGs for each planning decade. GPCD goals must be based on drought conditions to align with guidance principles in §358.3
7. Disseminate the subchapter content and related information to RWPG members for review.
8. Modify the subchapter document based on RWPG, public, and/or agency comments.
9. Submit the subchapter as part of Chapter 5 to the TWDB for review and approval.
10. Make all efforts required to obtain final approval of the RWP subchapter by the TWDB.

Deliverables: A completed subchapter of Chapter 5 (including work from Tasks 5A-5C) must be included in the IPP and final 2026 RWP.

[12] This must be a separate subchapter as required by 31 TAC §357.34(j).

Task 6 – Impacts of the Regional Water Plan and Consistency with Protection of Resources

The objective of this task is to prepare a separate chapter (in accordance with 31 TAC §357.22(b)) to be included in the 2026 RWP that describes the potential impacts of the RWP and how the plan is consistent with long-term protection of water resources, agricultural resources, and natural resources.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.40 and §357.41.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Include a quantitative description of the socioeconomic impacts of not meeting the identified water needs. Upon request, TWDB will perform a socioeconomic analysis of the impacts of not meeting the identified water needs and update and summarize potential social and economic effects under this Task. This report will be provided to RWPGs as part of this Task and incorporated into the final RWPs.
2. If the RWPG chooses to develop its own socioeconomic analysis, the resulting socioeconomic report, with documented methodology, must be incorporated into the IPP and final RWP by the RWPG.
3. Include an evaluation of the estimated cumulative impacts of the RWP, for example on groundwater levels, spring discharges, bay and estuary inflows, and instream flows.
4. Describe the impacts of the RWP regarding all factors in §357.40(b).
5. Describe how the RWP is consistent with the long-term protection of resources in accordance with §357.41.
6. Review the TWDB *WUG Unmet Needs* report from DB27 and incorporate this agency planning database report (including as populated by the RWPG consultant) by reference, as part of the IPP and final RWP by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
7. Disseminate the chapter document and related information to RWPG members for review.
8. Modify the chapter document based on RWPG, public, and/or agency comments.
9. Submit the chapter document to the TWDB for review and approval; and
10. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 6 must be included in the IPP and final 2026 RWP.

Task 7 – Drought Response Information, Activities, and Recommendations

The objective of this task is to prepare a separate chapter (in accordance with 31 TAC §357.22(b)) to be included in the 2026 RWP that: presents information regarding historical droughts and preparations for drought in the region; identifies triggers and responses to the onset of drought conditions in the region; evaluates potential emergency responses to local drought conditions; and includes various other drought-related evaluations and recommendations considered important by the RWPG.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.42.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Consider existing plans, including those referenced under 31 TAC §357.22(a), in developing this chapter.
2. Collect information on previous and current responses to drought in the region including reviewing drought contingency plans received from each WUG.
3. Consider drought contingency plans from each WUG, as necessary, to inform WMS evaluations and recommendations and to determine which drought response efforts are unnecessary or counterproductive.
4. Coordinate and communicate, as necessary, with entities in the region to gather information required to summarize existing triggers and actions, identify existing and potential emergency interconnects, and to identify potential emergency response to local drought conditions or loss of existing supplies.
5. Summarize potentially feasible drought management WMS, recommended drought management WMS, and or alterative drought management WMSs, if any, associated with work performed under Task 5A and 5B.
6. If applicable, explain the RWPG's basis for not recommending drought management strategies for WUGs that had identified water needs.
7. Develop region-specific model drought contingency plans consistent with TCEQ requirements. Plans for municipal users must, at a minimum, identify triggers for and responses to the most severe drought response stages commonly referred as severe and critical/emergency drought conditions.
8. Summarize any other drought management measures recommended by the RWPG.
9. Include a separate chapter subsection that provides documentation of how the planning group addressed uncertainties in the RWP (if applicable), how the planning group addressed a drought worse than the DOR in the RWP (if applicable), and potential measures and responses that would likely be available to users in the region, in the event of a drought worse than the DOR. *Second Amended General Guidelines for Development of the 2026 Regional Water Plans Section 2.7.2* outlines the specific plan contents that must be included in the IPP and final RWP to meet this requirement.
10. Prepare tabular data as applicable for inclusion in chapter.
11. Disseminate the chapter document and related information to RWPG members for review.
12. Modify the chapter document based on RWPG, public, and/or agency comments.
13. Submit the chapter document to the TWDB for review and approval.
14. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 7 summarizing drought response information, activities, and recommendations must be included in the IPP and final 2026 RWP.

Task 8 - Recommendations Regarding Unique Stream Segments and/or Reservoir Sites and Legislative & Regional Policy Issues

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) that presents the RWPG's unique stream segment, unique reservoir site, legislative, administrative, and regulatory recommendations.

In addition to generally meeting all applicable rule and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.43 and §358.2.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Receive and consider TWDB feedback on the implementation of the RWPG's legislative, administrative, and regulatory recommendations, as applicable to the TWDB, in the previous RWP.
2. Receive and consider recommendations from the Interregional Planning Council to the RWPGs.
3. Consider relevant plans referenced under 31 TAC §357.22 in developing this chapter.
4. Consider and discuss potential recommendations for designation of ecologically unique stream segments within the RWPA, based on the criteria in 31 TAC §358.2.
5. If applicable, prepare a recommendation package following the requirements in 31 TAC §357.43(b) recommending which stream segments in the region, if any, should be recommended for designation as ecologically unique stream segments. Evaluate and incorporate comments from the RWPG. Upon approval by the RWPG, submit the recommendation package to the Texas Parks and Wildlife Department for comments.
6. Include the recommendation package and Texas Parks and Wildlife Department's written evaluation on the unique stream segment(s) recommendation in the final RWP. An updated Texas Parks and Wildlife Department evaluation must be included in each RWP, even for those stream segments that have been recommended in previous plans but not designated by the Legislature.
7. For each recommended or previously designated unique stream segment, include a quantitative analysis of the impact of the RWP on the stream segments based upon the assessment criteria in 31 TAC §357.43(b)(2).
8. Consider and discuss potential recommendations for designation of unique reservoir sites within the RWPA.
9. For each recommended unique reservoir site, include a description of the site, reasons for the unique designation, and expected beneficiaries of water supplies developed at a given site in accordance with 31 TAC §357.43(c).
10. Consider and discuss potential regional policy issues; identify recommendations for legislative, administrative, and regulatory rule changes; including recommendations to improve the state and regional planning process.
11. Disseminate the chapter document and related information to RWPG members for review.
12. Modify the chapter document based on RWPG, public, and or agency comments.
13. Submit the chapter document to the TWDB for review and approval.
14. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 8 presenting RWPG unique stream segment, unique reservoir site, legislative, administrative, and regulatory recommendations must be included in the IPP and final 2026 RWP.

Task 9 – Implementation and Comparison to the Previous Regional Water Plan

The objective of this task is to prepare a separate chapter (in accordance with 31 TAC §357.22(b)) to be included in the 2026 RWP that reports on the degree of implementation of WMSs from the previous RWP and summarizes how the new RWP compares to the previous RWP.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must, include all work necessary to meet all the requirements of 31 TAC §357.45.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Implementation (31 TAC §357.45(a)):
    a. Coordinate and communicate with RWPG representatives and sponsors of WMSs, including WUGs and WWPs.
    b. Document the level of implementation of each WMS that was recommend in the previous RWP and impediments to implementation.
    c. Submit implementation results data in the format to be specified by the TWDB.
2. Comparison to the previous regional water plan (31 TAC §357.45(b)):
    a. Assess the region's progress in encouraging cooperation between WUGs for the purpose of achieving economies of scale and incentivizing WMSs that benefit the entire planning area.
    b. Compare the RWP to the previous RWP regarding water demand projections, droughts of record and modeling assumptions, availability, existing supplies, needs, and WMSs and WMSPs.
    c. Summarize differences quantitatively or qualitatively in accordance with rule.
    d. Present information in graphical, tabular, and written format as applicable.
3. Disseminate the chapter document and related information to RWPG members for review.
4. Modify the chapter document based on RWPG, public, and/or agency comments.
5. Submit the chapter document to the TWDB for review and approval.
6. Make all efforts required to obtain final approval of the RWP chapter and associated DB27 data by the TWDB.

Deliverables: A completed Chapter 9 must be included in the IPP and final 2026 RWP.

Task 10 - Public Participation and Plan Adoption

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) to address public participation, public meetings, eligible administrative and technical support activities, and other requirements and activities eligible for reimbursement, complete and submit a Technical Memorandum, IPP, and final RWP, and obtain TWDB approval of the RWP.

In addition to generally meeting all applicable statute requirements governing regional and state water planning this portion of work must, in particular, include all technical and administrative support activities necessary to meet all the requirements of 31 TAC Chapters 355, 357, and 358 that are not already addressed under the scope of work associated with other contract tasks but that are necessary and or required to complete and deliver a Technical Memorandum, IPP, and final RWP to TWDB and obtain approval of the final RWP by the TWDB.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

A. Plan Development Activities

1. Organize, support, facilitate, and document all meetings and hearings associated with activities necessary and eligible to complete and submit a Technical Memorandum, IPP, and final RWP to the TWDB, including but not limited to: regular RWPG meetings, committee

meetings, or subcommittee meetings; pre-planning meeting; meetings associated with revision of draft projections; public meeting for the consideration of the process for identifying potentially feasible water management strategies and the presentation of the analysis of infeasible water management strategies; consideration of a substitution of alternative water management strategies; public hearing on the IPP; adoption of the final RWP, and consideration of RWP amendments, alternative WMS substitutions, or TWDB Board-directed revisions.

2. Include a deliberate discussion on how the planning group will conduct interregional coordination and collaboration regarding water management strategies during the preplanning meeting required under 31 TAC §357.12(a)(1).
3. Collect and evaluate information, including any information gathering surveys from water suppliers or WUGs, (e.g., on existing infrastructure; existing water supplies; potentially feasible water management strategies) and/or maintenance of contact lists for regional planning information in the region.
4. Conduct and/or enhance existing outreach specifically to rural entities in the planning area to collect and evaluate information to support plan development, including keeping track of which rural entities were contacted by the RWPG/Consultant, which entities were not responsive to RWPG contact efforts, and including a summary of the region's rural outreach efforts in Chapter 10 of the IPP and final RWP. The TWDB will provide a list including entities that meet the rural political subdivision definition per Senate Bill 469, 88(R) and public water systems that fall within each municipal county-other WUG. Particular emphasis should be placed on outreach to those rural-serving public water systems that 1) have self-reported water use restrictions to TCEQ due to water supply issues during the current planning cycle; 2) have self-reported to TCEQ having less than 180 days of water supply remaining during the current planning cycle; 3) have not previously engaged in the regional planning process; and 4) have already been identified as facing significant near-term shortages under drought conditions in previous regional water plans.
5. Conduct intraregional and interregional coordination and communication, and or facilitation required within the RWPA and with other RWPGs to develop a RWP including with water suppliers or other relevant entities such as groundwater conservation districts, WUGs, and or WWPs. This includes gathering and documenting information on potential interregional opportunities or issues.
6. Incorporate all required DB27 reports (including as populated by the RWPG consultant) into the Technical Memorandum. The IPP and final RWP must incorporate these standard TWDB DB27 reports, by reference in the Executive Summary, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application. Additional specifications are provided in the *Second Amended General Guidelines for Development of the 2026 Regional Water Plans.*
7. Develop and include an Executive Summary in both the IPP and final RWP, not to exceed 30 pages.
8. Make modifications to the RWP documents based on RWPG, public, and/or agency comments.
9. Prepare a RWP chapter summarizing Task 10 activities including review by the RWPG and modification of document as necessary.
10. Prepare and transmit correspondence, for example, directly related to public comments on RWP documents.
11. Develop draft and final responses for RWPG approval to public questions or comments as well as approval of the final responses to comments on RWP documents.
12. Produce, distribute, and submit all draft and final RWP-related planning documents for the RWPG, public and agency review, including in hard-copy format when required.

13. Assemble, compile, and produce the completed IPP and final RWP documents that meet all requirements of statute, 31 TAC Chapters 355, 357 and 358, regional water planning contract and associated contract guidance documents.
14. Submit the RWP documents in required formats to the TWDB for review and approval, by the deadlines listed in Section I Article I of the contract and make all efforts required to obtain final approval of the RWP by the TWDB.

B. Technical Support and Administrative Activities

1. Support and accommodate periodic presentations by the TWDB for the purpose of orientation, training, and retraining as determined and provided by the TWDB during regular RWPG meetings.
2. Consider recommendations in the *Administrative Guidance for RWPG Sponsors (Designated Political Subdivisions*), as prepared and updated by the TWDB.
3. Technical consultants must attend and participate in TWDB-provided DB27 trainings, including individualized trainings and review of technical and data-related contract guidance documents in the TWDB regional water planning contract.
4. Develop agendas, presentations, and handout materials for the public meetings and hearings to provide to RWPG members and the public.
5. Technical consultants must attend and participate in RWPG, committee, subcommittee, and other meetings and hearings necessary for RWP development including preparation and follow-up activities.
6. Develop technical and other presentations and handout materials for RWPG meetings and hearings to provide technical and explanatory data to the RWPG and its subcommittees, including follow-up activities.
7. Perform administrative and technical support, including coordination of and participation in RWPG activities, and documentation of any RWPG meetings, hearings, workshops, workgroups, subgroup and/or subcommittee activities.
8. Provide status reports to the TWDB for work performed under this Contract.
9. Meet all public notice requirements in accordance with the Texas Open Meetings Act, statute, 31 TAC §357.21, and any other applicable public notice requirements.

C. Other Activities

1. Develop and maintain a RWPG website or RWPG-dedicated webpage on the RWPG administrator's website for posting planning group meeting notices, agendas, materials, and plan information.
2. Perform maintenance of the RWPG website; reimbursement is limited to non-labor, direct costs.
3. Document meetings and hearings to include recorded minutes and or audio recordings as required by the RWPG bylaws and archiving and providing minutes to public.
4. Promote consensus decisions through conflict resolution efforts including monitoring and facilitation required to resolve issues between and among RWPG members and stakeholders in the event that issues arise during the process of developing the RWP, including mediation between RWPG members, if necessary.
5. Perform RWPG membership solicitation activities.
6. Solicit, review, and disseminate public input, as necessary.
7. Perform any additional efforts required, but not otherwise addressed in other scope of work tasks that may be required to complete a RWP in accordance with all statute and rule requirements.

Deliverables:

- A draft Chapter 10 summarizing public participation activities to date included in the IPP.
- A completed Chapter 10 summarizing public participation activities and appendices with public and agency comments and RWPG responses to comments in the final 2026 RWP.
- A complete IPP and final 2026 RWP.

Exhibit B
Second Amended Task and Expense Budgets

TASK BUDGET

CAS Item No.	SOW Task No.	Task Description	BUDGET	REVISED BUDGET	AMOUNT CHANGED
1	1	Planning Area Description	$16,231.00	$18,119.00	$1,888.00
2	2A	Non-Municipal Water Demand Projections	$28,414.00	$28,414.00	$0.00
3	2B	Population and Municipal Water Demand Projections	$47,482.00	$47,482.00	$0.00
4	8	Recommendations Regarding Unique Stream Segments and/or Reservoir Sites and Legislative & Regional Policy Issues	$10,648.00	$12,536.00	$1,888.00
5	10	Public Participation and Plan Adoption	$234,797.00	$270,556.00	$35,759.00
6	3	Water Supply Analysis	$139,038.00	$171,762.00	$32,724.00
7	4A	Water Needs Analysis	$23,124.00	$28,567.00	$5,443.00
8	4B	Identification of Infeasible Water Management Strategies in the previously adopted 2021 Regional Water Plan	$22,152.00	$27,366.00	$5,214.00
9	4C	Technical Memorandum	$25,674.00	$31,716.00	$6,042.00
10	5A	Identification of Potentially Feasible Water Management Strategies and Projects	$20,853.00	$30,481.00	$9,628.00
11	5B	Evaluation and Recommendation of Water Management Strategies and Projects	$386,239.00	$481,863.00	$95,624.00
12	5C	Conservation Recommendations	$27,546.00	$34,029.00	$6,483.00
13	6	Impacts of the Regional Water Plan and Consistency with Protection of Resources	$36,176.00	$44,691.00	$8,515.00
14	7	Drought Response Information, Activities, and Recommendations	$66,894.00	$82,638.00	$15,744.00
15	9	Implementation and Comparison to the Previous Regional Water Plan	$17,635.00	$21,786.00	$4,151.00
		Total	**$1,102,903.00**	**$1,332,006.00**	**$229,103.00**

CONTRACTOR EXPENSE BUDGET

EXPENSE BUDGET CATEGORY	BUDGET	REVISED BUDGET	AMOUNT CHANGED
Contractor (Political Subdivision) Other Expenses [1]	$21,000.00	$21,000.00	$0.00
Contractor (Political Subdivision) Salaries and Wages[2]	$5,000.00	$5,000.00	$0.00
Subcontract Services	$1,076,903.00	$1,306,006.00	$229,103.00
Voting Planning Member Travel [3]	$0.00	$0.00	$0.00
Contractor (Political Subdivision) Travel [4]	$0.00	$0.00	$0.00
Total Project Cost	**$1,102,903.00**	**$1,332,006.00**	**$229,103.00**

[1]Contractor (Political Subdivision) Other Expenses as described in 31 TAC §355.92(c) include the following administrative costs that may be billed under Task 10 associated with the RWPG's Political Subdivision if the RWPG or its chairperson certifies, during a public meeting, that the expenses are eligible for reimbursement and are correct and necessary:

a. Direct costs, excluding personnel costs, for placing public notices for the legally required public meetings, maintaining a website, and of providing copies of information for the public and for members of the RWPG as needed for the efficient performance of planning work such as:
   i. expendable supplies consumed in direct support of the planning process;
   ii. direct communication charges;
   iii. direct costs/fees of maintaining RWPG website domain, website hosting, and/or website;
   iv. direct costs of storing or posting of audio-visual files (e.g., meeting recordings);
   v. reproduction of materials directly associated with notification or planning activities (the actual non-labor direct costs as documented by the Contractor (Political Subdivision);
   vi. other direct costs of public meetings, all of which must be directly related to planning (e.g., newspaper and other public notice posting costs, and facility rentals); and
   vii. direct postage (e.g., postage for mailed notification of funding applications or meetings).
b. Costs associated with providing translators and accommodations for persons with disabilities for public meetings when required by law or deemed necessary by the RWPGs and certified by the chairperson.
c. Direct non-labor costs associated with the reproduction or distribution of newsletters.
d. Proportional costs of purchasing audio/visual equipment for hybrid RWPG meetings (requested reimbursement costs must be prorated based on the amount of use of the equipment for RWPG meetings relative to all other uses of the equipment). These costs must be specifically pre-authorized by the TWDB Executive Administrator prior to equipment purchase.

[2]Contractor (Political Subdivision) Salaries and Wages as described in 31 TAC § 355.92(c)(5) include the following administrative costs if the RWPG or its chairperson certifies, during a public meeting, that the expenses are eligible for reimbursement and are correct and necessary: the RWPG Political Subdivision's personnel costs for the staff hours that are directly spent

providing, preparing for, and posting public notice for RWPG meetings and hearings, including labor, fringe, overhead, and other expenses for their support of and attendance at such RWPG meetings and hearings. This may not exceed: $5,000 per regular RWPG meeting nor a total of $60,000 over the planning cycle.

[3] Voting Planning Member Travel Expenses are limited to the maximum amounts authorized for state employees by the General Appropriations Act, Tex. Leg. Regular Session, 2021, Article IX, Part 5, as amended or superseded. These expenses are defined as:

a. eligible mileage expenses incurred by RWPG members, or their designee, to attend RWPG meetings that cannot be reimbursed by any other entity, political subdivision, etc. as certified by the voting member, or their designee, and
b. food, drink, lodging, mileage, or airfare of designated RWPG member travel to support participation in legislatively required or Board-requested meetings, as specifically authorized by the RWPG and TWDB Executive Administrator.

[4] Contractor (Political Subdivision) Travel Expenses are limited to the maximum amounts authorized for state employees by the General Appropriations Act, Tex. Leg. Regular Session, 2021, Article IX, Part 5, as amended or superseded. These expenses must be specifically authorized by the RWPG and TWDB Executive Administrator and are defined as:

a. eligible mileage expenses incurred by Political Subdivision staff for work associated with regional water plan development, and
b. Food, drink, or lodging (excluding tips and alcoholic beverages), mileage, or airfare for Political Subdivision staff designated to be the representative for the RWPG to support participation in legislatively required or Board requested meetings.

Ineligible Expenses include funding any of the activities specified in 31 TAC 355.92(a), as well as the following items as applicable to RWPG members and Political Subdivisions:

a. Compensation for the time or expenses of RWPGs members' service on or for the RWPG, or for the salary of a RWPG member who is also an employee of the Contractor (Political Subdivision);
b. Costs of administering the RWPGs, other than those eligible and authorized under Contractor (Political Subdivision) Other Expenses;
c. Costs for training;
d. Costs of administering the regional water planning grant and associated contracts;
e. Costs associated with development of an application for a regional water planning grant or reviewing materials developed due to this grant;
f. Food, drink, or lodging for RWPG members (including tips and alcoholic beverages), unless eligible and specifically authorized under Voting Planning Member Travel Expenses item b;
g. Purchase, rental, or depreciation of equipment (e.g., computers, copiers, fax machines), with the exception of audio/visual equipment for hybrid RWPG meetings as specifically authorized under Contractor (Political Subdivision) Other Expenses item d;
h. General purchases of office supplies not documented as consumed directly for the planning process as defined in Contractor (Political Subdivision) Other Expenses item a.i; and
i. Costs associated with social events or tours.

SIXTH CYCLE 2026 REGIONAL WATER PLANNING CONTRACTS – TWDB INTERNAL PRE-DOCUSIGN APPROVALS

Please enter vendor contact info and other special instructions in the EXTERNAL_ROUTING.txt for each contract in the shared drive review directory.

REGION	PCS (Cameron Turner)	Legal (Kaye Schultz)	Contract Manager	Program Manager (Sarah Lee)	Budget Officer (Erin Moczygemba)	Budget Director (Perry Ball)	Division Director (Temple McKinnon)	DEA (Matt Nelson)	Accounts Payable (Eldrisha Eubanks)	Accounting Manager (Letty Molina)
A: Panhandle Regional Plan Commission 2148302553		KS 10/10/2023	MF 10/9/2023	SL 10/17/23	EM 10/11/2023	pb 10/11/2023	[DOCUSIGN]	[DOCUSIGN]	EE 10/12/23	LM 10/13/23
B: Red River Authority 2148302554		KS 10/10/2023	KS 10/6/2023	SL 10/17/23	EM 10/11/2023	pb 10/11/2023	[DOCUSIGN]	[DOCUSIGN]	EE 10/12/23	LM 10/13/23
C: Trinity River Authority 2148302555		KS 10/10/2023	KS 10/6/2023	SL 10/17/23	EM 10/11/2023	pb 10/11/2023	[DOCUSIGN]	[DOCUSIGN]	EE 10/12/23	LM 10/13/23
D: Riverbend Water Resources District 2148302556	10/18/2023	KS 10/10/2023	RE 10/6/2023	SL 10/17/23	EM 10/11/2023	pb 10/11/2023	[DOCUSIGN]	[DOCUSIGN]	EE 10/12/23	LM 10/13/23
E: Rio Grande Council of Governments 2148302557		KS 10/10/2023	HR 10/6/2023	SL 10/17/23	EM 10/11/2023	pb 10/11/2023	[DOCUSIGN]	[DOCUSIGN]	EE 10/12/23	LM 10/13/23
F: Colorado River Municipal Water District 2148302558		KS 10/10/2023	HR 10/6/2023	SL 10/17/23	EM 10/11/2023	pb 10/11/2023	[DOCUSIGN]	[DOCUSIGN]	EE 10/12/23	LM 10/13/23
G: Brazos River Authority 2148302559		KS 10/10/2023	LB 10/6/2023	SL 10/17/23	EM 10/11/2023	pb 10/11/2023	[DOCUSIGN]	[DOCUSIGN]	EE 10/12/23	LM 10/13/23
H: San Jacinto River Authority 2148302560		KS 10/10/2023	HR 10/6/2023	SL 10/17/23	EM 10/11/2023	pb 10/11/2023	[DOCUSIGN]	[DOCUSIGN]	EE 10/12/23	LM 10/13/23

SIXTH CYCLE 2026 REGIONAL WATER PLANNING CONTRACTS – TWDB INTERNAL PRE-DOCUSIGN APPROVALS

Please enter vendor contact info and other special instructions in the DocuSign External Routing.txt for each contract in the shared drive review directory.

REGION	PCS (Cameron Turner)	Legal (Kaye Schultz)	Contract Manager	Program Manager (Sarah Lee)	Budget Officer (Erin Moczygemba)	Budget Director (Perry Ball)	Division Director (Temple McKinnon)	DEA (Matt Nelson)	Accounts Payable (Eldrisha Eubanks)	Accounting Manager (Letty Molina)
I: City of Nacogdoches 2148302561		KS 10/10/2023	LB 10/6/2023	SL 10/17/23	EM 10/11/2023	pb 10/11/2023	[DOCUSIGN]	[DOCUSIGN]	EE 10/12/23	LM 10/13/23
J: Upper Guadalupe River Authority 2148302562		KS 10/10/2023	LB 10/6/2023	SL 10/17/23	EM 10/11/2023	pb 10/11/2023	[DOCUSIGN]	[DOCUSIGN]	EE 10/12/23	LM 10/13/23
K: Lower Colorado River Authority 2148302563		KS 10/10/2023	LB 10/6/2023	SL 10/17/23	EM 10/11/2023	pb 10/11/2023	[DOCUSIGN]	[DOCUSIGN]	EE 10/12/23	LM 10/13/23
L: San Antonio River Authority 2148302564		KS 10/10/2023	MF 10/9/2023	SL 10/17/23	EM 10/11/2023	pb 10/11/2023	[DOCUSIGN]	[DOCUSIGN]	EE 10/12/23	LM 10/13/23
M: Lower Rio Grande Valley Development Council 2148302565		KS 10/10/2023	KS 10/6/2023	SL 10/17/23	EM 10/11/2023	pb 10/11/2023	[DOCUSIGN]	[DOCUSIGN]	EE 10/12/23	LM 10/13/23
N: Nueces River Authority 2148302566		KS 10/10/2023	MF 10/9/2023	SL 10/17/23	EM 10/11/2023	pb 10/11/2023	[DOCUSIGN]	[DOCUSIGN]	EE 10/12/23	LM 10/13/23
O: South Plains Association of Governments 2148302567		KS 10/10/2023	KS 10/6/2023	SL 10/17/23	EM 10/11/2023	pb 10/11/2023	[DOCUSIGN]	[DOCUSIGN]	EE 10/12/23	LM 10/13/23
P: Lavaca-Navidad River Authority 2148302568		KS 10/10/2023	RE 10/6/2023	SL 10/17/23	EM 10/11/2023	pb 10/11/2023	[DOCUSIGN]	[DOCUSIGN]	EE 10/12/23	LM 10/13/23

Attachment D

Third Amended
Contract between Riverbend Water Resources District and Texas Water Development Board

TEXAS WATER DEVELOPMENT BOARD

CONTRACT INITIATION FORM

1645

TWDB Contact Information	
Contract Manager	Ron Ellis
Office/Division/Section	OoP/WSP/RWP
Phone Number	512-463-4146

Requested Action		
		New Contract
	X	Amendment
	3	Amendment No. (if applicable)

Payable/Receivable Contract Relationship

Payable or Receivable TWDB Contract Number(s) that this Contract is related to:

Contract Information and Funds Expiration

Contract No.	2148302556	Grant	Yes
Payable	X	Receivable	

Contract Dates

Board Approval Date (N/A if no date)	Start Date	Expiration Date
07/07/22	**02/01/21**	**08/31/26**

Most Recent Amendment Execution Date:	10/27/2023	Original Contract Expiration Date:	8/31/2026

External Contract No.	
CFDA No.	

Contractor Information

Proposal Number	00005260
Vendor ID # (aka: Tax Payer ID#)	12636685401
Vendor Name	Riverbend Water Resources District
Street Address	228 Texas Avenue, Suite A
City, State, Zip	New Boston, Texas 75570
Telephone Number	903-831-0091
Vendor Contract Mgr/Email Address	Kyle Dooley/kyledooley@rwrd.org
Signer of Contract/Email Address	Kyle Dooley/kyledooley@rwrd.org

List of Counties for Study Area (Enter names, statewide, or non specific). If statewide, community count = 254

Bowie, Camp, Cass, Delta, Franklin, Gregg, Harrison, Hopkins, Hunt, Lamar, Marion, Morris, Rains, Red River, Smith (partial), Titus, Upshur, VanZandt, and Wood

Anticipated Budget

Contractor Share of Costs	$	-
TWDB Share of Costs	$	1,186,954.00
Receivable Share of Costs	$	-
Total Contract Costs	$	1,186,954.00

Retainage for Contract

Retainage %	5%
Special Instructions	Retainage held until submittal of the final regional water plan.

Detailed Description of Contract

Development of the 2026 Regional Water Plan - Region D

Detailed Description of Amendment

Written notice to proceed and amends SOW Task 5B.
No revisions to funding since Amd 2.

Procurement & Contract Services

Vendor Checks

Please Initial each Item		
MA	USAS (PYADDR/PYHOLD)	
MA	Franchise Tax Search	
MA	SAM Check	Expiration Date:
MA	Debarred Vendor List	
MA	Boycott Israel	
MA	Ties to Sudan/Iran/Foreign Terrorist Organizations/Designated Foreign Terrorist Org	
	W-9 Received (new contractor only-if applicable)	

Best Value Standard - Procurement Method (X method used)

Method	X	Announcement/Publication
RFQ/RFP/RFA/RFO	X	580-21-RFA-0013
Interagency/Local		
Purchase		
Receivable Grant		
PCC CODE - For Finance Review		

If no PCC Code, DocType will be 9 and a legal cite is required.

Legal Cite:

BUDGET USE ONLY

TWDB SHARE

FUND (4-XXXX)	COBJ (4-XXXX)	MOF (3-XXX)	DEPT (4-XXXX)	PCA (5-XXXXX)	Work # (6-XXXXXX)	AY 2021-2022	AY 2023	AY 2024	AY 2025	Total	Funds Expire
4830	7613	00	G710	21430	E02011	$ 406,219.00	$ -	$ -	$ -	$ 406,219.00	n/a
4830	7613	00	N910	21430	E02011	$ -	$ 200,528.00			$ 200,528.00	n/a
4830	7613	00	N910	30430	E02011	$ -	$ -	$290,103.50	$290,103.50	$ 580,207.00	n/a
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
					TWDB Subtotal	$ 406,219.00	$ 200,528.00	$ 290,103.50	$ 290,103.50	$ 1,186,954.00	

RECEIVABLE SHARE

FUND (4-XXXX)	COBJ (4-XXXX)	MOF (3-XXX)	DEPT (4-XXXX)	PCA (5-XXXXX)	Work # (6-XXXXXX)	AY 2021-2022	AY 2023	AY 2024	AY 2025	Total	Funds Expire
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
						$ -	$ -		$ -	$ -	
					Receivable Subtotal	$ -	$ -		$ -	$ -	
					Contractor Subtotal	$ -	$ -		$ -	$ -	
					Contract Total	**$ 406,219.00**	**$ 200,528.00**	**$ 290,103.50**	**$ 290,103.50**	**$ 1,186,954.00**	

APPROVAL SIGNATURES and CONFIRMATION OF COMPLIANCE WITH AGENCY POLICY & THE STATE OF TEXAS CONTRACT MANAGEMENT GUIDE

By signing this form, you are certifying that this contract packet and its contents meet with your approval

Contract Approval	Printed Name	Signature	Date
Procurement & Contract Services	Cameron Turner		5/15/2024
Budget Director [and Budget Officer]	Perry Ball	========NOTICE TO PROCEED ONLY - NO FUNDING REVISION THIS AMD==========	
Contract Manager	Ron Ellis	Ron Ellis	5/16/2024
Program Manager	Sarah Lee	Sarah Lee	5/16/2024
Division Director	Temple McKinnon	Temple McKinnon	5/17/2024
Legal Counsel	Ashley Harden	Ashley Harden	5/16/2024
Financial Ops Director	Letty Molina	========NOTICE TO PROCEED ONLY - NO FUNDING REVISION THIS AMD==========	
Deputy Executive Administrator	Matt Nelson	Temple McKinnon	5/20/2024
Executive Administrator [or Designee]	Bryan McMath	==========	

Revised 4/27/21

TWDB Contract No. 2148302556

STATE OF TEXAS

TRAVIS COUNTY

TEXAS WATER DEVELOPMENT BOARD (TWDB)

and

RIVERBEND WATER RESOURCES DISTRICT

AMENDMENT NO. 3

This Contract, executed on July 13, 2021, and amended on November 17, 2022, and October 27, 2023, is hereby amended as follows:

1. SECTION II, ARTICLE II, Paragraph A, is replaced with the following:

   A. CONTRACTOR must develop a TECHNICAL MEMORANDUM, INITIALLY PREPARED REGIONAL WATER PLAN, and REGIONAL WATER PLAN for the REGIONAL WATER PLANNING AREA according to:

      1. Exhibit A – Third Amended Scope of Work
      2. Exhibit B – Second Amended Task and Expense Budgets
      3. Exhibit C – Second Amended General Guidelines for Development of the 2026 Regional Water Plans[1]
      4. Exhibit D – Guidelines for 2026 Regional Water Plan Data Deliverables[1]
      5. Exhibit E – Original Application (cover pages as a reference to the full, original grant application)

2. Exhibit A, Second Amended Scope of Work, is replaced with, Third Amended Scope of Work, attached to this amendment.

3. This Amendment No. 3 serves as a Notice to Proceed for the Third Amended Scope of Work Task 5B.

All other terms and conditions of TWDB Contract No. 2148302556 remain the same in full force.

[1] Exhibit C, Second Amended General Guidelines for Development of the 2026 Regional Water Plans and Exhibit D, Guidelines for 2026 Regional Water Plan Data Deliverables, will be posted on the TWDB website at: https://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2026/documents.asp. The RWPGs must utilize the latest version posted on the website.

IN WITNESS WHEREOF, the parties hereto cause this Amendment to be duly executed.

TEXAS WATER DEVELOPMENT BOARD

By: Temple McKinnon
Matt Nelson
Deputy Executive Administrator

Date: 5/20/2024

RIVERBEND WATER RESOURCES DISTRICT

By: Kyle Dooley
Kyle Dooley
Executive Director

Date: 5/20/2024

Exhibit A

Third Amended Scope of Work

2026 Regional Water Plans

May 2024

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Table of Contents[1]

[1] Requirements for each task are further explained in the *Second Amended General Guidelines for Development of the 2026 Regional Water Plans*.

Task 1- Planning Area Description

The objective of this task is to prepare a standalone chapter (in accordance with 31 Texas Administrative Code (TAC) §357.22(b)) to be included in the 2026 Regional Water Plan (RWP) that describes the regional water planning area (RWPA).

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.30.

This Task includes, but is not limited to, performing all work in accordance with Texas Water Development Board (TWDB) rules and guidance required to:

1. Designate major water providers (MWP) in the RWPA for planning purposes.
2. Identify wholesale water providers (WWP) in the RWPA for planning purposes.
3. Review and summarize relevant existing planning documents in the region including those that have been developed since adoption of the previous regional water plan. Documents to be summarized include those referenced under 31 TAC §357.22.
4. Prepare a chapter that describes the RWPA including the following:
    a. social and economic aspects of a region such as information on current population, economic activity and economic sectors heavily dependent on water resources;
    b. current water use and major water demand centers;
    c. current groundwater, surface water, and reuse supplies including major springs that are important for water supply or protection of natural resources;
    d. MWPs;
    e. agricultural and natural resources;
    f. identified water quality problems;
    g. identified threats to agricultural and natural resources due to water quantity problems or water quality problems related to water supply;
    h. summary of existing local and regional water plans;
    i. the identified historic drought(s) of record within the planning area;
    j. current preparations for drought within the RWPA;
    k. information compiled by the TWDB from water loss audits performed by Retail Public Utilities pursuant to 31 TAC §358.6 (relating to Water Loss Audits); and
    l. an identification of each threat to agricultural and natural resources and a discussion of how that threat will be addressed or affected by the water management strategy (WMS) evaluated in the plan.
5. Disseminate the chapter document and related information to regional water planning group (RWPG) members for review.
6. Modify the chapter document based on RWPG, public, and/or agency comments.
7. Submit the chapter document to the TWDB for review and approval.
8. Make all efforts required to obtain final approval of the regional water plan (RWP) chapter by the TWDB.

Deliverables: A completed Chapter 1 describing the RWPA must be included in the Initially Prepared Plan (IPP) and final 2026 RWP.

Task 2A - Non-Municipal Water Demand Projections

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) to be combined with Task 2B and included in the 2026 RWP that describes the projected population and water demands in the RWPA.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.31.

TWDB staff will develop draft non-municipal water demand projections for 2030-2080 for all water demand categories unrelated to population (mining, manufacturing, irrigation, steam-electric power, and livestock) based on the most recent TWDB historical water use estimates. The same methodologies used for the 2022 State Water Plan will be applied to the 2027 State Water Plan projections, except for mining demands. The draft mining demand projections will be prepared based on an updated methodology to be developed by the Bureau of Economic Geology through a contracted mining water use study funded by the United States Geological Survey.

TWDB staff will provide draft water demand projections for all associated non-municipal water user group (WUG) to the RWPGs for their review and input.

Each RWPG will review the draft projections and may provide input to the TWDB or request specific changes to the draft projections from TWDB along with justifications and supporting data as specified in the guidance document *Second Amended General Guidelines for Development of the 2026 Regional Water Plans.* The emphasis of this effort will be on identifying appropriate revisions based on relevant changed conditions that have occurred since the development of the projections used in the 2022 State Water Plan.

If adequate justification is provided by the RWPG to the TWDB, draft water demand projections may be adjusted by the TWDB in consultation with the Texas Department of Agriculture, Texas Commission on Environmental Quality, and Texas Parks and Wildlife Department. Once RWPG input and requested changes are considered, final water demand projections will be adopted by the TWDB's governing Board (Board). The adopted projections will then be provided to each RWPG. Planning groups must use the Board-adopted projections when preparing their RWPs.

TWDB will directly populate the state water planning database (DB27) with all WUG-level projections and make related changes to DB27 based on Board-adopted projections.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Receive and make publicly available the draft non-municipal water demand projections provided by the TWDB.
2. Evaluate draft non-municipal water demand projections provided by the TWDB.
3. Review comments received from local entities and the public for compliance with TWDB requirements.
4. Prepare detailed feedback on draft non-municipal water demand projections, as necessary, including justification and documentation supporting requested changes from the RWPG and/or local entities with a focus on relevant changed conditions that have occurred since the development of the projections used in the 2022 State Water Plan.
5. Submit numerical requests for revisions of draft non-municipal water demand projections in an electronic tabular template provided by the TWDB along with required documentation and justification of requested revisions from the RWPG, based on, for example, requests received from local entities, in accordance with the contract guidance

document *Second Amended General Guidelines for Development of the 2026 Regional Water Plans.*

6. Communicate and/or meet with TWDB staff and/or local entities requesting revisions, as necessary.
7. Assist the TWDB, as necessary, in resolving final allocations of water demands to WUGs to conform with any control totals defined by the TWDB, for example, by county and/or region.
8. Prepare non-municipal water demand projection summaries for WUGs using final, Board-adopted projections to be provided by the TWDB, as necessary, and incorporate into any Technical Memorandum, IPP, and final RWP. Any RWPG-created data tables should match the appropriate final data as reported by DB27.
9. Modify any associated non-municipal water demand projections for MWPs, as necessary based on final, Board-adopted WUG water demand projections.
10. Review the TWDB *Water Demand* report(s) from DB27 and incorporate these agency planning database report(s) (including as populated by the RWPG consultant), unmodified, into the Technical Memorandum. The IPP and final RWP must incorporate these standard TWDB DB27 reports, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
11. Update WWP contractual obligations to supply water to other entities and report this information along with projected demands, including within DB27 and within any planning memorandums or reports, as appropriate.
12. Review aggregated water demand projections for MWPs provided by the TWDB. This will include retail demand data if the MWP is a WUG, and contract demand data based on data entered by the planning group into DB27 if the MWP is a WWP.
13. Summarize and present projected water demands for MWPs by category of use for each planning decade and incorporate this table into the IPP and final RWP.
14. Disseminate the chapter document and related information to RWPG members for review.
15. Modify the chapter document based on RWPG, public, and/or agency comments.
16. Submit the chapter document to the TWDB for review and approval; and
17. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 2 (including work from both Tasks 2A and 2B) presenting the projected population and water demands must be included in the IPP and final 2026 RWP.

Task 2B - Population and Municipal Water Demand Projections

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) to be combined with Task 2A and included in the 2026 RWP that describes the projected population and water demands in the RWPA.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.31.

TWDB staff will prepare a new municipal WUG entity list including collective reporting units for each RWPG based on the WUG criteria under 31 TAC §357.10(43) with associated historical population and water use estimates and Gallons Per Capita Daily (GPCD) and provide them to RWPGs for their review and input.

RWPGs will then review the draft municipal WUG list and historical population and water use and provide input to the TWDB or request specific changes to the WUG list including water systems included in collective reporting unit list and changes/corrections to historical population, water use estimates, or GPCDs.
Once the municipal WUG list is finalized TWDB staff will develop draft population and associated municipal water demand projections for 2030-2080 for all municipal WUGs using data based on the 2020 decennial Census, updated county-level population projections from the Texas Demographic Center, and historical population and water use estimates and growth.

TWDB staff will provide draft population projections and associated water demand projections for all municipal WUGs based on utility service boundaries to RWPGs for their review and input. If adequate justification is provided by the RWPGs to the TWDB, draft population and/or municipal water demand projections may be adjusted by the TWDB in consultation with Texas Department of Agriculture, Texas Commission on Environmental Quality, and Texas Parks and Wildlife Department. Once planning group input and requested changes are considered, final population and associated municipal water demand projections will be adopted by the Board. The adopted projections, based on utility service areas, will be provided to RWPGs. RWPGs must use the Board-adopted projections when preparing their RWPs.

TWDB will directly populate DB27 with all WUG-level projections and make related changes to DB27 if revisions are made.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Receive and review a draft municipal WUG entity list and detailed public water system list within each collective reporting unit provided by the TWDB and submit identified corrections to WUG-water systems relations or WUG names to the TWDB. Once finalized, the municipal WUG entity list will be populated into DB27.
2. Receive and review historical population and water use estimates and GPCDs provided by the TWDB and submit identified corrections to the TWDB.
3. Receive and make publicly available the draft population and associated municipal water demand projections provided by the TWDB that are based on utility service areas.
4. Evaluate draft population, GPCDs, Plumbing Code Savings (PC Savings) and associated municipal water demand projections provided by the TWDB.
5. Review and summarize comments received from local entities and the public for compliance with TWDB requirements.
6. Provide detailed revision requests to the TWDB for population, GPCDs, PC Savings and associated municipal water demand projections, as necessary, including justification and documentation supporting suggested changes with a focus on relevant changed conditions that have occurred since the development of the projections used in the 2022 State Water Plan.
7. Submit numerical requests for revisions of draft population, GPCDs, PC Savings and municipal water demand projections in an electronic tabular template provided by the TWDB along with required documentation and justification of requested revisions from the RWPG, based on, for example, requests received from local entities, in accordance with the contract guidance document *Second Amended General Guidelines for Development of the 2026 Regional Water Plans.*
8. Communicate and/or meet with TWDB staff and/or local entities requesting revisions, as necessary.

9. Assist the TWDB, as necessary, in resolving final allocations of population and municipal water demands to WUGs to conform with any control totals defined by the TWDB, for example, by county and/or region.
10. Prepare population and municipal water demand projection summaries for WUGs using final, Board-adopted projections to be provided by the TWDB, as necessary, and incorporate into any Technical Memorandum, IPP, and final RWP. Any RWPG-created data tables must match the appropriate final data as reported by DB27.
11. Modify any associated population and municipal water demand projections for MWPs, as necessary based on final, Board-adopted WUG population and water demand projections.
12. Review the TWDB *Population and Water Demand* reports from DB27 and incorporate these agency planning database report(s) (including as populated by the RWPG consultant), unmodified, into the Technical Memorandum. The IPP and final RWP must incorporate these standard TWDB DB27 reports, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
13. Update WWP contractual obligations to supply water to other entities and report this information along with projected demands including within DB27 and within any planning memorandums or reports, as appropriate.
14. Review aggregated water demand projections for MWPs provided by the TWDB. This will include retail demand data if the MWP is a WUG, and contract demand data based on data entered by the RWPG, into DB27 if the MWP is a WWP.
15. Summarize and present projected water demands for MWPs by category of use for each planning decade and incorporate this table into the IPP and final RWP.
16. Disseminate the chapter document and related information to RWPG members for review.
17. Modify the chapter document based on RWPG, public, and/or agency comments.
18. Submit the chapter document to the TWDB for review and approval.
19. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 2 (including work from both Tasks 2A and 2B) presenting the projected population and water demands must be included in the IPP and final 2026 RWP.

Task 3 - Water Supply Analysis

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) to be included in the 2026 RWP that documents the evaluation of the region's source availability and existing water supplies.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.32.

This task involves updating or adding groundwater, surface water, reuse, and other water source availability estimates, and existing WUG and WWP water supplies that were included in the 2021 RWP, in accordance with methodology described in Section 2.3 of the *Second Amended General Guidelines for Development of the 2026 Regional Water Plans* for estimating surface water, groundwater, systems, reuse, and other supplies during drought of record conditions. All water availability and water supply estimates will be extended through 2080. This task also includes all work required to coordinate with other planning regions to develop and allocate estimates of water availability and existing water supplies.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

A. Estimate Surface Water Availability and Existing WUG and WWP Surface Water Supplies

1. Select hydrologic assumptions, models, and operational procedures for modeling the region's river basins and reservoirs using the most current TCEQ Water Availability Models (WAMs) in a manner appropriate for assessment of existing surface water supply and regional water planning purposes. Reservoir systems[2] and their yields must be modeled in accordance with the *Second Amended General Guidelines for Development of the 2026 Regional Water Plans.*
2. Obtain TWDB Executive Administrator approval of hydrologic assumptions or models and for any variations from modeling requirements in the *Second Amended General Guidelines for Development of the 2026 Regional Water Plans.*
3. As necessary and appropriate, modify or update associated WAMs or other models to reflect recent changes to permits, transfers, legal requirements, new water rights, and/or specified operational requirements. Note that incorporating anticipated sedimentation into firm yield analyses is a required modification that does not require a hydrologic variance approval from the Executive Administrator.
4. Assign available water supplies, as appropriate, to WUGs and WWPs including conducting supply analyses for WWPs.
5. Apply the TCEQ WAMs, as modified and approved by TWDB, and/or other appropriate models to quantify firm yield for major reservoirs, reservoir systems, and firm diversion for run-of-river water rights, as determined on at least a monthly time-step basis. Reservoir firm yield must be quantified based on the most recent measured capacity and estimated capacity in year 2080.
6. Evaluate TCEQ Water System Data Reports[3] from the Drinking Water Watch or Safe Drinking Water Information System (SDWIS) website for municipal WUGs that use surface water and identify any physical constraints limiting existing water supplies to WUGs and/or WWPs. Consider constraints that limit delivering treated water to WUGs. Other information that the RWPGs collect, for example, survey results, may be included in the evaluation of infrastructure capacity or limitations in delivering treated water to WUGs.
7. Update information on WWP contractual obligations to supply water to other entities in DB27. Unless the RWPG considers it unlikely that a specific contract will be renewed, water supplies based on contractual agreements must be assumed to renew at the contract termination date, for example, if the contract provides for renewal or extensions. Report this information within any planning memorandums or reports, as appropriate.
8. Based on the source water availability, existing infrastructure capacity, and associated physical, operational, and legal limitations, determine the existing surface water supply available from each surface water source to each WUG and WWP (including newly identified WUGs and WWPs) during a drought of record.
9. Complete and update all required data elements for DB27 through the web interface.
10. Compile firm yield and diversion information by source, WUG, WWP, county, river basin, and planning region as necessary to obtain decadal estimates of existing surface water supply throughout the planning period. This will be facilitated by *TWDB DB27 Source Availability* and associated *TWDB DB27 WUG Existing Water Supply* reports using data

[2] Reservoir systems must be approved by TWDB and identified as such in DB27.
[3] Available from TCEQ at http://dww2.tceq.texas.gov/DWW/.

provided by RWPGs and made available to all RWPGs through the TWDB Database Reports application.

11. Review the TWDB *Source Availability and WUG Existing Water Supply* reports from DB27 and incorporate these agency planning database report(s) (including as populated by the RWPG consultant), unmodified, into the Technical Memorandum. The IPP and final RWP must incorporate these standard TWDB DB27 reports, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
12. Prepare summaries of water availability by source and incorporate into any Technical Memorandum, IPP, and final RWP.
13. Prepare summaries of existing supplies for WUGs and incorporate into any Technical Memorandum, IPP, and final RWP.
14. Summarize and present existing water supplies for MWPs by category of use for each planning decade and incorporate this table into the IPP and final RWP.

B. Estimate Groundwater Availability and Existing WUG and WWP Groundwater Supplies:

1. Obtain and review the modeled available groundwater (MAG) volumes that are developed by TWDB based on the desired future conditions (DFCs) adopted by groundwater management areas (GMAs). Note that MAG volumes for each aquifer will be entered into DB27 directly by the TWDB, including as split into discrete geographic-aquifer units by: Aquifer; County; River Basin; and Region.
2. In RWPAs in which no Groundwater Conservation District (GCD) exists[4], develop RWPG-estimated groundwater availability for Board review and approval prior to inclusion in the IPP[5] and in accordance with the *Second Amended General Guidelines for Development of the 2026 Regional Water Plans.*
3. Develop RWPG-estimated groundwater availability for aquifers or portions of aquifers that do not have a DFC or associated MAG. Consider the impacts of the annual MAG volumes on the RWP including how it impacts existing water supplies.
4. In areas with GCDs, obtain GCD Management Plans and GCD information[6] to be considered when estimating existing supplies and water management strategies under future tasks. Attend GCD and/or GMA meetings as necessary.
5. Assign available water supplies, as appropriate, to WUGs and WWPs including conducting supply analyses for WWPs.
6. Select hydrologic and other assumptions for distribution of available groundwater for potential future use by WUGs (e.g., via a pro-rationing policy) as existing supply based on models and operational procedures appropriate for assessment of water supply and regional water planning purposes. A specific hydrologic variance request, in accordance with the *Second Amended General Guidelines for Development of the 2026 Regional Water Plans,* is required to utilize a MAG Peak Factor to accommodate temporary increases in existing annual availability for planning purposes.
7. Evaluate TCEQ Water System Data Reports[7] from the Drinking Water Watch or SDWIS website for municipal WUGs using groundwater and identify any physical constraints limiting existing water supplies to WUGs and/or WWPs. Limitations to be considered based

[4] Related to 84(R) SB 1101 requirements. As of September 2023, these requirements only apply to the North East Texas (Region D) RWPG, as it is the only region currently in the state with no GCDs in its RWPA.
[5] 31 TAC §357.32(d)(2).
[6] https://www.twdb.texas.gov/groundwater/index.asp
[7] Available from TCEQ at http://dww2.tceq.texas.gov/DWW/

on delivering treated water to WUGs. Other information that the RWPGs collect, for example, survey results, may be included in the evaluation of infrastructure capacity or limitations in delivering treated water to WUGs.

8. Update information on WWP contractual obligations to supply water to other entities in DB27. Unless the RWPG considers it unlikely that a specific contract will be renewed, water supplies based on contractual agreements shall be assumed to renew at the contract termination date, for example, if the contract provides for renewal or extensions. Report this information within any planning memorandums or reports, as appropriate.
9. Compile and/or update information regarding acquisitions of groundwater rights, for example, for transfer to municipal use, and account for same in the assessment of both availability and existing groundwater supplies.
10. Based on the source water availability, existing infrastructure capacity, and associated physical, operational, and legal limitations, determine the existing groundwater supply available from each water source to each WUG and WWP (including newly identified WUGs and WWPs) during a drought of record.
11. Complete and update all required data elements for DB27 through the web interface in accordance with the *Guidelines for 2026 Regional Water Planning Data Deliverables*.
12. Compile groundwater availability information by source, WUG, WWP county, river basin, and planning region as necessary to obtain decadal estimates of supply throughout the planning period. This will be facilitated by *TWDB DB27 Source Availability* and associated *TWDB DB27 WUG Existing Water Supply* reports using data provided by RWPGs and made available to all RWPGs through the TWDB Database Reports application
13. Review the TWDB *Source Availability and WUG Existing Water Supply* reports from DB27 and incorporate these agency planning database report(s) (including as populated by the RWPG consultant), unmodified, into the Technical Memorandum. The IPP and final RWP must incorporate these standard TWDB DB27 reports, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
14. Prepare summaries of water availability by source and incorporate into any Technical Memorandum, IPP, and final RWP.
15. Prepare summaries of existing supplies for WUGs and incorporate into any Technical Memorandum, IPP, and final RWP.
16. Summarize and present existing water supplies for MWPs by category of use for each planning decade and incorporate this table into the IPP and final RWP.

C. Estimate System, Reuse, and Other Types of Existing Supplies:

1. Integrate firm water supplies for WUGs using a system of supply sources (e.g., surface water, storage, and groundwater).
2. Research and quantify existing supplies and commitments of treated effluent through direct and indirect reuse.
3. Compile system, reuse, and other availability information by source, WUG, WWP, county, river basin, and planning region as necessary to obtain decadal estimates of supply throughout the planning period.
4. Assign available water supplies, as appropriate, to WUGs and WWPs including conducting demand analyses for WWPs.
5. Identify and sub-categorize existing sources in DB27 to extract unique sources. For example, in addition to surface water, groundwater, and reuse, further clarify the source types in DB27 to subcategorize other specific water sources, such as desalinated groundwater or desalinated surface water, and seawater desalination, and any other supply types that are connected supplies.

6. Identify any physical constraints limiting delivery of treated supplies to WUGs and/or WWPs including based on TCEQ Water System Data Reports[8]. Other information that the RWPGs collect, for example, survey results, may be included in the evaluation of infrastructure capacity or limitations in delivering treated water to WUGs.
7. Update information on WWP contractual obligations to supply water to other entities in DB27. Unless the RWPG considers it unlikely that a specific contract will be renewed, water supplies based on contractual agreements shall be assumed to renew at the contract termination date, for example, if the contract provides for renewal or extensions. Report this information within any planning memorandums or reports, as appropriate.
8. Based on the source water availability, existing infrastructure capacity, and associated physical, operational, and legal limitations, determine the existing system, reuse, and other water supplies available from each water source to each WUG and WWP (including newly identified WUGs and WWPs) during a drought of record.
9. Complete and update all required data elements for DB27 through the web interface.
10. Compile these supplies by source, WUG, WWP, county, river basin, and planning region as necessary to obtain decadal estimates of existing surface water supply throughout the planning period. This will be facilitated by *TWDB DB27 Source Availability* and associated *TWDB DB27 WUG Existing Water Supply* reports using data provided by RWPGs and made available to all RWPGs through the TWDB Database Reports application.
11. Review the TWDB *Source Availability and WUG Existing Water Supply* reports from DB27 and incorporate these agency planning database report(s) (including as populated by the RWPG consultant), unmodified, into the Technical Memorandum. The IPP and final RWP must incorporate these standard TWDB DB27 reports, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
12. Prepare summaries of water availability by source and incorporate into any Technical Memorandum, IPP, and final RWP.
13. Prepare summaries of existing supplies for WUGs and incorporate into any Technical Memorandum, IPP, and final RWP.
14. Summarize and present existing water supplies for MWPs by category of use for each planning decade and incorporate this table into the IPP and final RWP.

D. Additional Task 3 Requirements:

1. In addition to submitting all electronic model input/output files used in determining water availability (in sufficient detail for another party to replicate the resulting availability estimates that are incorporated into the plan), the Technical Memorandum, IPP, and final RWP must include a table summarizing the details of any hydrologic models used, including the model name, version date, model input/output files used, date model run, and any relevant comments
2. Disseminate the chapter document and related information to RWPG members for review.
3. Modify the chapter document based on RWPG, public, and/or agency comments.
4. Submit the chapter document to the TWDB for review and approval.
5. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 3 presenting the region's water availability and supplies must be included in the IPP and final 2026 RWP.

[8] Available from TCEQ at http://dww2.tceq.texas.gov/DWW/

Task 4A - Water Needs Analysis

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) that presents the water supply needs (i.e., potential shortages) for the planning area.

In addition to generally meeting all applicable rule and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.33.

Based upon updated projections of existing water supply and projected water demands under Tasks 2 and 3, and the associated data entered into DB27, the TWDB will automatically update computations of identified water needs (potential shortages) by WUGs and WUG customers of WWPs as decadal estimates of needs by county, river basin, and planning region. The results of this computation will be made available to all RWPGs through the TWDB Database Reports application and is considered the base, identified 'water need' that must be reported in the regional (and state water plan). A secondary needs analysis will be calculated by TWDB based on DB27 for all WUGs and WWPs for which conservation or direct reuse water management strategies are recommended.

Regions may also request additional, unique water needs analysis (e.g., for a WWP) that the RWPG considers warranted. Such reports will be provided by TWDB, if feasible based on the DB27 constraints and TWDB resources.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Calculate and report the water needs for MWPs. Supporting data to assist the RWPGs analysis of identifying MWP needs may be requested from the TWDB. The RWPG will need to enter or provide any additional data into DB27 that may be necessary to develop these evaluations.
2. Review the TWDB *WUG Needs/Surplus* report from DB27 and incorporate this agency planning database report(s) (including as populated by the RWPG consultant), unmodified, into the Technical Memorandum. The IPP and final RWP must incorporate the TWDB *WUG Needs/Surplus and WUG Second-Tier Identified Water Need* reports from DB27 by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
3. Prepare summaries of identified needs for WUGs and incorporate into any Technical Memorandum, IPP, and final RWP.
4. Summarize and present the RWPG-identified water needs for MWPs by category of use for each planning decade into the IPP and final RWP.
5. Summarize and present a secondary needs analysis for each MWP by decade.
6. Disseminate the chapter document and related information to RWPG members for review.
7. Modify the chapter document based on RWPG, public, and/or agency comments.
8. Submit the chapter document to the TWDB for review and approval.
9. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 4 presenting RWPG water supply needs must be included in the IPP and final 2026 RWP.

Task 4B – Identification of Infeasible Water Management Strategies in the previously adopted 2021 Regional Water Plan

The objective of this task is to conduct a one-time, mid-cycle analysis of the *previous* RWP to identify any newly infeasible WMSs and water management strategy projects (WMSP) that were feasible and recommended at the time of the adoption of the *previous* RWP but which have since become infeasible and must be modified or amended out of the previous RWP.[9]

In addition to generally meeting all applicable rule and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.12(b)-(c) and 31 TAC §357.45.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Review WMSs and WMSPs in the previous RWP and coordinate with project sponsors to determine implementation status and determine infeasibility, when applicable.
2. Present the results of the analysis, including documentation of the region's process for determining infeasible WMSs and WMSPs, at a RWPG meeting subject to a 14-day notice in accordance with 31 TAC §357.21(g)(2). These results must be presented at the same meeting where the RWPG presents its process for identifying potentially feasible WMSs in the current plan under Task 5A.
3. Include a list of identified WMSs and WMSPs that were recommended in the previous RWP but which are no longer considered feasible in the Technical Memorandum developed and submitted under Task 4C.
4. Amend the previous RWP to modify and/or remove any WMSs or WMSPs that were determined to be infeasible in accordance with existing amendment procedures outlined in 31 TAC §357.51.
5. If applicable or required, identify and evaluate a new WMS or WMSP that would be needed to meet the identified water need that had been met by the WMS or WMSP that is going to be removed due to infeasibility.
6. The previous RWP may be amended to:
    a. remove an infeasible WMS or WMSP;
    b. revise an infeasible WMS or WMSP to make the WMS or WMSP feasible; and/or
    c. incorporate a new WMS or WMSP to address the identified water need previously met by an infeasible WMS or WMSP that was removed due to infeasibility.
7. The RWPG must submit the RWPG adopted amendments associated with this task to the TWDB no later than three (3) months following the due date of the Technical Memorandum.

Task 4C – Technical Memorandum

The objective of this task is to prepare a Technical Memorandum.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Prepare a concise Technical Memorandum in accordance with 31 TAC §357.12(c) and including content specified in Section 2.12.1 of the *Second Amended General Guidelines for Development of the 2026 Regional Water Plans.*
2. Disseminate the Technical Memorandum to RWPG members for review.

[9] Per Senate Bill 1511 85th Texas Legislature.

3. Approve submittal of the Technical Memorandum to TWDB at a RWPG meeting subject to a 14 day notice in accordance with 31 TAC §357.21(g)(2). The Technical Memorandum must be submitted to TWDB by the deadline listed in Section I Article I of the contract.

Task 5A – Identification of Potentially Feasible Water Management Strategies and Projects

The objective of this task is to identify potentially feasible WMS and WMSPs to meet identified needs in the planning area and to prepare a chapter (in accordance with 31 TAC §357.22(b)) to be combined with Task 5B and 5C and included in the 2026 RWP that identifies, evaluates, and recommends WMSs and management strategy projects (WMSP).

In addition to generally meeting all applicable rule and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.12 (b) and 31 TAC §357.34(a)(b)(c).

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Revise and update documentation of the process used in the 2021 RWP to identify potentially feasible WMSs and WMSPs to meet a need.
2. Receive public comment at a RWPG meeting subject to a 14 day notice in accordance with 31 TAC §357.21(g)(2) on a proposed process to be used by the RWPG to identify potentially feasible WMSs for the 2026 RWP and receive planning group approval of the process.
3. Document the process of identifying potentially feasible WMSs selected by the RWPG in the Technical Memorandum, the IPP, and final RWPs.
4. Consider the TWDB Water Loss Audit Report, conservation best management practices, and drought management when considering potentially feasible WMSs as required by rules.
5. Update relevant portions of the RWP summary of existing water supply plans for local and regional entities. This task requires obtaining and considering existing water supply plans. Include the updated summary in the IPP and final RWPs.
6. Consider existing planning efforts, programs, and goals in developing WMSs including those referenced under 31 TAC §357.22(a).
7. If no potentially feasible strategy can be identified for a WUG or WWP with a need, document the reason for this in the Technical Memorandum, IPP, and final RWPs.
8. Consider recent studies and describe any significant changes in WMSs described as being in the implementation phase in the 2026 RWP as well as any new projects in the implementation phase prior to adoption of the IPP.
9. Identify potential WMSs to meet needs for all WUGs and WWPs with identified needs.
10. Present a list of the potentially feasible WMSs, in table or list format, within the Technical Memorandum, IPP, and final RWPs.
11. Identify those potentially feasible WMSs, if any, included on the list above that, in addition to providing water supply, could potentially provide non-trivial flood mitigation[10] benefits or that might be the best potential candidates for exploring ways that they might be combined with flood mitigation features to leverage planning efforts to achieve potential cost savings or other combined water supply and flood mitigation benefits. The work

[10] The implementation of actions, including both structural and non-structural solutions, to reduce flood risk to protect against the loss of life and property (31 TAC §361.10(k)).

required to identify these WMSs will be based entirely on a high-level, qualitative assessment and should not require modeling or other additional technical analyses.

12. Prepare a region-specific scope of work for potential WMS evaluations after identifying water needs and identifying potentially feasible WMS. The proposed scope of work must be developed in accordance with the guidelines and template included in Section 2.5.6 of *Second Amended General Guidelines for Development of the 2026 Regional Water Plans* and if approved by the RWPG and TWDB the region-specific scope of work will be incorporated into Task 5B.

Deliverables: A completed subchapter of Chapter 5 (including work from Tasks 5A-5C) must be included in the IPP and final 2026 RWP.

Task 5B – Evaluation and Recommendation of Water Management Strategies and Projects

The objective of this task is to evaluate and recommend WMSs and their associated WMSPs, and to prepare a separate chapter (in accordance with 31 TAC §357.22(b)) to be combined with Task 5A and 5C and included in the 2026 RWP that identifies, evaluates, and recommends WMSs and WMSPs. Work includes presenting alternative WMSs and WMSPs and includes all technical evaluations.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.22(a), §357.34, and §357.35 that is not already included under Tasks 5A or 5C.

This task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Perform technical evaluations of all potentially feasible WMSs including previously identified or recommended WMSs and newly identified WMSs, including drought management and conservation WMSs; WMS and WMSP documentation must include a strategy description, discussion of associated facilities, project map, and technical evaluation addressing all considerations and factors required under 31 TAC §357.34(e)-(i) and §357.35. If an identified potentially feasible WMS is, at any point, determined to be not potentially feasible by the planning group and therefore not evaluated, the plan must provide documentation of why the WMS was not evaluated.
2. Include documentation of the RWPG's process for selecting recommended WMSs and associated WMSPs including development of WMS evaluations matrices and other tools required to assist the RWPG in comparing and selecting recommended WMSs and WMSPs. Include this documentation in the IPP and final RWP.
3. Consider water conservation plans and drought contingency plans from each WUG, as necessary, to inform WMS evaluations and recommendations.
4. Ensure necessary communication, coordination, and facilitation occurs within the RWPA and with other RWPGs to develop recommendations.
5. Update descriptions and associated technical analyses and documentation of any WMSs and WMSPs that are carried forward from the previous RWP to address:
    a. Changed conditions or project configuration.
    b. Changes to sponsor of WMS and WMSP(s).

   c. Updated costs (based on use of required costing tool[11]).
   d. Other changes that must be addressed to meet requirements of 31 TAC §357.34 and §357.35.
6. Assign all recommended WMS water supplies to meet projected needs of specific WUGs.
7. Document the evaluation and selection of all recommended WMS and WMSPs, including an explanation for why certain types of strategies (e.g., aquifer storage and recovery, seawater desalination, brackish groundwater desalination) may not have been recommended.
8. Determine whether the region has 'significant' identified water needs and if so, assess the potential for aquifer storage and recovery to meet those needs. The plan must include at a minimum, the methodology used by the planning group to determine what volume constitutes a 'significant' water need in their region.
9. Provide documentation of the implementation status, in a separate chapter subsection and in table format, of the status of certain recommended WMSs. *Second Amended General Guidelines for Development of the 2026 Regional Water Plans Section 2.5.2.7* outlines the required WMS types that implementation status must be provided for and outlines the required minimum table contents depicting key milestones.
10. Coordinate with sponsoring WUGs, WWPs, rural entities, and/or other resource agencies regarding any changed conditions in terms of projected needs, strategy modifications, planned facilities, market costs of water supply, endangered or threatened species, etc.
11. If TWC §11.085 applies to the proposed inter-basin transfer (IBT), determine the "highest practicable level" of water conservation and efficiency achievable (as existing conservation or proposed within a WMS) for each WUG or WWP WUG customer recommended to rely on a WMS involving the IBT. Recommended conservation WMSs associated with this analysis shall be presented by WUG.
12. Present the water supply plans in the RWP for each WUG and WWP relying on the recommended WMSs and WMSPs.
13. Consider alternative WMSs and WMSPs for inclusion in the plan. Alternative water management strategies must be fully evaluated in accordance with 31 TAC §357.34(e)-(i). Technical evaluations of alternative WMSs must be included in the plans and the data associated with alternative WMS must be entered into DB27.
14. Review the TWDB reports (report numbers 10-19) from DB27 and incorporate these agency planning database reports (including as populated final RWP must incorporate these standard TWDB DB27 reports, in the IPP and final RWP, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.
15. Submit data through DB27 to include the following work:
   a. Review of the data.
   b. Confirm that data is accurate.
16. Disseminate the chapter document and related information to RWPG members for review.
17. Modify the chapter document based on RWPG, public, and/or agency comments.
18. Submit the chapter document to the TWDB for review and approval.
19. Make all efforts required to obtain final approval of the RWP chapter and associated DB27data by the TWDB.
20. This subtask is the region-specific scope of work to complete water management strategy evaluations, for inclusion in the initially prepared and final adopted 2026 Regional Water Plan. Each task includes the calculation of supplies using methodologies in accordance with

[11] See Section 2.5.2.12 under 'Financial Costs' in *Second Amended General Guidelines for Development of the 2026 Regional Water Plans.*

applicable regional water planning rules and TWDB guidelines for the development of firm supplies for water management strategies and water management strategy projects, use of the updated TWDB Unified Costing Model, application of the approach adopted by the NETRWPG, and necessary coordination with specific WUGs and WWPs.

a. **Advanced Water Conservation:** Update the Municipal, Irrigation, Industrial, Steam-Electric, and Mining water use categories advanced water conservation WMSs using the applicable subset from the general procedures and Best Management Practices (BMPs) starting with the 2021 Region D recommended WMSs and accounting for more current estimates of municipal per capita use, irrigation application rates, and BMP implementation costs, etc. As is required, these RWPG recommendations shall be assumed to be the "highest practicable level" of conservation for WUGs/ WWPs that are dependent upon WMSs involving an interbasin transfer(s). Each WMSP with a capital cost will be presented separately in the 2026 Plan and DB27.

b. **Drought Management:** Using available historical water use rates, economic impact factors from the TWDB (if available), and the methodology now integrated in the standard cost estimation tool for regional water planning statewide, develop evaluations of drought management as a water management strategy for WUGs with projected needs for additional water supply.

c. **Water Reuse:** Compile current information regarding recycled water sources and WUGs potentially in need of such supplies for non-potable uses. Update simplified technical evaluation including generalized estimates of cost for delivery of recycled water from treatment facilities to WUGs.

d. **Local Groundwater:** Update technical evaluations including phased well implementation schedules and associated costs for WUGs dependent on local aquifer supplies based on projected needs for additional water supply with due consideration of Modeled Available Groundwater (MAG). This will include evaluations of potential acquisition of available existing groundwater supplies, as well as development of new supplies. If there is a greater need for groundwater than estimated by the MAG on a county and aquifer basis, a more refined assessment of groundwater availability will be performed to evaluate if increasing availability can be justified hydrogeologically. For those WUGs/sellers wherein existing or planned pumpage exceeds MAG amounts, a more detailed analysis of the entity's pumping, typical production of the aquifer, and relevant information from applicable GMAs will be considered towards development of the available groundwater supply for the entity. Current infrastructure (number of wells, well field capacity, peaking factors, etc.) will also be considered when evaluating future water management strategies.

e. **Surface Water:** Compile and summarize current information regarding pending or potential acquisitions, leases, and/or amendments of existing surface water rights by WUGs and/or WWPs in Region D. Update technical evaluation documentation. This will include evaluations of potential acquisition of available existing surface water supplies, as well as development of new supplies.

f. **Facilities Expansions:** Compile and summarize current information regarding potential or planned facilities expansions by WUGs and/or WWPs in Region D that do not involve additional source water supplies and are not otherwise reflected in technical evaluation of another water management strategy (e.g., water treatment plant

expansion, emergency interconnection between adjacent distribution systems, etc.). Update technical evaluation documentation.

g. **Regional Supply and Management:** Compile and summarize current information regarding potential or planned development of regional water supply facilities or providing regional management of water supply facilities by WUGs and/or WWPs in Region D. Update technical evaluation documentation.

h. **Voluntary or Emergency Transfers:** Compile and summarize current information regarding potential or planned voluntary or emergency transfers of water by WUGs and/or WWPs in Region D. Update technical evaluation documentation.

i. **Balancing Storage and/or Conjunctive Use:** Compile and summarize current information regarding potential or planned development of balancing storage (and/or conjunctive use) by WUGs and/or WWPs in Region D. Update technical evaluation documentation.

j. **Aquifer Storage and Recovery:** Compile and summarize current information for a specific assessment of the potential for aquifer storage and recovery projects to meet identified water needs for all Municipal WUGs, WWPs, and potentially other non-municipal WUGs (as needed). Includes development of threshold for identified need. Develop technical evaluation documentation.

Deliverables: A completed Chapter 5 (including work from Tasks 5A-5C) including technical analyses of all evaluated WMSs and WMSPs must be included in the IPP and final 2026 RWP. Data must be submitted and finalized through DB27 in accordance with the *Guidelines for 2026 Regional Water Planning Data Deliverables*.

Task 5C – Conservation Recommendations

The objective of this task is to prepare a separate subchapter[12] of Chapter 5 that consolidates conservation-related recommendations, provides the region's GPCD goals, and provides model water conservation plans to be included in the 2026 RWP.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.34(i).

Note that the evaluation of conservation WMSs and WMSPs should be performed under Task 5B and the region must receive a written notice-to-proceed associated with conservation WMSs under Task 5B.

Work shall include but not be limited to the following:

1. Consider water conservation plans from each WUG, as necessary, to inform conservation WMSs and other recommendations.
2. Develop water loss mitigation WMSs distinctly separate from water use reduction WMSs.

[12] This must be a separate subchapter as required by 31 TAC §357.34(j).

3. If applicable, explain the RWPG's basis for not recommending a conservation WMS for WUGs that had identified water needs.
4. If applicable, present what level of water conservation (as existing conservation or proposed within a WMS) is considered by the RWPG as the "highest practicable level" of water conservation for each WUG and WWP WUG customer that are dependent upon water management strategies involving inter-basin transfers to which TWC 11.085 applies.
5. Include model water conservation plans. Model water conservation plans may be referenced in this subchapter by using internet links instead of included in hard copy .
6. Recommend GPCD goals for each municipal WUG or specified groupings of municipal WUGs for each planning decade. GPCD goals must be based on drought conditions to align with guidance principles in §358.3
7. Disseminate the subchapter content and related information to RWPG members for review.
8. Modify the subchapter document based on RWPG, public, and/or agency comments.
9. Submit the subchapter as part of Chapter 5 to the TWDB for review and approval.
10. Make all efforts required to obtain final approval of the RWP subchapter by the TWDB.

Deliverables: A completed subchapter of Chapter 5 (including work from Tasks 5A-5C) must be included in the IPP and final 2026 RWP.

Task 6 – Impacts of the Regional Water Plan and Consistency with Protection of Resources

The objective of this task is to prepare a separate chapter (in accordance with 31 TAC §357.22(b)) to be included in the 2026 RWP that describes the potential impacts of the RWP and how the plan is consistent with long-term protection of water resources, agricultural resources, and natural resources.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.40 and §357.41.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Include a quantitative description of the socioeconomic impacts of not meeting the identified water needs. Upon request, TWDB will perform a socioeconomic analysis of the impacts of not meeting the identified water needs and update and summarize potential social and economic effects under this Task. This report will be provided to RWPGs as part of this Task and incorporated into the final RWPs.
2. If the RWPG chooses to develop its own socioeconomic analysis, the resulting socioeconomic report, with documented methodology, must be incorporated into the IPP and final RWP by the RWPG.
3. Include an evaluation of the estimated cumulative impacts of the RWP, for example on groundwater levels, spring discharges, bay and estuary inflows, and instream flows.
4. Describe the impacts of the RWP regarding all factors in §357.40(b).
5. Describe how the RWP is consistent with the long-term protection of resources in accordance with §357.41.
6. Review the TWDB *WUG Unmet Needs* report from DB27 and incorporate this agency planning database report (including as populated by the RWPG consultant) by reference, as part of the IPP and final RWP by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application.

7. Disseminate the chapter document and related information to RWPG members for review.
8. Modify the chapter document based on RWPG, public, and/or agency comments.
9. Submit the chapter document to the TWDB for review and approval; and
10. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 6 must be included in the IPP and final 2026 RWP.

Task 7 – Drought Response Information, Activities, and Recommendations

The objective of this task is to prepare a separate chapter (in accordance with 31 TAC §357.22(b)) to be included in the 2026 RWP that: presents information regarding historical droughts and preparations for drought in the region; identifies triggers and responses to the onset of drought conditions in the region; evaluates potential emergency responses to local drought conditions; and includes various other drought-related evaluations and recommendations considered important by the RWPG.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.42.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Consider existing plans, including those referenced under 31 TAC §357.22(a), in developing this chapter.
2. Collect information on previous and current responses to drought in the region including reviewing drought contingency plans received from each WUG.
3. Consider drought contingency plans from each WUG, as necessary, to inform WMS evaluations and recommendations and to determine which drought response efforts are unnecessary or counterproductive.
4. Coordinate and communicate, as necessary, with entities in the region to gather information required to summarize existing triggers and actions, identify existing and potential emergency interconnects, and to identify potential emergency response to local drought conditions or loss of existing supplies.
5. Summarize potentially feasible drought management WMS, recommended drought management WMS, and or alterative drought management WMSs, if any, associated with work performed under Task 5A and 5B.
6. If applicable, explain the RWPG's basis for not recommending drought management strategies for WUGs that had identified water needs.
7. Develop region-specific model drought contingency plans consistent with TCEQ requirements. Plans for municipal users must, at a minimum, identify triggers for and responses to the most severe drought response stages commonly referred as severe and critical/emergency drought conditions.
8. Summarize any other drought management measures recommended by the RWPG.
9. Include a separate chapter subsection that provides documentation of how the planning group addressed uncertainties in the RWP (if applicable), how the planning group addressed a drought worse than the DOR in the RWP (if applicable), and potential measures and responses that would likely be available to users in the region, in the event of a drought worse than the DOR. *Second Amended General Guidelines for Development of the 2026*

Regional Water Plans Section 2.7.2 outlines the specific plan contents that must be included in the IPP and final RWP to meet this requirement.

10. Prepare tabular data as applicable for inclusion in chapter.
11. Disseminate the chapter document and related information to RWPG members for review.
12. Modify the chapter document based on RWPG, public, and/or agency comments.
13. Submit the chapter document to the TWDB for review and approval.
14. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 7 summarizing drought response information, activities, and recommendations must be included in the IPP and final 2026 RWP.

Task 8 - Recommendations Regarding Unique Stream Segments and/or Reservoir Sites and Legislative & Regional Policy Issues

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) that presents the RWPG's unique stream segment, unique reservoir site, legislative, administrative, and regulatory recommendations.

In addition to generally meeting all applicable rule and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must include all work necessary to meet all the requirements of 31 TAC §357.43 and §358.2.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Receive and consider TWDB feedback on the implementation of the RWPG's legislative, administrative, and regulatory recommendations, as applicable to the TWDB, in the previous RWP.
2. Receive and consider recommendations from the Interregional Planning Council to the RWPGs.
3. Consider relevant plans referenced under 31 TAC §357.22 in developing this chapter.
4. Consider and discuss potential recommendations for designation of ecologically unique stream segments within the RWPA, based on the criteria in 31 TAC §358.2.
5. If applicable, prepare a recommendation package following the requirements in 31 TAC §357.43(b) recommending which stream segments in the region, if any, should be recommended for designation as ecologically unique stream segments. Evaluate and incorporate comments from the RWPG. Upon approval by the RWPG, submit the recommendation package to the Texas Parks and Wildlife Department for comments.
6. Include the recommendation package and Texas Parks and Wildlife Department's written evaluation on the unique stream segment(s) recommendation in the final RWP. An updated Texas Parks and Wildlife Department evaluation must be included in each RWP, even for those stream segments that have been recommended in previous plans but not designated by the Legislature.
7. For each recommended or previously designated unique stream segment, include a quantitative analysis of the impact of the RWP on the stream segments based upon the assessment criteria in 31 TAC §357.43(b)(2).
8. Consider and discuss potential recommendations for designation of unique reservoir sites within the RWPA.
9. For each recommended unique reservoir site, include a description of the site, reasons for the unique designation, and expected beneficiaries of water supplies developed at a given site in accordance with 31 TAC §357.43(c).

10. Consider and discuss potential regional policy issues; identify recommendations for legislative, administrative, and regulatory rule changes; including recommendations to improve the state and regional planning process.
11. Disseminate the chapter document and related information to RWPG members for review.
12. Modify the chapter document based on RWPG, public, and or agency comments.
13. Submit the chapter document to the TWDB for review and approval.
14. Make all efforts required to obtain final approval of the RWP chapter by the TWDB.

Deliverables: A completed Chapter 8 presenting RWPG unique stream segment, unique reservoir site, legislative, administrative, and regulatory recommendations must be included in the IPP and final 2026 RWP.

Task 9 – Implementation and Comparison to the Previous Regional Water Plan

The objective of this task is to prepare a separate chapter (in accordance with 31 TAC §357.22(b)) to be included in the 2026 RWP that reports on the degree of implementation of WMSs from the previous RWP and summarizes how the new RWP compares to the previous RWP.

In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work must, include all work necessary to meet all the requirements of 31 TAC §357.45.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Implementation (31 TAC §357.45(a)):
    a. Coordinate and communicate with RWPG representatives and sponsors of WMSs, including WUGs and WWPs.
    b. Document the level of implementation of each WMS that was recommend in the previous RWP and impediments to implementation.
    c. Submit implementation results data in the format to be specified by the TWDB.
2. Comparison to the previous regional water plan (31 TAC §357.45(b)):
    a. Assess the region's progress in encouraging cooperation between WUGs for the purpose of achieving economies of scale and incentivizing WMSs that benefit the entire planning area.
    b. Compare the RWP to the previous RWP regarding water demand projections, droughts of record and modeling assumptions, availability, existing supplies, needs, and WMSs and WMSPs.
    c. Summarize differences quantitatively or qualitatively in accordance with rule.
    d. Present information in graphical, tabular, and written format as applicable.
3. Disseminate the chapter document and related information to RWPG members for review.
4. Modify the chapter document based on RWPG, public, and/or agency comments.
5. Submit the chapter document to the TWDB for review and approval.
6. Make all efforts required to obtain final approval of the RWP chapter and associated DB27 data by the TWDB.

Deliverables: A completed Chapter 9 must be included in the IPP and final 2026 RWP.

Task 10 - Public Participation and Plan Adoption

The objective of this task is to prepare a chapter (in accordance with 31 TAC §357.22(b)) to address public participation, public meetings, eligible administrative and technical support activities, and other requirements and activities eligible for reimbursement, complete and submit a Technical Memorandum, IPP, and final RWP, and obtain TWDB approval of the RWP.

In addition to generally meeting all applicable statute requirements governing regional and state water planning this portion of work must, in particular, include all technical and administrative support activities necessary to meet all the requirements of 31 TAC Chapters 355, 357, and 358 that are not already addressed under the scope of work associated with other contract tasks but that are necessary and or required to complete and deliver a Technical Memorandum, IPP, and final RWP to TWDB and obtain approval of the final RWP by the TWDB.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

A. Plan Development Activities

1. Organize, support, facilitate, and document all meetings and hearings associated with activities necessary and eligible to complete and submit a Technical Memorandum, IPP, and final RWP to the TWDB, including but not limited to: regular RWPG meetings, committee meetings, or subcommittee meetings; pre-planning meeting; meetings associated with revision of draft projections; public meeting for the consideration of the process for identifying potentially feasible water management strategies and the presentation of the analysis of infeasible water management strategies; consideration of a substitution of alternative water management strategies; public hearing on the IPP; adoption of the final RWP, and consideration of RWP amendments, alternative WMS substitutions, or TWDB Board-directed revisions.
2. Include a deliberate discussion on how the planning group will conduct interregional coordination and collaboration regarding water management strategies during the preplanning meeting required under 31 TAC §357.12(a)(1).
3. Collect and evaluate information, including any information gathering surveys from water suppliers or WUGs, (e.g., on existing infrastructure; existing water supplies; potentially feasible water management strategies) and/or maintenance of contact lists for regional planning information in the region.
4. Conduct and/or enhance existing outreach specifically to rural entities in the planning area to collect and evaluate information to support plan development, including keeping track of which rural entities were contacted by the RWPG/Consultant, which entities were not responsive to RWPG contact efforts, and including a summary of the region's rural outreach efforts in Chapter 10 of the IPP and final RWP. The TWDB will provide a list including entities that meet the rural political subdivision definition per Senate Bill 469, 88(R) and public water systems that fall within each municipal county-other WUG. Particular emphasis should be placed on outreach to those rural-serving public water systems that 1) have self-reported water use restrictions to TCEQ due to water supply issues during the current planning cycle; 2) have self-reported to TCEQ having less than 180 days of water supply remaining during the current planning cycle; 3) have not previously engaged in the regional planning process; and 4) have already been identified as facing significant near-term shortages under drought conditions in previous regional water plans.
5. Conduct intraregional and interregional coordination and communication, and or facilitation required within the RWPA and with other RWPGs to develop a RWP including with water suppliers or other relevant entities such as groundwater conservation districts,

WUGs, and or WWPs. This includes gathering and documenting information on potential interregional opportunities or issues.

6. Incorporate all required DB27 reports (including as populated by the RWPG consultant) into the Technical Memorandum. The IPP and final RWP must incorporate these standard TWDB DB27 reports, by reference in the Executive Summary, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application. Additional specifications are provided in the *Second Amended General Guidelines for Development of the 2026 Regional Water Plans.*
7. Develop and include an Executive Summary in both the IPP and final RWP, not to exceed 30 pages.
8. Make modifications to the RWP documents based on RWPG, public, and/or agency comments.
9. Prepare a RWP chapter summarizing Task 10 activities including review by the RWPG and modification of document as necessary.
10. Prepare and transmit correspondence, for example, directly related to public comments on RWP documents.
11. Develop draft and final responses for RWPG approval to public questions or comments as well as approval of the final responses to comments on RWP documents.
12. Produce, distribute, and submit all draft and final RWP-related planning documents for the RWPG, public and agency review, including in hard-copy format when required.
13. Assemble, compile, and produce the completed IPP and final RWP documents that meet all requirements of statute, 31 TAC Chapters 355, 357 and 358, regional water planning contract and associated contract guidance documents.
14. Submit the RWP documents in required formats to the TWDB for review and approval, by the deadlines listed in Section I Article I of the contract and make all efforts required to obtain final approval of the RWP by the TWDB.

B. Technical Support and Administrative Activities

1. Support and accommodate periodic presentations by the TWDB for the purpose of orientation, training, and retraining as determined and provided by the TWDB during regular RWPG meetings.
2. Consider recommendations in the *Administrative Guidance for RWPG Sponsors (Designated Political Subdivisions*), as prepared and updated by the TWDB.
3. Technical consultants must attend and participate in TWDB-provided DB27 trainings, including individualized trainings and review of technical and data-related contract guidance documents in the TWDB regional water planning contract.
4. Develop agendas, presentations, and handout materials for the public meetings and hearings to provide to RWPG members and the public.
5. Technical consultants must attend and participate in RWPG, committee, subcommittee, and other meetings and hearings necessary for RWP development including preparation and follow-up activities.
6. Develop technical and other presentations and handout materials for RWPG meetings and hearings to provide technical and explanatory data to the RWPG and its subcommittees, including follow-up activities.
7. Perform administrative and technical support, including coordination of and participation in RWPG activities, and documentation of any RWPG meetings, hearings, workshops, workgroups, subgroup and/or subcommittee activities.
8. Provide status reports to the TWDB for work performed under this Contract.
9. Meet all public notice requirements in accordance with the Texas Open Meetings Act, statute, 31 TAC §357.21, and any other applicable public notice requirements.

C. Other Activities

1. Develop and maintain a RWPG website or RWPG-dedicated webpage on the RWPG administrator's website for posting planning group meeting notices, agendas, materials, and plan information.
2. Perform maintenance of the RWPG website; reimbursement is limited to non-labor, direct costs.
3. Document meetings and hearings to include recorded minutes and or audio recordings as required by the RWPG bylaws and archiving and providing minutes to public.
4. Promote consensus decisions through conflict resolution efforts including monitoring and facilitation required to resolve issues between and among RWPG members and stakeholders in the event that issues arise during the process of developing the RWP, including mediation between RWPG members, if necessary.
5. Perform RWPG membership solicitation activities.
6. Solicit, review, and disseminate public input, as necessary.
7. Perform any additional efforts required, but not otherwise addressed in other scope of work tasks that may be required to complete a RWP in accordance with all statute and rule requirements.

Deliverables:

- A draft Chapter 10 summarizing public participation activities to date included in the IPP.
- A completed Chapter 10 summarizing public participation activities and appendices with public and agency comments and RWPG responses to comments in the final 2026 RWP.
- A complete IPP and final 2026 RWP.

ROUTE FORM			
Contract Amount $		**BOARD APPROVAL DATE: N/A**	
CONTRACT # 2148302556 (Region D)	**AMEND #** 3	**CONTRACTOR** Riverbend Water Resources District	**DATE / INITIALS**
Procurement & Contract Services Daniel Cardin	☒ Assignment Date: 5/14/2024 ☒ Enter information into CAS and Worklog ☒ Prepare Draft documents for internal review and approval, Save in S: drive and email reviewers.		DC 05/14/2024
PCS Approval ☒ Hannah Mulla/Cameron Turner	Does FFATA (Fed Funds)? ☐Yes or ☒No If Yes, Fed Reporting to FSRS. Contract Admin Manager reviews and approves		ct 5/14/24
Legal ☒ Ashley Harden	**Contract Attorney reviews and approves**		rah 5/15/24
Contract Manager / SME ☒ Ron Ellis	☐ **CM / SME** submits Risk Assessment ☒ **CM / SME** reviews and approves ☒ **CM / SME** provides Names / Emails needed for DocuSign **Signatory:** Kyle Dooley kyledooley@rwrd.org cc to Tony Smith <tlsmith@carollo.com>		RE 5/15/24
☒ Sarah Lee	**Manager Reviews and approves**		SL 5/15/24
☒ Temple McKinnon	**Division Director reviews and approves**		TMc 5/15/24
☒ Matt Nelson ☐ Edna Jackson ☐ John T. Dupnik ☐ Richard Wade ☐ Jessica Pena ☐ Rebecca Trevino	**Deputy Executive Administrator or CFO reviews, approves and signs transmittal letter *(if budgetary change does not exceed a total contract value of $25,000)***		TM [DocuSign] 5/20/2024
Financial Operations Payable/Receivable ☒ Eldrisha Eubanks (Payable) ☐ April Weiss (Receivable) ☒ Letty Molina (Director)	**Financial Operations Payable/Receivable Comments**		EE 5/14/24
Contract Administration Daniel Cardin	☒ All approvals have been received ☒ Finalize documents ☒ Send for execution via DocuSign		DC 05/14/2024
▼ **FOR DOCUSIGN ONLY – CONTRACT ADMINISTRATION ONLY** ▼			
☒ **Matt Nelson**	**Deputy Executive Administrator** reviews, approves and signs (if budgetary change < $25,000)		TM 5/20/2024

Attachment E

Second Amended Task and Expense Budgets

SECOND AMENDED TASK BUDGET

	Task						
Accounting Item No.	Regional Water Planning Task No.	Description	Original Amount	First Amended Additional Amount	Second Amended Additional Amount	Total Amount	Engineer Committed Funds
1	1	Planning Area Description	$16,231.00	$0.00	$1,888.00	$18,119.00	$18,119.00
2	2A	Non-Municipal Water Demand Projections	$28,414.00	$0.00	$0.00	$28,414.00	$28,414.00
3	2B	Population and Municipal Water Demand Projections	$47,482.00	$0.00	$0.00	$47,482.00	$47,482.00
4	8	Recommendations Regarding Unique Stream Segments and/or Reservoir Sites and Legislative & Regional Policy Issues	$10,648.00	$0.00	$1,888.00	$12,536.00	$12,158.00
5	10	Public Participation and Plan Adoption	$97,916.00	$110,881.00	$35,759.00	$244,556.00	$237,404.00
6	3	Water Supply Analysis	$0.00	$139,038.00	$32,724.00	$171,762.00	$171,762.00
7	4A	Water Needs Analysis	$0.00	$23,124.00	$5,443.00	$28,567.00	$28,567.00
8	4B	Identification of Infeasible Water Management Strategies in the previously adopted 2021 Regional Water Plan	$0.00	$22,152.00	$5,214.00	$27,366.00	$27,366.00
9	4C	Technical Memorandum	$0.00	$25,674.00	$6,042.00	$31,716.00	$31,716.00
10	5A	Identification of Potentially Feasible Water Management Strategies and Projects	$0.00	$20,853.00	$9,628.00	$30,481.00	$30,481.00
11	5B*	Evaluation and Recommendation of Water Management Strategies and Projects	$0.00	$0.00	$481,863.00	$481,863.00	$385,490.00
12	5C	Conservation Recommendations	$0.00	$10,000.00	$24,029.00	$34,029.00	$29,223.00
13	6	Impacts of the Regional Water Plan and Consistency with Protection of Resources	$0.00	$12,000.00	$32,691.00	$44,691.00	$38,153.00
14	7	Drought Response Information, Activities, and Recommendations	$0.00	$12,000.00	$70,638.00	$82,638.00	$68,510.00
15	9	Implementation and Comparison to the Previous Regional Water Plan	$0.00	$4,334.00	$17,452.00	$21,786.00	$12,158.00
		Total Project	**$200,691.00**	**$380,056.00**	**$725,259.00**	**$1,306,006.00**	**$1,160,954.00**

* Work under this Task to be performed only after approval and incorporation of Task 5B scope of work and written notice-to-proceed. Written notice-to-proceed provided by Third Amended TWDB Contract (Attachment D).

SECOND AMENDED EXPENSE BUDGET

CATEGORY	TOTAL AMOUNT
Salaries & Wages[1]	$200,606.00
Fringe[2]	$ 100,303.00
Travel	$ 10,000.00
Other Expenses[3]	$ 38,859.00
Subcontract Services #1	$325,884.00
Subcontract Services #2	$169,251.00
Overhead[4]	$295,291.00
Profit	$ 20,760.00
TOTAL COSTS[5]	$1,160,954.00

1. **Salaries and Wages** is defined as the cost of salaries of engineers, draftsmen, stenographers, surveymen, clerks, laborers, etc., for time directly chargeable to this contract.
2. **Fringe** is defined as the cost of social security contributions, unemployement, excise, and payroll taxes, employment compensation insurance, retirement benefits, medical and insurance benefits, sick leave, vacation, and holiday pay applicable thereto.
3. **Other Expenses** is defined to include expendable supplies, communications, reproduction, and postage.
4. **Overhead** is defined as the costs incurred in maintaining a place of business and performing professional services similar to those specified in this contract. These costs shall include the following:
   - Indirect salaries, including that portion of the salary of principals and executives that is allocable to general supervision;
   - Indirect salary fringe benefits;
   - Accounting and legal services related to normal management and business operations;
   - Travel costs incurred in the normal course of overall administration of the business;
   - Equipment rental;
   - Depreciation of furniture, fixtures, equipment, and vehicles;
   - Dues, subscriptions, and fees associated with trade, business; technical, and professional organizations;
   - Other insurance;
   - Rent and utilities; and
   - Repairs and maintenance of furniture, fixtures, and equipment.

5. Ineligible expenses include, but are not limited to:
   - Food and Lodging for Regional Water Planning Group members;
   - Tips;
   - Costs associated with social events and tours;
   - Costs of generating or distributing newsletters;
   - Direct costs greater than $250.00 per year for domain fees, website hosting, and/or website maintenance costs;
   - Direct or indirect labor costs associated with obtaining, developing, and/or maintaining websites including costs to track website use or post materials on websites.

Attachment F

Second Amended General Guidelines for Development of the 2026 Regional Water Plans

NOTE:

Exhibit "C" herein is taken directly from Exhibit C of the Third Amended TWDB Contract (No. 2148302556) and is labeled as such to preserve consistency with that document.

TWDB Contract No. 2148302556

Exhibit C

Second Amended
General Guidelines for Development of the 2026 Regional Water Plans

September 2023

This version includes updates to Sections 2.5.1; 2.5.2.7; 2.5.6; 2.10; and 2.11.

This document is subject to future revision based upon any future Legislative actions.

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SECTION 1 – Introduction

1.1 Background

The sixth cycle of regional and state water planning as defined by Senate Bill 1 of the 75th Texas Legislature commenced in 2021 and will extend through 2026. Regional water planning groups (RWPG) must prepare the 2026 Regional Water Plans (RWP) that, once approved, will become the basis for the 2027 State Water Plan.

While the RWP development is directed by the RWPGs, in order to ensure that the RWPs follow a consistent and credible approach, the TWDB's Executive Administrator prepared the following guidelines to assist with the planning process. These guidelines augment the Texas Water Code (TWC) and the administrative rules related to regional water planning and are part of the regional water planning grant contracts.

1.2 Purpose

These guidelines build upon and provide additional information and greater detail about how to implement the administrative rules, including regarding the required methods, content, and format of information to be contained and presented in each RWP to meet rule and contractual requirements including the scope of work. For convenience, the sections of this document include direct links to the relevant regional water planning rules and the Exhibit A: Scope of Work tasks, followed by 'Guidance' content provided by the Executive Administrator.

While each RWP is unique to its region, this guidance is intended to ensure that the 16 RWPs are developed in a generally consistent and similar manner to produce information that may be combined and aggregated, at the state level, to support the development of a meaningful and credible state water plan. The intent is to ensure that the 16 regions generally produce and provide 'apples to apples' data across the entire state including key information that will support the Texas Water Development Board's (TWDB) development of the state water plan.

Depending upon the nature of particular water planning rules or contract tasks, this guidance intentionally varies in its degree of specificity and flexibility. These guidelines include specific requirements that must be complied with by RWPGs as they prepare the RWP as well as guidance that the RWPGs may "consider", and that leaves certain considerations to the discretion of the planning groups.

The Initially Prepared Plans (IPP) and the final adopted RWPs will be reviewed by TWDB based on statute, regional water planning rules, as well as requirements that are included in this and all other contract documents including the scope of work.

This document augments existing statute and rules that govern regional water planning. Provisions of TWC §16.053 and 31 Texas Administrative Code (TAC) Chapters 355, 357, and 358 serve as the foundation for information in this document and are not superseded or abridged by anything contained within or excluded from this document.

1.3 General format and content of this document

This guidance consists of the following sections:

1. **Section 1 – Introduction** includes background material and a general document cross-refence that illustrates how the administrative rules, contract scope of work, and guidance documents all relate and align with one another.
2. **Section 2 – Scope of Work Task-Specific Guidelines** includes guidance organized by Scope of Work tasks and related rules sections. The section identifies various summary tables that are required to be included in the IPP and final RWP.
3. **Section 3 – Appendix** includes a listing of TWDB data resources for plan development.

1.4 General guidance

1. Development of the RWPs will be guided by the State Water Plan Guidance Principles.
2. The RWPs must include an Executive Summary including key findings and recommendations, not to exceed 30 pages.
3. The Executive Summary must include reference to the required state water planning database (DB27) reports by hyperlink to the TWDB's Database Reports application. See Section 2.14.2 for specifications on this requirement.
4. This guidance document includes the minimum reporting requirements where information and data are available. A RWPG may present more information and findings in their plan than is required by this guidance.
5. RWPGs must submit all data identified in contract Exhibit D: *Guidelines for 2026 Regional Water Planning Data Deliverables to the TWDB*.
6. The RWPs are intended to include data reflective of a planning level analysis.

1.5 Documents and files that accompany and are integral to implementing this guidance

1. **Exhibit C Tables**: An Excel template file called "2026 RWP Exhibit C Tables" accompanies this guidance document and will include templates for planning groups to use.
2. **Exhibit D: Guidelines for 2026 Regional Water Plan Data Deliverables –** this is a separate document to support this guidance.

1.6 General document cross-reference for regional water plans

For convenience Table 1 illustrates how contract tasks, guidance, administrative rules, and RWP chapters generally relate.[1] The chapter breakdown for each plan is specifically required under 31 TAC §357.22(b). Plans that are not organized in this manner will be considered administratively incomplete and will not be reviewed.

[1] Some rules (e.g., TAC §358; §357.22) apply more broadly to all regional water planning activities.

Table 1 – Regional Water Planning Document Cross-Reference

Regional Water Planning Contract Document References			2026 RWP Chapter, Associated TAC Sections, and Content		
TWDB Contract Reimbursement Accounting Number ('CAS')	Exhibit A - Contract Scope of Work Task	Exhibit C - General Guidelines for Development of the 2026 RWPs	RWP Chapter Number	Primary TAC Section	General Content
1	1	2.1	**1**	§357.30	Description of the Regional Water Planning Area
2	2A	2.2	**2**	§357.31	Projected Non-Municipal Water Demands
3	2B			§357.31	Projected Population and Municipal Water Demands
6	3	2.3	**3**	§357.32	Water Supply Analysis
7	4A	2.4	**4**	§357.33	Identification of Water Needs
8	4B	2.11	**NA**	§357.12	Identification of Infeasible Water Management Strategies in the previously adopted 2021 Regional Water Plan
9	4C	2.13.1	**NA**	contract	Technical Memorandum Deliverable
10	5A	2.5	**5**	§357.34	Identification of Potentially Feasible Water Management Strategies and Projects
11	5B			§357.34; §357.35	Evaluations of Potentially Feasible Water Management Strategies and Projects, Recommended Water Management Strategies and Projects, and Alternative Water Management Strategies and Projects
12	5C			§357.34	Conservation Recommendations *[as an individual subchapter]*
13	6	2.6	**6**	§357.40	Impacts of Regional Water Plan
				§357.41	Consistency with Protection of Water Resources, Agricultural Resources, and Natural Resources
14	7	2.7	**7**	§357.42	Drought Response Information, Activities, and Recommendations
4	8	2.8	**8**	§357.43	Policy Recommendations & Unique Sites
15	9	2.9	**9**	§357.45	Implementation and Comparison to the Previous Regional Water Plan
5	10	2.10	**10**	§357.21; §357.50	Public Participation and Plan Adoption

1.7 Definitions of terms

1.7.1 Regional water planning rule definitions

Many of the regional water planning specific terms and acronyms used in this guidance document are defined in 31 TAC §357.10. These may be viewed online at: https://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=31&pt=10&ch=357&rl=10

1.7.2 Groundwater management rule definitions

Many of the groundwater related terms and acronyms used in this guidance document are defined in 31 TAC §356.10. These may be viewed online at: https://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=31&pt=10&ch=356&rl=10

1.7.3 Non-rule definitions pertinent to regional water planning

Aquifer – Geologic formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs. The formation could be sand, gravel, limestone, sandstone, or fractured igneous rocks.

Aquifer recharge – The intentional recharge of an aquifer by means of injection well or other means of infiltration and also known as Managed Aquifer Recharge (Texas Water Code §27.201).

Aquifer storage and recovery – The storage of water in a suitable aquifer through a well during times when water is available, and the recovery of water from the same aquifer during times when it is needed (Texas Water Code §27.151).

Brackish groundwater – Groundwater containing total dissolved solids between 1,000 and 35,000 milligrams per liter.

Brackish surface water – Surface water containing between 500 and 30,000 milligrams per liter total salts.

Capital cost – Portion of the estimated cost of a water management strategy that includes both the direct costs of constructing facilities, such as materials, labor, and equipment, and the indirect costs associated with construction activities, such as engineering studies, legal counsel, land acquisition, contingencies, environmental mitigation, interest during construction, and permitting.

Conjunctive use – Combined use of surface water, groundwater, and/or reuse sources that optimizes the beneficial characteristics of each source.

Desalination – Process of removing salt and other dissolved solids from seawater, brackish groundwater, or brackish surface water.

Drought – Generally applied to periods of less than average precipitation over a certain period of time. Associated definitions include meteorological drought (abnormally dry weather), agricultural drought (adverse impact on crop or range production), and hydrologic drought (below-average water content in aquifers and/or reservoirs).

Environmental flows – An environmental flow is an amount of water that should remain in a stream or river for the benefit of the environment of the river, bay, and estuary, while balancing human needs.

Estuary – A bay or inlet, often at the mouth of a river and may be bounded by barrier islands, where freshwater and seawater mix together providing for economically and ecologically important habitats and species and which also yield essential ecosystem services.

Firm diversion (run of river availability) – Evaluated for municipal sole-source water use (i.e. not firmed up with other sources) is defined as the minimum monthly diversion amount that is available 100 percent of the time during a repeat of the drought of record. Evaluated for all other water users, the 'firm diversion' is defined as the minimum annual diversion, which is the lowest annual summation of the monthly diversions reported by the Water Availability Model over the simulation period (lowest annual summation being the calendar year within the simulation that represents the lowest diversion available).

Group quarter – A place where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories.

Infrastructure – Physical means for meeting water and wastewater needs, such as dams, wells, conveyance systems, and water treatment plants.

Instream Flow – Water flow and water quality regime adequate to maintain an ecologically sound environment in streams and rivers.

Local groundwater supplies – Supplies found in local groundwater areas usually not associated with a major, minor, or other aquifer (e.g., a small local alluvial aquifer) that may still be used as a non-municipal water supply source (e.g., for livestock use), but that the groundwater management area determined to be small enough to not go through the desired future condition process.

Local surface water supplies – Limited, unnamed individual surface water supplies that, separately, are available only to particular non-municipal water user groups, such as livestock.

Major aquifer – An aquifer designated by the TWDB in the state water plan that supplies large quantities of water in large areas of the State.

Minor aquifer – An aquifer designated by the TWDB in the state water plan that supplies large quantities of water in small areas or relatively small quantities of water in large areas of the State.

Major reservoir – Reservoir having a storage capacity of 5,000 acre-feet or more.

Non-relevant aquifer – A portion of portions of a major, minor or other aquifer with aquifer characteristics, groundwater demands, and current groundwater uses that do not warrant adoption of a desired future condition by a groundwater management area. Non-relevant aquifers do not have an associated modeled available groundwater volume. In addition, this means that the associated aquifer/region/county/basin geographic unit may

or may not have a non-modeled groundwater availability volumes (as determined by the planning group) associated with it.

Other aquifer – An aquifer that has not been designated as an official major or minor aquifer.

Rainwater harvesting – A practice involving the capture, diversion, and storage of rainwater for landscape irrigation, drinking and domestic use, aquifer recharge, and in modern times, stormwater abatement.

Reuse – Domestic or municipal wastewater which has been treated to a quality suitable for beneficial use. Use of this water may or may not be for potable use.

Safe yield – Identified annual volume of water held in reserve to account for droughts worse than the drought of record.

Seawater – Water typically containing total dissolved solids of 35,000 milligrams per liter or greater. The volume of total dissolved solids may be lower than 35,000 milligrams per liter.

Sedimentation – Action or process of depositing sediment in a reservoir, usually silts, sands, or gravel.

Storage – Natural or artificial impoundment and accumulation of water in surface or underground reservoirs, usually for later withdrawal or release.

System gain – The amount of permitted water a system creates that would otherwise be unavailable if the reservoirs were operated independently and this volume must be reported separately. For multi-reservoir systems, the minimum system gain during drought of record conditions may be considered additional water available, if permitted.

Water availability model (WAM)– Numerical computer program used to determine the availability of surface water within each river basin for permitting in the state.

Water loss – The difference between Total System Input Volume and Total Authorized Consumption. It represents the total volume of potable water lost in the distribution system due to apparent losses and real losses. Water loss is best expressed in gallons per connection per day or GCD.

- Total system input is the volume of potable water entering the distribution system for use within the utility's service area. It is calculated from the corrected volume of potable water produced by the utility plus the corrected volume of potable water purchased from other retail public utilities minus the corrected volume of potable water sold to other retail public utilities; all these volumes are corrected for due to inaccuracy in the meter(s) measuring their volume.
- Total authorized consumption is the volume of potable water the utility authorized for use or consumption by the utility or its customers. It includes water use that is billed or unbilled and metered or unmetered.
- Apparent loss is the volume of potable water not accurately measured and/or recorded due to customer meter inaccuracy, data handling errors, and/or unauthorized consumption. Often referred to as paper losses, apparent loss is water consumed but not paid for due to errors or issues in quantifying the volume of water consumed. These losses cost water utilities revenue and devalue the collective measure of customer consumption in the utility's service area. These

losses are often cost effective to mitigate since they are valued at the customer retail rate.

- Real loss is the volume of potable water physically leaking from the utility's distribution network infrastructure. These leaks can occur on or at water mains, service lines before the customer meter/tap, valves, and tanks. Depending on the nature of the leakage, whether it surfaces and/or can be found using leak detection, it can be difficult to mitigate these losses. These losses effectively force the utility to treat and deliver more water than is required for consumption or use by the utility or its customers. They are typically valued at the cost to produce and/or purchase the water.

2 SECTION 2 – Scope of work task specific guidelines

Included in this section is guidance specifically addressing the following scope of work tasks. Corresponding agency rules are also shown below for convenience and reference:

- Task 1 – Description of the Regional Water Planning Area (§357.30)
- Task 2A and 2B – Projected Population and Water Demands (§357.31)
- Task 3 – Water Supply Analysis (§357.32)
- Task 4A – Needs Analysis: Comparison of Water Supplies and Demands (§357.33)
- Task 4B – Identification of Infeasible Water Management Strategies (§357.12; §357.51)
- Task 4C – Technical Memorandum Deliverable (§357.12)
- Task 5A – Identification of Potentially Feasible Water Management Strategies (§357.34)
- Task 5B – Evaluation and Recommendation of Water Management Strategies and Projects (§357.34; §357.35)
- Task 5C – Conservation Water Management Strategy Recommendations (§357.34)
- Task 6 – Impacts of Regional Water Plan (§357.40); Consistency with Long-term Protection of Water Resources, Agricultural Resources, and Natural Resources (§357.41)
- Task 7 – Drought Response Information, Activities, and Recommendations (§357.42)
- Task 8 – Regulatory, Administrative, or Legislative Recommendations (§357.43)
- Task 9 – Implementation and Comparison to the Previous Regional Water Plan (§357.45)
- Task 10 – Adoption, Submittal, and Approval of Regional Water Plans (§357.21; §357.50)

Please note that simplified planning is prohibited by rule (§357.12(e)) to occur during a census cycle of regional water planning. Therefore, simplified planning is not an option during the development of the 2026 RWPs. Guidance on this optional process will be included in Exhibit C for the 2031 RWPs.

2.1 Planning area description (Task 1)

Rule and scope of work requirements:

- §357.30: Description of the Regional Water Planning Area
- Scope of work Task 1: Planning Area Description

Guidance:

Each RWP must include a description of the regional water planning area (RWPA) including the following items:

1. social and economic aspects of a region such as information on current population, economic activity and economic sectors heavily dependent on water resources;
2. current water use and major water demand centers;
3. current groundwater, surface water, and reuse supplies including major springs that are important for water supply or protection of natural resources;
4. major water providers;
5. agricultural and natural resources;
6. identified water quality problems;
7. identified threats to agricultural and natural resources due to water quantity problems or water quality problems related to water supply;
8. summary of existing local and regional water plans;
9. the identified historic drought(s) of record within the planning area;
10. current preparations for drought within the planning area;
11. information provided by the TWDB from water loss audits performed by Retail Public Utilities pursuant to 31 TAC §358.6 (relating to water loss audits); and,
12. an identification of each threat to agricultural and natural resources and a discussion of how that threat will be addressed or affected by the water management strategies evaluated in the plan.

Major water providers

Major water providers (MWP) for the planning area are a subset of water user groups (WUG) and/or wholesale water providers (WWP) identified by the RWPGs to be of particular significance to the region's water supply. Each region must decide which entities are designated as MWPs. If the region decides not to designate any entities as MWPs, the plan needs to include discussion in chapter one of the plan as to why the planning group determined it does not have any WUGs or WWPs of significance to the region's water supply.

Wholesale water providers

Entities designated as a WWP for planning purposes must sell or deliver (or plan to sell or deliver) wholesale water at some point in the 50-year planning horizon. RWPGs will determine which WWPs they want to utilize in their plan development. Data analysis and evaluations described throughout this document are relevant to the WUGs and WWPs of the planning area. Data analyses of identified WWPs will occur in the evaluation of contractual obligations to supply water, the demands associated with WUGs served by the

WWP, the evaluation of the WWP's existing water supplies, and the evaluation of water management strategies and projects, for example.

WUG and WWP data will support compiling results to describe the MWPs of the planning area. Even though the RWPG is not required to specifically report basic information on WWP demands and supplies in the RWP, it will need to do so in at least two specific instances:

1. if that same entity is also designated by the planning group as a MWP, or
2. if that WWP is designated as the "sponsor" of any recommended water management strategy project in the plan, through TWDB-generated data reports. The WWP information will provide the basis for the WWP strategy or project.

These are minimum reporting requirements, however a RWPG may present more WWP information utilized in the development of their plan. The extent to which planning groups report on additional WWPs that have not been designated as MWPs is left largely to the discretion of the planning groups.

Drought(s) of record

When presenting information on historic drought(s) of record, the RWPG may identify other relevant (e.g., basin-level) droughts of record that impact water supplies in the planning area in addition to identifying the overall historic drought of record in the planning area.

Water loss audits

Information provided by the TWDB from water loss audits may be presented, for example, as a summary in tabular form along with a description of the information and how the RWPG considered the information in developing the RWP. Examples of water loss audit data presented include the number of entities submitting water loss audits, the total quantity of water produced, the total reported quantity of water lost, and the performance measures for water loss.

2.2 Population and water demand projections (Tasks 2A and 2B)

Rule and scope of work requirements:

- §357.31: Projected Population and Water Demands
- Scope of work Task 2A: Non-Municipal Water Demand Projections
- Scope of work Task 2B: Population and Municipal Water Demand Projections

Guidance:

The TWDB will provide an updated WUG list for use in the 2026 RWPs and 2027 State Water Plan. The definition of WUGs can be found in 31 TAC §357.10(43).

The TWDB will prepare draft population and municipal water demand projections for 2030-2080 for all municipal WUGs using data based on the new decennial census, most recent county-level population projections from the Texas Demographic Center, and the most recent utility boundary information.

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

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

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

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

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

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

2.2.1 Population projections

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

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

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

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

2.2.1.1 Municipal WUG list

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

Criteria for adjustment:

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

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

Data requirements:

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

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

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

2.2.1.2 Regional-level population projections

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

Criteria for adjustment:

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

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

Data requirements:

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

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

2.2.1.3 County-level population projections

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

Criteria for adjustment:

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

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

Data requirements:

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

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

2.2.1.4 WUG (entity) population projections

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

Criteria for adjustment:

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

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

Data requirements:

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

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

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

2.2.2 Water demand projections

2.2.2.1 Municipal water demand projections

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

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

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

Dry-year and baseline GPCD

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

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

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

Criteria for adjustment:

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

1. Evidence that 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. Evidence of errors identified in the historical water use or GPCD for a utility or public water system, including evidence that volumes of reuse (potable reuse) water used for municipal purposes should be or should not be included in the draft projections.
3. Evidence that the base dry-year water use was abnormal due to temporary infrastructure constraints or water restriction triggered by utility's drought management plan.
4. Trends indicating that per capita water use for a utility or rural area of a county have increased substantially in recent years, and evidence that these trends will continue to rise in the short-term future due to commercial development.
5. Evidence that the most recent water efficiency and conservation savings that have already been implemented are not reflected in the default baseline GPCD.
6. Evidence that the number of installations of water-efficient fixtures and appliances between 2010 and 2020 is substantially different than the TWDB estimate or evidence that the projected replacement rate of water-efficient fixtures and appliances is substantially different than the TWDB projections.
7. Evidence that future water efficiency savings are projected much higher than the draft projections due to a utility's conservation plans that accelerate the replacement of the existing outdated plumbing fixtures and appliances.

Data requirements:

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

1. Annual municipal water intake (total surface water diversions and/or groundwater pumpage and water purchased from other entities) for a utility measured in acre-feet.
2. The volume of water sales by a utility to other water users (utilities, industries, public water systems, etc.) measured in acre-feet.
3. Net annual municipal water use, defined as total water production less sales to other water users (utilities, industries, public water systems, etc.) measured in acre-feet.
4. Documentation of temporary infrastructure, drought restrictions, or other water supply constraints that were in place.
5. Drought index or seasonal rainfall data to document a year different than the designated dry-year as a more appropriate base year for projections.
6. Conservation plans or other documentation that show the number or rate of water-efficient fixtures replaced or planned to be replaced for the future.
7. Estimated water efficiency or conservation savings implemented.

8. To verify increasing or decreasing per capita water use trends for a utility or rural area of a county and therefore revising projections of per capita water use to reflect the trend, the following data should be provided with the request from the RWPG:
    a. Historical per capita water use estimates based on net annual municipal water use for a utility or rural area of a county, beginning in 2015.
    b. A trend analysis which takes into account the variation in annual rainfall.
    c. Revised projections of per capita water use for a utility or rural area of a county, that demonstrate an increasing or decreasing trend of per capita water use.
    d. Growth data in the residential, commercial and/or public sectors that would justify an increase or decrease in per capita water use.
    e. Convincing documentation of planned future growth that would result in higher per capita water use.
9. Other data and evidence that the RWPG considers reasonable and adequate to justify an adjustment to the municipal water demand projections.

2.2.2.2 Manufacturing water demand projections

Manufacturing water use is defined as water used to produce manufactured goods. Manufacturing facilities report their water use to the TWDB annually through the Water Use Survey. Different manufacturing sectors are denoted by North American Industrial Classification System (NAICS) codes. The baseline for draft manufacturing water demand projections is based on the highest county-aggregated manufacturing water use in the most recent five years (2015-2019), plus estimated unaccounted water use. The most recent 10-year historical number of establishments from the U.S. Census Bureau County Business Pattern data or other relevant economic measures available are used as proxy for growth between 2030 and 2080.

Criteria for adjustment:

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

1. Evidence of a new or existing facility that has not been included in the TWDB's Water Use Survey.
2. Evidence of an industrial facility that has recently closed its operation in a county.
3. Plans for new construction, or expansion or closure of an existing industrial facility in a county at some future date.
4. Evidence of a long-term projected water demand of a facility or industry within a county that is substantially different than the draft projections.
5. 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.
6. Evidence that holding demands constant from 2040-2080 would better reflect future efficiencies and water use.

Data requirements:

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

1. Historical water use data and the 6-digit NAICS code of a manufacturing facility.
2. Documentation and analysis that justify that a new manufacturing facility not included in the Water Use Survey database will increase future manufacturing water demand for the county above the draft projections.
3. The 6-digit NAICS code of the industrial facility that has recently located in a county and annual water use volume.
4. Documentation of plans for a manufacturing facility to locate in a county at some future date, including the following data:
   a. The quantity of water required by the planned facility on an annual basis,
   b. The proposed construction schedule for the facility including the date the facility will become operational, and
   c. The 6-digit NAICS code for the planned facility.
5. Reports or research documents describing alternative trends or anticipated water use for manufacturing.
6. Specific information regarding incorrect location for a facility.
7. Other data and evidence that the RWPG considers reasonable and adequate to justify an adjustment to the manufacturing water demand projections.

2.2.2.3 Steam-electric power generation water demand projections

Water use for steam-electric power generation is consumptive use reported to the TWDB through the annual Water Use Survey. Steam-electric power water demand projections do not include water used in cogeneration facilities (included in manufacturing projections) or facilities which do not require water for production (wind, solar, dry-cooled generation), or hydro-electric generation facilities.

The baseline for draft water demand projections are based on the highest county-aggregated historical steam-electric power water use in the most recent five years (2015-2019). Subsequent demand projections after 2030 are held constant throughout the planning period. The anticipated water use of future facilities listed in state and federal reports is added to the demand projections from the anticipated operation date through 2080. The reported water use of power generation facilities scheduled for retirement in the state and federal reports is subtracted from the baseline or the decade in which they are projected to retire.

Criteria for adjustment:

One or more of the following criteria must be verified by the RWPG and the Executive Administrator for consideration of revising the power generation water demand projections:

1. Documentation that the draft projections have not included a facility that warrants inclusion.

2. Any local information related to new facilities or facility closures that may not have been included in U.S. Energy Information Administration report.
3. Evidence of a long-term projected water demand of a facility or a county that is substantially different than the draft projections.
4. 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.
5. 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.

Data requirements:

The RWPG must provide the following data to the Executive Administrator associated with the identified criteria for justifying any adjustments to the steam-electric water demand projections.

1. Historical 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.
2. Reports or research documents describing alternative trends or anticipated water use for steam-electric power generation.
3. Documentation of an anticipated new facility not listed in state or federal reports necessary to estimate the volume of water reasonably expected to be consumed. Such information should include power generation method, cooling method, generation capacity and any additional information necessary to reasonably estimate the future water use.
4. Documentation regarding facility closures that may impact county projections.
5. Specific information regarding incorrect location for a facility.
6. Other data and evidence that the RWPG considers reasonable and adequate to justify an adjustment to the steam-electric power water demand projections.

2.2.2.4 Mining water demand projections

Mining water demand includes water used for oil and gas development, as well as extraction of coal and lignite, sand aggregate, and other resources. Projections do not include water use required for the transportation or refining of materials. The TWDB's annual mining water use estimates are comprised of data from both surveyed and non-surveyed entities and are based on the mining study conducted in partnership with the U.S. Geological Survey and the University of Texas Bureau of Economic Geology.

Criteria for adjustment:

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

1. Evidence that mining water use in a county is substantially different than the draft projections. This could include trends in water use data from the FracFocus national online registry, the Texas Railroad Commission, or other sources.

2. Evidence of new facilities coming online or reported closures in surveyed facilities that may impact county projections.
3. 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.
4. Evidence of a long-term projected water demand of a facility or industry within a county that is substantially different than the draft projections.

Data requirements:

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

1. Historical water use data and description of a surveyed or future facility, and any other information necessary to estimate water use.
2. Reports describing alternative trends or anticipated water use for mining.
3. Documentation of an anticipated new mining facility or new mining activities.
4. Specific information regarding facility closures that may impact county projections.
5. Specific information regarding incorrect location for a facility.
6. Reports or research documents describing alternative trends or anticipated water use for mining.
7. Other data and evidence that the RWPG considers reasonable and adequate to justify an adjustment to the mining water demand projections.

2.2.2.5 Irrigation water demand projections

Irrigation water demand projections include the water necessary for irrigation activities, primarily field crops, but also include orchards, pasture, turf grass farms, vineyards, and self-supplied golf courses. Note that for the purposes of regional water planning, irrigation demands account for the amount of water pumped for irrigation, not the water needed or used by the crop or associated with dry-land farming.

The baseline methodology for draft irrigation water demand projections is the average of the most recent five-years (2015-2019) of water use estimates held constant between 2030 and 2080. 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 draft irrigation water demand projections will begin to decline starting in 2040, or a later decade, commensurate with the decline in the associated groundwater availability.

Criteria for adjustment:

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

1. Evidence that irrigation water use estimates for a county from another information source or more recent modeled available groundwater (MAG) volumes are more accurate than those used in the draft projections.

2. Evidence that recent (10 years or less) irrigation trends are more indicative of future trends than the draft water demand projections.
3. Evidence that the baseline irrigation demand projection is more likely to reflect the future irrigation demand than the groundwater resource-constrained water demand projection (especially where economically feasible water supply strategies have been identified).
4. 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 to be more reasonable estimates than the TWDB-generated draft projections.
5. 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.

Data requirements:

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

1. Historical water use, diversion, or pumpage volumes for irrigation by county.
2. 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.
3. 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.
4. Alternative projected water availability volumes that may constrain water demand projections.
5. Updated MAG volumes.
6. Other data and evidence that the RWPG considers reasonable and adequate to justify an adjustment to the irrigation water demand projections.

2.2.2.6 Livestock water demand projections

Livestock water use is defined as water used in the production of livestock, both for consumption and for cleaning and cooling purposes and aquaculture operations. The TWDB produces annual water use estimates for livestock, based on daily water demand per head assumptions for cattle (beef and dairy), hogs, poultry, horses, sheep, and goats. Additional facilities, such as aquaculture operations, report water use estimates through the TWDB Water Use Survey.

Draft water demand projections for each county are based on the average of the most recent five-years (2015-2019) of water use estimates. The rate of change for 2020-2070 from the 2022 State Water Plan will be applied to the new baseline.

Criteria for adjustment:

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

1. Evidence that livestock water use estimates for a county from another source are more accurate than those used in the draft projections.
2. Plans for the construction, expansion, or closure of a confined livestock feeding operation in a county at some future date.
3. 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.
4. 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.

Data requirements:

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

1. Documentation of plans for the construction of a confined livestock feeding facility in a county at some future date and includes the following:
    a. Confirmation of land purchase or lease arrangements for the facility.
    b. The construction schedule including the date the livestock feeding facility will become operational.
    c. The daily water requirements of the planned livestock feeding facility.
2. Other evidence that would document an expected increase or decrease in the livestock inventory in the county, such as facility closures.
3. Documentation of an existing confined livestock feeding operation not captured in the draft projections.
4. Other data and evidence that the RWPG considers reasonable and adequate to justify an adjustment to the livestock water demand projections.

2.2.3 Major water provider demands

Planning groups will review aggregated water demand projections for MWPs provided by the TWDB. RWPGs must summarize and present the projected demands for MWPs by category of use and planning decade. The TWDB will provide retail water demand data if the MWP is a WUG, and contract demand data based on data entered by the planning group into DB27 if the MWP is a WWP.

2.2.4 Representation of county-other sub-water user groups in regional water plans

Subject to their own time and financial resource constraints and at the discretion of each RWPG, county-other WUGs may be sub-divided into sub-county-other water users and presented in the RWPs as such. However, for the development of the 2026 RWPs, **this discrete level of information will not be eligible to be entered into DB27 but may be presented in the plan in a manner of the RWPG choice**. Any such entity identified by the planning group will inherently represented in DB27 under the associated umbrella, county-other WUG. Therefore, any presentation of these entities in the RWPs will solely be based on information analyzed and presented in narrative or tabular form by the RWPG. The

TWDB will provide historical water use estimates and connection data for individual public water systems that may fall within the county-other WUG and that may be of interest to the planning groups to present as sub-county-other-WUGs in the narrative of their plan. However, planning groups would need to conduct their own analyses with this information to distribute such water demands across their sub-county-other WUGs of interest in a manner that maintains the integrity of the projected net total demand for that county-other WUG.

2.3 Water availability and existing water supplies (Task 3)

Rule and scope of work requirements:

- §357.32: Water Supply Analysis
- Scope of Work Task 3: Water Availability and Existing Supply Analysis

Guidance:

Estimating how much water there is to meet water demands is a two-step process that examines both water availability and existing water supply. Those two terms have very specific meanings in the water planning process.

Water availability[3] in regional water planning refers to the maximum amount of raw water that could be produced by/at a water source (such as a reservoir or aquifer) during a repeat of the drought of record. Availability volumes are not effected by whether the supply is actually being used (i.e., connected to or legally authorized for use by a specific WUG).

Existing water supply[4] is the maximum amount of water that is physically and legally accessible from existing sources for immediate use by a WUG, under drought of record conditions. This is a subset of the water availability volume that a WUG already has legal access to as well as the infrastructure in place to treat and deliver the water. Existing water supplies associated with a particular source cannot exceed the total availability for that same source.

The determination of water availability is a source-based analysis. RWPGs must identify all water sources and their associated annual availability volumes within the planning area, even if such sources are not currently connected or being used, as they are potentially available for use currently or in the future. Water availability may be increased (or decreased) through a future project or action, for example, by building a new reservoir that increases surface water availability or by modifying a desired future condition that increases or decreases a MAG volume.

[3] Water availability is analyzed from the perspective of the source and answers the question: "How much water from this source could be delivered to water users as either an existing water supply or, in the future, as part of a water management strategy?" Determining water availability is the first step in assessing potential water supply volumes for a planning group.

[4] Second, planning groups evaluate the subset of the water availability volume that is already connected to WUGs. This subset is defined as existing water supply and is based on legal access to the water as well as the infrastructure (such as pipelines and treatment plant capacity) already in place to treat and deliver the water to the "doorstep" of WUGs. Existing water supply is analyzed from the perspective of water users and answers the question: "How much water supply could each WUG already rely on should there be a repeat of the drought of record?"

Water availability requirements are presented by water source type in Sections 2.3.1-2.3.4 and existing water supply requirements are discussed in Section 2.3.6.

RWPGs must evaluate water source availability and existing water supplies during drought conditions for WUGs and WWPs and enter this information into DB27[5] . Note that data for WWPs will need to be entered into DB27 for purposes of data analysis.[6]

RWPGs must report water availability by source and existing water supply evaluation results by WUG in accordance with 31 TAC §357.31(a) and by MWP in accordance with 31 TAC §357.31(b).

2.3.1 Surface water availability

Surface water availability for regional water planning must be evaluated using a TCEQ WAM, unmodified Run 3 version (full authorization). This model version assumes that

- all water rights use their full authorized amount;
- all applicable permit conditions, such as flow requirements, are met; and
- no return flows.

All TCEQ unmodified WAM Run 3 models use the original reservoir capacity, i.e., do not include reservoir sedimentation. For regional water planning purposes, inclusion of anticipated sedimentation[7] into the WAM Run 3 models for major reservoirs is a necessary modification[8] to be performed by the RWPGs. Inclusion of the anticipated sedimentation for reservoirs in the WAM Run 3 models will not require a hydrologic variance. Any further reference to use of an unmodified WAM Run 3 in this document assumes the inclusion of anticipated sedimentation.

Reservoir Availability

Reservoir availability, or *firm yield*, is defined as the maximum water volume a reservoir can provide each year under a repeat of the drought of record using anticipated sedimentation rates and assuming that all senior water rights will be totally utilized and all applicable permit conditions are met.

Firm means that the use-appropriate monthly percentage of the annual firm diversion amount must be satisfied in each and every month of the estimation period for all surface water diversions.

[5] In addition to material regarding water supplies in this guidance document, RWPGs should refer to the TWDB's Contract Exhibit D: *Guidelines for 2026 Regional Water Plan Data Deliverables1*for additional information for estimating water source availability and existing water supplies. This document will be available online at: https://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2026/documents.asp

[6] The TWDB will migrate a limited amount of DB22 data to DB27 and confirm lists of WWPs with RWPGs at that time. RWPGs will continue to use WWP information and water transfer points in their data analysis of their plan.

[7] Anticipated sedimentation is the anticipated decreases in a reservoir's area-capacity condition resulting in projected firm yield decreases each decade.

[8] 31 TAC §357.10(14)

Anticipated sedimentation

Anticipated sedimentation may be updated to include new existing area-capacity conditions in the model as provided from an updated scientific volumetric survey performed on a reservoir since the last update to WAM Run 3, or by using other relevant information as deemed appropriate by the RWPG to more accurately reflect existing firm yield. The methodology used for calculating anticipated sedimentation rate and revising the area-capacity rating curve must be described in the Technical Memorandum, IPP, and final adopted RWP.

The TWDB's Water Availability Program has developed projected reservoir rating curves for 70 water supply reservoirs in Texas for all water planning decades (i.e., 2030–2080) using elevational sedimentation rates and recent reservoir volumetric and sedimentation surveys. This methodology and data are available on the TWDB website[9] for planning groups to consider and utilize during plan development.

Run-of-River Availability

Run-of-river availability, or *firm diversion*, evaluated for a municipal WUG for which the run-of-river source is the only source of supply is defined as the minimum monthly diversion amount that is available 100 percent of the time during a repeat of the drought of record, i.e., this minimum volume must be available each and every month. For these municipal WUGs it is important that RWPGs do not over-estimate reliable run-of-river water availability during drought of record conditions, for example, by overlooking the need for additional intra-year storage and/or alternative sources of water supply necessary to bridge potential seasonal water shortages. If an intra-year shortage is identified in WAM Run 3, based on the reasonable monthly diversion distribution pattern, then the annual firm diversion volume to be reported is that for which the monthly diversion amounts are met in each and every month. WUG

For WUGs with multiple sources of supply, the firm diversion is defined as the minimum annual diversion, which is the lowest annual summation of the monthly diversions reported by the WAM over the simulation period (lowest annual summation being the calendar year within the simulation that produces the lowest run of river diversion volume).

Interstate Waters

In general, for surface waters that form borders with neighboring states or countries, RWPGs must analyze and report currently available water supplies taking into account existing legal agreements, such as international treaties or interstate compacts. For interstate and international reservoirs, RWPGs must report annual water volumes that are available to Texas according to existing legal agreements. Future (including increases to) availability may be based on strategies.

Local Surface Water Availability

For surface water withdrawals that do not require permits, such as for domestic and livestock uses, RWPGs will estimate these local annual water availability volumes based on

[9] https://www.twdb.texas.gov/surfacewater/data/WAMRatingCurve/index.asp

the most current accessible information. RWPGs must document the methodologies utilized for these availabilities in the Technical Memorandum, IPP, and final adopted RWP.

Standard Criteria and Assumptions for TCEQ WAM Run 3

When estimating surface water availability associated with firm yields or firm diversions with the TCEQ's unmodified WAM Run 3, the following criteria must be met:

1. Available inflows to reservoirs are the remainder of naturalized stream flows after upstream (and downstream) senior water rights are satisfied.
2. Downstream senior water rights must be met; however, this does not require releases of legally stored water unless specifically stated in existing water rights.
3. All special conditions of water rights must be considered, including, but not limited to
    a. bay, estuary, and instream flow requirements;
    b. TCEQ environmental flow standards and associated TCEQ rules; or
    c. other relevant limitations.
4. Minimum allowable reservoir levels are the top of dead pool (this dead pool limitation applies only to situations where the dead pool is specified in the water right permit or other binding agreement).
5. Maximum allowable reservoir levels are the top of conservation pool.
6. Evaporative losses are based on evaporation rate data that best coincide with the location of the reservoir and the period of record and time steps for inflows.
7. Annual water supply demands (diversions) are constant for all years; the distribution of annual demands within a given year are constant in all years and must reflect the patterns of different types of water use expected.
8. Model run time steps are not to be longer than one month.

RWPGs should consider requesting a hydrologic variance to modify the WAM Run 3 for any criteria that varies from the base requirements or that is expected to have significant effects on existing supply estimates.

2.3.2 System availability

Existing water supply sources may be categorized as a system, and future water supply sources may be aggregated in a water management strategy (WMS)and categorized as a system, if they meet either of the following criteria:

1. Several reservoirs are to operate together under permit, so that supplies from a specific reservoir cannot be tracked directly to an end user.
2. Two or more reservoirs are to operate, under permit, as a system resulting in a system gain in firm yield.

For planning purposes, availability for reservoirs operated as a system may be reported as a system in lieu of reporting individual reservoir availability. Such a relationship could include reservoirs owned and operated by the same entity, so long as the operations comply with the existing permit conditions. The firm yield of the system should be the firm yield during drought of record conditions for the system as a whole.

System gain is the amount of permitted water a system creates that would otherwise be unavailable if the reservoirs were operated independently; and for existing systems, this volume must be reported separately in the RWPs in addition to the reservoir system firm yield. For multi-reservoir systems, the minimum system gain during drought conditions may be considered additional water available, if it has already been permitted. Total existing water from a system may not exceed the sum of the system gain plus the firm yields of individual reservoirs in that system.

To report system gain, system operations must produce a measurable system yield greater than the sum of the individual reservoir yields. System gain for system operations that mask individual reservoir yields or that group reservoirs together without a permitted relationship are not be allowed in the RWPs.

2.3.3 Reuse availability

For regional water planning purposes, reuse is considered a stand-alone water source type[10] and RWPGs will evaluate reuse availability and supplies separately from conservation, which is classified as a demand reduction associated with a WUG. Reuse availability should be presented as a separate subsection within Chapter 3 of the IPP and final RWP. The subsection must describe the data sources and methodology used to calculate reuse availability.

Reuse availability cannot exceed the capacity of the existing infrastructure to deliver produced treated water[11] to customers or existing permits. However, to avoid overestimating reuse availability, the reuse availability will also be dependent upon the associated decade population/demand projections that would determine the amount of wastewater flowing into a wastewater treatment plant (WWTP) on an annual basis. This population-dependent availability would be less than a WWTP's maximum permit capacity and would increase each future decade (as population/demand increases) up to the annual volume restricted by existing infrastructure and/or permit (i.e., WWTP inflow projections could be a more stringent restriction for reuse availability in early planning decades).

RWPGs must classify reuse availability as either direct or indirect.

Direct reuse

Direct reuse is when wastewater is reused directly after treatment or stored for later reuse without discharge to a watercourse and must be classified as potable or non-potable based on its end use[12].

[10] An exception to the requirement to track reuse availability separately is applicable to indirect reuse associated with future aquifer storage and recovery projects. In these cases, the reuse supply will not be reported separately in DB27. See TWDB's Contract Exhibit D: *Guidelines for 2026 Regional Water Plan Data Deliverables,* Section 3.5.2 for additional information on indirect reuse sources.
[11] May require additional level of treatment prior to reuse to be included as a WMS.
[12] See TWDB's Contract Exhibit D: *Guidelines for 2026 Regional Water Plan Data Deliverables* for requirements on naming direct reuse sources within DB27.

Indirect reuse

Indirect reuse is the use of reclaimed water by discharging to a water supply source, such as surface water or groundwater. An example of discharging to a surface water supply source is when treated wastewater effluent is discharged to a watercourse under a Texas Pollutant Discharge Elimination System (TPDES) permit and re-diverted under a water right permit. Indirect reuse must be classified as potable or non-potable based on its end use. [13]

2.3.4 Groundwater availability

Groundwater availability is estimated through a combination of policy decisions, made primarily by groundwater conservation districts, and aquifer characteristics, such as the ability of an aquifer to transmit water to wells. The TWDB uses the desired future conditions (DFCs) established by groundwater management areas (GMA) to determine a MAG value for an aquifer or portion of an aquifer.

Desired future conditions are the desired, quantified conditions of groundwater resources (such as water levels, water quality, spring-flows, or storage volumes) at a specified time in the future or in perpetuity. The TWDB uses DFCs to determine a MAG value for an aquifer or part of an aquifer in the GMA. DFCs are required for major or minor aquifers. These aquifers are referred to as relevant aquifers, however a groundwater management area may declare a major or minor aquifer as non-relevant. In these situations, the non-relevant aquifer would not have a DFC or MAG.

The *MAG* value is the volume of groundwater production on an average annual basis that will achieve the DFC. These values are independent of existing pumping permits and may, depending on the aquifer characteristics and how the DFCs are defined, include a variety of water quality types, including brackish groundwater. Depending on the aquifer and location, the inclusion of brackish groundwater in MAG values might be subject to local and regional supply evaluations.

Groundwater availability models (GAMs) are the most common tool used to estimate MAGs. The GAMs are designed to simulate groundwater behavior in aquifers, but they are not based on water quality, and they generally do not distinguish between fresh and brackish groundwater. Each GAM report[14] includes a section on water quality so that users of the GAM can evaluate the water quality conditions in the coverage area of the model.

Unlike the regional and state water planning process, the DFC process does not require development of management policies under drought of record conditions. Groundwater districts in a groundwater management area may, but are not required to, consider the drought of record in developing the DFC. By extension, the MAG values derived from DFC statements across the state may or may not incorporate the drought of record.

[13] See TWDB's Contract Exhibit D: *Guidelines for 2026 Regional Water Plan Data Deliverables* for requirements on naming indirect reuse sources within DB27.
[14] Available on the TWDB website at https://www.twdb.texas.gov/groundwater/models/gam/index.asp

2.3.4.1 Availability for Major and Minor (i.e. Relevant) Aquifers

For RWPAs with at least one GCD, MAGs must be used as the groundwater availability for all aquifers that have a DFC. MAG volumes will be made available to the RWPGs through the DB27 interface, split into discrete geographic-aquifer units by Aquifer/Region/County/Basin.

The groundwater availability (and the associated existing and future groundwater supplies based on the availability) for any discrete geographic-aquifer unit may not exceed the annual MAG volume as provided in DB27 unless authorized by the TWDB Executive Administrator approval prior to the IPP through the hydrologic variance request process (see section 2.3.5.2) to apply a MAG '*peak factor*' or to reallocate a MAG volume between river basins within a county.

2.3.4.2 Availability for Non-Relevant Aquifers and Local Groundwater Supply Areas

Most aquifers have associated DFCs and will therefore have an associated annual MAG volume. In limited locations, however, there will be some aquifers that may not have DFCs or a resulting MAG as follows:

1. All or portions of a major or minor aquifer that were classified as non-relevant by GCD(s) in a GMA.
2. Any other aquifers or portions of aquifers that were not considered in the DFC process, but for which there are identified existing groundwater supplies.
3. A local groundwater supply area usually not associated with a major, minor, or other aquifer (e.g., a small local alluvial aquifer) that may still be used as a non-municipal water supply source, but that the GMA determined to be not relevant to the DFC process.

For groundwater sources where no DFC exists, RWPGs may determine the groundwater availability for planning purposes. These RWPG-estimated groundwater availabilities may be determined by using availability values presented in the local GCD management plan, TWDB GAMs, if available, or other means. Planning groups are strongly encouraged to consider the physical compatibility with adjacent or nearby DFCs of the regional aquifers in the development of RWPG-estimated groundwater availability.

During the development of MAG groundwater availability model runs, areas of non-relevant aquifers covered by the models may have associated availability generated for the non-relevant areas that align with the DFC pumping. These DFC compatible water volumes for non-relevant groundwater sources developed from GAM runs may be used by RWPGs in determining their RWPG-estimated availability. **These availability numbers will be prepopulated into DB27 by the TWDB.**

RWPGs must include a table documenting the method(s) used for estimating RWPG-estimated groundwater availability in the Technical Memorandum, IPP, and final adopted RWP. This table should include the aquifer, county, and methodology description(s).

To assist RWPGs, all the associated MAGs that only cover a portion of a discrete geographic-aquifer unit will be flagged in DB27. This means that the associated discrete

geographic-aquifer unit may or may not have an additional RWPG-estimated groundwater availability associated with it.

2.3.4.3 Availability for an RWPG with no GCDs within its RWPA

In accordance with 31 TAC §357.32(d)(2), an RWPG with no GCDs within its RWPA will determine the availability of groundwater for regional planning purposes. The TWDB must review and consider approving this RWPG-estimated groundwater availability prior to inclusion in the IPP, including determining if the estimate is physically compatible with the DFCs for relevant aquifers in GCDs in the co-located GMA(s). The Executive Administrator will use the TWDB's GAMs as appropriate to conduct the compatibility review.[15]

The request for TWDB to review and approve the RWPG-estimated groundwater availability should not be submitted to the TWDB until after the RWPG has identified its existing groundwater supplies and groundwater WMSs and identified which existing supply values or WMSs will require groundwater availability beyond MAG values. Because identification of WMSs occurs in the latter part of the planning cycle, the RWPG may need to prioritize evaluation of groundwater WMSs, so there is adequate time for consultants to submit and for the TWDB to process the availability request before IPP adoption. The total process timeline from receipt of a request to use RWPG-estimated groundwater availabilities to the TWDB Board approval is approximately 90 days but may be longer. The time required for the process will depend on the number of aquifer-region-county-basin splits and the complexity of the MAGs affected by the request.

Submittal Requirements

The RWPG's request to use RWPG-estimated groundwater availability should identify specific decadal groundwater availability values in specific aquifer-county-basin splits. The process only applies to groundwater availability for aquifers with a DFC and MAG, so the request from the region should exclude any availabilities for non-relevant aquifers.
Each request to the TWDB should include

1. MAG availability values by decade for each aquifer-county-basin split for which the RWPG is estimating availability;
2. requested RWPG-estimated groundwater availabilities by decade for those aquifer-county-basin splits;
3. an explanation of the method used to determine availabilities and any data or related supporting documentation; and
4. documentation of the submittal request being approved by the RWPG at a regular planning group meeting.

The TWDB will conduct a technical review, and staff will follow up with the planning consultants if additional information is required. After technical review, TWDB staff will make a recommendation, and the TWDB Board may consider the request at a public meeting.

[15] Related to 84(R) SB 1101 requirements. As of July 2022, these requirements only apply to the North East Texas (Region D) RWPG, as it is the only region currently in the state with no GCDs in its RWPA.

Plan documentation and reporting

If approved by the TWDB Board, the revised RWPG-estimated groundwater availabilities will be updated by TWDB staff only within DB27. A copy of the TWDB Board approval memorandum as well as documentation of the request process should be included in the IPP and final adopted RWP.

The TWDB Board approved RWPG-estimated groundwater availabilities will be used as the planning condition in the RWP and basis of analysis in DB27. The unmodified annual MAG volume(s) must also be reported in the IPP, and final adopted RWP

2.3.5 Hydrologic variance requests for water availability determination

As a default RWPGs must use the unmodified TCEQ WAM Run 3 (plus anticipated sedimentation) to estimate reservoir firm yields and run of river firm diversions or MAGs for groundwater availabilities. If an RWPG would like to use an alternative methodology to evaluate water availability, the RWPG may submit a written request to the TWDB Executive Administrator for a hydrologic variance to modify the default hydrologic assumptions. If the Executive Administrator finds the proposed hydrologic variance to be necessary and/or appropriate to more accurately reflect the region's source availability and associated existing water supplies, the Executive Administrator will then provide written approval.

Regardless of whether the Executive Administrator authorizes hydrologic variance modifications to WAMs or MAGs to evaluate water source availability and/or existing water supplies for development of an RWP, it is the responsibility of the RWPG to ensure that any resulting estimates of alternative water availability are reasonable for drought planning purposes and will reflect conditions expected in the event of near-term, actual drought conditions.

Sections 2.3.5.1 and 2.3.5.2 describe the submittal and reporting information for surface water and groundwater hydrologic variances.

2.3.5.1 Potential Surface Water Hydrologic Variance Assumptions

For surface water availability and supply analyses, RWPGs must use the most current WAMs from TCEQ. RWPGs may use better, more representative water availability modeling assumptions or better site-specific information with written approval from the Executive Administrator. RWPGs should always consider requesting a hydrologic variance for a hydrologic assumption modification for any issue that is expected to have a significant effect on determining an existing supply.

All modified assumptions or model modifications must be approved as appropriate by the Executive Administrator.

As appropriate, modifications must be used consistently across the planning process, or an explanation for why they are not must be included. For example, if the firm yield is adjusted downward through a hydrologic variance, assessments of impacts to water quality, natural resources, agricultural resources, and other water resources must be made using the same firm yield and any other hydrologic assumptions in the approved hydrologic variance. The nature of and basis for each such modification must be fully explained in the RWP.

Under NO circumstances will a hydrologic variance be allowed that assumes unreliable, (e.g., interruptible) supplies would be relied upon under drought of record conditions, including those that assume

1. the DOR supply from a run of river diversion (firm diversion) could use the 75/75 rule, i.e., 75% of the water available in 75% of the time for irrigation water rights; and
2. a sole-source municipal reliable supply from a run of river diversion (firm diversion) is equal to the minimal annual diversion.

Submittal Requirements

A proposed surface water hydrologic variance request must include the following items:

1. A completed surface water hydrologic variance request checklist for each river basin, along with any necessary supporting information.
2. Documentation of the submittal request being approved by the RWPG at a regular planning group meeting.

Plan documentation and reporting

If the use of a hydrologic variance for an alternative surface water availability evaluation is approved by the Executive Administrator, a copy of the approved alternative hydrologic assumptions and methodologies as well as documentation of variance request process must be included in the Technical Memorandum, IPP, and final adopted RWP.

The additional information in Table 2 must be reported based upon the planning condition in the RWP.

Table 2 – Current and Future Surface Water Availability Reporting Requirements

Approved Hydrologic Variance	Planning condition in RWP and basis of analysis in DB27	Additional yield information reported as a value in Technical Memorandum, IPP, and final RWP
No hydrologic variance assumptions	Firm Yield via WAM Run 3	N/A
Hydrologic variance of WAM modifications	Firm Yield via modified WAM	N/A
Hydrologic variance of alternative model	Firm Yield via alternative model	N/A
Hydrologic variance of System Yield	System Yield via WAM Run 3	Firm Yield
Hydrologic variance of System Yield with modified WAM or alternative model	System Yield via modified or alternative model	Firm Yield via modified or alternative model

Hydrologic variance of Safe Yield	Safe Yield via WAM Run 3	Firm Yield via WAM Run 3
Hydrologic variance of Safe Yield with modified WAM or alternative model	Safe Yield via modified or alternative model	Firm Yield via modified or alternative model

Examples of potentially appropriate surface water modeling assumptions for RWP development, including:

1. **Addition of Return Flows:** This is a WAM modification to include a certain level of return flows that are reasonably expected to be available under drought of record conditions from specific entities/locations in the model in order to evaluate existing supplies (WAM Run 3 models contain no return flows). Planning groups should give consideration to the RWPA's water demand projection "dry year" (i.e., reflecting return flows from the same year as that of the demand projection dry year).
2. **Reservoir Operational Yield:** This is a WAM modification to decrease the effective drought of record firm yield of the reservoir due to, for example, the actual location of a user's intake; the smaller firm yield would allow that user to maintain its inflow diversion. A past example is an approximate 50% decrease in firm yield to maintain the flow from a small lake through the adjacent fish hatchery.
3. **Extended Hydrology for Revised Reservoir Inflows (and Potential Recognition of New Drought of Record):** This is a WAM modification to include extended hydrology, with or without full scale naturalized flow development, to account for recent conditions that may be more severe than the current drought of record. For example, inclusion of recent hydrologic data available since development of the WAM for the purpose of producing a more conservative supply estimate during conditions that are worse than the drought of record. The TWDB's Water Availability Program has developed auxiliary extended naturalized flows and reservoir evaporation, through December 2020, for the Canadian, Cypress, Sabine, Trinity, San Jacinto, Lavaca, Guadalupe and San Antonio, and Nueces River WAMs. RWPGs may use these auxiliary WAM input hydrology datasets[16] to assess the occurrence of potential new droughts of record within those respective river basins.
4. **Reservoir Safe Yield:** This is a WAM modification to decrease the firm yield of the reservoir so that an identified annual volume is held in reserve in order to account for droughts worse than the drought of record. The volume of this annual reserve is determined by the RWPG and can vary by source. Examples include a minimum 1 year supply held in reserve; 6-9 month supply held in reserve; 2 year supply held in reserve; and, 20% reservoir system capacity safe yield.
5. **Incorporation of Subordination Agreements:** This entails a WAM modification to reflect subordination agreements that currently exist but are not explicit in individual water rights and would be a more realistic reflection of current operations. Past examples include a downstream reservoir's subordination to an

[16] Available at https://www.twdb.texas.gov/surfacewater/data/ExtendedNatFlow/index.asp

upstream reservoir in a common river basin through an agreement between a river authority and a city.

6. **Alternative Reservoir Level:** This is a WAM firm yield modification to decrease the minimum reservoir level below the top of the dead pool; or increase the maximum reservoir level above the top of the conservation pool (i.e., use of the flood pool).
7. **Reservoir Conditional Reliability:** This is a WAM firm yield modification for determination of a reliable reservoir firm yield supply utilizing a conditional reliability assessment, which is defined here as an assessment that starts with current conditions and analyzes all sequences of available historical hydrology; and based on the statistical output, a level of risk for each possible outcome is assigned, revealing probable firm yields based on these historical hydrology sequences. This approach should not be used for estimating yields over the full planning horizon but rather to address near-decade conditions, when appropriate. An example would be a conditional reliability assessment used to compensate for the uncertainty of a new current/ongoing drought of record that is occurring in a region.
8. **Reliability of Firm Yield of Reservoirs:** RWPs may take into account the reliability of firm yield of reservoirs. For example, to account for the impact of natural, historic hydrologic variability and drought persistence on reservoir yield, firm yield may be compared to alternate estimates of yield derived for example from a reshuffled annual historic hydrology. This approach, or type of Monte Carlo reliability analysis, may provide ranges of estimated of yields, with associated probabilities, including (lower) yields with higher confidence and may thereby serve as a guide for RWPGs choosing to conservatively modify (i.e., lower) existing supply estimates of reservoirs.
9. **Addition of Actual Diversion Locations:** This is a WAM modification that will include additional actual diversion locations outside of a reservoir(s) resulting in improved accuracy of the simulation of actual diversion operations along the river and any associated releases from associated reservoirs.
10. **Simplification of Diversion Locations:** This is a WAM modification to include simplified groupings of actual diversion locations outside of a reservoir(s), while maintaining a reasonably accurate reflection of water rights and operations in the model simulation.
11. **Reservoir System Operations:** This is a WAM firm yield modification to include system operations of a single reservoir; and/or operation of multiple reservoirs as a single system to affect an overall system gain and increase the effective firm yield.
12. **Hydropower Generation Diversions:** This is a WAM firm yield modification to include simulation of hydropower generation water use in a reservoir that may not currently be considered in WAM RUN3.
13. **Updated Water Rights:** This is a WAM modification to include updated water rights data since the last time the WAM RUN3 was officially updated.
14. **Special Operational Procedures:** A WAM modification to reflect operational agreements with entities such as the U.S. Army Corps of Engineers, International Boundary and Water Commission, or Water Master Operations.
15. **Use of Daily Time-Steps:** This is a WAM firm yield modification to change from monthly time-steps to daily time-steps to better simulate diversions and releases

from reservoir storage. An example would be to simulate an individual city's diversions and releases from a reservoir.

16. **Drought Management Plan Firm Diversion:** This is a WAM modification allowing less than a full firm diversion during drought of record conditions if this occurs in an approved operation plan (e.g., exists in an entity's Drought Management Plan).
17. **Conjunctive Use of Surface Water and/or Groundwater:** To reflect interdependencies that result in net firm supplies.
18. **Future Projected Reservoir Inflow and Reservoir Evaporation:** RWPGs may consider best available projected reservoir evaporation rates, and reservoir inflow rates, for the purpose of considering future reservoir yields to account for potential changes to inflow and reservoir evaporation. RWPGs may also utilize a methodology, similar to the methodology demonstrated in the Brazos Trends Study (2021), to assess how trends in streamflow and reservoir evaporation might affect future reservoir and run-of-river yields.

2.3.5.2 Potential Groundwater Hydrologic Variance Requests

MAG Reallocation

A hydrologic variance request to shift portions of annual MAG volumes between discrete geographic-aquifer units (i.e. river basins) must be in writing from the RWPG and must be consistent with the relevant aquifer's MAG. MAG reallocations are limited to shifts within a county only.

Submittal Requirements

A proposed MAG reallocation request must include

1. a table with proposed MAG reallocations for each discrete geographic aquifer unit, for each planning decade;
2. the basis for the reallocation request;
3. how DFCs at the location as well as DFCs in surrounding areas will be achieved under the reallocation;
4. how the reallocation is consistent with the relevant MAGs and groundwater conservation districts (GCD) management plans;
5. the long-term impact that pumping based on the reallocation would have on the DFC at the location; and
6. written support from the relevant GCDs and representatives of the groundwater management area (GMA) if applicable (in accordance with TWDB policy); and documentation of the submittal request being approved by the RWPG at a regular planning group meeting.

Plan Documentation and Reporting

If approved by the Executive Administrator, the reallocation of annual MAG volumes between discrete geographic-aquifer units will be performed by the TWDB only within DB27. A copy of the MAG reallocation approval letter as well as documentation of variance request process should be included in the Technical Memorandum, IPP, and final adopted RWP.

The reallocated MAG volumes will be used as the planning condition in the RWP and basis of analysis in DB27. The unmodified annual MAG volume(s)must also be reported in the Technical Memorandum, IPP, and final adopted RWP.

MAG Peak Factor (31 TAC §357.32(d)(3)):

With approval of the relevant GCD (where applicable) and GMA, an RWPG may submit a written request for the use of a MAG peak factor[17] to accommodate temporary increases in annual availability volumes, for planning purposes, above the MAG. The MAG peak factor is a percentage (e.g., greater than 100 percent) that is applied to an annual MAG volume reflecting groundwater availability that, for planning purposes, must be considered temporarily available for pumping consistent with DFC(s). This is a regional water planning accommodation to reflect anticipated pumping fluctuations between wet and dry years or may account for other shifts in the timing of pumping while remaining consistent with DFCs and maintaining the integrity of the planning processes.

Submittal Requirements

This proposed MAG peak factor request must include

1. written approval from both the relevant GCD, if one exists within the particular aquifer-region-county-basin split, and representatives of the GMA;
2. the requested MAG Peak Factor expressed as a percentage greater than 100 percent, specific to the aquifer-region-county-basin split(s) that the peak factor is applicable to, and the applicable planning decades;
3. the technical basis for the request in sufficient detail to support GCD, GMA, and the Executive Administrator evaluation;
4. documentation (for example, monitoring plans) of how the temporary availability increase will not prevent the associated GCD(s) from managing groundwater resources to achieve the DFC(s); and
5. documentation of the submittal request being approved by the RWPG at a regular planning group meeting.

The TWDB will review documentation provided by the RWPG submitted in support of the proposal to implement a MAG peak factor. This review may, depending on the area to be affected by the MAG peak factor, involve evaluation of the relevant hydrostratigraphic and geologic features, groundwater levels and groundwater flow, groundwater pumping, spring flow, interaquifer flow, and discharge to surface waters.

RWPGs are **required** to provide adjusted model well files, detailed georeferenced maps of pumping assumptions (pumping location, pumping amounts, and model layer), and/or unallocated supply assumptions to support the TWDB's evaluation. The effect of the MAG peak factor on the adjacent or hydrologically connected groundwater resources outside of the applicable GCD will be evaluated to understand the possible effect of the MAG peak factor on the ability of neighboring GCDs to achieve their relevant DFCs. This evaluation

[17] Additional information on the MAG peak factor may be found online at https://www.twdb.texas.gov/publications/shells/MAG.pdf

may include reviewing existing GAM runs and/or performing additional modeling runs, as required.

Plan Documentation and Reporting

If approved by the Executive Administrator, the application of a MAG peak factor will be performed by the TWDB only within DB27. A copy of the MAG peak factor approval letter as well as documentation of variance request process should be included in the Technical Memorandum, IPP, and final adopted RWP.

The MAG peak factor volumes will be used as the planning condition in the RWP and basis of analysis in DB27. The unmodified annual MAG volume(s)must also be reported in the Technical Memorandum, IPP, and final adopted RWP.

2.3.6 Calculating existing supplies

To be considered an existing water supply, the supply must not only be legally accessible but must also be physically connected to the end user, or WUG, meaning that it currently has infrastructure for conveying the water to the WUG or it is anticipated that the WUG will have access by the conclusion of the current planning cycle (i.e., by 2026). All existing water supplies must be directly associated with one or more water sources.

The determination of existing water supply is an entity-based analysis, the results of which are limited by

1. the portion of each water source that could be immediately accessed for supply by a WUG or WWPs in the event of drought;
2. legal or policy constraints regarding access to the water (e.g., by contract, groundwater permit, or water right); and,
3. physical constraints such as transmission or treatment facility capacities that would limit the volume of delivery of treated supplies to WUG s or WWPs.

The sum of the WUG or WWP existing water supplies associated with a particular source may not exceed the total availability for that same source. Annual water availability volumes associated with a water source may not be counted more than once as the basis for an existing water supply. Over-allocation of any water source availability in an RWP is strictly prohibited under this guidance.

Calculation of existing water supplies must consider and be based on the following sources and general criteria, as well as specific criteria for surface water, groundwater, and reuse supplies as described below.

General criteria and sources of existing supply

1. Existing water supplies must be based on water that is available in every year throughout a drought of record. For example, interruptible permit volumes based on TCEQ's 75%/75% criteria would not automatically qualify as a supply that is available during a drought of record, except for that lesser portion of the water volume that might be anticipated to be present and reliable throughout the specified drought conditions. Interruptible supply volumes that are not anticipated to be

available during drought of record conditions may not be included in an RWP as the basis for an existing supply.

2. Sources of existing water supplies that may include surface waters such as reservoirs and rivers, groundwater, reuse water, and/or a combination of several different sources used conjunctively including desalinated sources.
3. Existing water rights, permits, surface water storage rights, contracts and option agreements, and/or other planning and water supply studies.
4. Contracted agreements and associated terms of contracts will be assumed to renew upon a contract's termination date if contract holders contemplate renewals or extension or if the contract provides for renewal or extensions.
5. For contracts already in existence, if infrastructure also exists to deliver the water, then the full volume must be shown as existing supply in the earliest planning decade. Existing water supplies should not be underrepresented in early decades and increased over time simply based on expected demand increases if the full amount would be accessible in earlier decades.
6. Net water volume delivered to the WUG after transmission losses.
7. Net water that a WUG will have in order to meet its own WUG demands (i.e., gross volume of water minus water the WUG must provide to other entities).
8. The assumption that all existing water supply, transmission, and treatment infrastructure will be adequately maintained, rehabilitated, or replaced as a part of regular operation and maintenance into the future to maintain existing water supplies.[18]
9. An identified water need may not be based on the assumption or expectation that existing infrastructure will not continue in service or that associated water supplies will no longer be available in the future as a result of neglect or lack of maintenance of infrastructure.[19]
10. The assumption for existing supplies in future decades – that current infrastructure for existing water supplies does not change through time (but is adequately maintained). [20]
11. The current infrastructure capacity, excluding internal water distribution systems. This capacity must be considered in order to determine how much water may be transported, treated, and delivered to the intake of the WUG's distribution system**.** This may include physical limitations associated with the horizontal location and/or elevation of a provider's intake facility within a reservoir, for example, or the depth of an existing well.

[18] An exception would be that it should not necessarily be assumed that reservoirs would be dredged to remove silt as a regular operation and maintenance item. If anticipated, future dredging of a reservoir should be shown as a WMS.

[19] Planned decommissioning of WTPs that will be replaced, for example, should not be considered the basis for an 'identified water need'; however, an additional new or expanded WTP that will increase the amount of water supply available to meet a WUG(s) need would be a WMS.

[20] An exception would be the large-scale project in response to a significant water-loss-audit-identified infrastructure system water loss, such as large-scale distribution pipeline replacements and/or largescale advanced meter replacements; this type of project would increase the current volume of an existing supply by capturing water that is currently being lost from the system and may be a recommended WMS in the RWP.

12. The ability to make minor operational changes that are not strictly precluded by a physical or legal constraint. For example, the supply associated with a decision to turn on a groundwater pump, would be considered as part of an existing supply, not a WMS, if the pump is already installed in the existing groundwater well and is accessible to the user. Note that an identified water need may not be based on an assumption or expectation that a current existing water supply, either at the WWP or WUG level, is simply not used even though it could be used in the event of drought.
13. Consideration of the current and future water quality of the source.
14. Consideration of information from the previous RWPs.
15. RWPGs must strive to identify firm local water supplies. Local surface water supplies must be estimated during drought conditions using the best available methods and data, and local groundwater supplies must be based on RWPG-estimated groundwater availabilities during drought conditions and may be included with a description of the source. Local supplies may not be associated with municipal users, including county-other.

Surface Water criteria

1. The greatest annual volume of surface water obtainable from the source without violating the most restrictive physical and/or regulatory conditions, including infrastructure, under drought of record conditions.
2. Evaluation of existing run-of-river surface water available for municipal WUGs during drought of record conditions must be based on the minimum monthly diversion amounts that are available 100 percent of the time, if those run of river supplies are the only supply for the municipal WUG. Run-of-river firm diversion means that the use-appropriate monthly percentage of the annual firm diversion must be satisfied in each and every month of the simulation period for all surface water diversions. This is not a "minimum annual diversion" in which one or more months might have no authorized diversions at all.
3. Existing supplies from run-of-river diversions must be based on the county-basin location of the diversion point and associated use.
4. Evaluation of existing stored surface water accessible during drought of record conditions must be based on firm yield. The analysis may be based on justified operational procedures other than firm yield with Executive Administrator written approval through the hydrologic variance process.
5. If appropriate, evaluation of existing run-of-river supply during drought of record conditions may be based on the minimum annual diversion or minimum annual supply for non-municipal WUGs and for municipal WUGs with multiple supply sources. This minimum annual diversion is defined as the lowest annual summation of the monthly diversions reported by the WAM over the simulation period. Lowest annual summation is the calendar year within the simulation that represents the lowest diversion available.

Groundwater criteria

1. The greatest annual volume of groundwater that can be withdrawn from an aquifer without violating the most restrictive physical and/or regulatory conditions,

including infrastructure, and limiting these withdrawals appropriately under drought conditions. Regulatory conditions refer to limits on water withdrawals imposed by GCDs.

2. An RWPG may not set existing groundwater supplies equal to demands just for convenience. If an RWPG determines groundwater supply volumes are appropriate to equal demand values, then they must provide justification within the RWP. If an existing groundwater supply (and the underlying associated availability) is sufficient to meet a growing demand through 2080, then the 2030 existing groundwater supply must reflect the full 2080 existing supply if the infrastructure and rights to the water already exist in 2030 that will meet 2080 demands. The allocation of available groundwater to be used as WUG existing supplies, however, may be adjusted to adhere to MAG limits or other limits, as necessary.

Reuse criteria

1. RWPGs must classify existing reuse water supplies as either direct or indirect, including wither they are direct potable. Existing reuse supplies are those that do not require a new WMS to use.
2. For direct reuse, RWPGs must base their drought of record existing direct reuse analyses on currently installed wastewater reclamation infrastructure and the amount of wastewater anticipated to be treated at the WWTP, based on associated decade populations/demands. These amounts may not exceed the amounts of water available to utilities generating the wastewater.
3. For indirect reuse, RWPGs must base their drought of record existing indirect reuse analyses on currently installed wastewater treatment infrastructure; currently permitted wastewater discharge amounts; and the amount of wastewater anticipated to be treated at the WWTP, based on associated decade populations/demands. These amounts may not exceed the amounts of water available to utilities generating the wastewater. [21]

Additional reporting requirements for existing supply

The following items must also be presented in the IPP and final adopted RWP:

- Water rights which are the basis for surface water existing supply volumes. RWPGs must also submit water rights data to the TWDB electronically using a TWDB provided spreadsheet.[22]
- For local surface water supply, plans must include a single table that lists each local surface water supply with a) an explanation for the basis of the supply itself, and b) the basis for the volume of supply. For unpermitted supplies, list the source as the sum of unpermitted surface water by county-basin split. Any unpermitted local surface water supplies must be listed individually as well with explanation and may be aggregated at the county-basin level when appropriate.

[21] See Contract Exhibit D: *Guidelines for 2026 Regional Water Plan Data Deliverables* for more details on naming indirect reuse sources within DB27 and presented in the RWP.
[22] Although all surface water existing supplies must be based on permitted diversions and storage, RWPGs may aggregate these volumes as appropriate for entering water rights into DB27 and presenting in the RWPs.

- For local supplies, the plan must acknowledge whether the RWPG can confirm if the local supplies are firm. For any local supplies that cannot be confirmed as 'firm' under DOR, the RWP must include a summary of the number of WUGs for which this is true and the total associated volume of water associated with this uncertainty.

2.4 Identification of water needs (Task 4A)

Links to rule and scope of work requirements:

- §357.33: Needs Analysis: Comparison of Water Supplies and Demands
- Scope of work Task 4A: Water Needs Analysis

Guidance:

RWPs must include identified water needs for WUGs and MWPs s. RWPGs must compare projected water demands[23] with existing water supplies for WUGs and WUG customers of WWPs in an RWPA[24] in order to determine whether entities will experience water surpluses or water needs (shortages).

The RWPs are based on planning decades[25] which represent temporal 'snapshots' (e.g. 2040, 2050) representing conditions for that year and the subsequent years prior to the next decade (e.g. 2040 needs must be assumed to carry through 2049). This also means that if a municipal water need is identified for the 2040 decade, a recommended WMS would have to be developed and operating by the year 2040 if it is to meet that water need. Therefore, a WMS that is shown as providing a supply in the 2040 decade is assumed to come online in or prior to the year 2040.

2.4.1 Water user group needs

Water needs of individual WUGs may result from availability limits, infrastructure limitations, or legal limits. Identified water needs may arise within any planning decade for a variety of reasons including, but not limited to

1. water demands that exceed existing water supplies in the first planning decade;
2. increases in water demands that eventually exceed existing water supplies in a later planning decade(s);
3. a foreseeable decline in existing water supply volumes over time for example, due to
    a. the anticipated loss of the use of water wells due to lowered water quality in that geographic area,
    b. anticipated sedimentation in a reservoir, or,
    c. the inability to reach available groundwater supplies using existing wells due to a declining water table.
4. unreliable existing water supplies for example, due to
    a. an intra-year monthly run of river water shortage that occurs, for example, only during summer months; or

[23] developed in accordance with 31 TAC §357.31
[24] developed in accordance with 31 TAC §357.32. WUG analysis is to be performed by the TWDB through DB27.
[25] 31 TAC §357.10(21)

   b. the inability to reach available surface water during drought due to an existing intake elevation or location in a reservoir.
5. the inability to convey available water to an entity; or,
6. a lack of capacity to treat the available water at the entity.

The state water planning database provides numerical calculations of water needs based on data entered by the RWPG into DB27 for each WUG by comparing projected demands and existing water supplies without implementation of any WMSs.

2.4.2 Major water provider needs

RWPGs must aggregate and calculate the surpluses or needs for their identified major water users and report the results in the IPP and final, adopted RWP for MWPs by category of use and planning decade. The TWDB will provide data from DB27, upon request, in support of the RWPG analysis of identifying MWP needs.

2.4.3 Second-tier needs analysis

Once conservation and direct reuse WMSs are identified and recommended by the RWPG, the RWPG will have access to a second-tier water needs analysis DB27 data report to determine any water needs that would remain for each WUG if all recommended conservation and direct reuse strategies were fully implemented. This second-tier needs analysis is a calculation through the state water planning database that will provide additional information that RWPGs may consider when subsequently identifying and recommending additional infrastructure water supply projects. These second-tier needs estimates may be considered when performing technical evaluations of WMSs including anticipated unit costs of water.

The resulting DB27 reports will provide the results for the second-tier needs analysis by WUG and decade. The TWDB will produce data reports from DB27 in support of the RWPG analysis of identifying MWP secondary needs; however, the planning group must calculate the MWP secondary needs and report these in the IPP and final adopted RWP by MWP and decade.

2.4.4 County-other sub-water user group needs

County-other WUGs, which are rural communities and water systems that fall below the municipal WUG thresholds (utilities less than 100 acre-feet/year annual retail sales or rural areas not served by a utility), are represented in the plans as an aggregate for each county. Because of the effects of aggregation, the excess supply of one entity within county-other may hide a need of another entity within the same county and thereby make it difficult to identify the underlying need for water management strategies. If there are anticipated county-other needs, it is important to make sure that the existing water supply of the county-other WUG is not inadvertently overstated, for example, by assuming that the existing water supply of county-other WUGs is equivalent to the entire groundwater availability in that county.

As discussed in Section 2.2.4, planning groups may, at their discretion and subject to their own time and financial resource constraints, present more detailed information on county-

other sub-WUGs in the RWPs (**this discrete level of information will not be eligible to be entered into DB27 due to the database structure)**.

Even though existing water supplies are presented as aggregate volumes for all the public water systems within county-other, the region may have more specific knowledge of a particular sub-WUG's supplies and needs. If the aggregate volume of the county-other WUG obscures the known existing supply shortages of a sub-WUG, that shortage may still be acknowledged in the text of the plan, and projects and strategies may be included in the plan to address the need.

If there is no specific information available as discussed above to reflect needs for sub-WUGs and/or there is knowledge that additional wells, for example will be required, despite an inability to show an explicit water need, the RWPG may still evaluate and recommend WMSs for the county-other WUG. A water need does not have to be identified in order for a county-other WMS to be evaluated and recommended.

2.5 Water management strategies and water management strategy projects (Tasks 5A-5C)

Links to rule and scope of work requirements:

- §357.34: Identification and Evaluation of Potentially Feasible Water Management Strategies and Water Management Strategy Projects
- §357.35: Recommended and Alternative Water Management Strategies and Water Management Strategy Projects
- Scope of work Task 5A: Identification of Potentially Feasible Water Management Strategies
- Scope of work Task 5B: Evaluation and Recommendation of Water Management Strategies and Water Management Strategy Projects
- Scope of work Task 5C: Conservation Recommendations

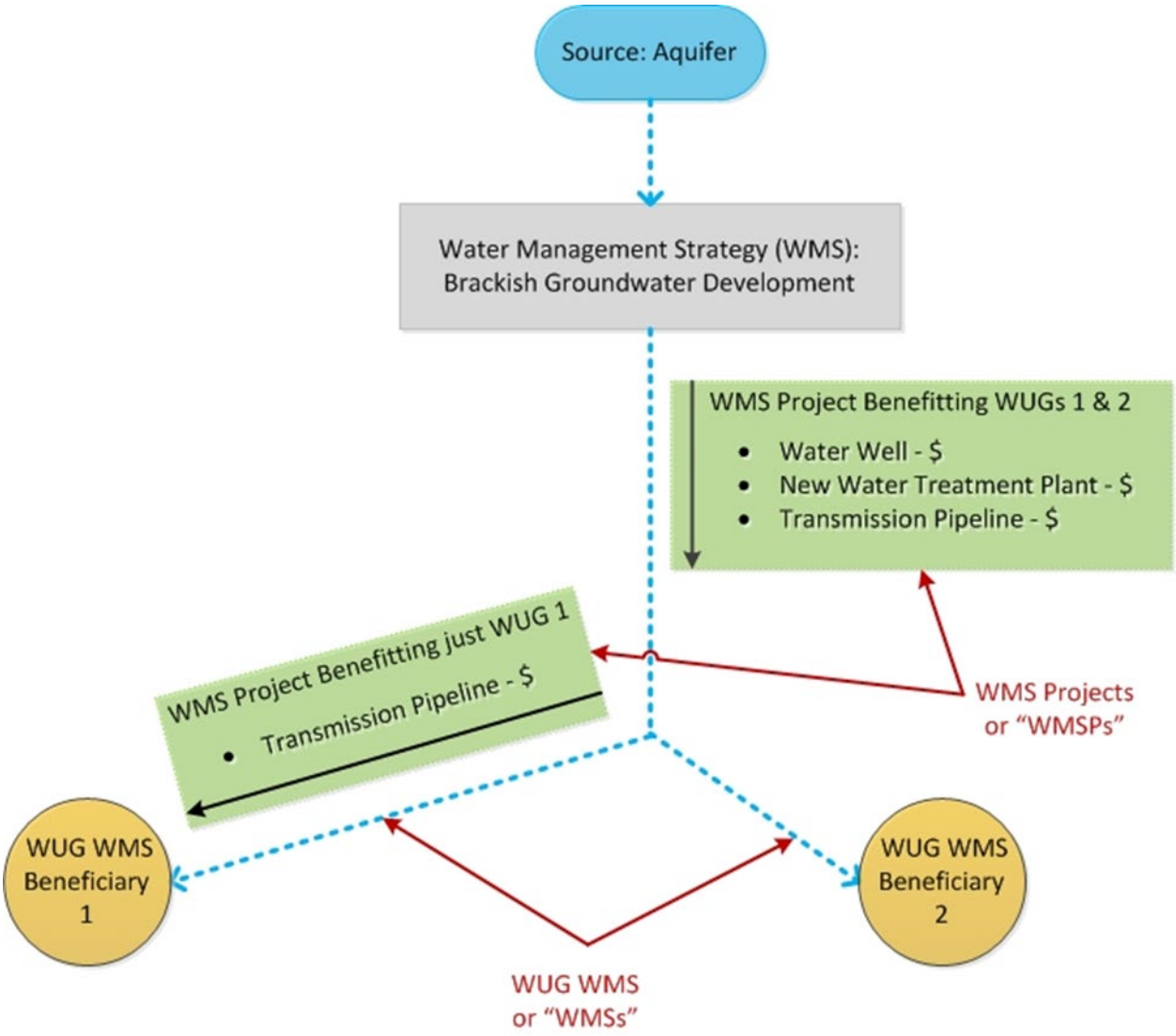
Guidance:

A WMS is a plan to meet an identified need for additional water by an entity, which can mean increasing the total water supply or maximizing an existing supply, including through reducing demands. A water management strategy project (WMSP) is a water project that has a non-zero capital cost and is developed to implement a WMS(s). When a WMSP is implemented, it is intended to develop, deliver, and/or treat additional water supply volumes, or conserve water for an entity(s). A WMS may or may not require the development of an associated WMSP(s) for strategy implementation and one WMSP may be associated with multiple WMSs. See Figure 5.1 for an example of the structure of WMSs and WMSPs.

RWPGs must identify and evaluate potentially feasible WMSs and the associated WMSPs required to implement those strategies for each WUG and WWP where future water supply needs exist (as required by statute and administrative rules 31 TAC §357.34 and §357.35). A need for water is identified when existing water supplies are less than projected water demands for that same WUG or WWP within any planning decade.

Note that retail distribution connection pressurization is a regulatory distribution system requirement not applicable to regional water supply planning, including the identification of water supply needs. Similarly, distribution system daily peaking capacity is not a condition relevant to state water supply planning. The regional and state water plans are based on annual historical dry year use, not short-term system capacity.

Figure 1 – WMS Project Data Structure



2.5.1 Potentially feasible water management strategies

As required by statute and rules (TWC §16.053(e)(5), and 31 TAC §357.34(c)), the RWPGs must consider, but are not limited to considering, the following types of WMSs for all identified water needs:

1. Conservation
2. Drought management
3. Reuse
4. Management of existing water supplies
5. Conjunctive use

6. Acquisition of available existing water supplies
7. Development of new water supplies
8. Developing regional water supply facilities or providing regional management of water supply facilities
9. Developing large-scale desalination facilities for seawater or brackish groundwater that serve local or regional brackish groundwater production zones identified and designated under TWC §16.060(b)(5)[26]
10. Developing large-scale desalination facilities for marine seawater that serve local or regional entities
11. Voluntary transfer of water within the region using, but not limited to, contracts, water marketing, regional water banks, sales, leases, options, subordination agreements, and financing agreements
12. Emergency transfer of water under TWC §11.139
13. Interbasin transfers of surface water
14. System optimization
15. Reallocation of reservoir storage to new uses
16. Enhancements of yields
17. Improvements to water quality
18. New surface water supply
19. New groundwater supply
20. Brush control
21. Precipitation enhancement
22. Aquifer storage and recovery
23. Cancellation of water rights
24. Rainwater harvesting

The Technical Memorandum, IPP, and final adopted RWP must include

1. the documented process used by the RWPG to identify potentially feasible WMS; and,
2. the list or table of all identified WMSs that were considered potentially feasible, to date, for meeting a need in the region per 31 TAC §357.12(b). RWPGs must consider the potentially feasible WMSs listed above. An example template for documenting WMSs considered to meet needs is provided in the 2026 RWP Exhibit C Tables Excel file.

If no potentially feasible WMSs are identified or recommended for an identified water need, then the RWP must document the reason.

In the IPP and final adopted RWP, regions must also identify those potentially feasible WMSs, if any, that, in addition to providing water supply, could potentially provide non-trivial flood mitigation[27] benefits or that might be the best potential candidates for exploring ways that they might be combined with flood mitigation features to leverage planning efforts to achieve potential cost savings or other combined water supply and flood mitigation benefits. The work required to identify these WMSs will be based entirely on a

[26] Note that local or regional brackish groundwater production zones are only relevant to brackish groundwater sources, not seawater.
[27] The implementation of actions, including both structural and non-structural solutions, to reduce flood risk to protect against the loss of life and property (31 TAC §361.10(k)).

high-level, qualitative assessment and should not require modeling or other additional technical analyses.

2.5.2 Water management strategy evaluations

All potentially feasible WMSs and WMSPs identified for the region must be evaluated in accordance with 31 TAC §357.34 and meet the requirements in this document. This includes a quantitative reporting for each WMS of the net quantity, reliability, cost, and impacts on environmental factors and agricultural resources.

This information must be included in Chapter 5 of the IPP and final adopted RWP along with additional narrative description and other relevant materials and documentation associated with the identification of potentially feasible WMSs considered for the region.

As necessary, RWPGs must update or redevelop any previous WMS or WMSP evaluations (e.g., developed as part of previous RWPs) to address the following:

- Meet current rule and guidance requirements
- Reflect changed physical or socioeconomic conditions that have since occurred
- Reflect changes in water project configurations or conditions
- Consider newly identified WUGs or WWPs
- Reflect more recent or updated costs
- Reflect more recent information related to potential impacts to natural or agricultural resources
- Accommodate changes in identified water needs
- Any other relevant changes that require modifying or replacing a WMS

For all WMSs and WMSPs previously identified in the 2021 RWPs and being considered for inclusion in the 2026 RWPs, RWPGs must develop and/or update financial costs using the most current version of the WMSP costing tool provided by the TWDB. For remaining evaluation criteria, each RWPG must determine the degree to which conditions have changed or new information has become available and update the WMS and WMSP evaluations accordingly.

Existing water rights, water contracts, and option agreements must be protected, although amendments to these may be recommended realizing that consent of owners would be needed for implementation.

Water management strategy technical evaluations and cost estimate summaries should identify the major facilities or projects related to the strategy, their approximate locations, and their associated capital costs. Project phases, if applicable, should be described and associated volumes and costs presented for each phase.

All recommended WMSs and WMSPs that are entered into DB27 must be designed to reduce the consumption of water; reduce the loss or waste of water; improve the efficiency in the use of water; or develop, deliver, or treat additional water supply volumes to WUGs or WWPs when implemented in at least one planning decade such that additional water is available during drought of record conditions. WMSs that would not produce a measurable

firm yield supply in at least one planning decade may not be a recommended WMS and may not be eligible for funding from the State Water Implementation Fund for Texas (SWIFT). [28]

Any other RWPG recommendations regarding permit modifications, operational changes, and/or other infrastructure that do not provide a firm yield during drought of record conditions must be indicated as such and presented separately in the RWP.

WMS and WMSP data presented in the IPP and final adopted RWP must be structured in a way that is compatible with DB27 as outlined in the TWDB's Contract Exhibit D: *Guidelines for 2026 Regional Water Plan Data Deliverables*. To facilitate public comprehension of the adopted RWPs and the interactive state water plan, the naming conventions for WMSs/WMSPs used in DB27 should also be used in the IPP and final adopted RWP.

Water quantities produced by recommended WMSs and WMSPs must be based on water availability in accordance with Section 2.3. Additionally, WMSs shown as providing a supply in a planning decade, must come online, with a reliable supply, *in or prior to that initial decade year* (31 TAC §357.10(21)). If a WMS is shown as providing supply in the 2040 decade, it must be assumed to come online in or prior to the year 2040.

2.5.2.1 Surface water water management strategies

When evaluating WMSs to determine future water availability associated with surface water to meet identified water needs, RWPGs must adhere to the following requirements:

1. Analyses must be based on firm yield and firm diversion.
2. RWPGs must analyze every WMS using an unmodified TCEQ WAM Run 3 to determine surface water availability and WMS firm yield firm diversion. This analysis reflects conditions under which an associated permit application will be evaluated. Modifications to TCEQ WAM RUN 3 for WMS evaluations require the submittal of a hydrologic variance request and written approval by the TWDB Executive Administrator, as outlined in Section 2.3.5.
3. When the WMS being evaluated (as well as the anticipated permitting process associated with the WMS) is contingent upon a future new water right (including for a new reservoir); a future amendment of an existing water right; a proposed subordination agreement; and/or a proposed new use of return flows, the TCEQ WAM Run 3 may be modified only to the degree required to allow the simulation of such a WMS[29]. The resulting modified WAM, however, may not then be used as the basis for evaluating other additional WMSs unless they are anticipated to be implemented in combination.
4. Analyses must be in accordance with environmental flow standards adopted in TCEQ's 30 TAC Chapter 298 rules or, if there are no TCEQ environmental flow standards, other relevant limitations (e.g., pass-throughs required by the 1997 Consensus Criteria for Environmental Flow Needs. Note that TCEQ has not added the Chapter 298 environmental flow standards to all WAMs for basins with adopted standards. In some basins, the RWPG may have to add the relevant Chapter 298

[28] 31 TAC §357.34(d)
[29] Any such modifications are subject to written approval from the Executive Administrator, as outlined in Section 3.6

environmental flow standards to the WAM to evaluate a WMS. The RWPG must document what steps were taken to account for environmental flows.

5. RWPs must clearly indicate which, if any, WMSs are assumed to rely on or to mutually exclude another WMS(s) and explain how the interaction may impact both the estimated future water availability and the future water supply associated with each WMS.
6. Consideration that water needs resulting from non-firm run of river supplies resulting from intra-year shortages might be met in some cases, for example, by a recommended WMS that adds an amount of off-channel storage sufficient to increase the firm diversion amount (i.e., to "firm up" the associated water supply in all months and in all years).
7. Conjunctive WMSs (i.e., using a combination of surface water, groundwater, and/or reuse) must have an overall firm supply as a WMS project but may be associated with less than firm surface water volumes during certain periods as long as the groundwater availability (or reuse availability) offsets the surface water availability sufficiently to ensure a firm WMS project yield.
8. A portion of a reservoir's firm yield that is unpermitted, if any, may not be shown as a currently accessible existing water supply from that source. However, RWPGs may evaluate and include a WMS to amend the reservoir's permit to authorize use of the additional firm yield to create new supply.
9. If there are factors that could potentially limit the firm yield/firm diversion of a WMS that are not reflected in the applicable TCEQ WAM RUN3 and that the RWPG considers significant to a recommended WMS, RWPGs may consider validating the WMS firm yield through the underlying WAM(s) that was used to evaluate existing surface water availability as referenced in Section 2.3.1. This does not include applying the same assumptions to the WMS being validated (e.g., safe yield procedures used to evaluate existing availability would not have to be applied to a WMS's new reservoir(s)). This analysis may be performed to confirm that a WMS being recommended could be reasonably expected to provide the estimated supply under the same drought conditions on which existing water supplies were evaluated. If considered appropriate by the RWPG, this validation could be the basis for reducing an estimated WMS firm yield but may not be used as the basis for increasing a WMS firm yield above that determined using an unmodified TCEQ WAM RUN3. This validation, if applied, is intended to provide a conservative measure to ensure that future WMS supplies are not over-estimated for drought planning purposes.
10. As described in Section 2.3.2, potential future operation of multiple reservoirs as a new system, or changes to current operational procedures for existing reservoir systems, for the purpose of providing additional yield may be evaluated as a potential WMS. Such a WMS analysis must adequately describe methods used to calculate these future system gains (to be permitted) and include discussion regarding any associated permit changes that would be required.

2.5.2.2 Groundwater water management strategies

Groundwater WMS supply volumes, including those for desalinization WMSs, must be within the availability of the associated groundwater volumes available in the project location.

For planning purposes, future groundwater availability cannot be increased by implementing water management strategies other than aquifer recharge-type projects. Groundwater availability may increase or decrease in the future, typically through changes in groundwater management policy (revised DFCs) or improvements in technical evaluation approaches (new or updated groundwater availability models). Groundwater availability may also increase with the identification of brackish groundwater production zones not previously accounted for in a MAG.

When evaluating WMSs associated with groundwater to meet identified water needs, a future groundwater WMS would utilize that portion of an aquifer's groundwater availability that would require new or additional infrastructure and/or new permits in order to withdraw that water.

RWPGs must consider opportunities for, and the benefits of, developing WMSs for large-scale brackish groundwater desalination facilities that could utilize local or regional brackish groundwater production zones, where brackish groundwater is defined for regional water planning purposes as a total dissolved solid (TDS) concentration typically between 1,000 and 10,000 milligrams per liter (mg/L).[30]

TWDB's website[31] includes information on designated brackish groundwater production zones (BGPZ), including shapefiles, maps, data, and reports. These resources are available to planning groups to assist in their consideration of developing brackish supplies.

For BGPZs that overlap a MAG, the groundwater source record in DB27 will be labeled to note this. For BGPZs that do not overlap a MAG, a new source request would need to be approved by TWDB in order to utilize the BGPZ for a WMS. Such source request would need to include, at minimum, the latitude and longitude of the proposed WMS, the BGPZ, the aquifer formation, the proposed brackish availability for the WMS, and the methodology used to determine local availability.

Overallocation of annual groundwater availability is strictly prohibited. TWDB will review IPPs and final adopted RWPs to ensure that annual groundwater availability is not exceeded or "overdrafted" during any decade or for any discrete geographic-aquifer unit by existing supplies and/or future WMS supplies. WMSs that would require temporarily pumping groundwater in excess of a MAG may not be included in an RWP, unless a written hydrologic variance request for a MAG Peak Factor that would accommodate temporary increases in existing annual availability for planning purposes is approved in writing by the EA. See Section 2.3.5.2 for more information on the hydrologic variance process. Additionally, in instances where more than a single WUG and/or WWP seek to include recommended groundwater based WMSs that, when combined, would exceed the annual

[30] Related to 84(R), HB 30 requirements.
[31] https://www.twdb.texas.gov/groundwater/bracs/HB30.asp

groundwater availability the affected RWPG(s) may not include these recommended WMSs simultaneously in the RWP(s).[32]

2.5.2.3 Reuse water management strategies

This same population-dependent concept described for reuse availability and supplies in Section 2.3.3 would hold true for determining future WMS decadal reuse availabilities and can include new capacity from additional strategy WWTP infrastructure.

RWPGs must evaluate potential future sources of direct and/or indirect reuse that will require new permits and additional reclamation infrastructure as WMSs and must provide adequate justification to explain methods for estimating the amount of future direct and/or indirect reuse water available from such sources, including consideration of the population/demand projections for each decade associated with the WMS.

Just as for existing reuse, future reuse availability may not exceed the capacity of the future infrastructure to provide wastewater effluent for potential use. To avoid overestimating availability, the future reuse volume will also be dependent upon the WMSP online decade population/demand projections that would determine the amount of anticipated wastewater flowing into a WWTP on an annual basis. This population-dependent availability would be less than a future WWTP's maximum permit capacity and would increase each future decade (as population/demand projections increase) up to the annual volume restricted by infrastructure and/or permit (i.e., WWTP inflow projections would be a more stringent restriction for reuse availability in early planning decades).

RWPGs must provide adequate justification to explain methods used to estimate the future indirect reuse availability and supply generated, including consideration of the population/demand projections for each decade associated with the WMS.

Direct reuse WMS infrastructure components that are eligible to be included in the RWPs are further specified in Section 2.5.2.12.

2.5.2.4 Aquifer storage and recovery water management strategies

Strategy yields

ASR WMS evaluations must also report the expected percent of recovery for the ASR projects and must present that expected, lesser volume as the net water supply yield for the project. This may be presented as a range of recovery over time, if applicable. Some amount of mixing occurs between the injected water and the native water in all ASR projects and the recovery of injected water increases after each injection cycle as a buffer zone between the injected water and the native groundwater is developed. The number of cycles needed to create this buffer zone is dependent on the physical characteristics of the aquifer and the groundwater geochemistry. In general, recovery typically ranges from 70 to 90 percent for ASR systems, but this is site-specific parameters and can vary. The most ideal ASR projects are placed in confined aquifers composed of clean sandstone, which will usually allow for higher rates of recovery (greater than 90 percent). Projects may also be in

[32] Applies both intra-regionally and inter-regionally. Competing project supply volumes may be prorated, for example.

other types of aquifers which are common in Texas. Carbonate aquifers, for example, generally contain fractures and cave features that may result in the loss of stored water. Recovery rates in carbonate aquifers are generally lower (70 percent).

ASR assessments for significant identified water needs

In accordance with HB807 86th Legislative Session, *"if a RWPA has significant identified water needs, [the RWP shall provide] a specific assessment of the potential for aquifer storage and recovery projects to meet those needs."*

The threshold(s) for "significant" identified water needs are to be defined by the RWPG; and the RWPGs must articulate in their RWP how they determined the threshold of significant water needs for this requirement and which entities met this threshold.

If an RWPG determines that water needs are significant, the RWPG must assess ASR as an option for meeting those needs. This assessment may be include consideration of the TWDB's Statewide Survey of ASR and AR Suitability interactive web map[33]. This tool may be used to assist in identifying a geographic area(s) relative suitability (most, moderately, and less suitable) for ASR project development. The final ASR suitability rating(s) are based on three screenings: hydrogeological characteristics, excess water, and water needs. The tool can also be used to examining these screenings independently[34].

Links to the TWDB's available and relevant information on ASR for the RWPGs to consider in this effort is provided in Section 3.

2.5.2.5 Conservation water management strategies

Municipal conservation

Active water conservation strategies are those that conserve water over and beyond what would happen anyway as result of passive water conservation measures that stem from federal and state legislation requiring more efficient plumbing fixtures in new building construction or replacement.

When evaluating and recommending WMSs and WMSPs, each RWPG **must include** active water conservation measures for WUGs with identified needs to which TWC §11.1271[35] and TWC §13.146[36] apply. Water conservation measures are defined in 31 TAC §357.10(36) as practices, techniques, programs, and technologies that will protect water resources, reduce the consumption of water, reduce the loss or waste of water, or improve

[33] https://twdb-wsc.maps.arcgis.com/apps/webappviewer/index.html?id=50d9b795672243d387cef438f7c62311

[34] The hydrogeological parameters screening identifies the aquifer with the most suitable physical characteristics for an ASR project. The excess water screening identifies potential sources of water that can be used as an injectate. The water needs screening identifies geographic area(s) with a municipal, industrial, or steam electric need for water supply. The water needs screening is limited to data that is available with a definitive geographic location within the statewide survey's grid. Additional needs may be able to be identified on a site-to-site basis.

[35] Relating to Additional Requirements: Water Conservation Plans: https://statutes.capitol.texas.gov/Docs/WA/htm/WA.11.htm

[36] Relating to Water Conservation Plans: https://statutes.capitol.texas.gov/Docs/WA/htm/WA.13.htm

the efficiency in the use of water that may be presented as Water Management Strategies, so that a water supply is made available for future or alternative uses.

For planning purposes, Water Conservation Measures do not include reservoirs, aquifer storage and recovery, or other types of projects that develop new water supplies. These measures must be consistent with the minimum requirements in TCEQ's administrative rules 30 TAC §288.2 [37], including water use reduction and water loss mitigation. The measures may be included in the plan as a conservation WMS. TWDB will provide information for WUGs that submit conservation plans in accordance with these statutory requirements and TWDB administrative rules 31 TAC §363.15 (related to Required Water Conservation Plan) and their associated targets, goals, BMPs, and water loss information for RWPG use in developing water use reduction and water loss mitigation strategies for these WUGs.

Each RWPG must also

1. consider active water conservation measures for WUGs and WWP WUG customers with identified needs;
2. consider WMSs to address any issues identified in the information provided by the TWDB from the water loss audits performed by retail public utilities pursuant to 31 TAC §357.34(i)(2)(D); and
3. separate conservation strategies and their projects into either a *Conservation – water loss mitigation* or *Conservation – water use reduction* WMS type[38].

If TWC §11.085(l) applies to a proposed IBT, the RWPG must

1. include a water conservation WMS that includes water conservation measures at the highest practicable level of water conservation and efficiency achievable[39] (includes existing conservation as well as that proposed within a WMS) for each WUG or WWP WUG customer that is recommended to rely on a WMS involving the IBT; [40] and
2. present recommended conservation WMSs associated with an IBT WMS analysis by WUG and WWP WUG customers. Recommended conservation WMS information will be tabulated in a DB27 generated standardized report for each WUG with an associated recommended WMS that requires an IBT.

Best Management Practices identified by the state's Water Conservation Advisory Council and other information for consideration, including the Statewide Water Conservation Quantification Project and the Municipal Water Conservation Planning Tool, may be found on the TWDB website[41]. Please note that planning data included in the Municipal Water

[37] Relating to Water Conservation Plans for Municipal Uses by Public Water Suppliers: https://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=30&pt=1&ch=288&rl=2

[38] Additional guidance including examples of the conservation WMS types will be provided in TWDB's Contract Exhibit D: *Guidelines for 2026 Regional Water Plan Data Deliverables*

[39] 31 TAC §357.34(i)(2)(c)

[40] WMSs that require an IBT under TWC §11.085 should indicate this.

[41] http://www.twdb.texas.gov/conservation/index.asp

Conservation Planning Tool is not currently up to date, however the tool may be used to determine savings from implementing certain water conservation strategies.

Agricultural conservation

Resources to assist with developing agricultural conservation WMSs are included in Section 3.1.4.

2.5.2.6 Drought management water management strategies

For regional water planning purposes, drought management strategies are temporary demand management measures that reduce water use during times of drought by restricting normal economic and domestic activities.

RWPGs must document the consideration of drought management measures for all WUGs with identified water needs and must identify and describe drought management measures for each WUG to which TWC §11.1272[42] applies. Drought management measures are defined in 31 TAC §357.10(9) as demand management activities to be implemented during drought that may be evaluated and included as Water Management Strategies. The drought management measures must be consistent with the minimum requirements in TCEQ's administrative rules 30 TAC Chapter 288 Subchapter B[43], including targeted reductions. Drought management WMSs are not required to be recommended, however if the RWPG does not recommend drought management WMSs, the plan must provide documentation in accordance with Section 2.5.2.7. The TWDB will provide a list of entities that submit drought contingency plans in accordance with these statutory requirements for RWPG use in developing drought management measures or strategies for these WUGs.

Examples of how regions developed drought management strategies in past plans include

- reviewing drought triggers and responses in Drought Contingency Plans (DCP) and deferring to the DCP "severe" trigger response goal to estimate drought management water savings or recommending a demand reduction percentage based on a WUG's GPCD if a DCP is unavailable;
- reviewing drought triggers and responses in DCPs and considering individual DCP trigger types and the frequency a trigger might be reached along with a WUG's projected water demands to estimate drought management water savings;
- recommending a standard demand reduction percentage for all applicable WUGs and utilizing the TWDB Drought Management Costing Tool to estimate the associated annual water savings and cost; and
- recommending a percentage of demand reductions for specific wells based on drought management plan triggers.

[42] Relating to Additional Requirement: Drought Contingency Plans for Certain Applicants and Water Right Holders: https://statutes.capitol.texas.gov/Docs/WA/htm/WA.11.htm
[43] Relating to Drought Contingency Plans: https://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=288&sch=B&rl=Y

If, after considering drought management WMSs for each WUG with a need to which TWC §11.1272 does not apply, a RWPG does not select drought management as a WMS for an individual WUG with a need, they must document the reason.

2.5.2.7 Documentation of implementation status and anticipated timeline for certain types of recommended WMSs

Chapter 5 of the IPP and final RWPs must include a **new** sub-section documenting the implementation status of certain WMSs that are recommended in the plan, as listed below.

Each RWP must include this new sub-section in the plan. If no applicable WMSs are recommended by the region, the region must include a statement documenting this within the sub-section.

The implementation status must be provided for the following types of recommended WMSs with any online decade[44]:

- All reservoir strategies (including major and minor reservoirs)
- All seawater desalination strategies
- Direct potable reuse strategies that provide greater than 5,000 acre-feet per year (AFY) of supply in any planning decade
- Brackish groundwater strategies that provide greater than 10,000 AFY of supply in any planning decade
- Aquifer storage and recovery strategies that provide greater than 10,000 AFY in any decade
- All water transfers from out of state
- Any other innovative technology projects the RWPG considers appropriate

The subsection must be clearly labeled and include the following items:

1. A table documenting the status of key milestones such as when the sponsor took an affirmative vote or other action to make expenditures necessary to construct or file applications for permits, state water right, diversion, or discharge permit status, federal 404 permit status, planning, design, and construction status, and expenditures to date. A WMS status table template to collect this information is included in the 2026 RWP Exhibit C Tables Excel file. **Planning groups are required to utilize the template for this subsection.**
2. A simple, graphic, showing the full planning horizon, and displaying separate timeline/schedules for each project (per above list) that includes major anticipated/estimated, future implementation milestones (e.g., feasibility, design, permitting, acquisition) and construction milestones (e.g., anticipated start and completion dates) either graphically as timeframe periods (e.g., Gantt bars) or as single milestones representing estimated end-dates of key activities (e.g., issuance target date of 404 permit or water right), as well as those milestones already achieved.

[44] The list of WMS types is updated based on House Bill 1565, 88th Texas Legislature.

The sub-section must demonstrate the feasibility, based on key milestones achieved and anticipated timing of future milestones, of each recommended strategy to be fully implemented *by the online decade in the regional plan*.

Additional information regarding the anticipated implementation schedule of these projects may be included as an appendix to the plan.

2.5.2.8 Documentation of certain WMS that are not recommended by the RWPG

If the following types of WMSs are not recommended by the RWPG, the RWP must include documentation of why these WMSs were not recommended:

- Conservation WMSs for each WUG with an identified need
- Drought management WMSs for each identified water need
- Aquifer storage and recovery
- Brackish groundwater desalination
- Seawater desalination

The documentation of reasons may be included as shown in the Potentially Feasible WMS template of the 2026 RWP Exhibit C Tables Excel file or elsewhere in the plan document as deemed appropriate by the RWPG.

2.5.2.9 Water management strategy losses

Estimated water losses associated with each WMS must be presented in the IPP and final adopted RWP. Water losses may be presented as a calculated percent water loss included in each strategy evaluation or a range of estimated losses by strategy type.

Technical evaluations may present, for example

1. total intake volumes at the supply source;
2. total net volume delivered to the end water user(s) (e.g., WUG(s));
3. with the difference between (1) & (2) being total water loss (e.g., due to conveyance losses); or,
4. the associated calculated percent water losses for strategies.

2.5.2.10 Impacts and limitations on water management strategies

RWPGs must evaluate the effects of WMSs on the environment by providing a quantitative reporting of the following environmental factors:

1. Environmental water needs
2. Wildlife habitats
3. Cultural resources
4. The effects of upstream development on the bays, estuaries, and arms of the gulf of Mexico

WMS evaluations must also include the following:

- Quantitative reporting of impacts to agricultural resources
- Other factors as deemed relevant by the RWPG including recreational impacts

These evaluations may be in a variety of forms, including a cumulative analysis of all recommended WMSs in the plan. RWPGs must document an overall methodology for evaluating impacts. Illustrative examples of quantification from previous planning cycles have included

1. project-specific acreages impacted for agricultural resources and wildlife habitats;
2. quantified ranges of acreage correlating to qualitative impact descriptions (e.g. low, medium, high);
3. degree of impacts on the reduction or increase in instream flows or bays and estuaries;
4. flow frequency curve comparisons;
5. well hydrographs of anticipated pumping;
6. percent attainment of freshwater inflow targets (annual and monthly) under different scenarios; and,
7. monthly median freshwater inflows comparisons.

For environmental flows and incorporating appropriate limitations on WMS yields, RWPGs must, in the following order

1. follow environmental flows standards in TCEQ 30 TAC Chapter 298 rules[45]; or, in the absence of these flow standards;
2. use site specific studies when available; or, in the absence of these studies; or,
3. apply the *1997 Consensus Criteria for Environmental Flow Needs.* [46]

This will be done in order to evaluate WMSs involving surface water development requiring permits from the TCEQ, including limitations to firm yield associated with releases or pass-throughs based on these criteria.

Please note that TCEQ has not added the Chapter 298 environmental flow standards to all WAMs for basins with adopted standards. In some basins, the RWPG may have to add the relevant Chapter 298 environmental flow standards to the WAM to evaluate a WMS. The RWPG must document what steps were taken to account for environmental flows.

The 1997 Consensus Criteria were developed through extensive collaboration among scientists and engineers from the state's natural resource agencies including the TWDB, TCEQ, and the TPWD, as well as academic professionals, engineering consultants, and informed members of the public. More specifically, the criteria are multi-stage rules for environmentally safe operation of impoundments and diversions during above normal flow conditions, below normal flow conditions, and during drought of record conditions. Documentation describing the methodology and its application is available online.

2.5.2.11 Recommended water management strategies requiring interbasin transfers

RWPGs recommending water management strategies involving an interbasin transfer must include documentation of consideration of the highest practicable level of water conservation and efficiency achievable, including water conservation strategies for each

[45] http://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=298&sch=A&rl=Y
[46] These consensus criteria can be found in Appendix 2.0 of this guidelines document.

WUG or WWP that is to obtain water from a proposed interbasin transfer to which TWC 11.085 applies (31 TAC §357.34(g)(2)(C).

For these strategies, RWPGs must determine, and report projected water use savings in gallons per capita per day based on its determination of the highest practicable level of water conservation and efficiency achievable. RWPGs must develop conservation strategies based on this determination. RWPGs must seek the input of WUGs and WWPs as to what is the highest practicable level of conservation and efficiency achievable, in their opinion, and take that input into consideration. When developing water conservation strategies, the RWPGs must consider potentially applicable best management practices. Strategy evaluation in accordance with this section must include a quantitative description of the quantity, cost, and reliability of the water estimated to be conserved under the highest practicable level of water conservation and efficiency achievable

The RWPG must also consider and discuss the provisions in TWC §11.085(k)(1) for Interbasin Transfers of Surface Water. At minimum, this consideration must include a summation of Water Needs in the basin of origin and in the receiving basin.

Recommended conservation WMS information will be tabulated in a DB27 generated standardized report for each WUG with an associated recommended WMS that requires an IBT.

2.5.2.12 Financial costs

Cost evaluations for WMSPs must include capital costs, debt service, and annual operating and maintenance expenses over the planning horizon. The TWDB provides a WMSP costing tool that is required to be used by RWPGs (see Section 2.5.2.13)[47]. Reported costs should only include expenses associated with infrastructure needed to convey water from sources and treat water for end user requirements. Reported costs may not include expenses associated with internal distribution networks (e.g., infrastructure beyond treatment plants and major transmission/conveyance facilities). RWPGs must report capital costs and average annual operation and maintenance costs as separate items in DB27[48].

Costs of WMSPs must be prepared and presented separately and discretely for each separate WMSP and may not be aggregated and presented as a single capital cost representing multiple WMSPs that would actually be located in multiple locations and funded by separate sponsors or implemented separately. Each project with a capital cost should have an associated volume of water or annual capacity presented in the plan. RWPGs may not, in general, aggregate multiple facilities into a single cost estimate and then allocate shares of the resulting total cost, for example, pro rata across several entities or locations.

[47] The EA anticipates that this costing tool will either be updated fully for application assumptions and complete construction cost data; or if staff resources are limited, costs will be adjusted using the appropriate Engineering News Record (ENR) cost index.
[48] See the TWDB's Contract Exhibit D: *Guidelines for 2026 Regional Water Plan Data Deliverables* for further information.

Capital costs

Capital costs consist of construction funds and other capital outlays including, but not limited to, costs for engineering, contingencies, financial, legal, administration, environmental permitting and mitigation, land, and interest during construction.

Construction costs, if applicable, must be based on September 2023 price indices for commodities such as cement and steel as reported in the *Engineering News Record (ENR) Construction Cost Index*[49] and include expected construction bid prices for the following types of infrastructure:

1. Pump stations
2. Pipelines
3. Water intakes
4. Water treatment and storage facilities
5. Well fields
6. Relocation of existing infrastructure such as roads and utilities
7. Any other significant construction costs identified by each RWPG

Note that if construction cost estimates are available for some WMSPs based on prior cost estimates that are more detailed than those provided by the WMSP costing tool provided by the TWDB, these more detailed cost estimates may be updated by adjusting them based on the September 2023 price indices for commodities such as cement and steel as reported in the *ENR Construction Cost Index.*

Interest during construction is based on total project costs drawn down at a constant rate per month during a construction period. Interest is the total interest accrued at the end of a construction period using a 3.5 percent annual interest rate less a 0.5 percent rate of return on investment of unspent funds.

If applicable, other capital costs include[50]

1. engineering and feasibility studies, legal assistance, financing, bond counsel, and contingencies (engineering, contingencies, financial, and legal services may be lumped together and estimated as 30 percent of total construction costs for pipeline projects and 35 percent for other facilities unless more detailed project and/or site-specific information is available);
2. permitting and mitigation activities including, but not limited to, those associated with
    a. archeological/historic resources;
    b. environmental analyses and biological assessments;
    c. mitigation activities including: evaluation, land acquisition, implementation, monitoring, financial assurances, and adaptive management; or
    d. other permitting and mitigation costs.
3. land purchase costs not associated with mitigation;

[49] ENR quarterly cost reports can be found at http://www.enr.com
[50] These development costs may vary by project category based on the TWDB WMSP costing tool.

4. easements costs (easement costs for pipelines must include a permanent easement plus a temporary construction easement as well as rights to enter easements for maintenance); and,
5. purchases of water rights.

Note that costs and land areas associated with development of reservoirs, in particular, must be broken out within the aforementioned costing items to show separate lines items for:

1. the land area of the reservoir footprint (conservation pool only) alongside the estimated land purchase cost;
2. mitigation land area and associated estimate of purchase cost; and,
3. construction costs of embankment/dam facilities (separate from transmission facilities).

Debt service

For WMSs other than reservoirs the length of debt service is 20 years unless otherwise justified. For reservoirs, the period is 40 years. Level debt service applies to all projects, and the annual interest rate for project financing is 3.5 percent. Terms of debt service must be reported in the evaluation of each project.

Annual operating and maintenance costs

Operations and maintenance unit costs must be based on the associated quantity of water supplied. Unless more accurate, project-specific data are accessible, RWPGs must calculate annual operating and maintenance costs as 1.0 percent of total estimated construction cost for pipelines, 2.5 percent of estimated construction costs for pump stations, and 1.5 percent of estimated construction costs for dams. Costs must include labor and materials required to maintain projects such as regular repair and/or replacement of equipment. Power costs must be calculated on an annual basis using calculated horsepower input and a power purchase cost of $0.09 per kilowatt hour; however, each RWPG may adjust this figure based on local and regional conditions if they specify and document their reasons. RWPGs must include costs of water if WMSs involve purchases of raw or treated water on an annual basis (e.g. leases of water rights).

At a minimum, annual costs should be presented by debt service, operation and maintenance cost as a percentage of total construction cost, power costs, and cost of purchasing water (if applicable). If precise information on the cost of purchasing water is not available, the plan should include a best estimate (e.g., as a percent markup) or an estimated range of the raw or treated water cost and the water management strategy evaluation can state the average cost is an estimate.

Unit costs of water

The RWP must present the unit costs of the net volume of water anticipated to be delivered to water users (after water losses) in dollars per acre-foot. Unit costs of WMSs must be evaluated, compared, and presented in an ‘apples-to-apples’ manner. For example, RWPGs should not compare firm yield unit water costs of one reservoir to the safe yield unit water costs of another reservoir within the same river basin when comparing alternatives.

2.5.2.13 WMSP costing tool for regional water planning

The TWDB spreadsheet-based WMSP costing tool, or Uniform Costing Model, will be updated and made available for use by RWPGs and located, along with a user guide, on the TWDB website. This spreadsheet-based costing tool provides a broad set of historical costs linked to costing curves that will be utilized to develop costs for typical elements of water projects (e.g., pump stations, pipelines, and treatment plants). This tool reflects the requirements of these regional water planning guidelines and presents output cost data accordingly. The tool has the flexibility to incorporate a certain amount of local knowledge and project specific data.

In the absence of more accurate and detailed, project-specific cost estimates, RWPGs must utilize this WMSP costing tool for every cost estimate presented in the RWPs, including updating project cost estimates previously developed in the 2021 RWPs. RWPGs must include the costing tool's standardized, automated cost output report for each WMSP evaluated in the IPP and final adopted RWP. If a different format is utilized, the RWPG must apply the data and procedures used in the costing tool and present the resulting output as analogous to the costing tool, for example breaking out capital cost estimates for each project component.

2.5.2.14 Infrastructure/costs that must be included in regional water plans

The WMSP components that are included in RWPs will be limited to the infrastructure and costs that are required to develop and convey increased water supplies from water supply sources and/or to treat the water for the end-user entity. This may include treatment facilities at the end-user entity's delivery point or treatment facilities at a point prior to transmission to the WUG (e.g., at a WWP location). Costs will also include conservation WMSs that have associated infrastructure or other costs (e.g., to address water loss; plumbing retrofits); or WMSs needed to address infrastructure bottlenecks in an existing water supply conveyance system—the removal of which would allow an increase to the water supply volume delivered to an end-user entity.

The types of facilities and associated capital or other costs that may be included in a RWP[51] are directly associated with development of new supplies from new water sources or additional supplies from more efficient use of existing supplies (i.e., conservation), or volumetric increases to existing water supplies delivered to entities. Such strategies include but are not limited to

1. facilities associated with a new water supply (e.g., new reservoir, new well field, intakes, pump stations);
2. water supply storage facilities associated with increasing water supply source yields (e.g., reservoirs, some aquifer storage and recovery facilities);
3. facilities that are required to increase water supply from an existing water supply source (e.g., a new water transmission pipeline from an existing reservoir);

[51] RWPGs must report capital and annual costs through DB27. See the TWDB's Contract Exhibit D: *Guidelines for 2026 Regional Water Plan Data Deliverables* for further information.

4. expansion of existing facilities that are required to accommodate increased supply capacity to treat increased water supply for entities (e.g. water treatment plant capacity expansion);
5. facilities associated with increasing overall water supply yields, for example, by blending new sources of water with existing water sources (e.g., conjunctive use);
6. expanded infrastructure required to fully utilize existing water rights/supplies (e.g. expansion of an undersized raw water intake or expansion of a water treatment plant);
7. new facilities required to obtain water from an existing water source that may be changing (e.g., replacement of a groundwater well in order to obtain water from an existing groundwater supply in an aquifer that is being drawn down below the level of the existing well);
8. infrastructure associated with water (raw or treated) supply transmission lines from WWPs to WUGs;
9. costs associated with conservation WMSs that have identified capital or other costs for the associated decrease in system water use or water losses, including active plumbing retrofit programs; replacement of portions of an existing leaking water transmission or distribution network that results in an immediate, quantifiable increase in water supply; or, meter replacement/SCADA installation that also results in an immediate, quantifiable increase in water savings;
10. costs associated with the increased wastewater/water treatment requirements that are required to meet standards for providing new or additional reuse water supplies; and
11. costs associated with major conveyance lines delivering reuse water from treatment plants to a different WUG delivery points (i.e. industrial facilities).
12. costs of temporary drought management strategies.[52]

Water plans may include only infrastructure costs that are

1. associated with volumetric increases of treated water supplies delivered to WUGs (e.g., up to a water utility's intake or service area), or
2. that would immediately result in more efficient use of existing supplies or in an immediate reduction in water losses.

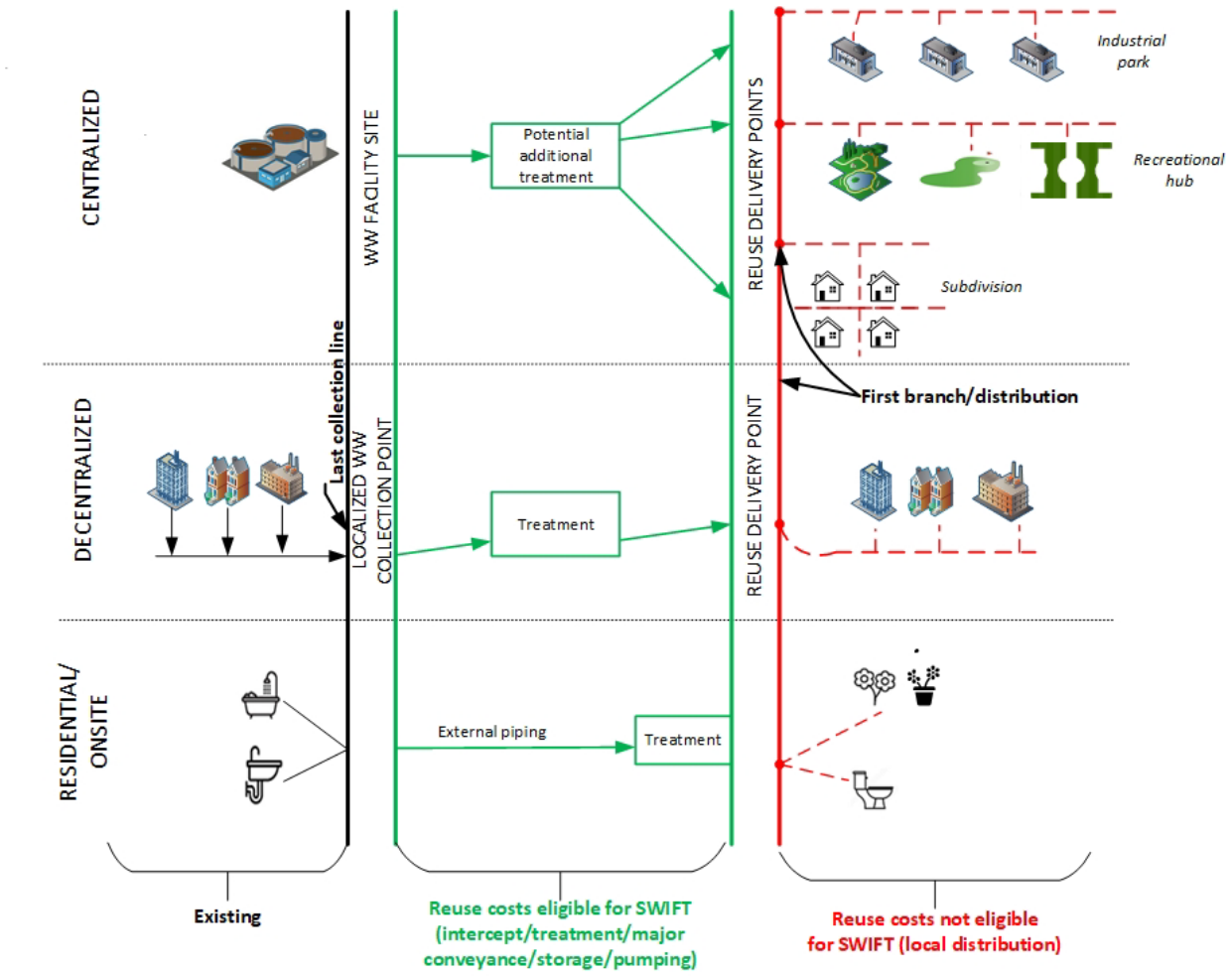
In accordance with 31 TAC §357.34(e)(3)(A), regional and state water plans may not include the cost of distribution of water within a WUG service area.[53] The only exception regarding the inclusion of costs associated with water distribution systems are for direct reuse projects and conservation strategy projects that are in accordance with the following guidance.

[52] Estimated costs of probable economic impacts due to temporary drought management strategy implementation may be presented for WMS evaluation and comparison purposes within technical analyses but may not be included in water plans as a capital cost of the RWP. The TWDB WMSP costing tool includes a temporary drought management strategy component that may be used to estimate economic impacts associated with demand reductions for the purpose of comparing to costs of WMSs.
[53] The reference of distribution system in the section is not equivalent to large-scale transmission projects within the boundaries of collective reporting units.

Direct reuse **(see Figure 2)**

1. Costs associated with major conveyance lines delivering reuse water from treatment plant to/within a WUG's distribution system or subdivision *but prior to submains or branching lines.*
2. Cost of major conveyance line delivering direct reuse supplies to/within a WUG's service area and only **up to** a delivery 'hub' location, prior to submains or branching lines, such as recreational areas (baseball and soccer fields), parks, golf courses, commercial hubs, edge of residential subdivision or new development (but not including distribution service lines to each business or household or fairway).
3. Decentralized reuse costs associated with separate treatment facilities within local/community scale non-wastewater collection, treatment, storage, and pumping that result in the development of new supply (**includes supply development within** the WUG's distribution system).
4. Onsite greywater reuse and onsite stormwater/rainwater harvesting costs that include storage, treatment, and pumping for each system or building.
5. Treatment costs for onsite systems.

Figure 2 – Eligible and Ineligible Reuse Components for inclusion in Regional Water Plans



Conservation - water loss mitigation

1. Costs are associated with metering or other best management practices that will result in immediate reduction in the use of or loss of water; or
2. Costs are associated with replacement of only those portions of water lines in an existing retail water distribution system service area that for the primary purpose of addressing significant, measurable, water loss, and:
    a. the proposed replacement water line(s)is not more than two, standard pipe diameters larger than the existing line proposed to be replaced. For example, replacement of an existing 6-inch water line with a 12-inch line may not be included in the water plan since it is more than 2 diameters larger (i.e., larger than both 8-inch and 10-inch);[54]

[54] For the purposes of state water planning, water line upsizing over two diameters is considered an indication that the primary purpose of the line replacement is to increase the volume of water being delivered rather than reduction of water loss.

b. the proposed water line replacement will provide an immediate, quantifiable increase in water supplies; and,
c. the primary purpose of the project is to achieve water conservation savings.[55]

If the distribution line replacement for the water conservation strategy is subject to adopted utility standard minimum size requirements that exceed two standard pipe diameters, the water management strategy evaluation must note the specific utility standard and include

1. a map of the proposed line replacement; and,
2. detailed water loss calculations before and after the proposed line replacement.

2.5.2.15 Infrastructure/costs that may not be included in regional water plans

If an infrastructure component is not required to increase the treated water supply volume delivered to an entity either as new supply or through demand reduction, then the component and its costs may not be included in the RWP. Types of items and associated cost that may not be incorporated into a RWP include, but are not limited to

1. new facilities associated with internal distribution networks. (e.g., retail distribution within a WUG's system) and that do not convey additional water supply volumes to a WUG;
2. internal distribution facilities prior to sewage collection points (i.e., prior to the last sewer intercept) or after the first reuse delivery point, including those associated with direct reuse water (per 31 TAC §357.34(e)(3)(A)). For direct reuse, internal distribution lines just prior to the first service connection are considered outer distribution lines (sub mainlines or lateral/branching lines) such as individual service lines to individual homes or businesses and may not be included in the regional plan;
3. wastewater collection systems associated with a wastewater treatment plant that provides direct reuse project water;
4. costs associated with outer distribution system components that deliver treated reclaimed water to individual end users for decentralized reuse;
5. costs associated with collection or distribution for onsite systems;
6. water system improvements to address compliance issues related to water quality or water distribution pressure;
7. new wells that are required simply to replace aging wells (i.e., maintenance);
8. maintenance of, or upgrades to, existing equipment or facilities that do not directly increase volumetric water supply (e.g., for improving water treatment processes at existing water treatment plants; replacement of electrical systems; replacement of pumps; or installation of cathodic protection on existing facilities);

[55] Conservation strategies should not be based on potential water savings that are only ancillary benefits of a non-conservation project. For example, replacing existing small diameter water lines with much larger lines to increase delivery of water in a distribution system may often entail a small side-benefit of reducing at least some water losses but is not a sufficient basis for inclusion of the project as a conservation capital cost in a regional water plan. The impracticality of labelling such a project as a conservation strategy may also be indicated by a noticeably higher unit cost of conserved water.

9. preventative measures to protect or maintain dam infrastructure against future water loss or degradation; and,
10. water storage facilities directly associated with retail water distribution networks (e.g., elevated storage tank).

RWPs must not include any strategies or costs that are associated with

1. simply maintaining existing water supplies;
2. replacing existing infrastructure for maintenance or compliance;
3. expanding water distribution system capacity or the distribution network, for example, to address compliance issues related to water quality or water pressure, or to reach new retail development areas;
4. delivering greater volumes of water within the distribution system for the purpose of addressing increased system growth of new retail developments; or
5. delivering greater volumes of water within the distribution system for the purpose of existing or future fire protection.

2.5.3 Allocating water management strategy supplies

A WMS's source will have an availability that will reflect the full drought of record firm yield/firm diversion. The availability associated with a WMS/WMSP must be allocated to WUGs and/or WWPs as future supplies as appropriate, in accordance with the following:

1. Fully allocated to the WUGs and/or WWP WUG customers
2. Partially allocated to WUGs and/or WWP WUG customers and the remainder allocated to entities representing the unassigned water volumes
3. Remain unallocated, by associating the water volumes with an 'unassigned water volume entity' that represents the entity that sponsored the development of the water

For any recommended water management strategies where the strategy supply volume remains 100 percent unallocated to water user groups, the RWPG must explain in the RWP why the strategy is recommended but not assigned to any beneficiaries.

2.5.4 Recommended and alternative water management strategies and water management strategy projects

RWPGs must recommend WMSs separately from WMSPs although they are often interrelated. The IPP and final RWP must include documentation of the RWPGs process for selecting recommended WMSs and WMSPs. This may include for example, the consideration of evaluation matrices in comparison to specific WUG criteria. This information may be presented in flowchart form or a discussion of the assumptions the planning group considers in deciding to recommended a certain WMS or WMSP.

Chapter 5 of the IPP and final RWP must include a table or list of all recommended WMS and WMSPs.

All alternative WMSs must be fully evaluated based on criteria specified in 31 TAC §357.34 & §357.35. Technical evaluations of each alternative WMS must have a generally defined

delivery point for the water. All applicable data associated with the evaluation of alternative WMSs and WMPs must also be entered into DB27.

After RWP adoption, a RWPG may substitute a fully evaluated alternative WMS for a previously recommended WMS, if the previously recommended strategy is no longer feasible if a substitution request to the EA is approved (per 31 TAC §357.51(e)).

2.5.4.1 Management supply factor

The IPP and final adopted RWP must include, for informational purposes only, a TWDB-provided table that presents the calculated management supply factors for each decade and for each WUG, that considers all recommended WMSs. A management supply factor must also be presented individually for each MWP, by decade. The TWDB will provide supporting data from DB27 to assist in the analysis and presentation of management supply factors for MWPs. The management supply factor for a WUG or MWP must be calculated as follows and is for reporting purposes only:

$$MSF = \frac{Ve + Vr}{D}$$

Where:

MSF = management supply factor

Ve = total volume of all decadal existing water supplies associated with a WUG (adjusted if necessary for strategies)

Vr = total volume of all decadal recommended WMS supplies associated with a WUG

D = total identified decadal water demand volume for a WUG to be met by (*Ve* + *Vr*)

For example, the management supply factor for a WUG with a projected decadal demand of 10,000 acre-feet/year, a total of 5,600 acre-feet/year existing supplies, and a total of 5,400 acre-feet/year supply from all recommended WMSs would be:

$$MSF = \frac{5{,}600\ AFY + 5{,}400\ AFY}{10{,}000\ AFY} = 1.1$$

WUGs with unmet needs, for example associated with some irrigation demands, will result in management supply factors less than 1.0.

For example:

$$MSF = \frac{5{,}000\ AFY + 1{,}000\ AFY}{10{,}000\ AFY} = 0.6$$

WUGs may be grouped by category and similar management supply factors in a summary format when appropriate. If the management supply factor was predetermined by the RWPG prior to recommending strategies[56], the underlying basis for the magnitude of the management supply factor must be explained in the RWP and may be summarized within the Management Supply Factor Table.

[56] RWPGs are not required to use predetermined management supply factors.

To address uncertainty in the planning and project implementation process over the current planning horizon and/or to address potential water needs beyond the planning horizon, RWPGs may choose to identify and incorporate a predetermined management supply factor (e.g., beyond just meeting identified water needs) for WUGs and MWPs when developing the RWP.

Management supply factors may be used to take into account uncertainties associated with

1. projections of populations,
2. projections of water demands,
3. climate variability,
4. potential droughts more severe than the drought of record,
5. yield of recommended WMSs,
6. permitting or other uncertainties impacting implementation of WMSPs, and/or,
7. other uncertainties.

The RWPG may choose to predetermine appropriate management supply factors as the basis for recommending WMSs that, together, provide water volumes in excess of the identified water needs. RWPGs must provide an explanation for any predetermined management supply factors and may present these factors based, for example, on sizes of water users, types of water use, water availability conditions, types of WMSs, or any other factors the RWPG considers relevant at the project or water user level.

If a RWPG chooses not to predetermine or standardize management supply factors, the management supply factors will simply be reported in the RWP based on the recommended WMSs.

2.5.5 Water conservation subchapter

The IPP and final adopted RWP must include a separate subchapter (in accordance with 31 TAC §357.34(i)(2) & (j)) which must consolidate and present conservation recommendations, including considerations of applicable Best Management Practices appropriate for the region. If applicable, this subchapter must summarize the reason(s) that a conservation WMS(s) was not recommended for each WUG having an identified water need.

It should be noted that water reuse is a unique strategy type separate from conservation. for planning purposes, water conservation measures do not include projects that develop new supplies, such as new reservoirs or aquifer storage and recovery projects[57].

Model conservation plans

RWPGs must include in the RWPs model Water Conservation Plans. Model water conservation plans, (consistent with TWC §11.1271), may be referenced, instead of included in hard copy, in this subchapter by providing internet links. Model water conservation plans developed by the TCEQ may be used for this purpose.

[57] 31 TAC §357.10(34)

GPCD goals

RWPGs must recommend GPCD goal(s) for each municipal WUG or specified groupings of municipal WUGs. Goals must be recommended for each planning decade and may be a specific goal or a range of values. At a minimum, the RWPs must include GPCD goals based on drought conditions to align with guidance principles in §358.3 and document the methodology utilized to establish the goals, including whether total, residential, or planning GPCDs are utilized and recommended.

TWDB will provide a list of municipal WUGs in each RWPG as well as supporting information of historic GPCD estimates, projected GPCDs, and relevant information from conservation annual reports submitted to TWDB to inform their process to set GPCD goals. GPCD goals may be a specific GPCD, or ranges of GPCD; may be based on specific municipal WUGs, or groupings of municipal WUGs as determined appropriate by the RWPG.

Plumbing code savings

Note that water-efficiency savings (plumbing code savings) are incorporated into the underlying municipal demand projections and include the estimated or anticipated savings due to fixture and appliance design specifications in state or federal legislation. Additionally, the base GPCD for the projections would include the effects of any conservation best management practices that the utility had already achieved by the time projections were developed. In the development of municipal conservation WMSs, ensure that the strategies do not double-count the plumbing code savings that are already embedded in the projections.[58] The TWDB will provide a plumbing code savings worksheet to the planning groups of the difference between the base per-person water use for municipal WUGs and the projected GPCD which will include expected savings due to plumbing codes and water-efficient appliances. The savings are to be presented by region, county, and municipal WUG, but it will be up to each RWPG as to how the savings are included in the RWPs.

2.5.6 Developing the scope of work for task 5B

The regional water planning contract budgets include the total funding amount allocated for Task 5B (Evaluation and Recommendation of WMSs and associated WMSPs) but do not include the scope of work (SOW) subtasks for region-specific WMS evaluations. When a RWPG wishes to proceed on any subtask associated with Task 5B, they must submit an adequate subtask SOW for the Task 5B budget allocated to the region. This is required for the region to obtain a written notice-to-proceed from the TWDB that releases the Task 5B funds for expenditure. Task 5B is the only regional water planning contract SOW item that requires a notice-to-proceed.

RWPGs should, in general, develop the proposed SOW for potential WMS evaluations after identifying needs**.**

[58] Water efficiency savings are not incorporated into the demand projections for any other category of water use.

The process to obtain a written notice-to-proceed is as follows[59]:

1. The RWPGs prepare a proposed SOW associated with the Task 5B budget amount, using the template in the 2026 RWP Exhibit C Tables Excel file. The proposed SOW (and supporting materials) and submission of the notice-to-proceed request to the TWDB must be an action item for approval from the RWPG at a regularly-scheduled public meeting in accordance with 31 TAC §357.21(g)(1).
2. The action item(s) should include language to address
    a. approval and authorization to submit the notice-to-proceed scope of work request to the TWDB,
    b. authorization for the consultant and/or RWPG sponsor to work with the TWDB on any follow up information that might be required, and
    c. authorization for the RWPG sponsor to negotiate and execute the subsequent TWDB contract amendment that will be issued.
3. RWPGs should use the Task 5B subtask scope and budget request Excel template provided, which must include enough basic information to allow the TWDB to adequately review the proposed subtask SOW, ensure the associated subtask budget is fully justified, and ensure that all the identified work is eligible under the TWDB's rules and contract. The associated WMSs must have been identified as "potentially feasible" prior to including them in a notice-to-proceed request.
4. The subtask and budget breakdown must be presented in logical increments that allow the RWPG sponsor, RWPG members, and the TWDB to evaluate the proposed SOW and associated work effort. Submissions should not include grouping/aggregations that make it unnecessarily difficult for RWPG sponsor, RWPG members, or the TWDB to judge the amount of associated work, deliverables, or eligibility.
5. General guidelines on acceptable levels of aggregation in the proposed SOW include the following:
    a. WMS groupings for certain types of WMSs may be acceptable for scoping purposes; for example, "Local Groundwater Development." This grouping could represent multiple, smaller, WMSs for multiple WUGs (WUGs), where the WMSs are of a similar scale for each individual WUG. The individual WUGs would need to be identified in the SOW request.
    b. Multiple WMS evaluations of a larger scale and more complex configuration should not be aggregated into a single line item for scoping purposes, for example, an entity's new water supply Capital Improvement Plan for the next 50 years should not be aggregated into a singular WMS, especially if it includes multiple types of strategies.
    c. To assist in determining which WMSs are grouped or scoped individually, the RWPG may wish to set a volumetric threshold, for example, WMSs that provide more than 5,000 acre-feet/year would be scoped individually. The

[59] Schematic showing an overview of the notice-to-proceed process: https://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2026/projectdocs/NTP_ProcessSchematic_2026RWPs.pdf

definition of an appropriate threshold would be based on the discretion of the RWPG and may be relative to the size of the budget.

d. New major water supply development strategies, for example, major reservoirs or major well field development, must be scoped individually.
e. WMS evaluations may be aggregated at the WMS type level, as appropriate, however multiple WMS types should not be aggregated. This means, for example, that scoping for reuse WMSs should not be aggregated with conservation WMS evaluations, or groundwater development WMS evaluations.
f. WMSPs are not expected to be scoped, but if known, they may be discussed in the associated WMS "Scope of Work Write-Up" or "Deliverable" columns of the spreadsheet template, as appropriate.
g. For evaluations limited to updating costs of previously recommended or alternative WMSs and associated WMSPs, it is acceptable to aggregate this work by WMS type.

6. The notice-to-proceed submittal to the TWDB must also include the date on which the RWPG presented its overall methodology for identifying potentially feasible WMSs to the public for comment and the date on which the RWPG approved the methodology. The process for identifying potentially feasible WMSs must be approved prior to the RWPG taking action on a notice-to-proceed request.
7. If the notice-to-proceed request is submitted prior to the RWPG's identification of water needs, the RWPG must also provide an explanation of why the RWPG finds it necessary to start on the associated WMS evaluation(s) before the region's water needs have been identified.
8. RWPGs' must submit the formal notice-to-proceed request to their TWDB Regional Water Planner.
9. TWDB staff will evaluate the notice-to-proceed request, justifications, proposed subtask SOW and budget and, if necessary, request additional information and negotiate with the RWPG to approve a final Task 5B SOW to go with the proposed subtask budget.
10. If the notice-to-proceed request is approved by the TWDB, the TWDB will develop a contract amendment to add the new SOW subtasks under Task 5B and includes a notice-to-proceed. This is processed as a regular contract amendment that will require signature by the TWDB's Executive Administrator and the RWPG's sponsor.
11. Please note that planning groups have the following flexibility:
    a. RWPGs may submit multiple requests for a notice-to-proceed since they may want to begin evaluating some WMSs even though all of the region's needs may not be known for some time. Each notice-to-proceed request requires RWPG approval at a public meeting with opportunity for public input.
    b. RWPGs may wish to leave some of the allocated Task 5B funds out of the proposed subtask SOW budget in order to address potential last-minute changes identified in the planning process, for example, if an entity requests a new WMS to be evaluated late in the cycle.
    c. In past cycles, some RWPGs have developed a small subtask SOW for "Other WMSs" in order to address cases where entities are considering optional WMSs, but detailed information is not yet known at the time of scoping. In

these cases, it would be preferable for the RWPG to scope these subtasks at a later time. If a subtask SOW for "Other WMSs" is approved by the TWDB, the RWPG consultant should brief the RWPG on the proposed work once the details are known, receive approval from the RWPG to perform the evaluation, and report on the scope to be performed to the TWDB in the form of a detailed progress report (this process will not result in an additional SOW amendment). If an "Other WMSs" subtask is proposed, the associated budget should be no more than 10 percent of the total budget allocated to Task 5B and include a justification as to why such a subtask is necessary at this point plan development.

12. RWPG consultants should not perform work on any subtask associated with Task 5B prior to the RWPG taking action to approve the notice-to-proceed request. At the risk that the TWDB does not approve some portion of the proposed subtask SOW, RWPG consultants are permitted to start charging against Task 5B (including standard Task 5B subtasks and region-specific subtasks) from the date the RWPG approved the notice-to-proceed request.
13. The TWDB will not release funds for reimbursement associated with Task 5B until issuance of the written notice-to-proceed.

2.6 Impacts of the regional water plan (Task 6)

Links to rule and scope of work requirements:

- §357.40: Impacts of Regional Water Plan
- §357.41: Consistency with Long-Term Protection of Water Resources, Agricultural Resources, and Natural Resources
- Scope of work Task 6: Impacts of the Regional Water Plan and Consistency with Protection of Resources

Guidance:

RWPGs must describe anticipated various impacts of the RWP including potential impacts on navigation and the socioeconomic impacts of not meeting identified water needs.

2.6.1 Impacts of the regional water plan

Each RWPG must describe how implementing recommended and alternative WMSs may affect each of the following:

1. Agricultural resources
2. Other water resources of the state including other strategies and groundwater and surface water inter-relationships
3. Threats to agricultural and natural resources
4. Third party social and economic impacts resulting from voluntary redistributions of water including analysis of third-party impacts of moving water from rural and agricultural areas
5. Major impacts on key parameters of water quality in Texas. RWPGs should base water quality impacts on parameters important to water uses in each region
6. Effects on navigation

To assist in the reporting of impacts of WMSs on streamflows, RWPGs may use the optional Cumulative Effects of Recommended Strategies Tool or CERST. This Excel-based tool and user guide are available on the TWDB website and provided in Section 3.1.

2.6.2 Consistency with the long-term protection of the state's water, agricultural, and natural resources

The RWPGs must describe how the RWPs are consistent with the long-term protection of Texas' water, agricultural, and natural resources including the requirement that planning analyses and recommendations honor all existing water rights and contracts. Although much of the analyses pertaining to this requirement will be developed for other tasks, including tasks associated with estimating the environmental and water quality impacts of WMSs during WMS evaluation, RWPGs are encouraged to identify the specific resources important to their RWPAs and describe how these resources are specifically protected through the regional water planning process.

2.6.3 Descriptions of unmet municipal needs[60]

The RWPGs must provide a summary of any unmet water needs in the plan and provide adequate justification of any unmet municipal needs that are included in the final adopted RWP. For each municipal WUG with unmet needs, the RWPG must include

1. documentation that all potentially feasible WMS were considered to meet the need, including drought management WMS;
2. explanations as to why additional conservation and/or drought management WMS were not recommended to address the need;
3. descriptions of how, in the event of a repeat of the drought of record, the WUG associated with the unmet need will ensure the public health, safety, and welfare in each planning decade with an unmet need; and,
4. explanation as to whether there may be occasion, prior to the development of the next IPP, to amend the RWP to address all or a portion of the unmet municipal need.

2.6.4 Quantitative description of the socioeconomic impacts of not meeting identified needs

Typically, RWPGs request that the TWDB provide the analysis of the socioeconomic impacts of not meeting a region's identified water needs; however, the RWPGs have the option to perform this task themselves. If the TWDB is requested to perform this analysis for the RWPG, the water needs of the RWPA will need to be identified by a date to be provided, which will allow for the time necessary to conduct and provide the analysis. Due to the ongoing nature of plan development, the water supply needs utilized for the analysis may differ slightly from the identified water supply needs in the final adopted RWP.

[60] 31 TAC §357.50(j)

2.7 Drought response information, activities, and recommendations (Task 7)

Links to rule and scope of work requirements:

- §357.42: Drought Response Information, Activities, and Recommendations
- Scope of work Task 7: Drought Response Information, Activities, and Recommendations

Guidance:

This chapter of the RWP must consolidate existing and/or new information on droughts of record and drought preparations in the region and present a variety of recommendations, if any, developed by the RWPG. The TWDB does not intend to develop a chapter template this cycle, since this is no longer a new chapter, however it is recommended that RWPGs follow the order of this guidance section when developing the drought chapter to ensure all requirements are met.

2.7.1 Drought(s) of record

The RWP must present and summarize information regarding the current drought(s) of record (DOR) for the region and any other relevant sub-regional or basin-specific drought of record periods that impact the existing RWPA water supplies. This summary may include relevant sub-regional, basin-based, and/or sub-basin droughts of record.

The RWP may present information supporting recognition of potential new droughts of record for the region or a sub-region and/or for individual river basins or groundwater resources that impact the RWPA water supplies.

2.7.2 Uncertainty and drought(s) worse than drought of record

RWPs must address water supply needs during a repeat of the drought of record. During plan development, the generated values of planning factors (supplies, demands, population) all have associated ranges of uncertainty. Although the limited regional planning resources may not support evaluating a range of or multiple scenarios and although assessments of the likelihood of droughts potentially worse than the drought of record are not required, RWPGs may choose to consider scenarios and/or qualitatively address uncertainty and DWDOR in their region. These scenarios or qualitative assessments can be used to more explicitly recognize or acknowledge the relative uncertainties in planning factors and the potential risks without necessarily modifying the plan to mitigate those risks.

The known but unquantified uncertainty associated with factors such as projecting population and water demands or hydrologic variability may be considered by RWPGs in the existing water planning framework by the following examples:

1. Utilizing conservative water source yields (e.g., one year safe-yield for planning purposes rather than a firm yield) or statistical assessments, including for evaluating expected near-term water supply based on recent starting reservoir conditions for the near-term decade (2030) water supply estimates

2. Utilizing a management supply (safety) factor of supply development in excess of projected needs. Safety factors have been used to hedge such uncertainties as
    a. reduction of supply available from existing sources in case of a drought more severe than the previous drought of record,
    b. unanticipated population or industrial growth[61] within the region,
    c. delayed development of proposed management strategies,
    d. loss of supplies due to problems with facilities or contamination of sources, or
    e. other methods
3. Including information from water providers in the region that have developed long-range plans to assess their system's capacity under conditions worse than the drought of record, including any projected condition assumptions and expected impacts the utility determined through their studies
4. Quantifying the demand reductions achieved through implementation of drought contingency plans and, even if not a recommended strategy for the regions, presenting the information in the plan as specific measures to implement in the occurrence of a drought worse than the drought of record

Chapter 7 of the RWP must include a separate subsection addressing the following items regarding planning for uncertainty and droughts worse than drought of record (DWDOR):

1. Summarize, in general, how the region incorporated planning for uncertainty in its RWP and the region's basis, or policy, for inclusion. This could include general discussion on planning factors, any drivers of uncertainty associated with those factors, and how the RWPG made planning decisions to acknowledge or address that uncertainty. If the RWP does not include any measures to address uncertainty, this subsection must include a statement to that effect.
2. Summarize, in general, the key assumptions, analyses, strategies, and projects that are already included in the 2026 RWP calculations and recommendations (if applicable) that go beyond just meeting identified water needs anticipated under a DOR (i.e., those things that will provide some additional measure of protection to withstand a DWDOR such as use of safe-yield or inclusion of strategies that provide water volumes in excess of the identified water need, such as management supply factor, etc.). The summary should include describing which water users in the region, in general, are associated with those additional measures of protection (e.g., list of WUGs and WWPs and their associated water supplies to which these assumptions apply). If the RWP does not include any planning measures to address a DWDOR, this subsection must include a statement to that effect.
3. Summarize, in general, the potential additional types of measures and responses, that are not part of the recommendations in the 2026 RWP, but that would likely be available to certain water providers/users in the event of the near-term onset of a DWDOR and that would be capable of providing additional, potential capacity for those water providers and users to withstand a DWDOR (i.e., additional or deeper drought management measures - if not a recommended WMS - that could be employed). The summary should include describing which water providers/users in

[61] November 2014 Drought Preparedness Council recommendation to RWPGs

the region, in general, the additional measures and responses would be associated with (e.g., list of WUGs and WWPs and their associated water supplies to which these assumptions apply). This information may be presented at a high-level as provided in the examples in the table template below. **The RWPGs are not expected to identify conditions that constitute a DWDOR or provide details on potential capacities that would be necessary to plan for a DWDOR.**

To supplement this subsection, regions may use the example template in the 2026 RWP Exhibit C Tables Excel file.

2.7.3 Description of current preparations for drought in the region including unnecessary or counterproductive drought response

The RWP must consolidate and present

1. a description of how water suppliers in the region identify and respond to drought conditions (this may include information from local drought contingency plans); and
2. a summary of drought response efforts that the region has identified as unnecessary or counterproductive.

For the identification of unnecessary or counterproductive drought response strategies, planning groups must review and summarize, at a minimum, efforts for neighboring communities that may confuse the public or impede drought response efforts. This includes for example, differences in the implementation of outdoor watering restrictions.

2.7.4 RWPA drought response triggers & actions

RWPGs must identify existing drought response triggers and actions for existing surface water and groundwater sources on which the region relies. This includes the identification of

1. factors (triggers) specific to each water source to be considered in determining whether to initiate a drought response, and
2. actions to be taken as part of the drought response by the manager (such as water providers, reservoir operators, groundwater conservation districts) of each water source and the entities (self-supplying entities, customers) such as relying on each source, including the number of drought stages.

This information may be based on the review of existing triggers and actions associated with existing Drought Contingency Plans.

If the RWPG is uncertain of the source manager or if there is none, the plan should indicate "NA." The RWPG should report, by source, the triggers that are available. If there are no triggers, the RWPG should report that information as "none." See the 2026 RWP Exhibit C Tables Excel file for an example format.

2.7.5 Existing and potential emergency interconnects[62]

RWPGs must collect and summarize information on existing and potential major water infrastructure facilities that may be used for emergency interconnects. RWPGs may refer to TCEQ's Drinking Water Watch for emergency use data and TWDB will provide any available data from the Water Use Survey.

The RWP must include a general description of the methodology used to collect the emergency interconnect information and present the number of existing and potential emergency interconnects within the RWPA, including a table of who is connected to whom. If there are currently existing infrastructure facilities where a future potential interconnect could be developed in the event of an emergency shortage of water, this should be identified in the interconnect table.

If the RWPG collects additional information regarding the location or description of facilities, this information should be excluded from the plan and may be submitted to the TWDB's Executive Administrator separately and confidentially.

RWPs may also consider providing a general description of local drought contingency plans that involve making emergency connections.

2.7.6 RWPG drought management water management strategies

The RWP must summarize all drought management WMSs that were

1. considered and/or evaluated as potentially feasible (including those not recommended);
2. recommended in the RWP (including the associated triggers for implementing each recommended WMS); and,
3. included in the RWP as alternative WMSs (including the associated triggers for implementing each alternative WMS).

Note that drought management WMS evaluation materials must be included within Chapter 5 of the IPP and final RWP.

2.7.7 Emergency responses to local drought conditions or loss of municipal supply

The RWPGs must evaluate potential emergency responses to local drought conditions or loss of existing water supplies. These must include temporary responses that may or may not require additional temporary and/or permanent infrastructure (e.g., surface-laid pipes; wells). For the purpose of this analysis, it will be assumed that the entities being evaluated have approximately 180 days or less of water supply remaining.

The analysis will be a limited, high-level review to serve as a general indicator of the universe of potential options, or lack thereof, for each municipal entity evaluated. The results are to provide basic guidepost 'arrows' indicating potential solutions that might be considered in the event of local emergency. The information may reveal municipal water users that are most vulnerable in the event of a loss of supply. These screening-level

[62] 31 TAC §357.42(d); TWC §16.053(r) and §16.053(e)(3)(D)

evaluations do not require technical analyses or evaluations in accordance with 31 TAC §357.34 and §357.35 (WMS and WMSP evaluation and recommendation criteria).

RWPGs must evaluate, at a minimum, all municipal WUGs in the region that

1. have 2020 populations less than 7,500 and rely on a sole source[63] for its existing water supply regardless of whether that water is provided by a WWP, and
2. all county-other WUGs, regardless of population or number of sources.

See the 2026 RWP Exhibit C Tables Excel file for an example format.

2.7.8 Other drought-related considerations and recommendations

The RWPG must consider any relevant recommendations from the Drought Preparedness Council.

The RWPGs may also include, as appropriate, additional recommendations regarding

1. any other drought management measures that were recommended by the RWPG (including the associated triggers, if applicable);
2. the State's Drought Preparedness Council and the State Drought Preparedness Plan;
3. the development of, content of, and implementation of drought contingency plans in the region required by the TCEQ;
4. current drought management preparation in the RWPA, including drought triggers and actions; and,
5. any other general recommendations regarding drought management in the region or state.

2.7.9 Development of Region-Specific Model Drought Contingency Plans

The RWPGs must include region-specific model drought contingency plans[64]. Model plans must be consistent with the minimum requirements in 30 TAC Chapter 288, which provides requirements on drought contingency plans for public water suppliers, irrigation use, and WWPs.

The TCEQ requires the following types of water users to prepare and implement drought contingency plans: new water right applicants or water right amendments, retail public water suppliers with 3,300 or more connections, WWPs, and Irrigation Districts and investor-owned or privately-owned water utilities. The TCEQ provides model drought contingency plans for retail public water suppliers, WWPs, and Irrigation Districts on their Drought Contingency Plans website. These plans provided by the TCEQ include guidance on the pertinent information that must be included for plans to meet Chapter 288 requirements.

At a minimum, two model plans must be developed and may be based, for example, on different water use categories, user sizes, and/or types of water source. Model plans for municipal users must address triggers for and responses to severe and critical/emergency

[63] Sole source for an entity is a source-based analysis rather than an analysis of discrete infrastructure (e.g. a well field of 5 wells in a common aquifer is a single source).
[64] 31 TAC §357.42(j)

drought conditions. It is at the discretion of the RWPG on the type of models plans developed but is recommended that RWPGs develop plans that would be of use to the types of water users within the RWPA.

These model plans may be included as an internet hyperlink in the RWP; however, the link provided must be an operational link to the document on the RWPG's or designated political subdivision's website.

2.8 Unique stream segments and reservoir sites and other recommendations (Task 8)

Links to rule and scope of work requirements:

- §357.43: Regulatory, Administrative, or Legislative Recommendations
- Scope of work Task 8: Recommendations Regarding Unique Stream Segments and/or Reservoir Sites and Legislative & Regional Policy Issues

Guidance:

RWPGs may make recommendations for designating river and stream segments of unique ecological value and unique sites for reservoir construction; however, the Texas Legislature is responsible for making the official designations of these sites.

2.8.1 Unique stream segments

RWPGs may recommend all or parts of river and stream segments in their respective regions as having "unique ecological values." To recommend this designation, planning groups must justify the recommendation based on the following criteria:

1. Biological function measured as stream segments displaying significant habitat value including both quantity and quality considering degrees of biodiversity, age, and uniqueness including terrestrial, wetland, aquatic, or estuarine habitats
2. Hydrologic function measured as stream segments fringed by habitats that perform valuable hydrologic functions relating to water quality, flood attenuation, flow stabilization, or groundwater recharge and discharge
3. Riparian conservation areas measured as stream segments fringed by significant areas in public ownership including state and federal refuges, wildlife management areas, preserves, parks, mitigation areas, or other areas held by governmental organizations for conservation purposes, or stream segments fringed by other areas managed for conservation purposes under governmentally approved conservation plans
4. High water quality, exceptional aquatic life, high aesthetic value and spring resources that are significant due to unique or critical habitats and exceptional aquatic life uses dependent on or associated with high water quality
5. Threatened or endangered species and unique communities defined as sites along streams where water development projects would have significant detrimental effects on state or federally listed threatened and endangered species, and sites along streams significant due to the presence of unique, exemplary, or unusually extensive natural communities

RWPGs seeking a designation must forward a recommendation package to the Texas Parks and Wildlife Department, who will in turn provide a written evaluation of the proposal within 30 days. If the planning group is recommending stream segments that were recommended in a previous plan but not designated by the legislature, the recommendation package must be resubmitted to Texas Parks and Wildlife Department for an updated written evaluation. Final adopted RWPs must include the Texas Parks and Wildlife Department's written evaluation.

Recommendation packages must include a physical description giving the location of the stream segment, along with maps, photographs, and documentation with supporting literature and data that characterizes a site's unique ecological value addressing criteria in 31 TAC §357.43(b) and §358.2(6).

If a river or stream segment has been recommended in a previous plan, the planning group may incorporate references of supporting materials developed for the previous plan into the current plan. References must be precise and include a summary of the information presented in the previous plan.

Recommendations regarding unique river or stream segments presented in the RWPs must be specific as to a) which unique river or stream segments have been previously designated by the legislature and b) which are being recommended for designation by the planning group.

If the Texas Legislature designates a stream or river segment as unique; or if a planning group recommends that a stream or river segment be classified as unique, the RWPG must quantitatively assess how recommended water management strategies in the RWP would affect flows deemed important (by the planning group) to the stream or river segment in question. Furthermore, assessments must compare current conditions to conditions with all recommended WMSs implemented and describe how a RWP would affect the unique features and criteria cited by a planning group as the impetus for a legislative designation.

2.8.2 Unique reservoir sites

RWPGs may recommend sites for reservoir construction that have "unique value" based on the following

1. site specific reservoir development is recommended as a specific water management strategy or as a unique reservoir site in a final adopted RWP; or
2. factors such as location, hydrologic, geologic, topographic, water availability, water quality, environmental, cultural, and current development characteristics make a site uniquely suited for either reservoir development to provide water supply for the current planning period, or where it might reasonably be needed to meet water needs beyond the 50-year planning period.

For recommendations regarding unique reservoir sites, the RWP must be specific as to a) which unique reservoir sites have been previously designated by the legislature; b) which are being recommended for designation by the RWPG; and c) whether the RWPG is recommending that the legislature re-designate a previously designated unique reservoir

site. The adopted RWPs must also include a description of the site, reasons for the unique designation, and expected beneficiaries of water supplies developed at a given site.

2.8.3 Other recommendations

RWPs may include any additional regulatory, administrative, or legislative recommendations developed by the planning group including but not limited to the following topics:

- Facilitate the orderly development, management, and conservation of water resources in Texas and to prepare for and respond to drought conditions,
- Achieve the goals of state and regional water planning including ways the planning group believes the state and regional planning process would be improved
- Facilitate more voluntary water transfers in the region
- Information regarding the potential impacts of recommendations enacted into law once proposed changes are in effect

In the development of other recommendations, the RWPGs should consider TWDB feedback on the implementation of the planning group's legislative, administrative, and regulatory recommendations, as applicable to the TWDB, in the previous RWP.

The RWPGs should also consider recommendations from the Interregional Planning Council as directed to the planning groups.

2.9 Implementation and comparison to the previous regional water plan (Task 9)

Links to rule and scope of work requirements:

- §357.45: Implementation and Comparison to Previous Regional Water Plan
- Scope of work Task 9: Implementation and Comparison to Previous Regional Water Plan

Guidance:

2.9.1 Implementation of previous regional water plan[65]

The RWPGs must report the level of implementation and identified, reported implementation impediments to the development of previously recommended WMSs and WMSPs that have affected progress in meeting water needs. The content of this section in the plans will be largely supported by data summaries based on information provided by RWPGs through DB22 during the previous planning cycle.

2.9.1.1 Implementation survey process

Information needed to report on implementation and identified, reported implementation impediments to the development of the previous RWP must be collected through a spreadsheet tool to be provided by the TWDB. The TWDB will provide a tool (spreadsheet based) to the RWPG consultants prior to the IPP submission, and the RWPGs and their

[65] 31 TAC §357.45(a)

technical consultants will be responsible for contacting the project sponsors to ensure completion of the implementation and impediment data.

RWPGs should verify if recommended WMSs and WMSPs were formerly included in the 2021 RWPs.

RWPG members are strongly encouraged to directly participate in eliciting and gathering responses regarding implementation of projects that are associated with the category of entities that they represent on the RWPG.

Additional methods that RWPGs may consider using to identify projects that may potentially have been implemented may include

1. tracking changes since the last plan including:
    a. changes in existing WUG or WWP supplies (e.g., water provider reporting a previously recommended WMS as an existing supply in the 2026 RWP); or
    b. identifying WMSs that are not recommended in latest plan, possibly due to implementation;
2. using TWDB funding records to identify projects (SWIFT, WIF, State Participation, DWSRF, EDAP etc.); and,
3. using conservation implementation reports submitted to the TWDB (i.e., conservation volumes are higher from previous report).

2.9.1.2 Survey content and data format

The TWDB will provide the region specific survey content to each region in an Excel workbook. The survey will consist of the following five (5) questions:

1. Has the sponsor taken affirmative vote or actions? (TWC 16.053(h)(10))
2. What is the status of the WMS project or WMS recommended in the 2022 SWP?
3. If project has not been started or no longer being pursued, please tell us why.
4. Please select one or more project impediments. If an impediment is not listed, provide information in the "Other" text field.
5. What funding types are being used for the project.

All survey questions except item 3 will have pre-defined answers that the RWPG will select from.

RWPGs must include a copy of the final survey results in the final adopted RWP. Results collected to date must also be included in the IPP.

2.9.2 RWPA's progress in achieving economies of scale[66]

RWPs must include an assessment of the region's efforts to encourage cooperation between WUGs for the purpose of achieving economies of scale and incentivizing WMSs that benefit the entire region. The assessment must include

1. the number of recommended WMSs in the 2021 RWP and the number of recommended WMSs in the 2026 RWP that serve more than one WUG,

[66] 31 TAC §357.45(b)

2. the number of recommended WMSs in the 2021 RWP that serve more than one WUG and have been implemented since the 2021 RWP adoption, and
3. a description of the efforts the RWPG has made to encourage WMSs and WMSPs to serve more than one WUG and benefit the entire region.

The TWDB will provide supporting data to assist in this effort.

2.9.3 Comparison to previous regional water plan

The RWP must include a brief summary that shows how the 2026 adopted RWP differs from the previous 2021 RWP. Comparisons must include summary tables and other graphics, as appropriate, that concisely convey the changes between plans. The comparison should also include a brief explanation of the underlying reasons for the changes that occurred regarding each of the items listed below. The 2026 RWP must provide comparisons to the 2021 RWP regarding

1. water demand projections;
2. drought(s) of record and the hydrologic and modeling assumption(s) on which the 2026 plan is based;
3. source water availabilities;
4. existing water supplies of WUGs and WWPs;
5. identified water needs for WUGs and WWPs;
6. recommended and alternative WMSs **and** WMSPs; and
7. any other aspects of the 2026 plan that the RWPG chooses to compare.

2.10 Adoption of plan and public participation (Task 10)

Links to rule and scope of work requirements:

- §357.50: Adoption, Submittal, and Approval of Regional Water Plans
- Scope of work Task 10: Public Participation and Plan Adoption

Guidance:

As required by 31 TAC §357.21, RWPGs must conduct all business in meetings posted and held in accordance with the Texas Open Meetings Act, Texas Government Code Chapter 551, with a copy of all materials presented or discussed available for public inspection prior to and following public meetings. Additional notice requirements referenced in 31 TAC §357.21 must also be followed when applicable.

The RWPGs must adopt RWPs and accommodate public participation in the regional water development process in accordance with administrative rules, the contract, statute, and the planning group's bylaws. The TWDB has published several documents on its website that contain helpful public notice guidance.

This task includes all work required to prepare for and hold meetings and include public input and participation in development of the RWP, including but not limited to

1. holding RWPG meetings;
2. holding committee meetings;
3. holding special meetings;

4. posting public notices;
5. holding public input meetings and hearing on the draft plan as required by statute and rules;
6. soliciting and considering public input;
7. technical work required to prepare for and participate in RWPG meetings, workshops, and any other committee or other meetings during the development of the RWP;
8. conducting surveys of water suppliers or WUGs;
9. coordinating with and collecting information from entities involved with water planning in the region;
10. assembling, producing, and submitting the Technical Memorandum, IPP, and final RWP and responding to comments and resubmitting as necessary to ensure the plan can be approved by the TWDB; and,
11. interregional cooperation and interregional conflict resolution efforts.

In addition to regular RWPG meetings and committee meetings, there are certain special meetings that each RWPG much hold each cycle. These include the following meetings:

- Holding a preplanning public meeting to receive suggestions and recommendations from the public regarding issues that should be addressed in the next regional or SWP. This meeting must occur near the beginning of each cycle and prior to technical work commencing. During this meeting the RWPG will also be required to discuss how the planning group will conduct interregional coordination and collaboration regarding water management strategies. The TWDB will provide an initial list of regional water management strategies to all planning groups to assist in this effort.
- Presenting to the public the process for identifying potentially feasible WMS and the presentation of the analysis of infeasible water management strategies. The process will be documented and address any public input on the process.
- Holding a public hearing and receiving written comments on the IPP.

Interregional coordination efforts

RWPGs are required to discuss and document the RWPG's interregional coordination efforts at multiple points during the planning cycle including discussion at the pre-planning meeting and documentation of interregional coordination efforts regarding plan development in the Technical Memorandum, IPP, and final adopted RWP.

Interregional coordination efforts may include but are not limited to, the region's use of regional liaisons, forming committees to meet with neighboring regions or their representatives, and authorizing RWPG administrators or planning group consultants to meet with neighboring regions or their representatives.

Rural outreach efforts

RWPGs must conduct outreach specifically to rural entities in the planning area to collect and evaluate information to support plan development. Chapter 10 of the IPP and final adopted RWP must include a summary of the region's rural outreach efforts. TWDB will

provide a list of entities that meet the rural political subdivision definition per Senate Bill 469, (88R), and public water systems that fall within each municipal county-other WUG.

Emphasis should be placed on outreach to those rural-serving public water systems that 1) have self-reported water use restrictions to TCEQ due to water supply issues during the current planning cycle; 2) have self-reported to TCEQ having less than 180 days of water supply remaining during the current planning cycle; 3) have not previously engaged in the regional planning process; and 4) have already been identified as facing significant near-term shortages under drought conditions in previous regional water plans.

2.11 Infeasible water management strategies in the previously adopted 2021 Regional Water Plan (Task 4B)

Links to rule and scope of work requirements:

- §357.12: General RWPG Responsibilities and Procedures
- §357.51: Amendments to Regional Water Plans
- Scope of work Task 4B: Identification of Infeasible Water Management Strategies

Guidance:

Eligible activities under this new task include efforts associated with the analysis and identification of infeasible water management strategies, the identification and evaluation of new water management strategies, coordination with project sponsors, and subsequent amendments.

The intent of this task to is review whether project sponsors have taken affirmative steps to implement projects in accordance with the online decade in the 2021 regional water plans and 2022 State Water Plan.

2.11.1 Analysis and identification of infeasible water management strategies

Timing of analysis:

Analysis is to occur prior to the public meeting that the RWPG presents its methodology for identifying potentially feasible WMSs. This meeting must occur prior to the technical memorandum deadline (March 4, 2024)[67].

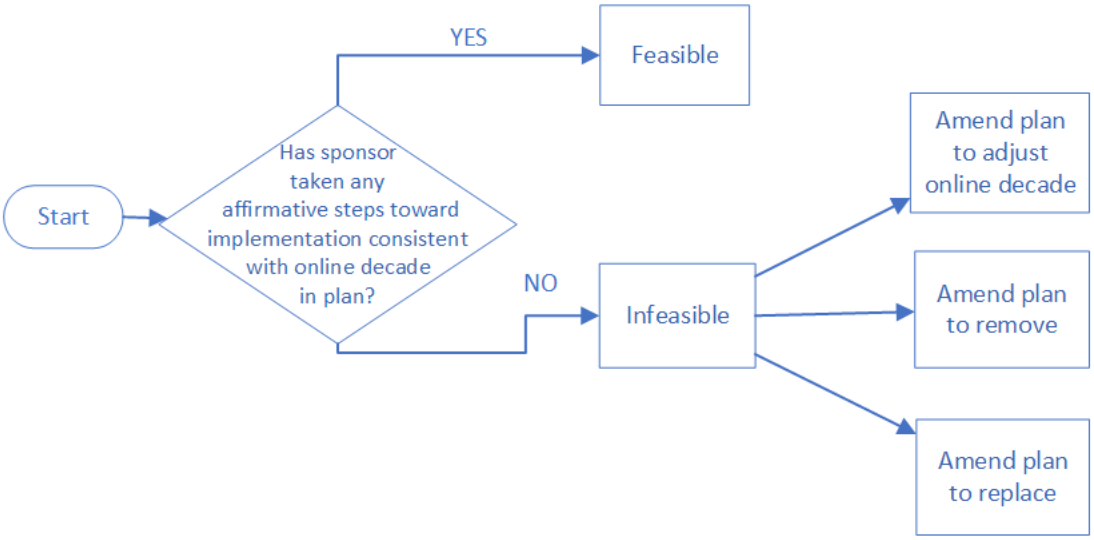
Analysis and criteria for infeasible water management strategies (see Figure 3):

- This analysis is limited to strategies or projects that require a permit and/or involve construction.
- Affirmative steps by the sponsor may include but not limited to 1) spending money on the strategy or project, 2) voting to spend money on the strategy or project, or 3) applying for a federal or state permit for the strategy or project.

[67] Schematic showing an overview of the infeasibility analysis process: https://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2026/projectdocs/InfeasbileWMSProcessSchematic.pdf

- RWPGs should focus their efforts and resources for this task primarily on reviewing recommended strategies and projects the 2021 RWPs that are either
    - shown to be online by the 2020 or 2030 decade;
    - related to new major reservoirs, seawater desalination, direct potable reuse, brackish groundwater, aquifer storage and recovery, and out of state water transfers; or
    - that will generally require significant resources and require significant time to implement.
- This information may be difficult to obtain and that information for some categories of water users, such as those projects associated with county-wide water user groups that are to be implemented by private parties, may not be available. In this case, the region may therefore not be able to determine infeasibility for some strategies or projects.

Figure 3 – Criteria of an Infeasible WMS



Presentation of analysis results:

1. Results of the analysis of infeasible WMSs in the previous RWP must be presented at the same public meeting that the RWPG presents its methodology for identifying potentially feasible WMSs for the current plan. The presentation of results should include documentation of the region's process for determining infeasible WMSs.
2. A list of water management strategies identified as infeasible must be presented in the technical memorandum. If the RWPG did not identify any water management strategies as infeasible, a statement certifying this must be included in the technical memorandum.

2.11.2 Amendments to the 2021 regional water plans

If any infeasible water management strategies are identified by the RWPG, the RWPG must amend their 2021 RWP. These amendments may address infeasible WMSs or WMSPs by

1. adjusting the online decade of the infeasible strategy and/or project so that it becomes feasible;
2. removing the infeasible strategy and/or project and, replacing the strategy with a new feasible strategy and/or project to meet the same need, or
3. removing the infeasible strategy and leaving the need as unmet.

Should a RWPG replace an infeasible strategy or projects with an alternative strategy or project in the 2021 RWP, the RWPG must then ensure that the replacement alternative strategy or project meets the feasibility criteria associated with this task.

Amendment content

Needs planned to be met by strategies determined infeasible in the 2020 decade could only be met by feasible strategies that could be immediately implemented (by January 5, 2023), such as drought management.

Should the RWPG identify and choose to evaluate a new water management strategy or project to meet the need of a removed WMS or WMSP, the RWPG must follow TWDB's WMS evaluation guidelines that were in contracts for the development of the 2021 RWPs. The amendment materials provide must document that the strategy and /or project was fully evaluated in accordance with statute, rule, and contractual technical guidelines. New WMS evaluations must also follow any approved hydrologic variances, if applicable.

RWPGs must also coordinate with TWDB staff to ensure that all relevant data for the state water planning database is updated. Data requirements vary on a case-by-case basis.

Amendments that leave any municipal needs left unmet or increase unmet municipal needs must also include adequate justification in accordance with 31 TAC §357.50(j).

Amendment materials under this task are also required to include a summary of the infeasible strategy and/or project components and address why they were determined to be infeasible.

Amendment process

The process for amendments will utilize the existing amendment process in 31 TAC §357.51 in accordance with whether the amendment is a substitution of an alternative strategy, minor amendment, or major amendment.

Amendment timing

RWPG-adopted amendments to the 2021 RWPs must be submitted to the TWDB by June 5, 2024 (three (3) months following the due date of the Technical Memorandum).

RWPGs must account for the timeframe to take necessary action on amendments and receive public comments in accordance with 31 TAC §§ 357.21 and §357.51. To meet this timeframe, the RWPG should consider action items necessary to start the amendment process no later than the same meeting where the Technical Memorandum is approved by the RWPG. More information, including steps for the RWP amendment process can be

found online in TWDB's *Amending an Approved Regional Water Plan* document[68] and the *Regional and State Water Plan Amendment Process* flowchart[69].

2.12 Deliverable requirements

RWPGs must prepare and submit a Technical Memorandum, an IPP, and a final adopted RWP. Deliverable requirements are addressed in this section.

2.12.1 Technical memorandum

Links to rule and scope of work requirements:

- §357.12: General RWPG Responsibilities and Procedures
- Scope of work Task 4C: Technical Memorandum

Guidance:

To be considered administratively complete, the Technical Memorandum submittal must include the following items:

1. Two electronic copies of the Technical Memorandum, one (1) in searchable Portable Document Format (PDF) and one (1) in Microsoft Word (MSWord) Format
2. Electronic copies (in PDF format) of each of the following TWDB DB27 data reports:
    a. *2026 RWP WUG Population* (presenting population projections by WUG, county, and river basin);
    b. *2026 RWP WUG Demand* (presenting water demand projections by WUG, county, and river basin);
    c. *2026 RWP Source Availability* (presenting water availability by source);
    d. *2026 RWP WUG Existing Water Supply* (presenting existing water supplies by WUG, county, and river basin);
    e. *2026 RWP WUG Needs/Surplus* (presenting identified water needs by WUG, county, and river basin);
    f. *2026 RWP WUG Data Comparison to 2021 RWP* (presenting a comparison of supply, demand, and needs between the 2021 and 2026 RWP at a county level);
    g. *2026 RWP Source Data Comparison to 2021 RWP* (presenting a comparison of availability by source type between the 2021 and 2026 RWP at a county level)
3. The documented process used by the RWPG to identify potentially feasible WMSs
4. A list of all potentially feasible WMSs identified by the RWPG to date
5. A copy of any hydrologic variance requests submitted by the region to the TWDB and a copy of the TWDB's approval of any hydrologic variances to date. For approved TCEQ WAM modifications or alternative surface water models, reallocated annual MAG volumes, or use of MAG Peak Factors, a table must be included showing the original unmodified firm yield or MAG value along with the alternative availability utilized as the basis for planning

[68] https://www.twdb.texas.gov/waterplanning/rwp/planningdocu/resourcedocs/AmendingApprovedRWP.pdf
[69] https://www.twdb.texas.gov/waterplanning/rwp/planningdocu/resourcedocs/RWPAmendmentFlowchart.pdf

6. Documentation of the methodology utilized for calculating the anticipated sedimentation rate and revising the area-capacity rating curve
7. A table providing the details of any hydrologic models used, including the model name, version date, model input/output files used, date model used, and any relevant comments
8. Documentation of methodologies utilized for RWPG-estimated groundwater availabilities to date, including at minimum, a table providing the aquifer, county, and methodology description
9. A summary of the region's interregional coordination efforts to date
10. A list of infeasible WMSs and WMSPs from the region's 2021 RWP, identified in accordance with Texas Water Code §16.053(h)(10) or a statement that no infeasible WMS or WMSPs were identified
11. All electronic model input/output or other model files used to date in determining water availability.

Following receipt of the Technical Memorandum, TWDB will issue a letter acknowledging administrative completeness. The TWDB will conduct a technical review of the methodologies used to develop surface water and groundwater availabilities to date and will provide informal comments to the planning groups for their consideration in the development of their RWPs.

2.12.2 Initially prepared plan and final adopted regional water plan

Links to rule and scope of work requirements:

- §357.50: Adoption, Submittal, and Approval of Regional Water Plans
- Scope of work Task 10: Public Participation and Plan Adoption

Guidance:

The chapters and subchapters of the RWP must be organized in accordance with 31 TAC §357.22(b). Table 1 of this guidance document provides the outline with chapter numbers that must be followed. RWPGs must update, rewrite, replace, reorganize and/or augment, as appropriate, any content from the 2021 RWPs that is also used in developing the 2026 RWP to include new information and analyses conducted as part of the current planning cycle and in response to changed conditions and in accordance with new planning rules, contract scope of work, updated guidance documents and new RWPG decisions.

Any materials developed in previous plans and incorporated by reference into the 2026 RWP, must include precise reference to the material and a summary of the information presented in the prior plan. An example of acceptable materials referenced in past plans include supporting unique stream segment designation materials. Information relevant to or in support of a WMS evaluation must be included directly in the plan document; it may not be incorporated by reference.

Initially Prepared Plan Submittal

To be considered administratively complete, the IPP submittal must include the following items:

1. Two (2) bound double-sided copies and two electronic copies, one (1) in searchable Portable Document Format (PDF) and one (1) in Microsoft Word (MSWord) Format
2. Certification, in the form of a cover letter, that the IPP is complete and was adopted by the RWPG
3. A statement confirming that the planning group met all requirements under the Texas Open Meetings Act and Public Information Act in accordance with 31 TAC §§357.12, 357.21 and 357.50(f)
4. An executive summary documenting key findings and recommendations that does not exceed 30 pages. **The executive summary must incorporate the standard TWDB DB27 reports, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application. Additional specifications are provided in Section 2.14.** Supplemental information, such as county specific summaries, may be included as an executive summary appendix
5. A technical report containing all of the plan chapters in accordance with 31 TAC §357.22(b) presenting the work and results of each planning task summarized in this document, the scope of work, and according to regional water planning rules
6. Documentation of the RWPG's interregional coordination efforts
7. An electronic appendix containing all electronic model input/output or other model files used to date in determining surface water or groundwater availability
8. A table providing the details of any hydrologic models used, including the model name, version date, model input/output files used, date model used, and any relevant comments
9. A set of ArcGIS-compatible data constituting a SINGLE file geodatabase of feature classes or SINGLE folder containing shapefiles marking the locations of every recommended and alternative WMS/WMSP that has a capital cost (e.g., with representative map latitude/longitude coordinates for the locations of both intake and delivery points of proposed pipelines). Data may include points, lines, and polygons, as appropriate. These may include approximate locations and simplified representations as necessary and should be delivered on digital media as outlined in sections 2.3 and 2.4 of TWDB's Contract Exhibit D: *Guidelines for 2026 Regional Water Plan Data Deliverables*

Following receipt of the IPP, TWDB will issue a letter acknowledging administrative completeness. The TWDB will conduct a technical review of the IPP to ensure that the plan meets **all** statute, rule, and contract requirements and provide written comments to the RWPG within 120 days. Prior to the IPP deadline, TWDB's IPP review checklist to the RWPGs to assist the regions in ensuring all required items are addressed.

Final adopted regional water plan submittal

To be considered administratively complete, the final adopted RWP must include the following items:

1. Two electronic copies, one (1) in searchable Portable Document Format (PDF) and one (1) in Microsoft Word (MSWord) Format. In compliance with TAC Chapters 206 and 213 (related to Accessibility and Usability of State Web Sites, Web Content

Accessibility Guidelines (WCAG) 2.0 Level AA Standard – WCAG 2.0 Quick Reference), the electronic copy of the RWP will comply with the requirements and standards specified in statute

2. One (1) electronic copy of all files on which the plan is based (e.g. spreadsheets, maps, etc)
3. Certification, in the form of a cover letter, that the final plan is complete and was adopted by the RWPG
4. A statement confirming that the planning group met all requirements under the Texas Open Meetings Act and Public Information Act in accordance with 31 TAC §§357.12, 357.21 and 357.50(f)
5. An executive summary documenting key findings and recommendations that does not exceed 30 pages. **The executive summary must incorporate the standard TWDB DB27 reports, by reference, as part of the regional water plan by including links to TWDB Database Reports application and inform the reader that the report may be accessed via that application. Additional specifications are provided in Section 2.14.** Supplemental information, such as county specific summaries, may be included as an executive summary appendix
6. A technical report containing all of the plan chapters in accordance with 31 TAC §357.22(b) presenting the work and results of each planning task summarized in this document, the scope of work, and according to regional water planning rules
7. Documentation of the RWPG's interregional coordination efforts
8. Summaries of written and oral comments on the IPP from the public along with responses provided by the RWPG explaining how plans were revised or why changes were not warranted
9. A copy of the TWDB's Executive Administrator's written comments on the IPP along with responses to each comment explaining how RWP was revised or why changes were not warranted
10. An electronic appendix containing all electronic model input/output or other model files used in determining water availability
11. A table providing the details of any hydrologic models used, including the model name, version date, model input/output files used, date model used, and any relevant comments
12. A set of ArcGIS-compatible data constituting a SINGLE file geodatabase of feature classes or SINGLE folder containing shapefiles marking the locations of every recommended and alternative WMS/WMSP that has a capital cost (e.g., with representative map latitude/longitude coordinates for the locations of both intake and delivery points of proposed pipelines). Data may include points, lines, and polygons, as appropriate. These may include approximate locations and simplified representations as necessary and should be delivered on digital media as outlined in sections 2.3 and 2.4 of TWDB's Contract Exhibit D: *Guidelines for 2026 Regional Water Plan Data Deliverables*

An RWP that is missing any one of the required elements will be considered administratively incomplete and will not be reviewed until missing content is provided to the TWDB. Amendments to final adopted RWPs that have been approved by the Board

must contain these same elements to the extent that they apply to the scope of the RWP amendment.

2.13 Data provisions and data reporting

See TWDB's Contract Exhibit D: *Guidelines for 2026 Regional Water Plan Data Deliverables* for more information.

2.13.1 Rounding numbers

Only whole numbers will be presented in the RWPs and DB27.

Cumulative rounding errors may not exceed 1.0 in any single number presented or in any total presented in the plan, for example, when multiple values, each with an underlying error, are presented within a table.

Individual and cumulative data values in reports produced from DB27 will supersede all other data presented in RWPs for purposes of state water plan development.

2.13.2 State water planning database and required DB27 reports

Data entry

DB27 will synthesize regions' data and provide data reports that must be incorporated into each Technical Memorandum and referenced by hyperlink in each IPP and final adopted RWP.

RWPGs must complete and submit, via the DB27 interface, all data generated or updated during the current cycle of planning to the TWDB in accordance with TWDB specifications in the *Guidelines for 2026 Regional Water Plan Data Deliverables* prior to submitting Technical Memorandums and IPPs. Deadlines for the entry of categories of data (e.g. existing water supplies) by RWPGs are to be determined by the TWDB as part of the contract documentation. These deadlines are necessary to allow sufficient time for the TWDB to vet data and for the TWDB DB27 reports to become available.

DB27 reports

In the 2026 RWPs, the required DB27 data reports must be included in the IPP and final RWP via reference to the TWDB Database Reports application in lieu of including electronic versions of the reports as an appendix to the plan.

Each Executive Summary of the IPP and RWP must include a section that lists the DB27 reports that will be available through the TWDB Database Reports application and instructions on how the public can access the reports, including a direct hyperlink to the TWDB Database Reports application.

The DB27 reports that will be accessible in the application are listed in Table 3[70].

[70] The DB27 reports listed in Table 3 will remain secure and un-accessible to the public until the TWDB deploys the reports to the public interface of the application. This will occur by the IPP submittal deadline. RWPG consultants will have secured access to these DB27 reports prior to the public during plan development.

Instructions that should be included in the IPP and final RWP include:

1. Navigate to the TWDB Database Reports application at https://www3.twdb.texas.gov/apps/SARA/reports/list
2. Enter '2026 Regional Water Plan' into the "Report Name" field to filter to all DB27 reports associated with the 2026 Regional Water Plans
3. Click on the report name hyperlink to load the desired report
4. Enter planning region letter parameter, click view report

Table 3 – Required State/Regional Water Planning Database (DB27) Reports

Report Number	DB27 Report Name*	Summary of Report Content	31 TAC rule met by report	Include pdf of report in Technical Memorandum	IPP and final RWP: refer user to reports online at https://www3.twdb.texas.gov/apps/SARA/reports/list	Report inlcudes WUGs	Report inlcudes WWPs
1	WUG Population	Decadal population projections by WUG, county, and river basin.	§357.12(c)(1); §357.31(a)	x	x	x	
2	WUG Demand	Decadal water demand projections by WUG, county, and river basin.	§357.12(c)(1); §357.31(a)	x	x	x	
3	Source Availability	Water availability by source, location, and decade.	§357.32(a)(1);(f)	x	x		
4	WUG Existing Water Supply	Existing water supplies by WUG, source, county, river basin, and decade.	§357.32(a)(1);(f)	x	x	x	
5	WUG Needs/Surplus	Identified water needs and/or surpluses by WUG, county, river basin, and decade.	§357.33(b);(d)	x	x	x	
6	WUG Second-Tier Identified Water Need	Decadal identified water needs by: WUG, county, and river basin after implementation of conservation and direct reuse strategies.	§357.33(d)		x	x	
7	WUG Data Comparison to 2026 RWP	WUG supply, demands, and needs by county.	357.45(c)	x	x	x	
8	Source Data Comparison to 2026 RWP	Source availability by county.	357.45(c)	x	x		
9	WUG Unmet Needs	All unmet needs by WUG, county, river basin, and decade.	§357.40(c)		x	x	
10	Recommended WUG Water Management Strategies	All recommended WMSs for each WUG; including the strategy names, source name, total yield of the WMS for all decades, and unit costs in 2030 and 2080.	§357.35(g)(1)		x	x	
11	Recommended Projects Associated with Water Management Strategies	All recommended projects including associated project sponsor, whether sponsor is a WWP, project name, project description, capital cost, and decade online.			x	x	x
12	Alternative WUG Water Management Strategies	All alternative WMSs for each WUG; including the strategy names, source name, total yield of the WMS for all decades, and unit costs in 2030 and 2080.	§357.35(g)(3)		x	x	
13	Alternative Projects Associated with Water Management Strategies	All alternative projects including associated project sponsor, whether sponsor is a WWP, project name, project description, capital cost, and decade online.			x	x	x
14	WUG Management Supply Factor	Calculated management supply factor for each WUG by decade.	§357.35(g)(2)		x	x	
15	Recommended Water Management Strategy Supply Associated with a new or amended IBT Permit	All recommended WMS involving an IBT that is not exempt under §11.085(v); including the source basin, recipient WUG basin, and IBT WMS supply by decade.			x	x	x
16	WUG Recommended WMS Supply Associated with a new or amended IBT Permit and Total Recommended Conservation WMS Supply	All recommended conservation WMS supply by decade for each WUG that relies on a WMS involving an IBT that is not exempt under §11.085(v).			x	x	
17	Sponsored Recommended WMS Supplies Unallocated to WUGs	All recommended WMS volumes not allocated to WUGs, including WMS name, source name, sponsor name, and WMS supply by planning decade.			x	x	x
18	MWP Existing Sales and Transfers	MWP projected WUG and wholesales contract demands and wholesale/retail sales by source type.	§357.31(b)		x	x**	x**
19	MWP WMS Summary	Recommended WMS and WMSPs, by MWP; including unallocated WMS supplies	§357.35(g)(1)		x	x**	x**
* reports names in the TWDB Database Reports application will be prefaced by *2026 Regional Water Plan*							
** included if the RWPG designated the WUG or WWP as a MWP							

3 Appendix

3.1 TWDB data sources for regional water plan development

3.1.1 Planning data resources

1. Planning Projections Dashboard
   http://www.twdb.texas.gov/waterplanning/data/projections/2027/projections.asp
2. Other Planning Data and Dashboards
3. http://www.twdb.texas.gov/waterplanning/data/index.asp
4. Historical Water Use Estimates
   http://www.twdb.texas.gov/waterplanning/waterusesurvey/estimates/index.asp
   a. Water use summaries (by region, county, basin, cities, utilities)
   b. Annual reports by industry type (NAICS Code)
   c. Water reuse reports by reuse type and planning region
   d. Municipal and industrial water intake reports by planning region
5. Historical Groundwater Pumpage Estimates
   http://www.twdb.texas.gov/waterplanning/waterusesurvey/historical-pumpage.asp
6. Mining Water Use Study
   https://www.twdb.texas.gov/waterplanning/data/projections/MiningStudy/index.asp

3.1.2 Surface water resources

1. Texas Instream Flows Program (SB2) and Related Documents
   http://www.twdb.texas.gov/surfacewater/flows/instream/index.asp
2. Texas Environmental Flows (SB3) and Related Documents
   http://www.twdb.texas.gov/surfacewater/flows/environmental/index.asp
3. Freshwater Inflow Needs and Related Documents
   http://www.twdb.texas.gov/surfacewater/flows/freshwater/index.asp
4. Water Data for Texas – Historic and current reservoir data, drought status and resources, groundwater well level, and coastal hydrology data.
   http://www.waterdatafortexas.org/reservoirs/statewide
5. Cumulative Effects of Recommended Strategies Tool (CERST)
   a. User guide:
      https://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2026/projectdocs/SWR_Studies/TWDB_CERST_User_Guide_Final_20211004.pdf
   b. Tool:
      https://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2026/projectdocs/SWR_Studies/TWDB_CERST_v1.0_2021.10.05.zip
6. Projected Reservoir Rating Curves based on elevational sedimentation rates
   https://www.twdb.texas.gov/surfacewater/data/WAMRatingCurve/index.asp
7. Brazos Trends Study Report

http://www.twdb.texas.gov/publications/reports/contracted_reports/doc/2100012466.pdf
8. Zhu, J., Fernando, N. and Guthrie, C., 2020. *Extension of Naturalized Flow Using Linear Regression*. In World Environmental and Water Resources Congress 2020: Water Resources Planning and Management and Irrigation and Drainage (pp. 162-173). Reston, VA: American Society of Civil Engineers https://www.twdb.texas.gov/surfacewater/data/ExtendedNatFlow/index.asp

3.1.3 Groundwater resources

1. TWDB Groundwater Availability Models http://www.twdb.texas.gov/groundwater/models/gam/index.asp
2. TWDB Research Projects in Support of Groundwater Models http://www.twdb.texas.gov/groundwater/models/research/index.asp
3. Groundwater Joint Planning – Desired future conditions and modeled available groundwater. http://www.twdb.texas.gov/groundwater/dfc/index.asp
4. TWDB Groundwater Database Reports – Reports containing information on selected water wells, springs, oil/gas tests (that were originally intended to be or were converted to water wells), water levels, and water quality to gain representative information about aquifers in Texas to support water planning from a local to a more regional perspective. http://www.twdb.texas.gov/groundwater/data/gwdbrpt.asp
5. TWDB Groundwater Data Viewer – Interactive mapping application that provides access to water-related data GIS datasets relating to groundwater resources, including brackish groundwater data. http://www2.twdb.texas.gov/apps/waterdatainteractive/groundwaterdataviewer
6. Automated Groundwater Levels via Water Data for Texas – The TWDB, in partnership with its cooperators, installs and monitors automatic water level recorders in observation wells throughout the state. These water levels are included in TWDB Groundwater Database Reports and the Groundwater Data Viewer but can be viewed in a finer resolution on Water Data for Texas. https://www.waterdatafortexas.org/groundwater
7. Brackish Resources Aquifer Characterization (BRACS) http://www.twdb.texas.gov/groundwater/bracs/studies.asp
8. Brackish Groundwater Production Zones http://www.twdb.texas.gov/groundwater/bracs/HB30.asp

3.1.4 Conservation resources

1. Water Conservation best management practices (agricultural, commercial/institution, industrial, municipal, and wholesale) http://www.twdb.texas.gov/conservation/BMPs/index.asp
2. Water loss audit information http://www.twdb.texas.gov/conservation/municipal/waterloss/index.asp
3. Water conservation plans http://www.twdb.texas.gov/conservation/municipal/plans/index.asp

4. Historical water loss audit and conservation annual report data
   http://www.twdb.texas.gov/conservation/municipal/waterloss/historical-annual-report.asp
5. Municipal Water Conservation Planning Tool
   https://www.twdb.texas.gov/conservation/municipal/plans/doc/TWDB_MWCPT_v1.xlsm
6. Agricultural resources
   https://www.twdb.texas.gov/conservation/resources/agricultural-resources.asp
7. Agricultural water conservation demonstration initiatives
   https://www.twdb.texas.gov/conservation/agriculture/demonstration/index.asp

3.1.5 Drought resources

1. Drought dashboard
2. https://waterdatafortexas.org/drought/

3.1.6 ASR resources

1. Aquifer Storage and Recovery
   http://www.twdb.texas.gov/innovativewater/asr/index.asp
2. Statewide Survey of Aquifer Suitability for Aquifer Storage and Recovery Projects or Aquifer Recharge Projects

   https://www.twdb.texas.gov/innovativewater/asr/projects/Statewide/index.asp
3. Statewide Survey of ASR and AR Suitability Interactive Web Map
   https://twdb-wsc.maps.arcgis.com/apps/webappviewer/index.html?id=50d9b795672243d387cef438f7c62311
4. ASR projects
   http://www.twdb.texas.gov/innovativewater/asr/projects.asp

3.1.7 Other innovative water technologies

1. Desalination
   https://www.twdb.texas.gov/innovativewater/desal/index.asp
2. Desalination Database
   http://www.twdb.texas.gov/innovativewater/desal/maps.asp
3. Water Reuse
   https://www.twdb.texas.gov/innovativewater/reuse/index.asp
4. Rainwater Harvesting
   https://www.twdb.texas.gov/innovativewater/rainwater/index.asp

3.1.8 Other

1. TWDB-funded research relevant to regional water planning

   http://www.twdb.texas.gov/waterplanning/rwp/research/index.asp

Attachment G

Guidelines for 2026 Regional Water Plan Data Deliverables

NOTE:

Exhibit "D" herein is taken directly from Exhibit D of the Third Amended TWDB Contract (No. 2148302556) and is labeled as such to preserve consistency with that document.

TWDB Contract No. 2148302556

Texas Water Development Board

Exhibit D

Guidelines for 2026 Regional Water Plan Data Deliverables

February 2023

This document is subject to future revision based upon any future Legislative actions.

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Table of Contents

Background

The Texas Legislature directed the Texas Water Development Board (TWDB) to establish standards for reports and data presented in regional water plans (RWPs). Section 16.053(d) of the Texas Water Code (TWC) states: "The Board shall provide guidelines for the format in which information shall be presented in the Regional Water Plans." The rules found in 31 Texas Administrative Code (TAC) § 357 were promulgated from the TWC § 16.053(d). The current version of the guidance developed from 31 TAC § 357 is known as the *Guidelines for Regional Water Planning Data Deliverables*, which is Exhibit D in the regional water planning grant contracts.

These guidelines are separate from and in addition to the *General Guidelines for Sixth Cycle of Regional Water Plan Development*, which is Exhibit C in the regional water planning grant contracts.

Purpose

This guidance document, along with 31 TAC § 357, provides data reporting and formatting specifications for regional water planning groups (RWPGs) to follow when submitting electronic data to the TWDB, including submitting data into the Regional Water Planning Application/State Water Planning Database (DB27). It serves as a companion document to *General Guidelines for Sixth Cycle of Regional Water Plan Development*. If there is a conflict in the guidance between the two documents, the most current *General Guidelines for Sixth Cycle of Regional Water Plan Development* will take precedence. Both Exhibit C and Exhibit D are subject to revisions due to any future Legislative actions. The most up-to-date versions will be posted on the following website:
http://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2026/documents.asp

The data submitted into DB27 by the RWPGs is used to develop the State Water Plan (SWP) and the Interactive SWP web application. The SWP is a statewide summary of the data developed at the regional level and is designed to help the State of Texas ensure that there is adequate water supply in a time of drought. The SWP data is used for a wide variety of data analyses, such as calculating Water User Group (WUG) water supply needs and source water balances, as well as the standardized data visualizations provided in the Interactive SWP for use by all stakeholders. It provides Texas Lawmakers and other decision makers with the information required to support Texas' water planning process. Entering regional water planning data into DB27 correctly and consistently across the regional water planning areas (RWPAs) will help provide Texas with the data it needs to secure its water supply for future generations.

1 General Data Requirements

Data should conform and comply with all 31 TAC § 357 rules that require RWPGs to evaluate the adequacy of water supplies in each region during drought of record conditions. The data should also be developed based on the guidance in subsequent sections of this document and the most current *General Guidelines for Sixth Cycle of Regional Water Plan Development.* Evaluations should consider surface water, groundwater, reuse, and conservation data from the SWP, existing water rights, contracts and option agreements, and any other relevant planning, water supply, and conservation studies available. In addition

- submitted information must be accurate and based on the best data and science practicable;
- potential interregional conflicts should be identified and resolved prior to data being certified as complete by the RWPG;
- RWPGs must enter information into all fields in DB27 unless otherwise stated in the guidance documents;
- data provided should follow specified units of measure (see Appendix 1);
- new to the sixth round of planning, data entered in DB27 must be in title case;
- spelling, word order, and proper names must be used consistently and correctly when entering data into DB27;
- proper names used in the RWPs should match those entered in DB27;
- RWPGs must use the same reporting conventions for data shared by more than one region;
- RWPGs must agree on underlying data (e.g. availability numbers) prior to data entry;
- only whole numbers should be entered into DB27;
- projection, source availability, and water supply data are reported in planning decadal increments starting with the year 2030 and extending through the year 2080 (31 TAC § 357.10(21)). Each decadal increment is based on data associated with the first year of the decade and is representative of all years in that decade.

If application users have any questions regarding DB27 data entry, they are encouraged to contact TWDB Water Supply Strategy & Analysis (WSSA) staff early in the process to obtain assistance. This will avoid the inadvertent creation of errors that could be difficult to correct. WSSA staff contact information can be found on the Help page of the DB27 application.

2 Formats for Electronic Data

All final versions of files acquired or developed for the 2026 RWPs are considered joint property of the TWDB and must be submitted along with the RWP. Upon delivery, files should be in a ready-to-use format and uploaded in a single delivery using a Microsoft OneDrive that the TWDB sets up. TWDB staff will provide RWPGs with instructions on how to use Microsoft OneDrive.

This includes but is not limited to all technical reports (MS Word and PDF), MS Excel files, Water Availability Model (WAM)/Groundwater Availability Model (GAM) input/output/supporting data files, GIS, CAD, and image-formatted data. Files required for delivery to the TWDB shall be in an approved format as specified in this document. Alternative software or delivery methods will be allowed with pre-approval from the TWDB if these requirements present a significant burden on the RWPG or as technology changes.

2.1 Introduction

Formats of all computer files provided to the TWDB should be compatible with widely distributed versions of the following software:

- Microsoft Word (MS Office 2010 or newer versions)
- Microsoft Excel (MS Office 2010 or newer versions)
- Microsoft Access (MS Office 2010 or newer versions)
- ArcGIS (10.0 or newer version which includes ArcGIS Pro)
- Internet Explorer (11 or newer versions)
- Adobe Acrobat (2015 or newer versions)

2.2 File Formatting

2.2.1 Accessibility

The digital copy of the final RWP must comply with the requirements and standards specified in 1 TAC § 213, Subchapter B (Electronic and Information Resources Accessibility Standards for State Agencies).

All figures and images contained in documents that will be posted for public viewing must have alternative text descriptions, except for decorative elements, which should be tagged as artifacts or background elements. Accessibility level of files used in the development of the regional water plan, not posted for public viewing will be at the discretion of the RWPG. The file must be titled, and language specified. In addition, the document must establish a logical reading order through the consistent use of styles and headings. Non-accessible elements such as text boxes should be avoided.

2.2.2 PDF and MS Word Specifications

All PDFs intended for online publication must be tagged for accessibility and reflow. All electronic Adobe PDF files shall use embedded fonts with electronically searchable text. Hyperlinks should be live, and bookmarks used in a consistent manner to provide easy navigation. Reading order should be evaluated and tab order correctly set. PDFs must pass the Acrobat accessibility full check. It is recommended that PDF files be a size of 50 MB or less to minimize the amount of time it will take to download from the TWDB website. However, if a larger file size is necessary, please ensure that the PDF file is no greater than a file size of 100 MB.

2.2.3 Image formatting

All drawings and graphs included in reports should also be provided separately to the TWDB in Encapsulated PostScript (EPS) or Tagged Image Format (TIFF) format. The color model should be CMYK, and resolution should be 300 dpi.

2.2.4 Correspondence Specifications

All relevant email correspondence of significance shall be saved as PDF files and adhere to the PDF specifications in Section 2.2.2.

2.2.5 Model Input Files

All water availability model (WAM) and groundwater availability model (GAM) input files used in the development of the RWPs should be in their original text file format, so that they can be verified by a TWDB modeler. In the WAM input file, please include the reservoir identification value when appropriate.

When submitting a DAT file

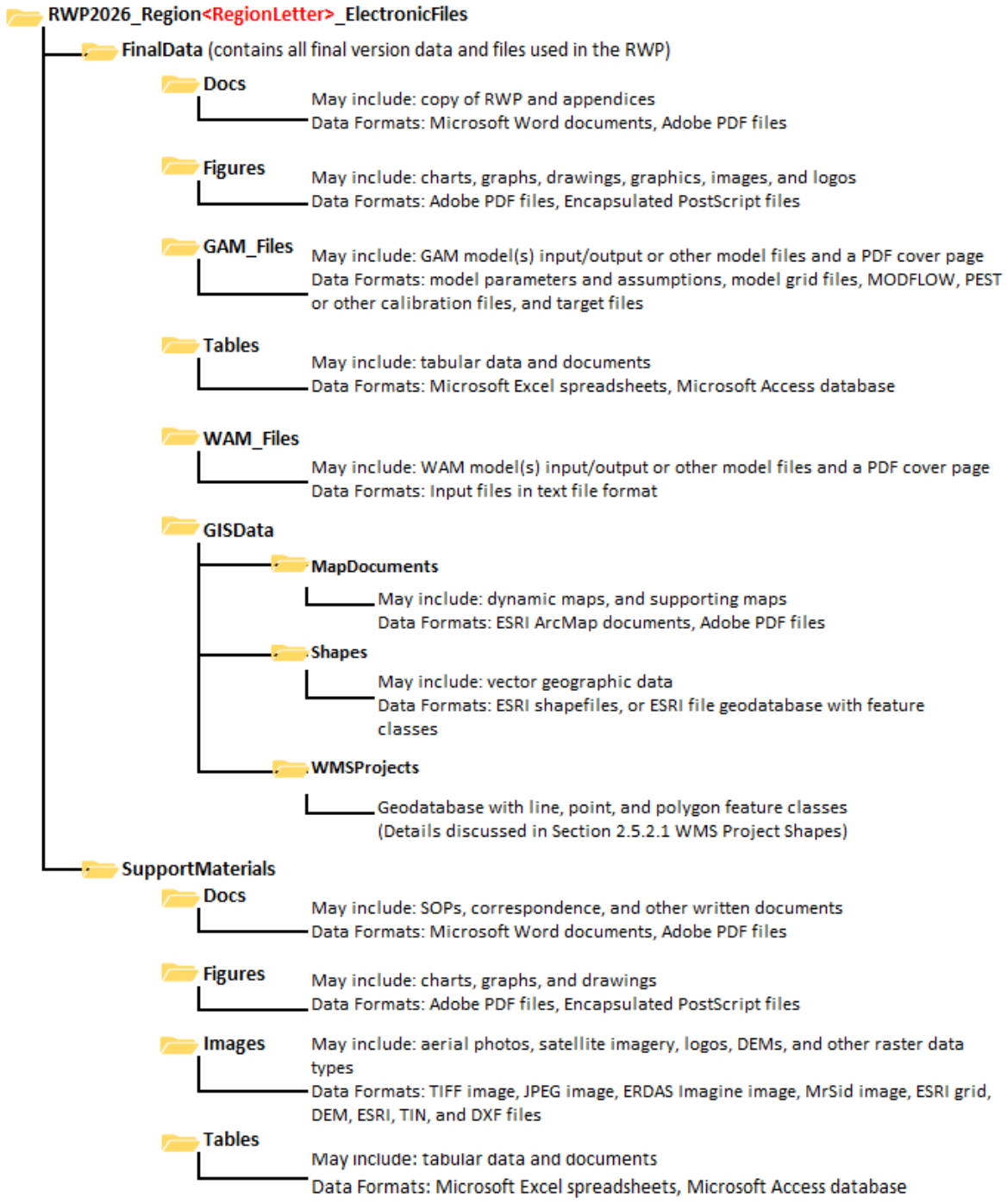
- Provide a separate .dat input file for each reservoir or reservoir system. Name the .dat file using the full name, an abbreviated name, or the WAM ID of the reservoir.
- Provide a separate .dat file for each planning decade and add the decade to the end of the filename using the convention "_<decade>", example (_2030.dat).

When submitting other WAM input files (e.g., .eva, .flo, .dis, etc.) submit one file for each type.

2.3 File Structure

A standard naming convention should be used consistently for all file names and include the region letter, data type, and figure title when relevant. It is preferred that "camel case" be used for file name formatting, which is a formatting style that capitalizes the first letter of each word. File names should not contain spaces, or special characters except for underscores. See Figure 1 for an example of how data delivery folders should be structured. Contact the TWDB WSSA team for a copy of the preferred folder structure. It is not necessary to include files that were provided by the TWDB as supporting materials if their use is clearly documented and referenced.

Figure 1. File Delivery Example



2.4 GIS Data Requirements

2.4.1 Metadata

All GIS files developed for the TWDB are required to have associated metadata. Deliverables are not considered complete without metadata. Metadata, including information about the data's projection, can be developed using one of several built-in or add-on tools within ArcGIS, and typically is associated with the geometry file as an XML file.

Metadata submitted to the TWDB must have spatial reference information that describes the projection, datum, and where applicable, the collection methods.

2.4.2 Projection

All electronic geospatial data shall have spatial reference information and be projection defined (have its coordinate system identified and embedded in or associated with the data file).

Vector data shall be submitted in NAD83 geographic coordinate system with decimal degree units.

Raster data, such as aerial photographs may be submitted in their native projection, and maps shall be in the appropriate projection/coordinate system for the area depicted.

2.5 GIS Data Deliverables

All GIS data deliverables must be stored in the GISData folder as shown in Figure 1. The following sections explain how the information should be provided.

2.5.1 Map Documents

All ArcMap documents (.mxd), ArcGIS Pro files (.aprx), or equivalent map document formats used in final map production are also required for delivery to the TWDB with accompanying data in a stand-alone directory structure. Map document formats must be configured to use relative paths and not be set to use a printer-specific paper setting.

2.5.2 Shape Deliverable Overview

All vector geographic data including shapefiles, geodatabase with feature classes, or any other data used in final map productions are required to be submitted.

RWPGs shall provide all supporting and final GIS data developed or acquired for the RWP and geographic information illustrating important features of each RWPA including but not limited to

- political subdivisions,
- major water demand centers such as cities,
- major providers of municipal and industrial water,
- major water supply sources,
- reservoirs, and
- mapped aquifers.

It is not necessary to include geographic data that was provided by the TWDB as supporting materials if its use is clearly documented and referenced.

2.5.2.1 WMS Project Shapes

Each RWPG is responsible for submitting digital data files containing final geographic data including all recommended and alternative water management strategy projects (WMSP) identified in the RWP.

The WMS project vector data shall be divided into point, polygon, and polyline features based on the WMS Type and WMS Project component and submitted as three shapefiles in a single folder or three feature classes in a single file geodatabase (See Figure 2). One WMS Project can be represented in multiple feature types. For example, an ASR project may be presented as a point for each of the wells required for the site or as a single centroid for the ASR injection and recovery well site. If the WMS project also includes conveyance, a line shapefile may be required to show the transmission lines going from the ASR project site to the water treatment plant. Conservation WMSPs like advanced meter infrastructure installment and system water loss mitigation can be shown as the centroid of the impacted system or part of system. For projects related to county level WUGs like irrigation or municipal county-other, the conservation project point can be placed in the centroid of the project impact area or if that is not known, the centroid of the county. If more than one shape is required for a project, make sure that the related data includes the same WMSProjectId so that all related shapes can be filtered for a specific project. To explain what the shape represents, include a brief description of the shape in the data column labeled 'ProjComp.'

Files shall use a standard naming convention of "WMSProject," Region letter, and geometry type (point, polygon, line) with no spaces. EX: WMSProject_RegionA_Point or WMSProject_RegionL_Polygon.

WMS Project vector data shall have spatial reference information and be projection defined (have its coordinate system identified and embedded in or associated with the data file).

Each WMS Project line, polygon, and point shapefile or feature class file shall include the following fields and additional attribute fields shall be included to provide further detail or clarification as needed. See Table 1 for a list of required fields in each shapefile/feature class attribute table.

Figure 2. WMS project shape folder structure

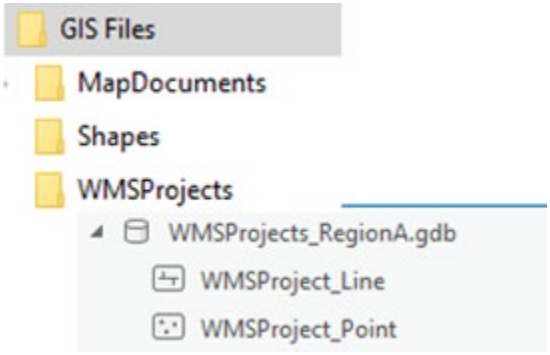


Table 1 Required fields in attribute tables of WMS Project line, point and polygon shapefile/feature class data

Field Name	Description	Format	Example
ObjectId	Unique identifier for each feature (Auto generated)	FID/OID	51
WMSProjectId	DB27 WMS Project ID	Short integer, 5	945
Status	Recommended or Alternative WMS Project	String, 11	Recommended
SponsorRegion	Letter of RWPG project sponsor	String, 4	A
ProjectName	DB27 WMS Project name	String, 100	Develop New Well Field (Ogallala Aquifer) – Cactus
ShapeDescription	Brief description of what the shape represents	String, 255	Centroid of well field

3 Data for Sources of Supply

This section describes the information found in the Sources module of DB27. All current and potential future sources of water supply must be entered into the DB27 Sources module. Each source will be designated as 'groundwater,' 'surface water,' or 'reuse' and will also be categorized within a more specific *Source Subtype* category. Sections 3.3–3.5 provide instructions on how to apply source type labels to sources.

Source availability, referred to as *Total Availability* in DB27, is entered in the DB27 Sources module for all existing sources. It is defined in 31 TAC § 357.10(3) as being "the maximum amount of water that could be produced by a source during a repeat of the drought of record, regardless of whether the supply is physically connected to or legally accessible by water user groups." Existing water supply, which is associated with a WUG, is different from source availability. Existing supply is defined in TAC § 357.10(13), as the "maximum amount of water that is physically and legally accessible from existing sources for immediate use by a WUG under a repeat drought of record conditions" and is entered for WUGs in the DB27 Entities module. See Section 4 for Entity module information.

All new sources must be requested through the Sources module of DB27 and will be reviewed by the TWDB. It is important to ensure that the new source is legitimate and not a duplicate of another source in the database prior to connecting it to entity water volumes and water management strategy (WMS) supplies. By taking the time to review the sources initially, less time will be required to verify the source data during review of the initially prepared plans. When a source is no longer applicable, a request must be submitted to the TWDB WSSA team to update the source to 'Inactive.'

Source data is used to analyze the types of sources that are used in each of the state's RWPAs. The source's existing *Total Availability* is also used to ensure that the amount of water allocated to WUGs as current supply does not exceed the source's available water volumes during a drought of record (i.e., source is not over-allocated).

3.1 Source Status

When requesting to add a new source through the DB27 application, the source will be identified as 'existing', 'future', or 'both' existing and future by selecting a value from the field labeled *Is this an existing or future source?*. Only sources that are labeled as 'existing' or 'both' have the potential to be related to entities as directly accessed source water volumes, sales/transfers, or WUG existing supplies in the DB27 Entities module. See Section 4 for Entity module information. Only sources with a source status of 'future' or 'both' can be related to a WMS in the DB27 WMS module. See Section 5 for WMS module information. Once a source is approved, a request must be sent to the TWDB WSSA team to update the source status to a different value.

3.1.1 Existing Sources

'Existing' sources are defined as currently available for entities to connect with and use. This includes sources whose supply may not be available during drought of record conditions. Source availability will be entered for all existing sources in the DB27 Sources module. If a source is used by WUG(s) as existing supply but the source has no supply available during drought of record conditions, it should still be added to the RWP database with zero availability in all planning decades. See Sections 3.3–3.5 for additional information regarding source availability by source type.

3.1.2 Future Sources

'Future' only sources are not currently available for use. A WMSP must be developed for the future source to be available for use by WUGs. Once a future source is created through the DB27 Sources module, it can be related to one or more WMSs which are then related to a WMSP. Future sources require the following fields to be entered in the DB27 Sources module which are described in detail by *Source Subtype* in Sections 3.3–3.5:

- Source Name
- Source Detail
- Source Region
- Source County
- Source Basin
- Source Type
- Source Subtype
- Is this source generally considered brackish or saline?
- Source Comments

An example of a future source is a new reservoir or a new aquifer storage and recovery (ASR) site. Source availability will be entered for all future sources using the DB27 WMS module. Once a future source is related to a WMS having a *WMS Source Use Type* of 'Availability Increase,' future supply made available through the WMS can be entered with the WMS source. See Section 5.1.2 for more information on relating 'future' sources to an availability increase WMS.

3.1.3 Both Existing & Future Sources

Sources can be used as both existing availability and as part of a WMS. When a source with a source status of 'both' is related to a WMS, it can mean that the existing availability is being delivered to WUGs as part of the WMS or an existing source's availability is being increased or decreased through the WMS. For example, a WMS can be added that reallocates an existing reservoir's conservation pool to increase the amount of supply that could be delivered to WUGs. See Section 5.1.1.7 for more information on relating sources with a status of 'both' to a WMS. Existing availability for sources with a status of 'both'

will be entered in the DB27 Sources module the same as 'existing' sources and can be allocated to WUGs as either existing supplies or through a WMS having a *WMS Source Use Type* of 'Existing Availability'. Future availability will be entered once the source is related to a WMS having a *WMS Source Use Type* of 'Availability Increase' (as with 'future' sources). See Sections 3.3–3.5 for additional information regarding existing source availability by source type.

3.2 Water Quality

The salinity and impacts to water supply data values are collected for each *Source Subtype*. Salinity is collected for existing sources and future sources, but the impacts to water supply value is only collected for sources with a status of 'existing' or 'both.'

3.2.1 Salinity

The DB27 Sources module field, *Is this source generally considered brackish or saline?,* indicates whether the source availability is considered 'fresh' (less than 1,000 mg/L), 'brackish' (1,000 to 10,000 mg/L), 'saline' (10,001 to 34,999 mg/L), or 'seawater' (35,000 mg/L or greater). Sources can also be labeled as 'fresh/brackish' or 'brackish/saline' if a combination of the salinity types is appropriate. The default value for the salinity field is 'fresh.' Once a source request is approved, a request must be sent to the TWDB WSSA team to change the salinity value of the source.

3.2.2 Impacts to Source Availability

For the sixth cycle of planning, the phrasing of the data collection field previously labeled "Was total availability reduced due to water quality conditions?" has been updated to "Does this source's water quality limit its use by a water use category? If so, please briefly explain water quality issues and WUG limitations in the source availability comments section." The person entering data will choose "Y" or yes to indicate that the source has water quality issues that must be addressed if one or more WUG types want to use the source. Examples of water quality issues that could impact the use of the source by WUG type categories are salinity, nitrates, arsenic, hydrocarbons, and radionuclides. Even though a WUG may already be addressing the water quality issue through treatment, it is still necessary to answer "Y." If the source has no known water quality issues, then select "N" or no.

3.3 Surface Water Source Type

The following *Source Subtypes* are categorized under the *Source Type* 'Surface Water' in the DB27 Sources module. Data related to these *Source Subtypes* will be grouped under the surface water heading in the 2027 SWP. Under each *Source Subtype* heading is a list of data entry fields found in the Edit Source Details page of the DB27 Sources module and information on how to provide the required data.

3.3.1 Run-of-River Source Subtype

Water right permits that allow users to divert water directly from a river or stream are entered as a 'Run-of-River' *Source Subtype*. This *Source Subtype* does not include reservoir, off-channel reservoir, ASR, or reuse related water volumes. When a run-of-river supply contributes to the water volumes associated with those other *Source Subtypes*, this supply must be entered as the source it is contributing to, using appropriate labeling as described in Sections 3.3–3.5. The following data fields are collected for sources labeled as 'Run-of-River':

- Source Name: A run-of-river source's name is the concatenation of the basin it is in and the text 'Run-of-River.' For example, a run-of-river source associated with the Canadian River Basin will have the name 'Canadian Run-of-River.'
- Source Details: The *Source Details* field provides additional information about the water rights included with the surface water source. When the run-of-river source is associated with a single water right, the *Source Detail* value should begin with 'Single, then a forward slash '/'and a brief description of the water right name. When the run-of-river source contains multiple water rights, the *Source Detail* value should begin with 'Multiple, then a forward slash '/' and a brief description of the water right grouping. For example, a grouping of agriculture water rights would be entered as 'Multiple/Agricultural Water Rights.'
- Source Region, County, & Basin: When selecting a planning region, county, and basin for this *Source Subtype*, they should represent the location of the run-of-river diversion.
- Methodology used to determine availability volumes: Select the methodology value that best represents how the source availability was determined when the source has a source status of 'existing' or 'both.' See Section 3.1 for more information on how the Source Status is chosen. The most common methodology values for a run-of-river source are 'WAM Run 3' or 'WAM Run 3 Modified'. For a complete list of acceptable values by *Source Subtype*, see Appendix 2. Certain methodology values require additional comments, please enter them into the methodology value comments box. For guidance on surface water availability modeling, see Exhibit C Section 2.3.1.
- Total Availability: The *Total Availability* column represents the existing firm diversion water volume in acre-feet for each planning decade. Future availability developed through a WMS should be entered as an Availability Increase WMS. See Section 5.1.1.7 and Section 5.1.2 for information on how to enter an Availability Increase WMS and its WMS supply.
- Source Comments: Comment fields are provided for both the source level and the source availability level. For sources with a subtype of 'run-of-river,' use the source availability comments field to provide a more detailed description of the water rights included with the source which can include the ownership, water right number, permit diversion, and type of usage.

3.3.2 Reservoir Source Subtype

Sources that have a *Source Subtype* of 'Reservoir' represent a single reservoir that is not included in a reservoir system. If a future reservoir is built and combined with a system, it must start out as a single future reservoir and then it can be combined with a system once it is online and ready for use. See Section 5.1.2 for more information on how to add future reservoirs to a strategy.

All reservoirs that provide water supply must be included in DB27 even if they have zero firm availability. Reservoirs with zero firm availability should relate to the WUGs demonstrating that the WUG relies upon the reservoir when its supply is available.

When water is stored in a reservoir, it is labeled as a surface water reservoir in the database even if the origin of the stored water is a different *Source Subtype*. For example, when water is pumped from a run-of-river during a period of high streamflow and used as the source water of an off-channel reservoir, the reservoir must be entered in the database along with information regarding the origin of the reservoir's water supply in the source detail field, rather than linking the entities using the reservoir's supply to the run-of-river source record. Reuse supply contributing to a reservoir or reservoir system must be entered as a separate source record and the reuse source's source detail field will include a reference to the reservoir or system to which it is contributing. The indirect reuse supply that contributes to the reservoir is entered as a separate indirect reuse source record and will reference the reservoir it is contributing to

in the source detail field. The reservoir source will also note the indirect reuse that is contributing to it in its source detail field.

It is important that all new reservoirs are added as a reservoir source record in the DB27 application and associated with the WMS and WMSP that will construct the new reservoir. During Texas legislative sessions, the TWDB is often asked for a list of existing and proposed reservoirs and their attributes. When a WMS is associated with a reservoir project, but the source of the water added to the WMS is not a reservoir, the data is difficult to query and analyze, which is why it is important to standardize these *Source Subtypes*.

The following fields are collected for sources labeled as 'Reservoir':

- Source Name: A reservoir's source name is the concatenation of the name of the reservoir and the text 'Lake/Reservoir.' For example, Lake Meredith will have the name 'Meredith Lake/Reservoir.
- Source Detail: The source details field must provide additional information regarding the reservoir and the origin source of the water supply. For example, if indirect reuse contributes to the reservoir, indirect reuse and the producer of the reuse supply should be noted as "Indirect Reuse:" and name of reuse producer after the colon.
- Source Region, County, & Basin: Since reservoir sources can exist in multiple counties, the county field value, 'reservoir' was created and should be selected for all reservoirs. The region should reflect the planning region that the reservoir is primarily located in, and the basin should reflect the basin that it is located in. For example, the geographic area of the Palo Duro Reservoir is labeled as Region 'A,' 'Reservoir' County, and 'Canadian' Basin.
- Methodology: Select the *Methodology* value that best represents how the source availability was determined when the source has a source status of 'existing' or 'both.' See Section 3.1 for more information on how the Source Status is chosen. The most common methodology values for a reservoir source are 'Water Availability Model (WAM) Run 3' or 'WAM Run 3 Modified'. For a complete list of acceptable values by *Source Subtype*, see Appendix 2. Certain Methodology values require additional comments, please enter them into the methodology value comments box. For guidance on surface water availability modeling, see Exhibit C Section 2.3.1.
- Total Availability: The *Total Availability* column represents the existing reservoir availability in acre-feet for each planning decade. *Total Availability* will represent firm availability unless a hydrologic variance request is granted. If a hydrologic variance is granted, the total availability will represent the modeled availability based on the approved hydrologic variance request. When a reservoir is labeled as an off-channel reservoir and its *Total Availability* water volumes are being deducted from a run-of-river's firm availability, then the related run-of-river *Total Availability* must be reduced to show the movement of water volume from the run-of-river source to the off-channel reservoir in the DB27 application. If the off-channel storage does not rely on the firm portion of the run-of-river water right, then the run-of-river firm availability does not need to be reduced to account for the off-channel reservoir's availability. When entering off-channel reservoir future availability as part of a WMS, see Section 5.1.2 for information on how to enter its future availability and WMS supplies. See Section 5.1.1.7 for information on how to enter a future availability associated with an existing reservoir.
- Firm Availability: If a hydrologic variance request is approved and the *Total Availability* does not represent the firm availability, firm availability must also be entered for the reservoir. To enter existing firm availability related to the reservoir, select the 'N' value on the field*, Is total availability based on firm yield?* and click the **Update** button on the Edit Source Details page of the DB27 Sources module for the specified reservoir. A Firm Yield decadal water volume column

will then be displayed for each planning decade and must be filled out. Please specify in the methodology comments field additional information regarding the hydrologic variance request including the TWDB Executive Administrator approval date and a brief description such as 'addition of return flows' or 'reservoir safe yield.' For a complete list of examples from past plans of potentially appropriate surface water modeling assumptions for RWP development, see Exhibit C Section 2.3.5.1.

- Conservation Pool: Source *Conservation Pool* capacity values are based upon the reservoir's most recent hydrographic survey and are entered in acre-feet.
- Is this reservoir or reservoir component of this system associated with a federal facility, or water right owned or controlled by a federal agency (e.g., dam owned, or reservoir operated by a federal agency)?: The default value for this field is 'N.' If the reservoir is associated with a federal agency, then the field should be updated to 'Y.'
- Source Comments: Comment fields are provided at both the source level and the source availability level. These fields should include any additional information about the reservoir and its source availability. If the reservoir is a future only source, please include all counties that the reservoir is located in.
- Reservoir Major/Minor Designation: In the DB27 database, all reservoirs will be labeled as 'major' or 'minor'. A major reservoir is defined as an impoundment with a storage capacity of at least 5,000 acre-feet at its normal operating level when it was originally permitted. A minor reservoir is defined as having less than 5,000 acre-feet of storage capacity at its normal operating level when it was originally permitted. Reservoirs will be labeled as 'major' or 'minor' by the TWDB WSSA team in a database table that contains a list of DB27 reservoirs. When a new reservoir is requested, please provide this information in the source request comment box, and the TWDB WSSA team will make sure that the reservoir is correctly labeled.
- Off-Channel Reservoir Designation: When a reservoir is located off the main stem of the river and contains water from a river or stream that is diverted for off-channel storage, this field will be labeled 'Y' by the TWDB WSSA team in a database table that contains a list of DB27 reservoirs. When a new reservoir is requested, please include a note stating that the requested reservoir is considered off-channel in the source request comment box, and the TWDB WSSA team will make sure that the reservoir is correctly labeled.

3.3.3 Reservoir System Source Subtype

When multiple reservoirs are operated together as a reservoir system and they meet the criteria listed in Exhibit C Section 2.3.2, they will have the *Source Subtype* 'RESERVOIR SYSTEM.' All reservoir systems must be approved by TWDB staff. If a new reservoir system is being created, contact WSSA staff and they will assist with entering the system's data into DB27. All existing reservoirs that contribute to the system must be represented even if they have zero firm yield associated with them. Future reservoirs associated with a WMS must be shown as individual reservoirs until they are established. See section 3.3.2 for more information on reservoir records. If multiple reservoirs are being developed as part of future system, then they must be shown separately and can be grouped as part of a WMS or WMS group. See Section 5.1.2 for more information on how to set up an availability increase strategy for new reservoir sources. Once established, they can then be combined as a system source. Reuse supply contributing to a reservoir or reservoir system must be entered as a separate source record and the reuse source's source detail field will include a reference to the reservoir or system to which it is contributing. The following fields are collected for sources labeled as 'Reservoir System':

- Source Name: A reservoir system's source name is the concatenation of the name of the system and the text 'Lake/Reservoir System. For example, the Highland lakes system will have the name 'Highland Lake/Reservoir system.'
- Source Detail: The source details field must provide additional information regarding the reservoirs and their origin source of water supply. For example, if indirect reuse contributes to a reservoir, indirect reuse and the producer of the reuse supply should be noted as "Indirect Reuse:" and name of reuse producer after the colon.
- Source Region, County, & Basin: Since system sources can cross multiple counties, the county field value, 'reservoir' was created and should be selected for each reservoir system source. The region should reflect the planning region that the reservoir system is primarily located in, and the basin should reflect the basin in which it is located. For example, the geographic area of the Highland Lakes Reservoir System is labeled as Region 'K,' 'Reservoir' County, and 'Colorado' Basin.
- Methodology: Select the methodology value that best represents how the source availability was determined when the source has a source status of 'existing' or 'both.' See Section 3.1 for more information on how the Source Status is chosen. The most common methodology values for a reservoir system source are 'Water Availability Model (WAM) Run 3 or WAM Run 3 Modified. For a complete list of acceptable values by *Source Subtype*, see Appendix 2. Certain Methodology values require additional comments, please enter them into the methodology value comments box. For guidance on surface water availability modeling, see Exhibit C Section 2.3.1.
- Total Availability: The *Total Availability* column represents the existing reservoir system availability including any system gains in acre-feet for each planning decade. *Total Availability* will represent firm availability unless a hydrologic variance request is granted. If a hydrologic variance is granted, the total availability will represent the modeled availability based on the approved hydrologic variance request. When entering reservoir system future availability as part of a WMS such as a system operations update, see Section 5.1.1.7 and Section 5.1.2 for information on how to enter its future availability and WMS supplies.
- Firm Availability: If a hydrologic variance request is approved and the *Total Availability* does not represent the firm availability, firm availability must still be entered for the reservoir system. To enter existing firm availability related to the reservoir system, select the 'N' value on the field, *Is total availability based on firm yield?*, and then click the **Update** button on the Edit Source Details page of the DB27 Sources module. A Firm Yield decadal water volume column will then be displayed for each planning decade and must be filled out. Please specify, in the methodology comments field, additional information regarding the hydrologic variance request including the TWDB Executive Administrator approval date and a brief description such as 'reservoir system operations.' For a complete list of examples from past plans of potentially appropriate surface water modeling assumptions for RWP development, see Exhibit C Section 2.3.5.1.
- Conservation Pool: The *Conservation Pool* capacity value for each of the reservoirs that makes up the reservoir system must be entered. Source *Conservation Pool* capacity values are based upon the reservoir's most recent hydrographic survey and are entered in acre-feet.
- Is this reservoir or reservoir component of this system associated with a federal facility, or water right owned or controlled by a federal agency (e.g., dam owned, or reservoir operated by a federal agency)?: The default value for this field is 'N.' If the reservoir is associated with a federal agency, then the field should be updated to 'Y.'

- Source System Firm Availability: The source system availability fields represent the firm availability of each of the reservoirs that make up the system in acre-feet for each planning decade. *It is no longer required that RWPGs determine the firm yield of the individual reservoirs that are combined into a system source. If firm yield data will not be entered for the system's reservoirs or if the firm yield of a specific system reservoir is not known, please leave its associated decadal fields blank.*
- Source Comments: Comment fields are provided at both the source level and the source availability level. These fields should include any additional information about the reservoir system and its source availability.
- Reservoir Major/Minor Designation: All reservoirs associated with the system will be labeled as 'major' or 'minor.' A major reservoir is defined as an impoundment with a storage capacity of at least 5,000 acre-feet at its normal operating level when it was originally permitted. A minor reservoir is defined as having less than 5,000 acre-feet of storage capacity at its normal operating level. Reservoirs will be labeled as 'major' or 'minor' by the TWDB WSSA team. When a new reservoir is requested, please provide this information in the source request comment box and the TWDB WSSA team will make sure that the reservoir is correctly labeled.
- Off-Channel Reservoir Designation: When a reservoir reported as part of a system is located off the main stem of the river and contains water from a river or stream that is diverted for off-channel storage, this field will be labeled 'Y' by the TWDB WSSA team in a database table that contains a list of DB27 reservoirs. When a new reservoir is requested, please include a note stating that the requested reservoir is considered off-channel in the source request comment box, and the TWDB WSSA team will make sure that the reservoir is correctly labeled.

3.3.4 Livestock Local Supply Source Subtype

Livestock local supply sources represent limited, unnamed individual surface water supplies that are available only for use by livestock WUGs. The following fields are collected for sources with a *Source Subtype* label of 'Livestock Local Supply':

- Source Name: A livestock local supply source name is the concatenation of the river basin the source is in and the text 'Livestock Local Supply.' For example, a livestock local supply source found in the Brazos River Basin will have the name 'Brazos Livestock Local Supply.'
- Source Detail: The source detail field is available to provide additional information regarding the livestock local supply source.
- Source Region, County, & Basin: When selecting a planning region, county, and basin for this *Source Subtype*, they should represent the location of the livestock local supply source.
- Methodology: Select the methodology value that best represents how the source availability was determined when the source has a source status of 'existing' or 'both.' See Section 3.1 for more information on how the Source Status is chosen. The most used methodology value for a 'livestock local supply' source is 'Published Reports/Data.' For a complete list of acceptable values by *Source Subtype*, see Appendix 2. If additional comments are required for the chosen methodology type, please enter them into the methodology value comments box.
- Total Availability: The *Total Availability* column represents the existing firm livestock local supply volume in acre-feet for each planning decade. Future availability developed through a WMS should be entered as an availability increase WMS. See Section 5.1.1.7 and Section 5.1.2 for information on how to enter an availability increase WMS and its WMS supplies.
- Source Comments: Provide information on how the source's availability will be estimated and the origin of the water (if available).

3.3.5 Other Local Supply Source Subtype

Other local sources represent limited, unnamed individual surface water supplies that are available only for **non-Municipal** WUGs other than livestock. In past planning cycles "other local supply" was used to account for recycled industrial supply from mining or manufacturing. For the sixth cycle of planning, we now have a reuse source subtype that will be used for that category of supply. See Section 3.5.3 for more information on the new source subtype category. The following fields are collected for sources with a *Source Subtype* label of 'Other Local Supply':

- Source Name: An 'other local supply' source name is the concatenation of the river basin the source is in and the text 'Other Local Supply.' For example, an 'other local supply' source found in the Red River Basin will have the name 'Red Other Local Supply.'
- Source Detail: The source detail field must contain information describing what the other local supply represents.
- Source Region, County, & Basin: When selecting a planning region, county, and basin for this *Source Subtype*, they should represent the location of the other local supply source.
- Methodology: Select the methodology value that best represents how the source availability was determined when the source has a source status of 'existing' or 'both.' See Section 3.1 for more information on how the Source Status is chosen. The most used methodology value for an 'other local supply' source is 'Published Reports/Data.' For a complete list of acceptable values by *Source Subtype*, see Appendix 2. If additional comments are required for the chosen methodology type, please enter them into the methodology value comments box.
- Total Availability: The *Total Availability* column represents the existing firm other local supply volume in acre-feet for each planning decade. Future availability developed through a WMS should be entered as an availability increase WMS. See Section 5.1.1.7 and Section 5.1.2 for information on how to enter an availability increase WMS and its WMS supplies.
- Source Comments: Provide information on how the source's availability will be estimated and the origin of the water (if available). Provide information about the user(s) of the water supply.

3.3.6 Rainwater Harvesting Source Subtype

Rainwater harvesting sources represent the collective benefits of rainwater and/or stormwater catchment systems currently used or being planned for within the region, county, and basin area the system is located in. In DB27, rainwater harvesting is the capture and storage of rainwater and/or stormwater for uses such as landscape irrigation, livestock, potable and non-potable indoor use, manufacturing, and storm water abatement. Rainwater harvesting water supply collected and used to add additional water to aquifers should be entered as a groundwater source if considered firm supply. See Sections 3.4.1.4 and 3.4.2 for more information. Rainwater collected in ponds and lakes that do not meet the minor or major reservoir criteria should be entered as livestock local supply or other local supply firm supply. See Section 3.3.4 and Section 3.3.5 for more information. Rainwater that enters a state water course should be labeled as reservoir or run-of-river supply. Source availability associated with the 'rainwater harvesting' *Source Subtype* represents water that is collected through a system in a containment basin or tank. The following fields are collected for sources with a *Source Subtype* label of 'Rainwater Harvesting':

- Source Name: 'rainwater harvesting' source name is the concatenation of the river basin the source is in and the text 'Rainwater Harvesting.' For example, a 'rainwater harvesting' source found in the Sulphur River Basin will have the name 'Sulphur Rainwater Harvesting.
- Source Detail: The source detail field should represent the intended method of use. For example, 'Landscape Irrigation,' 'Potable Use,' or 'Storm Water Abatement.'

- Source Region, County, & Basin: When selecting a planning region, county, and basin for this *Source Subtype*, they should represent the location of the rainwater harvesting system(s) source.
- Methodology: Select the methodology value 'Other' and in the comments field add information about how the total availability was determined when the source has a source status of 'existing' or 'both.' See Section 3.1 for more information on how the Source Status is chosen.
- Total Availability: The *Total Availability* column represents the firm existing rainwater harvesting supply volume in acre-feet for each planning decade. Future availability developed through a WMS should be entered as an availability increase WMS. See Section 5.1.1.7 and Section 5.1.2 for information on how to enter an availability increase WMS and its WMS supplies.
- Source Comments: Provide information on how the source's availability will be estimated, and the rainwater collection system used (if available).

3.3.7 Gulf of Mexico Source Subtype

'Gulf of Mexico' sources represent seawater desalination plants, which process seawater typically containing total dissolved solids of 35,000 milligrams per liter or greater. Each 'Gulf of Mexico' source should represent a single desalination plant. The following fields are collected for sources with a *Source Subtype* label of 'Gulf of Mexico':

- Source Name: 'Gulf of Mexico' will be the source name for each 'Gulf of Mexico' source.
- Source Detail: The name of the desalination plant that produces the water supply will be included in the source detail field. If a region has more than one seawater desalination plant, a Gulf of Mexico source should be created for each plant having the same Source Name, Source Region, Source County, and Source Basin. The Source Detail value distinguishes each desalination plant and the water volumes that it makes available.
- Source Region, County, & Basin: A 'Gulf of Mexico' source has been added to the DB27 database for each region that borders the Gulf of Mexico (Regions: H, K, L, M, and N). The county name and basin name for 'Gulf of Mexico' sources will also be 'Gulf of Mexico.'
- Methodology: Select the methodology value that best represents how the source availability was determined when the source has a source status of 'existing' or 'both.' See Section 3.1 for more information on how the Source Status is chosen. For a complete list of acceptable values by *Source Subtype*, see Appendix 2. If additional comments are required for the chosen methodology type, please enter them into the methodology value comments box.
- Total Availability: The *Total Availability* column represents the existing Gulf of Mexico supply made available through the desalination plant in acre-feet/year for each planning decade. Future availability developed through a WMS should be entered as an availability increase WMS. See Section 5.1.1.7 and Section 5.1.2 for information on how to enter an availability increase WMS and its WMS supplies.
- Source Comments: Provide information on how the source's availability will be estimated.

3.3.8 Atmosphere Source Subtype

The 'Atmosphere' *Source Subtype* represents only supply made available through weather modification. Atmosphere sources are created so that they can be related to WMS to reflect the potential water produced through weather modification. Weather modification sources are considered a future source whose supplies can only be made available through a WMS. See Section 5.1.2 for more information on how to enter a future source WMS. The following fields are collected for sources with a *Source Subtype* label of 'Atmosphere':

- Source Name: The source name for atmosphere source is 'Weather Modification.'
- Source Region, County, & Basin: When the source is 'Weather Modification,' the region will represent the region sponsoring the weather modification WMS. County and Basin will have a value of 'ATMOSPHERE' since a precise county and basin is difficult to determine. For example, the geographic area of a Region A 'Atmosphere' source is labeled as Region 'A,' 'Atmosphere' County, and 'Atmosphere' Basin.
- Source Detail: The source detail field is available to provide additional information regarding the atmosphere source.
- Methodology: Methodology is not collected for future only sources. Information regarding the WMS associated with the weather modification source will be provided in the WMS module.
- Total Availability: Since weather modification is a future source, the *Total Availability* will not be collected in the DB27 Sources Module. Instead, the potential increase in firm supply will be entered with the WMS that the source is associated with. Future availability developed through a WMS should be entered as an availability increase WMS. See Section 5.1.2 for information on how to enter an availability increase WMS and its WMS supplies.
- Source Comments: Provide additional information about how the water will be estimated.

3.4 Groundwater Source Type

The following *Source Subtypes* are categorized under the *Source Type,* 'groundwater' in the DB27 Sources module. Data related to these source subtypes will also be grouped under the groundwater heading in the 2027 SWP. Under each *Source Subtype* heading is a list of data entry fields found in the Edit Source Details page of the DB27 Sources module and information on how to provide the required data.

3.4.1 Conventional Groundwater Source Subtype

The *Source Subtype* 'conventional groundwater' supply category includes groundwater that is naturally occurring and does not include water that is being stored as part of an ASR project. Sources with a subtype of 'conventional groundwater' may have limited source availability depending upon their adopted desired future condition (DFC) and associated modeled available groundwater (MAG) volume. 'Groundwater' *Source Subtypes* are further divided into three categories based on the methodology used to determine their total available water volumes: 'MAG,' 'RWPG-Estimated Groundwater Availability (Non-MAG Availability),' and 'Partial MAG.' The following fields are collected for sources with a *Source Subtype* of 'Groundwater':

- Source Name: A *Source Subtype* 'groundwater' source name is the concatenation of the aquifer name and the text 'Aquifer. For example, a groundwater source associated with the Dockum Aquifer will have the name 'Dockum Aquifer.' If the source is considered an 'Other Aquifer' source, which represents any aquifer not designated as major or minor, the source name will be entered as just 'Other Aquifer.'
- Source Detail: The detail field may be left empty, but it can also contain information such as formation description or other text that helps describe the aquifer.
- Source Region, County, & Basin: The region, county, and basin values will represent the geographic location of the groundwater.
- Other Aquifer: If the source is considered an 'Other Aquifer' source, which represents an aquifer not designated as major or minor, this field will contain text describing the groundwater formation.

- Source Comments: Comment fields are provided at both the source level and the source availability level. These fields should include any additional information about the groundwater source and its source availability. For the sixth cycle of planning, if a source intersects with a brackish groundwater production zone, the zone(s) will be noted in the source comments field.

3.4.1.1 Modeled Available Groundwater (MAG) Availability

Sources designated as a 'MAG' have total available water volumes that are based on the DFCs of the aquifer. For more information regarding DFCs, see Exhibit C Section 2.3.4. Groundwater sources with MAGs and the available water volumes are entered into the DB27 database by the TWDB WSSA team. Specific information should be provided, as necessary, for the following fields when the 'groundwater' subtype source is considered a MAG:

- Methodology: When a groundwater source is considered a 'MAG,' then the methodology value 'Modeled Available Groundwater (MAG)' will be prepopulated. If a groundwater hydrologic variance, such as a requested MAG Peak Factor, has been approved for the MAG, please provide information regarding the request including the TWDB Executive Administrator approval date in the methodology comments field.
- Total Availability: The *Total Availability* column represents the MAG volume associated with the source multiplied by the source's MAG Peak Factor (if applicable) for each planning decade in acre-feet/year.
- MAG Availability: The MAG availability field represents the MAG volume associated with the source in acre-feet/year for each planning decade. This data can only be edited by the TWDB WSSA team. See Exhibit C Section 2.3.4 for information regarding MAG availability.
- MAG Peak Factor: The MAG Peak Factor field represents the approved MAG Peak Factor value (if applicable) by planning decade. This data can only be edited by the TWDB WSSA team. When a MAG Peak Factor is not applied to a planning decade, a value of '1.0000' will be entered. See Exhibit C Section 2.3.5.2 for information regarding the MAG Peak Factor.

3.4.1.2 RWPG-Estimated Groundwater Availability (Non-MAG Availability)

Sources designated as 'RWPG-Estimated Non-MAG' represent aquifers or portions of an aquifer where no DFC has been adopted. It is the discretion of the region to determine the groundwater availability associated with these sources. For the sixth cycle of planning, DFC-compatible water volumes will be entered by WSSA staff when available and documented in the source availability comments field. RWPGs are encouraged to use the DFC-compatible water volumes entered, but not required to use them. See Exhibit C Section 2.3.4.2 for information regarding availability for non-relevant aquifers. Specific information should be provided, as necessary, for the following fields when the 'groundwater' subtype source is considered RWPG-Estimated Non-MAG:

- Methodology: When a groundwater source is considered a 'RWPG-Estimated Non-MAG,' commonly used methodology values are 'Groundwater Availability Model (GAM), 'Published Reports/Data,' and 'Permitted Amount.' If additional comments are required for the chosen methodology type, please enter them into the methodology value comments box.
- Total Availability: The *Total Availability* field represents either the DFC-compatible water volumes or the existing RWPG-Estimated Non-MAG availability in acre-feet/year for each planning decade.

3.4.1.3 Partial MAG Availability

Sources designated as 'Partial MAG' represent sources where a portion of its region, county, and basin geographic area has an adopted DFC, but the remainder of the source area does not. These sources will have both MAG volumes that represent the portion of the source with the adopted DFC and may also

have related RWPG-Estimated Non-MAG water volumes which can represent part of an aquifer, or an aquifer layer designated non-relevant. The MAG volumes will be entered by the TWDB WSSA team, and the RWPG is responsible for entering the RWPG-Estimated Non-MAG portion of the total available water volume associated with the source. For the sixth cycle of planning, DFC-compatible water volumes will be entered when available and documented in the source availability comments field. Specific information should be provided, as necessary, for the following fields when the 'groundwater' subtype source is considered Partial MAG:

- Methodology: When a groundwater source is considered a 'partial MAG,' the methodology value 'other' is the most used. This value allows the RWPG consultant to provide more information regarding the methodology used in the Methodology Comments field.
- Total Availability: The *Total Availability* column represents the sum of the MAG volume associated with the source multiplied by the source's approved MAG Peak Factor value (if applicable) and the RWPG-Estimated Non-MAG availability for each planning decade in acre-feet/year.
- MAG Availability: The MAG availability field represents the MAG value associated with the source in acre-feet/year for each planning decade. This data can only be edited by the TWDB WSSA team. See Exhibit C Section 2.3.4 for information regarding MAG availability.
- MAG Peak Factor: The MAG Peak Factor field represents the approved MAG Peak Factor value (if applicable) by planning decade. This data can only be edited by the TWDB WSSA team. When a MAG Peak Factor is not applied to a planning decade, a value of '1.0000' will be entered. See Exhibit C Section 2.3.4.1 for information regarding the MAG Peak Factor.
- Non-MAG Availability: The Non-MAG availability field represents either the DFC-compatible water volumes or the existing RWPG-Estimated Non-MAG availability in acre-feet/year for each planning decade.

3.4.1.4 Aquifer Recharge Availability

Intentional aquifer recharge (AR) typically takes place when water is added to infiltration basins or spread across a permeable surface to replenish water in an aquifer. If a source with a *Source Subtype* of 'conventional groundwater' is currently benefitting from AR, its total firm available water volumes should reflect the benefits of the AR project. The source availability comments section should include notes that AR is taking place over the aquifer's area, information about the methodology used to validate that the supply added is firm, and the origin source's description. If the conventional aquifer has MAG availability associated with it, the firm availability associated with the AR project can only be shown if the groundwater management area includes the AR project in its modeling.

When reuse is accounted for in intentional AR, the supply should be shown with the groundwater source and the reuse supply should be noted in the groundwater source detail field as "Indirect Reuse:" and name of reuse producer after the colon. If AR is occurring as part of a WMS that will increase the *Total Availability* of an existing groundwater source once the WMS is implemented, then see Section 5.1.1.7 for more information on how to set up an availability increase WMS that uses AR. If intentional AR is being shown with a strategy, the reuse supply will be shown as the increase in groundwater availability rather than it being shown as a separate reuse source to ensure that the supply amounts are not duplicated. However, the intentional AR strategy supply should contain notes explaining that reuse is involved with the AR.

3.4.2 Aquifer Storage & Recovery Source Subtype

The *Source Subtype* 'Aquifer Storage and Recovery' (ASR) represents "a project involving the injection of water into a geologic formation for the purpose of subsequent recovery and beneficial use by the

project operator" according to the TWC § 27.151 (1). ASR sources should be treated as a separate source from aquifer supplies in the same geologic formation that it is in because the water being added is accounted for separately from the existing conventionally stored groundwater availability. Each ASR source record should represent an ASR project site. The ASR site covers all groundwater wells required to inject and recover the supply.

Unlike how indirect reuse is handled with run-of-river and reservoir sources in the DB27 application, when indirect reuse contributes to an existing or future ASR project, the indirect reuse supply is shown with the ASR source record's availability and not entered as a separate indirect reuse. If a portion of the total reuse supply is used without being stored in the ASR project and the rest is stored, then the portion not injected will be shown with an indirect reuse source and the remainder of the reuse supply which is stored in the ASR project, will be allocated to the ASR source's availability. Indirect reuse and the producer of the reuse supply will be noted in the ASR source detail field. If a desalinated source is injected into an ASR project, the availability should be shown with the ASR source and the strategy will be labeled 'Aquifer Storage and Recovery.' The use of desalinated supply as part of the project will be noted in the source availability comments field.

If ASR is occurring as part of a WMS that will increase the *Total Availability* of an existing groundwater source once the WMS is implemented, then see Section 5.1.1.7 for more information on how to set up an availability increase WMS that uses ASR. For future only ASR source records, any associated reuse supply will be shown with the ASR source's availability water volumes rather than shown as a separate reuse source record as is with existing ASR projects.

The following fields are collected for sources labeled as 'Aquifer Storage & Recovery':

- Source Name: A *Source Subtype* 'aquifer storage & recovery' source name is the concatenation of the aquifer name and the text 'Aquifer ASR.' For example, an ASR source associated with the Sparta Aquifer will have the name 'Sparta Aquifer ASR.'
- Source Detail: The source detail field should list one or more sources that represent the origin of the ASR water supply. If the origin source is a reservoir, then include the name of the reservoir as listed in DB27. If the origin source is a run-of-river, then include the concatenation of the basin it is in and the text 'Run-of-River.' If the origin source is another groundwater source, then include the concatenation of the aquifer name and the text 'Aquifer' and note if the supply is being desalinated. If the origin source is reuse, then include the concatenation of the producer's name and the text 'Reuse.' When multiple sources are listed, use a semi-colon to separate them.
- Source Region, County, & Basin: The region, county, and basin values will represent the geographic location of the groundwater ASR project.
- Methodology: Select the methodology value that best represents how the source availability was determined when the source has a source status of 'existing' or 'both.' See Section 3.1 for more information on how the Source Status is chosen. For a complete list of acceptable values by *Source Subtype*, see Appendix 2. If additional comments are required for the chosen methodology type, please enter them into the methodology value comments box.
- Total Availability: The *Total Availability* column represents the existing firm ASR supply volume in acre-feet/year for each planning decade. Future availability developed through a WMS should be entered as an availability increase WMS. See Section 5.1.1.7 and Section 5.1.2 for information on how to enter an availability increase WMS and its WMS supplies.
- Source Comments: Comment fields should contain information on the ASR facility including name, the permit required for the water that is being injected (if applicable), and information about how the source availability is estimated.

3.5 Reuse Source Type

The following *Source Subtypes* are categorized as 'reuse' in the DB27 Sources module. Data related to these *Source Subtypes* will also be grouped under the reuse heading in the 2027 SWP. Under each *Source Subtype* heading is a list of data entry fields found in the Edit Source Details page of the DB27 Sources module and information on how to provide the required data. See Exhibit C Section 2.3.3 for additional information regarding reuse sources.

3.5.1 Direct Reuse (Potable/Non-Potable)

Direct reuse has two related *Source Subtypes*: 'Direct Potable Reuse' and 'Direct Non-Potable Reuse.' Direct non-potable reuse is the beneficial use of reclaimed water that is piped directly from the wastewater treatment plant to where it is used. Direct potable reuse is the introduction of treated reclaimed municipal wastewater either: (1) directly into a public water system or (2) into a raw water supply immediately before the water enters a drinking water treatment plant (Health and Safety Code §341.0391). When choosing which *Source Subtype* to use, assign the potable status of the water based on its intended use. For example, if the direct reuse source will be used for just irrigation, then it will most likely require the 'Direct Non-Potable Reuse' *Source Subtype*. If the direct reuse source is intended for municipal use such as drinking water or potable use, then it will require the 'Direct Potable Reuse' *Source Subtype*. The following fields are collected for sources labeled as 'Direct Potable Reuse' and 'Direct Non-Potable Reuse':

- Source Name: All direct reuse sources will be named 'Direct Reuse.'
- Source Region, County, & Basin: The region, county, and basin values will represent the geographic location of the associated wastewater treatment plant.
- Source Detail: The source detail field will include the reuse producer's name and a forward slash '/' followed by the name of the recipient of the reuse water. For example, if the City of Gainesville is producing direct reuse that will be provided to an irrigation WUG in Cook County, the Source Detail would be entered as 'Gainesville/Irrigation, Cook.'
- Methodology: Select the methodology value that best represents how the source availability was determined when the source has a source status of 'existing' or 'both.' See Section 3.1 for more information on how the Source Status is chosen. For a complete list of acceptable values by *Source Subtype*, see Appendix 2. If additional comments are required for the chosen methodology type, please enter them into the methodology value comments box.
- Total Availability: The *Total Availability* column represents the direct reuse availability in acre-feet/year for each planning decade. Future availability developed through a WMS should be entered as an availability increase WMS. See Section 5.1.1.7 and Section 5.1.2 for information on how to enter an availability increase WMS and its WMS supplies.
- Source Comments: For direct non-potable sources, provide a description of the reuse water supply's end use (examples include landscape, irrigation, and cooling). Also note whether the use of the reclaimed water is considered Type I (likely to come in contact with humans) or Type II (unlikely to come in contact with humans).

3.5.2 Indirect Reuse (Potable/Non-Potable)

Indirect reuse is the beneficial use of reclaimed water that is discharged to a water supply source such as a river, stream, or aquifer and then diverted and used again. Indirect reuse has two related *Source Subtypes*: 'Indirect Potable Reuse' and 'Indirect Non-Potable Reuse.' When choosing which *Source Subtype* to use, assign the potable status of the water based on its intended use. For example, if the indirect reuse source will be used for just irrigation, then it will most likely require the 'Indirect Non-

Potable Reuse' *Source Subtype*. If the indirect reuse source is intended for municipal use such as augmenting a water supply source, then it will require the 'Indirect Potable Reuse' *Source Subtype*.

When an indirect reuse supply contributes to future or existing ASR or AR projects, the reuse supply will be shown with the ASR or groundwater source that is benefiting from the recharge instead of being tracked separately as a reuse source. The following fields are collected for sources labeled as 'Indirect Potable Reuse' and 'Indirect Non-Potable Reuse':

- Source Name: All indirect reuse sources will be named 'Indirect Reuse.'
- Source Region, County, & Basin: The region, county, and basin values will represent the geographic location of indirect reuse diversion.
- Source Detail: The source detail field will include the reuse producer's name and a forward slash '/' followed by the receiving body of water. For example, if the City of Dallas is producing indirect reuse that is added to Lake Lewisville, the Source Detail would be entered as 'DWU/Lake Lewisville.'
- Methodology: Select the methodology value that best represents how the source availability was determined when the source has a source status of 'existing' or 'both.' See Section 3.1 for more information on how the Source Status is chosen. For a complete list of acceptable values by *Source Subtype*, see Appendix 2. If additional comments are required for the chosen methodology type, please enter them into the methodology value comments box.
- Total Availability: The *Total Availability* column represents the indirect reuse availability in acre-feet/year for each planning decade. Future availability developed through a WMS should be entered as an availability increase WMS. See Section 5.1.1.7 and Section 5.1.2 for information on how to enter an availability increase WMS and its WMS supplies.
- Source Comments: For indirect non-potable use, provide description of reuse water supply's end use (examples include landscape, irrigation, and cooling) and permit number (if available). Also note whether the use of the reclaimed water is considered Type I (likely to come in contact with humans) or Type II (unlikely to come in contact with humans). For indirect potable use, provide a permit number (if available). If the reuse source is being used for artificial aquifer recharge (Section 3.4.1.4), please note the name of the aquifer it will be recharging in the source comments field.

3.5.3 Onsite Water Recycling

Water recycling is a new source subtype added to DB27. It represents water supply that is used, recycled onsite, and reused. Implementation of an on-site graywater, blackwater, or industrial onsite recycling system should result in a reduction in WUG demands since the WUG will initially use less water supply from other source types. However, we report reuse supply separately so it will display as a future reuse/onsite water recycling source in the DB27 database. It should only be entered as existing supply if the supply was incorporated into the WUG's 2026 RWP projected demands as reuse. If a WUG has future plans to incorporate on-site water recycling, the source will be added as 'future only' and associated with an availability increase WMS and WMS project in the WMS application module (See section 5.1.1.7) In the last planning cycle, 'other local supply' was used to account for some types of recycled mining or industrial water supply. For example, a pond is used to store previously used mining water which gets reused again onsite. This type of supply will now be included under the water recycling source subtype as 'Mining/Industrial Other Water Recycling' even though it may contain additional supply types like rainwater since storage of the recycled supply is the primary purpose.

If reuse is treated through a wastewater treatment plant and reused, then direct potable or non-potable source subtype should be selected instead (Section 3.5.1). Cooling water recirculation for power generation facilities should not be included with this reuse source subtype. If a power generation plant has a plan to increase water recirculation efficiency and use less water up front, it should be entered as a demand reduction WMS for the industrial WUG (Section 5.1.1.1).

Water recycling supply must be separated into the following water recycling types: 'Graywater,' 'Blackwater', 'Oil and Gas Produced Water', or 'Mining/Industrial Other Water Recycling'. The following fields are collected for sources labeled as 'Onsite Water Recycling':

- Source Name: All water recycling sources will be named 'Water Recycling.'
- Source Region, County, & Basin: The region, county, and basin values will represent the geographic location of water recycling system.
- Water Recycling Type: A drop-down list containing the values 'Graywater', 'Blackwater', and 'Mining-produced water'. One value will be selected to describe the supply. Additional categories may be added in the future as needed. Graywater is wastewater that has not had contact with organic pathogens and requires less treatment like water from clothes-washing machines and bathtubs. Blackwater represents wastewater that has come into contact with fecal matter or organic pathogens. 'Oil and Gas Produced Water' represents water that comes out of the ground as a byproduct of oil and gas extraction. 'Mining/Industrial Other Water Recycling' represents supply collected and used onsite and reused again.
- Source Detail: The source detail field will briefly describe the water recycling project associated with the availability.
- Methodology: Select the methodology value that best represents how the source availability was determined when the source has a source status of 'existing' or 'both.' See Section 3.1 for more information on how the Source Status is chosen. For a complete list of acceptable values by *Source Subtype*, see Appendix 2. If additional comments are required for the chosen methodology type, please enter them into the methodology value comments box.
- Total Availability: The *Total Availability* column represents the firm water recycling availability in acre-feet/year for each planning decade. Future availability developed through a WMS should be entered as an availability increase WMS. See Section 5.1.1.7 and Section 5.1.2 for information on how to enter an availability increase WMS and its WMS supplies.
- Source Comments: Provide information on the water recycling system, permits used, and how water volumes are estimated.

3.6 Conjunctively Used Sources

Existing supply used conjunctively involves alternating the use of multiple water sources (groundwater, surface water, reuse, etc.) to make efficient use of an entity's total water supply operations based on demand, infrastructure, or seasonal conditions.

- Example 1 – A utility has both groundwater and surface water supply and reduces their impact on groundwater by relying on just surface water during periods of average to above average rainfall while depending upon groundwater during periods with below average rainfall.
- Example 2 – A utility collects seasonally high surface water flows that they store in an aquifer recharge or aquifer storage and recovery project.

When existing sources are used conjunctively, this should be noted in the sources' availability comments field.

In the WMS module, strategies and sources can be grouped to demonstrate how they are to be used conjunctively when the WMS is implemented. See Section 5.6 for more information on how to enter conjunctive use WMSs.

3.7 Interregional Sources

If more than one RWPG uses an individual surface water, groundwater, or reuse source, the availability volumes must be consistent among the regions sharing the source. The naming conventions for shared sources must also be listed consistently in the database application. These regions should proactively work together before data entry begins to ensure consistency of their shared data. Each database source record is related to a single planning region which is determined by the location of the source. It is the responsibility of that region to update and/or review the source details and availability water volumes related to the source. A source, such as a reservoir or an ASR, should not be entered multiple times to account for more than one region's use of the source. The agreed upon *Total Availability* should be entered for the source as a whole and the regions using it will connect entities to the source in the Entity module (Section 4) or the WMS module (Section 5). For example, the Toledo Bend Reservoir is in Region I. It is Region I's responsibility to review and update the DB27 Sources module data related to the Toledo Bend Reservoir. Currently, only Region I entities use the Toledo Bend Reservoir as existing supplies, so it is also Region I's responsibility to enter the transaction water supply data in the DB27 Entities module. Regions C, D, H, and I all have recommended WMS that use the remaining Toledo Bend Reservoir water supply. These regions must work together to enter their WMSs in accordance with their RWPs without over-allocating the source's *Total Availability* water volume.

3.8 Over-allocating Sources

RWPGs should not over-allocate water sources on a temporary or a permanent basis. Water volumes allocated to entities in the Entity module and WMS supplies that come from existing availability or entity surpluses are deducted from the source's existing *Total Availability* to ensure that sources are not over-allocated under drought-of-record conditions.

4 Data for Entities

This section describes the information found in the Entities module of DB27. The Entities module is used to display WUG projection data and collect data on currently permitted water supply, its sale, and its use as an existing WUG supply. Entity data is used to analyze and summarize the state's WUG population, water demand, and existing supply trends over the next five decades. Contract demand and entity sales information are collected for WWPs to demonstrate WWP/customer relationships and the transfer of water to WUGs. WUG existing supply data is crucial to the planning process. It is used to calculate WUG water supply needs and to ensure that the state's sources of supply are not over-allocated during drought of record conditions.

4.1 Entity Types

Each entity listed in the database is labeled with an *Entity Type* which is used for data analysis and summarization. *Entity Types* include: 'WUG,' 'WWP,' or WUG/WWP.'

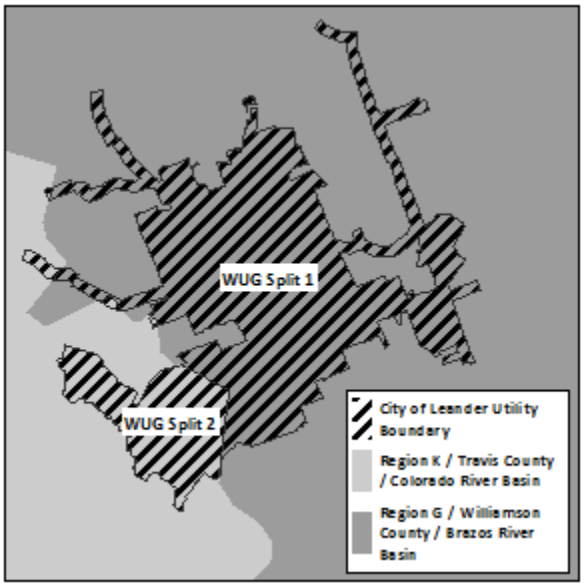
4.1.1 WUGs

The 'WUG' *Entity Type* represents an identified user or group of users for which water demands and existing water supplies have been identified and analyzed, and plans developed to meet water supply needs. For the full definition of a WUG, see 31 TAC § 357.10(42).

WUGs are further categorized into the following WUG types: 'Irrigation,' 'Livestock,' 'Manufacturing,' 'Mining,' 'Municipal,' and 'Steam Electric Power.' Except for municipal water use, all other categories of use are aggregations of water users associated with the WUG type grouped by the county they are located in. Municipal WUGs are subdivided into the categories: 'Utilities,' 'Collective Reporting Units' (CRUs), and 'County-Other.' CRUs are defined as a grouping of utilities with a common association located in an RWPA. For the full definition see 31 TAC § 357.10(5). Like non-municipal WUGs, county-other WUGs represent the aggregation of utilities and individual water users within a county that are not identified in 31 TAC § 357.10(43) (A)-(D).

WUGs that lie in one or more counties, RWPAs, or river basins must have data reported for each river basin, RWPA, and/or county split as stated in 31 TAC § 357.31. In DB27, data is required to be entered for both the WUG as a whole and its geographic WUG splits to report the WUG data as mandated. For example, the City of Leander as a whole WUG is divided into two WUG splits because the WUG boundary is in two different RWPAs, counties, and basins (See Figure 3).

Figure 3. Split WUG Geographic Boundary Example



4.1.2 WWPs

The 'WWP' *Entity Type* represents any person or entity, including river authorities and irrigation districts, which deliver or sell water wholesale (treated or raw) to WUGs or other WWPs or that the RWPG expects or recommends to deliver or sell water wholesale to WUGs or other WWPs during the period covered by the plan.

4.1.3 WUG/WWP

The 'WUG/WWP' *Entity Type* represents entities that are considered both a WUG and a WWP, in that they provide water to retail users as well as sell water wholesale to other entities. Due to WUGs like manufacturing, irrigation and steam electric power being separate WUG categories, sometimes a municipal WUG must show a wholesale sale to a manufacturing WUG to demonstrate that it sells water retail to its manufacturing sector.

4.2 Entity Update Requests

The list of entities designated as WUGs is prepared by the TWDB with input from the RWPGs. It is the responsibility of each RWPG to provide a list of WWP entities to the TWDB that have not already been designated as WUGs during the WUG development and review process. The RWPG will also need to review the final list of WUGs and identify whether any of these WUG entities would qualify to be further designated as a 'WUG/WWP' or a 'WUG/Seller' as defined in Section 4.1, and if yes, the RWPG will need to provide this list to WSSA staff. Once the final WUG list is established through the projection development process and uploaded into DB27 by WSSA staff, RWPG consultants may only request the addition or removal of entities that have a 'WWP' entity type. They may also request an update to a WUG's entity type if the entity remains a WUG. For example, an entity type can be updated from a 'WUG/WWP' to 'WUG.'

4.3 Major Water Providers

Major Water Provider (MWP) is an entity of particular significance to a region's water supply. The RWPG determines whether the WUG or WWP entity should be labeled as an MWP in the RWP. Once the MWP list is submitted to TWDB staff, a column in the DB27 entity table will identify entities considered MWPs. The MWP entity label will be used to summarize demands, sales, existing WUG supply, and WMS data related to WUGs and WWPs in the RWPs.

4.4 Entity Primary Region

Each entity is assigned a primary planning region in DB27 and application users with access to the entity's primary region will be responsible for all DB27 data entry associated with that entity and will be able to add, edit, and delete data related to water supply and sales. The primary region assignment methodology depends upon the entity's type. Entities that are only a WWP are assigned a primary region based on input from RWPGs. Municipal WUGs are assigned a primary region based on the region with the largest portion of the WUG's total population. Non-municipal WUGs, such as irrigation WUGs, are assigned a primary region based on the region with the largest portion of the WUG's water demand. It is important for RWPGs planning for the same WUGs to coordinate their data entry process early in the planning cycle to avoid conflicts.

4.5 WUG Projection Data

The TWDB-adopted WUG population and water demand (acre-feet/year) projections will be included in the DB27 Entity Module's *WUG Projections* application page for entities with an entity type of 'WUG' or 'WUG/WWP'. The projections data is uploaded into DB27 by TWDB staff and is not editable by RWPGs. This data will also include water efficiency savings (gallons) and gallons per capita per day (GPCD). See Exhibit C Section 2.2 for more information on the development of the WUG population and water demand projections.

4.6 Entity Existing Water Use & Sales Transaction Types

Existing Source Availability is related to entities through the following DB27 Entities module application pages: *Direct Source Volume-In*, *Entity Sales/Transfers*, and *Existing WUG Supplies*. These pages demonstrate how water supplies are acquired by an entity and allocated to WUGs and WUG splits as existing WUG supplies. The DB27 Entities module displays information automatically on these pages based on how relationships are established to maintain data integrity and increase the efficiency of data entry. Each of the entity module water transaction types are listed below along with information on what data is required and how the data entered relates to the other DB27 Entities module application pages. See Appendix 5 for a diagram that demonstrates how the Entities module water transaction types relate to each other.

4.6.1 Direct Source Volume-In

The *Direct Source Volume-In* type of transaction represents the existing source availability water volume an entity has legal rights to even if it does not have the infrastructure in place to be able to use it or sell it. However, in a few cases the entity may not have legal rights to the water but acts as a pass through to the entity that does have legal rights. For example, in Region M, there are entities that have water right permits for the Amistad-Falcon Reservoir System and they use the irrigation districts' canals to convey or transfer their water to them. To show this transfer of water, the appropriate irrigation district is entered as the direct source water volume-in recipient entity rather than the entity that holds the water right permit. The decision of which entity to enter as the recipient of the *Direct Source Volume-In* supply can vary depending upon how the RWPG wants to report the data, however this transaction type assignment should be applied consistently in the region's data.

The *Direct Source Volume-In* is entered into the DB27 Entity module's *Entity Direct Source Volume-In* application page and this page is accessible to all entity types. The entity receiving the *Direct Source Volume-In* will relate to the existing source of supply that was entered in the DB27 *Sources* module. Once a source is selected, the amount of *Direct Source Volume-In* supply it receives from the source is entered by planning decade in acre-feet. Comments may be provided in the comments field to help explain water right permits, water losses, or other information that may be helpful when reviewing the data. In the case of the Region M example above, the irrigation district that transfers water to other entities will deduct both its permitted amount and the amount permitted to the entity to which it is transferring water. The same applies for WWPs that sell water to other entities. The WWP will enter the total *Direct Source Volume-In* that they plan to use as existing WUG supplies (if they are a WUG) and sell to other entities (if they are a WWP). If the entity is just a WUG, they will deduct the total amount they can directly receive from the source which will include the water volume they plan to use as existing WUG supplies. Only entities that directly receive water from the source should enter supply volumes in the *Entity Direct Source Volume-In* application page. If water is received from another entity, the transfer of water will be entered in the DB27 Entities module *Entity Sales/Transfers* application page. *Direct Source Volume-In* data is primarily used for calculating source water balances in DB27 and is not reported in the RWP or the SWP.

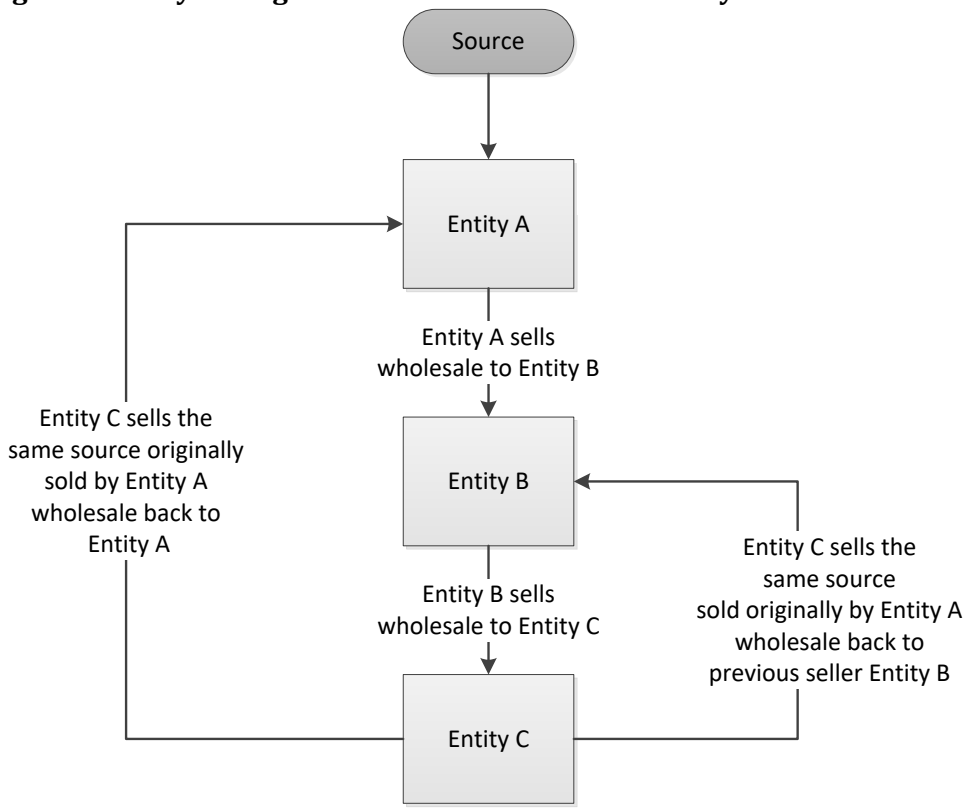
4.6.2 Entity Sales/Transfers

The entity sales/transfers type of transaction represents an entity that sells or transfers water to another entity. This water transaction is added in the DB27 Entities module *Entity Sales/Transfers* application page for entities with an entity type of 'WWP' or 'WUG/WWP'. Each entity that receives water from the seller or entity transferring the water is added as a wholesale buyer. Data is then collected on the buyer's contract demand, total sales, and sales by source. This data is used to analyze

water transfers between entities and to ensure that an entity has enough water to supply customers based on their contracted demands.

The DB27 application is designed to automatically populate data to increase data entry efficiency and maintain consistency. For example, when a buyer is connected to a seller, all sources that the seller has acquired through either *Direct Source Volume-In* or purchases from other entities will automatically display when the buyer's name is selected in the *Entity Sales/Transfers* page. The application user can deselect any of the sources that it does not plan to sell or transfer to that specific buyer. For the application to populate the data without creating an endless loop if the entity attempts to sell or transfer water wholesale back to an entity that had previously sold the water to them, two buttons are available in the *Entity Sales/Transfers* page to differentiate between a first-time purchase of water and when the water is being sold back to the entity who previously sold it. Primarily the DB27 application user will click the button labeled **Add Wholesale Buyer,** which represents the water initially being sold from a seller entity to a buyer entity. The button labeled **Sell Back Wholesale to Previous Seller** represents a sale to an entity that previously sold the water and is now getting it back. When the **Sell Back Wholesale to Previous Seller** is selected, the water can be purchased, but not sold again to another entity to prevent the endless data loop from occurring. See Figure 4 for an example of the data structure involved with selling wholesale back to a previous seller. Selling water back to a previous WWP should occur rarely in DB27 since WUGs are now based on utility boundaries rather than municipal boundaries.

Figure 4. Entity selling back wholesale to another entity data structure



The following fields are collected for both types of purchases:

- Future Customer Only: The customer list created for a seller in the DB27 Entities module *Entity Sales/Transfer* application page is utilized by an automated tool in the DB27 WMS module that

will add all customers of a seller as WMS WUG supply recipients to a WMS at the same time. During data entry into the DB17 database, some consultants chose to add future customers in the *Entity Sales/Transfers* application page, which was meant to represent current sales, so that their current and future customers could be added through the WMS module tool. However, this practice resulted in these future customers showing up in the DB17 application's data checks query because they were not associated with any values in the existing sales data fields. To address these future customers more efficiently, the *Future Customer Only* checkbox has been added to DB22. When this checkbox is selected indicating that the buyer is a future only customer, no other data fields need to be populated. When it is left unchecked, which is the default setting, current sales information must be provided.

- Contract Demand: Contract demand is entered by planning decade in acre-feet. This water volume represents the amount of water the buyer plans to receive based on the contract executed between the buyer and the seller. If the entity is just transferring water to another entity without a purchase transaction and no contract exists, then the contract demand will be zero in all decades.
- Contract Expiration Date: The contract expiration date will be entered by month, day, and year. If the contract is assumed to be renewable or the transaction is just a non-purchase transfer, a date of 12/31/9999 must be entered.
- Buyer/Seller Relationship Comments: Comments regarding the buyer/seller relationship and contracts are entered into this field.
- Total Sale Amount: The total sales volume that represents the amount currently sold to the buyer entity, by planning decade, in acre-feet.
- Sale Amount by Source: The sales volume that represents the volume of water the buyer will receive from the seller from each of the identified contracted water sources, by planning decade in acre-feet. If the seller has acquired the source from more than one entity that originally acquired the water as *Direct Source Volume-In*, then the source will display more than once. Tracking these water volumes in this manner allows the source over-allocation checks to occur at each level of transfer. If the buyer will not receive a source, then it is important to leave the decadal water volumes blank and uncheck checkbox located next to the source indicating that the source will not be sold. By doing this, the application user will minimize the amount of data check errors they will need to address. The sum of all water volumes sold by source must equal the total sale amount in each decade.
- Sale Amount by Source Comments: Comments regarding the buyer/seller/ source combination are entered in this field.

4.6.3 Entity WUG Supply

Entity WUG supply represents the maximum amount of water that is physically and legally accessible from an existing source for immediate use by a WUG under a repeat drought of record conditions. This information is entered into the DB27 Entities module's Entity WUG Supply application page for entities with an entity type of 'WUG' or 'WUG/WWP'. For more information on how to determine existing water supplies for WUGs, see Exhibit C Section 2.3.6. Sources are added to the Entity WUG Supply application page based on the list of sources the entity has acquired through either *Direct Source Volume-In* or purchased volumes from other entities (*Purchased Volume-In*). The application user can deselect any of the sources that it does not plan to use as existing WUG supply. There is a situation in the database that we refer to as diamond water. It is a sales structure that can impact how the WUG supply water balance calculation functions. See Appendix 16 for a diagram explaining the structure. If the application says that existing WUG supply is over-allocated, but it does not appear to be and this sales structure exists in the data, contact the WSSA team for assistance.

Data for the following fields are collected for entity existing WUG supply:

- Whole WUG Supply: The whole WUG supply is entered by planning decade in acre-feet/year and represents the annual volume of water the entity receives from the combination of the source, the entity directly accessing the source, and the WUG's seller. If a WUG receives less than one acre-foot of supply from a source or currently uses the source but the supply is not firm during drought of record conditions, zeros will be entered for the applicable planning decades.
- Split WUG Supply: The split WUG supply is entered by planning decade in acre-feet/year and represents the annual volume of water each entity WUG split receives from the combination of the source, the entity directly accessing the source, and the WUG's seller. If a WUG receives less than one acre-foot of supply or currently uses the source but the supply is not firm during drought of record conditions, the source should remain checked, and zeros entered for the split WUG using the source. If the WUG split will not receive an annual volume of water from the specific combination listed, it is especially important to leave the decadal water volumes blank and uncheck the checkbox located next to it to indicate that the WUG split will not receive water from the source. By doing this, the application user will minimize the amount of data check errors they will need to address. The sum of all split WUG supply volumes must equal the whole WUG supply volume related to the combination of the source, the entity directly accessing the source, and the WUG's seller.
- Water Treatment Level: This is a new field for the sixth cycle of planning. It represents the level of treatment required for the WUG to use the supply. A selection will be chosen from a drop-down list associated with the *Water Treatment Level* field. The options include the following:
    - 'No treatment required'
    - 'Disinfection only'
    - 'Conventional treatment'
    - 'Advanced treatment'
    - 'Desalination'
- WUG Supply Comments: Comments regarding the whole WUG and split WUG existing WUG supplies are entered in the comments field. When sources are being used conjunctively, please note which sources are being conjunctively used in the whole WUG comments field. When a WUG's existing supply source is labeled as 'fresh/brackish' or 'brackish/saline,' add information about the salinity level of the source in the WUG supply comments field.

4.7 Over-allocating Entity Supply

RWPGs should not over-allocate an entity's directly accessed or purchased water supplies on a temporary or permanent basis. This means that the amount of water being sold to another entity or used as its own existing WUG supplies must not exceed the amount of water they received from the source through *Direct Source Volume-In* and/or purchases from other entities.

4.8 Existing Supplies Surface Water Interbasin Transfers

As stated above in Section 4.6.3, if a WUG split will not receive water supply from a source that is related to the whole WUG, it is important to leave the decadal water volume amounts blank and uncheck the checkbox located next to it to indicate that the WUG split will not receive water from the source. This approach will ensure that the correct existing supply data is being labeled as an interbasin transfer (IBT) in the DB27 data summaries. An interbasin transfer occurs when the source and WUG basins do not match.

4.9 Entity Surplus

An entity is considered to have an annual surplus in a given decade when the total annual volume of water it receives from a source as *Direct Source Volume-In* and/or purchases is greater than the sum of the annual volumes that it allocates as sales to other entities and its own WUG supplies. Water volumes related to the entity as "entity surplus" are not reported in the RWP or the SWP since they may also include water losses or non-revenue water. See Section 4.11 for how entity surplus is utilized in the DB27 WMS module. Entity surpluses may represent:

- permitted water that is lost in transmission and/or treatment,
- permitted water that is not currently accessible due to infrastructure constraints, or
- water that is legally and physically available and will be sold to future customers as part of a WMS.

4.10 WUG Water Needs/Surplus

To calculate a WUG's needs and/or surpluses by planning decade, deduct the WUG split's projected annual water demand volumes from the WUG split's total annual existing supply volumes. A positive result identifies unused "surplus" water; a negative result identifies that there are not enough existing supplies to meet the WUG split's projected demands, thus identifying a "need" or shortage. When WUG split needs are summarized at the entity, region, county, basin, or state level, all calculated surpluses at the WUG split level are first updated to zero to ensure that the surpluses associated with one WUG split do not cancel out an identified need in another. When only the decadal WUG needs are summarized, they are displayed as a positive number.

4.11 Use of Entities Module Data in WMS Module

Although a WMS supply volume is not entered into the DB27 Entities module, data entered into the DB27 Entities module is sometimes used in the DB27 WMS module. When an entity has an entity surplus as explained in Section 4.9, this surplus water volume can be allocated to WUGs as WMS supplies by setting up a WMS that utilizes the entity surplus. If a WUG is reducing the water they receive from a source as existing water supplies and plans to acquire water from a new source of supply, then the existing WUG supply can be reduced through a WMS and left as a supply reduction or water that is reduced by one WUG could be transferred to another WUG for future use via a WMS. Projected WUG demands can also be reduced through a WMS to reflect conservation efforts. For more information on how to set up a WMS using water volumes entered into the DB27 Entities module, see Section 5.1.1.

4.12 Water Losses Related to Transferring Existing Supplies

The *Direct Source Volume-In* or *Purchase Volume-In* should represent the total water volume an entity receives from a source including any water loss that occurs during conveyance, treatment, and distribution. Projected demands associated with utility WUGs include retail system water losses since they are based on the water uses survey's net use water volume which is calculated by deducting the wholesale water volume associated with the utility from the intake water volume. Any water losses incurred by the WUG utility should be included with its existing WUG supply water volumes. WUG retail system water loss prevention strategies should be entered as a demand reduction WMS in the WMS module. See Section 5.1.1.1 for more information on how to set up a Demand Reduction WMS. Water losses associated with wholesale water provider at the transmission level should remain with the *Direct Source Volume-In* or *Purchased Volume-In* of the entity that is responsible for the distribution of the water to the other entities. In these cases, water losses will be represented as part of entity surpluses in

the database, which are explained in Section 4.9. Water volumes identified as lost during transfers can then be made available as future WUG supply through an entity surplus WMS when a project is planned to increase the efficiency of the conveyance system. If there is a question about how to account for water losses related to an entity, please contact TWDB WSSA staff.

5 Data for Water Management Strategies & Projects

This section describes the information found in the WMS module of the DB27 data entry application. The WMS module is used to enter information related to entities' proposed plans to meet current and future WUG water supply needs that are projected to occur under a repeat drought of record. These plans are referred to as water management strategies (WMSs) and many of them require capital cost WMS projects (WMSPs) that must be funded and implemented for WUGs to receive their WMS supply.

The WMS module collects data on existing and future water sources used by WMSs to ensure they will not be over-allocated after all recommended WMSs are implemented throughout the state. WMS supply is entered by WUG split so that it can be quantified and used to ensure that the WUG split's needs are being met. WMSP capital costs are entered so that the state can plan for future water supply project funding requests. For more information regarding the selection of WMSs and WMSPs, see Exhibit C Section 2.5.

5.1 WMS

A WMS is a plan to meet to meet a water need (potential shortage) of a WUG. Strategies may or may not require new water infrastructure which is represented in the planning data as a WMSP. An example of strategy that does not need to be related to a WMSP in the DB27 application is a conservation WMS that just relies upon updates to policies that manage supply, like an outdoor watering schedule. If the policy change does not require additional infrastructure or a capital cost, just a WMS can be added for a WUG to show their demand reduction related to the policy change. If a WUG has a plan to increase the amount of supply it receives from a WWP and the increased amount does not require new infrastructure to be built, then only a WMS needs to be added to show the WUG's plan to increase its contract with the WWP.

To meet the water supply needs of the entire state, a variety of WMSs are required. In DB27, WMSs are assigned to multiple categories to calculate water supply balances and summarize the WMS data. This section and its related subsections will provide instructions on how to accurately assign WMSs to their appropriate categories to ensure that they are reported correctly. Listed below are the fields that collect and display data for all categories of WMSs in the DB27 WMS module's WMS Edit/Create application page:

- Database WMS Type: Data for the *Database WMS Type* field is entered when the DB27 application user adds a new WMS and chooses if it will be a 'Source WMS' or an 'Entity WMS.' A WMS with a *Database WMS Type* of 'Source WMS' is selected when the WMS supply volume is associated with existing source availability that has not been allocated to entities, an increase/decrease in an existing source's availability, or a future source of supply. See Section 3 for additional information on Source related data. An 'Entity WMS' is selected if the WMS supply volume is associated with the transfer of an entity's surplus supply, the reduction and potential transfer of a WUG's existing supply, or a reduction in a WUG's projected demand. See Section 4 for additional information on Entity related data. The *Database WMS Type* is not reported in the RWP or SWP. It is used by DB27 to display information for the application user. Once a *Database WMS Type* is selected, it cannot be changed.

- WMS Source Use Type: *WMS Source Use Type* describes how the DB27 WMS module interacts with data in the DB27 Entities and Sources modules and allows the application to calculate water balances at all levels of water supply transactions to ensure that over-allocations do not occur. When the *Database WMS Type* selected is 'Source WMS,' the *WMS Source Use Type* choices are: 'Availability Decrease,' 'Existing Availability,' and 'Availability Increase.' When the *Database WMS Type* selected is 'Entity WMS,' the *WMS Source Use Type* choices are: 'Demand Reduction,' 'Existing Surplus,' 'Supply Reduction by WUG,' and 'Supply Reduction by WWP Customers.' More information on how to choose a *WMS Source Use Type* is provided in Sections 5.1.1–5.1.2. Once a *WMS Source Use Type* is selected, it cannot be changed. Each WMS can have only one *WMS Source Use Type* associated with it. If a region's WMS requires more than one *WMS Source Use Type*, a WMS must be entered for each *WMS Source Use Type*. WMSs can then be grouped together in a *WMS Group* as described in Section 5.5 to demonstrate that they are related in the RWP.
- WMS Name: The *WMS Name* is a brief description of the WMS used when reporting the data that should closely match the name given to the WMS in the RWP. Each region should have a unique list of *WMS Names*. It is recommended that abbreviations and acronyms be used sparingly, and only if they are needed due to space constraints. If used, abbreviations or acronyms should be well recognized, add to the general description, or be a standard acronym for an entity name. Single quotes and ampersands should never be used in WMS names because they interfere with database querying. All numbers should be entered as numerals without any special characters. Please do not use roman numerals, pound signs, or the abbreviation 'No.' when referencing numbers. For example, Utility Expansion #1 should be Utility Expansion 1.
- WMS Sponsor Region: The *WMS Sponsor Region* should represent the primary region engaged in developing the WMS. The WMS sources and WUG recipients of the WMS supply can come from multiple regions, but only one region will have the responsibility of entering the WMS and its WMS supply volumes. DB27 application users with access to the *WMS Sponsor Region* will be able to edit the *WMS Name*, the WMS level *Recommendation Type*, WMS level *Unit Costs*, and will add related entities and/or sources to the WMS depending upon the *WMS Source Use Type* selected. The *WMS Sponsor Region* will also be able to relate the WMS to a WMSP (as described in Section 5.7.3) and add the WMS to a *WMS Group* (as described in Section 5.5).
- WMS Recommendation Type: When a WMS is initially created, the *WMS Recommendation Type* will default to 'Recommended.' When entities and/or sources are related to the WMS as WMS supply and WUGs are added as recipients of the WMS supply, their records will be assigned the same *WMS Recommendation Type* value. Changing the *WMS Recommendation Type* to 'Alternative' at the WMS level will change the *WMS Recommendation Type* for all related entities and/or sources that will provide the WMS supply and the WUGs receiving the WMS supply. It is advised that if a WMS has both 'Recommended' and 'Alternative' versions, then a separate DB27 WMS must be entered for each *WMS Recommendation Type*. The *WMS Names* can be similar, to reflect the relationship but the alternative version should have a *WMS Name* that includes "ALT" to identify it as the alternative WMS.
- WMS Unit Cost: The *WMS Level Unit Cost* should represent the online decade's development cost of the water prior to distribution to WUGs. Unit costs are calculated by dividing a planning decade's annual cost (2023 dollars) by the same decade's WMS supply. Unit costs may include the following expenditures: operations, power cost, purchased water, and debt service.
- Does this WMS benefit from the conjunctive use of its related sources?: This field is new for the sixth cycle of planning. See Section 5.6 for updated conjunctive use definition and examples.

- Remarks: Comments regarding the WMS are entered into the *Remarks* field. These comments are especially useful when more than one WMS must be added to enter data for the RWPA's plan to meet a WUG's water supply need. Explaining how the WMSs are related will assist with the review of the data.

5.1.1 WMS Source Use Types associated with existing sources

A WMS associated with an existing source represents a plan to allocate, reallocate, or increase the availability of the existing source. It can also represent a plan to reduce the consumption of existing source availability through a WMS. These types of WMS can include building infrastructure that allows for new utilization of existing source availability, future sales of entity existing supply to new customers, redistribution of source availability across WUGs, increasing the availability of an existing source, and reducing a WUG's dependence upon a source.

5.1.1.1 Demand Reduction WMS

A 'Demand Reduction' WMS reduces a WUG's projected demand through efforts such as a reduction in water consumption through active conservation measures, drought management, and water loss mitigation in public water supply systems. Reuse water supply should not be included in conservation WMS supply as it is considered a stand-alone water source type which is entered separately from conservation as stated in Exhibit C Section 2.3.3. A Demand Reduction WMS uses WUG projected water demand data from the DB27 Entities module and is categorized as a *DB27 WMS Type* of 'WMS Entity Strategy' in DB27. For the sixth cycle of planning, we are asking that water use reduction and water loss mitigation be entered as separate strategies and projects. This update to how conservation data is collected is required so that their data can be more efficiently analyzed. See Appendix 17, for examples of how conservation best management practices correspond with the two conservation WMS description labels. See Appendix 19 for a diagram that explains when an entity surplus strategy can be labeled as 'Conservation – water loss mitigation.'

After a Demand Reduction WMS is created by selecting 'Demand Reduction' as the *WMS Source Use Type*, WUGs can be added to the WMS as *WUGs Reducing Projected Demands* on the DB27 WMS module's WMS Edit/Create application page. Only WUGs may be related to a Demand Reduction WMS. A separate WMS should be created for each WUG that recommends a Demand Reduction WMS where a WMSP is required for only that WUG. If a WWP is sponsoring a WMS that will reduce the projected demands of multiple WUG customers, a single DB27 Demand Reduction WMS can be created where its WUG customers are added as *WUGs Reducing Projected Water Demands* if they all share the same WMSP. For more information on how to relate a WMSP to a WMS, see Section 5.7.3. WMS supply can be transferred from the WUG reducing their projected demand to another WUG if the water transfer is dependent upon the demand reduction WMS being implemented. See Appendix 6 for a diagram that demonstrates a potential demand reduction transfer data structure. The following fields are collected for WMSs with a *WMS Source Use Type* of 'Demand Reduction' in the DB27 WMS module's Demand Reduction application page:

- WMS Description: The *WMS Description* is chosen from a selection of values and helps describe the WMS. The three choices that may be selected for Demand Reduction WMS are 'Conservation – water use reduction,' 'Conservation- water loss mitigation,' and 'Drought Management.' Conservation measures are defined in 31 TAC § 357.10(35) as 'practices, techniques, programs, and technologies that will protect water sources, reduce the consumption of water, reduce the loss or waste of water, or improve the efficiency in the use of water'. Drought management WMS are defined in 31 TAC § 357.10(10) as 'measures evaluated and/or recommended in a State or Regional Water Plan that quantifies temporary reductions in

demand during drought conditions.' The *WMS Description* value will be used to summarize the WMS supply data. It is also used in conjunction with the WUG, and source type fields related to the WMS to create the WMS types that are listed in the SWP. For a complete list of *WMS Description* values and how they relate to the SWP WMS Types, see Appendix 3.

- Demand Reduction WMS Unit Cost: The *Demand Reduction Unit Cost* should reflect the unit cost (2023 dollars) associated with each whole WUG reducing their demand. Unit costs are calculated by dividing a planning decade's annual cost by the same decade's WMS supply and may include the following expenditures: operations, power cost, and debt service.
- Total Whole WUG Demand Reduction: *Total Whole WUG Demand Reduction* represents the projected demand reduced by the whole WUG by planning decade in acre-feet. Recommended conservation strategy supply should reflect the cumulative benefits of the combined best management practices (BMPs) associated with the strategies if implemented together. Total whole WUG demand reduction includes the volume reduced from its own projected demands and any supply transferred to another WUG that is dependent upon the Demand Reduction WMS. The *Whole WUG Demand Reduction Used* and transferred by the whole WUG must equal the whole WUG's *Total Whole WUG Demand Reduction* in each planning decade. The *Total Whole WUG Demand Reduction* may not exceed the WUG's projected demand.
- Total Split WUG Demand Reduction: *Total WUG Split Demand Reduction* represents the projected demand reduced by the WUG split by planning decade in acre-feet. The *Total WUG Split Demand Reduction* includes the volume reduced from its own projected demands and any supply transferred that is dependent upon the Demand Reduction WMS. The *Split WUG Demand Reduction Used* and transferred by the WUG split must equal the *Total WUG Split Demand Reduction* in each planning decade. If a WUG split will not reduce their projected demand through the WMS, the decadal volumes should remain blank, and its related checkbox updated to unchecked. *Total WUG Split Demand Reduction* may not exceed the projected demand.
- Whole WUG Demand Reduction Used by this Entity: *Whole WUG Demand Reduction Used* represents the demand reduction that the whole WUG will use to reduce its own projected demands by planning decade in acre-feet. Unless the whole WUG plans to transfer water that is dependent upon the Demand Reduction WMS being implemented, the *Whole WUG Demand Reduction Used* volume and the *Total Whole WUG Demand Reduction* volume will be the same.
- Split WUG Demand Reduction Used by this Entity: *Split WUG Demand Reduction Used* represents the demand reduction that the WUG split will use to reduce its own projected demands by planning decade in acre-feet. Unless the WUG split plans to transfer water that is dependent upon the Demand Reduction WMS being implemented, *Split WUG Demand Reduction Used* volume and the *Total WUG Split Demand Reduction* volume will be the same. If a WUG split will not be reducing their projected demand, then the decadal fields should remain blank, and its related checkbox updated to unchecked.
- Transferred Conserved Water Volumes: A WUG can reduce their projected demand through a demand reduction WMS to create a surplus in existing supply that can be transferred to another WUG through the *Transfer Conserved Water Volumes* section. The default value for the field labeled *Transfer Conserved Water Volumes* is 'No' which means that the WUG will not be transferring supplies. By changing the value to 'Yes,' the application will display total existing WUG supplies by source and WUG split that can be reduced and transferred. If the source will not be reduced as part of the Demand Reduction Transfer WMS, the checkbox next to the source must be unchecked. By unchecking the checkbox, the application user will minimize the amount of data check errors they will need to address.

- Total WUG Supplies to Be Transferred: The field labeled *Total WUG Supplies to be Transferred* represents the existing WUG supplies by source that the split WUG will be transferring to another WUG that is dependent upon the Demand Reduction WMS being implemented. This supply should be entered by planning decade in acre-feet. If a WUG split will not transfer water to another entity through the Demand Reduction WMS, the decadal fields should remain blank, and its related checkbox updated to unchecked. By unchecking the checkbox, the application user will minimize the amount of data check errors they will need to address.
- Remarks: The *Remarks* field should contain comments regarding the Demand Reduction WMS by Whole WUG or WUG split.

5.1.1.2 Existing Surplus WMS

An 'Existing Surplus' WMS uses remaining entity surplus from the DB27 Entities module and is categorized as *a DB27 WMS Type* 'WMS Entity Strategy' in DB27. The remaining entity surplus is calculated by deducting the sum of the entity's existing WUG supplies and its sales to other entities from its total direct and *Purchased Volume-In*. See Section 4.9 for more information on how entity surplus is calculated. These WMS include the allocation of supply to existing and future WUG customers. They may also include plans to mend, replace, or line transmission infrastructure such as pipelines and canals to help prevent the loss of water when it is transferred from source to entity or from entity to entity. See Section 4.12 for more information on how water losses are accounted for in the DB27 Entities module. After an Existing Surplus WMS is created by choosing a *WMS Source Use Type* of 'Existing Surplus,' one or more entities are added in the *Entities Transferring Volume-In Water Volumes* section. All sources that the entity receives direct or *Purchased Volume-In* from in the DB27 Entities module are listed along with their calculated entity surplus on the DB27 WMS module's Existing Surplus application page. When entity surplus will not be transferred to WMS WUGs, the source's related checkbox must be unchecked. See Appendix 7 for a diagram that demonstrates a potential Existing Surplus WMS data structure. See Appendix 19 for a diagram that explains when an entity surplus strategy can be labeled as 'Conservation – water loss mitigation.'

5.1.1.3 Supply Reduction by WUG WMS

A 'Supply Reduction by WUG' WMS is created to reduce the volume of existing supply that a WUG will receive. This reduction can involve an unreliable source, a planned transfer from one WUG to another, a transition from one source to a new source of supply, or a combination of reasons. When the WUG supply is reduced, it becomes a source of supply through the WMS that WUGs can receive as WMS supply. These types of WMS are categorized as a *DB27 WMS Type* 'WMS Entity Strategy', since they reduce existing WUG supply entered in the DB27 Entities module. After a WUG supply reduction WMS is created by choosing a *WMS Source Use Type* of 'Supply Reduction by WUG,' one or more WUGs are added in the *WUGs Reducing Existing WUG Supplies* section. The sources that are related to the WUG as existing supplies in the DB27 Entities module are listed by WUG as a whole and its WUG splits. See Appendix 8 for a diagram that demonstrates a potential WUG Supply Reduction WMS data structure. The following fields are collected for WMS with a *WMS Source Use Type* of 'Supply Reduction by WUG' on the DB27 WMS module's WUG Supply Reduction application page:

- Whole WUG Supply Reduction: *Whole WUG Supply Reduction* represents the reduction in existing WUG supplies by the whole WUG and source of supply in acre-feet for each planning decade. If a whole WUG will not be reducing their existing supplies through the WMS for a specific source, then the decadal fields should remain blank, and its related checkbox must be updated to unchecked.
- Split WUG Supply Reduction: *WUG Split Supply Reduction* represents the reduction in WUG supplies by the WUG split and source of supply in acre-feet for each planning decade. If a WUG

split will not reduce their existing supplies through the WMS for a specific source, then the decadal fields should remain blank, and its related checkbox must be updated to unchecked.

- Remarks: The *Remarks* field should contain comments regarding the supply reduction for the associated whole WUG and its WUG split records.

5.1.1.4 WWP Customer Supply Reduction WMS

A 'Supply Reduction by WWP Customers' WMS reduces the supply of all or a select group of a WWP's customers from one or more sources. This reduction can involve the reallocation of a WWP's supply amongst their current and future customers or the transitioning from one source of supply to another. These types of WMS are categorized as a *DB27 WMS Type* 'WMS Entity Strategy', since they reduce existing WUG supply entered in the DB27 Entities module. After a WWP customer supply reduction WMS is created by choosing a *WMS Source Use Type* of 'Supply Reduction by WWP Customers,' a WWP is added in the *WWP/Sellers Customers Reducing Existing WUG Supplies* section. All customers related to the WWP in the DB27 Entities module are listed with the WWP. An individual WUG customer can be unchecked if its existing WUG supply will not be reduced on the DB27 WMS module's WWP Supply Reduction application page. Clicking on the customer's name will take the user to DB27 WMS Module WUG Supply Reduction application page that lists sources that are related to the WUG in the DB27 Entities module and are sold by the WWP/seller selected. WUG supply is listed by the whole WUG and WUG splits that purchase the source from the WWP. See Appendix 9 for a diagram that demonstrates a potential WWP Customer Supply Reduction WMS data structure. The following fields are collected for WMS with a WMS source use type of 'Supply Reduction by WWP Customers' on the DB27 WMS module's WUG Supply Reduction application page:

- Whole WUG Supply Reduction: *Whole WUG Supply Reduction* represents the reduction in existing WUG supplies by the whole WUG customer and source of supply in acre-feet for each planning decade. If a whole WUG will not reduce their existing supplies through the WMS for a specific source, then the decadal fields must remain blank, and its related checkbox updated to unchecked.
- Split WUG Supply Reduction: *WUG split Supply Reduction* represents the reduction in WUG supplies by the WUG split and source of supply in acre-feet for each planning decade. If a WUG split will not reduce their existing supplies through the WMS for a specific source, then the decadal fields must remain blank, and its related checkbox updated to unchecked.
- Remarks: The *Remarks* field should contain comments regarding the customer supply reduction for the associated whole WUG customer and its WUG split records.

5.1.1.5 Existing Availability WMS

Remaining existing availability is calculated by deducting the source's total *Direct Source Volume-In* allocated to entities in the DB27 Entities module (Section 4.6.1) from the source's existing *Total Availability* entered in the DB27 Sources module (Section 3). These types of WMS allow more existing availability to be allocated to WUGs through an expansion of infrastructure and have a *DB27 WMS Type* of 'WMS Source Strategy'. After a source existing availability WMS is created by choosing a *WMS Source Use Type* of 'Existing Availability,' one or more existing sources are added in the *Related Sources* section on the DB27 WMS module WMS Edit/Create application page. WMS WUGs will then use the remaining *Total Availability* from those sources as WMS WUG supply. See Section 5.2 for more information on how to allocate WMS supply to entities. See Appendix 10 for a diagram that demonstrates a potential Existing Availability WMS data structure.

5.1.1.6 Availability Decrease WMS

An Availability Decrease WMS is typically used in conjunction with another WMS to account for the transferring of existing *Total Availability* from one source to another source through methods like the

subordination of downstream water rights. These types of WMS are categorized as a *DB27 WMS Type* 'WMS Source Strategy', since they reduce existing source *Total Availability* entered in the DB27 Sources module. After an Availability Decrease WMS is created by choosing a *WMS Source Use Type* of 'Availability Decrease,' one or more existing sources are added in the *Related Sources* section of the DB27 WMS module's WMS Edit/Create application page. Since the WMS only reduces the *Total Availability* associated with an existing source, WMS WUGs cannot be related to this *WMS Source Use Type*. If the decrease in availability is transferred to another source as part of the overall plan, a separate WMS with a *WMS Source Use Type* of 'Availability Increase' will be created to represent the increase in availability of the other source. WUGs benefiting from the transfer of availability will be associated with the availability increase WMS and the transferred supply can be allocated to them on the WMS WUG supply page. The availability decrease, and increase WMSs can then be grouped in a *WMS Group* as described in Section 5.5 to demonstrate that they are related in the RWP. See Appendix 11 for a diagram that demonstrates a potential Availability Decrease WMS data structure. The following fields are collected for WMS with a *WMS Source Use Type* of 'Availability Decrease' in the DB27 WMS Module's Future Availability application page:

- Future Total Availability Decrease: *Future Total Availability Decrease* represents water that is deducted from a source's existing *Total Availability* by planning decade in acre-feet.
- Conservation Pool Decrease: This value is only collected for WMS with a WMS Source Use Type of 'Availability Decrease' when the related source is a reservoir. If the implementation of the 'Availability Decrease' WMS decreases the *Conservation Pool* of the reservoir, then the volume in acre-feet that the *Conservation Pool* will decrease will be entered in this field. If no change is made to the existing source's *Conservation Pool*, a value of zero will be entered.
- Future Firm Yield Decrease: If the *Future Total Availability Decrease* does not represent the firm availability (i.e., not the standard WAM Run 3 firm yield), then the *Future Firm Availability Decrease* (acre-feet) derived from an approved hydrologic variance must also be entered for the existing reservoir. To enter the *Future Firm Availability Decrease* related to the reservoir when the availability is not based on firm yield, select the 'N' value on the field *Is future total availability based on firm yield?* and click the **Update** button on the Future Availability page of the DB27 WMS module for the specified reservoir. A *Firm Yield* decadal water volume column will then be displayed for each planning decade and must be filled out. When an Availability Decrease WMS is added for an existing reservoir, the *Is future total availability based on firm yield?* value should match the *Is total availability based on firm yield?* value entered in the DB27 Sources module.
- Remarks: The *Remarks* field should contain information explaining why the source's availability is being decreased, if it is being implemented with another WMS, a brief explanation of how they work together.

5.1.1.7 Availability Increase associated with an existing source

An availability increase of an existing source represents a plan to develop new source availability that is not already included as existing *Total Availability* in the DB27 Sources module. Examples of increases in the *Total Availability* of existing sources are conservation pool reallocation, reservoir augmentation, improved systems operations, brush control, and artificial aquifer recharge when it is not related to new reuse supply. An Availability Increase WMS uses source data from the DB27 Sources module and is categorized as a *DB27 WMS Type* 'WMS Source Strategy'. After an Availability Increase WMS is created by choosing a *WMS Source Use Type* of 'Availability Increase,' one or more existing sources whose *Total Availability* is being increased is added to the WMS as *Related Sources* in the DB27 WMS Module's Future Availability application page. The source benefitting from the Availability Increase WMS must be added. For example, when entering a WMS that includes brush control, the source that will benefit from

the vegetation removal will be added to the WMS and the firm yield increase that will result from implementing the WMS will be added. See Appendix 12 for a diagram that demonstrates a potential Availability Increase associated with an existing source WMS data structure. The following fields are collected for WMS with a *WMS Source Use Type* of 'Availability Increase' in the DB27 WMS Module's Future Availability application page when the source added is an existing source:

- Future Total Availability Increase: *Future Total Availability Increase* represents the additional water developed through the WMS by planning decade in acre-feet that is in addition to the existing *Total Availability* entered in the DB27 Source module. The *Future Total Availability Increase* associated with the source should represent the full volume of water that will be developed through the WMS which includes supply allocated to WMS WUG that will benefit from the WMS, the volume that is developed and not allocated to a specific WUG, and estimated water loss related to the WMS. Water will be allocated to those three categories through the DB27 WMS module's WMS WUG Supply Edit/Create application page.
- Conservation Pool Increase: This value is only collected for WMS with a *WMS Source Use Type* of 'Availability Increase' when the related source is a reservoir. When the WMS is increasing the availability of an existing reservoir source, the *Conservation Pool Increase* shall reflect the volume that the *Conservation Pool capacity* is increasing in acre-feet because of the WMS and not the total new *Conservation Pool* water volume. If no change is made to the existing source's *Conservation Pool*, a value of zero will be entered.
- Future Firm Yield Increase: This value is only collected for WMS with a *WMS Source Use Type* of 'Availability Increase' when the related source is a reservoir. If the *Future Total Availability Increase* does not represent the firm availability (i.e., not the standard WAM Run 3 firm yield), then the *Future Firm Availability Increase* (acre-feet) derived from an approved hydrologic variance must also be entered for the existing reservoir. To enter *Future Firm Availability Increase* related to the reservoir when the availability is not based on firm yield, select the 'N' value on the field *Is future total availability based on firm yield?* and click the **Update** button on the Future Availability application page of the DB27 WMS module for the specified reservoir. A *Firm Yield* decadal water volume column will then be displayed for each planning decade and must be updated. Please specify in the *Remarks* field additional information regarding the proposed hydrologic variance request, including a brief description such as 'addition of return flows' or 'reservoir safe yield.' For a complete list of examples from past plans of potentially appropriate surface water modeling assumptions for RWP development, see Exhibit C Section 2.3.5.1. When an Availability Increase WMS is added for an existing reservoir, the *Is future total availability based on firm yield?* value should match the *Is total availability based on firm yield?* value entered in the DB27 Sources module.
- Remarks: The *Remarks* field should contain comments regarding the increase in the availability of the existing source. It should also contain additional information regarding the proposed hydrologic variance request, as necessary.

5.1.2 WMS Source Use Types associated with future sources

A future source WMS represents a plan to develop new source availability that is not already included as existing *Total Availability* in the DB27 Sources module. Examples of future sources include new reuse, ASR, rainwater harvesting, and reservoirs. This category also includes potential increases in water supply because of weather modification WMS. An Availability Increase WMS uses source data from the DB27 Sources module and is categorized as a 'WMS Source Strategy' in DB27. After an Availability Increase WMS is created by choosing a *WMS Source Use Type* of 'Availability Increase,' one or more future sources are added to the WMS as *Related Sources*.

Each new reservoir must be entered as a distinct WMS in DB27 with just the one new reservoir related to the WMS. For example, the WMS Name would be entered as something like 'Development of Reservoir X' and the only reservoir attached to the WMS is Reservoir X. By entering new reservoir WMS into DB27 using this method, the data can be reported consistently across all regions. It also allows the WMSP representing the cost of the new reservoir development to relate to just the new reservoir WMS and its related WMS WUG supply recipients at the WMS level. Relating a WMSP to a WMS is covered in Section 5.7.3. If the development of the new reservoir is related to other WMS like the conveyance of existing availability, these WMS can be added to a *WMS Group* as described in Section 5.5. See Appendix 13 for a diagram that demonstrates a potential Availability Increase associated with a new source WMS data structure. If indirect reuse contributes to a future ASR or reservoir source, then the reuse availability must be shown with the reservoir or ASR source and not as a standalone reuse source.

The following fields are collected for WMS with a *WMS Source Use Type* of 'Availability Increase' in the DB27 WMS Module's Future Availability application page when the source added is a new source:

- Future Total Availability Increase: *Future Total Availability Increase* represents the additional water developed through the WMS by planning decade in acre-feet associated with the future source. The *Future Total Availability Increase* associated with the source should represent the full volume of water that will be developed through the WMS which includes supply allocated to WMS WUG that will benefit from the WMS, the volume that is developed and not allocated to a specific WUG, and estimated water loss related to the WMS. Water will be allocated to those three categories through the DB27 WMS module's WMS WUG Supply Edit/Create application page.
- Conservation Pool Increase: This value is only collected for WMS with a *WMS Source Use Type* of 'Availability Increase' when the related source is a reservoir. When the WMS is developing a new reservoir, it should reflect the planned conservation pool capacity of the new source in acre-feet.
- Future Firm Yield Increase: This value is only collected for WMS with a *WMS Source Use Type* of 'Availability Increase' when the related source is a reservoir. If the *Future Total Availability Increase* does not represent the firm availability (i.e., not the standard WAM Run 3 firm yield), then the *Future Firm Availability Increase* (acre-feet) derived from an approved hydrologic variance must also be entered for the existing reservoir. To enter *Future Firm Availability Increase* related to the reservoir when the availability is not based on firm yield, select the 'N' value on the field *Is future total availability based on firm yield?* and click the **Update** button on the Future Availability application page of the DB27 WMS module for the specified reservoir. A *Firm Yield* decadal water volume column will then be displayed for each planning decade and must be updated. Please specify in the *Remarks* field additional information regarding the proposed hydrologic variance request including a brief description such as 'addition of return flows' or 'reservoir safe yield.' For a complete list of examples from past plans of potentially appropriate surface water modeling assumptions for RWP development, see Exhibit C Section 2.3.5.1.
- Remarks: The *Remarks* field should contain comments regarding the future source. It should also contain additional information regarding the proposed hydrologic variance request, as necessary.

5.2 Allocating WMS Supply to Entities and Assigning WMS Water Losses

WMS supply is allocated to WUGs to meet the WUG's projected needs and ensure that it will have a reliable source of supply. WUGs can be related to a WMS when a source of supply has been added to it

through the DB27 WMS Module's WMS Edit/Create application page. All water supply created through the WMS must be allocated to WUGs through the DB27 WMS Module's WMS WUG Supply Edit/Create application page. In addition to WMS supply allocated to WUGs as future supply, this also includes water that is lost through transmission and/or treatment and WMS supply created but left unassigned to a WUG.

Water losses (non-revenue water) will be assigned to the entity developing the water through a 'water loss' entity. For example, WWP X transfers water to WUGs as part of an unallocated supply utilization WMS. Some of the transferred water volume will not reach the end users and will be entered as WMS WUG supply for the WUG labeled 'WWP X – Water Loss.' Since only WUG entity types display in the DB27 WMS module's WMS WUG Supply Edit/Create page, each entity will have a water loss "faux WUG" associated with it that may be used when water loss needs to be accounted for. The entity name will include the name of the entity responsible for the water and the text 'Water Loss.' These water loss WUGs can only be used in the WMS module. See Section 4.12 for more information on how to enter water loss associated with existing water supply.

WMS supplies created through the WMS that have not been assigned to a WUG will be allocated to the entity responsible for the water through an 'unassigned water volumes' entity. For example, Canadian River Municipal Water Authority is sponsoring a conjunctive use WMS that includes the development of an ASR project. After water has been allocated to WUGs, the remaining supply is allocated to the 'Canadian River Municipal Water Authority-Unassigned Water Volumes' entity as WMS WUG supply. Since only WUG entity types display in the WMS WUG Supply page, each entity will have an unassigned water volume "faux WUG" associated with it that may be used to account for any unassigned water volumes related to it. The entity name will include the name of the entity responsible for the water and the text 'UNASSIGNED WATER VOLUMES.'

The following fields are collected for all types of WMS WUG Supply:

- WMS Sponsor Seller Entity: The *WMS Sponsor Seller Entity* should represent the WWP who is responsible for developing the WMS supply that will be used by WUG. If more than one *WMS Seller Entity* is required to transfer the water to the WUG, the initial seller associated with the development of the WMS should be listed in this field. It will be used to summarize WMS supply being developed for WUGs by each WWP. Once a sponsor seller is chosen, it cannot be changed. If assistance is required when updating the seller associated with a WMS, please contact WSSA staff. To see an example diagram of WMS seller relationships, see Appendix 14.
- Recommendation Type: When a WUG is related to a WMS, the WUG's default *Recommendation Type* value will be the same as the *Recommendation Type* entered for the WMS as a whole. For example, if the WMS is labeled as an alternative WMS, the WUG will also have a value of 'Alternative.' In some cases where the WMS as a whole is recommended, there could be one or more WUGs, but not all that have chosen the WMS as an 'Alternative' WMS. In this instance, the *Recommendation Type* value for the WUG can be changed from 'Recommended 'to 'Alternative.' When the WMS WUG's *Recommendation Type* value is 'alternative,' the related WMS WUG Supply will not be used in the remaining water balance or WUG unmet needs calculations.
- WMS Description: The WMS description is chosen from a selection of values and helps describe the WMS. This value will be used to summarize the WMS WUG Supply data. It is also used in conjunction with the WUG, and source type fields related to the WMS to create the WMS Type summaries that are listed in the SWP. For a complete list of WMS Description values and when to select them, see Appendix 18. To see how WMS description values relate to the SWP WMS type value, see Appendix 3.

- *New or amended water right related to a non-exempt IBT required*?: This field will be labeled as a 'Y' when the WMS WUG supply is related to an IBT that is not exempt under TWC § 11.085(v). The data collected in this field will be used to produce report numbers 15 and 16 listed in Table 3 of Exhibit C Section 2.13.
- WMS WUG Unit Cost: The *WMS WUG Level Unit Cost* should reflect the unit cost (2023 dollars) associated with the development and delivery of the water supply from the source (and its seller if the water is purchased) to the WUG, water loss entity, or unassigned water volumes entity. Unit costs are calculated by dividing a planning decade's annual cost by the same decade's WMS supply and may include the following expenditures: operations, power cost, purchased water, and debt service. If the whole WUG does not plan to receive water from the WMS source, then the checkbox related to the whole WUG must be unchecked to minimize the amount of data checks that will need to be addressed.
- WMS Whole WUG Supply: The *WMS Whole WUG Supply* represents the total water volume (acre-feet) that the whole WUG, water loss entity, or unassigned water volumes entity receives from the WMS source (and its seller when purchased) for each planning decade. This volume should include only the portion of the water supply that the WUG plans to use to meet its own current and future water demands. Existing infrastructure or planned infrastructure expansions can provide more water than is listed with the strategy since the strategy supply being developed and allocated to WUGs must be firm and available under drought of record conditions. For strategy supply to be shown in 2030, it must be implemented and related project online in or before 2030. For strategy supply to be shown in 2040, it must be online between 2031 and 2040. The remainder of the decades follow that project. If a strategy is associated with a phased project, it is expected that strategy supply will increase accordingly with the phased projects online decade.
- WMS Split WUG Supply: The *WMS WUG Split Supply* represents the total water volume (acre-feet) that the WUG split, water loss entity, or unassigned water volumes entity receives from the WMS source (and its seller when purchased) for each planning decade. This volume should include only the portion of the water supply that the WUG split plans to use to meet its current and future demands. If the WUG split does not plan to receive water from the WMS source, then the checkbox related to the WUG split must be unchecked to minimize the amount of data checks that will need to be addressed. When entering unassigned or water loss water volumes, the WUG split's decadal values will match the whole WUG's decadal values.
- Remarks: The *Remarks* field should contain comments regarding the WMS WUG supply for the associated whole WUG and WUG split records.

5.3 Over-Allocating WMS Sources

After all recommended WMS supply deductions are accounted for, no source may be over-allocated. A WMS source is considered over-allocated when the amount of supply allocated to entities as WMS WUG supply exceeds the available water volume associated with the source. The DB27 WMS WUG Supply Edit/Create application page includes calculated rows that display calculated water balances based on the *WMS Source Use Type* of the WMS. The DB27 Data Checks module also includes data checks that ensure that the source availability, entity supply, and existing WUG supplies are not over-allocated after all existing supplies and recommended WMS supply are entered. Listed in this section are explanations of how water balances are calculated for existing availability, future source availability, entity surplus, and WUG supply transfers in both the DB27 WMS WUG Supply Edit/Create application page and the Data Checks module WMS application page. These water balance calculations ensure that the water supply is not being over-allocated at the source level or any level of transaction. When an over-

allocation is detected, it must be resolved by reducing the amount of supply that has been allocated to WUGs.

5.3.1 Existing Source Availability Over-Allocation

A source's existing availability is over-allocated if the sum of its related *Direct Source Volume-In*, recommended availability decreases, and recommended existing availability WMS WUG supply water volumes exceed the existing *Total Availability* of the source in any planning decade. *WMS Source Use Type* 'Availability Decrease' water volumes will be reduced prior to calculating the existing source availability water balance if the associated WMS is related to a *WMS Group* where a recommended WUG supply reduction WMS is offsetting the decrease in availability.

5.3.2 Availability Increase Over-Allocation

A WMS source availability increase is over-allocated if the sum of its recommended WMS WUG supply exceeds its availability increase in any planning decade.

5.3.3 Entity Supply Over-Allocation

An entity's supply source is over-allocated if the sum of the entity's existing WUG supplies, existing sales/transfers to other entities, and recommended entity surplus WMS WUG supply exceeds its direct and *Purchased Volume-In* received from the source.

5.3.4 WUG Existing Supply Over-Allocation

A WUG's existing supply source is over-allocated if the sum of the recommended demand reduction transfer, WUG supply reduction, and WWP customer supply reduction WMS exceeds its existing WUG supply received from the source. There is one instance in the application where the WUG existing water supply balance can calculate an incorrect existing WUG supply balance and cause the application to display red as if the existing WUG supply is over-allocated, but it is not. We call this a diamond water scenario. WSSA staff has a query that will identify when this happens in the data and will contact consultants to warn them of the issue. For a diamond water over-allocation calculation issue to be present in the Entity WUG Supply application page, an entity must sell/transfer water supply from a source to more than one entity and one of the entities that it sells the source water to must sell that water to the other entity who then sells some of the supply to another entity. In this case only, the application will display the incorrect available balance in the WUG supply page of Entity C who is a WUG/WWP. In these instances, an appeal can be submitted for the existing WUG supply over-allocation noting that a diamond water calculation issue may be present in the data. WSSA staff can provide a true water balance for the supply to ensure that it is not over-allocated. See Appendix 16 for an Entity module diamond water example that causes the calculation issue.

5.4 WMS Supplies Interbasin Transfers

As stated above in Section 5.2, if a WUG split will not receive WMS WUG supply from a WMS/source combination, it is important to leave the decadal water volume fields blank and uncheck the related checkbox prior to allocating the whole WUG's existing supply to its geographic WUG splits. This will ensure that the correct WMS WUG supply data will be labeled as requiring a new or amended water right permit involving a non-exempt IBT in DB27 data summaries. WMS WUG supply will be labeled as a non-exempt IBT using the data collected in the DB27 WMS WUG Supply Edit/Create application page field named *New or amended water right related to a non-exempt IBT required*?. See section 5.2 for more information on how to enter WMS WUG supplies.

5.5 Grouping WMS

Two or more WMSs can be related in a *WMS Group* through the DB27 WMS module's WMS Group application page. WMSs should be added to a *WMS Group* when they are identified as a single WMS in the RWP but must be added as multiple DB27 database WMSs to enter the data appropriately through DB27. For example, if an existing availability groundwater WMS and a new ASR project are to be used conjunctively in the RWP, two WMSs will need to be created in DB27 to account for both the 'Existing Availability' *WMS Source Use Type* and the 'Availability Increase' *WMS Source Use Type*. The two DB27 WMSs will then be added to a *WMS Group* to demonstrate that they are related and will be used conjunctively, and the WMS conjunctive use flag will be updated to 'Y' for yes. The *WMS Group Name* should closely resemble the name given to the WMS in the RWP. It is recommended that abbreviations and acronyms be used sparingly, and only if they are needed due to space constraints. If used, abbreviations or acronyms should be well recognized, add to the general description, or be a standard acronym for an entity name. Single quotes and ampersands should never be used in WMS Group names because they interfere with database querying. All numbers should be entered as numerals without any special characters. Please do not use roman numerals, pound signs, or the abbreviation 'No.' when referencing numbers. For example, Utility WTP Expansion #1 should be Utility WTP Expansion 1. See Appendices 11 and 14 for examples of how a WMS Group can be used to link WMS and their WMSPs.

When WMSs are added to a *WMS Group*, a *WMS Tier* value must be added. This value represents the order in which the WMS must be implemented. If all WMS associated with the *WMS Group* must be implemented at the same time, a value of '1' will be entered for each of the WMSs. If there is an order to the implementation of the WMS, then a value of '1' should be assigned to the first WMS that must be implemented, a value of '2' is assigned to the next WMS to be implemented, and so on. If there are three WMS and one WMS needs to be implemented first and the other two implemented later, but at the same time, then the first WMS will be assigned a value of '1' and the other two WMSs will both receive a value of '2.

When multiple WMS are added to a *WMS Group, they* will be reported under the *WMS Group Name* when the WMS data is summarized. When a WMS is not listed with a *WMS Group*, the *WMS Name* will be used to report the information.

5.6 Conjunctive Use WMS

As noted in Section 3.6, supply used conjunctively involves alternating the use of multiple water sources (groundwater, surface water, reuse, etc.) to make efficient use of an entity's total water supply operations based on demand, infrastructure, or seasonal conditions.

- Example 1 – A utility has both groundwater and surface water supply and reduces their impact on groundwater by relying on just surface water during periods of average to above average rainfall while depending upon groundwater during periods with below average rainfall.
- Example 2 – A utility collects seasonally high surface water flows that they store in an aquifer recharge or aquifer storage and recovery project.

A new field is added to DB27 for the sixth planning cycle that collects information on whether the WMS or combined use of WMS are being used conjunctively based on the definition above. The field is labeled "Does this WMS benefit from the conjunctive use of its related sources?" The user will select either 'Y' for yes or 'N' for no.

5.7 WMS Project

A WMSP is a water supply project that has a non-zero capital cost and when implemented will develop, deliver, and/or treat additional water supply volumes, or conserve water for WUGs and WWPs. For example, a WMSP could be the construction of a new reservoir, a water treatment plant expansion, and/or a new transmission line. A WMS may not require a WMSP to be implemented if capital costs are not required to implement the WMS, but a WMSP should always be related to a WMS to demonstrate that the project is necessary for the WMS to be implemented. Relating a WMSP to a WMS also relates the WMSP to the source of supply and the WUGs it will serve in DB27. A DB27 WMSP should not be a grouping of multiple projects. For example, a WMSP should not be entered for the total cost of all new groundwater wells in a region. Each project must be entered as a separate WMSP through the DB27 WMS module's Project Edit/Create application page and related to one or more WMS. For a project to be recommended in the SWP, a WMSP must be related to at least one WMS as recommended. For more information on project selection and cost, see Exhibit C Section 2.5. The following fields are collected for each WMSP:

- Project Name: The *Project Name* is a brief description of the WMSP used when reporting the data that should closely match the name given to the WMSP in the RWP. Each region should have a unique list of *Project Names*. It is recommended that abbreviations and acronyms be used sparingly, and only if they are needed due to space constraints. If used, abbreviations or acronyms should be well recognized, add to the general description, or be a standard acronym for an entity name. Single quotes and ampersands should never be used in project names because they interfere with database querying. All numbers should be entered as numerals without any special characters. Please do not use roman numerals, pound signs, or the abbreviation 'No.' when referencing numbers. For example, Utility WTP Expansion #1 should be Utility WTP Expansion 1.
- Project Sponsor Region: The *Project Sponsor Region* should reflect the primary region engaged in developing the WMSP. *Project Sponsors* can come from multiple regions, but only one region will have the responsibility of entering the WMSP and its related data. DB27 application users with access to the *Project Sponsor Region* will be able to edit the *Project Name*, the *Project Sponsor* information, and the project *Component* list.
- Online Date: The *Online Date* represents the decade that the project will be fully operational. For a project to be online in 2030, it must be online in or before 2030. For a project to be online in 2040, it must be online between 2031 and 2040. The remainder of the decades follow that format.

- Latitude/Longitude: The *Latitude* and *Longitude* fields should represent the proposed location of the WMSP. The basis for selecting a representative location will vary depending on the RWP and type of infrastructure but, in general, the default project locations will relate to
    - approximate locations of at least one component of major infrastructure such as dams, water treatment plants, water intakes for pipelines, or well fields proposed in the plan;
    - the primary location of the WUG in which certain types of infrastructure would be located, such as some water treatment plants within a city or water conservation investments;
    - the centroid of the county in which a project with dispersed infrastructure would be located, such as county-wide irrigation, mining, or manufacturing conservation projects; or
    - the centroid of a county-aquifer polygon for certain, generalized groundwater supply projects.
    - Contact the TWDB WSSA team if guidance is needed when selecting a project location.
- Remarks: The *Remarks* field should contain comments regarding the WMSP.

5.7.1 WMS Project Sponsors

One or more entities are related to a WMSP as *Project Sponsors. Project Sponsors* are responsible for developing the WMSP and acquiring funding for its implementation. The following fields are collected for each *Project Sponsor* related to a WMSP:

- Capital Cost: *Capital Cost* (2023 dollars) should represent the portion of the overall capital cost each WMSP sponsor entity is responsible for. WMSP sponsor *Capital Cost*s are summed to the project level and reported as the total *Capital Cost* of the WMSP. Each project must have a non-zero capital cost associated with it.
- Term of Debt Service: Estimated length or term of the WMSP's funding debt service, in years.
- First Year Funding Required: The *First Year Funding Required* is the first year that funding will be required to finance the WMSP and implement it by the planned *Online Decade*.
- Remarks: The *Remarks* field should contain comments regarding the *Project Sponsor* and their associated WMSP.

5.7.2 WMS Project Components

WMSP *Components* are the necessary actions or infrastructure elements required to develop, treat, and/or convey the WMS supply associated with the WMSP. A WMSP must be related to one or more project *Components* on the DB27 WMS module's Project Edit/Create application page. For a complete list of components see Appendix 4. It is important to review this list and select all *Components* that apply to the WMSP. Project component selections provide a standardized description of WMS project components that can be compared across planning regions.

5.7.3 Relating a WMSP to a WMS

All WMSPs must relate to at least one WMS. A WMSP should only relate to WMS WUG supply that is directly impacted by the WMSP. By relating the project to the WMS and its benefitting WUGs, the population, projected demands, and water supply needs dependent upon the project's implementation can be reported.

When a project is related to a WMS level, it means that all the WUGs that receive water from the WMS are dependent upon the project being operational for them to receive their WMS supply. A WMSP is added to the WMS level in the DB27 WMS module's WMS Edit/Create application page. WMSPs can also be related to more than one WMS if the infrastructure being built is related to more than one WMS

supply. For example, a WMSP creates a new transmission pipeline, and it is used to convey water from both a new reservoir and an existing run-of-river source. The new reservoir and the existing run-of-river WMSs are two different WMS in DB27, but they both require the same pipeline construction project to deliver the water to WUGs.

A WMSP can also be related to specific WMS WUG combinations through the DB27 WMS module's WMS WUG Supply Edit/Create application page. The relationship between the WMS WUG and the WMSP is established when at least one, but not all WUGs related to the WMS require additional infrastructure to get their water. For example, a WWP plans to allocate more of its existing surplus to WUGs. Some of the WUGs associated with the WMS have infrastructure in place to receive the additional supply with no capital cost required, but a few new WUG customers need an additional pipeline built for them to receive the supply. The customers requiring additional infrastructure would relate to the new pipeline WMSP on the WMS WUG Supply Edit/Create application page under the WMS that requires the new infrastructure. See Appendix 15 for a diagram that demonstrates the relationships between WMSs and WMSPs. If a project is connected at the WMS level, it will not be connected at the WMS WUG level because that creates a duplicate connection in the database. Contact the TWDB WSSA team if additional guidance is needed on how to set up WMS and WMSP relationships.

5.7.4 WMS Project Recommendation Type

When a WMSP is related at either the WMS level or the WMS WUG supply level, the relationship is assigned a default *Project Recommendation Type* value of 'Recommended.' If the WMSP is considered an alternative project for the WMS or the WMS WUG, the user must update the *Project Recommendation Type* field to 'Alternative.' If a WMSP is labeled 'Recommended' for at least one WMS at either the WMS level or the WMS WUG level, it will be considered a 'Recommended' WMSP in the SWP. If all its relationships to a WMS are 'Alternative,' then the WMSP will be considered 'Alternative' in the SWP. It is especially important to review the *Recommendation Types* assigned to the WMSP to ensure that they are correct. WMS data checks will also help identify potential errors in DB27 by reviewing combinations of *Project Recommendation Types* selected.

5.7.5 WMS Project Hierarchies

When more than one WMSP is added to either a WMS or a WMS WUG, a *Project Tier* value must be entered. The *Project Tier* value represents the order in which the WMSPs must be implemented. If all WMSPs must be implemented at the same time, the *Project Tier* value will be '1' for all of them. If there is an order to the implementation of the WMSP, then a *Project Tier* value of '1' should be assigned to the first WMSP that must be implemented, a value of '2' is assigned to the next WMSP, and so on. If three WMSPs are required to implement a WMS and one WMSP needs to be implemented first and the other two later, then the first WMSP will get a *Project Tier* of '1' and the second two WMSPs will both have a value of '2.' The WMSP *Project Tier* value is entered on the DB27 WMS module's WMS Edit/Create application page if the WMSP is associated with the WMS as a whole and on the DB27 WMS module's WMS WUG Supply Edit/Create application page if the WMSP is associated with the WMS WUG Supply level. For more information on how WMSPs are related to a WMS, see Section 5.7.3.

5.8 WUG Unmet Needs/Surpluses

To calculate WUG unmet needs/surpluses, each WUG split's projected demands and recommended WMS transfers to other WUGs are deducted from its total existing and recommended assigned strategy supply by planning decade. If the WUG split's projected demand is larger than the total existing and recommended WMS supply assigned to it, the WUG split will have an unmet need in the decade represented by a negative number. If the WUG's projected demand is less than the WUG split's total

supply after recommended WMS, the WUG split will have a surplus in the decade represented by a positive number. When WUG split's unmet needs are summarized at the entity, region, county, basin, or state level, all calculated surpluses at the WUG split level are first updated to zero to ensure that the surpluses do not cancel out other WUGs' unmet needs. Summarized unmet needs are represented as a positive number.

5.9 Interregional WMS and WMS Projects

More than one RWPA may use the same WMS and WMSPs. It is especially important that RWPGs communicate and work together to enter the data correctly into DB27, so that WMS and WMSPs are only entered once for all regions and are not subdivided amongst them. RWPs can reference projects that are sponsored by another region even if the project is not displayed in their RWP DB27 reports. WUGs located in one region can still have their needs met by WMSs sponsored by other regions. TWDB WSSA staff are available to assist RWPG consultants as they plan their method of data entry.

6 Data Checks

The DB27 Data Checks module contains checks for the Sources, Entities, and WMS modules. Prior to a Region's data being certified as complete by TWDB WSSA staff, all potential errors found while running the data checks must either be addressed or have an approved appeal. Only some of the data checks can be appealed. An example of a data check that may not be appealed is when a required field is left blank. Data checks that allow for an appeal look for unusual data structures and ask that the data be reviewed and appealed if correct, such as an unusually low capital cost for a WMSP or a groundwater or surface water source with increasing total availability. Contact WSSA for the full list of checks that the application will run through.

7 DB27 Data Setup and Assistance

Data entered into the DB22 application will be copied into the DB27 database. WSSA staff will update WUGs and WUG splits to match the adopted list for the sixth cycle of planning. They will also update groundwater sources, so they are consistent with the sixth cycle of planning DFC modeled data. Since the existing WUG supply water treatment level field is new and the WMS description and project component lists are being reviewed, data in those fields will be removed so that the updated values can be entered. Please contact the WSSA team if you need assistance updating data or strategizing the most efficient way to enter data into the DB27 data entry application. They have data tools that can assist with data entry in some situations. For example, if a WMS needs to be removed, they can remove all decadal values to make the strategy easier to delete.

Appendix 1
Data Units of Measure

Table 2

Data Element	Unit of Measure
land area	square miles (mi^2)
water area	acres (ac)
water volume	acre-feet (ac-ft)
water supply and demand	acre-feet per year (ac-ft/yr)
treatment plant capacities	millions of gallons per day (mgd)
water use per capita	gallons per capita per day (gpcd)
stream flows and reservoir releases	cubic feet per second (cfs)
pumping rates	gallons per minute (gpm) or million gallons per day (mgd)
costs	September 2023 price indices as reported in the Engineering News Record Construction Cost Index

Appendix 2
Methodology Used to Determine Total Availability by Source Subtype

Table 3

Methodology Used to Determine Total Availability Volumes	Source Type/Subtype	Description of Additional Information Requested in Methodology Other Field
Modeled Available Groundwater (MAG)	Groundwater/MAG	
Groundwater Availability Model (GAM)	Groundwater/Non-MAG Groundwater/Partial MAG	Specify which model was used and the date the model was run.
Groundwater Availability Model (GAM) Modified	Groundwater/Non-MAG Groundwater/Partial MAG	Specify which model was used, the date the model was run, a description of the modification, and the EA approval date.
Effective Aquifer Recharge	Groundwater/Non-MAG Groundwater/Partial MAG	Specify basis of recharge estimates.
Published Data/Reports	Groundwater/Non-MAG Groundwater/Partial MAG Surface Water/Livestock Local Supply Surface Water/Other Local Supply	Name of report/dataset, who published the report/dataset, and the date the report/dataset was published.
Livestock/Holding Tank Volume	Surface Water/Livestock Local Supply Surface Water/Other Local Supply	
Permitted Amount	Groundwater/Non-MAG Groundwater/Partial MAG Reuse/Direct Reuse Reuse/Indirect Reuse	
Diversion Infrastructure Capacity	Surface Water/Run-of-River Surface Water/Reservoir Surface Water/Reservoir System Surface Water/Gulf of Mexico Reuse/Direct Reuse Reuse/Indirect Reuse	
Wastewater Treatment Plant Discharge	Reuse/Direct Reuse Reuse/Indirect Reuse	
Water Availability Model (WAM) Run 3	Surface Water/Run-of-River Surface Water/Reservoir Surface Water/Reservoir System	
Water Availability Model (WAM) Run 3 Modified	Surface Water/Run-of-River Surface Water/Reservoir Surface Water/Reservoir System	Specify which model was used, the date the model was run, a description of the modification, the qualifier, and the EA approval date.
Source is not in use	All Source Types	
Other	All Source Types	Must provide a detailed description of the methodology used. If more than one methodology is identified, any additional information listed previously in this table must also be included.

Appendix 3
SWP WMS Type List

Table 4

WMS Type	DB27 Data Used to Create WMS Type Value
Municipal Conservation	*WMS Description* = 'Conservation-water use reduction' or 'Conservation-water loss mitigation' & *WUG Type* = 'Municipal'
Agricultural Conservation	*WMS Description* = 'Conservation-water use reduction' or 'Conservation-water loss mitigation' & *WUG Type* = 'Irrigation' or 'Livestock'
Industrial Conservation	WMS Description = 'Conservation-water use reduction' or 'Conservation-water loss mitigation' & *WUG Type* = 'Manufacturing', 'Mining', or 'Steam-Electric'
Drought Management	*WMS Description* = 'Drought Management'
Groundwater Wells & Other	*WMS Description* = 'Existing surface water and groundwater availability requiring only conventional treatment and/or conveyance' or 'Aquifer Recharge' & *Source Subtype* = 'Conventional Groundwater'
Groundwater Desalination	*WMS Description* = 'Desalination required, not used in new reservoir or ASR or AR project' & *Source Subtype* = 'Conventional Groundwater'
Aquifer Storage & Recovery	*WMS Description* = 'Aquifer storage and recovery '
New Major Reservoir	*WMS Description* = 'New major reservoir'
Other Surface Water	*WMS Description* = 'Existing surface water and groundwater availability requiring only conventional treatment and/or conveyance', 'New minor reservoir', or 'Surface water yield enhancement' & *Source Type* = 'Surface Water'
Seawater Desalination	*WMS Description* = 'Desalination required, not used in new reservoir or ASR or AR project' & *Source Subtype* = 'Gulf of Mexico'
Direct Potable Reuse	*WMS Description* = 'Reuse not used in future reservoir, ASR or AR project ' & *Source Subtype* = 'Direct Potable Reuse '
Indirect Reuse	*WMS Description* = 'Reuse not used in future reservoir, ASR or AR project' & *Source Subtype* = 'Indirect Potable Reuse ' or 'Indirect Non-Potable Reuse'
Other Direct Reuse	*WMS Description* = 'Reuse not used in future reservoir, ASR or AR project' & *Source Subtype* = 'Direct Non-Potable Reuse'
Other Strategies	*WMS Description* = 'Brush management,' 'Rainwater collection system', 'Weather modification', or 'Desalination required, not used in new reservoir or ASR or AR project' when *Source Subtype* = 'Reservoir', 'Reservoir System', or 'Run-of-River')

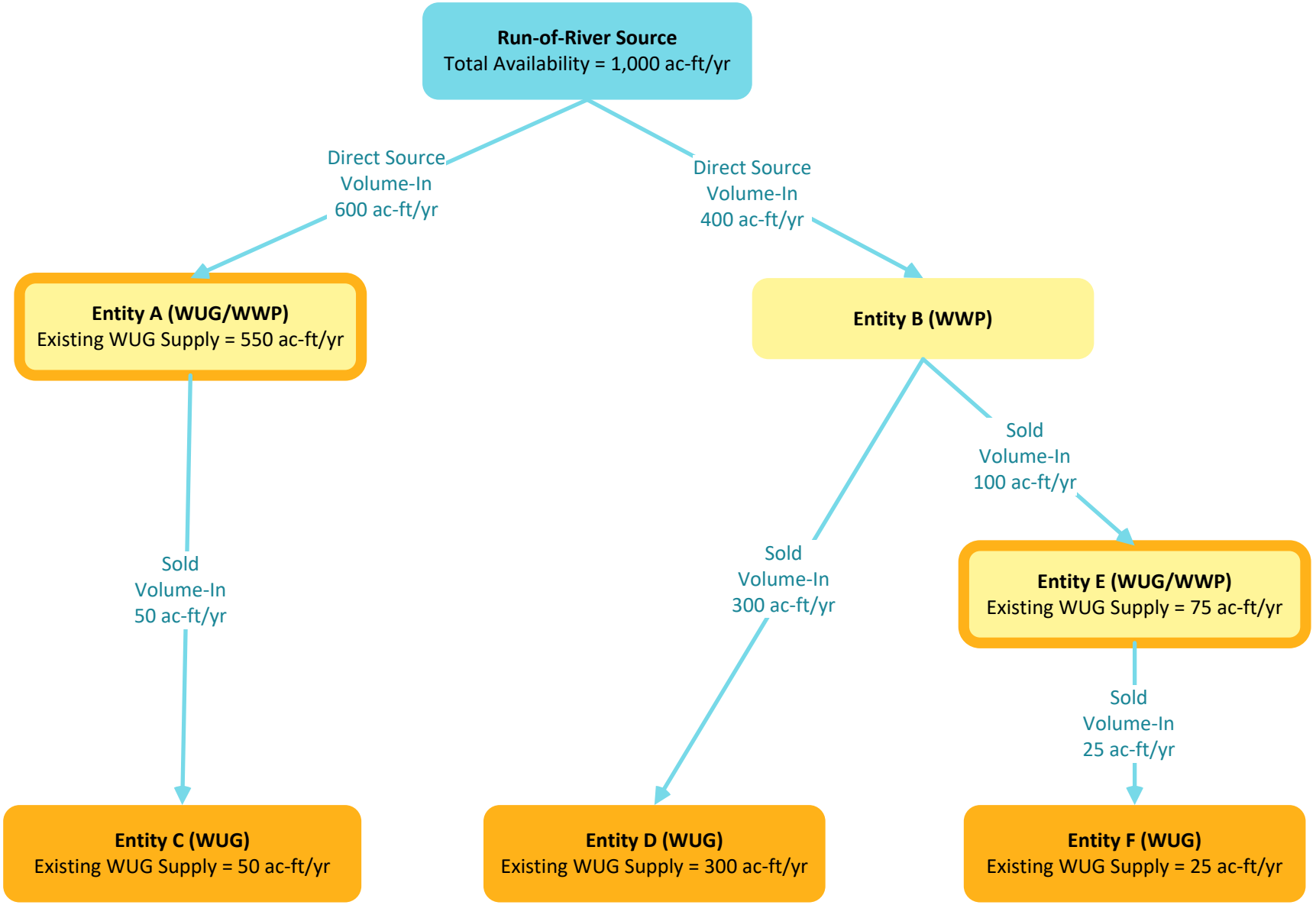
Appendix 4
List of Project Components

Table 5

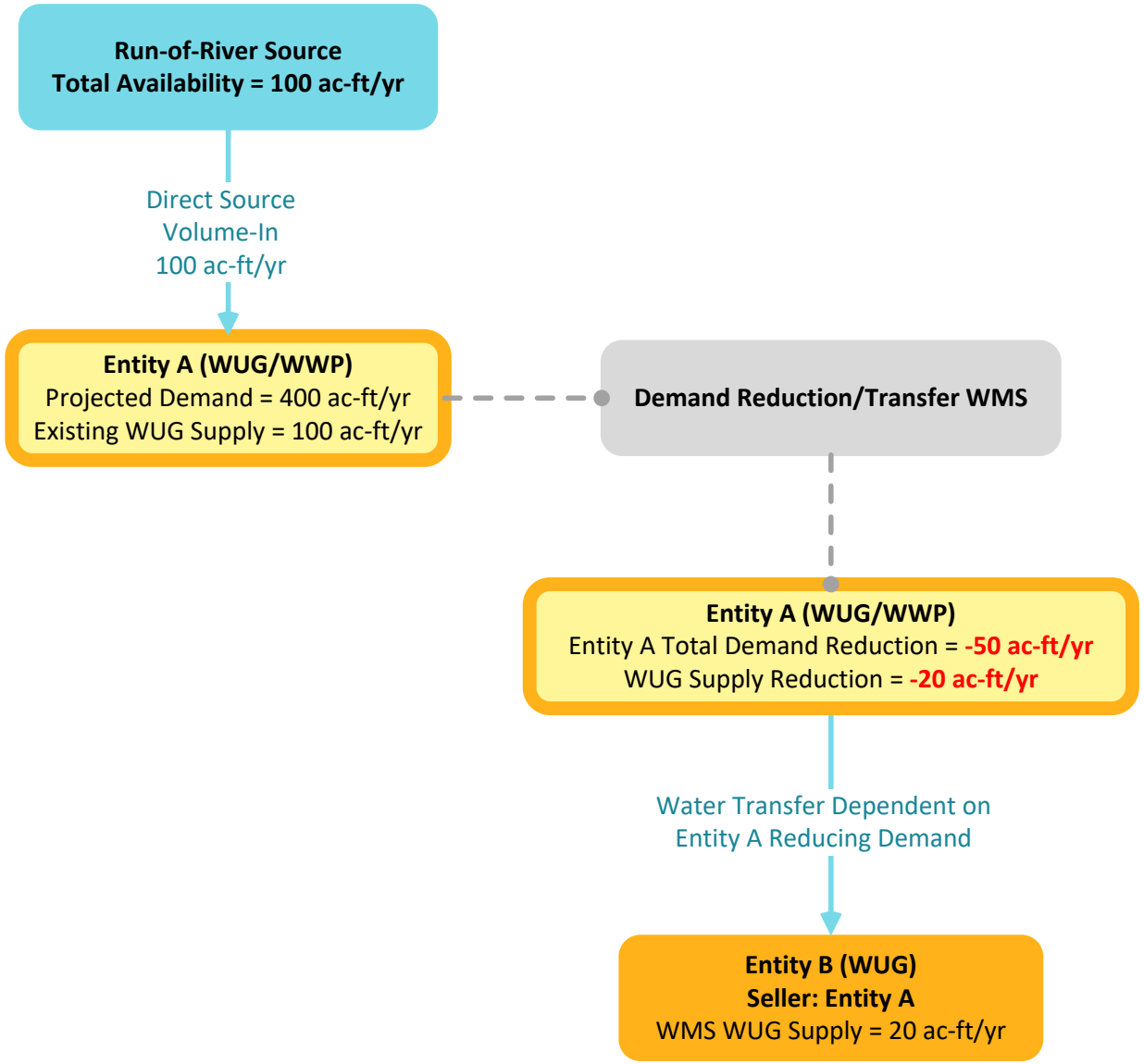
Component Category	WMS Project Component Type Name
Conservation	Data gathering and monitoring technology
Conservation	Plumbing fixture updates
Conservation	Audit
Conservation	Distribution system water loss mitigation
Conservation	Transmission water loss mitigation
Conservation	Canal lining
Conservation	Cropping and management practices
Conservation	Land management
Conservation	On farm water delivery systems
Conservation	Cooling system management
Conservation	Industrial operation improvements
Groundwater	Existing conventional well enhancement
Groundwater	New conventional well
Groundwater	Existing ASR well enhancement
Groundwater	New ASR or AR well
Groundwater	New disposal well
Groundwater	Spreading/infiltration basin
Ownership	Amended water right non-exempt IBT
Ownership	New water right non-exempt IBT
Ownership	New or amended water right NO IBT or exempt IBT
Ownership	New or amended bed and banks permit
Ownership	New 210 permit
Ownership	Contract/agreement
Recycling	Condensate recovery system
Recycling	Graywater recovery system
Recycling	Blackwater recovery system
Recycling	Agriculture tailwater recovery system
Recycling	Industrial recovery system
Surface Water	Diversion and control structure
Surface Water	Dredge to recover capacity
Surface Water	New surface water intake
Surface Water	Raise conservation pool
Surface Water	New water supply reservoir
Surface Water	Saltwater barrier
Surface Water	Surface water intake modification
Transmission	Transmission pipeline
Transmission	Pump station
Transmission	Storage tank/balancing reservoir

Component Category	WMS Project Component Type Name
Treatment	New advanced WTP
Treatment	New desalination WTP
Treatment	New conventional WTP
Treatment	Expand WTP capacity
Treatment	Settling basin/pond
Other	Brush management
Other	Weather modification
Other	Rainwater harvesting system
Other	Stormwater collection system

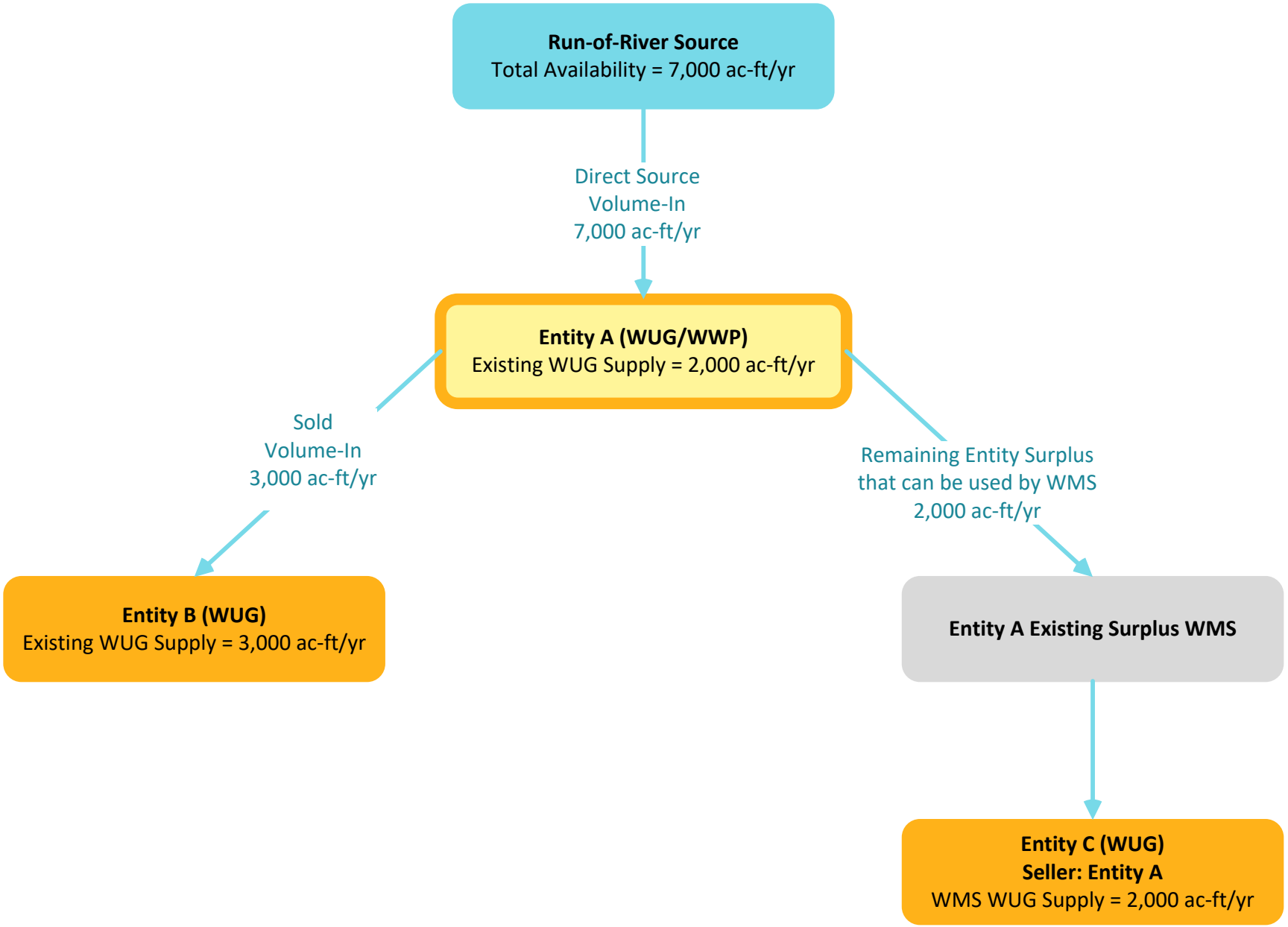
Appendix 5
Existing Sales & WUG Supply Water Transaction Example


Run-of-River Source
Total Availability = 1,000 ac-ft/yr
Direct Source
Volume-In
600 ac-ft/yr
Direct Source
Volume-In
400 ac-ft/yr
Entity A (WUG/WWP)
Existing WUG Supply = 550 ac-ft/yr
Entity B (WWP)
Sold
Volume-In
50 ac-ft/yr
Sold
Volume-In
300 ac-ft/yr
Sold
Volume-In
100 ac-ft/yr
Entity E (WUG/WWP)
Existing WUG Supply = 75 ac-ft/yr
Sold
Volume-In
25 ac-ft/yr
Entity C (WUG)
Existing WUG Supply = 50 ac-ft/yr
Entity D (WUG)
Existing WUG Supply = 300 ac-ft/yr
Entity F (WUG)
Existing WUG Supply = 25 ac-ft/yr

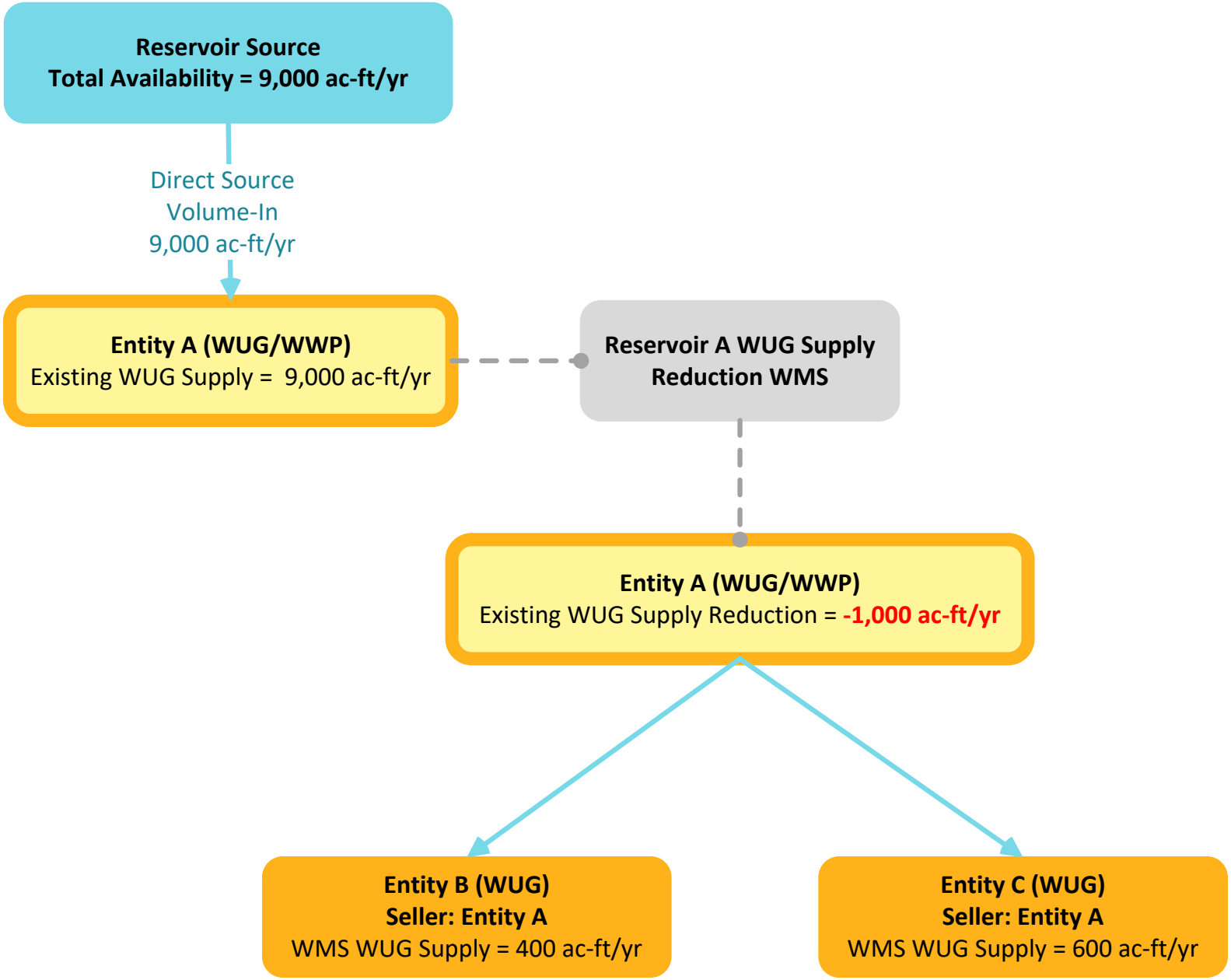
Appendix 6
Demand Reduction Transfer WMS Example


Run-of-River Source
Total Availability = 100 ac-ft/yr
Direct Source
Volume-In
100 ac-ft/yr
Entity A (WUG/WWP)
Projected Demand = 400 ac-ft/yr
Existing WUG Supply = 100 ac-ft/yr
Demand Reduction/Transfer WMS
Entity A (WUG/WWP)
Entity A Total Demand Reduction = -50 ac-ft/yr
WUG Supply Reduction = -20 ac-ft/yr
Water Transfer Dependent on
Entity A Reducing Demand
Entity B (WUG)
Seller: Entity A
WMS WUG Supply = 20 ac-ft/yr

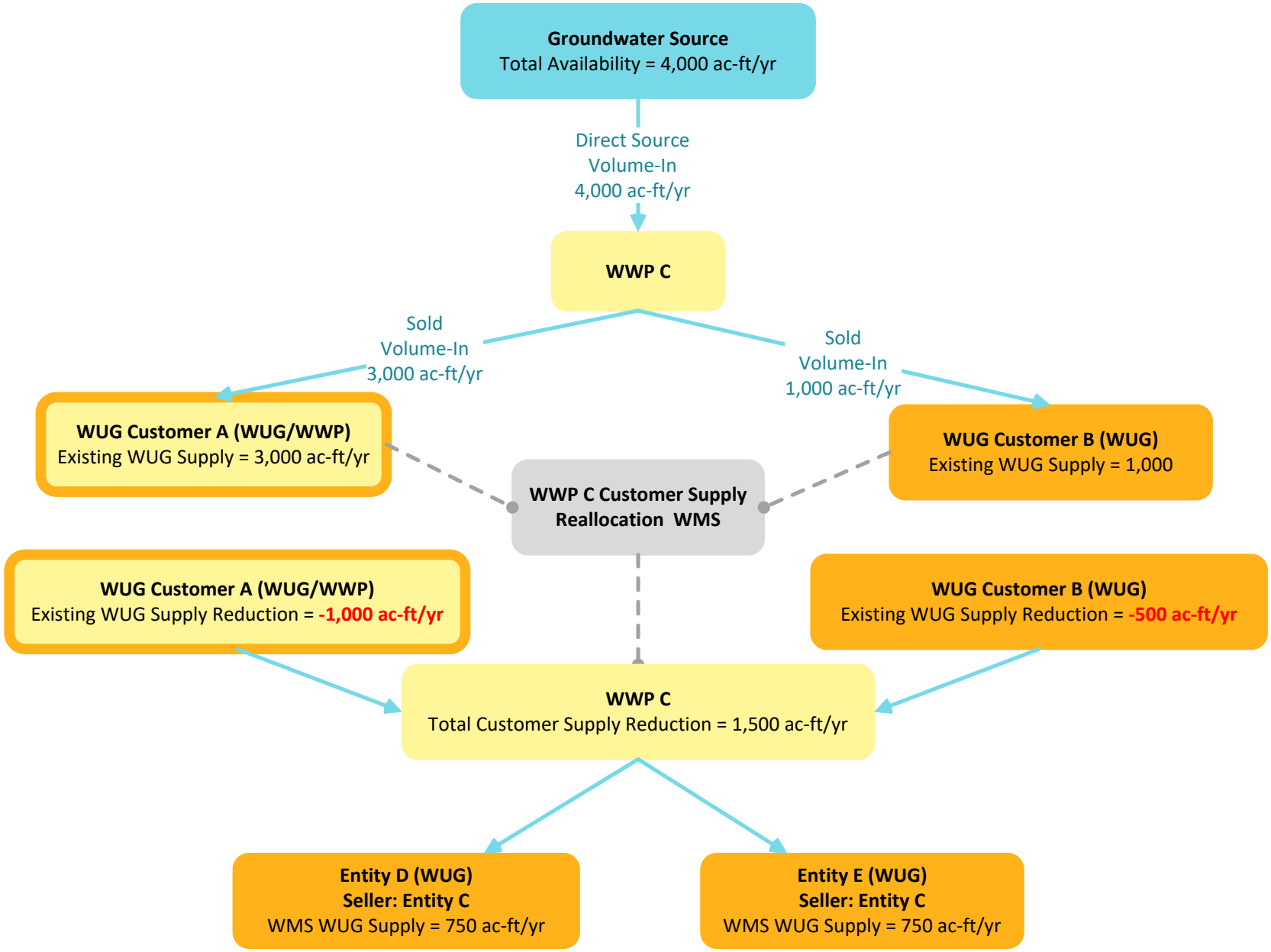
Appendix 7
Existing Surplus WMS Example


Run-of-River Source
Total Availability = 7,000 ac-ft/yr
Direct Source
Volume-In
7,000 ac-ft/yr
Entity A (WUG/WWP)
Existing WUG Supply = 2,000 ac-ft/yr
Sold
Volume-In
3,000 ac-ft/yr
Remaining Entity Surplus
that can be used by WMS
2,000 ac-ft/yr
Entity B (WUG)
Existing WUG Supply = 3,000 ac-ft/yr
Entity A Existing Surplus WMS
Entity C (WUG)
Seller: Entity A
WMS WUG Supply = 2,000 ac-ft/yr

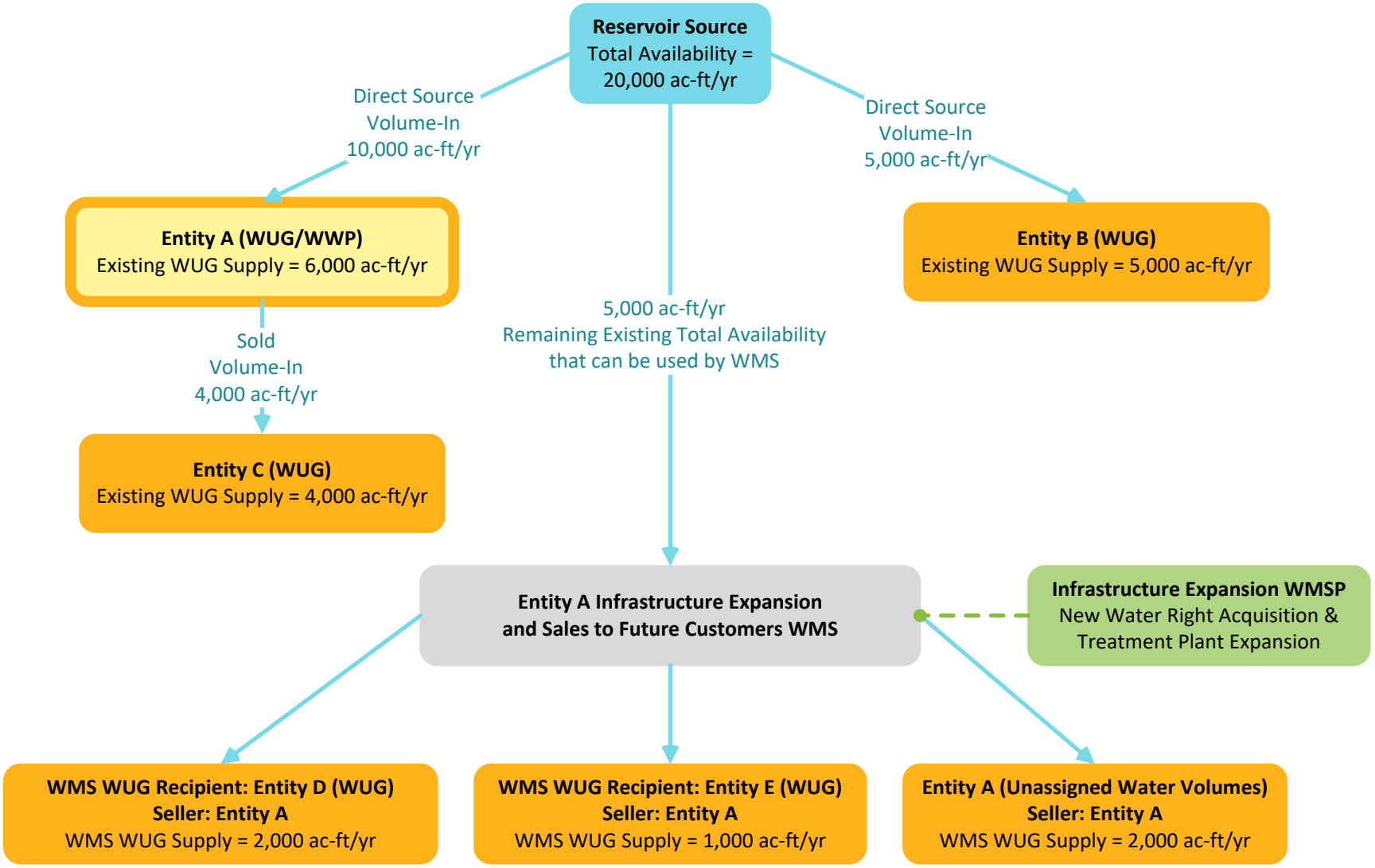
Appendix 8
WUG Supply Reduction WMS Example


Reservoir Source
Total Availability = 9,000 ac-ft/yr
Direct Source
Volume-In
9,000 ac-ft/yr
Entity A (WUG/WWP)
Existing WUG Supply = 9,000 ac-ft/yr
Reservoir A WUG Supply Reduction WMS
Entity A (WUG/WWP)
Existing WUG Supply Reduction = -1,000 ac-ft/yr
Entity B (WUG)
Seller: Entity A
WMS WUG Supply = 400 ac-ft/yr
Entity C (WUG)
Seller: Entity A
WMS WUG Supply = 600 ac-ft/yr

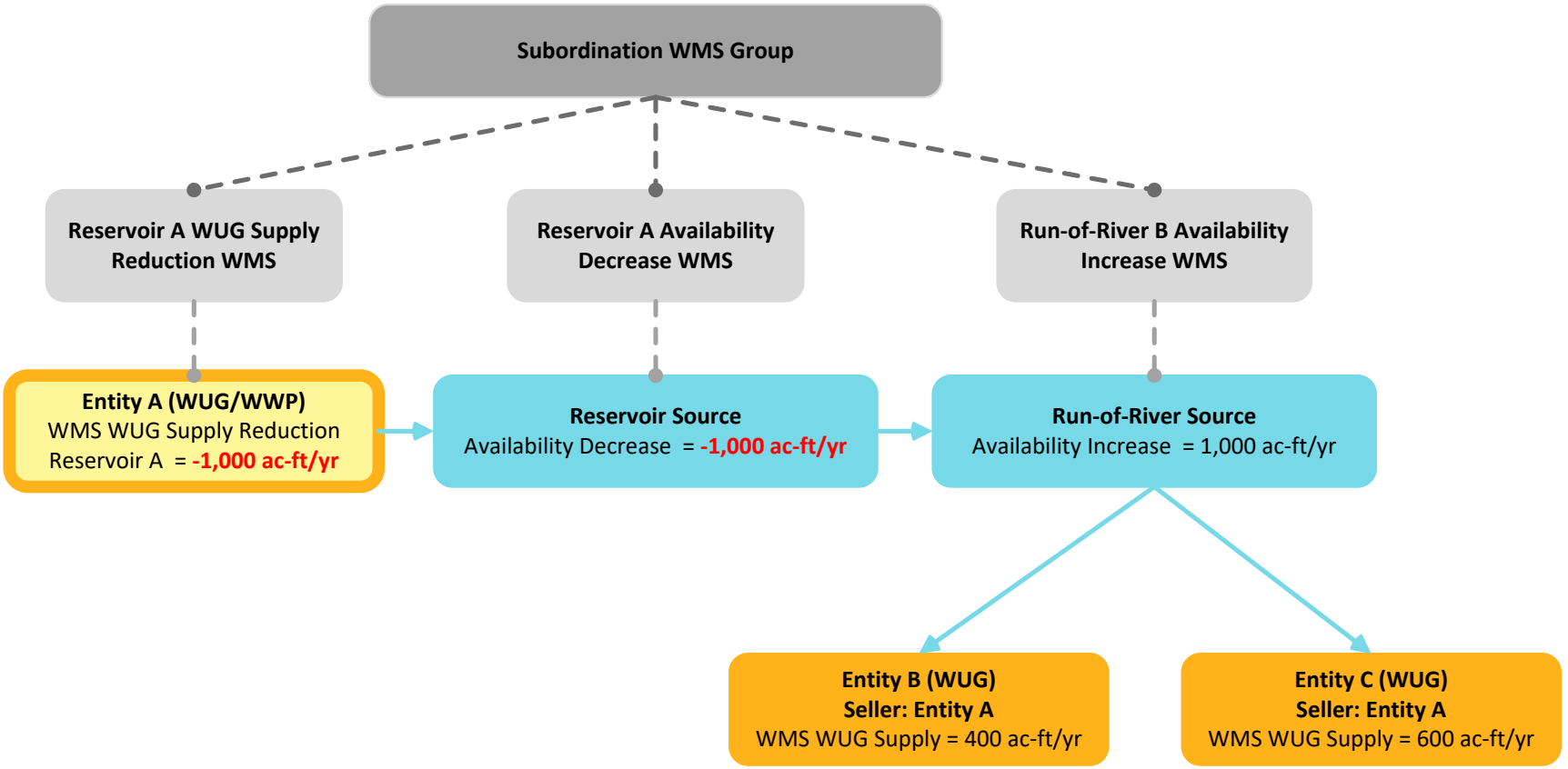
Appendix 9
WWP Customer Supply Reduction WMS Example


Groundwater Source
Total Availability = 4,000 ac-ft/yr
Direct Source
Volume-In
4,000 ac-ft/yr
WWP C
Sold
Volume-In
3,000 ac-ft/yr
Sold
Volume-In
1,000 ac-ft/yr
WUG Customer A (WUG/WWP)
Existing WUG Supply = 3,000 ac-ft/yr
WUG Customer B (WUG)
Existing WUG Supply = 1,000
WWP C Customer Supply
Reallocation WMS
WUG Customer A (WUG/WWP)
Existing WUG Supply Reduction = -1,000 ac-ft/yr
WUG Customer B (WUG)
Existing WUG Supply Reduction = -500 ac-ft/yr
WWP C
Total Customer Supply Reduction = 1,500 ac-ft/yr
Entity D (WUG)
Seller: Entity C
WMS WUG Supply = 750 ac-ft/yr
Entity E (WUG)
Seller: Entity C
WMS WUG Supply = 750 ac-ft/yr

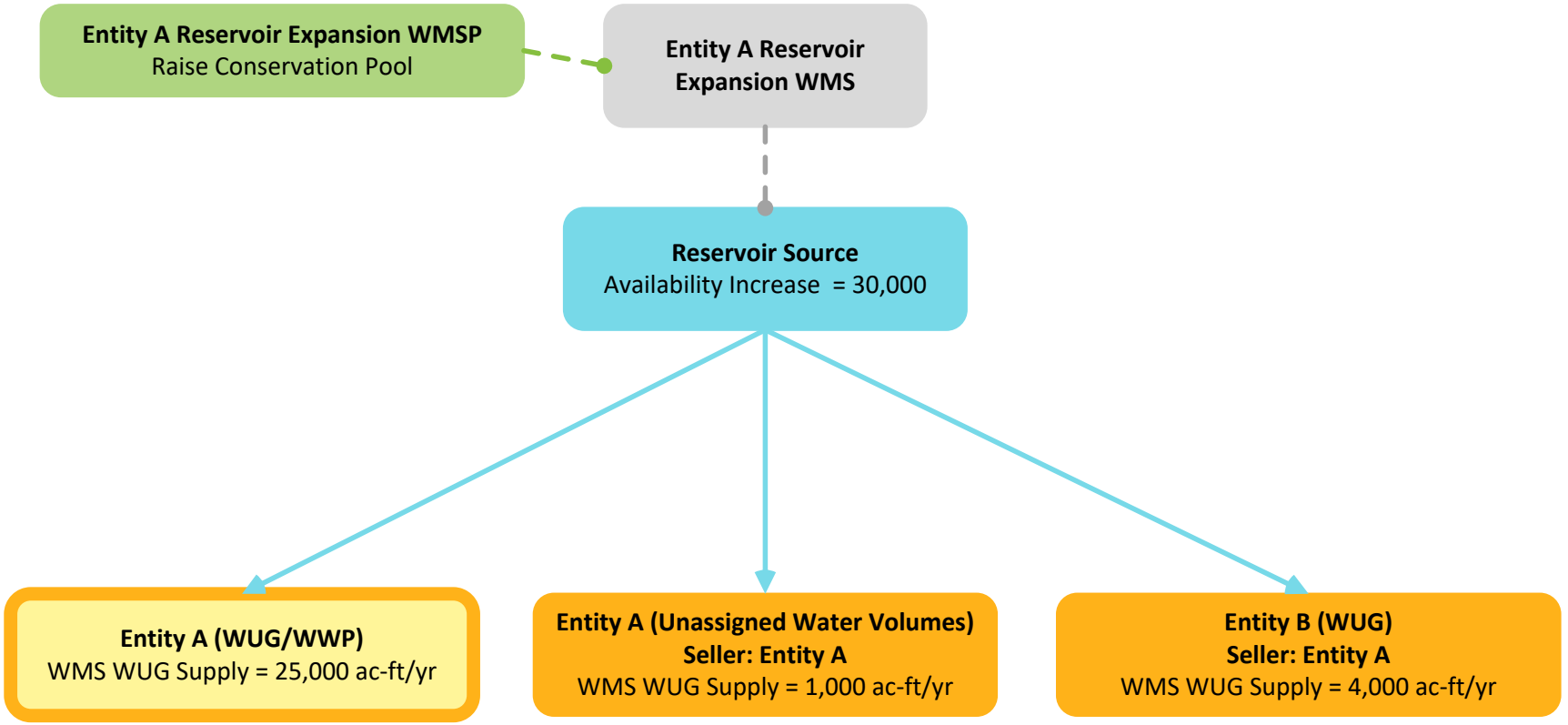
Appendix 10
Existing Availability WMS Example


Reservoir Source
Total Availability = 20,000 ac-ft/yr
Direct Source Volume-In 10,000 ac-ft/yr
Direct Source Volume-In 5,000 ac-ft/yr
Entity A (WUG/WWP)
Existing WUG Supply = 6,000 ac-ft/yr
Entity B (WUG)
Existing WUG Supply = 5,000 ac-ft/yr
Sold Volume-In 4,000 ac-ft/yr
5,000 ac-ft/yr Remaining Existing Total Availability that can be used by WMS
Entity C (WUG)
Existing WUG Supply = 4,000 ac-ft/yr
Entity A Infrastructure Expansion and Sales to Future Customers WMS
Infrastructure Expansion WMSP
New Water Right Acquisition & Treatment Plant Expansion
WMS WUG Recipient: Entity D (WUG)
Seller: Entity A
WMS WUG Supply = 2,000 ac-ft/yr
WMS WUG Recipient: Entity E (WUG)
Seller: Entity A
WMS WUG Supply = 1,000 ac-ft/yr
Entity A (Unassigned Water Volumes)
Seller: Entity A
WMS WUG Supply = 2,000 ac-ft/yr

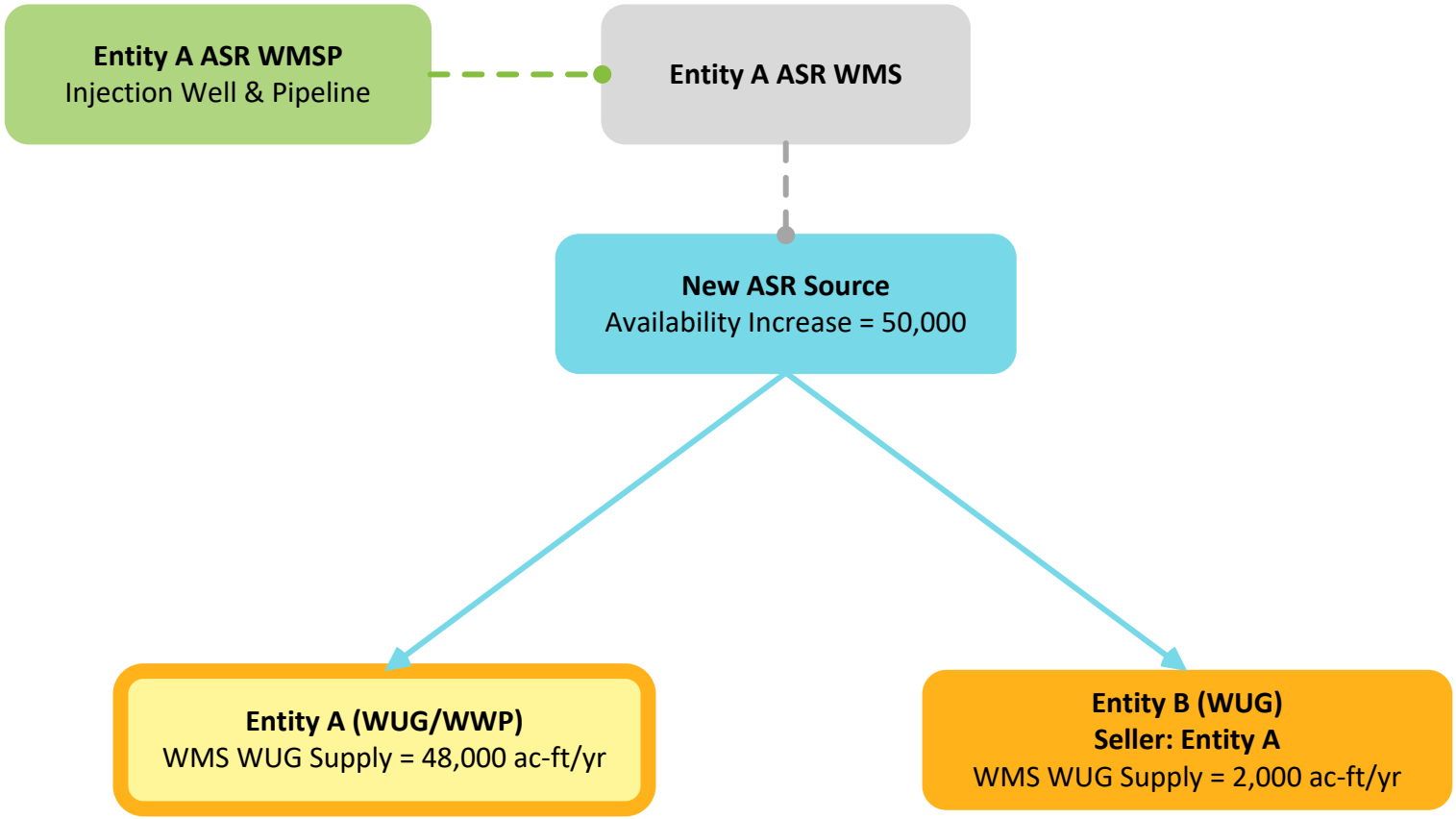
Appendix 11
Availability Decrease/Increase WMS Example


Subordination WMS Group
Reservoir A WUG Supply Reduction WMS
Reservoir A Availability Decrease WMS
Run-of-River B Availability Increase WMS
Entity A (WUG/WWP)
WMS WUG Supply Reduction Reservoir A = -1,000 ac-ft/yr
Reservoir Source
Availability Decrease = -1,000 ac-ft/yr
Run-of-River Source
Availability Increase = 1,000 ac-ft/yr
Entity B (WUG)
Seller: Entity A
WMS WUG Supply = 400 ac-ft/yr
Entity C (WUG)
Seller: Entity A
WMS WUG Supply = 600 ac-ft/yr

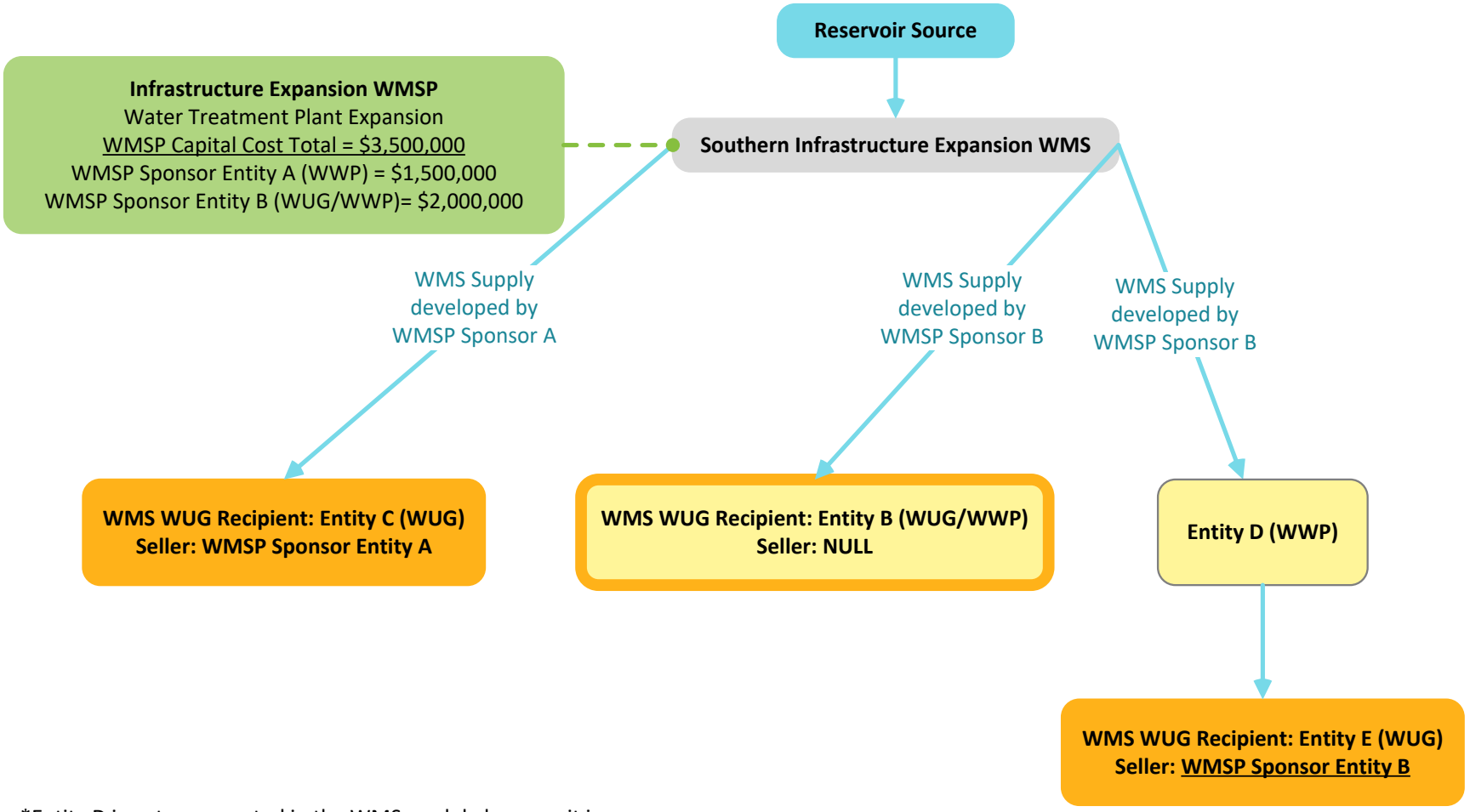
Appendix 12
Existing Source Availability Increase WMS Example


Entity A Reservoir Expansion WMSP
Raise Conservation Pool
Entity A Reservoir Expansion WMS
Reservoir Source
Availability Increase = 30,000
Entity A (WUG/WWP)
WMS WUG Supply = 25,000 ac-ft/yr
Entity A (Unassigned Water Volumes)
Seller: Entity A
WMS WUG Supply = 1,000 ac-ft/yr
Entity B (WUG)
Seller: Entity A
WMS WUG Supply = 4,000 ac-ft/yr

Appendix 13
New Source Availability Increase WMS Example

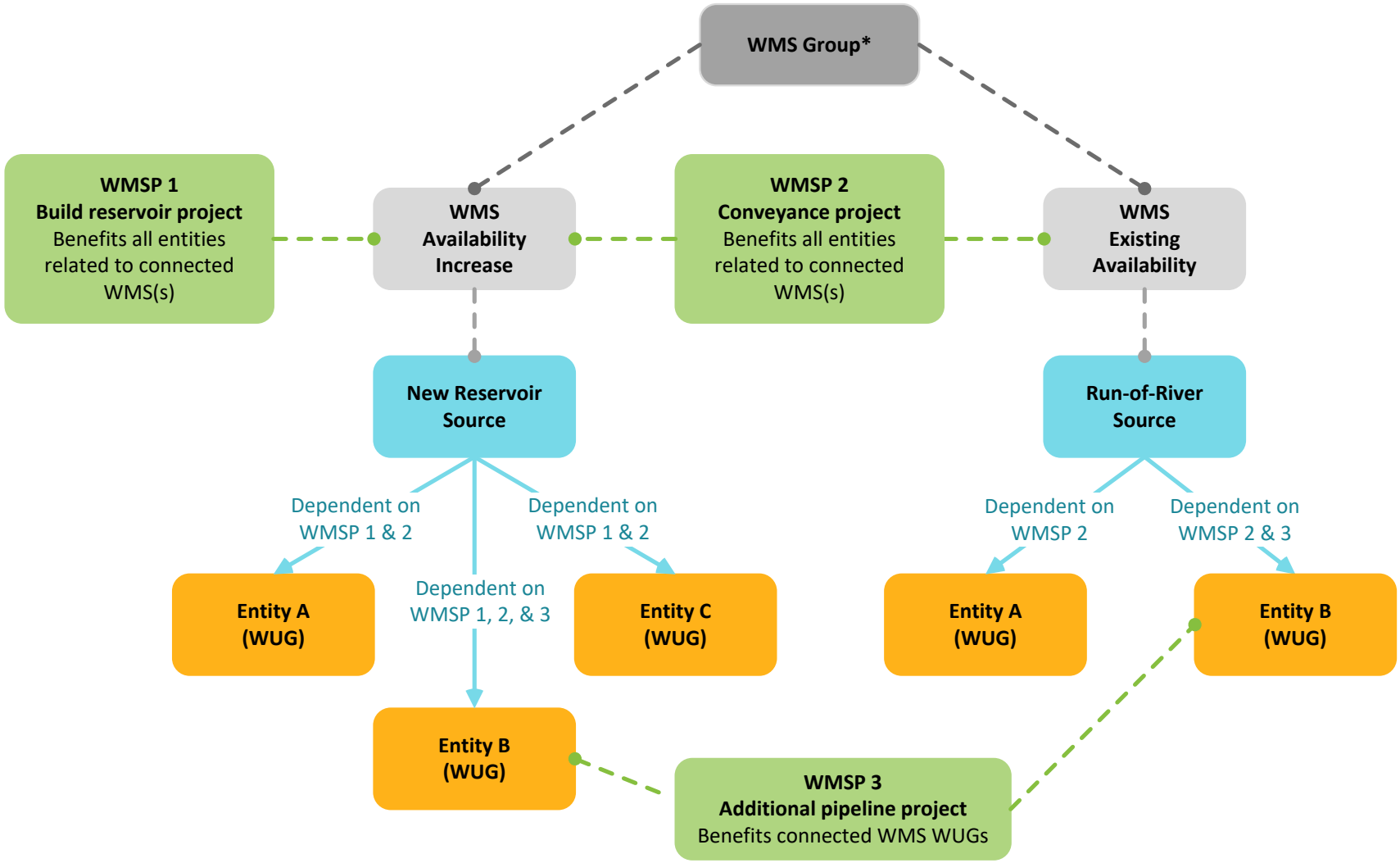

Entity A ASR WMSP
Injection Well & Pipeline
Entity A ASR WMS
New ASR Source
Availability Increase = 50,000
Entity A (WUG/WWP)
WMS WUG Supply = 48,000 ac-ft/yr
Entity B (WUG)
Seller: Entity A
WMS WUG Supply = 2,000 ac-ft/yr

Appendix 14
WMS Sponsor Relationships



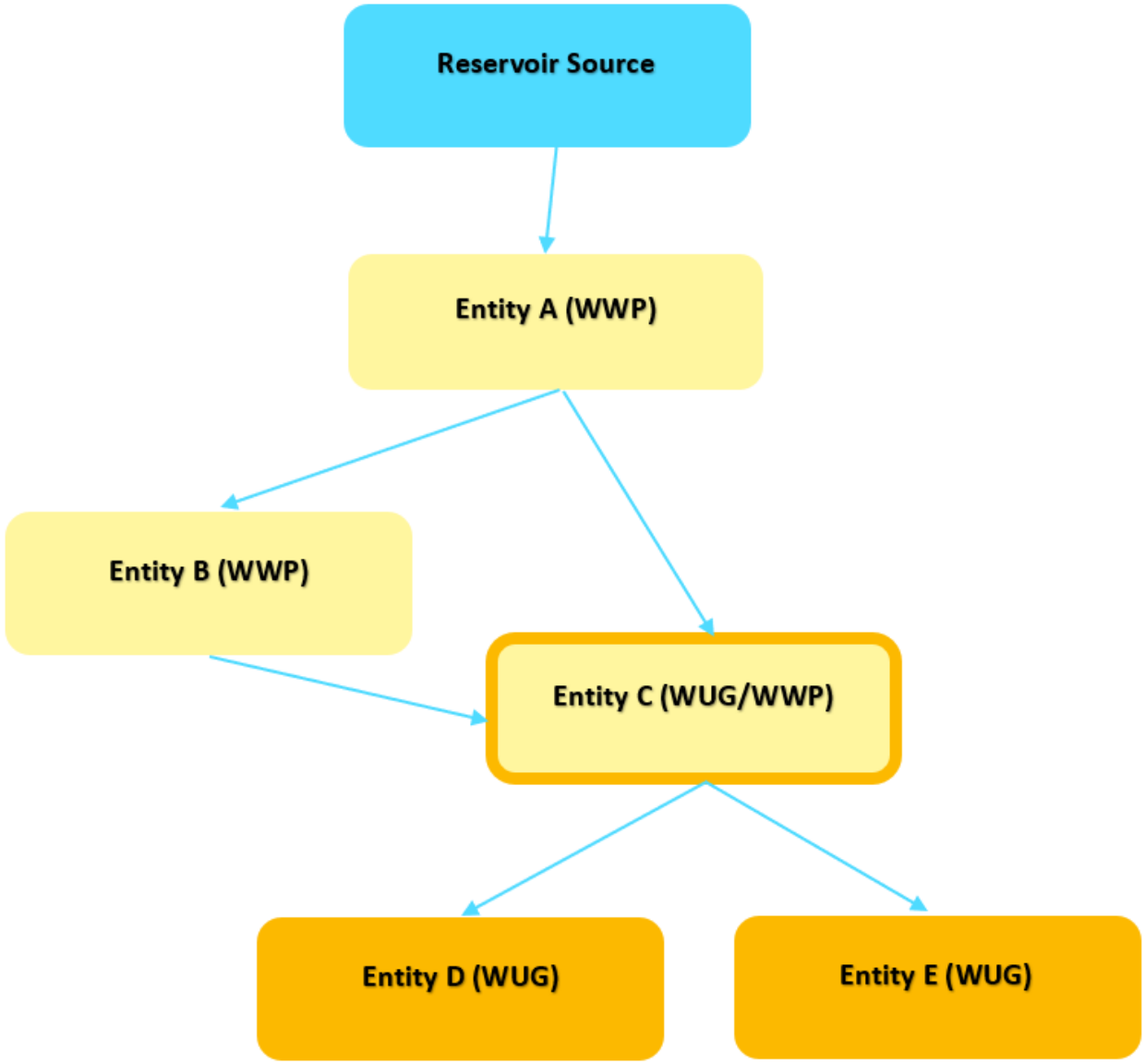
*Entity D is not represented in the WMS module because it is not a WUG and does not initially develop the WMS supply.

Appendix 15
WMS Project Relationship Example



*A WMS Group will link the WMSs if they are represented as a single WMS in the RWP. If WMS are listed separately in the RWP, no WMS Group is required.

Appendix 16
Diamond Water Example


Reservoir Source
Entity A (WWP)
Entity B (WWP)
Entity C (WUG/WWP)
Entity D (WUG)
Entity E (WUG)

Appendix 17
Conservation WMS Descriptions and Example BMPs

WMS Description 'Water loss mitigation' example BMPs

- Agriculture and industrial leak detection/water loss programs
- Advanced metering infrastructure (AMI)/automated meter reading (AMR)
- Plumbing fixture updates
- Utility water audit and water loss
- Transmission system water loss mitigation

WMS Description 'Water use reduction' example BMPs

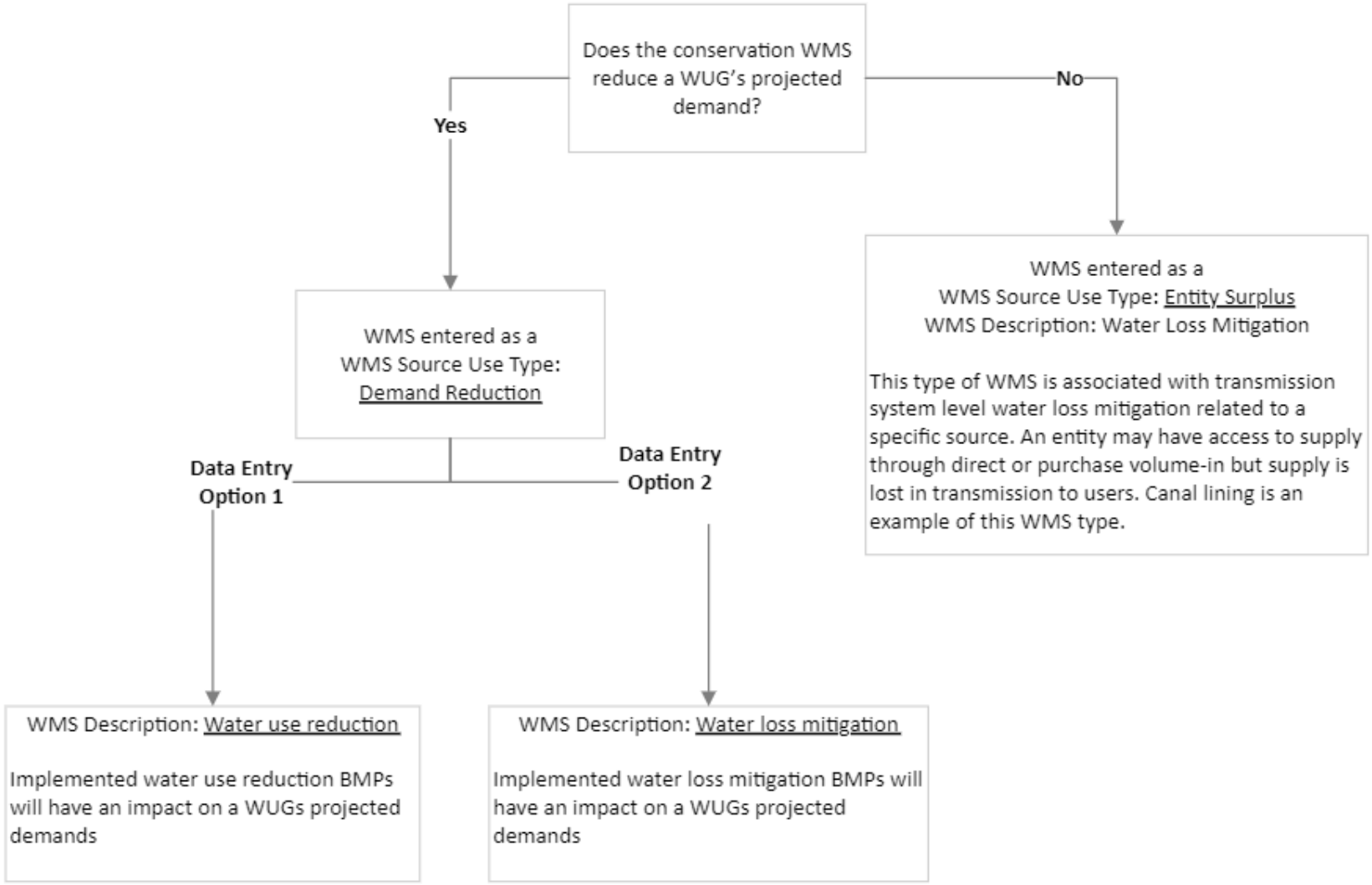
- Conservation analysis and planning
- Conservation coordinator
- Education and outreach
- Conservation ordinance planning and development
- Water conservation pricing
- Landscape irrigation conservation and incentives
- Water wise landscape design and conversion programs
- Custom conservation rebates
- Outdoor watering schedule
- Prohibition on wasting water
- Cropping and management practices
- Land management systems
- On-farm water delivery systems
- Scheduling practices
- Cooling systems management
- Industrial technology improving efficiency of water use (recirculation)
- Wholesale customer contract requirements to develop and implement water conservation and drought contingency plans
- Wholesale supplier collective purchase and direct distribution of water conservation equipment

Appendix 18
WMS Description Guidance

Table 6

WMS Description Value	When to Select
Conservation - water use reduction	WUG is benefiting from a demand reduction strategy that reduces water consumption. See Appendix 17 for examples of this conservation type.
Conservation - water loss mitigation	WUG is benefiting from a strategy that mitigates water loss. See Appendix 17 for examples of this conservation type.
Drought management	WUG is benefiting from a strategy that relies upon demand reduction strategies enacted only during drought conditions.
New major reservoir	WUG is getting water from a new major reservoir source, this value is selected. See Sections 3.3.2 and 3.3.3 for more information on this source type.
New minor reservoir	WUG is getting water from a new minor reservoir source, this value is selected. See Sections 3.3.2 and 3.3.3 for more information on this source type.
Rainwater collection system	WUG is benefiting from a strategy that collects and stores rainwater or stormwater in a containment system or structure. This does not include rainwater stored in an ASR, AR project, or new reservoir project. See Section 3.3.6 for more information on this source type.
Aquifer storage and recovery (ASR)	WUG is benefiting from a strategy that relies upon water stored in an ASR project. See Section 3.4.2 for more information on this source type.
Aquifer Recharge (AR)	WUG is benefiting from a strategy that relies upon AR to replenish the aquifer. See Section 3.4.1.4 for more information on this source type.
Desalination required, not used in new reservoir or ASR or AR project	WUG is benefiting from a strategy that relies upon the water being desalinated. If the desalinated supply is stored in an ASR or reservoir source, then the supply should be labeled as that and not desalination. Please note in the source detail of the ASR or reservoir source record that the supply was desalinated before being stored.
Reuse not used in future reservoir or ASR project	WUG is benefiting from reuse supply not being stored in an ASR project. Reuse can include direct/indirect reuse or water recycling. If the reuse supply is being stored in a new major or minor reservoir, please contact WSSA staff and they will assist you with the database allocations of the supply. See Section 3.5 for more information on this source type.
Weather modification	WUG is benefiting from supply associated with weather modification activities.
Brush management	WUG is benefiting from supply associated with brush management activities.
Surface water yield enhancement	WUG is benefiting from supply made available through a surface water yield enhancement like raising the conservation pool of an existing reservoir.
Existing surface water and groundwater availability requiring only conventional treatment and/or conveyance.	This label should be selected for just existing surface water and groundwater supply not covered in the previous categories. For this type of strategy supply, the surface or groundwater source exists and is being transferred without requiring new infrastructure (Example: WUG is increasing their contract with a WWP, and no new infrastructure is required) or to access the supply, the WUG requires additional infrastructure (Example: WUG plans to drill another well so that they can pump and transport additional supply).

Appendix 19
Conservation WMS Description Diagram


Does the conservation WMS reduce a WUG's projected demand?
Yes
No
WMS entered as a
WMS Source Use Type: Demand Reduction
WMS entered as a
WMS Source Use Type: Entity Surplus
WMS Description: Water Loss Mitigation
This type of WMS is associated with transmission system level water loss mitigation related to a specific source. An entity may have access to supply through direct or purchase volume-in but supply is lost in transmission to users. Canal lining is an example of this WMS type.
Data Entry Option 1
Data Entry Option 2
WMS Description: Water use reduction
Implemented water use reduction BMPs will have an impact on a WUGs projected demands
WMS Description: Water loss mitigation
Implemented water loss mitigation BMPs will have an impact on a WUGs projected demands

ATTACHMENT H
TASK ORDER NO. 3

RIVERBEND WATER RESOURCES DISTRICT
(OWNER)

AND

CAROLLO ENGINEERS, INC.
(ENGINEER)

This Task Order 3 is issued by the OWNER and accepted by ENGINEER pursuant to the mutual promises, covenants and conditions contained in the Agreement, as amended, between the above named parties dated the 4th day of August, 2021, in connection with preparing a Regional Water Plan for the NORTH EAST TEXAS REGIONAL WATER PLANNING GROUP (NETRWPG or RWPG) as defined by 31 TAC Chapters 355, 357 & 358 (Project).

PURPOSE

The purpose of this Task Order 3 is to identify the Basic Services that the ENGINEER shall render professional services necessary to complete the following Scope of Work, which is consistent with Third Amended Scope of Work Exhibit “A” to the OWNER's Third Amended TWDB Contract (Contract No. 2148302556), incorporated as Attachment D.

ENGINEER'S BASIC SERVICES/SCOPE OF WORK

Subject to the availability of COMMITTED FUNDS, as further detailed in Exhibit “A” of Attachment D, ENGINEER shall fulfill the following requirements:

1. ENGINEER shall fulfill the requirements specified for “CONTRACTOR” in Section II., Article II, Paragraph A of the Third Amended TWDB Contract.
2. The last day that work performed under this Agreement shall be eligible for reimbursement shall be February 27, 2026.
3. ENGINEER shall perform the work and fulfill the requirements set forth in Attachment D, Exhibit A, Third Amended Scope of Work of the Third Amended TWDB Contract, consisting of all Services necessary to successfully complete Tasks 1, 2A, 2B, 3, 4A, 4B, 4C, 5A, 5B, 5C, 6, 7, 8, 9, and 10.
4. Capitalized terms not otherwise defined in this Task Order have the meanings set forth in the Third Amended TWDB Contract.

TIME OF PERFORMANCE

Time of performance is that specified in Task Orders 1 and 2, and is incorporated herein.

As specified below, the term shall commence on the CONTRACT INITIATION DATE of February 1, 2021 and shall expire on the CONTRACT EXPIRATION DATE of August 31, 2026.

a) CONTRACT INITIATION DATE -
February 1, 2021

b) DEADLINE FOR CONTRACT EXECUTION -
August 31, 2021

c) TECHNICAL MEMORANDUM DEADLINE -
March 4, 2024

TECHNICAL MEMORANDUM - The technical memorandum to be prepared by the CONTRACTOR and submitted to the EXECUTIVE ADMINISTRATOR will be in accordance with 31 Texas Administrative Code §§357.10(34) and 357.12(c).

d) INITIALLY PREPARED REGIONAL WATER PLAN DEADLINE
March 3, 2025

INITIALLY PREPARED REGIONAL WATER PLAN - The Regional Water Plan to be initially prepared by the CONTRACTOR and submitted to the EXECUTIVE ADMINISTRATOR for comments pursuant to the CONTRACT.

e) FINAL REGIONAL WATER PLAN DEADLINE -
October 20, 2025

REGIONAL WATER PLAN - A plan including amendments that have been adopted by the REGIONAL WATER PLANNING GROUP that meets the requirements contained in the Texas Water Code §16.053 and 31 Texas Administrative Code Chapters 357 and 358 and submitted to the TWDB for approval.

f) FIRST REIMBURSABLE EXPENSE DATE - The first day that work performed under this CONTRACT is eligible for reimbursement will be February 1, 2021, for limited administrative costs associated with public notices. For activities involving technical work under this CONTRACT, the eligible reimbursement date will be August 4, 2021, which is the date that the required public meeting to receive preplanning input from the public will be held by the REGIONAL WATER PLANNING GROUP per 31 Texas Administrative Code §357.12(a), which follows the TWDB APPROVAL DATE of June 3, 2021. TWDB will not reimburse expenses associated with Exhibit D, Scope of Work, until after contract execution.

g) FINAL REIMBURSABLE EXPENSE DATE - The last day that work performed under this CONTRACT is eligible for reimbursement will be February 27, 2026.

h) FINAL PAYMENT REQUEST DEADLINE - The latest day that the final payment request may be submitted for reimbursement will be April 30, 2026.

i) CONTRACT EXPIRATION DATE – This CONTRACT expires on August 31, 2026. The last day that any budget amendment requests may be submitted under the CONTRACT will be July 31, 2026.

PAYMENT

For and in consideration of the services to be rendered by the ENGINEER, the OWNER shall pay the fees hereinafter set forth.

Available Funding/Contract Amount

a) Consistent with the Third Amended TWDB Contract, at the time of the execution of the Third Amended TWDB Contract, the TWDB was not appropriated sufficient funds to provide the TOTAL PROJECT COST to OWNER. Of the TOTAL PROJECT COST, the TWDB made available to OWNER pursuant to the terms of the Third Amended TWDB Contract an amount not to exceed COMMITTED FUNDS totaling $1,186,954.00, of which $1,160,954.00 ("ENGINEER COMMITTED FUNDS") is available to be paid to ENGINEER for performance of the Third Amended Scope of Work set forth in this Task Order 3. If additional funds become available to the TWDB for the purposes of making grants for preparation of regional water plans, the TWDB will allocate additional COMMITTED FUNDS to OWNER, not to exceed the TOTAL PROJECT COST, and to the various other contractors, which are preparing regional water plans.

b) Future phases of this contract will be authorized by the NETRWPG at a future date based on available funding from the Texas Water Development Board.

c) The maximum not-to-exceed budget for ENGINEER for the purposes of Task Order 3 as of this contract time is $1,160,954.00. This amount represents an increase of $580,207.00 to the first amended budget of $580,747.00 authorized in Task Order 2 and is accordant with the COMMITTED FUNDS identified in the Third Amended TWDB Contract and allowing for OWNER's administrative expenses.

d) Per the Third Amended TWDB Contract, the TOTAL PROJECT COST is not to exceed $1,306,006.00 or 100 percent of the necessary and direct planning costs for the development of the REGIONAL WATER PLAN, whichever is less.

e) Pursuant to the above considerations, the maximum final budget for ENGINEER is not to exceed $1,306,006.00, or 100 percent of the necessary and direct planning costs for the development of the REGIONAL WATER PLAN, whichever is less.

f) OWNER shall not be liable for any costs in excess of the ENGINEER COMMITTED FUNDS of this Task Order 3 unless the contract is amended in a future Task Order to increase the COMMITTED FUNDS.

g) This Task Order does not require ENGINEER to incur any study costs beyond the maximum not-to-exceed funding.

h) ENGINEER has no control over the cost of labor, materials, equipment, or services furnished by others, over the incoming water quality and/or quantity, or over the way OWNER's plant and/or associated processes are operated and/or maintained. Data projections and estimates are based on ENGINEER's opinion based on experience and judgment. ENGINEER cannot and does not guarantee that actual costs and/or quantities realized will not vary from the data projections and estimates prepared by ENGINEER and ENGINEER will not be liable to and/or indemnify OWNER and/or any

third party related to any inconsistencies between ENGINEER's data projections and estimates and actual costs and/or quantities realized by OWNER and/or any third party in the future.

Task and Expense Budgets

a) The Second Amended Task and Expense Budgets (Attachment "E") are established for Work to be performed by ENGINEER.

b) At the discretion of the Executive Administrator of the TWDB and upon prior written approval by OWNER, ENGINEER has budget flexibility within the Task and Expense Budget categories above to the extent that the resulting change in amount in any one Task or Expense category does not exceed thirty five percent (35%) of the total amount authorized by this Contract for the task or category to be changed. Larger deviations shall require submission of a written request that is approved by the Regional Water Planning Group and approved by the EXECUTIVE ADMINISTRATOR or designee which will be documented through an Approved Budget Memorandum to the TWDB contract file. ENGINEER will be required to provide written explanation for the overage and reallocation of the task and expense amount. Associated shifts in amounts between budget task and expense categories authorized under this paragraph shall not change the COMMITTED FUNDS amount.

Invoicing

a) ENGINEER is responsible for determining and abiding by the TWDB's definitions and rules pertaining to Authorized Reimbursable Expenses and agrees to charge OWNER in accordance with those definitions and rules.

b) ENGINEER shall fulfill the requirements for "subcontractor" in Section II., Article IV.G., of the Third Amended TWDB Contract.

c) ENGINEER shall submit monthly invoices to OWNER in accordance with the Task and Expense budgets in Exhibit "G". OWNER's monthly payments, in response to ENGINEER'S monthly invoices, shall depend on satisfactory completion of Work billed. OWNER shall pay ninety five percent (95%) of each invoice until ENGINEER delivers, on or before the Regional Water Plan Deadline, a Regional Water Plan that meets statutory and rule requirements as determined by the Executive Administrator of the TWDB, at which time the retained five percent (5%) will be paid.

d) ENGINEER shall submit a progress report with each invoice. ENGINEER shall also provide with each invoice the documentation described in Section II., Article IV. J. of the Third Amended TWDB Contract.

Other Direct Expenses

Other direct expenses are reimbursed at actual cost. They include outside printing and reproduction expense, communication expense, travel, transportation and subsistence and other miscellaneous expenses directly related to the work, including costs of laboratory analysis, tests and other work required to be done by independent persons other than staff members.

Each statement submitted for payment must include the following:

(1) A progress report with supporting data that describes the work associated with the invoice. The progress report shall include a brief statement of the overall progress made since the last progress report; a brief description of any problems that have been encountered during the previous reporting period that may affect the study, delay the timely completion of or cause a change in any of the study's products or objects; and a description of any action that ENGINEER plans to take to correct any problems that have been encountered or identified;

(2) A breakdown of actual study costs by budget category as contained in Attachment “E” to this Task Order.

(3) The billing period; beginning (date) to ending (date);

(4) For direct expenses paid by ENGINEER and by its subcontractors, copies of invoices to the subcontractor showing the tasks that were performed; the percent and cost of each task completed; a total cost figure for each direct expense category contained in Attachment “E” attached to this Agreement; and the total dollar amount paid to the subcontractors;

(5) For travel and subsistence expenses of ENGINEER and subcontractors, ENGINEER shall provide the name of traveler, date of travel, purpose of travel, itemization of subsistence expenses of each traveler, limited; however, to travel expenses authorized for State employees by the General Appropriations Act, Tex. Leg. Regular Session, 2009, Article IX, Part 5, as amended or superseded; for other transportation costs, ENGINEER shall provide copies of invoices or receipts covering tickets for transportation or, if not available, names, dates and points of travel of individuals; and all other allowable expenses, ENGINEER shall provide invoices or receipt to evidence the amount paid;

(6) ENGINEER shall provide certification, signed by an authorized representative that the expenses submitted for the billing period are a true and correct representation of amounts paid for work performed directly related to this contract.

ENGINEER and its subcontractor(s) shall maintain satisfactory financial accounting documents and records, including copies of invoices and receipts for a term of three years after completion of this contract, and shall make them available for examination and audit by the TWDB and the OWNER. Accounting by the ENGINEER and its subcontractor(s) shall be in a manner consistent with generally accepted accounting principles;

(7) ENGINEER shall submit three (3) complete sets of Partial Payment documentation for each payment request.

Retainage

A five percent (5%) retainage will be held from each of the invoices received by the TWDB.

EFFECTIVE DATE

This Task Order No. 3 is effective as of the 14th day of June, 2024.

IN WITNESS WHEREOF, duly authorized representatives of the OWNER and of the ENGINEER have executed this Task Order No. 3 evidencing its issuance by OWNER and acceptance by ENGINEER.

CAROLLO ENGINEERS, INC.	OWNER
	Accepted this _____ day of _____, 20___
By: _____	By: _____
David K. Harkins, Ph.D., P.E. Vice-President	Kyle Dooley, P.E. Executive Director
ATTEST:	ATTEST:
By: _____	By: _____
Scott P. Hoff, P.E. Senior Vice President PE #89056	

ATTACHMENT I

CAROLLO ENGINEERS, INC.
FEE SCHEDULE

As of January 1, 2024

	Hourly Rate
Engineers/Scientists	
Assistant Professional	$223.00
Professional	277.00
Project Professional	323.00
Lead Project Professional	339.00
Senior Professional	365.00
Technicians	
Technicians	171.00
Senior Technicians	242.00
Support Staff	
Document Processing / Clerical	148.00

Other Direct Expenses	
Travel and Subsistence	at cost
Mileage at IRS Reimbursement Rate Effective January 1, 2024	$0.67 per mile
Subconsultant	cost
Other Direct Cost	cost

This fee schedule is subject to annual revisions due to labor adjustments.