

Trinity River Authority of Texas

***Bardwell Reservoir, Joe Pool Reservoir and
Navarro Mills Reservoir***

***Water Conservation & Drought Contingency
Plan***

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***Prepared
by
Trinity River Authority of Texas***

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Trinity River Authority of Texas Bardwell Reservoir, Joe Pool Reservoir and Navarro Mills Reservoir Water Conservation Plan & Drought Contingency Plan

1 INTRODUCTION

The Trinity River Authority of Texas (Authority) is a governmental agency of the State of Texas created as a conservation and reclamation district under Article XVI, Section 59 of the Constitution pursuant to Chapter 518, Acts of the 54th Legislature of Texas, Regular Session, 1955, as amended. The Authority is empowered to construct, own and operate wholesale water supply, treatment, and distribution facilities and wholesale sewerage gathering, transmission, treatment, and disposal facilities, to charge for such services, and to make contracts in reference thereto with municipalities and others.

The Authority's defined territory includes all of Dallas, Tarrant, Ellis, Navarro, Chambers Counties, and the principal watershed portions of Anderson, Freestone, Henderson, Houston, Kaufman, Leon, Madison, Polk, San Jacinto, Trinity, Walker, and Liberty Counties. The Authority is governed by a Board of 25 directors who are appointed by the Governor with the advice and consent of the Texas Senate. The first directors were appointed for staggered terms, and directors thereafter have served six-year terms. Three of the directors are appointed from the area-at-large; three directors are from Tarrant County; four are from Dallas County; and one director is from each of the other 15 counties.

This Water Conservation Plan and Drought Contingency Plan pertain to the use of water by the Authority's Contracting Parties of the Bardwell Reservoir, Joe Pool Reservoir and Navarro Mills Reservoir. The plans are intended to meet the requirements of the Texas Commission on Environmental Quality (TCEQ) and the Texas Water Development Board (TWDB).

2 WATER CONSERVATION PLAN

2.1 Introduction

The Authority currently provides wholesale raw water to:

- two Contracting Parties of the Bardwell Reservoir;
- four Contracting Parties of Joe Pool Reservoir; however only two currently utilize their contract entitlements; and
- four Contracting Parties of the Navarro Mills Reservoir; however only one current

utilizes its contract entitlement.

As the contracting parties retail utility systems are separate from the Authority's raw water system, the Authority does not have the ability to implement most of the water conservation measures discussed in this Program. The contracting parties will be able to implement these measures as a part of their respective retail water supply operations. The Authority's role in this program will include the administration and promotion of the Water Conservation Plan, public education and information, and investigations into wastewater reuse.

2.2 PLANNING AREA DESCRIPTION

2.2.1 Bardwell Reservoir

Bardwell Reservoir is located on Waxahachie Creek within the Chambers Creek watershed of the Trinity River Basin. The Reservoir is in Ellis County, Texas, 5 miles south of Ennis and 15 miles southeast of Waxahachie. The Project was designed to control floodwaters and provide water for municipal, industrial and recreational uses.

The Authority currently holds Certificate of Adjudication No. 08-5021 for water stored in Bardwell Reservoir, the physical appurtenances of which are owned by the United States of America and operated by the U.S. Army Corps of Engineers. The Authority entered into contracts with the City of Ennis and the Ellis County Water Control Improvement District Number One (District)¹ for the diversion and use of water stored in Bardwell Reservoir. The Certificate, as amended, authorizes the Authority to impound 54,900 acre-feet and divert from the reservoir for municipal and industrial purposes not to exceed 9,600 acre-feet per year. It also allows for the diversions of up to an additional 3,696 acre-feet per annum for the City of Ennis and 5,128.5 acre-feet per annum for the District based upon wastewater discharges into Bardwell Reservoir.

The natural yield of the reservoir is divided between the two Authority customers with Ennis receiving 55 percent and the District receiving 45 percent. These two contracting parties separately own and operate surface water treatment plants. The Ennis plant is located on the southeast shore of Bardwell Reservoir. The District's treatment plant is located upstream near Lake Waxahachie. The District maintains a raw water pump station at Bardwell Reservoir that pumps water into Lake Waxahachie. For the natural yield portion of Bardwell water, the District

¹ The District is the entity that treats the water for the City of Waxahachie. For all intents and purposes, the District is Waxahachie.

is authorized to 1) pump water from Bardwell to Lake Waxahachie, or 2) overdraft Bardwell's natural yield from Lake Waxahachie. The reuse portion must be pumped from Bardwell to Waxahachie for diversion. The Authority does not own or operate any diversion infrastructure in the reservoir.

- The planning area of the Bardwell Reservoir includes the following:
- The City of Ennis and its customer East Garrett Water Supply Corporation (located north of Ennis); and
- The District's service area.

2.2.2 Joe Pool Reservoir

The Authority is the local sponsor of Joe Pool Reservoir, which is located on Mountain Creek, a tributary of the West Fork of the Trinity River. In 1976, the Authority acquired the right to use the conservation storage space from the Corps of Engineers along with water right No. 08-3404 from the TCEQ to impound 176,900 acre-feet and divert 17,000 acre-feet of water from the reservoir per year. In turn, the Authority contracted with the cities of Cedar Hill, Midlothian, Grand Prairie and Duncanville for the yield of Joe Pool Lake.

The Contracts with the customers specify that each party is entitled to a percentage of the conservation yield as follows:

City of Cedar Hill	43.21%
City of Midlothian	39.19%
City of Grand Prairie	10.56%
City of Duncanville	7.04%

In 1985, the Authority entered into contracts with Cedar Hill, Duncanville and Grand Prairie to create the Lakeview Regional WSP to include a raw water intake structure and raw water pump station at Joe Pool Reservoir. As a result, the Authority issued contract revenue bonds to construct components of an intake structure that would be significantly more expensive to construct after the impoundment of water in the lake. The intake structure and its appurtenances were built. Easements were also secured for a pump station, but that structure has not yet been built. The Authority will continue to plan and negotiate additional contracts with the three cities in order to implement a regional water treatment plant and distribution pipeline to deliver treated water to the three cities.

The City of Midlothian through the Midlothian Water District made the decision to develop a separate raw-water pump station and treatment plant and did not participate in the regional system. Currently, the Midlothian Water District is treating and using water from Joe Pool Reservoir for municipal water needs. Through Midlothian’s intake structure, the City of Grand Prairie is using a limited amount of raw water for irrigation purposes.

The planning area of the Joe Pool Reservoir includes the following:

- The City of Midlothian.
- The City of Cedar Hill;
- The City of Duncanville; and
- The City of Grand Prairie.

The cities of Cedar Hill, Duncanville and Grand Prairie currently have long-term water contracts with the City of Dallas, which mitigates immediate needs for those cities to use JPL as a water supply. However, Joe Pool Lake is planned as a future water supply for these parties.

2.2.3 Navarro Mills Reservoir

Navarro Mills Reservoir is located 16 miles southwest of Corsicana, Texas in the west central portion of Navarro County and in the southeastern portion of Hill County. The Reservoir was created by placing a dam on Richland Creek, a tributary to the Trinity River. Contract No. DA-41-443-CIVENG-59-671 between the United States of America and the Authority granted the Authority the right to utilize all of the storage space in the Reservoir below the conservation pool elevation 424.5 feet above mean sea level. Texas Water Commission Permit No. 1948 was issued to the Authority on January 13, 1960 and was amended on November 12, 1982 and December 12, 1996. The permit as amended authorizes the Authority to impound 63,300 acre-feet of water within Navarro Mills Reservoir and to divert 19,400 acre-feet per year from the reservoir. The Authority does not own any existing diversion infrastructure in the Reservoir.

The contract amount of each of the wholesale customers are described below.

<u>Purchaser</u>	<u>Amount (Acre-Feet/Year)</u>
City of Corsicana	17,460
Superock, Inc.	450
Town of Dawson	368
Post Oak Special Utility District	353

2.3 CONSERVATION GOALS

In accordance with TCEQ regulations, this water conservation plan includes the information required to facilitate the Authority's water conservation goals. The Authority's first goal is to provide an adequate supply of suitable raw water that meets the needs of its wholesale customers. This must include appropriate measures such as water supply contracts, appropriate monitoring and metering leak detection throughout the Authority's utilities, and also setting a maximum unaccounted for water goal of 5% for the affected municipal systems, the value of which represents an acceptable level of unaccounted for water. These measures are addressed in more detail in other parts of this Water Conservation Plan.

The Authority's second goal is to encourage its wholesale customers to adopt and implement water conservation plans that will reduce per capita and peak use demands. As the Authority is a wholesale supplier, it has limited control over water use. Therefore, the Authority's water conservation program is predicated on the fact that the implementation of such conservation measures must occur at largely the local level and achievement of significant water conservation savings can only occur if each retail water user sets and implements its own water conservation programs. It is then the Authority's role to encourage and support those initiatives chosen by the wholesale customers in order to promote long term water use efficiency and reduction of wasted water.

TCEQ requires all municipal water right holders set per capita water consumption goals in "gallons per capita per day" (gpcd). This gpcd calculation is defined by TCEQ as the total amount of water diverted/pumped for potable use divided by the total permanent population, then that value is divided by 365 (days in the year).

The first step to identifying the gpcd goals is establishing the baseline per capita water use values for the wholesale customers. The data used to calculate these values was taken from the 2021 Water User Group Entity Detailed GCPD Report from the Texas Water Development Board. The results from those calculations can be seen in the table below but it is important to note that the values shown *include water used from all sources*, not just water supplied by the Authority, and should be considered an approximation of gpcd.

TRA Project	Wholesale Customer	Estimated Population	Total Net Water Use (Gallons)	Total Net Water Use (AF)	GPCD	Project GPCD
Bardwell	Ennis	20,131	901,423,831	2,766	123	149
	(Ellis Count Water Control & Improvement District #1)	40,162	237,563,0656	7,290	162	
Joe Pool*	Cedar Hill	41,592	2,021,858,390	6,204	133	117
	Duncanville	40,295	1,432,122,000	4,395	97	
	Grand Prairie	198,988	8,271,595,267	25,384	114	
	Midlothian	19,626	1,111,158,767	3,410	155	
Navarro Mills	Corsicana	26,845	1,685,043,079	5,171	171	171
	Dawson	830	35,108,700	107	116	
	Post Oak	1,518	102,160,700	313	184	

Source: Regional Water Planning Water User Group (WUG) Utility – Detailed GPCD Report 2021 (<http://www.twdb.texas.gov/waterplanning/waterusesurvey/estimates/index.asp>)

*Only Midlothian pumps water for potable use.

Lake Bardwell supplies water to two customers: Ennis and the Ellis County Water Control & Improvement District # 1 (will be referred to henceforth as the District). For all intents and purposes, the District is the City of Waxahachie. According to the TWDB report, Ennis and the District reported a total net use of 10,056 AF in 2021. Their combined population was 60,293 according to population estimates from the TWDB. Therefore, the gpcd usage for Bardwell Reservoir municipal customers was 149 gpcd. This is increased from 2016, when the gpcd was 136, along an increase in population of approximately 18,000. While the gpcd was higher than in 2016, it was 173 in 2011, even with smaller population numbers.

For each customer, TCEQ also requires a 5- and 10-year gpcd goal. In 2016, the gpcd use for Lake Bardwell customers was under the TWDB goal of 140, as the ultimate goal set by the TCEQ had already been met. Using the updated water use data that showed a gpcd of 149 in 2016, new 5-year gpcd goals were calculated: 142 for 5-years and 140 for 10-years. This is determined by reducing the current estimated gpcd use rate by 1% every year until it reaches the TWDB goal of 140 gpcd.

The Authority's Joe Pool Lake wholesale customers, Cedar Hill, Duncanville, Grand Prairie and Midlothian had a total net use in 2021 of approximately 39,393 AF, according to the TWDB 2021 GPCD report. Using this data in combination with their population of 300,501 provided a gpcd rate of 117 for 2021. The customers' gpcd in 2016 was 116. While there is an increase of 1 gpcd, it is still lower than the state goal of 140. Accordingly, the 5- and 10-year per capita goal for 2029 and 2034 is still 140 gpcd.

The cities of Corsicana, Dawson and Post Oak are customers of the Authority's Navarro Mills project. Combined, these customers reported a total water use of approximately 5,591 AF in 2021 according to the 2021 TWDB detailed gpcd report. Using the population estimate of 29,193 from the same report, the gpcd for 2021 is 171 gpcd. This is an increase from 2019, when the gpcd reported for this project was 164. There was also an increase of 2,348 in the reported population. The 5- and 10-year gpcd goal for 2029 and 2034 are now 162 gpcd, and 154 gpcd. This was again determined by reducing the reported gpcd rate by 1% per year.

2.4 Metering Water Diverted from the Source of Supply

Water diverted from Bardwell Reservoir is metered by the two Contracting Parties. The City of Ennis measures raw water flow at their water treatment plant and Waxahachie measures raw water diverted at the raw water pump station.

Currently water diverted from Joe Pool Reservoir is metered at the City of Midlothian's raw water pump station and at their existing water treatment plant. Irrigation water (raw) is metered at the point of delivery from Midlothian's existing raw water pipeline to the City of Grand Prairie's golf course.

When the Authority's Lakeview Regional Water Supply Project is developed further for the diversion and treatment of water from Joe Pool, measuring equipment that complies with the TCEQ "Design Criteria" will be installed.

Water diverted from Navarro Mills Reservoir is metered by the three Contracting Parties; the City of Corsicana operates a master meter at its Navarro Mills Water Treatment Plant, the City of Dawson operates one master meter at the intake structure and another at the water treatment plant, and Superock operates a master meter at their pump on Richland Creek.

2.5 Monitoring and Record Management Program

Water diversion reports from the Contracting Parties are submitted to the Authority and maintained in the Authority's files.

Each year the Authority's records, including water sales, deliveries, and losses are audited by an independent auditor. In addition, flow records and reports are routinely audited by the Authority's internal auditor.

2.6 Metering/Leak Detection and Repair Program

The Contracting Parties shall meter all retail water uses and will be encouraged to provide a master meter as well as metering of all utility, city and other public facilities. The Contracting Parties will manage their ongoing leak detection, location and repair programs.

Waterline leaks are detected by utility personnel while reading meters, maintaining their water and wastewater systems, and while performing other routine surveillance programs. Periodic water audits shall be utilized to determine if leaks exist which have gone undetected.

In addition, the Authority will monitor for leaks in any water storage, delivery, and distribution system components used to transport raw water prior to delivery to the wholesale customers. Any reported leaks will be repaired in a timely manner.

2.7 Water Supply Contracts

Every contract for the wholesale sale of water entered into, renewed, or extended by the Authority after the adoption of this water conservation and drought contingency plan will include a requirement that the wholesale customer and any wholesale customers of that wholesale customer develop and implement a water conservation plan meeting the requirements of Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.2 of the Texas Administrative Code. This requirement will extend to each successive wholesale customer in the resale of water.

All customer plans must be reviewed and approved by the Authority before water sales contracts are signed.

2.8 Reservoir Operations Plan

Bardwell Reservoir, Joe Pool Reservoir and Navarro Mills Reservoir are not in common watersheds with other reservoirs operated by the Authority, and TCEQ requirements for coordinated operation of the reservoirs with others are not applicable.

2.9 Ordinance/Resolution and Implementation

Resolution No. R-1159-4 adopts the Water Conservation Plan for Bardwell Reservoir, Joe Pool Reservoir and Navarro Mills Reservoir by the Authority's Board of Directors. The General Manager, or his/her designee, is authorized and directed to implement the applicable provisions of the Plan. The General Manager, or his/her designee, will act as the administrator of the plan, oversee the execution and implementation of the plan, and will be responsible for keeping adequate records for program verification.

2.10 Coordination with Regional Planning Groups

The water service areas of the three reservoirs are located within Region C and Region G planning groups, and the Authority will provide a copy of the Plan to Region C and Region G.

2.11 Education and Information Program

The Authority recognizes that water conservation significantly benefits individuals and

communities in terms of long-term water availability and reduces costs. The most readily available and lowest cost method of promoting water conservation is to inform the retail water users about ways to save water in homes and businesses, in landscaping and lawn uses, and in recreational use.

2.12 Review and Update of Water Conservation Plan

As required by TCEQ rules, the Authority will review and update this water conservation plan by May 1, 2029 and every five years thereafter. The plan will be updated as appropriate based on new or updated information from contracting parties, and the Authority will be available to present water conservation programs to local schools, civic organizations, and other groups.

3 DROUGHT CONTINGENCY PLAN

3.1 Declaration of Policy, Purpose, and Intent

In order to conserve the available water supply and to protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, the Authority adopts the following Drought Contingency Plan (the Plan).

3.2 Public Involvement

The Plan was adopted under the open meetings requirement of the TCEQ during the April 24, 2024 Board of Directors meeting.

3.3 Wholesale Water Customer Education

The Authority will periodically provide wholesale customers with information about the Plan, including information about the conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage. A copy of the Plan will be provided to each wholesale water customer.

3.4 Coordination with Regional Water Planning Groups

The water service areas of the three reservoirs are located within the Region C and Region G, and the Authority will provide a copy of the Plan to Region C and Region G planning groups.

3.5 Authorization

The General Manager, or his/her designee, is hereby authorized and directed to implement the applicable provisions of the Plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The General Manager, or his/her designee, shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in the Plan.

3.6 Application

The provisions of the Plan shall apply to all customers utilizing water provided by the Authority from Bardwell Reservoir, Joe Pool Reservoir and Navarro Mills Reservoir. The terms “person” and “customer” as used in the Plan include individuals, corporations, partnerships, associations, and all other legal entities.

3.7 Triggering Criteria for Initiation and Termination of Drought Response Stages

The General Manager, or his/her designee, shall monitor water supply and demand conditions on a periodic basis and shall determine when conditions warrant initiation or termination of each stage of the Plan. Customer notification of the initiation or termination of drought response stages will be made by email, mail or telephone. The news media will also be informed by the Authority.

The triggering criterion to be monitored for determining drought response stages is the water surface elevation of the individual reservoirs. The reservoir stages selected are based on the U.S. Army Corps of Engineers’ Drought Contingency Plan prepared in 1991.

3.7.1 Stage 1 – MILD Water Shortage Condition

Requirements for Initiation - The Authority will recognize that a mild water shortage condition exists when the water surface elevation of each corresponding reservoir reaches the triggering criteria in the following table:

TRA Project	Triggering Criterion for Stage 1
Bardwell Reservoir	water surface elevation of Bardwell Reservoir declines below 417.0 feet
Joe Pool Reservoir	water surface elevation of Joe Pool Reservoir declines below 516.0 feet
Navarro Mills Reservoir	water surface elevation of Navarro Mills Reservoir declines below 421.5 feet

Requirements for Termination - Stage 1 of the Plan may be rescinded when the conditions listed as triggering events have ceased to exist for a period of 15 consecutive days. The Authority will notify its wholesale customers and the media of the termination of Stage 1 in the same manner as the notification of initiation of Stage 1 of the Plan.

3.7.2 Stage 2 – MODERATE Water Shortage Condition

Requirements for Initiation - The Authority will recognize that a moderate water shortage condition exists when the water surface elevation of each corresponding reservoir reaches the triggering criteria in the following table:

TRA Project	Triggering Criterion for Stage 2
Bardwell Reservoir	water surface elevation of Bardwell Reservoir declines below 414.0 feet
Joe Pool Reservoir	water surface elevation of Joe Pool Reservoir declines below 511.0 feet
Navarro Mills Reservoir	water surface elevation of Navarro Mills Reservoir declines below 419.0 feet

Requirements for Termination - Stage 2 of the Plan may be rescinded when the conditions listed as triggering events have ceased to exist for a period of 15 consecutive days. Upon termination of Stage 2, Stage 1 becomes operative. The Authority will notify its wholesale customers and the media of the termination of Stage 2 in the same manner as the notification of initiation of Stage 1 of the Plan.

3.7.3 Stage 3 – SEVERE Water Shortage Condition

Requirements for Initiation - The Authority will recognize that a severe water shortage condition exists when the water surface elevation of each corresponding reservoir reaches the triggering criteria in the following table:

TRA Project	Triggering Criterion for Stage 3
Bardwell Reservoir	water surface elevation of Bardwell Reservoir declines below 408.0 feet
Joe Pool Reservoir	water surface elevation of Joe Pool Reservoir declines below 501.0 feet
Navarro Mills Reservoir	water surface elevation of Navarro Mills Reservoir declines below 414.5 feet

Requirements for termination - Stage 3 of the Plan may be rescinded when the conditions listed as triggering events have ceased to exist for a period of 15 consecutive days. Upon termination of Stage 3, Stage 2 becomes operative. The Authority will notify its wholesale customers and the media of the termination of Stage 3 in the same manner as the notification of initiation of Stage 1 of the Plan.

3.7.4 Emergency Water Shortage Condition

Requirements for Initiation - The Authority will recognize that an emergency water shortage condition exists when any of the following occur in a particular reservoir:

- Natural or man-made contamination of the water supply source occurs; and
- Any condition exists which prevents or imminently threatens to prevent Authority customers from withdrawing sufficient water from each individual reservoir to meet demands.

When an Emergency Water Shortage is declared, the Authority's General Manager may immediately curtail water made available to affected parties from Authority water supplies in accordance to the provisions of Section 5.7 of this plan. Authority customers will be notified on a not-less-than weekly basis of the water, if any, that is available to them from the affected supply.

Requirements for Termination - The emergency water shortage condition may be rescinded when the General Manager, or his/her designee, deems appropriate. The Authority

will notify its wholesale customers and the media of the termination of emergency shortage condition in the same manner as the notification of initiation of Stage 1 of the Plan.

3.8 Drought Response Stages

The General Manager, or his/her designee, shall monitor water supply and demand conditions and, in accordance with the triggering criteria set forth in Section 5.7, shall determine that mild, moderate, or severe water shortage conditions exist or that an emergency condition exists and shall implement the following actions:

3.8.1 Stage 1 – Mild Water Shortage Conditions

Target: Achieve a voluntary 5 percent reduction in daily water demand for each retail utility utilizing a reservoir which has been recognized in Stage 1 drought.

Best Management Practices for Supply Management:

- The Authority will coordinate with the U.S. Corps of Engineers to ensure that unnecessary releases of water from the Reservoir are minimized, including leakage from project gates;
- The Authority will encourage each wholesale water customer to utilize alternative water sources such as interconnections with another water system, temporary use of a non-municipal water supply, use of reclaimed water, etc.

Water Use Restrictions for Reducing Demand:

- The General Manager, or his/her designee(s), will contact wholesale water customers to discuss water supply and demand conditions and will request that wholesale water customers initiate voluntary measures to reduce water use (e.g. implement Stage 1 of the customer's drought contingency plan); and
- The General Manager, or his/her designee(s), will provide a periodic report to the news media with information regarding current water supply and demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.

3.8.2 Stage 2 – Moderate Water Shortage Conditions

Target: Achieve a 10 percent reduction in daily water demand for each retail utility utilizing a reservoir which has been recognized in Stage 2 drought.

Best Management Practices for Supply Management:

- The Authority will coordinate with the U.S. Corps of Engineers to limit or eliminate releases of water from the Reservoir for special events downstream of the Reservoir;
- The Authority will encourage each wholesale water customer to utilize alternative water sources such as interconnections with another water system, temporary use of anon-municipal water supply, use of reclaimed water, etc.

Water Use Restrictions for Reducing Demand:

- The General Manager, or his/her designee(s), will initiate periodic contact with wholesale water customers to discuss water supply or demand conditions and the possibility of pro rata curtailment of water diversions and deliveries.
- The General Manager, or his/her designee(s), will request wholesale water customers to initiate mandatory measures to reduce non-essential water use (e.g. implement Stage 2 of the customer's drought contingency plan);
- The General Manager, or his/her designee(s), will initiate preparations for the implementation of pro rata curtailment of water diversions and deliveries by preparing a monthly water usage allocation baseline for each wholesale customer according to procedures specified in 3.9 of the Plan; and
- The General Manager, or his/her designee(s), will provide a periodic report to the news media with information regarding current water supply and demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.

3.8.3 Stage 3 – Severe Water Shortage Conditions

Target: Achieve a 30 percent reduction in daily water demand for each retail utility utilizing a reservoir which has been recognized in Stage 3 drought.

Best Management Practices for Supply Management:

The Authority will coordinate with the U.S. Corps of Engineers to make recommendations to the TCEQ, the Texas Parks and Wildlife Department, and the U.S. Fish and Wildlife Department and others as needed, for reducing or eliminating releases downstream; and

The Authority will encourage each wholesale water customer to utilize alternative water sources such as interconnections with another water system, temporary use of a non-municipal water supply, use of reclaimed water, etc.

Water Use Restrictions for Reducing Demand:

- The General Manager, or his/her designee(s), will contact wholesale water customers to discuss water supply and demand conditions and will request that wholesale water customers initiate additional mandatory measures to reduce non-essential water use (e.g. implement Stage 3 of the customer's drought contingency plan);
- The General Manager, or his/her designee(s), will initiate pro rata curtailment of water diversions and deliveries for each wholesale customer according to the procedures specified in Section 5.7 of the Plan; and
- The General Manager, or his/her designee(s), will provide a periodic report to the news media with information regarding current water supply and demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.

3.8.4 Emergency Water Shortage Conditions

Whenever emergency water shortage conditions exist in a reservoir, as defined in Section 5.7 of the Plan, the General Manager, or his/her designee(s) shall:

- Assess the severity of the problem and identify the actions needed and the time required to solve the problem;
- Inform the utility director or other responsible official of each wholesale water customer and suggest actions, as appropriate to alleviate problems (e.g., notification of the public to reduce water use until service is restored);
- If appropriate, notify city, county, or state emergency response officials for

- assistance;
- Undertake necessary actions, including repairs or clean-up as needed; and
- Prepare a post-event assessment report on the incident including an evaluation of emergency response procedures and actions.

3.9 Pro Rata Water Allocation

In the event that the triggering criteria specified in Section 5.7 of the Plan for Stage 3 - Severe Water Shortage Conditions have been met, or an Emergency Water Shortage Condition is declared, the General Manager, or his/her designee(s), is hereby authorized to initiate allocation of water supplies on a pro rata basis in accordance with Texas Water Code Section 11.039. A provision will be included in every wholesale water contract entered into or renewed after adoption of the plan, including contract extensions, that in case of a shortage of water resulting from drought, the water to be distributed shall be divided in accordance with Texas Water Code Section 11.039.

3.10 Enforcement

Mandatory water use restrictions may be imposed in Stage 3 droughts or under Emergency Water Shortage declarations. Under such conditions, the Authority will have the right to audit, monitor and or directly measure all diversions from the affected source(s). These mandatory water use restrictions will be enforced by warnings and penalties as follows:

- On the first violation, the customer will be given a written warning that they have violated one or more of the mandatory water use restrictions;
- The Authority will require the customer to implement a more comprehensive public education and outreach program in a manner that increases the public's awareness about mandatory water use restrictions and the current drought status; and
- After receiving a second notice of violation, the customer will be required to immediately submit documentation to the Authority of the steps it has taken to ensure compliance with this water conservation and drought contingency plan. In addition, the Authority will require the customer to implement additional public education and outreach program in a manner that increases the public's awareness about mandatory water use restrictions and the current drought status.

- The Authority may petition the Texas Commission on Environmental Quality to initiate formal enforcement action against customers that fail to comply with pro rata allocations consistent with Texas Water Code Section 11.039.

3.11 Variances

The General Manager, or his/her designee, may, in writing, grant a temporary variance to the pro rata water allocation policies provided by the Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the public health, welfare, or safety and if one or more of the following conditions are met:

- 1) Compliance with the Plan cannot be technically accomplished during the duration of this water supply shortage or other condition for which the Plan is in effect; and
- 2) Alternative methods can be implemented which will achieve the same level of reduction in water use.

Persons requesting an exemption from the provisions of the Plan shall file a petition for variance with the General Manager, or his/her designee, within 5 days after pro rata allocation has been invoked. All petitions for variances shall be reviewed by the Authority and shall include the following:

- 1) Name and address of the petitioner(s);
- 2) Detailed statement with supporting data and information as to how the pro rata allocation of water under the policies and procedures established in the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Plan;
- 3) Description of the relief requested;
- 4) Period of time for which the variance is sought;
- 5) Alternative measures the petitioner is taking or will take to meet the intent of the Plan and the compliance date; and
- 6) Other pertinent information.

Variances granted by the Authority shall be subject to the following conditions, unless waived or modified by the Authority:

- 1) Variances granted shall include a timetable for compliance with allocation requirements; and
- 2) Variances granted shall expire when the Plan is no longer in effect, unless the petitioner has failed to meet specified requirements.

No variance shall be retroactive or otherwise justify any violation of the Plan occurring prior to the issuance of the variance.

3.12 Review and Update of Drought Contingency Plan

As required by TCEQ rules, the Authority will review and update this drought contingency plan in May 2029 and every five years thereafter. The plan will be updated as appropriate based on new or updated information.

3.13 Severability

It is hereby declared to be the intention of the Authority that the sections, paragraphs, sentences, clauses, and phrases of the Plan are severable and, if any phrase, clause, sentence, paragraph, or section of the Plan shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of the Plan, since the same would not have been enacted by the Authority without the incorporation into the Plan of any such unconstitutional phrase, clause, sentence, paragraph, or section.

APPENDIX A

**Utility Profile and Water Conservation Plan
Requirements for Wholesale Public Water Suppliers
(Form 20162)**

Bardwell Reservoir Project

Joe Pool Reservoir Project

Navarro Reservoir Project



Texas Commission on Environmental Quality

Water Availability Division

MC-160, P.O. Box 13087 Austin, Texas 78711-3087

Telephone (512) 239-4600, FAX (512) 239-2214

Utility Profile and Water Conservation Plan Requirements for Wholesale Public Water Suppliers

This form is provided to assist wholesale public water suppliers in water conservation plan development. If you need assistance in completing this form or in developing your plan, please contact the Conservation staff of the Resource Protection Team in the Water Availability Division at (512) 239-4600.

Water users can find best management practices (BMPs) at the Texas Water Development Board's website <http://www.twdb.texas.gov/conservation/BMPs/index.asp>. The practices are broken out into sectors such as Agriculture, Commercial and Institutional, Industrial, Municipal and Wholesale. BMPs are voluntary measures that water users use to develop the required components of Title 30, Texas Administrative Code, Chapter 288. BMPs can also be implemented in addition to the rule requirements to achieve water conservation goals.

Contact Information

Name: Trinity River Authority - Bardwell Reservoir

Address: PO Box 60, Arlington TX 76004

Telephone Number: (817) 467-4343 Fax: (817) 417-0367

Water Right No.(s): CA 08-5021

Regional Water Planning Group: Region C

Person responsible for implementing conservation program: Kevin Ward Phone: (817) 467-4343

Form Completed By: Webster Mangham

Title: Manager SR, TSBP

Signature: _____ Date: 3/15/2024

A water conservation plan for wholesale public water suppliers must include the following requirements (as detailed in 30 TAC Section 288.5). If the plan does not provide information for each requirement, you must include in the plan an explanation of why the requirement is not applicable.

Utility Profile

I. WHOLESALE SERVICE AREA POPULATION AND CUSTOMER DATA

A. Population and Service Area Data:

1. Service area size (in square miles):

(Please attach a copy of service-area map)

75.3

2. Current population of service area:

69,791 (NCTCOG 2023 Pop Ennis 22,691+Waxahachie 47,100)

3. Current population served for:

a. Water 69,791

b. Wastewater NA

4. Population served for previous five years:

<i>Year</i>	<i>Population</i>
2019	55,562
2020	61,299
2021	62,689
2022	66,141
2023	69,791

5. Projected population for service area in the following decades:

<i>Year</i>	<i>Population</i>
2030	68,614
2040	81,027
2050	94,513
2060	108,027
2070	122,917

6. List source or method for the calculation of current and projected population size.

2019 population is obtained from TWDB database (Ennis +Waxahachie).

https://www3.twdb.texas.gov/apps/reports/WU_REP/SumFinal_UtilityWUGSum

2020-2023 population is obtained from NCTCO database (Ennis +Waxahachie). https://data-nctcogis.opendata.arcgis.com/datasets/a5efd489d8cc4fc58bd1c9ed8cb92152_3/explore

Projected population 2030-2070 is obtained from TWDB database:

https://www3.twdb.texas.gov/apps/reports/Projections/2027_Reports/RWP27_pop_SearchWUG

B. Customer Data

List (or attach) the names of all wholesale customers, amount of annual contract, and amount of annual use for each customer for the previous year:

<i>Wholesale Customer</i>	<i>Contracted Amount (Acre-feet)</i>	<i>Previous Year Amount of Water Delivered (acre-feet)</i>
City of Ennis	5,280	5,657
Waxahachie	4,320	3,687

II. WATER USE DATA FOR SERVICE AREA

A. Water Delivery

Indicate if the water provided under wholesale contracts is treated or raw water and the annual amounts for the previous five years (in acre feet):

<i>Year</i>	<i>Treated Water</i>	<i>Raw Water</i>
2019	NA	8,407
2020	NA	8,931
2021	NA	8,661
2022	NA	15,106
2023	NA	9,345
Totals	NA	50,451

B. Water Accounting Data

- Total amount of water diverted at the point of diversion(s) for the previous five years (in acre-feet) for all water uses:

<i>Year</i>	2019	2020	2021	2022	2023
<i>Month</i>					
January	312	1,140	1,363	882	1,195
February	274	383	674	709	599
March	352	162	697	862	343
April	344	327	381	1,346	371
May	345	334	357	1,492	451
June	395	398	407	1,471	518
July	610	421	487	1,675	1,152

August	871	561	813	1,476	1,279
September	1,405	1,040	964	1,429	1,063
October	1,402	1,441	934	1,394	965
November	820	1,330	801	1,267	840
December	1,277	1,394	783	1,103	571
Totals	8,407	8,931	8,661	15,106	9,345

2. Wholesale population served and total amount of water diverted for **municipal use** for the previous five years (in acre-feet):

<i>Year</i>	<i>Total Population Served</i>	<i>Total Annual Water Diverted for Municipal Use</i>
2019	55,562	7,601
2020	61,299	8,184
2021	62,689	8,143
2022	66,141	14,422
2023	69,791	8,471

C. Projected Water Demands

If applicable, project and attach water supply demands for the next ten years using information such as population trends, historical water use, and economic growth in the service area over the next ten years and any additional water supply requirements from such growth.

III. WATER SUPPLY SYSTEM DATA

A. Projected Water Demands

List all current water supply sources and the amounts authorized (in acre feet) with each.

<i>Water Type</i>	<i>Source</i>	<i>Amount Authorized</i>
Surface Water	Bardwell Reservoir	9,600 (water right permit)
Groundwater	NA	NA
Other	Ennis and Waxahachie Wastewater Return Flows	8,824.5 (water right permit - reuse)

B. Treatment and Distribution System (if providing treated water)

1. Design daily capacity of system (MGD):

NA

2. Storage capacity (MGD):

- a. Elevated NA

- b. Ground NA

3. Please attach a description of the water system. Include the number of treatment plants, wells, and storage tanks

NA

IV. WASTEWATER SYSTEM DATA

A. Wastewater System Data (if applicable)

1. Design capacity of wastewater treatment plant(s) (MGD):

NA

2. Briefly describe the wastewater system(s) of the area serviced by the wholesale public water supplier. Describe how treated wastewater is disposed. Where applicable, identify treatment plant(s) with the TCEQ name and number, the operator, owner, and the receiving stream if wastewater is discharged.

NA

B. Wastewater Data for Service Area (if applicable)

1. Percent of water service area served by wastewater system: NA%

2. Monthly volume treated for previous five years (in 1,000 gallons):

<i>Year</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>Month</i>					
January	NA	NA	NA	NA	NA
February	NA	NA	NA	NA	NA
March	NA	NA	NA	NA	NA
April	NA	NA	NA	NA	NA
May	NA	NA	NA	NA	NA
June	NA	NA	NA	NA	NA
July	NA	NA	NA	NA	NA

August	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
September	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
October	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
November	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
December	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Totals	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

Water Conservation Plan

In addition to the description of the wholesaler's service area (profile from above), a water conservation plan for a wholesale public water supplier must include, at a minimum, additional information as required by Title 30, Texas Administrative Code, Chapter 288.5. Note: If the water conservation plan does not provide information for each requirement an explanation must be included as to why the requirement is not applicable.

A. Specific, Quantified 5 & 10-Year Targets

The water conservation plan must include specific, quantified 5-year and 10-year targets for water savings including, where appropriate, target goals for municipal use in gallons per capita per day for the wholesaler's service area, maximum acceptable water loss, and the basis for the development of these goals. Note that the goals established by a wholesale water supplier under this subparagraph are not enforceable. These goals must be updated during the 5-year review and submittal.

B. Measuring and Accounting for Diversions

The water conservation plan must include a description as to which practice(s) and/or device(s) will be utilized to measure and account for the amount of water diverted from the source(s) of supply.

C. Record Management Program

The water conservation plan must include a monitoring and record management program for determining water deliveries, sales, and losses.

D. Metering/Leak-Detection and Repair Program

The water conservation plan must include a program of metering and leak detection and repair for the wholesaler's water storage, delivery, and distribution system.

E. Contract Requirements for Successive Customer Conservation

The water conservation plan must include a requirement in every water supply contract entered into or renewed after official adoption of the water conservation plan, and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements of Title 30 TAC Chapter 288. If the customer intends to resell the water, then the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with the provisions of this chapter.

F. Reservoir Systems Operations Plan

The water conservation plan must include a reservoir systems operations plan, if applicable, providing for the coordinated operation of reservoirs owned by the applicant within a common watershed or river basin. The reservoir systems operations plan shall include optimization of water supplies as one of the significant goals of the plan.

G. Enforcement Procedure and Official Adoption

The water conservation plan must include a means for implementation and enforcement, which shall be evidenced by a copy of the ordinance, rule, resolution, or tariff, indicating official adoption of the water conservation plan by the water supplier; and a description of the authority by which the water supplier will implement and enforce the conservation plan.

H. Coordination with the Regional Water Planning Group(s)

The water conservation plan must include documentation of coordination with the regional water planning groups for the service area of the wholesale water supplier in order to ensure consistency with the appropriate approved regional water plans.

Example statement to be included within the water conservation plan:

The service area of the _____ (name of water supplier) is located within the _____ (name of regional water planning area or areas) and _____ (name of water supplier) has provided a copy of this water conservation plan to the _____ (name of regional water planning group or groups).

I. Plan Review and Update

A wholesale water supplier shall review and update its water conservation plan, as appropriate based on an assessment of previous 5-year and 10-year targets and any other new or updated information. A wholesale water supplier shall review and update the next revision of its water conservation plan no later than May 1, 2009, and every five years after that date to coincide with the regional water planning group. The revised plan must also include an implementation report.

V. ADDITIONAL CONSERVATION STRATEGIES

Any combination of the following strategies shall be selected by the water wholesaler, in addition to the minimum requirements of 30 TAC §288.5(1), if they are necessary in order to achieve the stated water conservation goals of the plan. The commission may require by commission order that any of the following strategies be implemented by the water supplier if the commission determines that the strategies are necessary in order for the conservation plan to be achieved:

1. Conservation-oriented water rates and water rate structures such as uniform or increasing block rate schedules, and/or seasonal rates, but not flat rate or decreasing block rates;
2. A program to assist agricultural customers in the development of conservation, pollution prevention and abatement plans;
3. A program for reuse and/or recycling of wastewater and/or graywater;
4. Any other water conservation practice, method, or technique which the wholesaler shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

VI. WATER CONSERVATION PLANS SUBMITTED WITH A WATER RIGHT APPLICATION FOR NEW OR ADDITIONAL STATE WATER

Water Conservation Plans submitted with a water right application for New or Additional State Water must include data and information which:

1. support the applicant's proposed use of water with consideration of the water conservation goals of the water conservation plan;
2. evaluates conservation as an alternative to the proposed appropriation; and
3. evaluates any other feasible alternative to new water development including, but not limited to, waste prevention, recycling and reuse, water transfer and marketing, regionalization, and optimum water management practices and procedures.

Additionally, it shall be the burden of proof of the applicant to demonstrate that no feasible alternative to the proposed appropriation exists and that the requested amount of appropriation is necessary and reasonable for the proposed use.



Texas Commission on Environmental Quality

Water Availability Division

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Utility Profile and Water Conservation Plan Requirements for Wholesale Public Water Suppliers

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Water users can find best management practices (BMPs) at the Texas Water Development Board's website <http://www.twdb.texas.gov/conservation/BMPs/index.asp>. The practices are broken out into sectors such as Agriculture, Commercial and Institutional, Industrial, Municipal and Wholesale. BMPs are voluntary measures that water users use to develop the required components of Title 30, Texas Administrative Code, Chapter 288. BMPs can also be implemented in addition to the rule requirements to achieve water conservation goals.

Contact Information

Name: Trinity River Authority - Joe Pool Reservoir

Address: PO Box 60, Arlington TX 76004

Telephone Number: (817) 467-4343 Fax: (817) 417-0367

Water Right No.(s): CA 08-3404

Regional Water Planning Group: Region C

Person responsible for implementing conservation program: Kevin Ward Phone: (817) 467-4343

Form Completed By: Webster Mangham

Title: Manager SR, TSBP

Signature: _____ Date: 4/18/2024

A water conservation plan for wholesale public water suppliers must include the following requirements (as detailed in 30 TAC Section 288.5). If the plan does not provide information for each requirement, you must include in the plan an explanation of why the requirement is not applicable.

Utility Profile

I. WHOLESALE SERVICE AREA POPULATION AND CUSTOMER DATA

A. Population and Service Area Data:

1. Service area size (in square miles):

(Please attach a copy of service-area map)

168.91

2. Current population of service area:

3. Current population served for:

- a. Water

- b. Wastewater NA

4. Population served for previous five years:

<i>Year</i>	<i>Population</i>
2019	293,185
2020	321,079
2021	325,338
2022	328,337
2023	335,303

5. Projected population for service area in the following decades:

<i>Year</i>	<i>Population</i>
2030	354,537
2040	393,469
2050	438,467
2060	458,787
2070	482,665

6. List source or method for the calculation of current and projected population size.

2019 population is obtained from TWDB database (Cedar Hill+Midlothian+Grand Prairie+Duncanville)

https://www3.twdb.texas.gov/apps/reports/WU_REP/SumFinal_UtilityWUGSum

2020-2023 population is obtained from NCTCO database (Cedar Hill+Midlothian+Grand Prairie+Duncanville).

https://data-nctcogis.opendata.arcgis.com/datasets/a5efd489d8cc4fc58bd1c9ed8cb92152_3/explore

Projected population 2030-2070 is obtained from TWDB database:

https://www3.twdb.texas.gov/apps/reports/Projections/2027_Reports/RWP27_pop_SearchWUG

B. Customer Data

List (or attach) the names of all wholesale customers, amount of annual contract, and amount of annual use for each customer for the previous year:

<i>Wholesale Customer</i>	<i>Contracted Amount (Acre-feet)</i>	<i>Previous Year Amount of Water Delivered (acre-feet)</i>
Cedar Hill	7,346	0
Midlothian	6,662	6,922
Grand Prairie	1,795	171
Duncanville	1,197	0

II. WATER USE DATA FOR SERVICE AREA

A. Water Delivery

Indicate if the water provided under wholesale contracts is treated or raw water and the annual amounts for the previous five years (in acre feet):

<i>Year</i>	<i>Treated Water</i>	<i>Raw Water</i>
2019		7,288
2020		7,474
2021		7,560
2022		6,819
2023		7,093
Totals		36,235

B. Water Accounting Data

- Total amount of water diverted at the point of diversion(s) for the previous five years (in acre-feet) for all water uses:

<i>Year</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>2022</i>	<i>2023</i>
<i>Month</i>					
January	438	245	635	598	446
February	389	508	577	630	486
March	456	517	526	674	569
April	438	608	661	560	627
May	492	704	597	764	551
June	692	739	540	559	417
July	816	834	704	666	710

August	908	858	784	603	1,114
September	819	441	720	433	690
October	684	599	587	441	523
November	585	690	628	444	443
December	573	730	602	447	516
Totals	7,288	7,474	7,560	6,819	7,093

2. Wholesale population served and total amount of water diverted for **municipal use** for the previous five years (in acre-feet):

<i>Year</i>	<i>Total Population Served</i>	<i>Total Annual Water Diverted for Municipal Use</i>
2019	17,293(TWDB Midlothian)	7,193
2020	35,125(NCTCOG Midlothian)	7,423
2021	36,468	7,555
2022	37,579	6,774
2023	39,385	6,922

C. Projected Water Demands

If applicable, project and attach water supply demands for the next ten years using information such as population trends, historical water use, and economic growth in the service area over the next ten years and any additional water supply requirements from such growth.

III. WATER SUPPLY SYSTEM DATA

A. Projected Water Demands

List all current water supply sources and the amounts authorized (in acre feet) with each.

<i>Water Type</i>	<i>Source</i>	<i>Amount Authorized</i>
Surface Water	Joe Pool Reservoir	17,000 AF (water right)
Groundwater	NA	NA
Other	Return Flows from Mountain Creek Regional Wastewater Treatment Plant	4,368 AF

B. Treatment and Distribution System (if providing treated water)

1. Design daily capacity of system (MGD):

NA

2. Storage capacity (MGD):

- a. Elevated NA

- b. Ground NA

3. Please attach a description of the water system. Include the number of treatment plants, wells, and storage tanks

NA

IV. WASTEWATER SYSTEM DATA

A. Wastewater System Data (if applicable)

1. Design capacity of wastewater treatment plant(s) (MGD):

NA

2. Briefly describe the wastewater system(s) of the area serviced by the wholesale public water supplier. Describe how treated wastewater is disposed. Where applicable, identify treatment plant(s) with the TCEQ name and number, the operator, owner, and the receiving stream if wastewater is discharged.

NA

B. Wastewater Data for Service Area (if applicable)

1. Percent of water service area served by wastewater system: NA%

2. Monthly volume treated for previous five years (in 1,000 gallons):

<i>Year</i>	NA	NA	NA	NA	NA
<i>Month</i>					
January	NA	NA	NA	NA	NA
February	NA	NA	NA	NA	NA
March	NA	NA	NA	NA	NA
April	NA	NA	NA	NA	NA
May	NA	NA	NA	NA	NA
June	NA	NA	NA	NA	NA
July	NA	NA	NA	NA	NA

August	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
September	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
October	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
November	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
December	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Totals	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

Water Conservation Plan

In addition to the description of the wholesaler's service area (profile from above), a water conservation plan for a wholesale public water supplier must include, at a minimum, additional information as required by Title 30, Texas Administrative Code, Chapter 288.5. Note: If the water conservation plan does not provide information for each requirement an explanation must be included as to why the requirement is not applicable.

A. Specific, Quantified 5 & 10-Year Targets

The water conservation plan must include specific, quantified 5-year and 10-year targets for water savings including, where appropriate, target goals for municipal use in gallons per capita per day for the wholesaler's service area, maximum acceptable water loss, and the basis for the development of these goals. Note that the goals established by a wholesale water supplier under this subparagraph are not enforceable. These goals must be updated during the 5-year review and submittal.

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The water conservation plan must include a requirement in every water supply contract entered into or renewed after official adoption of the water conservation plan, and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements of Title 30 TAC Chapter 288. If the customer intends to resell the water, then the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with the provisions of this chapter.

F. Reservoir Systems Operations Plan

The water conservation plan must include a reservoir systems operations plan, if applicable, providing for the coordinated operation of reservoirs owned by the applicant within a common watershed or river basin. The reservoir systems operations plan shall include optimization of water supplies as one of the significant goals of the plan.

G. Enforcement Procedure and Official Adoption

The water conservation plan must include a means for implementation and enforcement, which shall be evidenced by a copy of the ordinance, rule, resolution, or tariff, indicating official adoption of the water conservation plan by the water supplier; and a description of the authority by which the water supplier will implement and enforce the conservation plan.

H. Coordination with the Regional Water Planning Group(s)

The water conservation plan must include documentation of coordination with the regional water planning groups for the service area of the wholesale water supplier in order to ensure consistency with the appropriate approved regional water plans.

Example statement to be included within the water conservation plan:

The service area of the _____ (name of water supplier) is located within the _____ (name of regional water planning area or areas) and _____ (name of water supplier) has provided a copy of this water conservation plan to the _____ (name of regional water planning group or groups).

I. Plan Review and Update

A wholesale water supplier shall review and update its water conservation plan, as appropriate based on an assessment of previous 5-year and 10-year targets and any other new or updated information. A wholesale water supplier shall review and update the next revision of its water conservation plan no later than May 1, 2009, and every five years after that date to coincide with the regional water planning group. The revised plan must also include an implementation report.

V. ADDITIONAL CONSERVATION STRATEGIES

Any combination of the following strategies shall be selected by the water wholesaler, in addition to the minimum requirements of 30 TAC §288.5(1), if they are necessary in order to achieve the stated water conservation goals of the plan. The commission may require by commission order that any of the following strategies be implemented by the water supplier if the commission determines that the strategies are necessary in order for the conservation plan to be achieved:

1. Conservation-oriented water rates and water rate structures such as uniform or increasing block rate schedules, and/or seasonal rates, but not flat rate or decreasing block rates;
2. A program to assist agricultural customers in the development of conservation, pollution prevention and abatement plans;
3. A program for reuse and/or recycling of wastewater and/or graywater;
4. Any other water conservation practice, method, or technique which the wholesaler shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

VI. WATER CONSERVATION PLANS SUBMITTED WITH A WATER RIGHT APPLICATION FOR NEW OR ADDITIONAL STATE WATER

Water Conservation Plans submitted with a water right application for New or Additional State Water must include data and information which:

1. support the applicant's proposed use of water with consideration of the water conservation goals of the water conservation plan;
2. evaluates conservation as an alternative to the proposed appropriation; and
3. evaluates any other feasible alternative to new water development including, but not limited to, waste prevention, recycling and reuse, water transfer and marketing, regionalization, and optimum water management practices and procedures.

Additionally, it shall be the burden of proof of the applicant to demonstrate that no feasible alternative to the proposed appropriation exists and that the requested amount of appropriation is necessary and reasonable for the proposed use.



Texas Commission on Environmental Quality

Water Availability Division

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Water users can find best management practices (BMPs) at the Texas Water Development Board's website <http://www.twdb.texas.gov/conservation/BMPs/index.asp>. The practices are broken out into sectors such as Agriculture, Commercial and Institutional, Industrial, Municipal and Wholesale. BMPs are voluntary measures that water users use to develop the required components of Title 30, Texas Administrative Code, Chapter 288. BMPs can also be implemented in addition to the rule requirements to achieve water conservation goals.

Contact Information

Name: Trinity River Authority - Navarro Mills Reservoir

Address: PO Box 60, Arlington TX 76004

Telephone Number: (817) 467-4343 Fax: (817) 417-0367

Water Right No.(s): CA 08-4992

Regional Water Planning Group: Region C

Person responsible for implementing conservation program: Kevin Ward Phone: (817) 467-4343

Form Completed By: Webster Mangham

Title: Manager SR, TSBP

Signature: _____ Date: 3/15/2024

A water conservation plan for wholesale public water suppliers must include the following requirements (as detailed in 30 TAC Section 288.5). If the plan does not provide information for each requirement, you must include in the plan an explanation of why the requirement is not applicable.

Utility Profile

I. WHOLESALE SERVICE AREA POPULATION AND CUSTOMER DATA

A. Population and Service Area Data:

1. Service area size (in square miles):

(Please attach a copy of service-area map)

317

2. Current population of service area:

25,885 (*Corsicana only, others cities' data not available*)

3. Current population served for:

- a. Water 25,885

- b. Wastewater NA

4. Population served for previous five years:

<i>Year</i>	<i>Population</i>
2019	25,397
2020	25,109
2021	25,103
2022	25,141
2023	25,885

5. Projected population for service area in the following decades:

<i>Year</i>	<i>Population</i>
2030	30,108
2040	32,073
2050	33,696
2060	35,077
2070	36,597

6. List source or method for the calculation of current and projected population size.

2019 population is obtained from TWDB database (Corsicana only).

https://www3.twdb.texas.gov/apps/reports/WU_REP/SumFinal_UtilityWUGSum

2020-2023 population is obtained from NCTCO database (Only Corsicana data available). https://data-nctcoggis.opendata.arcgis.com/datasets/a5efd489d8cc4fc58bd1c9ed8cb92152_3/explore

Projected population 2030-2070 is obtained from TWDB database (WUG includes Corsicana, Dawson and Post Oak SUD): https://www3.twdb.texas.gov/apps/reports/Projections/2027_Reports/RWP27_pop_SearchWUG

B. Customer Data

List (or attach) the names of all wholesale customers, amount of annual contract, and amount of annual use for each customer for the previous year:

<i>Wholesale Customer</i>	<i>Contracted Amount (Acre-feet)</i>	<i>Previous Year Amount of Water Delivered (acre-feet)</i>
City of Corsicana	17,460	7,726
Superock, Inc	450	0
Town of Dawson	368	0
Post Oak Special Utility District	353	0

II. WATER USE DATA FOR SERVICE AREA

A. Water Delivery

Indicate if the water provided under wholesale contracts is treated or raw water and the annual amounts for the previous five years (in acre feet):

<i>Year</i>	<i>Treated Water</i>	<i>Raw Water</i>
2019	NA	6,390
2020	NA	6,332
2021	NA	6,587
2022	NA	7,747
2023	NA	7,726
Totals	NA	34,783

B. Water Accounting Data

1. Total amount of water diverted at the point of diversion(s) for the previous five years (in acre-feet) for all water uses:

<i>Year</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>2022</i>	<i>2023</i>
<i>Month</i>					
January	491	461	539	577	540
February	429	438	601	519	502
March	492	440	461	454	536
April	474	450	496	446	540

May	514	498	473	560	592
June	474	576	515	746	634
July	605	615	528	918	774
August	728	661	610	799	978
September	625	550	677	735	779
October	586	605	633	786	689
November	497	512	535	593	585
December	475	526	519	613	578
Totals	6,390	6,332	6,587	7,747	7,726

2. Wholesale population served and total amount of water diverted for **municipal use** for the previous five years (in acre-feet):

<i>Year</i>	<i>Total Population Served</i>	<i>Total Annual Water Diverted for Municipal Use</i>
2019	25,397	6,390
2020	25,109	6,332
2021	25,103	6,587
2022	25,141	7,747
2023	25,885	7,726

C. Projected Water Demands

If applicable, project and attach water supply demands for the next ten years using information such as population trends, historical water use, and economic growth in the service area over the next ten years and any additional water supply requirements from such growth.

III. WATER SUPPLY SYSTEM DATA

A. Projected Water Demands

List all current water supply sources and the amounts authorized (in acre feet) with each.

<i>Water Type</i>	<i>Source</i>	<i>Amount Authorized</i>
Surface Water	Navarro Mills Reservoir	19,400
Groundwater	NA	NA
Other	NA	NA

B. Treatment and Distribution System (if providing treated water)

1. Design daily capacity of system (MGD):

NA

2. Storage capacity (MGD):

- a. Elevated NA

- b. Ground NA

3. Please attach a description of the water system. Include the number of treatment plants, wells, and storage tanks

NA

IV. WASTEWATER SYSTEM DATA

A. Wastewater System Data (if applicable)

1. Design capacity of wastewater treatment plant(s) (MGD):

NA

2. Briefly describe the wastewater system(s) of the area serviced by the wholesale public water supplier. Describe how treated wastewater is disposed. Where applicable, identify treatment plant(s) with the TCEQ name and number, the operator, owner, and the receiving stream if wastewater is discharged.

NA

B. Wastewater Data for Service Area (if applicable)

1. Percent of water service area served by wastewater system: NA%

2. Monthly volume treated for previous five years (in 1,000 gallons):

<i>Year</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>Month</i>					
January	NA	NA	NA	NA	NA
February	NA	NA	NA	NA	NA
March	NA	NA	NA	NA	NA
April	NA	NA	NA	NA	NA

May	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
June	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
July	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
August	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
September	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
October	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
November	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
December	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Totals	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

Water Conservation Plan

In addition to the description of the wholesaler's service area (profile from above), a water conservation plan for a wholesale public water supplier must include, at a minimum, additional information as required by Title 30, Texas Administrative Code, Chapter 288.5. Note: If the water conservation plan does not provide information for each requirement an explanation must be included as to why the requirement is not applicable.

A. Specific, Quantified 5 & 10-Year Targets

The water conservation plan must include specific, quantified 5-year and 10-year targets for water savings including, where appropriate, target goals for municipal use in gallons per capita per day for the wholesaler's service area, maximum acceptable water loss, and the basis for the development of these goals. Note that the goals established by a wholesale water supplier under this subparagraph are not enforceable. These goals must be updated during the 5-year review and submittal.

B. Measuring and Accounting for Diversions

The water conservation plan must include a description as to which practice(s) and/or device(s) will be utilized to measure and account for the amount of water diverted from the source(s) of supply.

C. Record Management Program

The water conservation plan must include a monitoring and record management program for determining water deliveries, sales, and losses.

D. Metering/Leak-Detection and Repair Program

The water conservation plan must include a program of metering and leak detection and repair for the wholesaler's water storage, delivery, and distribution system.

E. Contract Requirements for Successive Customer Conservation

The water conservation plan must include a requirement in every water supply contract entered into or renewed after official adoption of the water conservation plan, and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements of Title 30 TAC Chapter 288. If the customer intends to resell the water, then the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with the provisions of this chapter.

F. Reservoir Systems Operations Plan

The water conservation plan must include a reservoir systems operations plan, if applicable, providing for the coordinated operation of reservoirs owned by the applicant within a common watershed or river basin. The reservoir systems operations plan shall include optimization of water supplies as one of the significant goals of the plan.

G. Enforcement Procedure and Official Adoption

The water conservation plan must include a means for implementation and enforcement, which shall be evidenced by a copy of the ordinance, rule, resolution, or tariff, indicating official adoption of the water conservation plan by the water supplier; and a description of the authority by which the water supplier will implement and enforce the conservation plan.

H. Coordination with the Regional Water Planning Group(s)

The water conservation plan must include documentation of coordination with the regional water planning groups for the service area of the wholesale water supplier in order to ensure consistency with the appropriate approved regional water plans.

Example statement to be included within the water conservation plan:

The service area of the _____ (name of water supplier) is located within the _____ (name of regional water planning area or areas) and _____ (name of water supplier) has provided a copy of this water conservation plan to the _____ (name of regional water planning group or groups).

I. Plan Review and Update

A wholesale water supplier shall review and update its water conservation plan, as appropriate based on an assessment of previous 5-year and 10-year targets and any other new or updated information. A wholesale water supplier shall review and update the next revision of its water conservation plan no later than May 1, 2009, and every five years after that date to coincide with the regional water planning group. The revised plan must also include an implementation report.

V. ADDITIONAL CONSERVATION STRATEGIES

Any combination of the following strategies shall be selected by the water wholesaler, in addition to the minimum requirements of 30 TAC §288.5(1), if they are necessary in order to achieve the stated water conservation goals of the plan. The commission may require by commission order that any of the following strategies be implemented by the water supplier if the commission determines that the strategies are necessary in order for the conservation plan to be achieved:

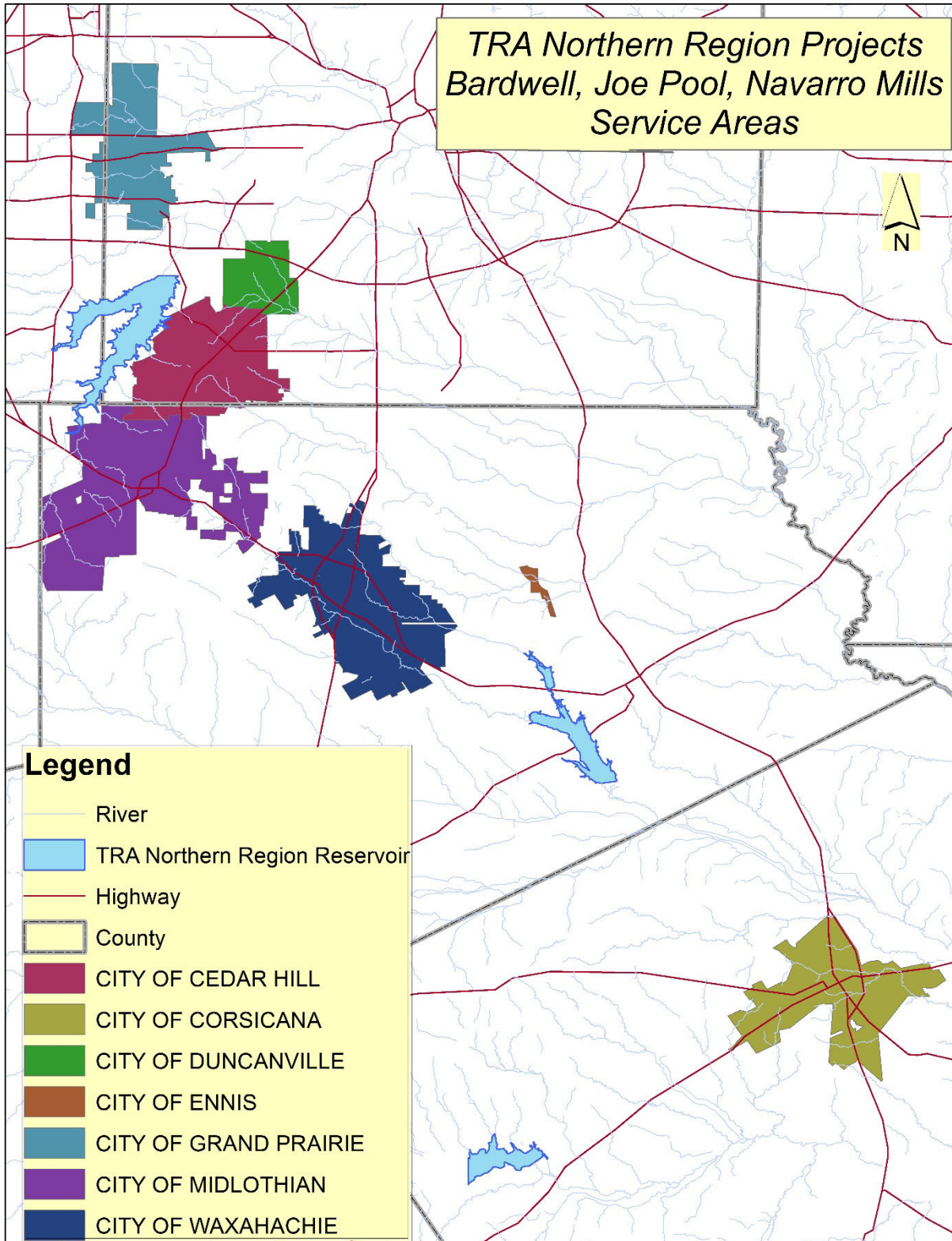
1. Conservation-oriented water rates and water rate structures such as uniform or increasing block rate schedules, and/or seasonal rates, but not flat rate or decreasing block rates;
2. A program to assist agricultural customers in the development of conservation, pollution prevention and abatement plans;
3. A program for reuse and/or recycling of wastewater and/or graywater;
4. Any other water conservation practice, method, or technique which the wholesaler shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

VI. WATER CONSERVATION PLANS SUBMITTED WITH A WATER RIGHT APPLICATION FOR NEW OR ADDITIONAL STATE WATER

Water Conservation Plans submitted with a water right application for New or Additional State Water must include data and information which:

1. support the applicant's proposed use of water with consideration of the water conservation goals of the water conservation plan;
2. evaluates conservation as an alternative to the proposed appropriation; and
3. evaluates any other feasible alternative to new water development including, but not limited to, waste prevention, recycling and reuse, water transfer and marketing, regionalization, and optimum water management practices and procedures.

Additionally, it shall be the burden of proof of the applicant to demonstrate that no feasible alternative to the proposed appropriation exists and that the requested amount of appropriation is necessary and reasonable for the proposed use.



2021 Regional Water Plan - Population Projections for 2020-2070

WUG Name	County	2020	2030	2040	2050	2060	2070
ENNIS	ELLIS	21,354	25,111	28,828	41,086	66,145	110,073
WAXAHACHIE	ELLIS	37,700	43,084	52,272	64,400	78,500	95,500
CEDAR HILL	DALLAS	53,244	65,133	76,989	83,579	83,579	83,579
CEDAR HILL	ELLIS	694	884	1,103	1,421	1,421	1,421
DUNCANVILLE	DALLAS	43,110	47,307	47,307	47,307	47,307	47,307
GRAND PRAIRIE	DALLAS	166,208	206,781	231,491	231,491	231,491	231,491
GRAND PRAIRIE	ELLIS	55	71	88	114	140	170
GRAND PRAIRIE	TARRANT	51,864	51,864	51,864	51,864	51,864	51,864
MIDLOTHIAN	ELLIS	20,660	30,895	32,500	34,500	36,836	40,689
CORSICANA	NAVARRO	26,739	29,484	32,318	35,546	38,921	42,525
DAWSON	NAVARRO	893	934	975	1,016	1,057	1,100

Source: <http://www.twdb.texas.gov/waterplanning/data/projections/2022/popproj.asp>

2021 Regional Water Plan – Water Demand Projections for 2020-2070 (in Acre-Feet)

WUG Name	County	2020	2030	2040	2050	2060	2070
ENNIS	ELLIS	4,026	4,625	5,234	7,401	11,887	19,761
WAXAHACHIE	ELLIS	6,872	7,702	9,226	11,299	13,749	16,715
CEDAR HILL	DALLAS	10,660	12,810	14,994	16,201	16,186	16,184
CEDAR HILL	ELLIS	139	174	215	275	275	275
DUNCANVILLE	DALLAS	6,091	6,464	6,322	6,244	6,230	6,229
GRAND PRAIRIE	DALLAS	26,811	32,615	36,061	35,851	35,799	35,792
GRAND PRAIRIE	ELLIS	9	11	14	18	22	26
GRAND PRAIRIE	TARRANT	8,366	8,180	8,079	8,032	8,021	8,019
MIDLOTHIAN	ELLIS	4,811	7,094	7,408	7,839	8,359	9,231
CORSICANA	NAVARRO	6,104	6,582	7,101	7,750	8,472	9,253
DAWSON	NAVARRO	149	151	155	159	165	172

Source: <http://www.twdb.texas.gov/waterplanning/data/projections/2022/demandproj.asp>

Description of Bardwell Reservoir Project

Bardwell Lake is a U.S. Army Corps of Engineers multi-purpose reservoir located in Ellis County, this project's dependable water supply yield of 9,600 acre-feet was contractually purchased by TRA as the project's local sponsor. TRA subsequently signed contracts for the sale of Bardwell Lake's water to Ennis and the Ellis County Water Control and Improvement District Number One (City of Waxahachie). With the revenue generated, TRA is repaying the federal government over a 50-year period for project development costs attributable to the water supply portion of the reservoir.

Description of Joe Pool Reservoir Project

A contract with the US Army Corps of Engineers for the storage of Joe Pool Lake's water was entered into by TRA as the local sponsor. TRA subsequently entered into contracts with the Cities of Cedar Hill, Duncanville, Grand Prairie, and Midlothian to provide up to 17,000 acre-feet per year of raw water.

Description of Navarro Reservoir Project

As local sponsor for this U.S. Army Corps of Engineers multi-purpose lake, TRA contractually purchased the total dependable water supply yield of 19,400 acre-feet. This water was then sold, at cost, to the cities of Corsicana and Dawson, the Post Oak Water Supply Corporation, and one industry. With the revenue generated by this sale, TRA repaid the federal government over a 50-year period for project costs attributable to water supply.

APPENDIX B

**Water Conservation Implementation Report
Form and Summary of Updates/Revisions to Water
Conservation Plan
(Form 20645)**

Bardwell Reservoir Project

Joe Pool Reservoir Project

Navarro Reservoir Project

Texas Commission on Environmental Quality

Water Availability Division
MC-160, P.O. Box 13087 Austin, Texas 78711-3087
Telephone (512) 239-4600, FAX (512) 239-2214

WATER CONSERVATION IMPLEMENTATION REPORT FORM AND SUMMARY OF UPDATES/REVISIONS TO WATER CONSERVATION PLAN

(Texas Water Code §11.1271(b) and Title 30 Texas Administrative Code §288.30(1) to (4))

Please note, this form replaces the following forms: TCEQ-20645 (Non-Public Water Suppliers) and TCEQ-20646 (Public Water Suppliers)

This Form is applicable to the following entities:

1. Water Right Holders of 1,000 acre-feet or more for municipal, industrial, and other non-irrigation uses.
2. Water Right Holders of 10,000 acre-feet or more for irrigation uses.

The above noted entities are required by rule to submit updates to their water conservation plan(s) and water conservation implementation report(s) every five years beginning May 1, 2009. See 30 Texas Administrative Code (TAC) §288.30(1) to (4). Entities must also submit any revisions to their water conservation plan within 90 days of adoption when the plans are revised in between the five-year submittal deadlines. This form may be used for the five-year submittal or when revisions are made to the water conservation plans in the interim periods between five-year submittals. Please complete the form as directed below.

1. Water Right Holder Name: Trinity River Authority - Bardwell Reservoir
2. Water Right Permit or Certificate Nos. CA 08-5021

3. Please Indicate by placing an 'X' next to all that Apply to your Entity:

Water Right Holder of 1,000 acre-feet or more for non-irrigation uses

Municipal Water Use by Public Water Supplier

Wholesale Public Water Supplier

Industrial Use

Mining Use

Agriculture Non-Irrigation

Water Right Holder of 10,000 acre-feet or more for irrigation uses

Individually-Operated Irrigation System

Agricultural Water Suppliers Providing Water to More Than One User

Water Conservation Implementation Reports/Annual Reports

4. Water Conservation Annual Reports for the previous five years were submitted to the Texas Water Development Board (TWDB) for each of the uses indicated above as required by 30 TAC §288.30(10)(C)? Yes No

TCEQ no longer requires submittal of the information contained in the detailed implementation report previously required in Forms TCEQ-20645 (Non-Public Water Suppliers) and TCEQ-20646 (Public Water Suppliers). However, the Entity must be up-to-date on its Annual Report Submittals to the TWDB.

Water Conservation Plans

5. For the five-year submittal (or for revisions between the five-year submittals), attach your updated or revised Water Conservation Plan for each of the uses indicated in Section 3, above. Every updated or revised water conservation plan submitted must contain each of the minimum requirements found in the TCEQ rules and must be duly adopted by the entity submitting the water conservation plan. Please include evidence that each water conservation plan submitted has been adopted.

- Rules on minimum requirements for Water Conservation Plans can be found in 30 TAC Chapter 288.
http://texreg.sos.state.tx.us/public/readtac%24ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=288
- Forms which include the minimum requirements and other useful information are also available to assist you. Visit the TCEQ webpage for Water Conservation Plans and Reports. https://www.tceq.texas.gov/permitting/water_rights/wr_technical-resources/conserve.html

Call 512-239-4600 or email to wcp@tceq.texas.gov for assistance with the requirements for your water conservation plan(s) and report(s).

6. For each Water Conservation Plan submitted, list dates and descriptions of the conservation measures implemented, and the actual amount of water saved.

As the Authority is a wholesale supplier, it has limited control over water use. Therefore, the Authority's water conservation program is predicated on the fact that the implementation of such conservation measures must occur at largely the local level and achievement of significant water conservation savings can only occur if each retail water user sets and implements its own water conservation programs. It is then the Authority's role to encourage and support those initiatives chosen by the wholesale customers in order to promote long term water use efficiency and reduction of wasted water.

7. For each Water Conservation Plan submitted, state whether the five and ten-year targets for water savings and water loss were met in your *previous* water conservation plan.

Yes _____ No _____

If the targets were not met, please provide an explanation as to why any of the targets were not met, including any progress on that particular target.

As a wholesale supplier, the Authority has limited access to the data, such as the population and water usage. Therefore, it is difficult to evaluate whether the targets for water saving and water loss were met.

8. For each five-year submittal, does each water conservation plan submitted contain *updated* five and ten-year targets for water savings and water loss?
Yes X No _____

If yes, please identify where in the water conservation plan the updated targets are located (page, section).

Page 8 Section 2.3 "Conservation Goals"

9. In the box below (or in an attachment titled "Summary of Updates or Revisions to Water Conservation Plans), please identify any other revisions/updates made to each water conservation plan that is being updated or revised. Please specify the water conservation plan being updated and the location within the plan of the newly adopted updates or revisions.

1. Calculated GPCD and projected goals for 2029 and 2034 (Section 2.3)
2. Updated Form 20162 (Appendix A)
3. Updated Projected Populations and Water Demands for 2020-2070 (Appendix A)
4. Updated Form 20645 (Appendix B)

10. Form Completed by (Point of Contact): Webster Mangham
(If different than name listed above, owner and contact may be different individual(s)/entities)
- Contact Person Title/Position: Manager, Senior, Technical Services & Basin Planning
- Contact Address: PO Box 60, Arlington TX 76004
- Contact Phone Number: 817-493-5127 Contact Email Address: manghamw@trinityra.org

Signature: _____

Date: 4/1/2024

Texas Commission on Environmental Quality

Water Availability Division
MC-160, P.O. Box 13087 Austin, Texas 78711-3087
Telephone (512) 239-4600, FAX (512) 239-2214

WATER CONSERVATION IMPLEMENTATION REPORT FORM AND SUMMARY OF UPDATES/REVISIONS TO WATER CONSERVATION PLAN

(Texas Water Code §11.1271(b) and Title 30 Texas Administrative Code §288.30(1) to (4))

Please note, this form replaces the following forms: TCEQ-20645 (Non-Public Water Suppliers) and TCEQ-20646 (Public Water Suppliers)

This Form is applicable to the following entities:

1. Water Right Holders of 1,000 acre-feet or more for municipal, industrial, and other non-irrigation uses.
2. Water Right Holders of 10,000 acre-feet or more for irrigation uses.

The above noted entities are required by rule to submit updates to their water conservation plan(s) and water conservation implementation report(s) every five years beginning May 1, 2009. See 30 Texas Administrative Code (TAC) §288.30(1) to (4). Entities must also submit any revisions to their water conservation plan within 90 days of adoption when the plans are revised in between the five-year submittal deadlines. This form may be used for the five-year submittal or when revisions are made to the water conservation plans in the interim periods between five-year submittals. Please complete the form as directed below.

1. Water Right Holder Name: Trinity River Authority - Joe Pool Lake
2. Water Right Permit or Certificate Nos. CA 08-3404

3. Please Indicate by placing an 'X' next to all that Apply to your Entity:

Water Right Holder of 1,000 acre-feet or more for non-irrigation uses

Municipal Water Use by Public Water Supplier

Wholesale Public Water Supplier

Industrial Use

Mining Use

Agriculture Non-Irrigation

Water Right Holder of 10,000 acre-feet or more for irrigation uses

Individually-Operated Irrigation System

Agricultural Water Suppliers Providing Water to More Than One User

Water Conservation Implementation Reports/Annual Reports

4. Water Conservation Annual Reports for the previous five years were submitted to the Texas Water Development Board (TWDB) for each of the uses indicated above as required by 30 TAC §288.30(10)(C)? Yes No

TCEQ no longer requires submittal of the information contained in the detailed implementation report previously required in Forms TCEQ-20645 (Non-Public Water Suppliers) and TCEQ-20646 (Public Water Suppliers). However, the Entity must be up-to-date on its Annual Report Submittals to the TWDB.

Water Conservation Plans

5. For the five-year submittal (or for revisions between the five-year submittals), attach your updated or revised Water Conservation Plan for each of the uses indicated in Section 3, above. Every updated or revised water conservation plan submitted must contain each of the minimum requirements found in the TCEQ rules and must be duly adopted by the entity submitting the water conservation plan. Please include evidence that each water conservation plan submitted has been adopted.

- Rules on minimum requirements for Water Conservation Plans can be found in 30 TAC Chapter 288.
http://texreg.sos.state.tx.us/public/readtac%24ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=288
- Forms which include the minimum requirements and other useful information are also available to assist you. Visit the TCEQ webpage for Water Conservation Plans and Reports. https://www.tceq.texas.gov/permitting/water_rights/wr_technical-resources/conserve.html

Call 512-239-4600 or email to wcp@tceq.texas.gov for assistance with the requirements for your water conservation plan(s) and report(s).

6. For each Water Conservation Plan submitted, list dates and descriptions of the conservation measures implemented, and the actual amount of water saved.

As the Authority is a wholesale supplier, it has limited control over water use. Therefore, the Authority's water conservation program is predicated on the fact that the implementation of such conservation measures must occur at largely the local level and achievement of significant water conservation savings can only occur if each retail water user sets and implements its own water conservation programs. It is then the Authority's role to encourage and support those initiatives chosen by the wholesale customers in order to promote long term water use efficiency and reduction of wasted water.

7. For each Water Conservation Plan submitted, state whether the five and ten-year targets for water savings and water loss were met in your *previous* water conservation plan.

Yes _____ No _____

If the targets were not met, please provide an explanation as to why any of the targets were not met, including any progress on that particular target.

As a wholesale supplier, the Authority has limited access to the data, such as the population and water usage. Therefore, it is difficult to evaluate whether the targets for water saving and water loss were met.

8. For each five-year submittal, does each water conservation plan submitted contain *updated* five and ten-year targets for water savings and water loss?
Yes X No _____

If yes, please identify where in the water conservation plan the updated targets are located (page, section).

Page 8 Section 2.3 "Conservation Goals"

9. In the box below (or in an attachment titled "Summary of Updates or Revisions to Water Conservation Plans), please identify any other revisions/updates made to each water conservation plan that is being updated or revised. Please specify the water conservation plan being updated and the location within the plan of the newly adopted updates or revisions.

1. Calculated GPCD and projected goals for 2029 and 2034 (Section 2.3)
2. Updated Form 20162 (Appendix A)
3. Updated Projected Populations and Water Demands for 2020-2070 (Appendix A)
4. Updated Form 20645 (Appendix B)

10. Form Completed by (Point of Contact): Webster Mangham
(If different than name listed above, owner and contact may be different individual(s)/entities)
- Contact Person Title/Position: Manager SR, TSBP
- Contact Address: PO Box 60, Arlington TX 76004
- Contact Phone Number: 817-492-5127 Contact Email Address: manghamw@trinityra.org

Signature: _____

Date: 4/1/2024

Texas Commission on Environmental Quality

Water Availability Division
MC-160, P.O. Box 13087 Austin, Texas 78711-3087
Telephone (512) 239-4600, FAX (512) 239-2214

WATER CONSERVATION IMPLEMENTATION REPORT FORM AND SUMMARY OF UPDATES/REVISIONS TO WATER CONSERVATION PLAN

(Texas Water Code §11.1271(b) and Title 30 Texas Administrative Code §288.30(1) to (4))

Please note, this form replaces the following forms: TCEQ-20645 (Non-Public Water Suppliers) and TCEQ-20646 (Public Water Suppliers)

This Form is applicable to the following entities:

1. Water Right Holders of 1,000 acre-feet or more for municipal, industrial, and other non-irrigation uses.
2. Water Right Holders of 10,000 acre-feet or more for irrigation uses.

The above noted entities are required by rule to submit updates to their water conservation plan(s) and water conservation implementation report(s) every five years beginning May 1, 2009. See 30 Texas Administrative Code (TAC) §288.30(1) to (4). Entities must also submit any revisions to their water conservation plan within 90 days of adoption when the plans are revised in between the five-year submittal deadlines. This form may be used for the five-year submittal or when revisions are made to the water conservation plans in the interim periods between five-year submittals. Please complete the form as directed below.

1. Water Right Holder Name: Trinity River Authority - Navarro Mills Reservoir
2. Water Right Permit or Certificate Nos. CA 08-4992

3. Please Indicate by placing an 'X' next to all that Apply to your Entity:

Water Right Holder of 1,000 acre-feet or more for non-irrigation uses

Municipal Water Use by Public Water Supplier

Wholesale Public Water Supplier

Industrial Use

Mining Use

Agriculture Non-Irrigation

Water Right Holder of 10,000 acre-feet or more for irrigation uses

Individually-Operated Irrigation System

Agricultural Water Suppliers Providing Water to More Than One User

Water Conservation Implementation Reports/Annual Reports

4. Water Conservation Annual Reports for the previous five years were submitted to the Texas Water Development Board (TWDB) for each of the uses indicated above as required by 30 TAC §288.30(10)(C)? Yes No

TCEQ no longer requires submittal of the information contained in the detailed implementation report previously required in Forms TCEQ-20645 (Non-Public Water Suppliers) and TCEQ-20646 (Public Water Suppliers). However, the Entity must be up-to-date on its Annual Report Submittals to the TWDB.

Water Conservation Plans

5. For the five-year submittal (or for revisions between the five-year submittals), attach your updated or revised Water Conservation Plan for each of the uses indicated in Section 3, above. Every updated or revised water conservation plan submitted must contain each of the minimum requirements found in the TCEQ rules and must be duly adopted by the entity submitting the water conservation plan. Please include evidence that each water conservation plan submitted has been adopted.

- Rules on minimum requirements for Water Conservation Plans can be found in 30 TAC Chapter 288.
http://texreg.sos.state.tx.us/public/readtac%24ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=288
- Forms which include the minimum requirements and other useful information are also available to assist you. Visit the TCEQ webpage for Water Conservation Plans and Reports. https://www.tceq.texas.gov/permitting/water_rights/wr_technical-resources/conserve.html

Call 512-239-4600 or email to wcp@tceq.texas.gov for assistance with the requirements for your water conservation plan(s) and report(s).

6. For each Water Conservation Plan submitted, list dates and descriptions of the conservation measures implemented, and the actual amount of water saved.

As the Authority is a wholesale supplier, it has limited control over water use. Therefore, the Authority's water conservation program is predicated on the fact that the implementation of such conservation measures must occur at largely the local level and achievement of significant water conservation savings can only occur if each retail water user sets and implements its own water conservation programs. It is then the Authority's role to encourage and support those initiatives chosen by the wholesale customers in order to promote long term water use efficiency and reduction of wasted water.

7. For each Water Conservation Plan submitted, state whether the five and ten-year targets for water savings and water loss were met in your *previous* water conservation plan.

Yes _____ No _____

If the targets were not met, please provide an explanation as to why any of the targets were not met, including any progress on that particular target.

As a wholesale supplier, the Authority has limited access to the data, such as the population and water usage. Therefore, it is difficult to evaluate whether the targets for water saving and water loss were met.

8. For each five-year submittal, does each water conservation plan submitted contain *updated* five and ten-year targets for water savings and water loss?
Yes X No _____

If yes, please identify where in the water conservation plan the updated targets are located (page, section).

Page 8 Section 2.3 "Conservation Goals"

9. In the box below (or in an attachment titled "Summary of Updates or Revisions to Water Conservation Plans), please identify any other revisions/updates made to each water conservation plan that is being updated or revised. Please specify the water conservation plan being updated and the location within the plan of the newly adopted updates or revisions.

1. Calculated GPCD and projected goals for 2029 and 2034 (Section 2.3)
2. Updated Form 20162 (Appendix A)
3. Updated Projected Populations and Water Demands for 2020-2070 (Appendix A)
4. Updated Form 20645 (Appendix B)

10. *Form Completed by (Point of Contact):* Webster Mangham
(If different than name listed above, owner and contact may be different individual(s)/entities)
- Contact Person Title/Position: Manager, SR, TSBP
- Contact Address: PO Box 60
- Contact Phone Number: 817-493-5127 Contact Email Address: manghamw@trinityra.org

Signature: _____

Date: 4/1/2024

RESOLUTION NO. R-1159-4

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE TRINITY RIVER AUTHORITY OF TEXAS ADOPTING WATER CONSERVATION AND DROUGHT CONTINGENCY PLANS FOR NAVARRO MILLS, BARDWELL AND JOE POOL RESERVOIRS AND RESCINDING RESOLUTION NO. R-1159-3

WHEREAS, the Trinity River Authority (Authority) recognizes that the amount of water available to its water customers is limited; and

WHEREAS, the Authority recognizes that due to natural limitations and drought conditions, the Authority cannot guarantee an uninterrupted water supply for all purposes at all times; and

WHEREAS, the Texas Water Code and the regulations of the Texas Commission on Environmental Quality (TCEQ) require that the Authority adopt water conservation and drought contingency plans; and

WHEREAS, the Board of Directors of the Authority desires to adopt the revised Water Conservation and Drought Contingency Plans for Navarro Mills, Bardwell, and Joe Pool Reservoirs; and

WHEREAS, on April 27, 2005, the Board of Directors of the Authority adopted Resolution No. R-1159 captioned as follows:

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE TRINITY RIVER AUTHORITY OF TEXAS ADOPTING A WATER CONSERVATION PLAN AND DROUGHT CONTINGENCY PLAN FOR NAVARRO MILLS RESERVOIR; and

WHEREAS, on April 27, 2005, the Board of Directors of the Authority adopted Resolution No. R-1160 captioned as follows:

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE TRINITY RIVER AUTHORITY OF TEXAS ADOPTING A WATER CONSERVATION PLAN AND DROUGHT CONTINGENCY PLAN FOR BARDWELL RESERVOIR; and

WHEREAS, on April 27, 2005, the Board of Directors of the Authority adopted Resolution No. R-1161 captioned as follows:

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE TRINITY RIVER AUTHORITY OF TEXAS ADOPTING A WATER CONSERVATION PLAN AND DROUGHT CONTINGENCY PLAN FOR JOE POOL RESERVOIR; and

WHEREAS, on June 24, 2009, the Board of Directors of the Authority adopted Resolution No. R-1159-1 captioned as follows:

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE TRINITY RIVER AUTHORITY OF TEXAS ADOPTING A WATER CONSERVATION PLAN AND DROUGHT CONTINGENCY PLAN FOR NAVARRO MILLS RESERVOIR AND RESCINDING RESOLUTION NO. R-1159; and

WHEREAS, on June 24, 2009, the Board of Directors of the Authority adopted Resolution No. R-1160-1 captioned as follows:

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE TRINITY RIVER AUTHORITY OF TEXAS ADOPTING A WATER CONSERVATION PLAN AND DROUGHT CONTINGENCY PLAN FOR BARDWELL RESERVOIR AND RESCINDING RESOLUTION NO. R-1160; and

WHEREAS, on June 24, 2009, the Board of Directors of the Authority adopted Resolution No. R-1161-1 captioned as follows:

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE TRINITY RIVER AUTHORITY OF TEXAS ADOPTING A WATER CONSERVATION PLAN AND DROUGHT CONTINGENCY PLAN FOR JOE POOL RESERVOIR AND RESCINDING RESOLUTION NO. R-1161; and

WHEREAS, on April 23, 2014, the Board of Directors of the Authority adopted Resolution No. R-1159-2 captioned as follows:

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE TRINITY RIVER AUTHORITY OF TEXAS ADOPTING WATER CONSERVATION AND DROUGHT CONTINGENCY PLANS FOR NAVARRO MILLS, BARDWELL AND JOE POOL RESERVOIRS AND RESCINDING RESOLUTION NOS. R-1159-1, R-1160-1 AND R-1161-1

WHEREAS, on April 24, 2019, the Board of Directors of the Authority adopted Resolution No. R-1159-3 captioned as follows:

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE TRINITY RIVER AUTHORITY OF TEXAS ADOPTING WATER CONSERVATION AND DROUGHT CONTINGENCY PLANS FOR NAVARRO MILLS, BARDWELL AND JOE POOL RESERVOIRS AND RESCINDING RESOLUTION NOS. R-1159-2, R-1160-2 AND R-1161-2

WHEREAS, it is in the public interest that Resolution R. 1159-3 be rescinded.

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE TRINITY RIVER AUTHORITY THAT:

- (1) That Resolution No. R-1159-3 adopted by the Board of Directors of the Authority on April 24, 2019, is hereby rescinded;

- (2) That the Board of Directors hereby adopts Resolution No. R-1159-4 approving and adopting the revised Water Conservation and Drought Contingency Plan for Navarro Mills, Bardwell, and Joe Pool Reservoirs, in substantially the form presented, and that the Authority commits to implement the requirements and procedures set forth in the adopted Plan;
- (3) That the Board of Directors does hereby find and declare that sufficient written notice of the date, hour, place, and subject of the meeting adopting this Resolution was posted at a designated place convenient to the public for the time required by law preceding the meeting, that such place of posting was readily accessible at all times to the general public, and that all of the foregoing was done as required by law at all times during which this Resolution and the subject matter thereof has been discussed, considered and formally acted upon;
- (4) That the General Manager or his designee is hereby directed to file a copy of the Plan and this Resolution with TCEQ and the Texas Water Development Board in accordance with Title 30, Chapter 288 of the Texas Administrative Code and with the Region C Water Planning Group; and
- (5) That should any paragraph, sentence, clause, phrase, or word of this Resolution be declared unconstitutional or invalid for any reason, the remainder of this Resolution shall not be affected.

ADOPTED this 24th day of April, 2024.



C. DWAYNE SOMERVILLE, President
Board of Directors
Trinity River Authority of Texas

ATTEST:



ALEXIS S. LONG, Assistant Secretary
Board of Directors
Trinity River Authority of Texas

