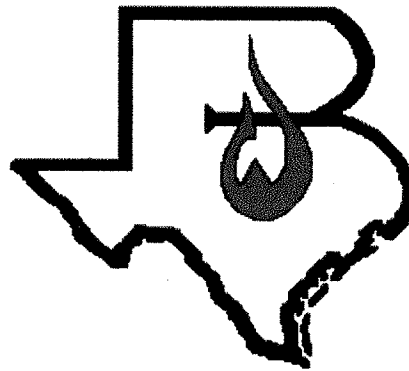


**WATER CONSERVATION AND
DROUGHT CONTINGENCY PLAN**

FOR

**BROOKESMITH SPECIAL
UTILITY DISTRICT
P.O BOX 27
BROWNWOOD, TX 76804**



Revised
April 2024

Prepared by
Roger Sikes
Water Loss & Conservation Specialist
Brookesmith Special Utility District

I. INTRODUCTION

The Brookesmith Special Utility District (The District) of Brown County, Texas is a water supply entity operating under the provisions of Chapter 65, of the Texas Water Code. The Board of Directors has the managing control and operation of the District's Water System. The Directors are elected by the qualified voters residing within the district.

The district serves an area of approximately 780 square miles.

The district has experienced moderate growth in the last several years. The district obtains treated water from the Brown County Water Improvement District No. 1 (WID) through the WID's water treatment plant near the City of Brownwood.

II. UTILITY EVALUATION

A. WATER SUPPLY AND DISTRIBUTION SYSTEM INFORMATION

- | | | |
|----|--|------------------|
| 1. | Population of Service Area (Estimated) | 12762 |
| 2. | Area of Service Area | 780 square miles |
| 3. | Water Production and Sales Information | |
| a. | Water supplied during the last year | 288013800 gals. |
| b. | Average Water Supplied for last 2 years | 2977488900 gals. |
| c. | Monthly Water Sales for last year (2023) | |

WATER SOLD (gals.)

<u>Month</u>	<u>Total</u>
January	21,772,000
February	15,621,700
March	13,249,000
April	21,770,000
May	20,074,700
June	19,399,800
July	33,073,700
August	44,077,200
September	37,949,500
October	26,596,300
November	18,017,800

December 16,411,800

TOTAL 288,013,800

d. Highest daily water uses on record for system 3,512,000 (gpd)

e. Peak daily use for the last year 3,512,200(gpd)

e. Unaccounted for Water

$$707,424.700 - 539,002,800 / 707,424,700 \times 100 = 23.8\%$$

B UTILITY FINANCIAL OPERATION INFORMATION

1. Water Rate Structure

a. Existing Rates Structure. \$6.60 per Thousand gallons
See Appendix ; C

2. Sources of Revenue for the Utility

a. Percent of Annual Revenues from water rates 97%

b. Percent of Annual Revenues from all other sources 3%

3. Approximate Annual Operating Costs \$1,917,390.39

C OTHER APPLICABLE INFORMATION

1. Copies of applicable local regulation relating to Water Conservation and Emergency Water Demand Management Plan.
None available

2. Other applicable documents. None available

3. Information on Civic Groups, Organizations, and entities – See Appendix D

4. Number and Type of Meter Connections in Service Area

4,011 – Residential	86 – Commercial
4- Multi-Family	46- Industrial
23- Institutional	119- Agricultural

5. Net Gain of New Connections per year

28 – Residential	0-multi-family
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1-Institutional
2-Industrial

24-Commercial
6-Agricultural

6. Source of Water
- a. Brown County WID No. 1 Water Treatment Plant 744,679,798 gal/year
7. Safe Annual Yield of Water Supply 27,000 acre/ft.
8. Design Capacity of Water System 7,000,000 (mgd)
9. Major High-Volume Customers

	<u>Customer</u>	<u>Quantity (gal/Year)</u>
(1)	TPWD	2,762,000
(2)	Texas 4H Center	2,347,000
(3)	Baptist Encampment	2,113,100
(4)	Longspar Ranch	1,792,400
(5)	Brownwood C.C.	1,638,800

10. Population and water use projections

<u>Year</u>	<u>Population</u>	<u>Water Demand</u>
2025	12,886	731,142,400
2026	13,034	755,542,400
2027	13,182	779,424,000
2028	13,330	803,424,000
2029	13,472	827,424,000
2030	13,620	829,824,000
2031	13,768	853,824,000
2032	13,916	877,824,000
2033	14,064	901,824,000
2034	14,206	925,824,000

III. PUBLIC INVOLVEMENT

A. PUBLIC AT LARGE

1. The district holds regular board meetings once each month. Directors meet the second Tuesday of each month. These meetings are

open to the public and customers of the district and anyone is free to be put on the agenda to speak to the Board of Directors. The agenda will be posted at Office and on Brookesmith SUD web site. At these meetings, they hear the concerns of the

Customers, which can assist them in making decisions.

- B. Information may also be found on the website at info@brookesmith.com

IV. WATER CONSERVATION PLAN

A. WATER USE AND WATER LOSS GOALS

The district's 5- and 10-year goals for water use are 112 gpcd and 114 10-year goal GPCD. The 5-year water loss goal for the district is 20 gpcd and the 10-year goal is 16 gpcd.

B. RETROFIT PROGRAM

Customers in existing buildings that do not have water saving devices will be encouraged to replace their old plumbing fixtures. The advertising program will help inform them of the advantages of installing water saving devices and the enacted excess water rate structure mentioned below should encourage them to be conservative in their water use. Water saving kits will be available to aid in their water conservation efforts.

C. WATER RATE STRUCTURE

A water rate structure has been implemented which encourages water conservation, The rate structure includes a stepped rate in time of drought to increase with the increased water usage. When a customer applies for a tap, the water rate is identified based on the guidelines set forth in the plan.

D. METERING

The district currently meters 100% of the water sold. The district will repair or replace meters that appear to have high or low water usage. Incorporated into the Water Conservation Plan, the District will set up the following meter-testing schedule:

1. Production Meters test once a year.
2. Meters larger than 1" – test once every 3 years minimum.
3. Meters 1" and smaller – test every ten years minimum.
4. The district's goal is to test fifteen percent (15%) minimum of all meters.
5. The district uses a computer billing system, which handles all of the billing.

- The system compares meter readings monthly and notes dramatic changes.
6. The district conducts internal meter testing by qualified operators.
 7. The district has also installed inline master meters, and is monitoring them daily.

E. WATER CONSERVATION LANDSCAPING

The advertising program will include suggestions on landscaping and irrigation procedures, which will save water usage and money.

F. DISTRICT'S LEAK DETECTION AND REPAIR PROGRAM

1. Perform an annual water audit.
2. Leak Detection and Location Program includes visual inspection by meter readers and District employees will keep a constant watch out for abnormal conditions indicating leaks (i.e. defective fire hydrants and flush valves, un- authorized use of fire hydrants and water main leaks).
3. The district maintains an adequate and qualified maintenance staff, which is available to repair leaks as they are located and perform corrective measures.
3. Monthly water use accounting by the billing computer system, which identifies high water use for service meters indicating possible leaks or malfunction.
4. The district has a Water Loss and Conservation specialist and his primary duties are to monitor the system on a daily basis, conduct monthly water audits, keep records of water loss, water sales, and unaccounted for water. Since the District started the program in the first of 2004, they have reported a considerable reduction in water loss.

G. RECYCLING AND REUSE

The district has no means to recycle or reuse water. There are no customers at this time that would be able to recycle water.

H. IMPLEMENTATION AND ENFORCEMENT

The Water Conservation Plan will be enforced by the following methods:

1. The rate structure should encourage retrofitting of old plumbing fixtures which are using large amounts of water. Customers will realize that replacing their fixtures will save them water and money.

2. The water rate structure will be enforced, if customers do not pay their water bill, they will have their water service discontinued.

I. DISTRIBUTION SYSTEM AND RESIDENTIAL PRESSURE CONTROLS

The district maintains pressure reducing valves at various locations in the system as necessary.

J. WATER CONSERVATION PLAN ANNUAL REPORT

The district will file an Annual Report to the Executive Administrator describing the implementation, status, and quantitative effectiveness of the water conservation program until the financial obligations to the state have been discharged.

The Annual Report will be submitted within 60 days after the anniversary date of loan closing unless special circumstances exist. In these cases, the district will request an alternative annual reporting date.

K. WHOLESALE CUSTOMERS

The district sales whole sale water to the City of Santa Anna and Coleman SUD

Opportunity for the public to provide input into the preparation of the Plan was provided by the Brookesmith SUD by means of Public Forum in Board Of Directors Meeting held Monthly.

Conservation: those practices, techniques, and technologies that reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water or increase the recycling and reuse of water so that a supply is conserved and made available for future or alternative uses.

Customer: any person, company, or organization using water supplied by Brookesmith SUD

VII. SCHEDULE FOR IMPLEMENTING THE PLAN TO ACHIEVE TARGETS AND GOALS

The Brookesmith Special Utility District will adhere to the following schedule, to achieve the targets and goals for water conservation:

- Calibrations of meters for all treated water deliveries are conducted semi-annually
- The Brookesmith SUD meter replacement program is as follows:
 - Meters will continue to be monitored for accuracy annually and replaced on a fifteen-year cycle
- Water audits are conducted annually
 - Real water losses are identified and corrected
 - Real water losses are minimized by replacement of deteriorating water mains and appurtenances, as is conducted by Brookesmith SUD staff on an on-going basis
- The Brookesmith SUD will mail out material developed by the staff, materials obtained from the Texas Water Development Board, Texas Commission on Environmental Quality, or other sources semi-annually (once in the spring and once in the summer) to all customers
- Water conserving pricing **(optional)**
 - The Brookesmith SUD current rates are shown in
 - The Brookesmith SUD will continue to review rates annually to ensure water revenues exceed expenses and replacement costs and to discourage excessive and wasteful use
- The leak detection program described in the plan is currently in use by Brookesmith SUD, which reduces real water losses
 - Inspections and soundings of all water main fittings and connections are conducted annually
 - Intermittent night-flow measurements are conducted annually
 - Pressure is controlled to just above the standard-of-service level by use of SCADA system
 - Pressure zones are operated based on the topography
 - Surges in Pressure are limited by control valves
 - Nighttime pressure is reduced by control valves when feasible

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APPENDIX A

LISTING OF WATER CONSERVATION LITERATURE

APPENDIX A

AGRICULTURAL CONSERVATION LITERATURE

Agricultural Water Conservation in Texas: TWDB, Pamphlet, 8 pp.

Have Your Irrigation System Evaluated Free: TWDB, Pamphlet, 4 pp.

LEPA Irrigation: TWDB, Pamphlet, 6 pp.

Drip Irrigation: TWDB, WC-8, Pamphlet, 6 pp.

Forty—Nine Water Saving Taps: TWDB WC-1, Pamphlet, 8 pp. NEW FOR 1995

Homeowner's Guide to Water Use and Conservation: TWDB WC-3, Booklet, 26 pp.
NEW FOR 1995

Saving Water Inside the Home: TWDB WC-4, Pamphlet, 8 pp. NEW FOR 1995

Saving Water Outside the Home: TWDB WC-6, Pamphlet, 8 pp. NEW FOR 1995

Drip Irrigation: TWDB WC-8, Pamphlet, 6 pp.

Lawn Watering Guide: TWDB WC-12, Card, 3 1/2" x 5"

A Directory of Water Saving Plants and Trees for Texas: TWDB WC -13, Booklet, 26 pp.

Xcriscape-Principles, Benefits: TWDB WC-14A, Pamphlet, 4 pp., size 3 1/2" x 7 1/2"

Toilet Tank Leak Detector Tablets: 2 Tablets per packet, Spanish/English instructions

Dillo Dollar/Dilto Dinero: Six water saving tips for the HOME, English/Spanish, TWDB Floyer, 1 pp., size 2 1/2" x 6", NEW for 1995

Dub DollariDillo Dinero: Six water saving tips for the YARD, English/Spanish, TWDB Flyer, 1 pp., size 2 1/2" x 6", NEW for 1995

Kit of Municipal Water Sconservation Trainingi and Public Awareness Materials for Texas Utility Managers. One kit per utility at no charge. (Manual, videos, and liteature packet)

APPENDIX B

**RESOLUTION ADOPTING WATER CONSERVATION &
DROUGHT CONTINGENCY PLAN**

APPENDIX B

RESOLUTION

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE BROOKESMITH SPECIAL UTILITY DISTRICT ADOPTING THE ATTACHED WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN.

BE IT RESOLVED BY THE BOARD OF DIRECTORS; that on this 09th Day April 2024 we do hereby adopt the attached Water Conservation and Drought Contingency Plan to be implemented by Brookesmith Special Utility District. Any violation of this plan can carry a penalty of termination of water services. Water service termination penalties will only apply to violations of mandatory rationing imposed by the District.

ADOPTED THIS 09 day of April 2024 at regular meeting of the Board of Directors at which a quorum was present.

BOARD OF DIRECTORS

(Seal)


Mike Stephens, President

ATTEST

APPENDIX C

WATER RATES

APPENDIX C

WATER RATE STRUCTURE

The current rate structures are a flat rate and do not increase with more usage.

\$43.00 minimum bill

Water is Billed at rate of \$6.60 per 1,000 gals.

The water rate structure for drought stage 3 ascending rate.

0 - 10,000 gals	No Surcharge
10,000-20,000 gals	Base rate + \$2.00 per 1,000 gallons
20,000-30,000 gals	Base rate + \$5.00 per 1,000 gallons
30,000-40,000 gals	Base rate + \$10.00 per 1,000 gallons
Over 40,000 gallons	Base rate + \$20.00 per 1,000 gallons

APPENDIX D

**INFORMATION ON CIVIC GROUPS, ORGANIZATIONS
AND ENTITIES**

Appendix D

CHURCHES, SCHS, BUSINESSES & CIVIC GROUPS

CHURCHES

First Baptist Church of Lake Brownwood

Baptist Encampment

Brookesmith Baptist Church

Concord Baptist Church

Grosvenor Baptist Church

Lake Brownwood Church of Christ

Lake Brownwood First United Methodist Church

Rocky Creek Baptist Church

SCHOOLS

Brookesmith School

BUSINESSES

Big G Grocery

Brookesmith Post Office

Brookesmith VFD

Brown County Water Improvement District #1

Brownwood Country Club

E-Z Mart

First National Bank of Hamilton

Investor's Oil Corp

Corina's

Kirkland Dock's

Lake Brownwood Plants and Pottery

Lake Brownwood Sandy Beach RV Park

Lake Country Realty

Landmark Life Insurance

Levisay Real Estate

Pecan Bayou Farms

Ponderosa Lodge

Potters Industries

Richmon Farm Supply

CIVIC GROUPS

Dam Volunteer Aux. VFD

Lake Brownwood Fire Department

Texas 4-H Center

Winchell Volunteer Fire Department

