

# Goforth Special Utility District

## Water Conservation Plan

**Original Adopted**  
December 13, 2000

**Revisions Adopted**  
June 23, 2004  
May 20, 2009  
August 27, 2014  
*May 22, 2019*

### Goforth Special Utility District

CCN #11356  
PWS #1050019  
8900 Niederwald Strasse  
Niederwald, TX 78640  
Phone: (512) 376-5695  
Fax: (512) 398-7631  
Email: [mario@goforthwater.org](mailto:mario@goforthwater.org)  
Mario Tobias, General Manager



Prepared by:



**Southwest  
Engineers**

307 St. Lawrence  
Gonzales, TX 78629  
Phone: 830.672.7546  
[www.swengineers.com](http://www.swengineers.com)  
TPBE No. F-1909

## Table of Contents

<b>Part</b>	<b>Title</b>	<b>Page</b>
1	System Information	1
2	Rate Structure	1
3	Conservation Goals	2
4	Implementation and Tracking	3
5	Conservation Measures	4
Appendix A	Utility Profile for Retail Water Supplier	
Appendix B	Resolution Adopting the Plan	
Appendix C	Letters to Region K and Region L Chairs	

## 1. System Information

Goforth Special Utility District, hereinafter called the District, provides retail water service to customers located in portions of Hays, Caldwell and Travis Counties. The total area served by the District is roughly 51 square miles, and the majority of customers are residential water users located in rural areas and subdivisions. The District's service area is located within the South Central Texas Regional Water Planning Area (Region L) and the Lower Colorado Regional Water Planning Area (Region K).

Information concerning the District's population, customers, water use, and water supply system can be found in the *Utility Profile for Retail Water Supplier* in Appendix A.

## 2. Rate Structure

The District is committed to the prudent use and conservation of all water resources. The District offers only cost-based rates, on an escalating scale, that are fair and equitable to all customer classes, without unreasonable preference or discrimination. No rates that promote unreasonable or excessive use or waste are offered. All rates are conservation-oriented and consistent with the use to which customers will put the District's water: residential, commercial, industrial, public and other. The rate schedule as of April 2019 is as follows:

<b>Usage</b>	<b>Rate</b>
Base Rate	\$31.00
1 – 5,000 Gallons	\$3.00 per Thousand Gallons
5,001 – 10,000 Gallons	\$4.63 per Thousand Gallons
10,001 – 20,000 Gallons	\$6.26 per Thousand Gallons
20,001 – 30,000 Gallons	\$7.88 per Thousand Gallons
30,001 – 40,000 Gallons	\$9.51 per Thousand Gallons
Over 40,000 Gallons	\$12.14 per Thousand Gallons

### 3. Conservation Goals

A comprehensive water conservation plan is essential to the operation of a water utility. Water conservation allows for the efficient operation of the utility and reduces the amount of water sources that must be developed to meet future population growth. For these reasons, the District has developed several water conservation objectives. These include:

- Derive the highest beneficial use from water diverted or produced.
- Achieve efficient water-use in its production, storage and distribution systems.
- Promote efficient water-use among its customers.
- Provide adequate water of consistent and good quality at affordable costs.
- Reduce peak demands for water among its customers.
- Prevent water losses through an aggressive, system-wide program of inspection and maintenance.

To aid in achieving these objectives, the District has proposed specific five-year and ten-year goals for total and residential per capita water use and water loss. Over the past several years, the District has had a consistently good per capita water usage and one of the primary goals is to maintain and slightly reduce current numbers. Reducing water loss is another primary goal. Water loss is defined as unaccounted for water that is lost due to leaks, inaccurate meters, theft, etc. The District measures water entering the system with meters at its wells and at the plants where purchased water enters the system. Water leaving the system is measured at the customers' meters. Water used for line flushing and fire flows are estimated and subtracted from the unbilled water to give an amount of water lost each year.

The specific five-year and ten-year goals for per capita use and water loss are listed below.

	<b>Historic 5-Year Average</b>	<b>Baseline</b>	<b>5-Year Goal (2024)</b>	<b>10-Year Goal (2029)</b>
Total GPCD	84	84	82	80
Residential GPCD	67	67	66	65
Water Loss (GPCD)	7	7	6 *	5 *
Water Loss (%)	8	8	7 *	6 *

\* These numbers do not include water used for line flushing and fire fighting.

#### **4. Implementation and Tracking**

The District will adhere to the following schedule to achieve the specified goals for water conservation:

- Calibrations of meters for all treated water deliveries are conducted annually.
- The District's meter replacement program is as follows:
  - Meters will continue to be monitored for accuracy annually and replaced after reading one million gallons
- Water audits are conducted monthly.
  - Real water losses are identified and corrected
  - Real water losses are minimized by replacement of deteriorating water mains and appurtenances, as is conducted by District staff on an on-going basis
- The District mails out material developed by the staff, materials obtained from the Texas Water Development Board, Texas Commission on Environmental Quality, and Barton Springs/Edwards Aquifer Conservation District twice a year to all customers. The District also provides water conservation tips in its lobby and on its website.
- A leak detection program is currently in use by the District, which reduces real water losses.
  - Inspections of water main fittings, hydrants, valves and connections are conducted during monthly meter readings
  - District staff members visually inspect water line routes for signs of leaks when traveling
  - Pressure zones are operated based on the topography
  - Surges in pressure are limited by control valves and soft starters on pump motors
  - Prior to installing a new connection, District staff inspects the applicant's plumbing for leaks
- The District adopted the 2000 International Plumbing code, and all new construction or renovations in the District's service area use water conserving fixtures.

The staff shall track targets and goals by utilizing the following procedures:

- Logs shall be maintained for meter calibration, meter testing, and meter replacement programs.
- Annual water audits shall be documented and kept in the District's files.
- Staff shall keep a record of the number of mail-outs distributed to customers.
- Rates are tracked by means of District Service Policy adjustments.

- Logs shall be maintained for the District's leak detection program, including but not limited to the following:
  - After all leaks are repaired, a leak report is filled out listing the date and time of repair, line size, what broke, and how the break was repaired
- Logs shall be maintained by the District's for flushing of lines, including duration and calculated water used. The District shall also keep record of any water usage for firefighting, if possible.
- Daily production meter readings are taken and input into a spreadsheet for record keeping and review.

## **5. Conservation Measures**

The District has completed substantial measures aimed at increasing water use efficiency both within its production and distribution system, and for its customers. Because of the relatively low daily per capita consumption already achieved, the District cannot realize great additional savings from consumer oriented conservation programs, except to prevent water losses through leaks and line breaks. A leak detection and repair program has been implemented for the distribution system. The following sections describe the District's implemented and planned conservation programs.

### **Source Water Metering**

The District's groundwater sources are water wells completely in the Edwards Aquifer. The District currently has a permit from the Barton Springs/Edwards Aquifer Conservation District to pump 350,900,000 gallons from the aquifer every year. Water production from each well is metered. The District also purchases water from the Guadalupe Blanco River Authority and County Line SUD. Water from these sources is metered at the plants where it enters the system. A meter verification and calibration program assures water production is measured with the required 5% (+/-) accuracy. All production and storage units are monitored and controlled using a SCADA system at the District office and on the general manager's and field manager's laptop computers / phones.

### **Universal Metering**

The District has a current system of universal metering. All users of water in the system are metered. The District has a practice of cutting off all illegal meters and requiring the customer to purchase a new meter. The District reserves the right to inspect any facilities and fine any persons with illegal connections.

### **Water Accounting**

The District has an aggressive meter testing and replacement program. This has lowered the water loss percentage significantly. The District also keeps record of estimated water used during line flushing.

### **Loss Control**

The District is continuously replacing older lines that have frequent leaks. As the system continues to grow at a rapid pace, a high percentage of the older lines will be replaced simply because they are not large enough to supply water to the growing population. Also, the increasing population of the District's service area will bring an influx of money into the District, allowing the District to replace older lines in parts of the system that have slower growth.

The District also plans to add pressure monitoring stations throughout the system to use as an early warning of leaks. These stations will report all monitoring information to the District office through the existing SCADA system.

### **Costing and Pricing**

The District bases its monthly service charges on the cost of service for its customers. The system also utilizes a conservation block rate by an escalating per-unit cost. The majority of the system's customers are not sensitive to the pricing policy as a conservation mechanism because they repeatedly are subject only to the minimum monthly rate. Overall, average per capita consumption is near 84 gpcd and at times approaches the minimum required for health and safety (50 gpcd).

### **Information and Education**

The District has implemented conservation education programs by direct communication with customers and literature distribution. The District will continue to provide bulletins and brochures to make all customers aware of all options available for water conservation.

## **Appendix A**

### **Utility Profile for Retail Water Supplier**



## UTILITY PROFILE FOR RETAIL WATER SUPPLIER

### CONTACT INFORMATION

Name of Utility:

Public Water Supply Identification Number (PWS ID):

Certificate of Convenience and Necessity (CCN) Number:

Surface Water Right ID Number:

Wastewater ID Number:

Contact: First Name:  Last Name:

Title:

Address:  City:  State:

Zip Code:  Zip+4:  Email:

Telephone Number:  Date:

Is this person the designated Conservation Coordinator?  Yes  No

Coordinator: First Name:  Last Name:

Title:

Address:  City:  Zip Code:

Email:  Telephone Number:

Regional Water Planning Group:

Groundwater Conservation District:

Our records indicate that you:

- Received financial assistance of \$500,000 or more from TWDB
- Have 3,300 or more retail connections
- Have a surface water right with TCEQ

#### A. Population and Service Area Data

1. Current service area size in square miles:

## UTILITY PROFILE FOR RETAIL WATER SUPPLIER

Attached file(s):

File Name	File Description
Goforth SUD - Service Area Map.pdf	Goforth SUD - Service Area Map

2. Historical service area population for the previous five years, starting with the most current year.

Year	Historical Population Served By Retail Water Service	Historical Population Served By Wholesale Water Service	Historical Population Served By Wastewater Water Service
2018	25,000	0	0
2017	22,500	0	0
2016	20,000	0	0
2015	18,500	0	0
2014	16,734	0	0

3. Projected service area population for the following decades.

Year	Projected Population Served By Retail Water Service	Projected Population Served By Wholesale Water Service	Projected Population Served By Wastewater Water Service
2020	30,434	0	0
2030	50,038	0	0
2040	80,716	0	0
2050	132,706	0	0
2060	214,067	0	0

4. Described source(s)/method(s) for estimating current and projected populations.

Past and current population is based on past and current meter count, multiplied by 3. Projected population: the past 25 year average annual growth rate is 7.6%. Used 5% average annual projected growth rate going forward.

## UTILITY PROFILE FOR RETAIL WATER SUPPLIER

### B. System Input

System input data for the previous five years.

Total System Input = Self-supplied + Imported – Exported

Year	Water Produced in Gallons	Purchased/Imported Water in Gallons	Exported Water in Gallons	Total System Input	Total GPCD
<b>2018</b>	232,974,490	543,339,796	0	776,314,286	85
<b>2017</b>	156,657,000	562,969,000	0	719,626,000	88
<b>2016</b>	107,940,000	486,603,000	0	594,543,000	81
<b>2015</b>	113,925,000	416,627,000	0	530,552,000	79
<b>2014</b>	204,806,000	336,085,000	0	540,891,000	89
<b>Historic Average</b>	163,260,498	469,124,759	0	632,385,257	84

### C. Water Supply System

Attached file(s):

File Name	File Description
System Facilities Table.xlsx	

1. Designed daily capacity of system in gallons 8,627,246
2. Storage Capacity
  - 2a. Elevated storage in gallons: 2,517,000
  - 2b. Ground storage in gallons: 1,091,000

## UTILITY PROFILE FOR RETAIL WATER SUPPLIER

### D. Projected Demands

1. The estimated water supply requirements for the next ten years using population trends, historical water use, economic growth, etc.

Year	Population	Water Demand (gallons)
2020	30,405	932,217,300
2021	32,259	989,060,940
2022	33,873	1,038,546,180
2023	35,568	1,090,514,880
2024	36,990	1,134,113,400
2025	38,841	1,190,865,060
2026	41,172	1,262,333,520
2027	43,230	1,325,431,800
2028	44,958	1,378,412,280
2029	47,208	1,447,397,280

2. Description of source data and how projected water demands were determined.

Average annual growth rate has been 7.6% over past 25 years. Recently, 10-12%. Used 10% growth for 2020, then between 4% and 6% the next 9 years. Averages out to 5.5% over next 10 years. Projected water demands based on population multiplied by previous 5-year historic average of 84 gpcd.

### E. High Volume Customers

1. The annual water use for the five highest volume **RETAIL** customers.

Customer	Water Use Category	Annual Water Use	Treated or Raw
Buda Tuscan Partners Apartments	Residential	5,838,860	Treated
US Foods	Commercial	5,148,500	Treated
Plant Odyssey	Commercial	3,988,650	Treated
Huntington Apartments	Residential	3,139,780	Treated
Royal Baths	Commercial	2,474,550	Treated

2. The annual water use for the five highest volume **WHOLESALE** customers.

Customer	Water Use Category	Annual Water Use	Treated or Raw
----------	--------------------	------------------	----------------

## UTILITY PROFILE FOR RETAIL WATER SUPPLIER

### F. Utility Data Comment Section

Additional comments about utility data.

n/a
-----

### Section II: System Data

#### A. Retail Water Supplier Connections

1. List of active retail connections by major water use category.

Water Use Category Type	Total Retail Connections (Active + Inactive)	Percent of Total Connections
Residential - Single Family	8,269	98.63 %
Residential - Multi-Family	0	0.00 %
Industrial	0	0.00 %
Commercial	115	1.37 %
Institutional	0	0.00 %
Agricultural	0	0.00 %
Total	8,384	100.00 %

2. Net number of new retail connections by water use category for the previous five years.

Net Number of New Retail Connections							
Year	Residential - Single Family	Residential - Multi-Family	Industrial	Commercial	Institutional	Agricultural	Total
<b>2018</b>	856			17			873
<b>2017</b>	689			10			699
<b>2016</b>	616			22			638
<b>2015</b>	614			10			624
<b>2014</b>	340			6			346

## UTILITY PROFILE FOR RETAIL WATER SUPPLIER

### B. Accounting Data

The previous five years' gallons of RETAIL water provided in each major water use category.

Year	Residential - Single Family	Residential - Multi-Family	Industrial	Commercial	Institutional	Agricultural	Total
2018	572,205,820	0	0	82,175,770	0	0	654,381,590
2017	529,916,930	0	0	78,887,560	0	0	608,804,490
2016	463,837,140	0	0	87,019,440	0	0	550,856,580
2015	426,846,810	0	0	56,570,740	0	0	483,417,550
2014	473,316,660	0	0	40,800,000	0	0	514,116,660

### C. Residential Water Use

The previous five years residential GPCD for single family and multi-family units.

Year	Residential - Single Family	Residential - Multi-Family	Total Residential
2018	63	0	63
2017	65	0	65
2016	64	0	64
2015	64	0	64
2014	78	0	78
Historic Average	67	0	67

## UTILITY PROFILE FOR RETAIL WATER SUPPLIER

### D. Annual and Seasonal Water Use

1. The previous five years' gallons of treated water provided to RETAIL customers.

Month	Total Gallons of Treated Water				
	2018	2017	2016	2015	2014
<b>January</b>	52,430,000	42,331,000	37,829,000	32,499,000	34,998,000
<b>February</b>	41,544,000	40,525,000	39,885,000	28,294,000	31,150,000
<b>March</b>	51,800,000	47,020,000	43,506,000	31,180,000	36,481,000
<b>April</b>	56,021,000	52,022,000	41,933,000	36,627,000	41,482,000
<b>May</b>	66,438,000	58,003,000	41,638,000	36,602,000	44,747,000
<b>June</b>	79,738,000	64,207,000	51,624,000	39,843,000	44,346,000
<b>July</b>	85,641,000	81,616,000	77,157,000	54,980,000	61,614,000
<b>August</b>	92,984,000	73,796,000	58,811,000	69,981,000	73,333,000
<b>September</b>	80,485,000	64,083,000	56,379,000	61,074,000	55,589,000
<b>October</b>	55,462,000	62,325,000	55,098,000	60,058,000	46,089,000
<b>November</b>	48,742,000	57,718,000	46,077,000	39,797,000	37,631,000
<b>December</b>	49,503,000	50,143,000	44,606,000	39,617,000	33,431,000
<b>Total</b>	760,788,000	693,789,000	594,543,000	530,552,000	540,891,000

## UTILITY PROFILE FOR RETAIL WATER SUPPLIER

2. The previous five years' gallons of raw water provided to RETAIL customers.

Month	Total Gallons of Raw Water				
	2018	2017	2016	2015	2014
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
<b>Total</b>	0	0	0	0	0

3. Summary of seasonal and annual water use.

	Summer RETAIL (Treated + Raw)	Total RETAIL (Treated + Raw)
<b>2018</b>	258,363,000	760,788,000
<b>2017</b>	219,619,000	693,789,000
<b>2016</b>	187,592,000	594,543,000
<b>2015</b>	164,804,000	530,552,000
<b>2014</b>	179,293,000	540,891,000
<b>Average in Gallons</b>	201,934,200.00	624,112,600.00



## UTILITY PROFILE FOR RETAIL WATER SUPPLIER

### E. Water Loss

Water Loss data for the previous five years.

Year	Total Water Loss in Gallons	Water Loss in GPCD	Water Loss as a Percentage
2018	112,228,767	12	14.46 %
2017	101,826,185	12	14.15 %
2016	36,254,633	5	6.10 %
2015	40,502,550	6	7.63 %
2014	25,174,340	4	4.65 %
<b>Average</b>	63,197,295	8	9.40 %

### F. Peak Day Use

Average Daily Water Use and Peak Day Water Use for the previous five years.

Year	Average Daily Use (gal)	Peak Day Use (gal)	Ratio (peak/avg)
2018	2,084,350	2808293	1.3473
2017	1,900,791	2387163	1.2559
2016	1,628,884	2039043	1.2518
2015	1,453,567	1791347	1.2324
2014	1,481,893	1948836	1.3151

### G. Summary of Historic Water Use

Water Use Category	Historic Average	Percent of Connections	Percent of Water Use
<b>Residential - Single Family</b>	493,224,672	98.63 %	87.71 %
<b>Residential - Multi-Family</b>	0	0.00 %	0.00 %
<b>Industrial</b>	0	0.00 %	0.00 %
<b>Commercial</b>	69,090,702	1.37 %	12.29 %
<b>Institutional</b>	0	0.00 %	0.00 %
<b>Agricultural</b>	0	0.00 %	0.00 %

## UTILITY PROFILE FOR RETAIL WATER SUPPLIER

### H. System Data Comment Section

n/a

### Section III: Wastewater System Data

#### A. Wastewater System Data

1. Design capacity of wastewater treatment plant(s) in gallons per day:

2. List of active wastewater connections by major water use category.

Water Use Category	Metered	Unmetered	Total Connections	Percent of Total Connections
<b>Municipal</b>			0	0.00 %
<b>Industrial</b>			0	0.00 %
<b>Commercial</b>			0	0.00 %
<b>Institutional</b>			0	0.00 %
<b>Agricultural</b>			0	0.00 %
<b>Total</b>			0	100.00 %

3. Percentage of water serviced by the wastewater system:  %

## UTILITY PROFILE FOR RETAIL WATER SUPPLIER

4. Number of gallons of wastewater that was treated by the utility for the previous five years.

Month	Total Gallons of Treated Water				
	2018	2017	2016	2015	2014
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
<b>Total</b>					

5. Could treated wastewater be substituted for potable water?

Yes       No

### B. Reuse Data

1. Data by type of recycling and reuse activities implemented during the current reporting period.

Type of Reuse	Total Annual Volume (in gallons)
On-site Irrigation	
Plant wash down	
Chlorination/de-chlorination	
Industrial	
Landscape irrigation (park,golf courses)	0
Agricultural	
Discharge to surface water	
Evaporation Pond	
Other	
<b>Total</b>	0

## UTILITY PROFILE FOR RETAIL WATER SUPPLIER

### C. Wastewater System Data Comment

Additional comments and files to support or explain wastewater system data listed below.

## **Appendix B**

### **Resolution Adopting the Plan**

Resolution No. 2019-5-22

**A RESOLUTION ADOPTING A WATER CONSERVATION PLAN FOR THE GOFORTH SPECIAL UTILITY DISTRICT TO PROMOTE THE RESPONSIBLE USE OF WATER**

**WHEREAS**, the Goforth Special Utility District (the "District"), recognizes that the amount of water available to its water customers is limited; and

**WHEREAS**, the District recognizes that due to natural limitations, drought conditions, system failures and other acts of God which may occur, the District cannot guarantee an uninterrupted water supply for all purposes at all times; and

**WHEREAS**, the Water Code and the regulations of the Texas Commission on Environmental Quality (the "Commission") require that the District adopt a Water Conservation Plan; and

**WHEREAS**, the District has determined an urgent need in the best interest of the public to adopt a Water Conservation Plan; and

**WHEREAS**, pursuant to Chapter 67 of the Water Code, the District is authorized to adopt such policies necessary to preserve and conserve its water resources

**NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE GOFORTH SPECIAL UTILITY DISTRICT THAT:**

**Section 1.** The Board of Directors hereby approves and adopts the Water Conservation Plan (the "Plan"), attached hereto as Addendum A, as if recited verbatim herein. The District commits to implement the requirements and procedures set forth in the adopted Plan.

**Section 2.** 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 during which this Resolution and the subject matter thereof has been discussed, considered and formally acted upon. The Board of Directors further ratifies, approves and confirms such written notice and the posting thereof.

**Section 3.** The General Manager or his designee is hereby directed to file a copy of the Plan and this Ordinance with the Commission in accordance with Title 30, Chapter 288 of the Texas Administrative Code. Further, the Board of Directors hereby authorizes the General Manager or his designee to file an amendment to the District's tariff to incorporate the Plan therein.

**Section 4.** 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

**Section 5.** Resolution No. 2014-8-27, adopted on August 27, 2014 is hereby repealed.

Approved and adopted by the Board of Directors of the Goforth Special Utility District on this 22<sup>nd</sup> day of May 2019.

**Vice**           *James R. McDonald*            
President, Board of Directors

Attest:

          *Luluy Simpson*            
Secretary

## **Appendix C**

### **Letters to Region K and Region L Chairs**





# GOFORTH SPECIAL UTILITY DISTRICT

8900 Niederwald Strasse • Niederwald, TX 78640  
512) 376-5695 • FAX (512) 376-7631 • Toll Free (866) 376-5695

---

May 23, 2019

Mr. John Burke  
Chair, Lower Colorado Regional Water Planning Group  
Mailstop L211  
P.O. Box 220  
Austin, TX 78767-0220

RE: Goforth Special Utility District  
Water Conservation Plan

Dear Mr. Burke:

This letter is to notify you that Goforth Special Utility District recently submitted a revised Water Conservation Plan to the Texas Water Development Board. This notice is in accordance with Texas Water Development Board and Texas Commission on Environmental Quality rules.

Please contact us if you would like to view the Plan.

Sincerely,

Mario Tobias, General Manager Goforth SUD



# GOFORTH SPECIAL UTILITY DISTRICT

8900 Niederwald Strasse • Niederwald, TX 78640  
512) 376-5695 • FAX (512) 376-7631 • Toll Free (866) 376-5695

---

May 23, 2019

Ms. Suzanne Scott  
Chair, South Central Texas Regional Water Planning Group  
100 East Guenther Street  
San Antonio, TX 78283-9980

RE: Goforth Special Utility District  
Water Conservation Plan

Dear Ms. Scott:

This letter is to notify you that Goforth Special Utility District recently submitted a revised Water Conservation Plan to the Texas Water Development Board. This notice is in accordance with Texas Water Development Board and Texas Commission on Environmental Quality rules.

Please contact us if you would like to view the Plan.

Sincerely,

Mario Tobias, General Manager Goforth SUD