

Water Conservation Plan

Policy No. PL009

Revision A, Effective 04-08-2019

Aqua Water Supply Corporation

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Aqua Water Supply Corporation's Water Conservation Plan for Aqua's Retail Water Certificate of Convenience and Necessity Number 10294.

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1. Purpose

To define a policy to ensure water use efficiency within Aqua Water Supply Corporation's operations. The Water Conservation Plan is a strategy or combination of strategies for reducing the consumption of water, reducing the loss or waste of water, improving or maintaining the efficiency in the use of water, or increasing recycling and reuse of water. The plan contains best management practice measures to try to meet the targets and goals identified within the plan.

2. Application

This policy applies apply to all persons, customers, and property utilizing water provided by Aqua Water Supply Corporation. The terms "person" and "customer" as used in the Water Conservation Plan include individuals, corporations, partnerships, associations, and all other legal entities.

3. Definition of Terms

3.1 Aesthetic Water Use

The use of water for ornamental or decorative purposes such as fountains, reflecting pools, and water gardens.

3.2 Aqua

The Aqua Water Supply Corporation as represented by its Board of Directors.

3.3 Aqua's System

Aqua's production, treatment, storage facilities, and transmission facilities used to provide water service to Aqua's members and those individuals and entities contracting with Aqua.

3.4 Board of Directors or Board

The duly elected members of the Board of Directors of Aqua Water Supply Corporation.

3.5 Certificate of Convenience and Necessity (CCN)

A specified geographic area designated by the Public Utility Commission of Texas (PUC) in which the holder has the exclusive right to provide retail water service. Chapter 13 of the Texas Water Code requires a CCN holder to provide continuous and adequate service to the area within its CCN boundary.

3.6 Commercial and Institutional Water Use

The use of water integral to the operations of commercial and non-profit establishments and governmental entities such as retail establishments, hotels and motels, restaurants, and office buildings.

3.7 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.

3.8 Customer

Any person, company, or organization using water supplied by Aqua WSC.

3.9 Domestic Water Use

The use of water for personal needs or for household or sanitary purposes such as drinking, bathing, heating, cooking, sanitation, or cleaning a residence, business, industry, or institution.

3.10 Drought Contingency Plan

A strategy or combination of strategies for monitoring the progression of a drought and preparing a response to potential water supply shortages resulting from severe droughts or other water supply emergencies.

3.11 Dwelling, Dwelling Unit, or Residence

A home, house, mobile home, manufactured home, apartment unit, or any unit in a multiunit residential structure maintaining a restroom facility and area for preparation or storage of foods. A recreational vehicle that is not located in a recreational vehicle park shall be considered a dwelling under this Tariff if it is connected to an Aqua meter and is used for human habitation.

3.12 Industrial Water Use

The use of water in processes designed to convert materials of lower value into forms having greater usability and value.

3.13 Landscape Irrigation Use

The use of water for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including residential and commercial lawns, gardens, golf courses, parks, and rights-of-way and medians.

3.14 Non-Essential Water Use

The use of water not essential nor required for the protection of public, health, safety, and welfare, including, but not limited to:

- a. The use of water to irrigate landscape areas including parks, athletic fields, and golf courses except as otherwise provided;
- b. The use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle;
- c. The use of water to wash down sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
- d. The use of water to wash down buildings or structures for purposes other than immediate fire protection;
- e. The use of water to flush gutters or permitting water to run or accumulate in any gutter or street;
- f. The use of water to fill, refill, or add to any indoor or outdoor swimming pools or jacuzzi-type pools;
- g. The use of water in a fountain or pond for aesthetic or scenic purposes except where necessary to support aquatic life;
- h. The failure to repair a controllable leak(s) within a reasonable period after receiving notice directing the repair of such leak(s); and
- i. The use of water from hydrants for construction purposes or any purpose other than fire-fighting.

3.15 Production and Storage Facilities

The equipment, structures, and appurtenances necessary to produce, treat, and store water from groundwater or surface water sources for delivery to General Purpose Transmission Facilities.

3.16 Service Area

That area to which Aqua may lawfully provide water service, whether within or outside the area described by the Certificate of Convenience and Necessity (CCN) held by Aqua.

4. Responsibilities

4.1 Board of Directors

Creates a statement of mission and purpose articulating the goals, means, and the constituents to be served by Aqua. Sets goals and creates policies in support of this mission and provides direction, guidance, governance, and oversight to ensure Aqua is on track with regard to meeting its goals. The Board adopts a resolution approving a Water Conservation Plan and authorizing Aqua's General Manager to implement the Water Conservation Plan.

4.2 General Manager

Executes the policies, plans, and directives of the Board of Directors to meet Aqua's goals as articulated in the mission. Assists the board in developing and disseminating policies and plans to the staff. Ensures the staff understands and executes planning directives and policies and brings staff ideas and/or concerns to the Board's attention. Implements the applicable provisions of the Water Conservation Plan.

4.3 Assistant General Manager

Executes the policies, plans, and directives of the Board and General Manager to meet Aqua's goals as articulated in the mission. Assists the General Manager in developing and disseminating policies and plans to the staff. Ensures the staff understands and executes planning directives and policies and brings staff ideas and/or concerns to the General Manager's attention.

4.4 Water Conservation Manager

Implements the Water Conservation Plan and is the water conservation coordinator. Assist the General Manager in creating and implementing strategies and programs to reduce and control water loss.

4.5 Engineering Manager

Directs Engineering to plan, manage, direct, and coordinate engineering operations for water and wastewater treatment systems and facilities, capital improvement projects, right-of-way functions, SCADA systems, and GIS/IT systems.

5. Water Conservation Plan

5.1 Declaration of Policy, Purpose, and Intent

Aqua is required by the State of Texas to adopt and implement a water conservation plan. In 2007, the 80th Texas Legislature amended Section 13.146 of the Texas Water Code to require each retail public utility that provides potable water service to 3,300 or more connections to submit a water conservation plan to the Texas Water Development Board (TWDB). The initial plans were due on May 1, 2009. The Texas Water Code also requires the utility to report annually on the progress of the program and also review /update the plan once every five years. This plan supersedes the Aqua Water Conservation Plan of 2014.

5.2 Water Conservation Plan Goals and Objectives

In accordance with the TAC Title 31 Part 10, Chapter 363, Subchapter A, Division 2, Rule §363.15 (B), Aqua established five and ten year goals for water savings (See Exhibit C). These goals are specific and quantifiable and include goals for water loss programs in gallons per capita per day and goals for municipal use and residential use in gallons per capita per day.

Potential population growth and infrastructure improvements will be factored into the measurement of the effectiveness of these goals.

1. Reduce the water consumption from the levels that would prevail without conservation efforts.
2. Reduce the loss and waste of water
3. Improve the efficiency in the use of water.

5.2.1 Five Year Target for Water Savings

1. Reduce Total GPCD, 122 gal., consumption by 2%; to 119 GPCD.
2. Reduce the Residential GPCD, 78 by 2% , to 76 GPCD.
3. Water loss GPCD to be lowered by 3%, from 28 gpcd.to 27 GPCD.
4. Water loss to be reduced by 6 % resulting in 21.15% loss.

5.2.2 Ten Year Target for Water Savings

1. Reduce Total GPCD, 119 GPCD by additional 3%, resulting in 115 GPCD.
2. Reduce the Residential GPCD, 76 by 3% , to 73 GPCD.
3. Water loss GPCD to be lowered by an additional 4%, resulting in 26 GPCD.
4. Water loss to be reduced by an additional 4%, resulting in 20% loss.

5.2.3 Methods for Water Savings Goal Implementation:

1. Monitor operational flushing.
2. Control of unaccounted for water:
 - Maintain accurate maps within GIS which reflect water loss due to leaks, plant maintenance.
 - Monitored the distribution system through Aqua's SCADA.
 - All wells are metered and the meters are tested annually for accuracy.
 - Monthly water loss report consists of water loss accounting for the transmission lines and distribution system which aids in controlling water loss.
3. Leak detection program:
 - Daily visual inspections along distribution lines
 - Monitor SCADA for changes in tank levels and pump run times.

- Work order system
 - a. Mobile work order system sends leak information directly to Field Personnel
 - b. All leak work orders are prioritized.
 - c. Time taken to close leak work orders is managed monthly.
- 4. Notify customers when leaks are on the customer supply line.
- 5. Utilize 811 to reduce leaks.
- 6. Universal metering:
 - Production meters measure all water diverted from the source of supply.
 - Aqua meters 100% of the connections to the distribution system.
 - All meters are within an accuracy of plus or minus 5.0%.
 - Meter replacement/ Meter testing, maintain accurate metering devices:
 - a. Residential meters are replaced at 2 million gallons of usage.
 - b. Large and compound meters are on a testing schedule.
- 7. Record management system will track annual water use and provide information used to evaluate the implementation of conservation measures. Water sales are grouped into user classes: single-family residential, commercial, institutional, and industrial. Monthly and annual data of water pumped, water deliveries, and water losses are used to develop a monthly water loss report and an annual water audit for the distribution system.
 - Electronic meter system software is integrated with the utility customer information system. (CIS).
 - Monthly electronic meter reports are generated and used to detect illegal connections, abandon services, inaccuracies in billing, and meters in need of replacement.
 - CIS provides functions such as customer support, account management, billing, and collections.
 - Account usage adjustments are tracked and reflected in unaccounted water loss.

5.2.4 Measurement of Progress

Utilize the Municipal Conservation Planning Tool and The Alliance for Water Efficiency Conservation Tracking Tool, which provide a standardized methodology for water savings and benefit-cost accounting and a library of pre-defined conservation activities, will be used to:

1. Develop long range conservation plans and goals.
2. Track over time water savings, costs, and benefits of specific conservation measures.
3. Compare conservation measures for water savings, impact on costs, and potential benefits to the membership.

5.3 Community Outreach and Public Education Program

The goals and objectives of this program is to raise awareness of water supply resources, water supply availability, treatment, and distribution issues. Information will be provided on efficient use of the water supply, methods to reduce wasteful water use practices, and how conservation is important for managing the water for everyone's future.

5.3.1 Communication Plan Implementation:

1. Presentations to community and civic organizations, businesses, and HOAs.
2. Water Efficiency classes at Aqua W.S.C.
3. Public Information program utilizing social media.

4. Billing inserts for specific water conservation events.
5. Quarterly Newsletter highlighting seasonal water conservation, new technology, and water industry issues and current events.
6. Facility tours
7. Event Posters and counter handouts in the Customer Service area.
8. Participation in local events to allow Aqua to have one-on-one contact with members about conservation.
9. Aqua website:
 - Drought status and present level of water restrictions
 - Seasonal messaging
 - EPA Water Sense program materials promoting water efficiency
 - Best Management Practices for indoor and outdoor water usage

5.3.2 Measurement of Progress:

1. Number of activities and how many members attended each activity.
2. The schedule of activities and information related to promoting specific issues.
3. The number of public information materials that featured the conservation message and the method of distribution to the membership.

5.4 Landscape Conservation Program

5.4.1 Landscape Irrigation Audits

1. All audits are performed by a TX Licensed Irrigator and an EPA Certified Landscape Irrigation Auditor.
2. Site condition, system improvements, and a seasonal irrigation schedule are provided to the member. The schedule shows the water savings utilizing the new water efficient schedule.
3. Landscape Irrigation and plant material demonstration garden at the Aqua Main Office.
 - Develop a series of training programs for members on how to operate and maintain an efficient system in order to conserve water.
 - Demonstration landscapes exhibiting climate adapted plants, optimal irrigation practices, compare irrigation technologies, and the efficiency of different systems: micro-irrigation, rain water harvesting, soil moisture and flow sensors, and ET weather based controllers.
 - Show benefits of planning and design.
 - Proper maintenance of irrigation and plant materials.
 - Provide new members with information on water efficient irrigation and climate-appropriate landscape design.
4. Discount Rain Barrel Sales: At least once a year Aqua (in conjunction with TX A&M AgriLife and Bastrop County Master Gardeners) offers fifty gallon rain barrels at a discounted price.

5.4.2 Measurement of Progress for Landscape Conservation

1. Review water savings per irrigation audit and determine effectiveness of program.
2. Outdoor water savings measured as the difference between seasonal water uses from year to year. Effectiveness will take into consideration weather conditions.
3. Survey members utilizing the water audit to identify effectiveness of the program.
4. Number of classes and how many members attended each class.

5.5 School Conservation Program

Students of today (water users of tomorrow) need to be educated about efficient- water use practices, water sources, water availability, and the future of potable water. The target audience includes students, teachers, and public administrators (water use in buildings and athletic fields).

5.5.1 Texas A&M Environmental Sciences Summer Institute

Aqua Water annually participates in the Texas A&M Environmental Sciences Summer Institute. The Program promotes water conservation to school teachers in a daylong seminar. Lessons learned are taken back to the class room.

1. Five (5) presentations on water sources, physical properties of water, conservation, and civic issues.
2. Hands-on activities complement each section.

5.5.2 In-School Program

1. Presentations are adaptable to any grade level.
2. The presentations offer skills that meet the Texas education standards.
3. AWWA videos and materials are incorporated into presentations.
4. AgriLIFE Extension youth education materials: a series of hands-on activities stressing the importance of water management and conservation.
5. In collaboration with the city of Bastrop Aqua is sponsoring the educational program developed by Resource Action Programs.

5.5.3 Measurement of Progress

1. The number of presentations and the number of students in attendance.
2. The schools and grade levels that participate.
3. The community involvement with presentations, programs, and events. Which groups are involved and to what extent is their involvement.

5.6 Aqua Water Supply Water Rate Structure

Aqua will use non-promotional cost based water rates which do not encourage excessive use of water. Aqua states and establishes water service rates in the Aqua Water Service Tariff.

5.6.1 Standard Service

The monthly charge for Standard Service is the sum of the Monthly Customer Charge and the Usage Charge. The Usage Charge is applicable to all water that flows through the meter during the monthly billing period.

Meter Type And Size	Monthly Customer Charge	Gallons Included	Usage Charge per 1,000 Gallons - 1 to 10,000 -	Usage Charge per 1,000 Gallons - 10,001 to 20,000 -	Usage Charge per 1,000 Gallons - Over 20,001 -
5/8" Simple	\$25.15	-0-	\$3.75	\$5.75	\$7.00
3/4" Simple	\$25.15	-0-	\$3.75	\$5.75	\$7.00
1" Simple	\$25.15	-0-	\$3.75	\$5.75	\$7.00

5.6.2 Large Volume Service

The monthly charge for Large Volume Service is the sum of the Monthly Customer Charge and the Usage Charge. The Usage Charge is applicable to all water that flows through the meter during the monthly billing period.

Meter Type And Size	Monthly Customer Charge	Gallons Included	Usage Charge per 1,000 Gallons
1-1/2"	\$125.00	-0-	\$5.00
2"	\$245.00	-0-	\$5.00
3"	\$570.00	-0-	\$5.00
4"	\$1,160.00	-0-	\$5.00
6"	\$3,160.00	-0-	\$5.00
8"	\$5,190.00	-0-	\$5.00

6. References

PL001	Water Service Tariff
Section 11.1272	Texas Water Code
Rule §288.20	Title 30, Texas Administrative Code, Part 1, Chapter 288, Subchapter B
Division 1, Rule §295.9	Title 30, Texas Administrative Code, Part 1, Chapter 295, Subchapter A
AWWA Manual	Water Conservation for Small and Medium Sized Utilities, (2010), 28-31

7. Revisions

Rev.	Description	Author	Effective Date
A	Initial release of Policy	Unknown	04-07-2014

Exhibit A: Water Conservation Utility Profile
TWDB – 1965

The utility profile includes the water sales and use for the following classifications: residential, commercial, institutional, industrial, agricultural, and wholesale.



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

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:

Attached file(s):

File Name	File Description
Aqua CCN 2019.pdf	



UTILITY PROFILE FOR RETAIL WATER SUPPLIER

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	64,002	0	
2017	69,046	0	
2016	61,051	4,200	
2015	58,683	0	
2014	55,824	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	69,892	0	
2030	108,538	0	
2040	168,556	0	
2050	261,762	0	
2060	406,508	0	

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

US Census Bureau
City-Data.com



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
2018	3,016,260,316	0	166,904,898	2,849,355,418	122
2017	2,934,430,467	0	154,901,633	2,779,528,834	110
2016	2,642,728,550	0	153,392,360	2,489,336,190	112
2015	2,641,795,366	0	107,517,253	2,534,278,113	118
2014	2,352,791,428	0	88,008,918	2,264,782,510	111
Historic Average	2,717,601,225	0	134,145,012	2,583,456,213	115

C. Water Supply System

Attached file(s):

File Name	File Description
Aqua Water Distribution Assets.docx	

- 1. Designed daily capacity of system in gallons 24,361,920
- 2. Storage Capacity
 - 2a. Elevated storage in gallons: 6,925,000
 - 2b. Ground storage in gallons: 7,611,800



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	69,892	2,736,456,655
2021	73,035	2,859,597,204
2022	76,322	2,988,279,079
2023	79,756	3,122,751,637
2024	83,345	3,263,275,460
2025	87,096	3,410,122,856
2026	91,015	3,563,578,385
2027	95,111	3,723,939,412
2028	99,391	3,891,516,686
2029	103,864	4,066,634,936

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

US Census Data
 Each year was increased by 4.5%



UTILITY PROFILE FOR RETAIL WATER SUPPLIER

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
Department of Justice	Institutional	88,426,000	Treated
Travis County Mud 14	Residential	50,608,000	Treated
Bastrop Resort Partners, LP	Commercial	41,780,620	Treated
MD Anderson Veterinary Division	Commercial	29,421,000	Treated
The Colony Mud 1E	Residential	18,699,200	Treated

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

Customer	Water Use Category	Annual Water Use	Treated or Raw
Travis County Mud #14	Municipal	50,998,000	Treated
Creed-Moore Maha	Municipal	30,178,000	Treated
The Colony Mud #1	Municipal	18,699,200	Treated
Bastrop County Mud #1	Municipal	17,445,500	Treated

F. Utility Data Comment Section

Additional comments about utility data.

Data is from the AQUA CIS



UTILITY PROFILE FOR RETAIL WATER SUPPLIER

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	20,425	98.69 %
Residential - Multi-Family	0	0.00 %
Industrial	2	0.01 %
Commercial	138	0.67 %
Institutional	132	0.64 %
Agricultural	0	0.00 %
Total	20,697	100.00 %

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

Year	Net Number of New Retail Connections						
	Residential - Single Family	Residential - Multi-Family	Industrial	Commercial	Institutional	Agricultural	Total
2018	514						514
2017	516						516
2016	536						536
2015	509						509
2014	431						431



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	1,777,108,183	0	71,676,960	268,366,400	1,969,484	0	2,119,121,027
2017	1,760,875,729	0	28,248,830	272,953,380	56,223,030	0	2,118,300,969
2016	1,590,954,833	0	39,628,020	37,182,690	62,340,110	4,713,000	1,734,818,653
2015	1,424,327,311	0	26,433,678	282,491,392	36,810,423	4,178,710	1,774,241,514
2014	1,695,324,010	0	30,336,089	10,907,681	13,824,144	6,148,830	1,756,540,754

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	1,777,108,183		78
2017	1,760,875,729		70
2016	1,590,954,833		71
2015	1,424,327,311		66
2014	1,695,324,010		84
Historic Average	1,649,718,013	0	74



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
January	151,048,105	148,926,262	134,415,490	132,612,587	137,978,136
February	155,766,314	120,216,575	110,808,775	116,769,018	130,726,867
March	124,952,297	119,499,513	124,850,517	108,463,726	118,459,608
April	156,643,469	139,137,102	141,016,182	131,599,721	133,377,055
May	146,873,020	138,690,764	130,822,917	127,933,873	159,709,592
June	205,943,222	231,174,306	140,554,473	131,411,724	169,154,521
July	225,606,350	220,936,339	186,316,538	166,818,544	179,175,210
August	255,695,820	286,973,615	221,864,973	238,320,136	208,271,903
September	279,574,400	228,282,689	190,754,483	236,119,820	208,271,903
October	142,387,575	173,039,548	167,603,389	205,675,490	149,843,354
November	145,561,266	154,033,484	173,397,440	184,290,220	157,502,096
December	136,837,582	156,087,559	140,044,914	118,446,881	115,765,303
Total	2,126,889,420	2,116,997,756	1,862,450,091	1,898,461,740	1,868,235,548



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					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
Total					

3. Summary of seasonal and annual water use.

	Summer RETAIL (Treated + Raw)	Total RETAIL (Treated + Raw)
2018	687,245,392	2,126,889,420
2017	739,084,260	2,116,997,756
2016	548,735,984	1,862,450,091
2015	536,550,404	1,898,461,740
2014	556,601,634	1,868,235,548
Average in Gallons	613,643,534.80	1,974,606,911.00



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	604,004,601	26	21.20 %
2017	528,029,198	21	19.00 %
2016	638,598,074	29	25.65 %
2015	640,339,893	30	25.27 %
2014	438,264,641	22	19.35 %
Average	569,847,281	26	22.09 %

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	5,827,094	7470058	1.2820
2017	5,799,993	8033524	1.3851
2016	5,102,602	5964521	1.1689
2015	5,201,265	5832069	1.1213
2014	5,118,453	6050017	1.1820

G. Summary of Historic Water Use

Water Use Category	Historic Average	Percent of Connections	Percent of Water Use
Residential - Single Family	1,649,718,013	98.69 %	86.80 %
Residential - Multi-Family	0	0.00 %	0.00 %
Industrial	39,264,715	0.01 %	2.07 %
Commercial	174,380,308	0.67 %	9.17 %
Institutional	34,233,438	0.64 %	1.80 %
Agricultural	3,008,108	0.00 %	0.16 %



UTILITY PROFILE FOR RETAIL WATER SUPPLIER

H. System Data Comment Section

Section III: Wastewater System Data

A. Wastewater System Data

Attached file(s):

File Name	File Description
Aqua Wastewater CCN.pdf	map of Aqua wastewater CCN

1. Design capacity of wastewater treatment plant(s) in gallons per day: 125,000

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

Water Use Category	Metered	Unmetered	Total Connections	Percent of Total Connections
Municipal	421		421	100.00 %
Industrial			0	0.00 %
Commercial			0	0.00 %
Institutional			0	0.00 %
Agricultural			0	0.00 %
Total	421		421	100.00 %

3. Percentage of water serviced by the wastewater system: 2.00 %



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	2,558,590	2,530,426	2,289,611	2,753,627	2,099,570
February	2,378,851	2,164,504	2,143,347	2,278,888	1,973,315
March	2,618,373	2,380,057	2,488,539	2,740,787	2,227,141
April	2,484,295	2,416,823	2,663,256	2,353,017	1,871,029
May	2,524,608	2,329,214	2,735,175	2,936,575	2,195,953
June	2,434,357	2,302,315	2,282,331	2,095,481	2,023,091
July	2,594,219	2,372,555		2,080,764	2,112,246
August	2,768,787	2,691,481	2,546,121	2,084,704	2,131,443
September	3,378,202	2,462,538	2,100,887	2,087,736	2,095,074
October	3,618,961	2,358,337	2,111,643	2,343,800	2,116,226
November	3,039,059	2,257,353	2,009,609	2,292,614	2,411,450
December	2,988,847	2,442,284	2,359,486	2,281,887	2,240,741
Total	33,387,149	28,707,887	25,730,005	28,329,880	25,497,279

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	5,755,696
Chlorination/de-chlorination	1,438,924
Industrial	
Landscape irrigation (park,golf courses)	
Agricultural	
Discharge to surface water	7,194,620
Evaporation Pond	
Other	
Total	14,389,240



UTILITY PROFILE FOR RETAIL WATER SUPPLIER

C. Wastewater System Data Comment

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

Exhibit B: Assets

Distribution Assets

- 20,697 connections as of January, 2019
- 1,856.24 miles of pipe
- 29 water wells with 19,196 gallons-per-minute combined capacity
- 25 pump stations with 50,040 gallons-per-minute total capacity
- 20 pressure planes
- 6 Standpipes with 559,000 gallon capacity
- 22 ground storage tanks with a total capacity of 7,611,800 gallons
- 23 elevated storage tanks with a total capacity of 6,925,000 gallons
- 15,185,800 total gallons of storage

Certificate of Convenience and Necessity (CCN)

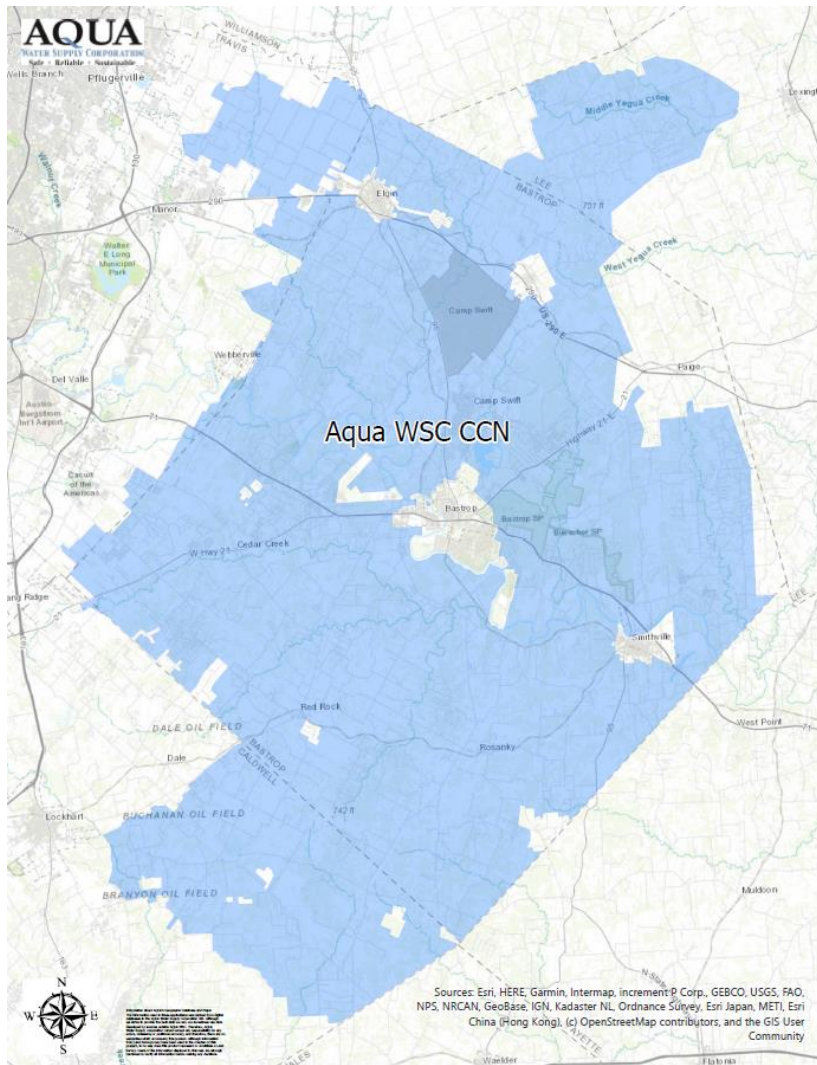


Exhibit C: 5- and 10-Year Goals for Water Savings

**WATER CONSERVATION PLAN
5- AND 10-YR GOALS FOR WATER SAVINGS**

Facility Name: Aqua Water Supply Corporation

Water Conservation Plan Year: 2019

	Historic 5yr Average	Baseline	5-yr Goal for year <u>2024</u>	10-yr Goal for year <u>2029</u>
Total GPCD ¹	115	122	119	115
Residential GPCD ²	74	78	76	73
Water Loss (GPCD) ³	27	28	27	26
Water Loss (Percentage) ⁴	%	%	%	%

1. Total GPCD = (Total Gallons in System ÷ Permanent Population) ÷ 365
2. Residential GPCD = (Gallons Used for Residential Use ÷ Residential Population) ÷ 365
3. Water Loss GPCD = (Total Water Loss ÷ Permanent Population) ÷ 365
4. Water Loss Percentage = (Total Water Loss ÷ Total Gallons in System) x 100; or (Water Loss GPCD ÷ Total GPCD) x 100

Exhibit D: Resolution Approving Water Conservation Plan

On Monday, April 8, 2019, the Aqua Water Supply Corporation Board of Directors approved the 2019 Water Conservation Plan in a meeting posted properly in accordance with the Texas open Meetings Act and with a quorum present and voting.

RESOLUTION #19.04.01

A RESOLUTION OF THE BOARD OF DIRECTORS OF AQUA WATER SUPPLY CORPORATION ADOPTING AN UPDATED WATER CONSERVATION PLAN

WHEREAS, Aqua Water Supply Corporation ("Aqua") is a nonprofit water supply corporation, operating under the authority of Chapter 67 of the Texas Water Code and the holder of retail water Certificate of Convenience No. 10294 issued by the Texas Commission on Environmental Quality; and,

WHEREAS, Section 13.146 of the Texas Water Code and Chapter 288 of the Texas Administrative Code require retail public utilities who provide potable water service to 3,300 or more connections, such as Aqua, to adopt and update a water conservation plan every five years; and,

WHEREAS, Aqua adopted a water conservation plan in 2014 and needs to adopt an updated plan; and,

WHEREAS, Aqua has reviewed its water conservation plan and made the necessary revisions to update the plan; and,

WHEREAS, Aqua is required by Texas law to submit its updated water conservation plan to the Texas Commission on Environmental Quality ("TCEQ") and the Texas Water Development Board ("TWDB") by May 1, 2019.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF AQUA WATER SUPPLY CORPORATION THAT:

1. The above recitals are true and correct.
2. The Board of Directors of Aqua hereby adopts an updated Water Conservation Plan attached hereto as Exhibit A.
3. The Board of Directors of Aqua hereby authorizes its President, the Aqua staff, and legal counsel for Aqua to take all necessary steps to implement the updated Water Conservation Plan and provide all necessary submissions of the Plan.

PASSED AND APPROVED this the 8th day of April, 2019.

AQUA WATER SUPPLY CORPORATION


Cliff Kessler, President

ATTEST:

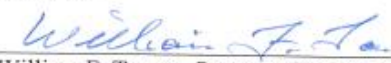

William F. Tomsu, Secretary/Treasurer

Exhibit E: Transmittal Letter to Region K



April 9, 2019

Ms. Jaime Burke
AECOM
Region K Project Manager
400 W. 15th Street, Suite 500
Austin, TX 78701

Dear Ms. Burke,

Enclosed you will find the Aqua Water Supply Corporation (Aqua) 2019 Water Conservation Plan, which was approved by the Aqua Board of Directors at their April 8, 2019 meeting. A copy of the certification of the April Board meeting, whereby the Board members unanimously approved the plan, is included.

This plan fulfills the requirements of In accordance with the TAC Title 31 Part 10, Chapter 363, Subchapter A, Division 2, Rule §363.15 (B). Specifically, the plan addresses conservation goals and strategies for retail water and wholesale water use.

This plan replaces the water conservation components of the Aqua Water Conservation Plan that were approved by the Aqua Board of Directors in 2014.

Please contact me at 512-581-3456 for any further questions or comments regarding this plan.

Sincerely,

Chuck Kellogg
Conservation Manager