

WATER CONSERVATION PLAN MAY 2019

TABLE OF CONTENTS

SECTION I	3
WATER CONSERVATION PLAN PURPOSE AND POLICY	3
SECTION II	3
SERVICE AREA AND UTILITY PROFILE	3
System Information	4
Customer Data	6
SECTION III	8
CONSERVATION PLAN	
Objectives and Goals	8
Best Management Practices	9
Reservoir System Operations Plan	12
Coordination with Regional Planning Groups Enforcement Procedures and Plan Adoption	12
TABLES	
Table 1.1 - Permitted Water Source Information	
TABLE 1.2 - WATER PRODUCED BY SOURCE (2016-2018)	4
TABLE 1.3 - METER COUNT BY SIZE AND BASE RATE	5
TABLE 1.4 - CONSUMPTION IN GALLONS BY USE TYPE (2014-2018)	6
TABLE 1.5 - 2018 GALLONS AND GPCD: TREATED, CONSUMED, RESIDENTIAL AND LOSS	7
TABLE 1.6 - POPULATION PROJECTIONS AND WATER DEMAND WITHOUT CONSERVATION PLAN	8
TABLE 1.7 - TARGET GALLONS PER CAPITA PER DAY	9
TABLE 1.8 – BEST MANAGEMENT PRACTICES SCHEDULE OF IMPLEMENTATION	12
ATTACHMENT	
UTILITY PROFILE	A
CITY OF ATHENS AND AMWA UPDATED CONTRACT	B
RESOLUTION	

SECTION I: WATER CONSERVATION PLAN PURPOSE AND POLICY

The Texas Commission on Environmental Quality (TCEQ) regulations require the City of Athens to submit a conservation plan and to include specific quantified targets for water use savings to be achieved every five years. The intent of the plan is to conserve and protect the integrity of the available water supply with regard to domestic water use, sanitation and fire protection. In conjunction with the guidelines set forth in the Drought Contingency Plan (DCP) the City will minimize the adverse impacts of water shortages and continue to protect the health and welfare of the citizens of Athens.

The policies presented in this plan are needed to efficiently manage the water available to the City of Athens for the benefit of all customers. This plan in conjunction with the previously adopted DCP will play a critical role in providing a sustainable water supply for the citizens of Athens for years to come.

SECTION II: SERVICE AREA AND UTILITY PROFILE

LOCATION

The City of Athens is the county seat of Henderson County and is located 70 miles east of Dallas and 45 miles west of Tyler at the convergence of SH 31, US 175 and SH 19. The City currently encompasses 19 square miles and has a one-mile ETJ.

SYSTEM INFORMATION

The City of Athens is a retail water provider with approximately 5000 connections. The City's situation is unique because of the presents of the Athens Municipal Water Authority (AMWA). AMWA is responsible for the operations and maintenance of the Lake Athens reservoir and the City operates and maintains the water treatment plant and ground water well owned by AMWA. In addition, the City owns, operates and maintains three ground water wells inside the City limits.

The Athens Municipal Water Authority was created in 1955. The original purpose of the water authority was to construct Lake Athens and a 2.0 million gallons per day (MGD) surface water treatment plant to furnish potable water to the City of Athens. Lake Athens was constructed in 1962 and is a 1,520-acre lake with a 3,000-foot-long earthen dam and uncontrolled spillway. AMWA is authorized to divert 8,500-acre feet per year from the lake. The plant was expanded to treat 6.0 MGD in 1985 then again in 2000 to treat a total of 8.0 MGD.

The 8.0 MGD water treatment facility consists of a raw water intake, two clarifiers, four dual media filters and two 500,000-gallon clear wells. Treated water is pumped to the City of

Athens through two pipelines (18 inch and 14 inch). The City takes delivery of the water at the master meter located at the water treatment plant.

In 2015, AMWA constructed a 1200 gallon per minute (GPM) ground well next to the existing water treatment plant. The well has a permitted limit of 250 million gallons (MG) annually. The well water is combined with the surface water at the plant and distributed to the end users by the City of Athens.

AMWA's only potable water customer is the City of Athens. AMWA also provides raw water to the Texas Freshwater Fisheries Center (TFFC).

WATER SOURCE DATA

As previously stated the City of Athens has five separate sources of water. These sources give the City a potential supply of approximately 10 MG of potable water per day. Table 1.1 provides the permitted supply of water by location. All sources are metered onsite to record the amount of water provided at each location. The Faulk Street well produces the lowest amount of water on a daily basis of the three City owned wells. Table 1.2 shows the water produced from each of the permitted sources for the past three years. Surface water was the primary source until 2015 when the AMWA ground water well located at the water plant was placed in operation. The split between well water and surface water was close to 50/50 in 2018.

Table 1.1 - Permitted Water Source Information

Water Supply Source	Source Type	Permited	Actual Gallons Per Day	Actual Gallons Per Year
Lake Athens WTP	Surface	8,000,000	6,000,000	2,190,000,000
AMWA Well at WTP	Ground	684,932	1,000,000	250,000,000
Scott Street Well	Ground	561,600	240,000	204,984,000
Lane Street Well	Ground	360,000	145,000	131,400,000
Faulk Street Well	Ground	295,200	28,000	107,748,000
	Total	9,901,732	7,413,000	2,884,132,000

Table 1.2 - Water Produced by Source (2016-2018)

	Gallons Produced					
Permitted Source	2016	2017	2018			
Faulk Street Well	5,446,000	16,317,000	9,100,000			
Scott Street Well	47,575,000	122,013,000	93,509,000			
Lane Street Well	30,837,000	64,674,000	63,269,000			
Water Treatment Plant Well	81,706,000	236,891,000	236,225,000			
Water Treatment Plant	533,588,000	268,310,000	290,969,000			
Total Produced	699,152,000	708,205,000	693,072,000			

METERING

The City of Athens meters all water use. The water removed from Lake Athens is metered prior to entering the plant. The water pumped from each well is metered prior to chlorination and entering the water system. These meters are monitored daily and recorded on a monthly basis. This metering is essential to provide accurate reporting to the TWDB and TCEQ and to track the efficiency in which the water system is operating.

The meters at the plant and the wells are calibrated annually to ensure the water is being metered to plus or minus 5% accuracy.

All connections to the system are metered by either manual read meters or automatic read meters. The City is currently in the process of upgrading all meters to Neptune automatic read meters. Staff changes out approximately 1000 meters each year. The City is in the fourth year of a five year change out program, therefore there are approximately 1400 meters remaining to be upgraded.

The Utility System Maintenance Department in conjunction with the Utility Billing Department track meter testing, repair and maintenance. All work is scheduled and documented using work orders. Work orders may be generated several ways:

- Customers may call with a meter complaint,
- Utility Billing may see excessive usage on a meter, or
- Scheduled meter replacement or maintenance.

Work orders are completed by the Line Maintenance technicians and documented through Utility Billing.

CUSTOMER DATA

The City of Athens currently maintains the following size of meters shown in Table 1.3 and the associated monthly base rate per meter size which includes the first 2000 gallons of water. Once a customer has used 2000 gallons during a month the City then charges \$3.15 for each additional 1000 gallons of water consumed. On the sewer side the customer gets the first 2000 gallons included in their base rate and pays \$6.07 for each additional 1000 gallons. Residential sewer accounts are capped at 7000 gallons regardless of the water use.

Table 1.3 - Meter Count by Size and Base Rate

Meter Size	Total Number	Ba	se Rate
3/4	4655	\$	19.00
1	372	\$	30.40
1 1/2	107	\$	60.80
2	211	\$	91.20
3	26	\$	190.00
4	7	\$	304.00
6	1	\$	760.00
Water per 1000 C	Gallons over 2000	\$	3.15
Sewer per 1000 C	Gallons over 2000	\$	6.07

^{*} Residential Sewer is capped at 7000 Gallons

Table 1.4 shows the breakdown of water sales by type. Single family residential is the highest percentage of water use in the City of Athens. However, when looking at individual users, institutional accounts (Henderson County Justice and UT Health) rank in the top 5.

Table 1.4 - Consumption in Gallons by Use Type (2018 - 2014)

Use Type	2014	2015	2016	2017	2018
Single Family Residential	345,936,000	323,471,700	295,020,600	296,265,600	304,152,700
Multi-Family Residential	54,720,600	53,486,300	61,025,600	50,640,500	48,637,400
Industrial	17,583,100	16,425,300	14,646,200	14,189,400	15,774,800
Commercial	97,311,000	101,874,300	96,482,900	91,474,900	85,491,900
Institutional	102,296,400	118,994,900	110,616,200	106,178,200	120,758,100
Agricultural	11,600	37,700	37,200	214,900	65,500
Total Consumption	617,858,700	614,290,200	577,828,700	558,963,500	574,880,400

Table 1.5 shown below, includes the municipal gallons of water per capita per day (GPCD) and splits out residential use GPCD. This information is important to review when considering the type of conservation practices that will be most effective in the City of Athens. It also gives the City a starting place for the base usage in 2018 and reduction goals for 2024 and 2029. The annual water loss is shown on the chart in gallons and gallons per capita per day. The water loss percentage for the City of Athens during the 2018 calendar year was 17.24%. This number is high, and the City will implement goals to reduce the amount of loss over the next 10 years.

Table 1.5 - 2018 Gallons and GPCD: Treated, Consumed, Residential and Loss

Category	Gallons	GPCD	
Total Treated Water	693,072,000	145	
Total Consumed Water	574,880,400	120	
Total Residential Water	352,790,100	74	
Water Loss	118,191,600	25	

The City of Athens will implement Best Management Practices (BMP) based on the high percentage of residential water use. More than 50% of the City's water use is single family residential and multi-family. Institutional use is the second largest percentage of water use in the City. The water use at these facilities are difficult to reduce because they are tied directly to the health and safety of our citizens. The Henderson County Justice Center is our largest water user; however, the prison system rules and regulations are extremely rigorous and do not allow the County Sheriff much leeway in reducing the water inmates have access to. The Justice Center has an occupancy load of 500 inmates with an average occupancy of 400 people not including staff. Research has shown typical daily per capita use for inmates in 150 GPCD. Therefore 400 inmates would use approximately 60,000 gallons per day and 1.8 million gallons per month.

POPULATION AND FUTURE DEMAND

The City of Athens water utility served approximately 13,137 residents in 2018, and the population is projected to grow to 15,863 by the year 2028. Based on the population and the recommended demand projection from TWDB, Table 1.6 shows the projected water supply needs for the City with no water conservation practices in place. The goal would be to reduce the demand based on the five-year and ten-year water conservation plan implementation.

Table 1.6 - Population Projection and Water Demand Without Conservation Plan

Year	Population	Gallons Per Capita	Demand (gallons)
2018	13137	145	693,072,000
2019	13826	145	731,741,050
2020	14515	145	768,206,375
2021	14684	145	777,124,238
2022	14852	145	786,042,100
2023	15021	145	794,959,963
2024	15189	145	803,877,825
2025	15358	145	812,795,688
2026	15526	145	821,713,550
2027	15695	145	830,631,413
2028	15863	145	839,549,275
2029	16032	145	848,467,138
2030	16200	145	857,385,000

SECTION III: CONSERVATION PLAN

OBJECTIVES AND GOALS

The objective of this plan is to reasonably reduce water consumption levels so that the City can become a good steward of the water resources that it currently has. To follow this standard, the City recognizes the need to reduce the unaccounted loss of water by improving the efficiency in which the water system is run, and the water loss is tracked. Table 1.7 includes the projected demand based on the conservation goals listed below.

There are two main goals the City will focus on for the next 10 years:

- 1) Reduction of the consumed GPCD usage by 0.25% per year
- 2) Reduction of the unaccounted-for GPCD water loss by 2.0% per year

Table 1.7 - Target Gallons Per Capita Per Day

Year	Projected Population	Consumed Gallons Per Capita	Water Loss Gallons Per Capita	Total Gallons Per Capita	Annual Demand (gallons)
			BASE YEAR		
2018	13137	120.0	25.0	145.0	695,275,725
2019	13826	119.7	24.5	144.2	727,703,858
2020	14515	119.4	24.0	143.4	759,786,568
2021	14684	119.1	23.5	142.6	764,433,253
2022	14852	118.8	23.1	141.9	769,040,261
2023	15021	118.5	22.6	141.1	773,608,441
2024	15189	118.2	22.1	140.4	778,138,611
2025	15358	117.9	21.7	139.6	782,631,566
2026	15526	117.6	21.3	138.9	787,088,076
2027	15695	117.3	20.8	138.2	791,508,886
2028	15863	117.0	20.4	137.5	795,894,717

BEST MANAGEMENT PRACTICES

CONSERVATION COORDINATOR

The first step in the implementation of a water conservation plan is the appointment of a Water Conservation Coordinator. The City of Athens has appointed the Director of Utilities position as the Conservation Coordinator. It will he his/her responsibility to do the following:

- 1) Manage and oversee conservation programs and implementation;
- 2) Document water conservation program implementation status as this relates to state requirements and BMPs adopted;
- 3) Communicate and promote water conservation to utility management;
- 4) Coordinate utility conservation programs with operations and planning staff;
- 5) Prepare annual conservation budget;
- 6) Manage consultants and contractors assisting in implementing the water conservation program;
- 7) Develop public outreach and marketing strategies for water conservation; and
- 8) Participate in regional water conservation planning and drought planning initiatives.

The responsibilities of the Conservation Coordinator may appear to be extremely large, however the Texas Water Development Board has published <u>Best Management Practices for Municipal Users</u> which will serve as a guide to the efficient and effective implementation of the City of Athens Water Conservation Plan.

AUTOMATIC METERING

As discussed in the previous section on metering, the City is in the process of upgrading all meter to automatic read meters. These meters are essential tools in helping the reduction of wasted water due to leaks and irresponsible customer use. The meters can track the water use hourly. When Utility Billing identities a meter with abnormal use, a data logger can be placed on the meter and the excessive use can be tracked by time of day which helps to pinpoint the cause.

Data is continuously logged.

MONTHLY WATER LOSS AUDITS

Water loss is identified in several ways:

- 1) System-wide: comparison of treated water volume to consumed water volume,
- Area Specific: Utility Line Maintenance Department responds, repairs and tracks leaks in the system, and
- 3) Customer Specific: monitoring of abnormal use per account.

All three of these practices are in place at the City of Athens and will continue to be improved and refined over the next 5 years.

MEASURES TO CONTROL WATERLOSS

The Utility Line Maintenance Department has an established schedule for the inspection of the City's major transmission lines. The early identification of a leak on the main lines that bring water into the City is critical. The right of way of these lines must be maintained so that crews can visually see the ground over the transmission lines and identify leaks or sinks holes when present.

TRACKING OF FLUSHING AND FIRE DEPARTMENT ACTIVITIES

The City is working on a plan to more accurately track the flushing activities that occur in the system. Historically the City has had to flush significant amounts of water to maintain water quality in part of the City. The volume of water was tracked but not as accurately as necessary to

record loss. The City is investing in hydrant meters to use specifically to track the loss of water through flushing the system.

The Utility Department Administration will also work with the Fire Chief to better document water used for Fire Department purposes such as firefighting and hydrant testing.

SCHOOL AND SOCIAL MEDIA EDUCATION

The City will develop a water conservation educational program to share with students in the Athens Independent School District. The program will focus on the importance of water conservation and easy ways school age children can do their part.

The City current has an active website and Facebook page. Water conservation announcements will be distributed to the community using both social media outlets. The goal will be a quarterly tip for conserving water.

NON-PROMOTIONAL WATER RATE STRUCTURE

Currently the City of Athens charges a flat rate per 1000 gallons of water regardless of the amount of water used. A more progressive rate structure would include a tiered approach that would charge a higher fee for water that is used in excess of a set threshold. For example, the City current charges \$3.15 per 1000 gallons of water no matter how much water is used. A tiered structure may charge \$3.15 for the first 5000 gallons and then the cost could increase to \$4.15 for the next 5000 gallons and then \$5.15 for the next 5000 gallons.

The City has one more year to fulfill it current rate adoption schedule. In 2020 a new rate study will be done to review the possibility of implementing a tiered or block rate fee schedule.

WATER SURVEY FOR SINGLE FAMILY AND MULTI-FAMILY CUSTOMERS

The City will offer customers water use surveys beginning in 2022. The intent would be to help customers identify the inefficiencies in their water use. The City will survey appliances and plumbing fixtures in single family and multi-family structures. The result will be a list of recommendations provided to each participant with potential water saving initiatives. The City may participate in small upgrades if there is funding.

The City of Athens has adopted the following BMP and associated implementation schedule shown on Table 1.8. This plan will be updated in five years to reflect the actual BMP implementation schedule.

Table 1.8 - Best Management Practices Schedule of Implementation

Best Management Practice	Status of BMP									
(BMP)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Conservation Coordinator				Utility Dire	ctor is the A	appointed (Coordinator			
Automatic Read Meters	Complete	by 2020						2nd Rep	olacement	Program
Monthly Water Loss Audits Through UB account usage reports		Ongoing								
Inspection of Transmission Lines, System Connections and abandoned Services		Ongoing								
Tracking of Flushing and Fire Department Activities	2020 Purchase of Metering Devices to Track Flushing									
School and Social Media Education	Quartley Social Media Campaign and Annual School Programs									
Non-promotional Water Rate Structure		2021 New Rates Study with Possible Tiered Rates to Promote Conservation								
Water Survey for Single-Family & Multi- Family Customers				Water Sun	vey SF/MF	Water Su	rvey SF/IR			

RESERVOIR SYSTEMS OPERATIONS PLAN

Lake Athens reservoir is operated by the Athens Municipal Water Authority (AMWA). AMWA is a taxing entity that is self-governed. The function of AMWA is to operate and maintain Lake Athens, therefore the City of Athens does not have a Reservoir Systems Operations Plan.

COORDINATION WITH REGIONAL PLANNING

The City of Athens is part of the Neches & Trinity Valleys Groundwater Conservation District.

The District's plan was most recently updated is April of 2018.

Region C

ENFORCEMENT PROCEDURES AND PLAN ADOPTION

The City of Athens City Council adopted this Water Conservation Plan by Resolution on June 11, 2019. The Council has established the expectation for City staff to implement and monitor this plan. The resolution also requires that water conservation reporting to be performed in a timely manner. The resolution requires the plan be updated and adopted in 2024.



D. Projected Demands

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

Year	Population	Water Demand (gallons)
2020	14,515	794,696,250
2021	14,684	803,921,625
2022	14,852	813,147,000
2023	15,021	822,372,375
2024	15,189	831,597,750
2025	15,358	840,823,125
2026	15,526	850,048,500
2027	15,695	859,273,875
2028	15,863	868,499,250
2029	16,032	877,724,625

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

Water demand was determined by TWDB planning tool.

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
Henderson County J.C.	Institutional	19,979,900	Treated
UT Health	Institutional	11,584,400	Treated
South Place Nursing	Institutional	5,635,700	Treated
Oaks of Fairview	Institutional	5,585,100	Treated
Village Apartments	Residential	5,009,200	Treated

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

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



F. Utility Data Comment Section

Additional comments about utility data.

The City of Athens high water users are the Henderson County Justice Center (inmate holding facility) and UT health which is the local hospital. The City does not have a high industrial water user. The other three on the top five list are nursing homes and one apartment complex.

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	4,526	70.09 %
Residential - Multi-Family	1,086	16.82 %
Industrial	3	0.05 %
Commercial	702	10.87 %
Institutional	140	2.17 %
Agricultural	0	0.00 %
Total	6,457	100.00 %

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

	Net Number of New Retail Connections									
Year	Residential - Single Family	Residential - Multi-Family	Industrial	Commercial	Institutional	Agricultural	Total			
2018	11	0	0	5	0	0	16			
2017	4	0	0	4	6	0	14			
2016	8	0	0	0	3	0	11			
2015	3	0	0	1	0	0	4			
2014	0	0	0	4	0	0	4			



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	304,152,700	48,637,400	15,774,800	85,491,900	120,758,100	65,500	574,880,400
2017	296,265,600	50,640,500	14,189,400	91,474,900	106,178,200	214,900	558,963,500
2016	295,020,600	61,025,600	14,646,200	96,482,900	110,629,300	37,200	577,841,800
2015	323,471,700	53,486,300	16,425,300	101,874,300	118,994,900	37,700	614,290,200
2014	345,939,000	54,720,600	17,583,100	97,311,000	102,296,400	11,600	617,858,700

C. Residential Water Use

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

Year	Total Residential GPCD
2018	74
2017	75
2016	77
2015	82
2014	88
Historic Average	79



D. Annual and Seasonal Water Use

1. The <u>previous five years'</u> gallons of treated water provided to RETAIL customers.

	Total Gallons of Treated Water					
Month	2018	2017	2016	2015	2014	
January	39,640,300	34,909,100	37,846,900	37,993,000	35,658,200	
February	33,805,900	34,271,300	30,830,500	33,001,900	36,785,200	
March	27,900,300	37,437,000	34,250,300	30,318,900	32,569,900	
April	35,388,500	40,629,300	41,473,500	38,856,300	41,542,400	
May	43,776,600	41,568,000	36,224,700	36,923,700	56,555,100	
June	62,974,000	51,994,500	39,377,300	42,199,100	60,395,200	
July	68,773,700	51,838,200	70,263,800	59,670,300	64,895,500	
August	81,688,500	60,909,400	74,764,400	100,664,700	72,325,200	
September	67,448,000	65,943,500	59,283,500	76,134,400	67,742,700	
October	44,238,000	56,898,800	58,052,500	75,935,500	61,602,400	
November	32,273,300	44,516,000	61,040,000	47,976,600	50,452,700	
December	36,973,300	38,048,400	34,434,400	34,615,800	37,334,200	
Total	574,880,400	558,963,500	577,841,800	614,290,200	617,858,700	



2. The <u>previous five years'</u> gallons of raw water provided to RETAIL customers.

		Total (Gallons of Raw	Water				
Month	2018	2017	2016	2015	2014			
January								
February					Total India			
March			Service Service					
April								
May								
June					Was Talley			
July								
August								
September		THE YOUR						
October								
November								
December		NEW YEAR						
Total	PUX E							

3. Summary of seasonal and annual water use.

	Summer RETAIL (Treated + Raw)	Total RETAIL (Treated + Raw)
2018	213,436,200	574,880,400
2017	164,742,100	558,963,500
2016	184,405,500	577,841,800
2015	202,534,100	614,290,200
2014	197,615,900	617,858,700
Average in Gallons	192,546,760.00	588,766,920.00



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	118,191,600	25	17.05%
2017	149,241,500	32	21.07%
2016	121,323,300	26	17.35%
2015	142,016,143	30	18.78%
2014	168,471,627	36	21.43%
Average	139,848,834	30	19.19%

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	1,575,014	2,319,958	1.4730
2017	1,531,406	1,790,675	1.1693
2016	1,583,128	2,004,407	1.2661
2015	1,682,986	2,201,457	1.3081
2014	1,692,763	2,147,998	1.2689

G. Summary of Historic Water Use

Water Use Category	Historic Average	Percent of Connections	Percent of Water Use
Residential - Single Family	312,969,320	70.09 %	53.16 %
Residential - Multi-Family	53,702,080	16.82 %	9.12 %
Industrial	15,723,760	0.05 %	2.67 %
Commercial	94,527,000	10.87 %	16.06 %
Institutional	111,768,760	2.17 %	19.98 %
Agricultural	73,380	0.00 %	0.01 %



H. System Data Comment Section					

Section III: Wastewater System Data

A. Wastewater System Data

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

2,393,333

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

Water Use Category	Metered	Unmetered	Total Connections	Percent of Total Connections
Municipal	0	4,814	4,814	82.97 %
Industrial	0	46	46	0.79 %
Commercial	0	695	695	11.98 %
Institutional	0	247	247	4.26 %
Agricultural	0	0	0	0.00 %
Total	0	5,802	5,802	100.00 %

3. Percentage of water serviced by the wastewater system:

99.00 %



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

	Total Gallons of Treated Water				
Month	2018	2017	2016	2015	2014
January	32,680,000	38,790,000	45,640,000	37,610,000	36,840,000
February	40,860,000	33,980,000	44,910,000	33,510,000	33,710,000
March	39,450,000	35,130,000	58,050,000	49,580,000	35,580,000
April	33,020,000	34,400,000	54,760,000	46,270,000	34,120,000
May	36,510,000	35,210,000	56,430,000	64,560,000	35,330,000
June	37,550,000	39,550,000	57,020,000	44,830,000	37,550,000
July	37,290,000	40,010,000	43,850,000	51,160,000	36,220,000
August	38,170,000	35,020,000	42,800,000	38,080,000	36,080,000
September	35,990,000	34,830,000	37,420,000	33,330,000	33,780,000
October	37,980,000	33,940,000	35,940,000	41,470,000	34,320,000
November	35,050,000	24,940,000	33,910,000	51,720,000	33,740,000
December	41,100,000	37,650,000	35,710,000	55,550,000	34,120,000
Total	445,650,000	423,450,000	546,440,000	547,670,000	421,390,000

5. Could treated wastewater be substituted for potable water?

Vac
168



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)	
Agricultural	
Discharge to surface water	
Evaporation Pond	
Other	
Total	



C. Wastewater System Data Comment

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

The City of Athens has two wastewater treatment plants, a North Plant and a West Plant.

Attachment B

FIRST AMENDED AGREEMENT

STATE OF TEXAS

§

COUNTY OF HENDERSON

8

THIS FIRST AMENDED AGREEMENT made and entered into this 20th day of December 2017, but effective as of October 9, 2017 (herein referred to as the Effective Date), by and between the Athens Municipal Water Authority, a political subdivision of the State of Texas. (hereinafter called "Authority") and the City of Athens, a Municipal Corporation of the County of Henderson, Texas, acting by virtue of the general laws of the State of Texas, (hereinafter called "City") (collectively "City" and "Authority" referred to herein as "parties" and singularly referred to as a "party" when applicable to either of "City" or "Authority").

WITNESSETH

WHEREAS, Authority has constructed a dam, reservoir, spillway, raw water pumping station (intake facility), water treatment plant, high lift pumping station, water wells, and necessary connecting pipe lines and appurtenances as are necessary in the utilization of impounding, delivery, and treatment of water for municipal, domestic, industrial and other lawful purposes: and

WHEREAS, City has the need and desire to utilize the facilities, service, and cooperation of Authority for the delivery of water to its citizens and businesses; and

WHEREAS, Authority and City have previously entered into Agreements concerning the delivery of raw and potable water for municipal, domestic and industrial purposes;

WHEREAS, City and Authority desire to continue to contract with each other to provide for a water supply for the City's municipal, domestic and industrial purposes, but to replace the existing contract that is now in place with this First Amended Agreement;

WHEREAS, City and Authority has previously entered into an Agreement to address the issues stated above on date of October 9, 2014 that contains a provision in I(B) that Authority and City shall review that Agreement on each third anniversary of the same; and,

WHEREAS, upon review of the Agreement both Authority and City desire to amend such Agreement as herein provided.

NOW THEREFORE, for the consideration of the premises, and the mutual covenants, promises, and payments herein identified, and in the interest of each of City, Authority, and the Citizens of Athens, the parties hereto hereby agree, contract and enter into this "First Amended Agreement" as follows:

(I) TERM, MODIFICATION, AND FURTHER AGREEMENTS

(A) TERM

This First Amended Agreement shall continue in full force and effect for a period of 50 years from the date of October 9, 2014, unless provided otherwise herein. This First Amended Agreement shall be renewed for another 50-year term at the conclusion of this 50 year term subject to approval by both City and Authority.

(B) MODIFICATION OF PROVISIONS

It is expressly understood that both Authority and City shall review this First Amended Agreement on each third anniversary of the same, or as mutually agreed by the parties. The purpose of the review shall include the need to modify the terms of the First Amended Agreement based on changes in circumstances, changes in needs of the community that both City and Authority serve, and changes that may allow both City and Authority to better serve the needs of its constituents. Notwithstanding this provision, this First Amended Agreement may be changed or modified only with the consent of the governing bodies of both the Authority and City. Any modification may be requested by either party during such review process, and that modification shall be considered, discussed and presented to each governing body for consideration.

(C) FURTHER AGREEMENTS

Nothing contained herein shall prohibit City and Authority from making further agreements for either party to assist the other party in the production, treatment or transportation of water.

(II) OPERATION, REPAIR AND MAINTENANCE OF FACILITIES

- (A) The operation, maintenance, repair, improvement, or replacement of the facilities of the Authority, including the dam, reservoir, spillway, intake facility, water treatment plant, transporting facilities, wells, lands, buildings owned by the Authority, and any other facilities owned by the Authority shall be performed by the party herein identified:
 - (i) (a) The City shall be responsible for the operation, maintenance, and repair of the intake facility located within Lake Athens, all connections and pipelines to the water treatment plant, the water treatment plant and its immediately surrounding property (hereinafter sometimes referred to as "excluded property"), and the water well currently located at the site of the water treatment plant. Additionally, City shall be responsible for the operation, maintenance, and repair of any water well drilled in the future by Authority

when any such well is connected to the City's water lines, along with all pipelines and transmission lines associated with said well. The provision of this paragraph shall include City employees being responsible for such acts and operations. The City shall maintain the same in a safe, efficient, acceptable condition of operation and repair in accordance with good business and engineering practices, and shall operate the same in compliance with all governmental regulations. In the event of the City or Authority shall receive notice of any violations relating to the water treatment plant, the intake facility, any connections or pipelines, or any water well identified in this First Amended Agreement, the party receiving such notice shall notify the other party of the receipt of such notice within two business days after receipt of the notice. Additionally, the party responsible for resolving the issue presented in any such notice shall provide in the notice to the other party an identification of what efforts will be or are currently being conducted to cure the issues presented in the notice, and shall give a good faith estimate of the time in which the issue shall be resolved.

- (b) If City fails to perform its obligation of operating, maintaining, and repairing the property identified in the preceding paragraph within a reasonable time after notice from Authority of the need for the operating, maintenance, or repair Authority may enter the premises and undertake to operate, maintain, or repair the property at its own expense. On Authority's notice to City of the performance and cost of any operation, maintenance or repair under this section, City must immediately reimburse Authority for any reasonable costs incurred by Authority under this section. This provision does not apply to the normal wear and tear or the normal deterioration that occurs to the property, but instead applies to the deterioration that is cause by the negligence, carelessness or abuse of the property or equipment that threatens the ability of the property to be used for its intended purpose.
- (c) Upon termination of this First Amended Agreement, all improvements made to, equipment located within, and all fixtures to the properties identified in (II)(A)(i)(a) shall be the property of the Authority.
- (ii) The Authority shall be responsible for all making all capital improvements to the facilities identified in (II)(A)(i)(a) above. The definition of a "capital improvement" for the purposes of this First Amended Agreement shall include fixing a defect or design flaw; creating an addition, physical enlargement or expansion; creating an increase in capacity, productivity or efficiency; rebuilding property after the end of its economic useful life; replacing structural parts of the property; adapting property to a new or different use; and performing upgrades or additions (which shall not include items that are identified as "repair and maintenance" in the following sentence) as required by any governmental agency other than the City. The definition of "repair and maintenance" for the purposes of this First Amended Agreement shall include improvements that keep the facilities in efficient operating condition; restores the facilities to its previous condition; replacement of components that are damaged; protects the facilities through routine maintenance; and other incidental repairs to facilities. The definition of "operations" for the purposes of this First Amended Agreement shall include the cost of all employees, utilities, and all costs incurred in the day to day conduct of the responsibilities of each

party to this First Amended Agreement.

(iii) The Authority shall be responsible for the operation, maintenance, repair, and capital improvements of all other facilities and properties owned by Authority not described in paragraph (II)(A)(i)(a) above. This shall include the reservoir of Lake Athens, its dam, its spillway, all properties owned by Authority adjoining Lake Athens, all properties owned by Authority not adjoining Lake Athens (less the water treatment plant and its surrounding property), and all water wells other than the one well located at the water treatment plant until such well(s) are connected to the City's water lines. City and Authority agree Authority shall control activities conducted upon, construction upon, and the use of all property owned by Authority that is not located within the reservoir of Lake Athens other than the excluded property. This shall include all property located up to the 448 foot mean sea level that adjoins the Lake Athens, and all property owned by Authority that does not adjoin Lake Athens other than the excluded property.

(iv) Water Treatment Plant - Hazardous Materials.

- (a) City may not use, or permit using, the water treatment plant in any manner that results in unnecessary harm to the premises or constitutes a nuisance or for any illegal purpose. City, at its own expense, will comply, and will cause its officers, employees, agents, and invitees to comply, with all applicable laws, ordinances, and governmental rules and regulations concerning the use of the water treatment plant, including Hazardous Materials Laws.
- (b) City, at its sole cost, must comply with all Hazardous Materials Laws in connection with City's use of the premises.
- (c) "Hazardous Materials" means any substance, material, or waste that is or becomes regulated by any local governmental agency, the State of Texas, or the federal government, including, but not limited to, any material or substance that is (1) designated as a "hazardous substance" pursuant to Section 311 of the Clean Water Act, 33 U.S.C. § 1251 et seq. or listed pursuant to Section 307 of the Clean Water Act, 33 U.S.C. § 1317, (2) defined as a "hazardous substance" pursuant to Section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9601 et seq., (3) defined as a "hazardous waste" pursuant to Section 1004 of the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 et seq., (4) petroleum, (5) asbestos, and (6) polychlorinated biphenyls.
- (d) "Hazardous Materials Laws" means any federal, state, or local statute, ordinance, order, rule, or regulation of any type relating to the storage, handling, use, or disposal of any Hazardous Materials, the contamination of the environment, or any removal of such contamination, including, without limitation, those statutes referred to in subparagraph c.

(v) Inspection.

(a) City must permit Authority and Authority's agents, servants, and employees, including but not limited to legal counsel and environmental consultants and engineers, access to the water treatment plant for the purpose of conducting inspections and sampling during regular business hours, and during other hours either by agreement of the parties or in the event of an emergency. City may not restrict access to any part of

the premises, and City may not impose any unreasonable conditions to access. Authority shall give no less than twenty four hours prior notice to City of any inspection (which may be oral or written), but this requirement of advance notice shall not apply in situations deemed to be an emergency by Authority (e.g., fire, lightning strikes, or other situations which may affect or endanger the building or its tenants). Authority shall only access the water treatment plant with a City employee unless an emergency reasonably prevents attendance by a City employee.

- (b) Authority must permit City and City's agents, servants, and employees, including but not limited to legal counsel and environmental consultants and engineers, access to AMWA property inside the City limits, including, but not limited to, the dam and spillway (hereinafter referred to as the "Authority" premises"), for the purpose of conducting inspections and sampling during regular business hours, and during other hours either by agreement of the parties or in the event of an emergency. City shall give no less than twenty four hours prior notice to Authority of any inspection (which may be oral or written), but this requirement of advance notice shall not apply in situations deemed to be an emergency by City. Authority may not restrict access to any part of the Authority premises, and City may not impose any unreasonable conditions to access.
- (B) City shall be permitted to deposit sludge onto the "Frank's Tract" property owned by Authority except as herein stated. City agrees to obtain all necessary permits through the Texas Commission on Environmental Quality and/or any other federal or state agency that may be required and to comply with all TCEQ and federal and state laws and regulations. City shall provide a minimum of thirty (30) days' notice of the date(s) it plans to deposit this sludge. AMWA agrees to mow said property, and City agrees to plow the sludge pursuant to all TCEQ and federal and state laws and regulations. City shall not deposit sludge onto any portion of the Frank's Tract that is designated as a sanitary control easement that surrounds any water well drilled on this tract of land. Authority shall fence any area designated as a sanitary control easement.

(III) ADMINISTRATIVE DUTIES

(A) The Authority shall be responsible for enforcing the rules and regulations of Authority, inspecting all premises owned and maintained by Authority, collecting of all fees, assessments and other monies due and owing Authority from persons or entities utilizing Authority property. Further, the Authority shall be the party to issue, enforce, or revoke of all permits. licenses or privileges for the use of the Authority's property, and of all rules, laws and regulations affecting the Authority's property. Nothing contained herein shall prohibit the City of Athens' police department from patrolling the Authority's property or from enforcing all laws, rules or ordinances upon Authority's property.

(IV) FUTURE RESOURCE DEVELOPMENT

- (A) City and Authority understand and agree that Authority may find it necessary to develop and/or purchase future water resources in future years. The decision to develop or purchase future water resources by Authority shall be solely determined by Authority. All expenses and/or cost associated with the development and/or purchase of said future water resources shall be borne solely by Authority.
- (B) Nothing herein shall prohibit or prevent the City from assisting the Authority with respect to financing or developing future resource development projects.

(V) CITY AS PRIMARY CUSTOMER

- It is understood and agreed by the parties hereto that City shall be Authority's primary customer and Authority shall be City's primary supplier of the water. The Authority agrees it shall provide the City with all the raw water that the City requires for use within the city limits and extraterritorial jurisdiction of Athens, Texas and that the City is able to treat and transport at any given time, now or in the future, subject to the inherent limitations with respect to the safe vield of Authority's reservoir or water wells at any given time now or in the future and the limitations on the volume of water that can be treated by the water treatment plant. The determination of what constitutes a limitation with respect to the safe yield of its reservoir and water wells now existing or which may be developed or exist in the future shall be determined by the Texas Water Development Board, Texas Commission on Environmental Quality, or any other governmental agency with jurisdiction or authority to make such determination. In the absence of such determination by any governmental authority City and Authority shall mutually retain a qualified engineer to conduct a study of the safe yield of Authority's reservoir or water wells. Further, such requirement to provide water is subject to all rules, regulations or restrictions as may be imposed against the delivery of such water supply the Texas Commission on Environmental Quality, The Neches & Trinity Valleys Groundwater Conservation District, or any other governmental entity.
- (B) Notwithstanding that City shall be the primary customer of Authority as pertains to the delivery of water, Authority shall have the ability to sell surplus water to other municipalities, municipal utility districts, other water corporations, Texas Freshwater Fisheries and other private users for primary, secondary and/or emergency uses subject to the demands of Authority's primary customer, the City of Athens, Texas. Any contract with any other party to provide or sell water shall specifically be made subject to the responsibility of Authority to always provide the water identified in the preceding paragraph to City.
- (C) In the event Authority determines it is in Authority's best interest to sell water to another city, town, village, municipality, municipal utility district, or any other type of water corporation for primary, secondary, and/or emergency uses, Authority shall consult with the governing body of City for the purpose of determining whether City agrees to provide its employees for the

purpose of treating said water for said "secondary customer" by and through its operation of Authority's treatment facility and raw intake structures, as well as to determine any such additional compensation to be paid to City by Authority in the event City agrees to provide its employees in treating said water for use by said "secondary customer". In the event the Authority wishes to sell water to another entity as described above and the Authority further wishes and desires that said water to be provided to said entity be treated at its currently existing water treatment plant/facility, and City is unable or unwilling to agree to provide its employees to treat said water to be provided to said "secondary entity(s)" at an agreed upon additional compensation to City, then and in that event, said City and Authority agree the treatment facility and raw intake structure shall not be used for such purpose, or at the request of Authority that the matter shall be put to a public referendum vote by all registered voters authorized to vote in City and Authority's jurisdiction. Nothing herein shall limit Authority's ability to provide water to a "secondary entity" if the Authority is able sell raw water or to treat said water in another treatment facility or plant to be constructed for the particular purpose, subject to Authority's primary responsibility of providing sufficient quantities of water to the City.

- (D) City agrees to pay to Authority, on an annual basis, the sum of \$48,000.00 for the raw water furnished to City by Authority from the Lake Athens Reservoir, the one well located at the water treatment plant, and all water that may be provided to City from future wells that may be developed by the Authority. City shall also pay any fees charged by The Neches & Trinity Valleys Groundwater Conservation District or any other governmental entity for charges made to Authority for the operation or production of the water well located at the water treatment plant, and for any water well drilled by Authority once connected to City's water lines.
- (E) City agrees that it will not sell water provided by Authority to any other governmental entity or third party. However, in the event of an emergency which poses an imminent threat to the health, safety and welfare of customers serviced by another governmental entity or third party, City may sell such water as is reasonably necessary to adequately address said emergency. In such an event, the sale of water by City shall only be permitted after obtaining consent from Authority.

(VI) POINT OF DELIVERY

(A) The point of delivery of water to City by Authority shall be (i) for water from Lake Athens at the water intake facility, (ii) for water from the water wells at the water treatment plant at Authority's existing water treatment plant, or (iii) for water from any future water well to be developed at the wellhead of such well. In the event future water wells are developed by Authority and such wells are used for the purpose of providing water to City under the terms of this First Amended Agreement the water lines necessary to connect such wells to the water treatment plant or main lines or City shall be constructed by Authority. City agrees to construct, maintain and operate at its own cost and expense any material or equipment required to deliver water from Authority's water treatment plant now existing, or to be constructed in the future, to lines that connect with City's main water lines. All lines on City's side of the custody point (being the customer side of the potable water meter at the water treatment plant now existing or

(VII) INSURANCE REQUIREMENTS/ INDEMNIFICATION

- (A) City agrees to provide at its own expense worker's compensation insurance on all employees of City which may in any way be utilized in the operation of Authority's facilities or property. City further agrees to and shall provide a waiver of worker's compensation subrogation in favor of Authority with respect to each employee above-mentioned.
- (B) Authority agrees to provide worker's compensation insurance on any of its employees and further agrees to provide a waiver of worker's compensation subrogation in favor of City for any employees of Authority.
- (C) City further agrees to provide complete liability insurance covering the inspector herein identified for so long as such personnel is a City employee. City agrees and shall specifically name Authority as an additional insured on such liability policy.
- (D) To the extent authorized by the Constitution and laws of the State of Texas, each party shall indemnify and hold the other party harmless against any and all claims, demands, damages, liabilities and costs which directly or indirectly result from, or arise in connection with, any negligent act or omission of the indemnifying party, its agents, or employees, pertaining to its activities and obligations under this First Amended Agreement.
- (E) Each of the parties shall have the responsibility of insuring each of the property interests they have to any of the Authority's facilities, equipment, or property, but Authority shall keep all buildings and improvements consisting of the water treatment plant insured against loss or damage by fire or theft, and to include direct loss by windstorm, hail, explosion, aircraft, vehicles, smoke, and acts of terrorism in the total amounts of not less than the full fair insurable value of the buildings and improvements. The insurance is to be carried by one or more insurance companies authorized or admitted to do business in Texas. The insurance policy or policies must name both Authority and City as insureds. The City shall, at the time of making the payment identified in (V)(D), reimburse the Authority for the cost of such insurance. If the water treatment plant insurance is included in a policy obtained by Authority that includes other properties, City shall pay a prorata share of the policy premium consisting of the total premium, for property damage only as above describe, for the water treatment plant's value as compared to the value of all the properties included in the policy.
- (F) To the extent authorized by the Constitution and laws of the State of Texas, each party shall indemnify and save harmless the other party and its officers, agents, and employees from all fines, suits, actions, losses, damages, claims, or liability of any character, type, or description, including without limiting the generality of the foregoing all expenses of litigation, court costs, and attorney's fees for injury or death to any person, or injury to any property, received or sustained by any person or persons or property, arising out of, or occasioned by, (1) the negligent acts of the indemnifying party or its agents or employees, in the execution or performance of

this contract, and (2) the breach of this First Amended Agreement by the indemnifying party.

(VIII) DEFAULT

- (A) In the case of any default of any of the covenants or conditions herein, the non-defaulting party shall notify the defaulting party to cure such default(s) immediately. The defaulting party shall have thirty (30) days to cure the default(s) and/or to perform any condition or covenant of this First Amended Agreement from date of written notification from non-defaulting party to defaulting party. In the event defaulting party fails to cure said default within thirty days after written notification from non-defaulting party, said failure to perform a condition or covenant or to cure said default under this First Amended Agreement shall constitute a formal breach of this First Amended Agreement. In the event this First Amended Agreement is formally breached by one of the parties hereto, then the governing body of the non-defaulting party may meet and consider whether or not to terminate this First Amended Agreement or to otherwise seek enforcement of the terms of this First Amended Agreement, but this provision is subject to the mediation provisions/requirements as identified in paragraph (C) of this section.
- (B) No waiver or waivers of any breach or default (or any breaches or defaults) by any party hereto or of performance by any other party of any duty or obligation hereunder shall be deemed a waiver thereof in the future, nor shall any such waiver or waivers be deemed or construed to be a waiver of subsequent breaches or defaults of any kind, character or description, under any circumstance.
- (C) If a dispute arises out of or relates to this First Amended Agreement, or the breach thereof, and if the dispute cannot be settled through negotiation, the parties agree that before they take any action that would invalidate, terminate, or void this First Amended Agreement, or before any litigation is filed to enforce he terms of this First Amended Agreement, to first to try in good faith to settle the dispute by mediation no later than thirty (30) days from formal notification of a dispute and/or breach of this First Amended Agreement that cannot be resolved through negotiation. Mediation shall be an express condition precedent to the initiation of litigation by either party to this First Amended Agreement. This provision shall not prohibit either party from seeking temporary injunctive relief if the same is believed to be necessary to protect the interest of that party.
- (D) If any legal action is brought by either of the parties hereto, it is expressly agreed that the prevailing party in such legal action shall be entitled to recover from the other party reasonable and necessary attorney's fees in addition to any other relief that may be awarded. For the purposes of this clause, the prevailing party is the party who obtains a net damage recovery or the party in whose favor final judgment is entered. In the event that declaratory or injunctive relief alone is granted, the court may determine which, if either, of the parties shall be considered to be the prevailing party. The amount of reasonable and necessary attorney's fees shall be determined by the court, in the trial of such action or in a separate action brought for that purpose. Attorney's fees awarded under the provisions of this paragraph shall be in addition to any other relief that may be awarded.

- (E) No act, actions, omission, or breaches of any contract in the past by either party shall be interpreted to be a violation or breach of this First Amended Agreement.
- (F) For purposes of interpretation of this First Amended Agreement, neither City nor Authority shall be deemed to have been the drafter of this First Amended Agreement.

(IX) REGULATORY PROVISIONS

(A) This First Amended Agreement is subject to all applicable Federal laws, the laws of the State of Texas and any applicable permits, ordinances, statutes, rules, orders and regulations of any local, state or federal governmental authority having or asserting jurisdiction; but, nothing contained herein shall be construed as a waiver of any right to question or contest any such law, ordinance, order, rule or regulation in any forum having jurisdiction.

(X) FORCE MAJEURE

(A) In the event that either party shall be prevented from performing any of its obligations due under the terms of this First Amended Agreement by an act of God, by acts of war, riot, or civil commotion, by an act of State, by strikes, fire, flood, or by the occurrence of any other event beyond the control of the parties hereto, that party shall be excused from any further performance of the obligations and undertakings set forth under the terms of this First Amended Agreement.

(XI) SEVERABILITY

(A) The parties hereto agree that if any of the provisions of this First Amended Agreement shall be held invalid under the laws of this state, such shall not invalidate the whole agreement but it shall be construed as though not containing that particular provision and the rights and obligations of the parties shall be construed and enforced accordingly.

(XII) OTHER AGREEMENTS

- (A) The terms of this First Amended Agreement shall not prevent either party from complying with the current Drought Contingency Plan that has been approved by City and Authority or as may be amended in the future.
- (B) This First Amended Agreement supersedes any and all other agreements, either oral or in

writing, between the parties with respect to the subject matter of this First Amended Agreement except as otherwise herein identified, and contains all of the covenants and agreements between the parties with respect to the subject matter.

IN WITNESS WHEREOF, the parties hereto acting under authority of their respective governing bodies have caused this First Amended Agreement to be duly executed in several counterparts, each of which shall constitute an original, all as of the day and year first above written.

[Signature attached on the following page]

APPROVED this 19th day of Weamber, 2017, BY THE CITY COUNCIL OF THE CITY OF ATHENS, TEXAS.

MONTE MONTGOMERY Mayor, City of Athens

ATTEST:

Bonnie Hambrick

City Secretary

APPROVED this day of December 2017, BY THE BOARD OF DIRECTORS OF ATHENS MUNICIPAL WATER AUTHORITY.

President, A.M.W.A.

Secretary, A.M.W.A.