



CITY OF BRYAN
The Good Life, Texas Style.™

Water Conservation Plan

May 2014

Public Water Supply Identification Number: 0210001
Brazos County

Jayson Barfknecht, Ph.D., P.E., Director of Public Works
Charles Rhodes, Production & Field Operations Manager

P.O. Box 1000
1111 Waco Street
Bryan, TX 77805
979.209.5900
<http://www.bryantx.gov>

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SECTION 1 DECLARATION OF POLICY, PURPOSE, AND INTENT

The purpose of the Water Conservation Plan (the Plan) is to: promote the wise and responsible use of water by implementing structural programs that generate quantifiable water conservation results; develop, maintain, and enforce water conservation policies and ordinances; and support public education programs that educate customers about water and wastewater facilities operations, water quantity and quality, water conservation, and non-point source protection.

SECTION 2 UTILITY PROFILE

A completed Texas Water Development Board (TWDB) "Utility Profile & Water Conservation Plan Requirements for Municipal Water Use by Public Water Suppliers" form is located in Appendix A.

Population and customer data

The City's Water/Wastewater Utility currently services an area of 44.51 square miles (expandable to 72.83 square miles based on current CCN area) and an estimated population of approximately 80,877 residents. The City provides drinking water to its customers through a network of 474 miles of distribution and transmission mains that provide service to more than 23,800 water connections.

The United States Census Bureau shows the 2010 population for Bryan as 76,201, which is a 16.05% increase in population since 2000. Population projections for Bryan, designated in the draft 2016 Brazos Region G Regional Water Plan, forecast the City's population will reach 84,350 by 2020 and 93,544 by 2030. Without conservation measures in place, the City's water consumption peak day demand is estimated to be 29.4 MGD by 2020 and 32.7 MGD by 2030. Based on our current CCN allocations, Bryan, in conjunction with CDM Smith, anticipates our service population to exceed the projections provided by the Region G Group. We forecast the service population will reach 88,434 by 2020 and 102,632 by 2030. Without conservation measures in place, the City's water consumption peak day demand is projected to be 30.8 MGD by 2020 and 35.9 MGD by 2030.

The City of College Station and other local Water Supply Corporations have agreements with Bryan to purchase, or sell, potable water through metered lines. These connections are typically only used in periods of high demand or during emergency situations.

A regional study of water resources in the Brazos and Robertson County areas concluded that a sufficient supply of water, for all entities drawing from the aquifer, will be obtainable through the year 2050 and beyond. Even though the conclusions of this study forecast no shortages in the near future, City staff believes that it is in the City's best interest to implement a conservation plan to protect the City's long-term water supply.

Water use data

Table 1 below summarizes key water use statistics for 2009 – 2013. Average per person usage is given in gallons per capita per day (GPCD). Average and peak daily water demand is given in million gallons per day (MGD). The peak day to average day ratio varies between 1.79 and 2.06, meaning that peak day demand is typically close to twice the average demand.

The peak demand for the City is 24.7 MGD, reached on September 25, 2005. During high demand periods when large volumes of water are being pumped from the aquifer, the production capacity of the wells is reduced due to declining water levels of the aquifer and higher discharge heads at the surface. The City's water production and pumping system capacity is currently 37.7 MGD.

Table 1: Municipal Water Demand 2009 – 2013

Year	2009	2010	2011	2012	2013
Peak GPCD	296	274	318	274	292
Annual Average GPCD	150	145	178	144	142

Peak Day (MGD)	22.2	20.9	24.6	21.5	23.3
Average Day (MGD)	11.3	11.0	13.8	11.3	11.3
Peaking Factor	1.97	1.90	1.79	1.90	2.06

Water Production and Delivery System

The City of Bryan has utilized groundwater for its public water supply from its initial development. Ten groundwater wells owned by the City withdraw water from the Simsboro Sand formation of the Carrizo-Wilcox Aquifer with two additional wells drawing water from the Sparta Aquifer. The City's well-field is located northwest of Bryan in the general vicinity bounded by FM 2818, Mumford Road, Old San Antonio Road and State Highway 6. From the wells, the water is pumped to cooling towers, located at 5429 North Texas Avenue, which reduce the raw water temperature from 118° F down to approximately 88° F. After passing through the towers, the water gravity feeds to ground storage reservoirs and the Low Service Pump Station where it is treated to meet Safe Drinking Water Act standards. The water is then pumped through three water transmission lines to the Tabor Street Pump Station in Bryan. The City's water distribution system includes two ground storage reservoirs and three elevated storage tanks, providing a total storage capacity of 14 million gallons for treated water.

Wastewater Collection and Treatment System

Wastewater in Bryan travels through a network of over 400 miles of wastewater collection lines to one of three wastewater treatment plants: Burton Creek, Still Creek and Thompsons Creek Wastewater Treatment Plants. The three wastewater treatment plants, along with 24 lift stations, serve a population of over 80,000 people, with an average daily discharge ranging from 6.4 to 7.8 MGD and a maximum daily wastewater treatment capacity of 14.0 MGD.

SECTION 3 CONSERVATION GOALS

The purpose of this water conservation plan is to reduce long term demand on the water use through changing the way Bryan residents utilize their water resource. Its primary goal is to effectively reduce waste and influence conservation habits of the residents of Bryan. A reduction of the peak demand will enable the City to defer new capital expenditures for production facilities required to contend with escalating daily demand peaks.

Goal 1: Reduce peak daily water demand

Goal 2: Reduce peaking factor

TCEQ rules require the City build capacity to meet escalating peak daily demands, which, as discussed in Section 1, can be more than twice the average demand. Thus, reducing those peak demands will enable the City to defer new capital expenditures for production facilities, and better utilize available water resources.

The City aims to reduce peak demand through two methods: programs targeted at reducing peak per capita demand, and programs aimed at reducing the peaking factor. Table 2 outlines projected targets for reducing per capita demand and peaking factor. The Texas Water Conservation Advisory Council and Texas Water Development Board recommend that municipalities set goals of reducing per capita consumption by 1% per year. The goals proposed in this plan are structured so that consumption is reduced by 1% each year, meeting the ultimate goal within ten years.

Table 2: Municipal per capita water use goals

Year	2018	2023
Peak GPCD	283	268
Annual Average GPCD	140	133
Peaking Factor	2.02	2.02

Goal 3: Maintain unaccounted-for water at or below 10%

Table 3: Water Accountability

Year	2018	2023
Demand (MG)	4,394	4,485
Unaccounted for Water (MG)	352	359
Unaccounted for Water (%)	8%	8%

In any system, water loss can be attributed to leaks, line breaks, flushing, meter inaccuracies, theft, or unmetered connections. The City monitors water production and water billing on a monthly basis and tracks system water loss on a percentage basis. The City has consistently maintained an average water accountability rating of 10% or less, meaning that water billed is greater than or equal to 90% of water produced. At a minimum, the City will continue to meet this target, and investigate ways to improve water accountability at or above 90%.

Time frame for achieving conservation goals

The three goals outlined above are designed to be achieved within 10 years of the date of adoption of this Plan. The City will periodically evaluate the plan in accordance with State and Federal regulations to determine the extent, if any, that the plan needs modification.

SECTION 4 STRATEGIES TO ACHIEVE CONSERVATION GOALS

WATER RATE STRUCTURE

The City's water rate structure utilizes the cost-of-service method, which is based on costs incurred for services provided by the Water Services Department. The current rate structure charges monthly service fees based on customer class and meter size, plus a uniform water usage rate per thousand (1,000) gallons (City Rate Resolution No. 3481).

The City is evaluating an inclining water rate structure to encourage customers to reduce both peak and overall water usage, while fairly allocating cost of service to each customer class. Under an inclining rate structure, the rate per thousand gallons increases as the amount of water used increases. The water rate structure will be reviewed on a regular basis to ensure that the rates adequately recover the cost of service and meet the goals of this water conservation plan.

WASTEWATER REUSE

The City has received authorization from the TCEQ to reuse its treated wastewater effluent from Thompsons Creek Wastewater Treatment Plant (Permit No.WQ0010426-004) as Type II reclaimed water. The reused water is to be used for golf course irrigation and landscape irrigation. The water user is the Traditions Club located in southwest Bryan. The goal for the City's water reuse program is to reduce peak demand on the potable water system by switching non-potable uses of water, such as irrigation, to reuse water. Traditions demand for water fluctuates with the season; however, during periods of peak demand, up to 575,000 gallons/day of reclaimed water are used for irrigation by Traditions Club.

Within the three wastewater treatment facilities, non-potable water is also used for ancillary purposes such as plant wash down and chlorination/de-chlorination of effluent. Based on design capacity, an estimated 578,160,000 gallons of water are available annually to satisfy these purposes. Actual use of this water has been historically estimated at 410,480,000 gallons/year or 71% utilization. Water reused for internal plant processes reduces demand on the potable water system.

WATER LOSS CONTROL MEASURES

The goal of the City's water loss control program is to maintain unaccounted-for water (unbilled authorized and unbilled unauthorized usage) at or below 10% of water produced, on a monthly basis.

In order to meet this goal, the City has several programs in place, including routine water audits, a program of leak detection and repair, and meter testing and accuracy.

Routine Audits of Water System

The Water Services Department generates a monthly water loss report that compares metered production with metered consumption, as well as accounted-for and unaccounted-for water losses. This report provides an effective tracking system of water loss. The City will also complete a detailed water system audit following Texas Water Development Board (TWDB) guidelines at least once each year. TWDB rules only require this audit to be submitted once every five years. The water system audit determines the volume of actual water loss, the identification of water loss sources, the status and condition of primary water meters, an analysis of water line breaks, an evaluation of underground leakage potential, and provides recommendations for meter replacement.

Leak Detection and Repair

The City administers a leak detection and repair program for its water distribution system. This program features a work order prioritization system for leaks needing repair and an inventory of equipment and materials needed to promptly repair all detected or reported leaks. The City's annual rehabilitation program to upgrade its water distribution system addresses high volume leaks. The City also conducts an annual distribution system rehabilitation program that replaces the high water loss sections of the distribution system. This program is based on findings of monthly water loss reports and the leak detection program.

Universal Metering

The ability to meter all water distribution and consumption uses allows the City to closely monitor actual water use, water losses, and prevent unauthorized use. All service connections in the City are metered. All production wells, pumping stations, interconnections, irrigation, swimming pools, parks, and municipal structures operated by the City are metered.

Meters at water production pump stations are calibrated and tested annually in accordance with American Water Works Association (AWWA) standards to provide a minimum accuracy of plus or minus five percent (5%).

The City will continue to provide a preventive maintenance program for its water meters, wherein regular scheduled testing, repairs, and replacement are performed in accordance with AWWA standards. The City recently deployed an Automated Metering Infrastructure (AMI) system for both electric and water. As part of this conversion, we are replacing mechanical water meters with digital meters. The digital meters offer a twenty year accuracy warranty and no moving parts to fail. When fully functional, the AMI system will offer the customer and the utility more flexibility. The system can be used to eliminate cycle counts to true up monthly production against consumption and as a monitoring tool during drought plan enactments.

RECORDS MANAGEMENT SYSTEM

The City administers a comprehensive record management system that accounts for water use characteristics throughout the water system and allows for the separation of aggregate water sales and water usage characteristics into customer-specific categories. The system is configured to provide the following water use information:

- Water production
- Water sales
- Water consumption
- Water losses

PUBLIC EDUCATION PROGRAM

The City promotes water conservation issues by informing the public in a variety of ways which include:

- New customers will receive conservation information
- Information will be available upon request
- Coordinating educational presentations, lectures, and demonstrations for schools, civic groups, and the general public
- Exhibits at fairs held throughout the year
- Participating in community environmental education activities with the City of College Station and other local organizations to promote water conservation education
- Supporting annual events and demonstrations relating to water conservation and environmental issues that affect water supply and quality
- Providing plant tours and sharing information at our civic Bryan Leadership Academy
- Use Consumer Confidence Report as a means to promote water conservation

The City also participates in an annual Earth Day celebration where residents have access to information and demonstrations relating to water conservation and environmental issues that affect water supply through advertising and an informational fair.

WHOLESALE WATER SUPPLY CONTRACTS

The City will, as part of contracts for sale of water to any other entity re-selling water, require that entity to adopt applicable provisions of the City's water conservation and drought contingency plan or have a plan in effect previously adopted and meeting the basic requirements of 30 TAC §288. These provisions will be through contractual agreement prior to the sale of any water to the water re-seller.

PLUMBING CODE AND RETROFIT PROGRAM

The City has adopted the 2009 International Plumbing Code, which requires the use of water saving, Ultra Low Flow (ULF) fixtures to be installed in new construction and in the replacement of plumbing in existing structures. The code shall meet or be modified to meet the Texas Water Development Board Standards.

The City educates the residents, plumbers, and contractors on the benefits of retrofitting existing facilities with water saving devices. This program will be encompassed in the educational and informational programs utilized by the City. The City will encourage plumbing companies and hardware stores in the Bryan area to stock water conserving fixtures and retrofit devices.

LANDSCAPE WATER MANAGEMENT

The City provides information about the methods and benefits of water conserving landscaping practices and devices, through public education to homeowners, business owners, landscape architects and designers, and irrigation professionals. The following methods are encouraged:

- The use of Xeriscape™ and "Water Wise" landscaping techniques, including drought tolerant plants and grasses for landscaping new homes and commercial areas.
- The use of drip irrigation systems when possible or other water conserving irrigation systems that utilize efficient sprinklers and considerations given to prevailing winds.
- Making sure that ornamental fountains and similar water features are designed to recycle water and use minimal amounts of water.

- Working with area landscape supply businesses and nurseries to encourage them to sell locally adapted, drought tolerant plants and grasses along with efficient irrigation systems, and to promote use of these materials through demonstrations and advertisements.
- Promote the use of the City's compost product as a beneficial soil amendment which helps prevent erosion, increase soil aeration, and improve moisture retention of soils and landscape.

SECTION 5 PERFORMANCE MEASURES AND REPORTING

The City will compile an annual report on the Water Conservation Plan, to include the following:

- Summary of public information issued in the previous year
- Report on meter testing program
- Summary of water loss control program
- Effectiveness of Water Conservation Plan in reducing peak and overall water consumption
- Per capita water consumption for the previous calendar year
- Implementation progress and status of plan

SECTION 6 MEANS OF IMPLEMENTATION AND ENFORCEMENT

The City Manager or his/her designee will act as administrator of the Water Conservation Plan. The administrator shall oversee execution and implementation of all elements of the Plan and is responsible for overseeing adequate record keeping for program documentation.

This Water Conservation Plan has been adopted by the City. A copy of this resolution is included in Appendix C.

SECTION 7 COORDINATION

Recognizing that each City has similar water systems and customer bases, and similar needs for water conservation, the City of College Station and the City of Bryan worked together in developing similar water conservation plans.

Coordination with Drought Contingency and Water Emergency Plan: The Water Conservation Plan shall work in accordance with the related City of Bryan Ordinance, Drought Contingency and Water Emergency Plan, which was adopted in June 2005. The Drought Contingency and Water Emergency Plan may be revised as necessary.

Coordination with Regional Water Planning Group: The service area of the City of Bryan is located within the Brazos G Water Planning Group (Region G) and the City of Bryan will provide a copy of this Water Conservation Plan to Brazos G.

Coordination with Groundwater Conservation District: The City of Bryan will provide this Plan to the Brazos Valley Groundwater Conservation District.

SECTION 8 REVISIONS TO THE WATER CONSERVATION PLAN

The City of Bryan will review and update this Water Conservation Plan, as appropriate, based on new or updated information, such as the adoption or revision of the regional water plan. As a minimum, the Plan will be updated again before May 1, 2019 and every five (5) years thereafter.

**APPENDIX A: Utility Profile & Water Conservation Plan Requirements for Municipal Water Use by
Public Water Suppliers**

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

Fill out this form as completely as possible.
If a field does not apply to your entity, leave it blank.

CONTACT INFORMATION

Name of Utility: City of Bryan

Public Water Supply Identification Number (PWS ID): 0210001

Certificate of Convenience and Necessity (CCN) Number: 10187

Surface Water Right ID Number: 5912

Wastewater ID Number: TPDES Numbers 10426001, 10426002, and 10426004

Completed By: Charles Rhodes Title: Production & Field Operator

Address: 1111 Waco Street City: Bryan Zip Code: 77801

Email: rhodes@bryantx.gov Telephone Number: 979.209.5951

Date: 05/01/14

Regional Water Planning Group: G [Map](#)

Groundwater Conservation District: Brazos V [Map](#)

Check all that apply:



Received financial assistance of \$500,000 or more from TWDB



Have 3,300 or more retail connections



Have a surface water right with TCEQ

Section I: Utility Data

A. Population and Service Area Data

- Current service area size in square miles: 73
(Attach or email a copy of the service area map.)
- Provide 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 Service
2013	79,682		70,120
2012	78,504		69,084
2011	77,344		68,063
2010	76,201		67,067
2009	75,075		66,066

- Provide the 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 Service
2020	88,434		77,822
2030	102,632		90,316
2040	144,167		126,867
2050	188,879		166,214
2060	229,906		202,317

- Describe the source(s)/method(s) for estimating current and projected populations.

2010 Census data extrapolated at 1.5% growth factor until College Station reached ultimate population near the year 2030. Population in Bryan CCN was then calculated as the remaining urban area population after accounting for the College Station population. Wastewater population served has historically been approximately 88% of retail water population.

D. Projected Demands

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

Year	Population	Water Demands (gallons)
2014	80,877	4,398,495,645
2015	82,090	4,464,464,650
2016	83,322	4,543,881,948
2017	84,571	4,599,393,835
2018	85,840	4,668,408,400
2019	87,128	4,738,456,280
2020	88,434	4,822,659,756
2021	89,761	4,881,651,985
2022	91,107	4,954,854,195
2023	92,474	5,029,198,490

2. Describe sources of data and how projected water demands were determined. Attach additional sheets if necessary.

Population estimate is based off 2010 census data extrapolated at 1.5% per year growth. Estimated population x 149 gallon/day/capita average x the number of days in the year = the demand projection. The 149 GPCD includes current wholesale demands.

E. High Volume Customers

1. List the annual water use, in gallons, for the five highest volume **RETAIL** customers. Select one of the following water use categories to describe the customer; choose Residential, Industrial, Commercial, Institutional, or Agricultural.

Retail Customer	Water Use Category*	Annual Water Use	Treated or Raw
Bryan School District	Institutional	113,575,300	Treated
City of Bryan	Commercial	108,730,600	Treated
Saint Joseph Hospital	Commercial	71,122,600	Treated
Brazos County	Commercial	46,466,300	Treated
Oakwood MHP	Residential	39,863,500	Treated

*For definitions on recommended customer categories for classifying customer water use, refer to the online [Guidance and Methodology for Reporting on Water Conservation and Water Use](#).

2. If applicable, list the annual water use for the five highest volume **WHOLESALE** customers. Select one of the following water use categories to describe the customer; choose Municipal, Industrial, Commercial, Institutional, or Agricultural.

Wholesale Customer	Water Use Category*	Annual Water Use	Treated or Raw
Wellborn	Municipal	65,356,000	Treated
Wickson Creek	Municipal	2,719,000	Treated
	Choose One		Choose One
	Choose One		Treated
	Choose One		Choose One

*For definitions on recommended customer categories for classifying customer water use, refer to the online [Guidance and Methodology for Reporting on Water Conservation and Water Use](#).

F. Utility Data Comment Section

Provide additional comments about utility data below.

Section II: System Data

A. Retail Connections

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

Water Use Category*	Active Retail Connections			
	Metered	Unmetered	Total Connections	Percent of Total Connections
Residential – Single Family	19,008		19,008	86%
Residential – Multi-family (units)			0	0%
Industrial			0	0%
Commercial	3,019		3,019	14%
Institutional	53		53	0%
Agricultural			0	0%
TOTAL	22,080	0	22,080	

*For definitions on recommended customer categories for classifying customer water use, refer to the online [Guidance and Methodology for Reporting on Water Conservation and Water Use](#).

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

Water Use Category*	Net Number of New Retail Connections				
	2013	2012	2011	2010	2009
Residential – Single Family	159	168	130	126	246
Residential – Multi-family (units)	0	0	0	0	0
Industrial	0	0	0	0	0
Commercial	-19	47	0	18	22
Institutional	0	2	0	0	0
Agricultural	0	0	0	0	0
TOTAL	140	217	130	144	268

*For definitions on recommended customer categories for classifying customer water use, refer to the online [Guidance and Methodology for Reporting on Water Conservation and Water Use](#).

B. Accounting Data

For the previous five years, enter the number of gallons of RETAIL water provided in each major water use category.

Water Use Category*	Total Gallons of Retail Water				
	2013	2012	2011	2010	2009
Residential - Single Family	1,884,922,100	1,848,158,700	2,301,823,200	1,869,455,200	1,903,175,000
Residential – Multi-family					
Industrial					
Commercial	1,664,934,500	1,696,434,600	1,939,636,000	1,641,578,900	1,614,207,700
Institutional	103,356,500	113,603,900	134,197,500	99,408,000	97,256,200
Agricultural					
TOTAL	3,653,213,100	3,658,197,200	4,375,656,700	3,610,442,100	3,614,638,900

*For definitions on recommended customer categories for classifying customer water use, refer to the online [Guidance and Methodology for Reporting on Water Conservation and Water Use](#).

C. Residential Water Use

For the previous five years, enter the residential GPCD for single family and multi-family units.

Water Use Category*	Residential GPCD				
	2013	2012	2011	2010	2009
Residential - Single Family	91	89	113	92	94
Residential – Multi-family					

D. Annual and Seasonal Water Use

- For the previous five years, enter the gallons of treated water provided to RETAIL customers.

Month	Total Gallons of Treated Retail Water				
	2013	2012	2011	2010	2009
January	221,389,400	218,883,700	245,232,400	213,413,500	233,197,200
February	209,233,400	203,070,100	223,805,900	204,984,700	213,296,600
March	211,420,200	211,349,200	232,525,900	201,025,700	222,552,200
April	259,195,600	233,373,800	334,449,400	241,898,200	264,401,500
May	285,525,200	333,352,200	391,937,400	294,237,500	263,100,000
June	297,417,300	376,247,300	423,567,600	342,794,100	390,255,700
July	465,242,300	377,935,600	484,740,300	360,530,100	497,562,100
August	481,993,800	429,575,200	527,745,600	422,547,900	463,253,500
September	451,340,500	424,575,400	552,239,800	445,887,500	383,763,900
October	334,012,500	337,046,300	386,081,800	311,093,400	242,777,000
November	219,382,400	275,110,600	322,934,200	298,897,400	226,888,900
December	217,060,500	237,677,800	250,396,400	273,132,100	213,590,300
TOTAL	3,653,213,100	3,658,197,200	4,375,656,700	3,610,442,100	3,614,638,900

2. For the previous five years, enter the gallons of raw water provided to RETAIL customers.

Month	Total Gallons of Raw Retail Water				
	2013	2012	2011	2010	2009
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
TOTAL	0	0	0	0	0

3. Summary of seasonal and annual water use.

Water Use	Seasonal and Annual Water Use					Average in Gallons
	2013	2012	2011	2010	2009	
Summer Retail (Treated + Raw)	1,244,653,400	1,183,758,100	1,436,053,500	1,125,872,100	1,351,071,300	1,268,281,680 5yr Average
TOTAL Retail (Treated + Raw)	3,653,213,100	3,658,197,200	4,375,656,700	3,610,442,100	3,614,638,900	3,782,429,600 5yr Average

E. Water Loss

Provide Water Loss data for the previous five years.

Water Loss GPCD = [Total Water Loss in Gallons ÷ Permanent Population Served] ÷ 365

Water Loss Percentage = [Total Water Loss ÷ Total System Input] x 100

Year	Total Water Loss in Gallons	Water Loss in GPCD	Water Loss as a Percentage
2013	407,272,900	14	10%
2012	370,285,800	13	9%
2011	560,945,300	20	11%
2010	390,960,900	14	10%
2009	441,911,100	16	11%
5-year average	434,275,200	15	10%

F. Peak Water Use

Provide the 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)
2013	11,124,619	23,281,000	2.09
2012	11,036,940	21,521,000	1.95
2011	13,524,937	24,620,000	1.82
2010	10,962,748	20,893,000	1.91
2009	11,113,836	22,240,000	2.00

G. Summary of Historic Water Use

Water Use Category	Historic 5-year Average	Percent of Connections	Percent of Water Use
Residential SF	1,961,506,840	86%	1%
Residential MF	0	0%	0%
Industrial	0	0%	0%
Commercial	1,711,358,340	14%	0%
Institutional	109,564,420	0%	0%
Agricultural	0	0%	0%

H. System Data Comment Section

Provide additional comments about system data below.

Section III: Wastewater System Data

If you do not provide wastewater system services then you have completed the Utility Profile. Save and Print this form to submit with your Plan. Continue with the [Water Conservation Plan Checklist](#) to complete your Water Conservation Plan.

A. Wastewater System Data (Attach a description of your wastewater system.)

- Design capacity of wastewater treatment plant(s): 14,000,000
gallons per day.
- List the active wastewater connections by major water use category.

Water Use Category*	Active Wastewater Connections			
	Metered	Unmetered	Total Connections	Percent of Total Connections
Municipal	19,058		19,058	88%
Industrial			0	0%
Commercial	2,656		2,656	12%
Institutional	46		46	0%
Agricultural			0	0%
TOTAL	21,760	0	21,760	

- What percent of water is serviced by the wastewater system? 88%
- For the previous five years, enter the number of gallons of wastewater that was treated by the utility.

Month	Total Gallons of Treated Wastewater				
	2013	2012	2011	2010	2009
January	213,280,000	208,631,000	219,554,000	216,222,000	177,675,000
February	177,020,000	224,355,000	206,820,000	208,354,000	171,279,000
March	191,510,000	271,734,000	189,402,000	217,838,000	206,789,000
April	190,180,000	212,673,000	191,022,000	193,460,000	220,153,000
May	232,864,000	224,886,000	191,988,000	208,129,000	204,479,000
June	194,971,000	206,200,000	192,024,000	216,830,000	191,648,000
July	192,504,000	215,200,000	187,792,000	203,657,000	200,276,000
August	195,917,000	208,040,000	201,156,000	216,017,000	198,399,000
September	215,637,000	207,530,000	193,997,000	231,779,000	224,514,000
October	245,073,000	202,400,000	187,697,000	196,902,000	261,298,000
November	241,260,000	178,620,000	187,755,900	193,043,000	205,587,000
December	195,620,000	187,501,000	205,548,000	218,103,000	222,403,000
TOTAL	2,485,836,000	2,547,770,000	2,354,755,900	2,520,334,000	2,484,500,000

4. Can treated wastewater be substituted for potable water?
☒ Yes ☐ No

B. Reuse Data

1. Provide data on the types 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	210,240,000
Chlorination/de-chlorination	210,240,000
Industrial	
Landscape irrigation (parks, golf courses)	35,812,180
Agricultural	
Discharge to surface water	
Evaporation pond	
Other	
TOTAL	456,292,180

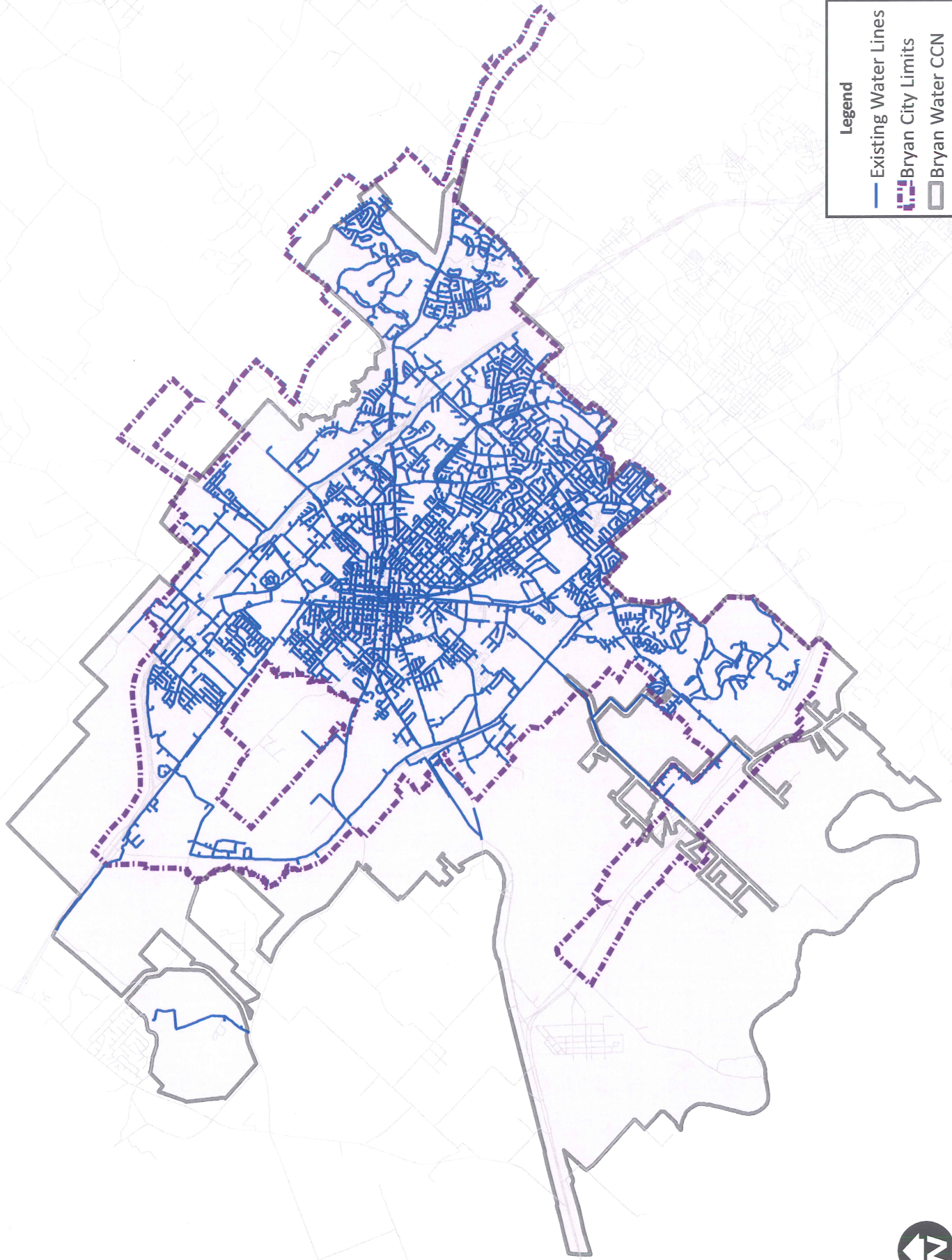
C. Wastewater System Data Comment

Provide additional comments about wastewater system data below.

You have completed the Utility Profile. Save and Print this form to submit with your Plan. Continue with the [Water Conservation Plan Checklist](#) to complete your Water Conservation Plan.

APPENDIX B: Water Service and CCN Map

Bryan City Limits and Water CCN Area



APPENDIX C: Resolution of the Bryan City Council adopting Water Conservation Plan

RESOLUTION NO. 3551

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BRYAN, TEXAS, ADOPTING A WATER CONSERVATION PLAN AS OUTLINED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY.

WHEREAS, the City of Bryan strives to manage its water utility in accordance with State guidelines; and,

WHEREAS, the City of Bryan desires to implement a plan that helps ensure adequate long-term water supplies exist for future demand; and,

WHEREAS, the City of Bryan has filed and has been granted a Bed and Banks permit with the Texas Commission on Environmental Quality (TCEQ) which will establish the City's ownership of the wastewater effluent discharged into local waterways; and,

WHEREAS, the State has required adoption of a Water Conservation Plan be maintained for the Bed and Banks permit and funding from the Texas Water Development Board; and,

WHEREAS, the Water Conservation Plan will be reviewed and updated every five years to include specific quantified five-year and ten-year targets for water savings to include goals for water loss programs and goals for municipal use, in gallons per capita per day; and

WHEREAS, the Water Conservation Plan was last adopted by Council on November 22, 2011.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BRYAN, TEXAS:

1.

That the City Council of the City of Bryan hereby adopts the Water Conservation Plan, dated May 2014.

2.

That the Water Conservation Plan follows the Texas Commission on Environmental Quality guidelines found in 30 TAC §288.2 Water Conservation Plans for Municipal Uses by Public Water Suppliers

3.

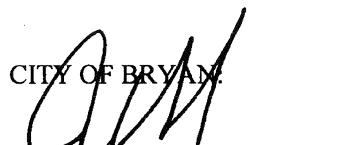
This resolution shall be effective immediately upon adoption.

APPROVED AND ADOPTED by the City Council of the City of Bryan, Texas, this 13th day of May 2014.

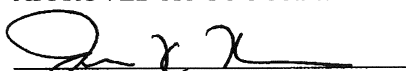
ATTEST:


Mary Lynne Stratta, City Secretary

CITY OF BRYAN


Jason P. Bienski, Mayor

APPROVED AS TO FORM:


Jarvis K. Hampton, City Attorney

APPENDIX D: Transmittal Letter to Brazos Region G Regional Water Planning Group



May 16, 2014

CERTIFIED MAIL RETURN RECEIPT NO.: 7013 1090 0000 7136 5865

Brazos G Water Planning Group
Attn. Trey Buzbee
P.O. Box 7555
Waco, Texas 76714

Re: Updated Water Conservation Plan for PWS 0210001

Dear Mr. Buzbee,

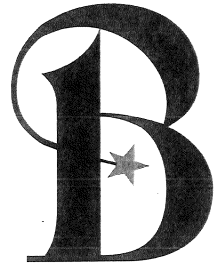
Please find the enclosed Water Conservation Plan for the City of Bryan. As part of our efforts to preserve the natural resources entrusted to us, the City of Bryan recently reviewed and revised this plan. It is anticipated the plan will remain intact through May 1, 2019. However, provisions allow for periodic adjustments if necessary.

Please be assured that the City of Bryan is dedicated to the proper operations of our facilities. We hold our responsibilities to our community and the environment with the highest regard and strive to insure that our goals and integrity are not compromised. If clarification of this document or additional information is needed, please feel free to contact me in my office at (979) 209-5951 or via email at the following address - rhodes@bryantx.gov.

Sincerely,

Charles Rhodes
Production and Field Operations Manager

APPENDIX E: Transmittal Letter to Brazos Valley Groundwater Conservation District



CITY OF BRYAN
The Good Life, Texas Style.

May 16, 2014

CERTIFIED MAIL RETURN RECEIPT NO.: 7013 1090 0000 7136 5872

Brazos Valley Groundwater Conservation District
Attn. Alan Day
P.O. Box 528
Hearne, Texas 77859

Re: **Updated Water Conservation Plan for PWS 0210001**

Dear Mr. Day,

Please find the enclosed Water Conservation Plan for the City of Bryan. As part of our efforts to preserve the natural resources entrusted to us, the City of Bryan recently reviewed and revised this plan. It is anticipated the plan will remain intact through May 1, 2019. However, provisions allow for periodic adjustments if necessary.

Please be assured that the City of Bryan is dedicated to the proper operations of our facilities. We hold our responsibilities to our community and the environment with the highest regard and strive to insure that our goals and integrity are not compromised. If clarification of this document or additional information is needed, please feel free to contact me in my office at (979) 209-5951 or via email at the following address - rhodes@bryantx.gov.

Sincerely,

Charles Rhodes
Production and Field Operations Manager