CITY OF MARSHALL
Water Conservation Plan

PREPARED BY:

CITY OF MARSHALL, TEXAS
WATER UTILITIES DEPARTMENT
March 2019

WATER CONSERVATION TABLE OF CONTENTS

1. INTRODUCTION AND OBJECTIVES

A. OBJECTIVES

The City of Marshall recognizes that water conservation is an important strategy to protect and fully maximize the City's water supply. This Water Conservation and Drought Contingency Plan have been developed to promote the responsible use of water in order to ensure that a sufficient supply is available for both present and future needs. The Water Conservation Plan implements year-round conservation methods that will result in a quantifiable water savings. The Drought Contingency Plan aims to reduce water use on a temporary basis in the event of a period of drought or an emergency water shortage so as to ensure efficient water use and continued availability of the City's water supplies during those periods.

B. SYSTEM DESCRIPTION AND UTILITY PROFILE

Appendix A to this Water Conservation Plan is the water utility profile for the City of Marshall, based on the format recommended by the TCEQ. Following is a summary of our water supply, treatment, storage and distribution system.

The City of Marshall owns and operates its own water treatment plant located in Harrison County, Texas. It provides retail water to approximately 10,687 domestic, commercial and industrial customers. It also provides wholesale water to six water supply corporations surrounding the city (Leigh, Talley, Cypress Valley, Gill, Scottsville and Blocker Crossroads Water Supply corporations). The water rights permit held by the City of Marshall from Cypress Creek Bayou allows for annual diversion of 16,000 acre-feet. Additionally, the City of Marshall has entered into a contract with the Northeast Texas Municipal Water District to purchase up to 9,000 acre-feet of water per year from the Lake O' the Pines. This purchased water will be diverted at the City's existing diversion point on Cypress Creek Bayou. The raw water obtained from the bayou is pumped through parallel 24-inch diameter pipes to an 11.0 MG pre-sedimentation basin and then flows by gravity to the water treatment plant through parallel 20 and 24 inch diameter pipes. The raw water is treated using coagulation, sedimentation, filtration and disinfection. The capacity of the water treatment plant currently is 19 MGD. The capacity was increased to 19 MGD after water plant improvements in 2008. Treated water flows into two parallel 3.0 MG clearwells and is delivered to the distribution system using a combination of seven high service pumps.

C. *COORDINATION WITH THE REGIONAL WATER PLANNING GROUP*

The service area for the City of Marshall is located within the Northeast Texas Regional Planning Group (NETRWPG), Region D Planning Group. A copy of the Water Conservation and Drought Contingency Plan has been submitted to the NETRWPG. **See Appendix B.**

2. WATER CONSERVATION PLAN CONTENT

A. Water Use Data

The table below shows the past five years of historical water use for the City of Marshall. Both total water use and residential use are shown in units of gallons per capita per day (gpcd). Total GPCD is calculated by dividing the total water diverted by population by days of the year.

Yr	Population	Total Diverted	Industrial Use	RESIDENTIAL USE	TOTAL GPCD	Residential GPCD
2018	24,659	2,013,619,000	682,772,000	556,735,000	224	62
2017	24,432	2,041,897,000	682,772,000	482,412,000	229	54
2016	24,205	2,076,079,000	642,852,500	622,850,400	235	70
2015	24,094	2,238,476,000	676,263,000	602,277,000	255	68
2014	23,984	2,254,716,000	707,905,000	586,718,000	258	67

1. *Municipal Use Goals*

The 2016 Northeast Texas Regional Water Plan has established an overall goal of 140 GPCD for municipal water users. The City of Marshall utilized Region D Water Planning Group projections when setting water savings goals. As evidenced by the City's water use data for the past five years, the City has historically maintained a total GPCD that is above 140, however, the City provides water to a very large volume industrial user, which impacts its total GPCD. The City has historically maintained a residential GPCD that is reflective of efficient water use given its population. Bearing in mind this large amount of industrial water use, and taking into account the planning projections of the Northeast Texas Regional Water Planning Group, the City has

established 5- and 10-year targets for Total GPCD and Residential GPCD as shown below.

	5-Year Target	10-Year Target
Total GPCD	220	215
Residential GPCD	85	80

2. *Water Loss Goals*

The City has established water loss goals utilizing the Northeast Texas Regional Water Planning Group information, as well as its own historical water loss data, and has set the following targets for water loss from its system:

	Historic Five-Year Average	5-Year Target	10-Year Target
Water Loss (Percentage)	11	12	10
Water Loss (GPCD)	27	35	34

3. *Wholesale Use Goals*

Wholesale water customers served by the City of Marshall, located outside of the City's CCN, have historically had an annual water use of 90 GPCD. The City has established a 5-year target to maintain water use by wholesale customers at or below 85 GPCD. The City has set a 10-year target to maintain water use by wholesale customers at or below 80 GPCD. The City aims to maintain loss rates for wholesale water deliveries to wholesale customers at or below 12 – 10% for the 5- and 10-year period. These goals are set in accordance with the Northeast Texas Regional Water Planning group projections and in accordance with the water use information maintained by the City.

C. *Master Meter, Universal Metering, Meter Testing & Repair, Meter Replacement*

Water usage for all customers of the City of Marshall, including public and governmental users, is metered. The City of Marshall has a comprehensive program for universal metering, meter testing, meter repair and routine meter replacement which has been developed using AWWA standards. The City of Marshall's meter replacement program routinely replaces meters that do not register the correct consumption due to the age of the meter. Replacing aged meters will result in increased revenues and water accountability for the utility.

The City of Marshall meters all raw water diversions from Cypress Bayou and meters all (high service) treated water to the distribution system from the water treatment plant. Each meter has an accuracy of plus or minus 2% and is calibrated on an annual basis.

D. *Measures to Determine and Control*

The City's record management system is able to account for water sales and users in users classes of single-family residential, multi-family residential, commercial, public/institutional, and industrial uses. A detailed monthly account of the amount of water pumped from Cypress Bayou, the high service pumps and metered water to the customers, is currently maintained.

Losses of greater than 15% serve as a warning sign to the City of a possible leak. Field personnel regularly inspect pipe line for leaks or breaks. When identified, leaks are quickly repaired. Field personnel also look for and reports signs of illegal connections so they can be quickly addressed.

E. Public Information and Education

The City of Marshall provides information and education to raise public awareness about water conservation and encourage efficient water use by using the following components:

Water Conservation Literature: The city offers water conservation brochures obtained through the TWDB available at all times through city hall. Each new customer is also provided with a water conservation brochure. Each month, the city includes water conservation information on the monthly bill. The city also includes information on saving water in the annual Consumer Confidence Report.

Water Leak Detector Dye Tablets: The city supplies these tablets to our customers to detect toilet leaks. This is the most common water wasting problem in the home.

F. Non-Promotional Water Rates

The City of Marshall has a water rate structure that is conservation-oriented and non-promotional. The city charges a monthly fee based on the meter size with increasing fees as meter size increases. Additionally, the City charges a fee per 1000 gallons used by a customer.

G. Reservoir System Operation Plan

The City of Marshall obtains its raw water supply from Cypress Creek Bayou (Cypress Creek) under a run-of-the-river water right (Certificate of Adjudication No. 04-4614) which is backed-up by a contract with Northeast Texas Municipal Water District (District) for stored water from Lake O' The Pines (LOTP). The City's run-of-the-river water right allows the City to divert up to 16,000 acre feet per year at a maximum rate of 50 cubic feet per second (cfs). The City's contract with the District allows the City to divert up to 9,000 acre feet per year of stored water released from LOTP to the City's same diversion point on Cypress Creek at an unspecified diversion rate.

The City's operating plan is to first maximize the use of run-of-the-river flows in Cypress Creek when flows are sufficient in volume and quality to meet the City's needs. When

hydrologic conditions diminish the volume and/or quality of run-of-the-river water in Cypress Creek, then the City supplements run-of-the-river flows by requesting the District to release stored water from LOTP in quantities sufficient to overcome the shortfall in the volume of run-of-the-river water up to a maximum of 9,000 acre feet per year. When run-of-the-river flows in Cypress Creek return to adequate levels, the City then requests the District to stop the release of stored water under the City's contract.

H. Implementation and Enforcement

Implementation and enforcement of the Water Conservation and Drought Contingency Plan occurs via ordinance adopted by the City Commission. The City Manager is to be the City's authorized representative in matters of water conservation and drought contingency procedures, policies and action. **See Appendix C** for a copy of the ordinance adopted by the City Commission to enforce this Plan.

All of the City's wholesale customers receive written notification of adoption of this Water Conservation Plan and any subsequent amendments. Wholesale customers are required to implement water conservation measures pursuant to this Plan, pursuant to 30 Texas Administrative Code Section 288.5.

3. ADDITIONAL WATER CONSERVATION MEASURES

A. Record Management System

The City of Marshall Water Utilities maintains comprehensive records of water pumped, treated, delivered, sold, estimated water losses and allows for the separation of water sales into residential, commercial, and industrial categories.

B. Requirement of Water Conservation Plan by Wholesale Customers

At this time, the City of Marshall provides wholesale water service to Leigh Water Supply Corporation, Gill Water Supply Corporation, Talley Water Supply Corporation, Cypress Valley Water Supply Corporation, City of Scottsville and Blocker-Crossroads Water Supply Corporation. After adoption of this plan, subsequent contracts for wholesale water sales by the City of Marshall will include a requirement that wholesale customers develop and implement a water conservation plan compliant with Title 30, Part 1, Chapter 288 of the Texas Administrative Code.

C. Means of Monitoring Effectiveness and Efficiency

The water use trends of retail and wholesale customers will be analyzed at least on an annual basis. Water use will be compared to estimates of population developed by the East Texas Council of Governments, TWDB and the Region D Regional Water Planning Group. The gpcd trend will be used to evaluate the need to implement a more aggressive conservation plan which will meet the goals as stated in Section 2.

Appendix D is a form that will be used by the City of Marshall to monitor the effectiveness and efficiency of the water conservation plan to determine if water use reduction goals are being met. A summary of findings will be included in each revision of the plan.

4. Revision/Updates

The City of Marshall Water Utilities Department shall be responsible for updating and revising this Plan at least every five years. The City maintains committed to updating this Plan at additional increments should it determine that the City may achieve additional conservation savings via an update to the Plan.

Appendix A

Water Utility Profile

Texas Commission on Environmental Quality

Water Availability Division
MC-160, P.O. Box 13087 Austin, Texas 78711-3087
Telephone (512) 239-4691, FAX (512) 239-2214

Utility Profile and Water Conservation Plan Requirements for Municipal Water Use by Retail Public Water Suppliers

This form is provided to assist retail public water suppliers in water conservation plan assistance in completing this form or in developing your plan, please contact the Conservation staff of the Resource Protection Team in the Water Availability Division at (512) 239-4691.

Water users can find best management practices (BMPs) at the Texas Water Development Board's website http://www.twdb.texas.gov/conservation/BMPs/index.asp. The practices are broken out into sectors such as Agriculture, Commercial and Institutional, Industrial, Municipal and Wholesale. BMPs are voluntary measures that water users use to develop the required components of Title 30, Texas Administrative Code, Chapter 288. BMPs can also be implemented in addition to the rule requirements to achieve water conservation goals.

Contact Information

Name of Water Supplier:	City of Marshall - Water Utilites	
Address:	P.O. Box 698, Marshall, TX 75671	
Telephone Number:	(903) -9354485	Fax: (903) -9354493
Water Right No.(s):	4614, 12029	
Regional Water Planning Group:	D	
Water Conservation Coordinator (or person responsible for implementing conservation program):	City Manager	Phone: (903) -9354418
Form Completed by:	Nancy Pasel	
Title:	Assitant Director of Public Servies	
Signature:	Nancy Pasel	Date:03/6/2019

A water conservation plan for municipal use by retail public water suppliers must include the following requirements (as detailed in 30 TAC Section 288.5). If the plan does not provide information for each requirement, you must include in the plan an explanation of why the requirement is not applicable.

Utility Profile

I. POPULATION AND CUSTOMER DATA

A. Population and Service Area Data

1. Attach a copy of your service-area map and, if applicable, a copy of your Certificate of Convenience and Necessity (CCN).

2. Service area size (in square miles): 41

   (Please attach a copy of service-area map)

3. Current population of service area: 24,659

4. Current population served for:

   a. Water 24,659

   b. Wastewater 24,659

5. Population served for previous five years:

Year	*Population*
2018	24,659
2017	24,432
2016	24,205
2015	24,094
2014	23,984

6. Projected population for service area in the following decades:

Year	*Population*
2020	25,210
2030	27,074
2040	29,004
2050	31,711
2060	34,661

7. List source or method for the calculation of current and projected population size.

   TWDB – 2016 Rigion D – Regional Water Plan – City Population Projects, City of Marshall Histroical Trends, Active Connections less Irrigation Meters

B. Customer Data

Senate Bill 181 requires that uniform consistent methodologies for calculating water use and conservation be developed and available to retail water providers and certain other water use sectors as a guide for preparation of water use reports, water conservation plans, and reports on water conservation efforts. A water system must provide the most detailed level of customer and water use data available to it, however, any new billing system purchased must be capable of reporting data for each of the sectors listed below. http://www.tceq.texas.gov/assets/public/permitting/watersupply/water_rights/sb181_guidance.pdf

1. Quantified 5-year and 10-year goals for water savings:

	Historic 5-year Average	*Baseline*	*5-year goal for year* 2024	*10-year goal for year* 2029
Total GPCD	240	224	220	215
Residential GPCD	64	54	84	80
Water Loss GPCD	27	27	35	34
Water Loss Percentage	11	11	12	10

Notes:
Total GPCD = (Total Gallons in System ÷ Permanent Population) ÷ 365
Residential GPCD = (Gallons Used for Residential Use ÷ Residential Population) ÷ 365
Water Loss GPCD = (Total Water Loss ÷ Permanent Population) ÷ 365
Water Loss Percentage = (Total Water Loss ÷ Total Gallons in System) x 100; or (Water Loss GPCD ÷ Total GPCD) x 100

2. Current number of active connections. Check whether multi-family service is counted as ☒ Residential or ☐ Commercial?

Treated Water Users	*Metered*	*Non-Metered*	*Totals*
Residential	9,293		9,293
Single-Family	9,293		9,293
Multi-Family			
Commercial	1,290		1,290
Industrial/Mining	2		2
Institutional	102		102
Agriculture			
Other/Wholesale			

3. List the number of new connections per year for most recent three years.

Year	2018	2017	2016
Treated Water Users			
Residential	1,268		61
Single-Family	1,268		61
Multi-Family			
Commercial	105		20
Industrial/Mining			
Institutional	50	4	
Agriculture			
Other/Wholesale			

4. List of annual water use for the five highest volume customers.

Customer	*Use (1,000 gal/year)*	*Treated or Raw Water*
Cabot/Norit Americas	578,677	T
General Cable	17,079	T
Port Caddo Site	6,250	T
Gill WSC	1,686	T
Talley WSC	1,369	T

II. WATER USE DATA FOR SERVICE AREA

A. Water Accounting Data

1. List the amount of water use for the previous five years (in 1,000 gallons).

   Indicate whether this is ☐ diverted or ☒ treated water.

Year	2018	2017	2016	2015	2014
Month					
January	205,778	162,506	167,111	198,282	196,366
February	138,772	145,823	153,017	171,010	175,381
March	141,043	165,282	160,422	170,472	180,749
April	144,219	157,846	145,136	175,498	172,241
May	157,476	167,392	138,543	169,410	182,052
June	174,531	167,146	159,176	178,724	192,146
July	201,663	190,023	201,804	215,123	205,038
August	184,572	177,901	202,365	228,214	197,921
September	174,590	207,297	187,993	200,003	199,476
October	164,590	185,853	203,897	207,700	188,422
November	165,184	151,103	181,402	164,326	178,458
December	161,201	163,725	175,213	159,704	186,466
Totals	2,013,619	2,041,897	2,076,079	2,238,476	2,254,716

2. Describe how the above figures were determined (e.g, from a master meter located at the point of a diversion from the source or located at a point where raw water enters the treatment plant, or from water sales).

   High Service Flow Meter

3. Amount of water (in 1,000 gallons) delivered/sold as recorded by the following account types for the past five years.

Year	2018	2017	2016	2015	2014
Account Types					
Residential	556,735	482,412	622,850	602,277	586,718
Single-Family	556,735	482,412	622,850	602,277	586,718
Multi-Family					
Commercial	239,680	221,889	219,592	259,040	261,443
Industrial/Mining	682,772	682,772	642,852	676,263	707,905
Institutional	57,541	49,328	44,538	3,295	
Agriculture					
Other/Wholesale					

4. List the previous records for water loss for the past five years (the difference between water diverted or treated and water delivered or sold).

Year	*Amount (gallons)*	*Percent %*
2018	259,956,186	13
2017	278,210,414	13
2016	285,034,785	14
2015	213,201,871	9
2014	167,901,766	7

B. Projected Water Demands

1. If applicable, attach or cite projected water supply demands from the applicable Regional Water Planning Group for the next ten years using information such as population trends, historical water use, and economic growth in the service area over the next ten years and any additional water supply requirements from such growth.

III. WATER SUPPLY SYSTEM DATA

A. Water Supply Sources

1. List all current water supply sources and the amounts authorized (in acre feet) with each.

Water Type	*Source*	*Amount Authorized*
Surface Water	Big Cypress Bayoyu / Lake	16,000/9,000

	O' the Pines	
Groundwater		
Other		

B. Treatment and Distribution System (if providing treated water)

1. Design daily capacity of system (MGD): 19
2. Storage capacity (MGD):
   a. Elevated 2
   b. Ground 6
3. If surface water, do you recycle filter backwash to the head of the plant?

   ☐ Yes ☒ No If yes, approximate amount (MGD):

IV. WASTEWATER SYSTEM DATA

A. Wastewater System Data (if applicable)

1. Design capacity of wastewater treatment plant(s) (MGD): 8
2. Treated effluent is used for ☐ on-site irrigation, ☐ off-site irrigation, for ☒ plant wash-down, and/or for ☐ chlorination/dechlorination.

   If yes, approximate amount (in gallons per month): 2000
3. Briefly describe the wastewater system(s) of the area serviced by the water utility. Describe how treated wastewater is disposed. Where applicable, identify treatment plant(s) with the TCEQ name and number, the operator, owner, and the receiving stream if wastewater is discharged.

   The City of Marshall operates an 8 mgd wastewater treatment plant. The treated effluent is discharged to an unnamed tributary of Parker Creek. The plant is named "The City of Marshall Southside Wastewater Treatment Facility". The permit # is WQ0010583002

B. Wastewater Data for Service Area (if applicable)

1. Percent of water service area served by wastewater system: 98%
2. Monthly volume treated for previous five years (in 1,000 gallons):

Year	2018	2017	2016	2015	2014
Month					
January	125,880	190,290	216,360	178,590	115,030
February	187,410	143,400	169,210	136,790	112,030

March	231,960	151,940	243,370	256,190	137,940
April	204,760	161,040	220,900	227,820	157,230
May	131,960	167,300	228,640	304,280	173,540
June	103,020	162,450	166,680	182,320	128,200
July	99,500	127,010	116,870	114,780	133,600
August	99,390	153,540	162,030	122,710	110,560
September	99,060	114,890	117,170	101,900	96,290
October	134,260	108,730	109,110	120,590	127,790
November	178,550	106,860	111,640	213,070	107,550
December	227,000	117,300	136,400	241,280	111,330
Totals	1,822,750	1,704,750	1,998,380	2,200,320	1,511,090

Water Conservation Plan

In addition to the utility profile, please attach the following as required by Title 30, Texas Administrative Code, §288.2. Note: If the water conservation plan does not provide information for each requirement, an explanation must be included as to why the requirement is not applicable.

A. *Record Management System*

The water conservation plan must include a record management system which allows for the classification of water sales and uses in to the most detailed level of water use data currently available to it, including if possible, the following sectors: residential (single and multi-family), commercial.

B. *Specific, Quantified 5 & 10-Year Targets*

The water conservation plan must 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. Note that the goals established by a public water supplier under this subparagraph are not enforceable. These goals must be updated during the five-year review and submittal.

C. *Measuring and Accounting for Diversions*

The water conservation plan must include a statement about the water suppliers metering device(s), within an accuracy of plus or minus 5.0% in order to measure and account for the amount of water diverted from the source of supply.

D. *Universal Metering*

The water conservation plan must include and a program for universal metering of both customer and public uses of water, for meter testing and repair, and for periodic meter replacement.

E. *Measures to Determine and Control Water Loss*

The water conservation plan must include measures to determine and control water loss (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections; abandoned services; etc.).

F. *Continuing Public Education & Information*

The water conservation plan must include a description of the program of continuing public education and information regarding water conservation by the water supplier.

G. *Non-Promotional Water Rate Structure*

The water supplier must have a water rate structure which is not "promotional," i.e., a rate structure which is cost-based and which does not encourage the excessive use of water. This rate structure must be listed in the water conservation plan.

H. *Reservoir Systems Operations Plan*

The water conservation plan must include a reservoir systems operations plan, if applicable, providing for the coordinated operation of reservoirs owned by the applicant within a common watershed or river basin in order to optimize available water supplies.

I. Enforcement Procedure and Plan Adoption

The water conservation plan must include a means for implementation and enforcement, which shall be evidenced by a copy of the ordinance, rule, resolution, or tariff, indicating official adoption of the water conservation plan by the water supplier; and a description of the authority by which the water supplier will implement and enforce the conservation plan.

J. Coordination with the Regional Water Planning Group(s)

The water conservation plan must include documentation of coordination with the regional water planning groups for the service area of the public water supplier in order to ensure consistency with the appropriate approved regional water plans.

K. Plan Review and Update

A public water supplier for municipal use shall review and update its water conservation plan, as appropriate, based on an assessment of previous five-year and ten-year targets and any other new or updated information. The public water supplier for municipal use shall review and update the next revision of its water conservation plan not later than May 1, 2009, and every five years after that date to coincide with the regional water planning group. The revised plan must also include an implementation report.

VI. ADDITIONAL REQUIREMENTS FOR LARGE SUPPLIERS

Required of suppliers serving population of 5,000 or more or a projected population of 5,000 or more within the next ten years:

A. Leak Detection and Repair

The plan must include a description of the program of leak detection, repair, and water loss accounting for the water transmission, delivery, and distribution system in order to control unaccounted for uses of water.

B. Contract Requirements

A requirement in every wholesale water supply contract entered into or renewed after official adoption of the plan (by either ordinance, resolution, or tariff), and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements in this chapter. If the customer intends to resell the water, the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with the provisions of this chapter.

VII. ADDITIONAL CONSERVATION STRATEGIES

Any combination of the following strategies shall be selected by the water supplier, in addition to the minimum requirements of 30 TAC §288.2(1), if they are necessary in order to achieve the stated water conservation goals of the plan. The commission may require by commission order that any of the following strategies be implemented by the water supplier if the commission determines that the strategies are necessary in order for the conservation plan to be achieved:

1. Conservation-oriented water rates and water rate structures such as uniform or increasing block rate schedules, and/or seasonal rates, but not flat rate or decreasing block rates;

2. Adoption of ordinances, plumbing codes, and/or rules requiring water conserving plumbing fixtures to be installed in new structures and existing structures undergoing substantial modification or addition;

3. A program for the replacement or retrofit of water-conserving plumbing fixtures in existing structures;

4. A program for reuse and/or recycling of wastewater and/or graywater;

5. A program for pressure control and/or reduction in the distribution system and/or for customer connections;

6. A program and/or ordinance(s) for landscape water management;

7. A method for monitoring the effectiveness and efficiency of the water conservation plan; and

8. Any other water conservation practice, method, or technique which the water supplier shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

VIII. WATER CONSERVATION PLANS SUBMITTED WITH A WATER RIGHT APPLICATION FOR NEW OR ADDITIONAL STATE WATER

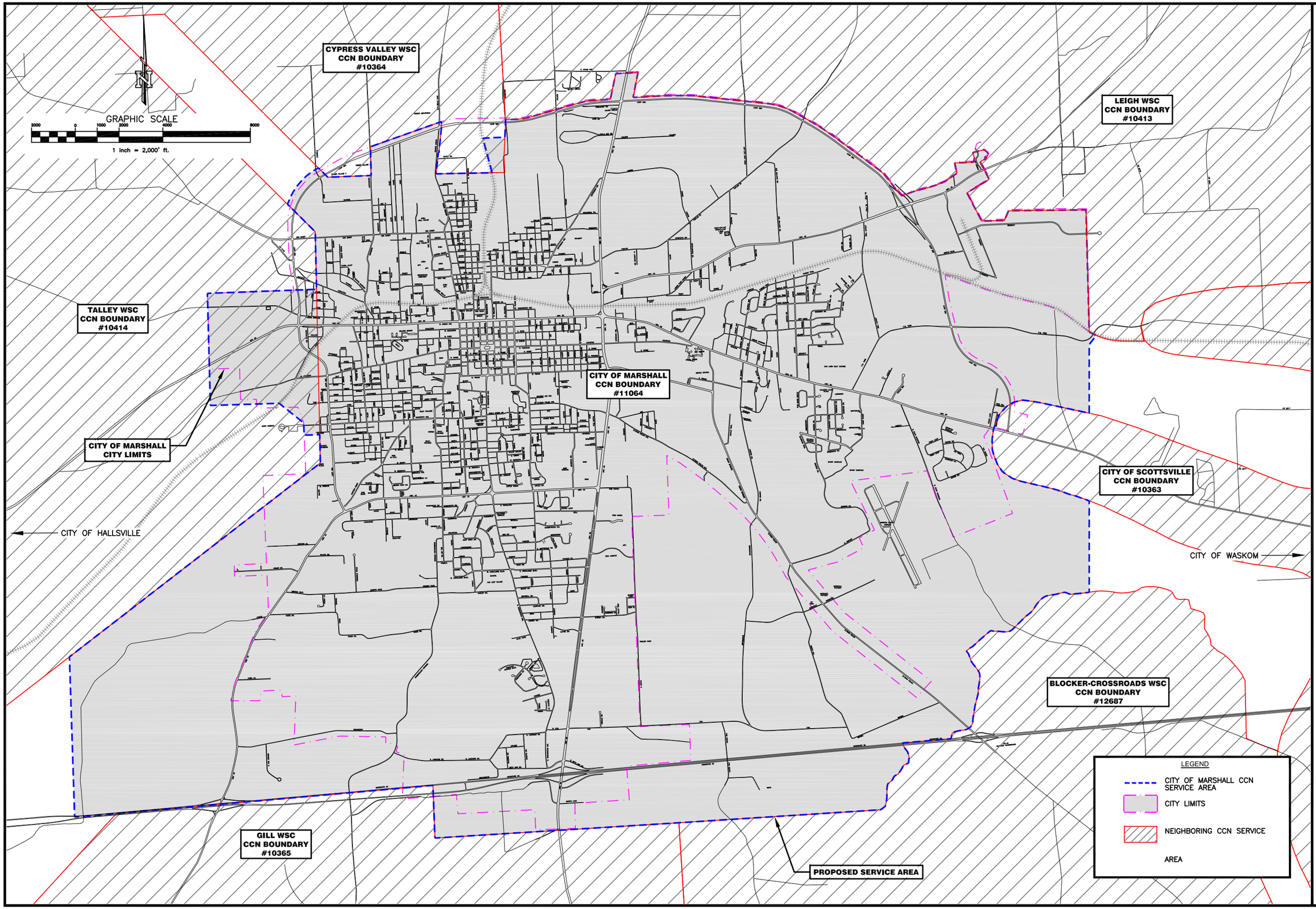
Water Conservation Plans submitted with a water right application for New or Additional State Water must include data and information which:

1. support the applicant's proposed use of water with consideration of the water conservation goals of the water conservation plan;

2. evaluates conservation as an alternative to the proposed appropriation; and

3. evaluates any other feasible alternative to new water development including, but not limited to, waste prevention, recycling and reuse, water transfer and marketing, regionalization, and optimum water management practices and procedures.

Additionally, it shall be the burden of proof of the applicant to demonstrate that no feasible alternative to the proposed appropriation exists and that the requested amount of appropriation is necessary and reasonable for the proposed use.



EXISTING SERVICE AREA

CITY OF MARSHALL
WATER CCN SERVICE AREA
HARRISON COUNTY, TEXAS

HAYES ENGINEERING, INC.
Texas Registered Engineering Firm F-1465
2126 Alpine St. Longview, TX. 75601-3401
Tel.: (903) 758-2010 * Fax: (903) 758-2099

DRAWN BY : J.T.S.
CHECKED BY : S.R.H.
DATE : MAR. 2019
SCALE : 1"=2,000'
JOB NO. : MA-19-03

SHEET
-
1

Appendix B

Copy of letter to Northeast Texas Municipal Water District

c/o Mr. Walt Sears

HAYES ENGINEERING, INC.

Texas Registered Engineering Firm F-1465 www.hayesengineering.net
2126 ALPINE ST. LONGVIEW, TX 75601-3401
V 903.758.2010 F 903.758.2099

March 08, 2019

Northeast Texas municipal Water District
P.O. Box 955
Hughes Springs, TX 75656

RE: City of Marshall Water Conservation and
Drought Contingency Plan
Regional Water Planning Group

Dear Mr. Sears:

The City of Marshall has completed a Water Conservation and Drought Contingency Plan per TCEQ requirements. Attached is the report for review.

Please do not hesitate to call if you have any questions or need additional information.

Sincerely,
HAYES ENGINEERING, INC.

Joey Scott
Project Manager

Enclosures

cc: City of Marshall

Appendix C

City Commission Ordinance Adopting Water Conservation Plan

ORDINANCE NO. O-19-07

AN ORDINANCE ADOPTING AN UPDATED WATER CONSERVATION PLAN FOR THE CITY OF MARSHALL TO PROMOTE THE RESPONSIBLE USE OF WATER BY UTILIZING BEST PRACTICES TO ENCOURAGE PRESERVATION AND CONSERVATION, AND TO PROVIDE FOR PENALTIES FOR NONCOMPLIANCE WITH THE PROVISIONS OF THE WATER CONSERVATION PLAN.

WHEREAS, the City of Marshall, Texas (the "City"), recognizes in order to maximize the utility of the City's water supplies, water conservation, and efficient use of water is vitally important; and

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

WHEREAS, the City has determined that it is in the best interest of the public to adopt a Water Conservation Plan that protects and ensures the longevity of the City's water supplies; and

WHEREAS, pursuant to Chapter 54 of the Local Government Code, the City is authorized to adopt such Ordinances necessary to preserve and conserve its water resources; and

WHEREAS, the City Commission of the City of Marshall desires to adopt that certain City of Marshall Water Conservation Plan (the "Plan"), dated March 2019 as the official City policy for the conservation of water.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF MARSHALL THAT:

Section 1. The City Commission hereby approves and adopts the Plan, attached hereto as Addendum A, as if recited verbatim herein. The City commits to implement the requirements and procedures set forth in the Plan.

Section 2. Any customer, defined pursuant to 30 Tex. Admin. Code Chapter 291, failing to comply with the provisions of the Plan shall be subject to a fine of up to two thousand dollars ($2,000.00) and/or discontinuance of water service by the City. Proof of a culpable mental state is not required for a conviction of an offense under this section. Each day a customer fails to comply with the Plan is a separate violation. The City's authority to seek injunctive or other civil relief available under the law is not limited by this section.

Section 3. The City Commission does hereby find and declare that sufficient written notice of the date, hour, place and subject of the meeting adopting this Ordinance was posted at a designated place convenient to the public for the time required by law preceding the meeting, that such place of posting was readily accessible at all times to the general public, and that all of the foregoing was done as required by law at all times during which this Ordinance and the subject matter thereof has been discussed, considered and formally acted upon. The City Commission further ratifies, approves and confirms such written notice and the posting thereof.

Section 4. Should any paragraph, sentence, clause, phrase or word of this Ordinance be declared unconstitutional or invalid for any reason, the remainder of this Ordinance shall not be affected.

Section 5. The City Manager or his designee is hereby directed to file a copy of the Plan and this Ordinance with the Commission in accordance with Title 30, Chapter 288 of the Texas Administrative Code.

Section 6. The City Secretary is hereby authorized and directed to cause publication of the descriptive caption of this ordinance as an alternative method of publication provided by law.

Section 7. On the passage of this Ordinance, in accordance with State and Local Law, Ordinance O-19-07 is adopted, Ordinance O-14-05 is repealed.

PASSED AND APPROVED this 28th day of March, 2019.
AYES: 6
NOES: 0
ABSTAINED: 0

PASSED, APPROVED AND ADOPTED this 11th day of April, 2019.
AYES: 7
NOES: 0
ABSTAINED: 0

CHAIRMAN OF THE CITY COMMISSION

ATTEST:
Elaine Altman, City Secretary

Appendix D

Water Conservation Monitoring Form

Marshall Water Treatment Pumpage Data

		RAW GALLONS		TREATED GALLONS		RAW ACRE FEET		Water Billed/Unbilled	D&C, F.D., Flushing	% Diff.
								Consumption		
January										
February						0				
March						0				
April						0				
May						0				
June						0				
July						0				
August						0				
September						0				
October						0				
November						0				
December						0				
TOTAL										

City of Marshall
Annual Consumption Report.

	BILLED WATER CONSUMPTION												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL X 1000
Billed/Rts													
Norit													
Cablec													
Leigh													
Cypress													
Talley													
Blocker													
Gill													
Filter Plant													
Total:	-	-	-	-	-	-	-	-	-	-	-	-	-
													X 1000
				UNBILLED-CITY FACILITIES									
CITY ACCTS													0
													x 1000
								TOTAL METERED WATER CONSUMPTION ----					
GPCD Calculation													