

City of Marlin

101 Fortune Street
Marlin, Texas 76661

WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN

for the

CITY OF MARLIN

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MRB Project No. 1301.18002.000

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
A. WATER CONSERVATION PLAN GOALS	2
B. DROUGHT CONTINGENCY PLAN	3
I. WATER CONSERVATION PLAN.....	4
A. INTRODUCTION.....	4
B. WATER CONSERVATION PLAN GOALS	4
C. BACKGROUND INFORMATION.....	5
D. UTILITY SYSTEM PROFILE.....	6
E. WASTEWATER SYSTEM	6
F. WATER SYSTEM	7
G. PUBLIC EDUCATION	8
H. PLUMBING CODES	8
I. RETROFIT PROGRAMS	9
J. UNIVERSAL METERING	9
K. WATER CONSERVING LANDSCAPE	9
L. RATE STRUCTURES OF WATER AND WASTEWATER	10
M. LEAK DETECTION AND WATER AUDITS	10
N. RECYCLING AND REUSE	12
O. IMPLEMENTATION AND ENFORCEMENT	12
P. CONTRACTS WITH OTHER POLITICAL SUBDIVISIONS.....	13
Q. COORDINATION WITH THE REGIONAL WATER PLANNING GROUP	13
R. ANNUAL REPORTING TO TEXAS WATER DEVELOPMENT BOARD	13
II. DROUGHT CONTINGENCY PLAN	
(Emergency Water Demand Management Plan).....	15
A. INTRODUCTION.....	15
Section I: Declaration of Policy, Purpose, and Intent.....	15
Section II: Public Involvement	16
Section III: Public Education.....	16
Section IV: Coordination with Regional Water Planning Groups.....	17
Section V: Authorization	17
Section VI: Application	17
Section VII: Definitions.....	18
Section VIII: Criteria for Initiation and Termination of Drought Response Stages.....	19
Section IX: Drought Response Stages	25
Section X: Enforcement.....	40
Section XI: Variances	41

APPENDICES

Appendix A:	Water Conservation Utility Profile for Retail Water Supplier, TWDB Form 1965-R
Appendix B:	Water Conservation Plan 5 and 10-Year Goals for Water Savings, TWDB Form 1964
Appendix C:	Water Conservation Plan and Drought Contingency Plan Adoption Ordinance
Appendix D:	Water and Wastewater Rate Structure and Adoption Ordinance
Appendix E:	New Marlin Lake – Capacity vs. Level

EXECUTIVE SUMMARY

The City of Marlin (“City”) adopted its first Water Conservation and Drought Contingency Plan in 2002 and later re-adopted the plan in 2013 to comply with requirements of the Texas Water Development Board (“TWDB”). As per its agreement with the TWDB the City is required to update its plan every five years with the City Council adopting the plan. Currently, the City experiences large water losses. During 2012 the City conducted a comprehensive leak detection study. This study uncovered 68 substantial leaks that were mapped using GIS. To date, the City has lacked the resources to address all of the leaks. The Study also collected GIS data points directed toward improving overall water system mapping. In 2018 the City was awarded funding for water system improvements which will be used, among other issues, to address the water losses in various forms.

Table ES-1 documents the total water pumped, total water metered for the years 2013-2017.

Table ES-1
Water Usage Information 2013-2017

Source	2013	2014	2015	2016	2017
City (gallons)	493,327,543	353,224,484	598,699,223	565,220,000	527,000,000
BRA (gallons)	85,545,000	192,577,941	-	-	
Total Pumped (gallons)	578,872,543	545,802,425	598,699,223	565,220,000	527,000,000
Total Metered (gallons)	179,101,126	199,764,266	321,198,825	167,095,200	166,690,400
Difference (gallons)	314,226,417	346,038,159	277,500,398	398,124,800	360,309,600
Percent Loss (%)	69%	63%	46%	70%	68%

Avg. Pumped 2013-2017	562,718,438 gallons
Avg. Metered 2013-2017	206,769,963 gallons
Difference	300,723,887 gallons
Average % Loss 2013-2017	63%

*Losses are derived by dividing Total Water Pumped by Total Water Metered

Source: City of Marlin Water Records

Table ES-2 provides a comparison of per capita water use for the years 2013-2017. The population estimates are from the U.S. Census and water pumped and metered are from the City of Marlin's records. The Census numbers are estimates and can have a significant impact on per capita usage.

Table ES-2
Per Capita Water Use 2013-2017

Year	Estimated Population	Daily Pumped (Gallons)	Daily Metered (Gallons)	Per Capita Use Pumped (gpcd)	Per Capita Use Metered (gpcd)
2013	5,758	1,580,473	490,688	274	85
2014	5,656	1,495,344	547,299	358	97
2015	5,635	1,640,272	879,997	291	156
2016	5,684	1,548,548	457,795	272	81
2017	5,701	1,443,836	456,686	253	80
Avg.	5,687	1,541,694	566,493	290	100

Note: gpcd – gallons per capita per day.

Table ES-2 shows that metered water is considerably lower than produced water.

A. WATER CONSERVATION PLAN GOALS

The purpose of this water conservation plan is to comply with TWDB and Texas Commission on Environmental Quality (TCEQ) requirements and achieve:

- Reductions in unaccounted for water by 105 gallons per capita-day over the next 5 years.
- Reductions in unaccounted for water by 140 gallons per capita-day over the next ten years.
- Long-term reductions in overall water demands 20-percent per capita over the next five years and 30% reduction over the next 10 years.

Water conservation goals and per capita water loss goals are provided in Tables ES-3 and ES-4 respectively for 5-year and 10-year periods.

Table ES-3
City of Marlin
Water Conservation Goals

Description	Current Average (gpcd)	5-year Goal 20% reduction (gpcd)	10-year Goal 30% reduction (gpcd)
Metered Usage	126*	101	88

*Based on the averages from 2013-2017 using 290 gpcd water pumped minus 164 gpcd water lost.

Table ES 4
City of Marlin
Per Capita Water Loss Goals

Description	Current Average (gpcd)	5-year Goal (gpcd)	10-year Goal (gpcd)
Water Loss (gpcd)	175*	70	35

*Based on 2017 data as the baseline.

B. DROUGHT CONTINGENCY PLAN

The Drought Contingency Plan is designed to address emergency water supply situations caused by both periods of drought as well as equipment failure or loss of storage. The Drought Contingency Plan has the following stages:

- Stage 1- Mild Water Shortage- 10% reduction in water use
- Stage 2- Moderate Water Shortage- 20% reduction in water use
- Stage 3- Severe Water Shortage- 30% reduction in water use
- Stage 4- Critical Water Shortage- 40% reduction in water use
- Stage 5- Emergency Water Shortage- 50 % reduction in water use
- Stage 6- Mandatory Water Allocations- Allocations based on household

size

Under Stage 6 Water Allocation there are surcharges added to the bill based on how much water over the household allocation has been consumed.

The triggers that are used to implement each stage of the plan include extended usage that stresses the available pumping and storage capacity, well levels, natural disaster, and equipment failures. The plan also includes how each drought stage is ended.

I. WATER CONSERVATION PLAN

A. INTRODUCTION

In accordance with the guidelines of the Texas Water Development Board (TWDB), the City of Marlin, (hereafter referred to as “the City”), has prepared this Water Conservation and Drought Contingency Plan.

B. WATER CONSERVATION PLAN GOALS

The purpose of this water conservation plan is intended to comply with TWDB and Texas Commission on Environmental Quality (TCEQ) requirements and achieve:

- Reductions in unaccounted for water by 105 gallons per capita-day over the next 5 years.
- Reductions in unaccounted for water by 140 gallons per capita-day over the next ten years.
- Long-term reductions in overall water demands 20-percent per capita over the next five years and 30% reduction over the next 10 years;

Given current and projected water and wastewater service requirements and issues, specific water conservation objectives are:

- To reduce waste and influence conservation habits of the residents of the City; and

- To reduce seasonal water demands such that future development of water treatment facilities can be deferred.

5-year and 10-year Targets and Goals for water savings

Table I.1:
City of Marlin
Water Conservation Goals

Description	Current Average (gpcd)	5-year Goal 20% reduction (gpcd)	10-year Goal 30% reduction (gpcd)
Metered Usage	126*	101	88

*Based on the averages from 2013-2017 using 290 gpcd water pumped minus 164 gpcd water lost.

Table I.2:
City of Marlin
Water Loss Goals

Description	Current Average (gpcd)	5-year Goal (gpcd)	10-year Goal (gpcd)
Water Loss	175*	70	35

*Based on 2013-2017 data.

C. BACKGROUND INFORMATION

The City of Marlin is located in Falls County, Central Texas. The City is about 25 miles east of 1-35 between Temple and Waco. The Brazos River is about 5 miles Southwest of Marlin.

The City of Marlin obtains its water supply from surface water from local reservoirs and the Brazos River. The City owns and operates two existing reservoirs—Marlin City Lake and New Marlin Reservoir—that impound runoff from Big Sandy Creek. The City also owns water rights and authorizes diversion of 4,000 ac-ft/yr from the Brazos River and has contracted with the Brazos River Authority for 1,200 ac-ft/yr

from the BRA System. Currently, the City utilizes surface water from the two existing reservoirs as its primary supply and diverts water from Brazos River only in an emergency to supplement the supply in the two existing reservoirs.

The city service area is approximately 6.9 square miles with population of 5,671 according to the 2010 U.S. Census Bureau. The projected population for 2050 is 6,721 according to the 2016 Brazos G Regional Water Plan. Population declined approximately 1.05% annually from 2000-2010, but is expected to grow by an average 0.30% annually through year 2070.

D. UTILITY SYSTEM PROFILE

The Water Conservation Utility Profile, TWDB Form WRD-264 for the City is provided in **Appendix A**.

E. WASTEWATER SYSTEM

The City of Marlin owns and operates its own centralized, conventional sewage collection and treatment system. The City's wastewater treatment facility is permitted by the TCEQ under Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010110002, which authorizes the discharge of treated domestic wastewater at an annual average flow not to exceed 2,000,000 gallons per day.

The City of Marlin Wastewater Treatment Facility is a pond system. Treatment units include two bar screens, aerated lagoons, and two stabilization lagoons. Sludge from the ponds is periodically removed for disposal. The discharge permit authorizes the disposal of sludge at a TCEQ-authorized land application site, co-disposal landfill, or wastewater treatment facility.

The plant site is located at 241 County Road 302, on the west side of County Road 302, approximately 2.5 miles southwest of the intersection of State Highway 6 and

State Highway 712 in Falls County, Texas 76661. The treated effluent is discharged directly to the Brazos River above Navasota River in Segment No. 1242 of the Brazos River Basin. The designated uses for Segment No. 1242 are high aquatic life use, and primary contact recreation.

The majority of the collection system consists of gravity wastewater collection lines. The City operates a total of eight (8) sewage lift stations and their associated force mains. The lift stations allow the wastewater to be transported across the City's relatively flat terrain for discharge into gravity collection lines.

F. WATER SYSTEM

The City of Marlin owns and operates its own public water system that serves the entire City. The City's water system is a registered public water system with the TCEQ (PWS No. TX0730002). The City provides water service to its customers under the authority granted to it by the Certificate of Convenience and Necessity (CCN) issued by the TCEQ (CCN No. 10042). The City of Marlin's service area currently has 2,208 active water connections.

As described above the City of Marlin currently acquires its water supply primarily from the Marlin City Lake and the New Marlin Reservoir. The City also has a contract with the Brazos River Authority to divert water from Brazos River only in an emergency to supplement the supply in the two existing reservoirs. A new surface water treatment plant was completed in approximately 2010 with a total capacity of 5 MGD and a 0.75 MG clearwell. The City has four elevated storage tanks with a total capacity of 1.37 MG. Maximum month average pumping from the SWTP has been as high as 2.0 MGD, although SCADA reports peak day pumping of as high as 2.6 MGD during July, 2014.

The City's Water Services Department manages a water distribution service area of 6.9 square miles and serves a population of over 5,700 residents. The City provides drinking water to its customers through a network of nearly 55 miles of

transmission and distribution mains that provide service to over 2,363 water connections.

G. PUBLIC EDUCATION

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

- New customers will receive conservation information when applying for service;
- Educational material will be distributed to all customers on a semi-annual basis, timed to correspond with peak summer and winter demand periods
- Information will be available upon request;
- Community educational program/school demonstrations and presentations;
- A presentation will be made available and published on the City's web site.

The City also proclaims "National Drinking Water Week" and provide residents with information and demonstrations related to water conservation and environmental issues that affect our water.

H. PLUMBING CODES

Currently the City observes the Standard Plumbing Code, 1988 edition, promulgated by the Southern Building Code Congress. Beyond the plumbing code, the State of Texas has required water-conserving fixtures in new construction and renovations since 1992. The state standards call for flows of no more than 2.5 gallons per minute (gpm) for faucets, 3.0 gpm for showerheads, and 1.6 gallons per flush for toilets. Similar standards are now required nationally under federal law. These state and federal standards assure that all new construction and renovations will use water-conserving fixtures. The City of Marlin follows these standards.

I. RETROFIT PROGRAMS

As noted above, state law requires that all new plumbing fixtures meet water conservation requirements. However, at this time there are no formal retrofit or rebate programs, either provided or required by the City of Marlin.

J. UNIVERSAL METERING

The City currently meters 100-percent of residential water used. In approximately 2016 all meters in the City were upgraded to automated meter reading (AMR) style meters. In addition, the City has a policy of testing all meters, which appear to have abnormally high or low water usage. The City has set up the following meter testing schedule:

1. Production meters – test once a year
2. Meters larger than 1-inch – test once a year
3. Meters 1-inch and smaller – test every five years

The City has a computer program that handles all of their billing. The City's computer billing program easily identifies any high or low rate users, and keeps track of all water use.

The City will continue to provide a water meter preventive maintenance program, wherein testing, repairs, and replacement are performed in accordance with AWWA standards.

K. WATER CONSERVING LANDSCAPE

The City of Marlin will provide information, through the public education program, to homeowners, business owners, landscape architects, and irrigation contractors about the methods and benefits of water conserving landscaping practices and devices. The following methods will be encouraged.

The use of low water consuming plants and grasses for landscaping new homes and

commercial areas.

Business and nurseries to offer for sale low water consuming plants and grasses along with efficient irrigation systems and to promote their use through demonstrations and advertisements.

L. RATE STRUCTURES OF WATER AND WASTEWATER

The City employs a water usage rate structure based on customer type and an inclined block rate service charge. Current water and wastewater rates for residential and commercial accounts are presented in Appendix D.

M. LEAK DETECTION AND WATER AUDITS

An extensive leak detection survey was conducted in the City in 2012. It should be noted that the City was unable to fund all of the recommendations as a result of that study, although many of the high-priority issues identified in the study were addressed. In addition, and as a result of TWDB funding secured in 2019, another leak detection study will be conducted throughout the City. It is anticipated that this study will be used to prioritize and address the water losses further identified.

During the 2012 project sixty-eight leaks were identified, consisting of, twelve main line leaks, nine service line leaks, one leaking ARV, nineteen fire hydrant leaks, one damaged meter, one obsolete meter, three inoperable meters, nineteen meter box leaks, and one customer side leak. Some of the items were considered to be in need of immediate attention. As a result of the study, the following was recommended:

- Repair all main line leaks
- Repair all service line leaks
- Repair leaking air release valves
- Incorporate a fire hydrant replacement program to eliminate water losses due

to ongoing leaks

- Replace inoperable meter to East Marlin Co-Op in Hillcrest Cemetery to ensure accurate readings and billing procedures
- Account for all water by sub-metering all city parks, cemeteries, community properties, fire department, and city offices.
- Begin extensive valve replacement program, in order to properly isolate city mains during leak excavations.
- Incorporate valve maintenance program including working valves every quarter.
- Investigate and cap off all abandoned lines to ensure there is no water to old existing mains.
- The City of Marlin should establish meter replacement criteria. Water meter accuracy begins to degrade as throughput increases, therefore it is prudent to set criteria for anticipated “useful meter life”, As an example for 5/8 inch meters 10 years, or 1 million gallons, whichever comes first.
- The optimal useful meter life depends on the quality of meters in use and the specific physical and chemical characteristics of the water being measured. When a meter reaches this milestone it should be replaced immediately with a meter of appropriate size and type.
- Continue extensive meter change-out program – Given the existing quantities of old meters and difficult locations of many meters. This program should include that all services are accounted for and that new meters are installed in such a manner as to promote optimal performance and efficient meter reading and meter maintenance.
- Investigate various electronic meter reading options in order to improve meter reading procedures, billing issues and eliminate rereads with real time meter account information by computer availability
- Replace damaged meters and/or inoperable meters
- Investigate and/or repair all meter box leaks
- Confirm all active water service accounts by annually investigating all vacant and abandoned properties annually for inactive accounts, un-metered

services or illegal service connections to reduce potential unauthorized water use

- Meter all fire suppression lines to eliminate potential unknown losses
- Notify customer of their leak and responsibility of repairs

A generalized leak detection and repair program should also include the following:

1. Monthly water use accounting by City staff and the billing system, both of which help to identify high water use after the service meters, indicating leaks;
2. Constant monitoring of elevated tanks which identifies major water main breaks;
3. Visual inspection by meter readers and system employees who keep a constant watch out for abnormal conditions indicating leaks; and
4. An adequate maintenance staff which is available to repair any leaks.
5. A monthly water loss report provides an effective tracking system of metered production, metered consumption, accounted water losses, and unaccountable water loss. The City has averaged an annual unaccountable rate of 63-percent, which is greater than the AWWA recommended rate (10-percent). The City plans to continue decreasing this rate by implementing the above measures.

N. RECYCLING AND REUSE

The City has evaluated the possibility of using its wastewater effluent for recycling and reuse. Under the current wastewater permit parameters reuse is not a feasible option.

O. IMPLEMENTATION AND ENFORCEMENT

The Ordinance adopting the Water Conservation Plan shall authorize the City to implement, enforce, and administer the program.

P. CONTRACTS WITH OTHER POLITICAL SUBDIVISIONS

The City will, as part of any contract for sale of water to another 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 by TCEQ or TWDB. These provisions will be through contractual agreement prior to the sale of any water to the entity.

Q. COORDINATION WITH THE REGIONAL WATER PLANNING GROUP

The service area of the City of Marlin is located within the Regional Water Planning Area (G) and will provide a copy of this Water Conservation and Drought Contingency Plan to the Regional Water Planning Group (G).

R. ANNUAL REPORTING TO TEXAS WATER DEVELOPMENT BOARD

The City Manager shall be responsible for providing the required annual report to the Texas Water Development Board and TCEQ.

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II. DROUGHT CONTINGENCY PLAN (EMERGENCY WATER DEMAND MANAGEMENT PLAN)

A. INTRODUCTION

It is necessary for the City of Marlin to have in place a Drought Contingency/Emergency Water Demand Plan that will deal with emergency water demand situations. There are a number of scenarios where the public water supply could be adversely affected and the public's health jeopardized. Normal service can be interrupted by such uncontrollable circumstances as drought, hurricanes, tornadoes, vandalism, floods, or equipment failure. Water demand is usually significantly higher than normal when drought conditions are in effect causing maximum stress on the public water system.

This plan will provide the necessary indicators and control measures to temporarily abate water demand in emergency situations. These provisions are designed to be in place only as long as an emergency situation exists. To be effective the plan must have the following elements:

- Trigger conditions that will signal the existence of an emergency situation;
- Emergency control measures;
- Methods to relay information and notify the public;
- Enforcement procedures;
- Method of implementation of plan; and
- Procedure for plan termination notification.

Section I: Declaration of Policy, Purpose, and Intent

In order to conserve the available water supply and protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, the City of Marlin (hereafter referred to as "the City")

hereby adopts the following regulations and restrictions on the delivery and consumption of water.

Water uses regulated or prohibited under this DROUGHT CONTINGENCY PLAN/EMERGENCY WATER DEMAND (the Plan) are considered to be non-essential and continuation of such uses during times of water shortage or other emergency water supply condition are deemed to constitute a waste of water which subjects the offender(s) to penalties as defined in Section XI of this Plan.

Section II: Public Involvement

The City of Marlin amended the most recent Water Conservation and Drought Contingency Plan in May, 2014 and made that available to its customers online. The Plan was adopted by Ordinance of the Marlin City Council. This plan shall be similarly adopted and made available to the public.

Section III: Public Education

The City of Marlin will periodically provide the public with information about the Plan, including information about the conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage. This information will be provided by the Water Utilities Department through ongoing programs, which will reach a wide variety of customers. These programs include public outreach to schools, Rotary Clubs, civic groups, and other adult and child groups. The City distributes conservation and drought response in water bill mailings and provides them to the general public at City Hall. The City also publishes this information in the local newspaper *The Marlin Democrat* with information specific to water conservation and to this Plan. The City of Marlin will inform and educate the public about its Plan by the following means:

- Posting the Notice of Drought conditions at the City of Marlin City Hall, County

- Courthouse, Post Office, Library, major supermarkets, and on the City's website.
- Preparing a bulletin describing the plan and making it available at City Hall and other appropriate locations.
 - Notifying local organizations, schools, and civic groups that City of Marlin staff are available to make presentations on the Plan (usually in conjunction with presentations on water conservation programs).
 - At any time that the Plan is activated or the drought stage changes, the City of Marlin will notify local media of the issues, the drought response stage, and the specific actions required of the public.
 - Customer Billing inserts will also be used as appropriate.

Section IV: Coordination with Regional Water Planning Groups

The service area of the City of Marlin is located within the Regional Water Planning Area (G) and the City has provided a copy of this Water Conservation and Drought Contingency Plan to this entity.

Section V: Authorization

The City Manager, or his/her designee is hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The City Manager, or his/her designee, shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan.

Section VI: Application

The provisions of this Plan shall apply to all persons, customers, and property utilizing water provided by the City of Marlin. The terms "person" and "customer" as used in the Plan include individuals, corporations, partnerships, associations, and all other legal entities.

Section VII: Definitions

For the purposes of this Plan, the following definitions shall apply:

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

Commercial and institutional water use: water use which is integral to the operations of commercial and non-profit establishments and governmental entities such as retail establishments, hotels and motels, restaurants, hospitals, clinics and office buildings.

Conservation: those practices, techniques, and technologies that reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water or increase the recycling and reuse of water so that a supply is conserved and made available for future or alternative uses.

Customer: any person, company, or organization using water supplied by City of Marlin.

Daily Maximum Supply: is calculated using available pumping capacity (7.5 MGD) and available overhead storage (1.35 MG)

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

Even number address: street addresses, box numbers, or rural postal route numbers ending in 0, 2, 4, 6, or 8 and locations without addresses.

Odd numbered address: street addresses, box numbers, or rural postal route numbers ending in 1, 3, 5, 7, or 9.

Industrial water use: the use of water in processes designed to convert materials of

lower value into forms having greater usability and value.

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

Non-essential water use: water uses that are not essential nor required for the protection of public, health, safety, and welfare, including:

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

Section VIII: Criteria for Initiation and Termination of Drought Response Stages

The City Manager, or his/her designee, shall monitor water supply and/or demand conditions on a monthly basis and shall determine when conditions warrant initiation or termination of each stage of the Plan, that is, when the specified

“triggers” are reached.

The triggering criteria described below are based on the following:

The City’s current treatment facility capacity is rated at 3,470 gallons per minute (gpm) or 5.0 million gallons per day (mgd). Total water storage capacity is 2.3 million gallons, of which 1.35 million gallons are elevated storage.

Daily water demand will be monitored for impending emergency conditions by City staff. Trigger conditions will be based on an emergency situation caused by a natural disaster, equipment, or system failure, or extended high daily water demands.

Stage 1 Triggers -- MILD Water Shortage Conditions

Requirements for initiation

Customers may be requested to voluntarily conserve water and adhere to the prescribed restrictions on certain water uses, defined in Section VII – Definitions, when any one or more of these events occur:

1. New Marlin Lake level at or below 17 feet (387 ft MSL), but above 15 feet (385 ft MSL) (See Appendix E).
2. Average daily water use reached seventy-five percent (75-percent) of daily maximum supply 5 MGD for 60 consecutive days.
3. An extended period (6 months) of time without significant rainfall (less than 2-inches).
4. Failure of two or more of the City’s pumps.

Requirements for termination

Stage 1 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days.

Stage 2 Triggers -- MODERATE Water Shortage Conditions

Requirements for initiation

Customers may be required to comply with the requirements and restrictions on certain non-essential water uses provided in Section IX of this Plan when any one or more of the following events occur:

1. New Marlin Lake level at or below 15 feet (385 ft MSL) but above 12 feet (382 ft MSL).
2. Average daily water use reaches eighty percent (80-percent) of the maximum supply (5 MGD) for 30 consecutive days.
3. The water level in any of the City's water storage tanks cannot be replenished quickly enough to maintain the average residual pressure on the system at 40 psi during working hours of the City.
4. Failure of one or more pumps or storage tanks that decreases the City's ability to maintain adequate storage for domestic and emergency service.

Requirements for termination

Stage 2 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days. Upon termination of Stage 2, Stage 1 becomes operative.

Stage 3 Triggers -- SEVERE Water Shortage Conditions

Requirements for initiation

Customers may be required to comply with the requirements and restrictions on certain non-essential water uses for Stage 3 of this Plan when any one or more of the following events occur:

1. New Marlin Lake level at or below 12 feet (382 ft MSL) but above 10 feet (380 ft MSL).
2. Failure of major component of the City's water system or an event which reduces the average residual pressure on the system below 38 PSI for a period of 12 hours.
3. Water consumption has reached ninety percent (90-percent) of daily maximum supply (5 MGD) for 30 consecutive days.
4. The water level in any of the City's water storage tanks cannot be

replenished quickly enough to maintain the average residual pressure on the system at 36 PSI during working hours of the City.

5. Other unforeseen events, which could cause imminent health or safety risks to the public.
6. Failure of a membrane filtration rack at the Surface Water Treatment Plant.
7. Failure of one of the City's overhead and/or ground storage tanks.
8. Loss of electricity for more than 8 hours, if during the outage the storage tank levels drop sufficiently to cause the average residual pressure on the system to fall below 38 PSI

Requirements for termination

Stage 3 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days. Upon termination of Stage 3, Stage 2 becomes operative.

Stage 4 Triggers – CRITICAL Water Shortage Conditions

Requirements for initiation

Customers may be required to comply with the requirements and restrictions on certain non-essential water uses for Stage 4 of this Plan when any one or more of the following events occur:

1. New Marlin Lake level at or below 10 feet (380 ft MSL) but above 8 feet (378 ft MSL).
2. Failure of major component of the City's water system or an event which reduces the average residual pressure on the system below 35 PSI for a period of 24 hours.
3. Water consumption has reached ninety-five percent (95-percent) of daily maximum supply (5 MGD) for 30 consecutive days.
4. The water level in any of the City's water storage tanks cannot be replenished quickly enough to maintain the average residual pressure on the system at 35 PSI during working hours of the City.

5. Other unforeseen events, which could cause imminent health or safety risks to the public.
6. Failure of a membrane filtration rack, while accompanied by degradation of performance of 2nd membrane filtration rack at the Surface Water Treatment Plant.
7. Failure of two of the City's overhead and/or ground storage tanks.
8. Loss of electricity for more than 12 hours, if during the outage the storage tank levels drop sufficiently to cause the average residual pressure on the system to fall below 35 PSI

Requirements for termination

Stage 4 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days. Upon termination of Stage 4, Stage 3 becomes operative.

Stage 5 Triggers -- EMERGENCY Water Shortage Conditions

Requirements for initiation

Customers may be required to comply with the requirements and restrictions for Stage 5 of this Plan when the City Manager, or his/her designee, determines that a water supply emergency exists based on the occurrence of any one or more of the following events:

1. New Marlin Lake level at or below 8 feet (378 ft MSL).
2. Failure of major component of the City's water system or an event which reduces the average residual pressure on the system below 32 PSI for a period of 36 hours.
3. Water consumption has reached ninety-seven percent (97-percent) of daily maximum supply (5 MGD) for 30 consecutive days.
4. The water level in any of the City's water storage tanks cannot be replenished quickly enough to maintain the average residual pressure on the system at 32 PSI during working hours of the City.

5. Other unforeseen events, which could cause imminent health or safety risks to the public.
6. Failure of both membrane filtration racks at the Surface Water Treatment Plant.
7. Failure of one of the City's two elevated storage tanks or failure of ground storage tanks.
8. Loss of electricity for more than 24 hours, if during the outage the storage tank levels drop sufficiently to cause the average residual pressure on the system to fall below 30 PSI
9. Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service; or
10. Natural or manmade contamination of the water supply source(s).

Requirements for termination

Stage 5 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days. Upon termination of Stage 5, Stage 4 becomes operative.

Stage 6 Triggers -- WATER ALLOCATION

Requirements for initiation

Customers may be required to comply with water allocation Plan prescribed in Section IX of this Plan and comply with the requirements and restrictions for STAGE 5 of this Plan when any one or more of the following events occur:

1. New Marlin Lake level at or below 8 feet (378 ft MSL).
2. Failure of major component of the City's water system or an event which reduces the average residual pressure on the system below 30 PSI for a period of 48 hours.
3. Water consumption has reached ninety-eight percent (98-percent) of daily maximum supply (5 MGD) for 30 consecutive days.
4. The water level in any of the City's water storage tanks cannot be replenished quickly enough to maintain the average residual pressure on the

system at 30 PSI during working hours of the City.

5. Other unforeseen events, which could cause imminent health or safety risks to the public.
6. Failure of both membrane filtration racks at the Surface Water Treatment Plant.
7. Failure of one of the City's two elevated storage tanks or ground storage tanks.
8. Loss of electricity for more than 48 hours, if during the outage the storage tank levels drop sufficiently to cause the average residual pressure on the system to fall below 28 PSI
9. Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service; or
10. Natural or manmade contamination of the water supply source(s).

Requirements for termination

Stage 6 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days. Upon termination of Stage 6, Stage 5 becomes operative.

Section IX: Drought Response Stages

The City Manager, or his/her designee, shall monitor water supply and/or demand conditions on a daily basis and, in accordance with the triggering criteria set forth in Section VIII of this Plan, shall determine that a mild, moderate, severe, critical, emergency or water shortage condition exists and shall implement the following notification procedures:

Notification

Notification of the Public:

The City Manager or his/ her designee shall notify the public by means of:

- Posting the Notice of Drought conditions at the City of Marlin City Hall,

Post Office, Library, and the City's Web Site.

- At any time that the Plan is activated or the drought stage changes, the City of Marlin will post it on the City's Web Site and notify local media of the issues, the drought response stage, and the specific actions required of the public.
- Inform the public through the news media and the City's Web Site that a trigger condition has been reached, and that they should look for ways to voluntarily reduce water use. Specific steps, which can be taken, will be provided through the news media.

Additional Notification:

The City Manager or his/ her designee shall notify directly, or cause to be notified directly, the following individuals and entities, as appropriate:

- City Manager / Chairman and members of the City Council
- Fire Chief(s)
- City and/or County Emergency Management Coordinator(s)
- County Judge & Commissioner(s)
- State Disaster District / Department of Public Safety
- TCEQ (required when mandatory restrictions are imposed)
- Major water users
- Critical water users, i.e. hospitals, schools and nursing homes
- Parks/ street superintendents and public facilities managers

Emergency Drought Contingency Measures

1. **STEP I** curtailment is one where the City Manager can restrict, the use of water for outdoor sprinkling, watering of lawns, shrubs, driveways, and automobiles to certain areas of the service area by days and to certain hours. Said restrictions will remain in effect until the City Manager lifts the restrictions. More specifically stated shall be:

A. Inform the public through the news media and the City's Web Site that

- a trigger condition has been reached, and that they should look for ways to voluntarily reduce water use. Specific steps, which can be taken, will be provided through the news media.
- B. Notify major commercial water users of the situation and request voluntary water use reductions.
 - C. Mandatory lawn- watering schedule shall be implemented.
 - D. During winter months, request water users to insulate pipes rather than running water to prevent freezing; and
 - E. City will monitor water pressure in the distribution system and water levels in the storage tanks.
2. A **STEP II** curtailment would be one where the City Manager will ban the use of water totally for outdoor sprinkling, watering of lawns, shrubs, driveways, and automobiles. Said restriction will remain in effect until the City Manager lifts the ban. More specifically stated as follows:
- A. Continue implementation of all relevant actions in proceeding phase.
 - B. Car washing, window washing, and pavement washing prohibited except when a bucket is used.
 - C. The following public water uses, not essential for public health or safety, are prohibited/ street washing, filling pools, athletic field watering, golf course watering, and water hydrant flushing.
 - D. The curtailment will be effective upon the City Manager's giving notice of curtailment of the communities within the area; the posting of a notice of curtailment and notifying the news media of curtailment and as stated in Section 3.
 - E. The curtailments will be terminated upon the City Manager giving notice of termination as he does for the institution of the curtailment.

Stage 1 Response -- MILD Water Shortage Conditions

Goal: Achieve a voluntary ten percent (10-percent) reduction in daily water demand.

1. Inform public by giving notice of a mild drought to the communities within the System; the posting of the notice on the City's Web Site, and notifying news media of the mild drought.
2. Include in the information to the public will be the recommendation that water users look for ways to conserve water.
3. The public will be advised of the trigger condition situation daily.

Supply Management Measures: None

Voluntary Water Use Restrictions:

- a) Water customers are requested to voluntarily limit the irrigation of landscaped areas to Sundays and Thursdays for customers with a street address ending in an even number (0, 2, 4, 6 or 8), and Saturdays and Wednesdays for water customers with a street address ending in an odd number (1, 3, 5, 7 or 9), and to irrigate landscapes only between the hours of 8:00 p.m. to 10:00 a.m. on designated watering days.
- b) All operations of the City of Marlin shall adhere to water use restrictions prescribed for Stage 2 of the Plan.
- c) Water customers are requested to practice water conservation and to minimize or discontinue water use for non-essential purposes.

Stage 2 Response -- MODERATE Water Shortage Conditions

Goal: Achieve a twenty percent (20-percent) reduction in daily water demand.

Supply Management Measures:

1. Reduce flushing of water mains.
2. Public will be informed as Stage 1 above.
3. The STEP I curtailment will be enacted.

4. Public will be advised of the trigger conditions daily.

Water Use Restrictions. Under threat of penalty for violation, the following water use restrictions shall apply to all persons:

- (a) Irrigation of landscaped areas with hose-end sprinklers or timed automatic irrigation systems shall be limited to Sundays and Thursdays for customers with a street address ending in an even number (0, 2, 4, 6 or 8), and Saturdays and Wednesdays for water customers with a street address ending in an odd number (1, 3, 5, 7 or 9), and irrigation of landscaped areas is further limited to the hours between 8:00 p.m. and 10:00 a.m. on designated watering days. However, irrigation of landscaped areas is permitted at anytime if it is by means of a hand-held hose, a faucet filled bucket or watering can of five (5) gallons or less, or drip irrigation system.
- (b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is prohibited except on designated watering days between the hours of 8:00 a.m. to 10:00 a.m. and between 6:00 p.m. and 10:00 p.m. Such washing, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rises. Vehicle washing may be done at any time on the immediate premises of a commercial car wash or commercial service station. Further, such washing may be exempted from these regulations if the health, safety, and welfare of the public is contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables.
- (c) Use of water to fill, refill, or add to any indoor or outdoor swimming pools, wading pools, or jacuzzi-type pools is prohibited except on designated watering days between the hours of between 8:00 p.m. and 10:00 a.m.

- (d) Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system.
- (e) Use of water from hydrants shall be limited to firefighting, related activities, or other activities necessary to maintain public health, safety, and welfare, except that use of water from designated fire hydrants for construction purposes may be allowed under special permit from the City of Marlin.
- (f) Use of water for the irrigation of golf course greens, tees, and fairways is prohibited except on designated watering days between the hours 8:00 p.m. and 10:00 a.m. However, if the golf course utilizes a water source other than that provided by the City of Marlin, the facility shall not be subject to these regulations.
- (g) The following uses of water are defined as non-essential and are prohibited:
 - 1. wash down of any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
 - 2. use of water to wash down buildings or structures for purposes other than immediate fire protection;
 - 3. use of water for dust control;
 - 4. flushing gutters or permitting water to run or accumulate in any gutter or street; and
 - 5. failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s).

Stage 3 Response -- SEVERE Water Shortage Conditions

Goal: Achieve a thirty percent (30-percent) reduction in daily water demand.

Supply Management Measures:

1. Discontinue providing reduced rate water to all persons, including City Council members, City employees, retire City employees and Volunteer Firefighters and Ambulance Service Volunteers; Discontinue providing free or reduced rate water to all other locations; Restrict flushing of water mains that required by TCEQ regulations; Limit irrigation of public landscaped areas; Study possible sites for additional supply well(s).
2. Public will be informed as mentioned above.
3. The STEP II curtailment will be enacted.
4. Certain industrial and commercial water users, which are not essential to the health and safety of the community, will be prohibited from water usage.
5. Public will be advised of the trigger conditions daily.

Water Use Restrictions. Under threat of penalty for violation, the following water use restrictions shall apply to all persons. All requirements of Stage 2 shall remain in effect during Stage 3 except:

- (a) Irrigation of landscaped areas shall be limited to designated watering days between the hours 8:00 p.m. and 10:00 a.m. and shall be by means of hand-held hoses, hand-held buckets, drip irrigation, or permanently installed timed automatic sprinkler systems only. The use of hose-end sprinklers is prohibited at all times.
- (b) The watering of golf course tees is prohibited unless the golf course utilizes a water source other than that provided by the City of Marlin.
- (c) The use of water for construction purposes from designated fire hydrants under special permit is to be discontinued.

Stage 4 Response -- CRITICAL Water Shortage Conditions

Goal: Achieve a forty percent (40-percent) reduction in daily water demand.

Supply Management Measures:

1. Public will be informed as mentioned above.
2. The STEP II curtailment will be enacted.
3. Certain industrial and commercial water users, which are not essential to the health and safety of the community, will be prohibited from water usage.
4. Public will be advised of the trigger conditions daily.

Additional Supply Management Measures: Adopt water rates 1.5 times the City's normal water rate including minimum and per gallon charges; Drill additional supply well(s).

Water Use Restrictions. Under threat of penalty for violation, the following water use restrictions shall apply to all persons. All requirements of Stage 2 and 3 shall remain in effect during Stage 4 except:

- (a) Irrigation of landscaped areas shall be limited to designated watering days between the hours of 6:00 a.m. and 10:00 a.m. and between 8:00 p.m. and 12:00 midnight and shall be by means of hand-held hoses, hand-held buckets (less than five (5) gallons), or drip irrigation only. The use of hose-end sprinklers or permanently installed timed or untimed automatic sprinkler systems are prohibited at all times.
- (b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle not occurring on the premises of a commercial car wash and commercial service stations and not in the immediate interest of public health, safety, and welfare is prohibited. Further, such vehicle washing at commercial car washes and commercial service stations shall occur only between the hours of 6:00 a.m. and 10:00 a.m. and between 6:00 p.m. and 10:00 p.m.
- (c) The filling, refilling, or adding of water to swimming pools, wading pools, and jacuzzi-type pools is prohibited.

- (d) Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system.
- (e) No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved, and time limits for approval of such applications are hereby suspended for such time as this drought response stage or a higher-numbered stage shall be in effect.

Stage 5 Response -- EMERGENCY Water Shortage Conditions

Goal: Achieve a fifty percent (50-percent) reduction in daily water demand.

Supply Management Measures:

1. Adopt water rates that are 2 times the City's normal water rate including minimum and per gallon charges; Drill additional supply well(s); seek alternative supply source(s).
2. Public will be informed as mentioned above.
3. The STEP II curtailment will be enacted.
4. Certain industrial and commercial water users, which are not essential to the health and safety of the community, will be prohibited from water usage.
5. Public will be advised of the trigger conditions daily

Water Use Restrictions. Under threat of penalty for violation, the following water use restrictions shall apply to all persons. All requirements of Stage 2, 3, and 4 shall remain in effect during Stage 5 except:

- (a) Irrigation of landscaped areas is absolutely prohibited.

- (b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane, or other vehicle is absolutely prohibited.

Stage 6 Response -- WATER ALLOCATION

In the event that water shortage conditions threaten public health, safety and welfare, the City Manager is hereby authorized to allocated water according the following water Allocation Plan.

Single-Family Residential Customers

The allocation to residential water customers residing in a single-family dwelling shall be as follows:

Persons per Household	Gallons per Month
1 or 2	6,000
3 or 4	7,000
5 or 6	8,000
7 or 8	9,000
9 or 10	10,000
11 or more	12,000

“Household” means the residential premises served by the customer’s meter. “Persons per household” includes only those persons currently physically residing at the premises and expected to reside there for the entire billing period. It shall be assumed that a particular customer’s household is comprised of two (2) persons unless the customer notifies the City of a greater number of persons per household on a form prescribed by the City Manager. The City Manager shall give his/her best effort to see that such forms are mailed, otherwise provided, or made available to every residential customer. If, however, a customer does not receive such a form, it shall be the customer’s responsibility to go to City Hall to complete and sign the form claiming more than two (2) persons per household. New customers may claim more persons per household at the time of applying for water service on the form prescribed by the City Manager. When the number of persons per household increases so as to place the customer in a different allocation category, the customer may notify the City on such form and the change will be implemented in the next practicable billing period. If the number of persons in a household is reduced, the customer shall

notify the City in writing within two (2) days. In prescribing the method for claiming more than two (2) persons per household, the City Manager shall adopt methods to insure the accuracy of the claim. Any person who knowingly, recklessly, or with criminal negligence falsely reports the number of persons in a household or fails to timely notify the City of a reduction in the number of person in a household shall be fined not less than TWO HUNDRED DOLLARS (\$200.00).

Residential water customers shall pay the following surcharges:

\$9.00 for the first 1,000 gallons over allocation.

\$12.00 for the second 1,000 gallons over allocation.

\$15.00 for the third 1,000 gallons over allocation.

\$18.00 for each additional 1,000 gallons over allocation.

Surcharges shall be cumulative.

Master-Metered Multi-Family Residential Customers

The allocation to a customer, billed from a master meter, which jointly measures water to multiple permanent residential dwelling units (e.g., apartments, mobile homes) shall be allocated 6,000 gallons per month for each dwelling unit. It shall be assumed that such a customer's meter serves two dwelling units unless the customer notifies the City of a greater number on a form prescribed by the City Manager. The City Manager shall give his/her best effort to see that such forms are mailed, otherwise provided, or made available to every such customer. If, however, a customer does not receive such a form, it shall be the customer's responsibility to go to City Hall to complete and sign the form claiming more than two (2) dwellings. A dwelling unit may be claimed under this provision whether it is occupied or not. New customers may claim more dwelling units at the time of applying for water service on the form prescribed by the City Manager. If the number of dwelling units served by a master meter is reduced, the customer shall notify the City in writing within two (2) days. In prescribing the method for claiming more than two (2) dwelling units, the City Manager shall adopt methods to insure the accuracy of the claim. Any person who knowingly, recklessly, or with criminal negligence falsely reports the number of dwelling units served by a master meter or fails to timely notify the City of a reduction in the number of person in a household

shall be fined not less than TWO HUNDRED DOLLARS (\$200.00). Customers billed from a master meter under this provision shall pay the following monthly surcharges:

\$9.00 for 1,000 gallons over allocation up through 1,000 gallons for each dwelling unit.

\$12.00, thereafter, for each additional 1,000 gallons over allocation up through a second 1,000 gallons for each dwelling unit.

\$15.00, thereafter, for each additional 1,000 gallons over allocation up through a third 1,000 gallons for each dwelling unit.

\$18.00, thereafter, for each additional 1,000 gallons over allocation.

Surcharges shall be cumulative.

Commercial Customers

A monthly water allocation shall be established by the City Manager, or his/her designee, for each nonresidential commercial customer, other than an industrial customer, who uses water for processing purposes. The non-residential customer's allocation shall be approximately 75 PERCENT of the customer's usage for corresponding month's billing period for the previous 12 months. If the customer's billing history is shorter than 12 months, the monthly average for the period for which there is a record shall be used for any monthly period for which no history exists. The City Manager shall give his/her best effort to see that notice of each nonresidential customer's allocation is mailed to such customer. If, however, a customer does not receive such notice, it shall be the customer's responsibility to contact the City to determine the allocation. Upon request of the customer or at the initiative of the City Manager, the allocation may be reduced or increased if, (1) the designated period does not accurately reflect the customer's normal water usage, (2) one nonresidential customer agrees to transfer part of its allocation to another nonresidential customer, or (3) other objective evidence demonstrates that the designated allocation is inaccurate under present conditions. A customer may appeal an allocation established hereunder to the Marlin City Council. Nonresidential commercial customers shall pay the following surcharges:

Customers whose allocation is 8,500 gallons through 25,000 gallons per month:

- \$9.00 per thousand gallons for the first 1,000 gallons over allocation.
- \$12.00 per thousand gallons for the second 1,000 gallons over allocation.
- \$15.00 per thousand gallons for the third 1,000 gallons over allocation.
- \$18.00 per thousand gallons for each additional 1,000 gallons over allocation.

Customers whose allocation is 25,000 gallons per month or more:

- 2 times the block rate for each 1,000 gallons in excess of the allocation up through 5 percent above allocation.
- 3 times the block rate for each 1,000 gallons from 5 percent through 10 percent above allocation.
- 4 times the block rate for each 1,000 gallons from 10 percent through 15 percent above allocation.
- 5 times the block rate for each 1,000 gallons more than 15 percent above allocation.

The surcharges shall be cumulative. As used herein, "block rate" means the charge to the customer per 1,000 gallons at the regular rate schedule at the level of the customer's allocation.

Industrial Customers

The City Manager, or his/her designee, shall establish a monthly water allocation for each industrial customer using water for processing purposes. The industrial customer's allocation shall be approximately 90 PERCENT of the customer's water usage baseline. Ninety (90) days after the initial imposition of the allocation for industrial customers, the industrial customer's allocation shall be further reduced to 80 PERCENT of the customer's water usage baseline. The industrial customer's water use baseline will be computed on the average water use for the 24-MONTH period ending prior to the date of implementation of Stage 2 of the Plan. If the industrial water customer's billing history is shorter than 24 MONTHS, the monthly average for the period for

which there is a record shall be used for any monthly period for which no billing history exists. The City Manager shall give his/her best effort to see that notice of each industrial customer's allocation is mailed to such customer. If, however, a customer does not receive such notice, it shall be the customer's responsibility to contact the City to determine the allocation, and the allocation shall be fully effective notwithstanding the lack of receipt of written notice. Upon request of the customer or at the initiative of the City Manager, the allocation may be reduced or increased, (1) if the designated period does not accurately reflect the customer's normal water use because the customer had shut down a major processing unit for repair or overhaul during the period, (2) the customer has added or is in the process of adding significant additional processing capacity, (3) the customer has shut down or significantly reduced the production of a major processing unit, (4) the customer has previously implemented significant permanent water conservation measures such that the ability to further reduce water use is limited, (5) the customer agrees to transfer part of its allocation to another industrial customer, or (6) if other objective evidence demonstrates that the designated allocation is inaccurate under present conditions. A customer may appeal an allocation established hereunder to the Marlin City Council. Industrial customers shall pay the following surcharges:

Customers whose allocation is 2,000,500 gallons through 2,675,250 gallons per month:

- \$9.00 per thousand gallons for the first 1,000 gallons over allocation.
- \$12.00 per thousand gallons for the second 1,000 gallons over allocation.
- \$15.00 per thousand gallons for the third 1,000 gallons over allocation.
- \$18.00 per thousand gallons for each additional 1,000 gallons over allocation.

Customers whose allocation is 2,675,250 gallons per month or more:

- 2 times the block rate for each 1,000 gallons in excess of the allocation up through 5 percent above allocation.
- 3 times the block rate for each 1,000 gallons from 5 percent through 10 percent above allocation.

- 4 times the block rate for each 1,000 gallons from 10 percent through 15 percent above allocation.
- 5 times the block rate for each 1,000 gallons more than 15 percent above allocation.

The surcharges shall be cumulative. As used herein, "block rate" means the charge to the customer per 1,000 gallons at the regular water rate schedule at the level of the customer's allocation.

Section X: Enforcement

- a) No person shall knowingly or intentionally allow the use of water from the City of Marlin for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of this Plan, or in an amount in excess of that permitted by the drought response stage in effect at the time pursuant to action taken by the City Manager, or his/her designee, in accordance with provisions of this Plan.
- b) Any person who violates this Plan is guilty of a misdemeanor and, upon conviction shall be punished by a fine of not less than ONE HUNDRED DOLLARS (\$100.00) and not more than FIVE HUNDRED DOLLARS (\$500.00). Each day that one or more of the provisions in this Plan is violated shall constitute a separate offense. If a person is convicted of three (3) or more distinct violations of this Plan, the City Manager shall, upon due notice to the customer, be authorized to discontinue water service to the premises where such violations occur. Services discontinued under such circumstances shall be restored only upon payment of a re-connection charge, hereby established at TWO HUNDRED DOLLARS (\$200.00), and any other costs incurred by the City of Marlin in discontinuing service. In addition, suitable assurance must be given to the City Manager that the same action shall not be repeated while the Plan is in effect. Compliance with this plan may also be sought through injunctive relief in the district court.

- c) Any person, including a person classified as a water customer of the City of Marlin, in apparent control of the property where a violation occurs or originates shall be presumed to be the violator, and proof that the violation occurred on the person's property shall constitute a rebuttable presumption that the person in apparent control of the property committed the violation, but any such person shall have the right to show that he/she did not commit the violation. Parents shall be presumed to be responsible for violations of their minor children and proof that a violation, committed by a child, occurred on property within the parents' control shall constitute a rebuttable presumption that the parent committed the violation, but any such parent may be excused if he/she proves that he/she had previously directed the child not to use the water as it was used in violation of this Plan and that the parent could not have reasonably known of the violation.
- d) Any employee of the City of Marlin, law enforcement officer, or other Individual designated by the City Manager, may issue a citation to a person he/she reasonably believes to be in violation of this Ordinance. The citation shall be prepared in duplicate and shall contain the name and address of the alleged violator, if known, the offense charged, and shall direct him/her to appear in the MARLIN MUNICIPAL COURT on the date shown on the citation for which the date shall not be less than 3 days nor more than 5 days from the date the citation was issued. The alleged violator shall be served a copy of the citation. Service of the citation shall be complete upon delivery of the citation to the alleged violator, to an agent or employee of a violator, or to a person over 14 years of age who is a member of the violator's immediate family or is a resident of the violator's residence. The alleged violator shall appear in the MARLIN MUNICIPAL COURT to enter a plea of guilty or not guilty for the violation of this Plan. If the alleged violator fails to appear in MARLIN MUNICIPAL COURT, a warrant for his/her arrest may be issued. A summons to appear may be issued in lieu of an arrest warrant.

Section XI: Variances

The City Manager, or his/her designee, may, in writing, grant temporary variance for existing water uses otherwise prohibited under this Plan if it is determined that failure to grant such variance

would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance and if one or more of the following conditions are met:

- a) Compliance with this Plan cannot be technically accomplished during the duration of the water supply shortage or other condition for which the Plan is in effect.
- b) Alternative methods can be implemented which will achieve the same level of reduction in water use.

Persons requesting an exemption from the provisions of this Ordinance shall file a petition for variance with the City within 5 days after the Plan or a particular drought response stage has been invoked. All petitions for variances shall be reviewed by the City Manager, or his/her designee, and shall include the following:

- a) Name and address of the petitioner(s).
- b) Purpose of water use.
- c) Specific provision(s) of the Plan from which the petitioner is requesting relief.
- d) Detailed statement as to how the specific provision of the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Ordinance.
- e) Description of the relief requested.
- f) Period of time for which the variance is sought.
- g) Alternative water use restrictions or other measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date.
- h) Other pertinent information.

Variances granted by the City shall be subject to the following conditions, unless waived or modified by the City Manager or his/her designee:

- a) Variances granted shall include a timetable for compliance.
- b) Variances granted shall expire when the Plan is no longer in effect, unless the petitioner has failed to meet specified requirements.

No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance.

APPENDIX A

WATER CONSERVATION UTILITY PROFILE FOR RETAIL WATER SUPPLIER

TWDB FORM 1965-R

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 Marlin

Public Water Supply Identification Number (PWS ID): TX0730002

Certificate of Convenience and Necessity (CCN) Number: 10042

Surface Water Right ID Number: 4355-A,12515

Wastewater ID Number: 20012

Completed By: Andrew Poe Title: Public Works Director

Address: 101 Fortune City: Marlin, TX. Zip Code: 76661

Email: pwdirector@marlintx.net Telephone Number: 254-883-1450

Date: 2/11/19

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

Groundwater Conservation District: NA [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: 7
(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
2017	5,701	0	5,701
2016	5,684	0	5,684
2015	5,635	0	5,635
2014	5,656	0	5,656
2013	5,758	0	5,758

- 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	6,772	0	6,772
2030	7,115	0	7,115
2040	7,289	0	7,289
2050	7,020	0	7,020
2060	7,233	0	7,233

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

Sources:
2013-2018 from Census Population Estimates
2020-2060- from 2021 Regional Water Planning- Texas Water Development Board

B. System Input

Provide system input data for the previous five years.

Total System Input = Self-supplied + Imported – Exported

Year	Self-supplied Water in Gallons	Purchased/Imported Water in Gallons	Exported Water in Gallons	Total System Input	Total GPCD
2017	527,000,000	0	0	527,000,000	253
2016	565,220,000	0	0	565,220,000	272
2015	598,699,223	0	0	598,699,223	291
2014	545,800,425	192,577,941	0	738,378,366	358
2013	493,327,543	83,545,000	0	576,872,543	274
Historic 5-year Average	546,009,438	55,224,588	0	601,234,026	290

C. Water Supply System (Attach description of water system)

1. Designed daily capacity of system 5,000,000 gallons per day.
2. Storage Capacity:
 Elevated 1,370,000 gallons
 Ground 750,000 gallons
3. List all current water supply sources in gallons.

Water Supply Source	Source Type*	Total Gallons
Marlin City Reservoir	Surface	527,000,000
Brazos River Authority	Contract	0
	Choose One	
	Choose One	
	Choose One	
	Choose One	

*Select one of the following source types: *Surface water, Groundwater, or Contract*

4. If surface water is a source type, do you recycle backwash to the head of the plant?
☐ Yes _____ estimated gallons per day
☒ No

Clarifier decant is recycled (13% of production, accounted in figures)
Filter backwash is discharged to sewer (13% of production)

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)
2017	5,701	603,450,950
2018	6,058	641,239,300
2019	6,415	679,027,750
2020	6,772	716,816,200
2021	6,840	724,014,000
2022	6,908	731,211,800
2023	6,976	745,607,400
2024	7,044	752,805,200
2025	7,112	760,003,000
2026	7,180	788,900,050

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

Population projections were based on 2017 Census Estimates and 2018-2016 were interpolated from TWDB 2021 Regional Water Plan projections.
 Per Capita water use was based on 2013-2018 average per capita water use

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
	Residential	84,578,200	Treated
	Commercial	59,000,000	Treated
	Institutional	19,958,900	Treated
	Choose One		Choose One
	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](#).

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
NA	Choose One		Choose One
NA	Choose One		Choose One
NA	Choose One		Choose One
NA	Choose One		Choose One
NA	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	1,873	0	1,873	85%
Residential – Multi-family (units)	0	0	0	0%
Industrial	1	0	1	0%
Commercial	253	0	253	11%
Institutional	0	0	0	0%
Agricultural	81	0	81	4%
TOTAL	2,208	0	2,208	

*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				
	2017	2016	2015	2014	2013
Residential – Single Family	-127	0	15	-6	1,991
Residential – Multi-family (units)	0	0	0	0	0
Industrial	0	0	0	0	0
Commercial	53	0	-43	3	240
Institutional	-49	0	49	0	1
Agricultural	81	0	0	0	0
TOTAL	-42	0	21	-3	2,232

*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				
	2017	2016	2015	2014	2013
Residential - Single Family	84,578,200	86,430,900	178,119,691	84,611,900	69,705,300
Residential – Multi-family	0	0	0	0	0
Industrial	0	0	0	0	0
Commercial	59,000,100	60,771,500	102,862,034	76,599,066	74,263,126
Institutional	19,958,900	19,892,800	40,217,100	38,553,300	35,132,700
Agricultural	0	0	0	0	0
TOTAL	163,537,200	167,095,200	321,198,825	199,764,266	179,101,126

*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				
	2017	2016	2015	2014	2013
Residential - Single Family	41	42	87	41	33
Residential – Multi-family	0	0	0	0	0

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				
	2017	2016	2015	2014	2013
January	49,000,000	39,320,000	51,010,489	43,338,183	43,293,141
February	45,000,000	38,300,000	38,855,807	37,147,014	37,837,924
March	42,000,000	50,600,000	43,864,980	37,798,716	41,196,988
April	41,000,000	46,700,000	41,881,645	38,776,269	40,608,508
May	41,000,000	43,000,000	44,764,882	41,383,077	37,121,853
June	41,000,000	50,200,000	46,859,065	41,383,077	39,072,522
July	45,000,000	52,400,000	52,473,212	46,270,842	43,267,293
August	46,000,000	54,900,000	63,494,403	61,259,988	46,660,468
September	47,000,000	42,200,000	64,103,632	62,889,243	42,945,205
October	45,000,000	46,100,000	57,684,364	46,922,544	40,604,813
November	42,000,000	50,500,000	44,794,789	42,034,779	41,520,102
December	43,000,000	51,000,000	48,911,955	46,596,693	39,198,726
TOTAL	527,000,000	565,220,000	598,699,223	545,800,425	493,327,543

*Figures for 2016 and 2017 are rounded

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

Month	Total Gallons of Raw Retail Water				
	2017	2016	2015	2014	2013
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
	2017	2016	2015	2014	2013	
Summer Retail (Treated + Raw)	132,000,000	157,500,000	162,826,680	148,913,907	129,000,283	146,048,174 5yr Average
TOTAL Retail (Treated + Raw)	527,000,000	565,220,000	598,699,223	545,800,425	493,327,543	546,009,438 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
2017	363,462,800	175	69%
2016	398,124,800	192	70%
2015	277,500,398	135	46%
2014	346,035,957	168	47%
2013	314,226,417	150	54%
5-year average	339,870,074	164	57%

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)
2017			
2016			
2015			
2014			
2013			

G. Summary of Historic Water Use

Water Use Category	Historic 5-year Average	Percent of Connections	Percent of Water Use
Residential SF	100,689,198	85%	0%
Residential MF	0	0%	0%
Industrial	0	0%	0%
Commercial	74,699,165	11%	0%
Institutional	30,750,960	0%	0%
Agricultural	0	4%	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): _____
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			0	0%
Industrial			0	0%
Commercial			0	0%
Institutional			0	0%
Agricultural			0	0%
TOTAL	0	0	0	

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

Month	Total Gallons of Treated Wastewater				
	2017	2016	2015	2014	2013
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
TOTAL	0	0	0	0	0

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	
Chlorination/de-chlorination	
Industrial	
Landscape irrigation (parks, golf courses)	
Agricultural	
Discharge to surface water	
Evaporation pond	
Other	
TOTAL	0

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 CONSERVATION PLAN 5 AND 10-YEAR GOALS FOR WATER SAVINGS

TWDB FORM 1964

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

Facility Name: City of Marlin

Water Conservation Plan Year: 2019

	Historic 5yr Average	Baseline	5-yr Goal for year <u>2024</u>	10-yr Goal for year <u>2029</u>
Total GPCD ¹	290	253	232	203
Residential GPCD ²	49	41	37	33
Water Loss (GPCD) ³	164	175	70	35
Water Loss (Percentage) ⁴	57 %	69 %	30 %	17 %

1. Total GPCD = (Total Gallons in System ÷ Permanent Population) ÷ 365

2. Residential GPCD = (Gallons Used for Residential Use ÷ Residential Population) ÷ 365

3. Water Loss GPCD = (Total Water Loss ÷ Permanent Population) ÷ 365

4. Water Loss Percentage = (Total Water Loss ÷ Total Gallons in System) x 100; or (Water Loss GPCD ÷ Total GPCD) x 100

APPENDIX C

WATER CONSERVATION PLAN AND DROUGHT CONTINGENCY PLAN ADOPTION ORDINANCE

This Section Reserved for

Water Conservation Plan and Drought Contingency Plan

Adoption Ordinance by City

APPENDIX D

WATER AND WASTEWATER RATE STRUCTURE ADOPTION ORDINANCE

ORDINANCE No. 17-012

AN ORDINANCE OF THE MAYOR AND CITY COUNCIL OF THE CITY OF MARLIN, TEXAS, PROVIDING THAT THE WATER AND WASTEWATER RATE PROVISIONS OF THE CODE OF ORDINANCES BE AMENDED BY SUBSTITUTING NEW RATES FOR THE WATER AND WASTEWATER SERVICE SUPPLIED BY THE CITY OF MARLIN; FINDING THAT SUCH RATES ARE REASONABLE AND NECESSARY, THAT THE DIFFERENCES IN SUCH RATES ARE NECESSARY DUE TO THE COST OF SUPPLYING WATER AND WASTEWATER COLLECTION AND DISPOSAL; REPEALING PARTS OF ORDINANCES IN CONFLICT HERewith; PROVIDING FOR INCLUSION IN THE CODE; DECLARING AN EMERGENCY; AND FINDING AND DETERMINING THAT THE MEETING AT WHICH THIS ORDINANCE IS PASSED IS OPEN TO THE PUBLIC AS REQUIRED BY LAW.

NOW, THEREFORE, BE IT ORDAINED, by the Mayor and City Council of the City of Marlin, Texas:

Section 1. To provide needed revenue adequate to operate, maintain and service debt requirements for the utility systems it is necessary to:

- a. Increase gross water revenue by approximately 5% each year for the next five years by increasing the monthly availability charge for all customers and adjusting the consumption brackets and charges.

Section 2. That the Code of Ordinances of the City of Marlin relative to the water rates are amended and such water services shall hereafter be as follows:

RATES FOR WATER SERVICE INSIDE CITY LIMITS (RESIDENTIAL)

There shall be charged and collected from each residential customer of water with a 5/8" or 3/4" meter inside the City Limits a monthly charge for an availability charge and all consumption as follows:

Availability Charge	2017	2018	2019	2020	2021
	\$42.68	\$44.81	\$47.05	\$49.41	\$51.88

		Per Thousand Gallons				
Variable Rate	Gallons	2017	2018	2019	2020	2021
0	5,000	\$4.99	\$5.24	\$5.50	\$5.78	\$6.07
5,001	8,000	\$5.25	\$5.51	\$5.79	\$6.08	\$6.38
8,001	11,000	\$5.36	\$5.63	\$5.91	\$6.20	\$6.52
11,001	14,000	\$5.51	\$5.79	\$6.07	\$6.38	\$6.70
14,001	17,000	\$5.78	\$6.07	\$6.37	\$6.69	\$7.03
17,000	20,000	\$6.04	\$6.34	\$6.66	\$6.99	\$7.34
20,001	& up	\$6.30	\$6.62	\$6.95	\$7.29	\$7.66

Larger meters must add the demand charge listed to the availability charge:

Inch	2017	2018	2019	2020	2021
1	\$10.50	\$11.03	\$11.58	\$12.16	\$12.76
1.5	\$17.85	\$18.74	\$19.68	\$20.66	\$21.70
2	\$33.60	\$35.28	\$37.04	\$38.90	\$40.84
3	\$110.25	\$115.76	\$121.55	\$127.63	\$134.01
4	\$162.75	\$170.89	\$179.43	\$188.40	\$197.82
6 & up	\$420.00	\$441.00	\$463.05	\$486.20	\$510.51

Section 3. That the Code of Ordinances of the City of Marlin relative to water rates are amended and such rates for water services are found to be reasonable and necessary due to higher cost of service outside the City Limits, and such rates shall hereafter be as follows:

RATES FOR WATER SERVICE OUTSIDE CITY LIMITS (RESIDENTIAL)

There shall be charged and collected from each residential customer of water with a 5/8" or 3/4" meter outside the City Limits a monthly charge for an availability charge and all consumption as follows:

Availability Charge	2017	2018	2019	2020	2021
	\$56.07	\$58.87	\$61.82	\$64.91	\$68.16

		Per Thousand Gallons				
Variable Rate	Gallons	2017	2018	2019	2020	2021
0	5,000	\$4.99	\$5.24	\$5.50	\$5.78	\$6.07
5,001	8,000	\$5.25	\$5.51	\$5.79	\$6.08	\$6.38
8,001	11,000	\$5.36	\$5.63	\$5.91	\$6.20	\$6.52
11,001	14,000	\$5.51	\$5.79	\$6.07	\$6.38	\$6.70
14,001	17,000	\$5.78	\$6.07	\$6.37	\$6.69	\$7.03
17,000	20,000	\$6.04	\$6.34	\$6.66	\$6.99	\$7.34
20,001	& up	\$6.30	\$6.62	\$6.95	\$7.29	\$7.66

Larger meters must add the demand charge listed to the availability charge:

Inch	2017	2018	2019	2020	2021
1	\$10.50	\$11.03	\$11.58	\$12.16	\$12.76
1.5	\$17.85	\$18.74	\$19.68	\$20.66	\$21.70
2	\$33.60	\$35.28	\$37.04	\$38.90	\$40.84
3	\$110.25	\$115.76	\$121.55	\$127.63	\$134.01
4	\$162.75	\$170.89	\$179.43	\$188.40	\$197.82
6 & up	\$420.00	\$441.00	\$463.05	\$486.20	\$510.51

Section 4. CHURCHES AND SCHOOLS

RATES FOR WATER SERVICES FOR CHURCHES AND SCHOOLS

Churches shall be billed as residential. Schools shall be billed as commercial. The inside-outside city limit differential shall apply.

Section 5. COMMERCIAL INSIDE CITY LIMITS

RATES FOR WATER SERVICE INSIDE CITY LIMITS (COMMERICAL)

There shall be charged and collected from each commercial customer of water with a 5/8" or 3/4" meter inside the City Limits a monthly charge for an availability charge and all consumption as follows:

Availability Charge	2017	2018	2019	2020	2021
	\$63.68	\$66.86	\$70.21	\$73.72	\$77.40

Variable Rate	Gallons	Per Thousand Gallons				
		2017	2018	2019	2020	2021
0	5,000	\$4.99	\$5.24	\$5.50	\$5.78	\$6.07
5,001	8,000	\$5.25	\$5.51	\$5.79	\$6.08	\$6.38
8,001	11,000	\$5.36	\$5.63	\$5.91	\$6.20	\$6.52
11,001	14,000	\$5.51	\$5.79	\$6.07	\$6.38	\$6.70
14,001	17,000	\$5.78	\$6.07	\$6.37	\$6.69	\$7.03
17,000	20,000	\$6.04	\$6.34	\$6.66	\$6.99	\$7.34
20,001	& up	\$6.30	\$6.62	\$6.95	\$7.29	\$7.66

Larger meters must add the demand charge listed to the availability charge:

Inch	2017	2018	2019	2020	2021
1	\$10.50	\$11.03	\$11.58	\$12.16	\$12.76
1.5	\$17.85	\$18.74	\$19.68	\$20.66	\$21.70
2	\$33.60	\$35.28	\$37.04	\$38.90	\$40.84
3	\$110.25	\$115.76	\$121.55	\$127.63	\$134.01
4	\$162.75	\$170.89	\$179.43	\$188.40	\$197.82
6 & up	\$420.00	\$441.00	\$463.05	\$486.20	\$510.51

Section 6. COMMERCIAL OUTSIDE CITY LIMITS

RATES FOR WATER SERVICE OUTSIDE CITY LIMITS (COMMERCIAL)

There shall be charged and collected from each commercial customer of water with a 5/8" or ¾" meter outside the City Limits a monthly charge for an availability charge and all consumption as follows:

Availability Charge	2017	2018	2019	2020	2021
	\$73.29	\$76.95	\$80.80	\$84.84	\$89.08

Variable Rate	Gallons	Per Thousand Gallons				
		2017	2018	2019	2020	2021
0	5,000	\$4.99	\$5.24	\$5.50	\$5.78	\$6.07
5,001	8,000	\$5.25	\$5.51	\$5.79	\$6.08	\$6.38
8,001	11,000	\$5.36	\$5.63	\$5.91	\$6.20	\$6.52
11,001	14,000	\$5.51	\$5.79	\$6.07	\$6.38	\$6.70
14,001	17,000	\$5.78	\$6.07	\$6.37	\$6.69	\$7.03
17,000	20,000	\$6.04	\$6.34	\$6.66	\$6.99	\$7.34
20,001	& up	\$6.30	\$6.62	\$6.95	\$7.29	\$7.66

Larger meters must add the demand charge listed to the availability charge:

Inch	2017	2018	2019	2020	2021
1	\$10.50	\$11.03	\$11.58	\$12.16	\$12.76
1.5	\$17.85	\$18.74	\$19.68	\$20.66	\$21.70
2	\$33.60	\$35.28	\$37.04	\$38.90	\$40.84
3	\$110.25	\$115.76	\$121.55	\$127.63	\$134.01
4	\$162.75	\$170.89	\$179.43	\$188.40	\$197.82
6 & up	\$420.00	\$441.00	\$463.05	\$486.20	\$510.51

Section 7. WATER TAP FEE

For all six (6) inch and eight (8) inch by $\frac{3}{4}$ tap's \$900.00

Section 8. SEWER TAP FEE

For all six (6) inch by eight (8) inch tap's \$700.00

Section 9. SECONDARY METER RATE

For water service where no return to sewer is involved such as outdoor irrigation systems or various industrial processes, a secondary meter may be installed at the property owner's expense to measure the consumption for such secondary use in order to avoid a sewer charge on that portion of the water consumption. When such secondary meter is installed, it will not be subject to a minimum bill but only charged the variable rate for all usage metered based on the same rates charged at the main meter.

Section 10. That the rates set forth in this ordinance shall be assessed for all services billed on or after October 1, 2017.

Section 11. That all parts of this ordinance in conflict with the provisions of this ordinance are to the extent of such conflict hereby repealed, the remained of such ordinance shall continue on full force and effect.

Section 12. That if any provision of this ordinance shall be held to be invalid or unconstitutional, the remanded such ordinance shall continue in full force and effect.


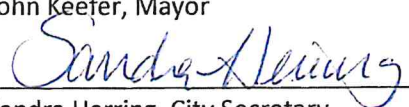
Section 13. That it is the intention of the City Council of the City of Marlin, and is hereby ordained that the provisions of this ordinance shall become and be part of the Code of Ordinances of the City of Marlin and that sections of this ordinance may be renumbered or re-lettered to accomplish such intentions.

Section 14. The Council finds that an emergency exists that necessitates that this Ordinance become effective no later than October 1, 2016 without the necessity of further action in the event of any inability to hold a second meeting. The City's fiscal requirements require that the increased revenue be available to satisfy bond covenants.

Section 15. That it is hereby officially found and determined that the meeting at which this ordinance is passed is open to the public as required by the law and that the public notice of the time, place and purpose of said meeting is given as required.

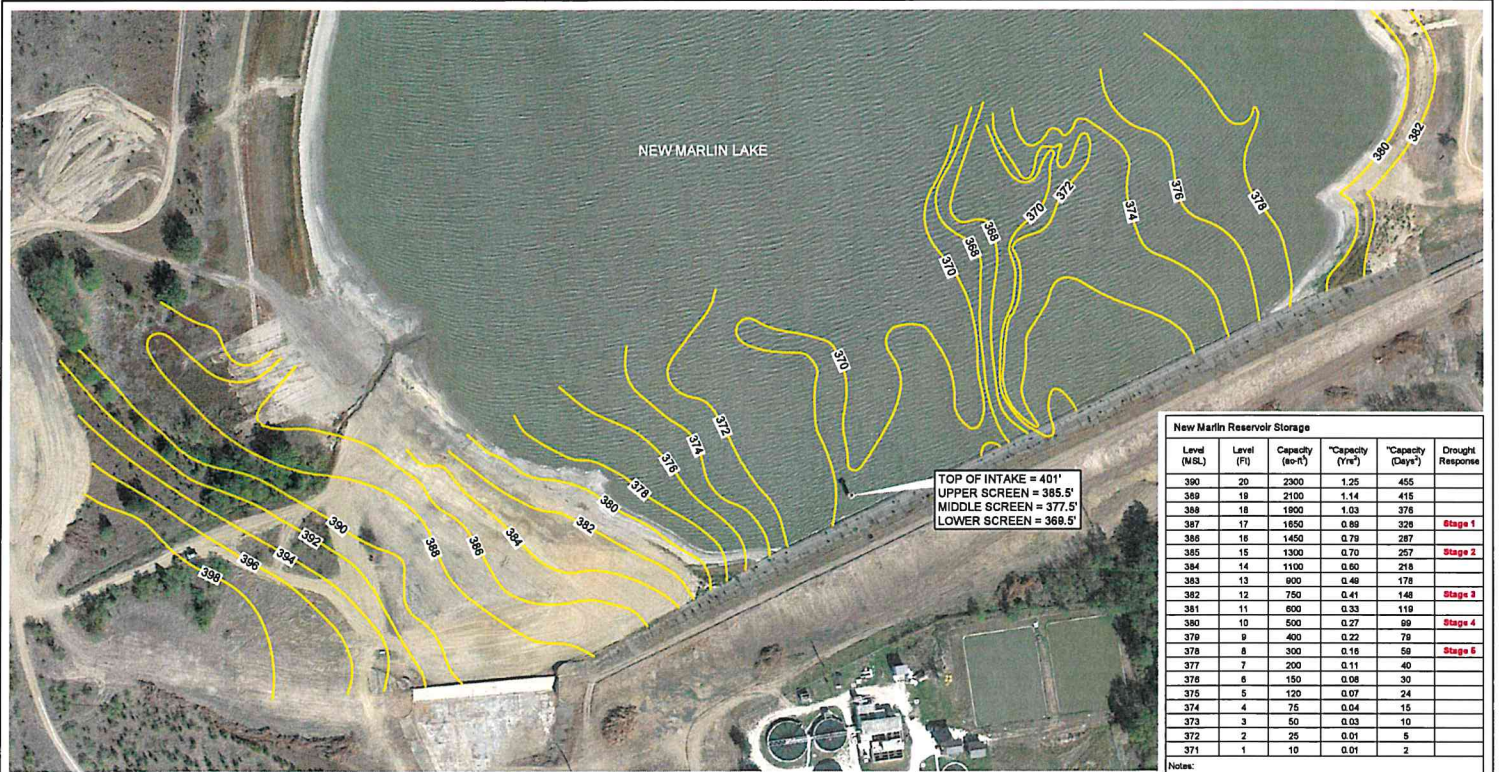
Passed, Approved and Adopted on this the 18 day of September, 2017.




John Keefer, Mayor

Sandra Herring, City Secretary

APPENDIX E

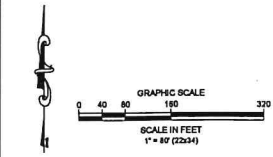
NEW MARLIN LAKE CAPACITY vs. LEVEL



Map Aerial Source: Google Map, 2011 during drought year; Contour Source: MRP Holland, 1945.

Level (MSL)	Level (ft)	Capacity (ac-ft)	Capacity (Yrs)	Capacity (Days)	Drought Response
390	20	2300	1.25	455	
389	19	2100	1.14	415	
388	18	1900	1.03	376	
387	17	1650	0.89	326	Stage 1
386	16	1450	0.79	287	
385	15	1300	0.70	257	Stage 2
384	14	1100	0.60	218	
383	13	900	0.49	178	
382	12	750	0.41	148	Stage 3
381	11	600	0.33	119	
380	10	500	0.27	99	Stage 4
379	9	400	0.22	79	
378	8	300	0.16	59	Stage 5
377	7	200	0.11	40	
376	6	150	0.08	30	
375	5	120	0.07	24	
374	4	75	0.04	15	
373	3	50	0.03	10	
372	2	25	0.01	5	
371	1	10	0.01	2	

Notes:
 1. Source HDR, 1981 Sediment Study
 2. Based on 5-yr Annual Average Demand (2012-2017)
 3. Table does not consider evaporation



LEGEND:
 — 370 — LAKE BED BOTTOM CONTOUR (1945)

**NEW MARLIN LAKE
CAPACITY VS. LEVEL**

MRB group

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Response to TCEQ Water Conservation Plan Comments

A. Record Management System-

The City of Marlin uses its billing programs to classify water sales, details water usage for each customer including residential, multi-family, commercial, institutional, and agriculture. This data is then used to track water usage by the utility department.

B. Specific, Quantified 5 and 10 Year Targets-

Water conservation goals identified in the adopted 2020-2025 Water Conservation and Drought Contingency Plan include:

- Reductions in unaccounted for water by 105 gallons/capita-day over the next 5 years.
- Reductions in unaccounted for water by 140 gallons/capita/day over the next 10 years.
- Long term reductions in overall water demands 20% per capita over the next 5 years and 30% reduction over the next 10 years.

C. Measuring and Accounting for Diversions

Water diversions are measured as they are drawn from the two reservoirs that provide all drinking water for the City.

D. Universal Metering

Universal metering is practiced by the City and is a requirement of their bond covenants with the Texas Water Development Board. The City has all production meters tested annually and have an ongoing meter replacement program for all customers. Details are listed on Page 9 of the Plan

E. Measures to Determine and Control Water Loss

The Water Conservation Plan on pages 10, 11, and 12 list measures to determine and control water loss.

F. Continuing Public Education and Information

The Plan identifies several methods of public education including:

- New customers will receive conservation information when applying for service.
- Educational material will be distributed to all customers on a semi-annual basis, timed to correspond with peak summer and winter demand periods.
- Conservation information will be available upon request.
- Community educational program/school demonstrations and presentations.

- The City also proclaims National Drinking Water Week.

G. Non-Promotional Water Rate Structure

The City of Marlin uses an inclining block rate structure to promote water conservation. The rate ordinance is included in Appendix D of the Plan.

H. Reservoir Operations Plan

As part of the Drought Contingency portion of the Plan a reservoir operating plan is identified and is used as one of the trigger conditions for addressing drought conditions.

I. Enforcement Procedure and Plan Adoption

Enforcement procedures were incorporated in the Plan and the resolution adopting the Plan in February 2020.

J. Coordination with the Regional Water Planning Groups

The City of Marlin provided a copy of the adopted Plan to Regional Planning Group G.

K. Plan Review and Update

There are provisions within the plan for annual review and updates. Since the planning period started in 2020 the next significant revisions will occur in 2025.

VI. ADDITIONAL REQUIREMENTS FOR LARGE SUPPLIERS

A. Leak Detection and Repair

There is a section in the Plan devoted to leak detection and repair. Additionally the City will be having a leak detection survey in August, 2020.

B. Contract Requirements

Section P of the Water Conservation Plan specifically addresses this issue requiring that any wholesale contract must include provisions that the purchasing entity adopt applicable provisions of the City's water conservation and drought contingency plan or have an approved plan by the TWDB and/or TCEQ.

VII. Additional Conservation Strategies

The City has adopted the following additional conservation strategies:

- Conservation water rate structures. The City currently has an inclining block rate structure.

- All new plumbing fixtures must be water conserving fixtures.
- Pressure reduction within the distribution system.
- Monitoring the effectiveness of the Plan is incorporated into the adopted Plan.