WATER CONSERVATION PLAN

&

DROUGHT CONTINGENCY PLAN

FOR

CITY OF CAMERON, MILAM COUNTY, TEXAS

TCEQ WATER SYSTEM I.D. # 166001

June 2014

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CITY OF CAMERON, TEXAS
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WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN

I. INTRODUCTION:

A. Purpose:

As per the amended Title 30 TAC Chapter 288 the City of Cameron is required to revise and update its water conservation plan every five years incorporating implementation report and its results for submittal to TCEQ. The revised plan should include quantified five and ten year targets for water savings based on previous implementation results. **The revised plan following the Council's adoption must be submitted to the TCEQ. The next revision of the plan with water conservation Implementation Reports must be submitted to the TCEQ no later than May 1, 2019. Any revised plans must be submitted to the TCEQ within 90 days of adoption and must also include implementation report provided in Appendix E.**

The objective of a water conservation plan (WCP) is to conserve water supplies and to reduce the quantity of water and wastewater that facilities must handle. The objective of the drought contingency plan (DCP) is to establish temporary methods or techniques to reduce water consumption only so long as an emergency exists.

The City of Cameron has currently adopted the water conservation and Drought Contingency Plan. This revised plan was developed in June 2014 in response to the requirements of the amended Title 30 TAC Chapter 288, dated January 10, 2008 as stated above in the first paragraph. The City of Cameron has adopted this revised plan by replacing the current Ordinance with revised Ordinance dated July, 2014 provided in Appendix A. This plan is provided to the Central Texas Council of Government (CTCOG), the Regional Water Planning Group for the city's service area.

B. Planning Area

The City of Cameron is located in Milam County. The City is a political subdivision of the State of Texas and is styled after the Home Rule form of Government. As such, the City is governed by its City Charter which prescribes that it operation be conducted following the Council- Manager form of government. Seven duly elected officials comprise the makeup of the City Council of which one is the Mayor. The Mayor acts as the Chief Executive Officer of City for purposes of contractual obligations, bond issuance and as the official representative of the City in matters of

ceremony or in matters of law before any court of jurisdiction.

The City Council employs a City Manager who is designated as the Chief Administrative Officer of the City. His function is to provide delivery of governmental service to the citizens. His functions include budgeting, advising, hiring and terminating of staff, and oversight of various departments of the City.

C. The City's Water Supply System: (See Exhibit 1& 2 in Appendix D)

The City of Cameron derives its water supply from Little River which flows approximately one mile south of the city. The City owns and operates its water system. The daily operation and maintenance of the water system is under the direction of the Utility Director of the Water Department. The water system consists of intake structure, filter plant, and service pumps with ground storage and elevated tanks and distribution pipe network. The system's capacity based on TCEQ requirements is rated for delivering potable water as follows:

Avg. daily ---------- 2.88 mgd (2000 gpm)
Max. Daily --------- 6.00 mgd (4200 gpm)
Max. Connections -- 3334

The City operates the system under TCEQ water system permit I.D. #166001. The City currently serves approximately 2150 customers which includes residential, commercial, government and wholesale customers.

II. WATER CONSERVATION PLAN:

A. Goal: (5 & 10-Year Targets)

The over all goal of water conservation plan is to reduce the per capita consumption of water. Many communities throughout the United States have used conservation measures to successfully deal with various water and wastewater problems. While some areas have achieved as much as 25% reduction, the normal range is from 5 to 15%. When water use is reduced, wastewater flows also experience a reduction.

The City of Cameron's municipal per capita water use ranges 100-130 gal/day. The city's unaccounted/un-metered water use ranges 0-15%. The water loss from the distribution system is reported around 0.5%. These figures are well within the regulatory agencies acceptable level.

The City of Cameron Water Conservation Plan includes the following conservation elements and targets to accomplish the reduction in municipal per capita water use by a minimum of 8% in the next five years (Year 2019) and 12% by the next 10 years (Year 2024); the unaccounted/un-metered water use by a minimum of 5% in the next five years (Year 2019) and 10% by the next 10 years (Year 2024)

1. Public Education and Information
2. Water Conservation Plumbing Codes & Retrofit Program
3. Conservation-Oriented Water Rate Structure
4. Universal Metering and Meter Repair and Replacement
5. Water Conservation Landscaping
6. Water Audits and Leak Detection and Repair Program
7. Recycling and Reuse
8. Means of Implementation and Enforcement
9. Pressure Control in Distribution System
10. Periodic Review and Reporting

Each conservation element is described in the following subsections.

B. Plan Elements:

1. Public Education and Information

The City of Cameron recognizes that water conservation significantly benefits individuals and communities in terms of long-term availability and costs. The most readily availability and lowest cost method of promoting water conservation is to inform the water users about ways to save water in homes and businesses, in landscaping and land uses, and in recreational use. The City will use the following methods to inform water users. (See Appendix E for handouts that the City has been using).

Initial Year Program:

(1**)** Distribute a fact sheet explaining the Water Conservation Plan and educational materials to all customers quarterly during the first year of the program and semi-annually thereafter. The semi-annual distribution will be timed to correspond with the peak summer and winter demand periods. Tips concerning water conservation will be printed on monthly billing cards.

(2) Publish articles in local newspaper in conjunction with the semi-annual distribution of educational materials.

(3) Print tips concerning water conservation on monthly billing cards.

Long-Term Program:

(1) Tips on water conservation will be changed from time to time and the billing computer will be keyed to spot high water users. Management of the Water Department will use this information to council with the account holder to determine if a leak has occurred or if excessive consumption can be curtailed through effective conservation practices

(2) Distribute educational materials available from TCEQ, American Water Works Association and others semi-annually and timed to correspond with peak summer demand periods. One of these semi-annual notifications may be made by publication in the newspaper.

(3) Information to New Customers - New customers will receive general water conservation information, including specific methods and ways to save water when applying for water service.

2. Water Conservation Plumbing Code & Retrofit Program:

The City of Cameron subscribes to the International Plumbing Code, adopted December 17, 2001. Builders in the City are required to conform to this code when constructing or remodeling homes. The City's Building Inspector strictly enforces the plumbing codes and the state law concerning water saving fixtures for all new installation within the city service area. Customers will be encouraged each year to install water saving devices and to replace their old plumbing fixtures. Customers will be informed of water saving kits available to aid in their water conservation efforts.

3. Non-Promotional and Conservation-Oriented Water Rate Structure

The City of Cameron's water and sewer rate structure is cost-based and does not encourage the excessive use of water. The city charges a base rate for the first increment of usage in 1000 gallons for all customers based on meter size. Charges for usage in excess of the base volume charge are at a constant rate per 1000 gallons. Increased usage does not result in a lower rate of charge; therefore, excessive use is not encouraged. A copy of the city's current water and sewer rate structure is provided in Appendix C.

4. Universal Metering and Meter Repair and Replacement

The City's Water Department currently meters 100% of the water pumped and water used. The city has a meter at the raw water intake of the plant, which measures the amount of raw water pumped; a

meter at water distribution pumping plant, which measures amounts of water pumped to the system. All connections in the City of Cameron are metered. The Department has a policy of testing meters, which appear to be recording abnormally high or low water usage. The Billing Office routinely sends a list of suspected and old meters to be replaced to the meter shop at Water Plant. All meters are tested for accuracy before installation. Meters at raw water intake plant and distribution pumping plant and all other meters of size 3" and larger are annually tested and calibrated and meters less than 3" size are tested and calibrated every two years. A meter is considered acceptable only if the accuracy is within standards set forth by the American Water Works Association (AWWA) for the particular meter type. These meters are regularly monitored and calibrated to provide accuracy within 5% in order to measure and account for the amount of water diverted from the source of supply.

5. Water Conservation Landscaping

The City does not currently regulate subdivisions as regards to low water consuming plants or grasses. However, the information program as previously discussed will include suggestions on landscaping and irrigation procedures which save water usage and money. Other water saving measures such as mulching and watering at the proper times of the day also reduce costs. Any homeowner easily performs these measures and the City of Cameron will seek new ways to bring this valuable water saving tips to the customers.

6. Water use Audits and Leak Detection and Repair

The City's Water Department has a very progressive leak detection and repair program. The program includes:

(1) Monthly water use accounting which identifies high water use after service meters are read possibly indicating leaks. The high use meters are monitored to determine if a leak is involved. The accounting also compares the amount of water pumped to the system with the amount billed. The amount of water pumped to the system is metered at the distribution pumping plant and the records are provided to the accounting /billing department, record summary of last 5 years is provided in Appendix E.

(2) Constant monitor facilities which identifies major water main breaks.

(3) Visual inspection by meter reader and staff employees who keep a constant watch out for abnormal conditions indicating leaks.

(4) An adequate maintenance staff for repairing any leaks.

(5) Periodic visual inspection along distribution lines and periodic audit of the water system to determine illegal connections and abandoned services. (See Exhibit in Appendix E for the city's regular monitoring program).

7. Recycling and Reuse

The Water Department has no means to recycle or reuse water. There are no industrial customers at this time that would be able to recycle water. Reuse of treated wastewater effluent for irrigation of city parks and other facilities is not currently economically feasible. However, the Water Treatment Plant practices recycle and reuse by returning filter backwash water for reprocessing. This water is returned to the head of the plant and mixed with raw water for treatment.

8. Means of Implementation and Enforcement

The Water Conservation Plan is officially adopted by the City Council of Cameron and reviewed annually. See appendix A for copy of the Ordinance. The City Manager will execute and enforce the Plan using following methods

(1) Service taps will not be given to customers who do not meet the requirements of the amended Plumbing Code.

(2) The rate structure should encourage retrofitting of old plumbing fixtures, which are using large amounts of water and money.

(3) The water rate structure will be enforced, if customers do not pay their water bill they will have their water service disconnected.

9. Pressure Control in Distribution System

The City's distribution system currently does not experience excessive pressure. The operating pressure in the system varies from approximately 25 psi to 80 psi.

10. Periodic Review and Reporting:

The City of Cameron is located within the CTCOG regional water planning area and the city has provided a copy of this revised water conservation plan to CTCOG.

The plan will be periodically reviewed to determine if changes might require an amendment or major change in the plan. Any changes in the

plan will be coordinated with CTCOG and TCEQ.

C. Contracts with Other Political Subdivisions:

The City's existing whole sale customers will be asked to adopt a similar water conservation plan.

If the City sells water to another source such as a political subdivision or other entities, the contract will include (1) provisions to adopt a similar water conservation plan or (2) have a plan in effect that are similar to this water conservation plan.

III. DROUGHT CONTINGENCY PLAN:

A. Introduction and Goal:

Drought or a number of other uncontrollable circumstances can disrupt the normal availability of city water supply. Even though the city has adequate water supply, the supply could become contaminated, or a disaster could destroy the supply. During drought periods, consumer demand for water is often significantly higher than normal.

The objective of the Drought Contingency Plan (DCP) is to establish temporary methods or techniques to reduce water consumption only so long as an emergency exists. It is important to distinguish drought contingency planning from water conservation planning. While water conservation involves implementing permanent water use efficiencies or reuse practices, drought contingency plans establish temporary methods or techniques designed to be used only as long as an emergency exists.

The following Emergency Water Demand Management measures (plan elements) will be established as the City's DCP in which water can be partially or totally restricted. The City Manager will be authorized to implement these measures.

1 Trigger conditions signaling the start of an emergency period.
2 Drought contingency measures
3. Information and education
4 Initiation procedures
5 Termination notification actions
6 Means of implementation

Each plan elements is described in the following subsections.

B. Plan Elements

1. Trigger Conditions

The initiation of drought contingency measures by the customer must inherently be determined on case-by-case basics with consideration given to weather conditions, time of year, prevailing system capacities, and prevailing contractual arrangement with each respective water supplier. The following trigger conditions in conjunction with other utility specific, real time factors to initiate drought contingency measures shall be utilized:

(1) Mild Conditions – Daily water demand reaches or exceeds 80% of the production capacity of the system for 5 consecutive days.

(2) Moderate Conditions – Daily water demand reaches or exceeds 90 % of the production capacity of the system for 5 consecutive days.

(3) Severe Conditions – Daily water demand reaches or exceeds 100% of the production capacity of the system for 5 consecutive days; or the imminent or actual failure of a major component of the system is experienced which can cause an immediate health or safety hazard.

2. Drought Contingency Measures

Based upon the prevailing conditions, the following actions, as appropriate, shall be taken when trigger conditions are reached:

(1) Mild Conditions

(a) Inform the public through the local news media that a trigger condition has been reached, and that the public should look for ways to voluntarily reduce water use and provide specific steps, which can be taken.
(b) Notify major commercial water users of the situation and request voluntary lawn-watering schedule.
(c) Publicize a voluntary lawn-watering schedule.
(d) During winter months request water users to insulate pipes rather than running water to prevent pipes from freezing.

(e) Initiate pro rata curtailment of water deliveries to or diversions by wholesale water customers as provided in Texas Water Code, Section 11.039

(f) Initiate provisional arrangement for alternative water source, such as trucking water from the neighboring town/s with regional planning group and TCEQ assistance and approval.

(2) Moderate Conditions

(a) Continue all relevant actions initiated in the preceding phase.

(b) Car washing (except for commercial car washes), window washing, and pavement washing shall be prohibited except when only a bucket is used.

(c) The following public water uses, not essential for public health or safety, shall be prohibited:

(1) Street washing
(2) Water hydrant flushing
(3) Filling swimming pools
(4) Athletic field watering

(d) A mandatory lawn-watering schedule shall be imposed. The following schedule is recommended for implementation; however, an alternate schedule may be used if it is found to be more effective:

(e) Customers with odd-numbered street addresses can water on odd-numbered days, if necessary; and customers with even-numbered street addresses can water on even-numbered days, if necessary. Water shall be permitted only between the hours of 6:00 a.m. to 10:00 a.m. and 8:00 p.m. to 10:00 p.m.

(f) Initiate pro rata curtailment of water deliveries to or diversions by wholesale water customers as provided in Texas Water Code, Section 11.039

(g) Initiate provisional arrangement for alternative water source, such as trucking water from the neighboring town/s with regional planning group and TCEQ assistance and approval.

(3) Severe Conditions

(a) Continue all relevant actions indicated in the preceding phases.

(b) All outdoor water use, not essential for public health or safety, shall be prohibited.

(c) Based upon prevailing conditions, establish maximum water use limits for commercial and residential users, and establish monetary fines or surcharges to be levied for exceeding water use limits.

(d) Initiate pro rata curtailment of water deliveries to or diversions by wholesale water customers as provided in Texas Water Code, Section 11.039

(e) Initiate provisional arrangement for alternative water source, such as trucking water from the neighboring town/s with regional planning group and TCEQ assistance and approval.

3. Wholesale Water Contract

Every Wholesale water contract entered into or renewed after adoption of the plan, including contract extensions, that in case of a shortage of water resulting from drought, the water to be distributed shall be divided in accordance with Texas Water Code, Section 11.039.

4. Information and Education

Drought and/or emergency contingency measures will be conveyed to the public as a part of and in the same manner as the Water Conservation Plan. When trigger conditions appear to be approaching, the public will be informed through local newspaper articles and/or radio/television broadcasts. Throughout the period of a trigger condition, regular articles and/or broadcasts will be used to inform the public of the current condition and conservation measures for that condition.

5. Initiation Procedures

When a trigger condition has been reached and the City has been informed that emergency water demand measures may be necessary, the appointed representative will order the initiation of a public notification process. The public notification process will include the following items:

- A notice of Emergency Water Demand Condition will be posted in a public places such as City Hall, Post Office, major supermarkets, and shopping centers.

- The Notice will be circulated to local newspapers and radio stations.

- Information regarding the contingency measures of the current drought condition will be mailed to all water customers.

6. Termination of Trigger Conditions

As drought or emergency conditions lessen, a determination will be made when a particular drought condition no longer exists. Upon such determination, the drought measures for the enforcement of that particular drought condition shall terminate. The public will be notified of the termination of any or all drought conditions and related drought measures in the same manner as described in Information and Education section above.

7. Implementation and Enforcement

As stated earlier in this plan the City Manager will be authorized by ordinance through adoption of this plan to act on behalf of the City to implement and enforce the required measures during the emergency water demand period. However, any rationing program placed into effect shall not exceed sixty (60) days without review and extension by the City Council.

8. Update of Trigger Conditions

Annually, or upon any significant change in water supply or treatment and pumping capacity the city will review its water system capability to determine actual trigger conditions based upon the guidelines described in Trigger Conditions of this Plan.

C. Variances

1. The City Manager of the City of Cameron, or his/her designee, may, in writing, grant a temporary variance for existing water uses otherwise prohibited under the 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:

(1) 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;

(2) Alternative methods can be implemented which will achieve the same level of reduction in water use.

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

(1) Name and address of the petitioner/s;

(2) Purpose of water use;

(3) Specific provision/s of the Plan from which the petitioner is requesting relief;

(4) 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 Plan;

(5) Description of the relief requested;

(6) Period of time for which the variance is sought;

(7) Alternative water use restrictions or other measures the petitioner is taking or purposes to take to meet the intent of this Plan and the compliance date;

(8) Other pertinent information.

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

(1) Variances granted shall include a timetable for compliance

(2) Variances granted shall expire when the Plan is no longer in effect, unless the petitioner has failed to meet specified requirements.

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

A P P E N D I X

All in excess of 2,000 Gallons	$ 2.50 per 1,000 Gallons

INSIDE CITY LIMITS

5/8" AND 3/4" METERS

First 2,000 Gallons	$25.00 Minimum Charge

1" METER

First 3,500 Gallons	$ 35.01 Minimum Charge
All in excess of 3,500 Gallons	$ 2.50 per 1,000 Gallons

1 ½" METER

First 5,500 Gallons	$ 46.67 Minimum Charge
All in excess of 5,500 Gallons	$ 2.50 per 1,000 Gallons

2" METER

First 6,500 Gallons	$ 58.55 Minimum Charge
All in excess of 6,500 Gallons	$ 2.50 per 1,000 Gallons

3" METER

First 8,000 Gallons	$ 80.83 Minimum Charge
All in excess of 8,000 Gallons	$ 2.50 per 1,000 Gallons

4" METER

First 15,500 Gallons	$ 129.44 Minimum Charge
All in excess of 15,500 Gallons	$ 2.50 per 1,000 Gallons

6" METER

First 25,500 Gallons	$ 174.31 Minimum Charge
All in excess of 25,500 Gallons	$ 2.50 per 1,000 Gallons

OUTSIDE CITY LIMITS

5/8" AND 3/4" METERS

First 2,000 Gallons	$ 48.38 Minimum Charge
All in excess of 2,000 Gallons	$ 4.00 per 1,000 Gallons

1" METER

First 3,500 Gallons	$ 72.63 Minimum Charge
All in excess of 3.500 Gallons	$ 4.00 per 1,000 Gallons

1 ½" METER

First 5,500 Gallons	$ 100.90 Minimum Charge
All in excess of 5,500 Gallons	$ 4.00 per 1,000 Gallons

2" METER

First 6,500 Gallons	$ 125.36 Minimum Charge
All in excess of 6,500 Gallons	$ 4.00 per 1,000 Gallons

3" METER

First 8,000 Gallons	$ 183.07 Minimum Charge
All in excess of 8,000 Gallons	$ 4.00 per 1,000 Gallons

4" METER

First 15,500 Gallons	$ 300.02 Minimum Charge
All in excess of 15,500 Gallons	$ 4.00 per 1,000 Gallons

6" METER

First 25,500 Gallons	$ 418.47 Minimum Charge
All in excess of 25,500 Gallons	$ 4.00 per 1,000 Gallons