

A How-to Guide for submitting a

# **WATER CONSERVATION PLAN**

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# WHO IS REQUIRED TO SUBMIT?

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- Entities required to submit a Water Conservation Plan are:
  - Those with financial assistance of more than \$500,000 from the Texas Water Development Board.
  - Those with 3,300 or more retail service connections.
  - Those with a non-irrigation surface water right of 1,000 ac/ft or more from the Texas Commission on Environmental Quality.
  - Those with an irrigation surface water right of 10,000 ac/ft or more from the Texas Commission on Environmental Quality.

# WHAT ARE YOU REQUIRED TO SUBMIT?

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- A Water Conservation Plan (WCP)
- A Utility Profile (UP)
- A Drought Contingency Plan (DCP)
- A Water Conservation Plan Annual Report (AR)

# WATER CONSERVATION PLAN (WCP)

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- Is a strategy for:
  - Reducing the consumption of water
  - Reducing the loss of water
  - Improving the efficiency of the use of water
  - Increasing the reuse of water
- Contains Best Management Practices (BMPs) to meet identified targets and goals.
- Should be reviewed and updated every 5 years.

# UTILITY PROFILE (UP)

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- Is a part of the WCP.
- Assists with the development of your WCP to ensure important information is considered.
- Evaluates your water and wastewater system to identify potential targets and goals for water conservation.
- Should be reviewed and updated every 5 years.

# DROUGHT CONTINGENCY PLAN (DCP)

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- Is a strategy for responding to temporary water supply shortages.
- Must include quantified and specific targets for water reduction during a water shortage.
- Should be reviewed and updated every 5 years.
- Can be part of your WCP.

# ANNUAL REPORT (AR)

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- Details progress in the implementation of the minimum requirements of your WCP.
- Is submitted annually by May 1<sup>st</sup>.
- There are separate forms for retail, wholesale, and non-water suppliers. To access these forms, visit the Texas Water Development Board [Municipal Web site](#).

# WATER CONSERVATION PLAN CHECKLIST

Rev. 1/08/2013

- Use the checklist as a guide for making sure all required elements are included in your Water Conservation Plan.
- Access the checklist at [www.twdb.texas.gov/conservation/municipal/plans/doc/WCPChecklist.pdf](http://www.twdb.texas.gov/conservation/municipal/plans/doc/WCPChecklist.pdf).
- The first Water Conservation Plan requirement is to complete a Utility Profile.

## WATER CONSERVATION PLAN GUIDANCE CHECKLIST

(Formerly WRD-022)

This guidance checklist applies to all Texas Water Development Board (TWDB) Financial Assistance Programs specified in its rules under Texas Administrative Code 31, Chapters 355, 363, 371, 375, 382, and 384 and to public utilities that provide potable water service to 3,300 or more connections. The Water Conservation Plan must meet the minimum requirements as stated below, and should be no older than 5 years. The Water Conservation Plan should also include an Utility Profile, which is an evaluation of the applicant's water and wastewater system and customer water use characteristics, to identify water conservation opportunities and should set goals to be accomplished by water conservation measures. The water conservation plan shall provide information in response to the following minimum requirements. If the plan does not provide information for each minimum requirement, the applicant shall include in the plan an explanation of why the requirement is not applicable. The TWDB will accept current Water Conservation Plans determined by the Texas Commission on Environmental Quality (TCEQ) to satisfy the requirements of 30 TAC Chapter 288.

Basically, the *Water Conservation Plan* is a strategy or combination of strategies for reducing the consumption of water, reducing the loss or waste of water, improving or maintaining the efficiency in the use of water, or increasing recycling and reuse of water. It contains best management practices measures intended to meet the targets and goals identified in the plan. The *Drought Contingency (Emergency Demand Management) Plan* is a strategy or combination of strategies for responding to temporary and potentially recurring water supply shortages and other supply emergencies.

### THE WATER CONSERVATION PLAN REQUIREMENTS:

A. \_\_\_ An evaluation of the Applicant's water and wastewater system and customer use characteristics to identify water conservation opportunities and potential targets and goals. Completion of the *Water Conservation Utility Profile*, TWDB-1965 as part of the evaluation is required and should be submitted with the Plan. The utility profile should include the water sales and use for the following classifications: residential (both for single-family and multi-family), commercial, institutional, industrial, agricultural, and wholesale; as appropriate.

B. \_\_\_ Inclusion of five-year and ten-year targets that are specific and quantified for water savings and include goals for water loss programs in gallons per capita per day, and goals for municipal use and residential use, in gallons per capita per day. A base use figure should be included to be able to calculate your savings. Consider state and regional targets and goals, local climate, and demographics. Consider the anticipated savings that can be achieved by utilizing appropriate best management practices and other conservation techniques.

C. \_\_\_ A schedule for implementing the plan to achieve the applicant's targets and goals.

D. \_\_\_ A method for tracking the implementation and effectiveness of the plan. The method should track annual water use and provide information sufficient to evaluate the implementation of conservation measures. The plan should measure progress annually, and evaluate the progress towards meeting the goals.

E. \_\_\_ A master meter to measure and account for the amount of water diverted from the source of supply.

# UTILITY PROFILE

- The Utility Profile should be submitted using the writable [pdf](#) form.
- There are two forms, one for retail utilities and one for wholesale utilities.
- This tutorial will use the retail form but will highlight the data that is required on both forms.

Utility Profile  
TWDB Form No. 1965 - R  
Revised on: 9/1/13



## 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: \_\_\_\_\_

Public Water Supply Identification Number (PWS ID): \_\_\_\_\_

Certificate of Convenience and Necessity (CCN) Number: \_\_\_\_\_

Surface Water Right ID Number: \_\_\_\_\_

Wastewater ID Number: \_\_\_\_\_

Completed By: \_\_\_\_\_ Title: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Email: \_\_\_\_\_ Telephone Number: \_\_\_\_\_

Date: \_\_\_\_\_

Regional Water Planning Group: \_\_\_\_\_ [Map](#)

Groundwater Conservation District: \_\_\_\_\_ [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

# UTILITY PROFILE CONTINUED

- The retail and wholesale forms are similar, but retailers are required to report numbers on residential populations and water use, making the retail form longer.
- Section IA asks for population and service area data.

Utility Profile  
TWDB Form No. 1965 - R  
Revised on: 9/1/13



## Section I: Utility Data

### A. Population and Service Area Data

1. Current service area size in square miles:   
(Attach or email a copy of the service area map.)
2. 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

3. 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			
2030			
2040			
2050			
2060			

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

# UTILITY PROFILE CONTINUED

- Section IB asks for system input data.
- Many of the cells in this document have auto-calculating fields which aides the user with data input.

Utility Profile  
 TWDB Form No. 1965 - R  
 Revised on: 9/1/13



## 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
				0	
				0	
				0	
				0	
				0	
Historic 5-year Average	0	0	0	0	0

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

1. Designed daily capacity of system \_\_\_\_\_ gallons per day.
2. Storage Capacity:  
 Elevated \_\_\_\_\_ gallons  
 Ground \_\_\_\_\_ gallons
3. List all current water supply sources in gallons.

Water Supply Source	Source Type*	Total Gallons
	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

# UTILITY PROFILE CONTINUED

- New in 2013, SB 181 requires entities to report on their water use in the following categories:
  - Residential
    - Single Family
    - Multi-family
  - Industrial
  - Commercial
  - Institutional
  - Agricultural
- The new customer categories from SB 181 are required for retailers and wholesalers.

Utility Profile  
 TWDB Form No. 1965 - R  
 Revised on: 9/1/13



## 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			0	0%
Residential – Multi-family (units)			0	0%
Industrial			0	0%
Commercial			0	0%
Institutional			0	0%
Agricultural			0	0%
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

\*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				
Residential – Single Family					
Residential – Multi-family (units)					
Industrial					
Commercial					
Institutional					
Agricultural					
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

\*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](#).

# UTILITY PROFILE CONTINUED

Utility Profile  
 TWDB Form No. 1965 - R  
 Revised on: 9/1/13

Development Board

## 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.

- Section III should be filled out by entities who provide wastewater.
- If you do not provide wastewater then you are finished with the Utility Profile.

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

1. Design capacity of wastewater treatment plant(s):  gallons per day.
2. 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%
<b>TOTAL</b>	0	0	0	

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

Month	Total Gallons of Treated Wastewater			
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				
<b>TOTAL</b>	0	0	0	0

# WATER CONSERVATION PLAN REQUIREMENTS

- Not only do you need to submit a Utility Profile, you should also provide a summary of the Utility Profile within the body of your Water Conservation Plan .

Utility Profile Summary

## SECTION 1 – INTRODUCTION AND UTILITY PROFILE

### INTRODUCTION

In accordance with the guidelines of the Texas Water Development Board (TWDB), **Another City** (hereafter referred to as "the City") adopted a Water Conservation Plan in 1996 and updated it in 1998. In order to meet requirements of the Texas Commission on Environmental Quality (TCEQ), the City has updated its water conservation plan for adoption as a City resolution.

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

### UTILITY PROFILE

#### Population and customer data

The City's Water Services Department manages a water distribution service area of 47 square miles and serves a population of over 80,000 residents. This population amount includes approximately 10,000 students attending and living on campus at **University** that are not actually served by the **water utility**. Accounting for these students who reside in **Another City** but are served by the **water system**, this leaves an actual water service population of over 70,000 residents. The City provides drinking water to its customers through a network of nearly 330 miles of transmission and distribution mains that provide service to over 36,400 water connections.

The official U.S. Census population count for the City in 2000 was 67,890, an increase of 29% from the 1990 Census. Population projections for **Another City**, described in 2006 Regional Water Plan, forecast the City's population will reach 80,920 by 2010 and 94,526 by 2020. In comparison, the City's water consumption peak day demand is expected to increase to almost 25 MGD by 2010 and over 27 MGD by 2015.

#### Water use data

Table 1 below summarizes key water use statistics for 2003 – 2008. Average per person usage is given in gallons per capita per day (gpcd). Average and peak daily water demand is given in million gallons per day (MGD). The peak day to average day ratio varies between 1.71 and 2.11, meaning that peak day demand is nearly twice the average demand.

The peak demand for the City is 22.9 MGD, reached in 2008. During high demand periods when large volumes of water are being pumped from the aquifer, the production capacity of the wells is reduced due to declining water levels of the aquifer. The City's water production and pumping system capacity is currently 23 MGD.

Table 1. Municipal Water Demand 2004 – 2008

Year	2004	2005	2006	2007	2008
Peak GPCD	268	286	276	215	284
Annual Average GPCD	127	155	149	126	137
Peak Day (MGD)	18.81	20.62	20.42	16.48	22.90
Average Day (MGD)	8.93	11.14	11.05	9.64	11.63
Peaking Factor	2.11	1.85	1.85	1.71	1.97

#### Water Production and Delivery System

The City utilizes ground water for its public water supply and since 1980 **Another City** has developed its own water production facilities. The City has eight groundwater wells, six of which withdraw groundwater from the Simsboro Sand formation of the Carrizo-Wilcox Aquifer, and two of which withdraw groundwater from the Carrizo and Sparta formations. The City's wellfield is located

# WATER CONSERVATION PLAN CHECKLIST

Rev. 1/08/2013

- The second Water Conservation Plan requirement is the inclusion of 5- and 10-year targets and goals for total GPCD, residential GPCD (if applicable), and water loss.

## WATER CONSERVATION PLAN GUIDANCE CHECKLIST

(Formerly WRD-022)

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### THE WATER CONSERVATION PLAN REQUIREMENTS:

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B. \_\_\_ Inclusion of five-year and ten-year targets that are specific and quantified for water savings and include goals for water loss programs in gallons per capita per day, and goals for municipal use and residential use, in gallons per capita per day. A base use figure should be included to be able to calculate your savings. Consider state and regional targets and goals, local climate, and demographics. Consider the anticipated savings that can be achieved by utilizing appropriate best management practices and other conservation techniques.

C. \_\_\_ A schedule for implementing the plan to achieve the applicant's targets and goals.

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E. \_\_\_ A master meter to measure and account for the amount of water diverted from the source of supply.

# 5- AND 10-YEAR TARGETS AND GOALS

Targets and goals can be shown in many ways as in the example provided on the right or by using the table below. You can access the Goals Table [here](#).

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

Facility Name: \_\_\_\_\_

Water Conservation Plan Year: \_\_\_\_\_

	Historic 5yr Average	Baseline	5-yr Goal for year ____	10-yr Goal for year ____
Total GPCD <sup>1</sup>				
Residential GPCD <sup>2</sup>				
Water Loss (GPCD) <sup>3</sup>				
Water Loss (Percentage) <sup>4</sup>	%	%	%	%

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

### 1. Specific, Quantified 5 & 10-Year Targets

Projected Average Day Savings from Water Conservation \*

Year	Projected Population		Projected Pumpage without additional Conservation (MGD)		Projected Savings	Projected Pumpage with Conservation and Reuse (MGD)		Projected Gallons Per Capita Per Day (GPCD) with Conservation and Reuse (MGD)	
	Total (Retail + Wholesale)	Retail	Total	Retail Non-Industrial	Conservation and Reuse (MGD)	Total	Retail Non-Industrial	Total	Retail Non-Industrial
2009	862,342	818.34	156.84	136.5	9.87	146.97	126.66	170.43	154.78
2014	943,920	899,920	171.11	149	21.99	147.14	126.96	156	141.08
2019	1,032,337	988,337	186.57	162.4	29.73	154.86	132.68	149.95	134.24

\* Note- Retail, Non-Industrial Projections do not include wholesale consumption or consumption by large industrial customers. Retail, Non-Industrial GPCD is calculated based on retail population; total pumpage includes population in wholesale districts.

Of the projected conservation and reuse savings, 3.68 MGD of the projected savings in 2009 is attributed to the expansion of the reclaimed system through Capital Improvement Projects. Additional planned reclaimed expansions are expected to contribute 20.01 MGD of savings in 2014 and 27.75 in 2019. Reclaimed water projects specifically authorized through the 2007 Water Conservation Task Force recommendations are under construction, with projected savings of 1.98 MGD in 2014 and 2019.

### Water Loss Goals

Another City is undertaking a comprehensive effort to reduce unaccounted-for water, and to improve the quality of data in water loss estimates. It is expected that water loss percentages will fluctuate annually with weather and demand conditions, and that some fluctuation will occur as a result of improved data collection. Another City intends to reduce its percentage of lost water as follows:

Year	% Total Loss (Real and Apparent)
FY 2009	not more than 12.0%
FY 2014	not more than 11.5%
FY 2019	not more than 11.0%

# WATER CONSERVATION PLAN CHECKLIST

Rev.1/08/2013

- The third Water Conservation Plan requirement is the inclusion of a schedule for implementing your WCP.

## WATER CONSERVATION PLAN GUIDANCE CHECKLIST

(Formerly WRD-022)

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### THE WATER CONSERVATION PLAN REQUIREMENTS:

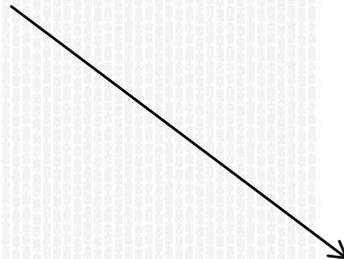
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E. \_\_\_ A master meter to measure and account for the amount of water diverted from the source of supply.



# IMPLEMENTATION SCHEDULE

- The implementation schedule can be in phases based on your activities or BMPs.

Implementation  
schedule



conservation in the local newspapers and other media outlets during high-use seasons will also be used to expand the public information measure.

2. Once a year, the City will review consumption patterns and its income and expense levels and evaluate whether or not the current water rates are effective and appropriate. A progressive water rate structure may be considered by the City and adjustments will be made as needed.
3. The City will provide information regarding the water rate structure to each of its customers once a year. City will also provide customers with historical water use for the previous 12 months upon request.
4. Meters will be tested as outlined in Section 3, Item III of the 1999 Plan as Amended in 2005.
5. A leak detection and repair program will be maintained. Accounting data of the water purchased from the County WID #1 versus the measured consumption from the City water meters will be continue to be maintained. These records can be monitored to determine water loss and unaccounted water.
6. Replacement of water lines found to be leaking or are in a generally poor condition will be completed as quickly as practical to ensure minimal water loss.
7. The City will evaluate the existing reuse program and consider expanding it to include irrigation off the plant site and for other permitted municipal purposes.

#### D. METHOD FOR TRACKING EFFECTIVENESS

In order to track the progress of the Water Conservation and Drought Contingency Plan, the City will need to collect a variety of information with regards to each program. The following information will be useful in tracking the progress of the Water Conservation Plan.

1. For information programs, the City will collect information about its programs and the population to evaluate the effectiveness of the program. For literature pieces, the number of such pieces and topics covered will be documented. The number of news programs or advertisements will also be documented and the total population of the service area will be tracked.
2. The billing structure will be evaluated annually. Several pieces of information are required to evaluate this structure effectively. A copy of the rate ordinance will be documented. Billing and customer records will be kept and water consumption by each customer class at the beginning and end of the reporting period will be recorded.
3. In order to evaluate the meter installation program, guidelines of meter installation based upon customer usage will be written and available, a meter repair and replacement policy will be documented, and meter number, size, make, and model will be recorded for each meter repair and replacement. In addition, a report will be written on method used to determine meter replacement and testing for each meter size.

# WATER CONSERVATION PLAN CHECKLIST

TWDB-1968  
Rev 1/08/2013

- The fourth Water Conservation Plan requirement is a method for tracking the effectiveness of your WCP.

## WATER CONSERVATION PLAN GUIDANCE CHECKLIST

(Formerly WRD-012)

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# METHOD FOR TRACKING EFFECTIVENESS

- This method should relate to the conservation activities of the established targets and goals.

Tracking method



conservation in the local newspapers and other media outlets during high-use seasons will also be used to expand the public information measure.

2. Once a year, the City will review consumption patterns and its income and expense levels and evaluate whether or not the current water rates are effective and appropriate. A progressive water rate structure may be considered by the City and adjustments will be made as needed.
3. The City will provide information regarding the water rate structure to each of its customers once a year. City will also provide customers with historical water use for the previous 12 months upon request.
4. Meters will be tested as outlined in Section 3, Item III of the 1999 Plan as Amended in 2005.
5. A leak detection and repair program will be maintained. Accounting data of the water purchased from the County WID #1 versus the measured consumption from the City water meters will be continue to be maintained. These records can be monitored to determine water loss and unaccounted water.
6. Replacement of water lines found to be leaking or are in a generally poor condition will be completed as quickly as practical to ensure minimal water loss.
7. The City will evaluate the existing reuse program and consider expanding it to include irrigation off the plant site and for other permitted municipal purposes.

## D. METHOD FOR TRACKING EFFECTIVENESS

In order to track the progress of the Water Conservation and Drought Contingency Plan, the City will need to collect a variety of information with regards to each program. The following information will be useful in tracking the progress of the Water Conservation Plan.

1. For information programs, the City will collect information about its programs and the population to evaluate the effectiveness of the program. For literature pieces, the number of such pieces and topics covered will be documented. The number of news programs or advertisements will also be documented and the total population of the service area will be tracked.
2. The billing structure will be evaluated annually. Several pieces of information are required to evaluate this structure effectively. A copy of the rate ordinance will be documented. Billing and customer records will be kept and water consumption by each customer class at the beginning and end of the reporting period will be recorded.
3. In order to evaluate the meter installation program, guidelines of meter installation based upon customer usage will be written and available, a meter repair and replacement policy will be documented, and meter number, size, make, and model will be recorded for each meter repair and replacement. In addition, a report will be written on method used to determine meter replacement and testing for each meter size.

# WATER CONSERVATION PLAN CHECKLIST

- The fifth Water Conservation Plan requirement is to describe the master meter and account for water diverted from the source of supply.

## WATER CONSERVATION PLAN GUIDANCE CHECKLIST: TWDB-1968 (Formerly WRD-022)

This guidance checklist applies to all Texas Water Development Board (TWDB) Financial Assistance Programs specified in its rules under Texas Administrative Code 31, Chapters 355, 363, 371, 375, 382, and 384 and to public utilities that provide potable water service to 3,300 or more connections. The Water Conservation Plan required must meet the minimum requirements as stated below, and should be no older than 5 years. The Water Conservation Plan must include an evaluation of the applicant's water and wastewater system and customer water use characteristics to identify water conservation opportunities and should set goals to be accomplished by water conservation measures. The water conservation plan shall provide information in response to the following minimum requirements. If the plan does not provide information for each minimum requirement, the applicant shall include in the plan an explanation of why the requirement is not applicable. **The TWDB will accept current Water Conservation Plans determined by the Texas Commission on Environmental Quality (TCEQ) to satisfy the requirements of 30 TAC Chapter 288.**

Basically, *the Water Conservation Plan* is a strategy or combination of strategies for reducing the consumption of water, reducing the loss or waste of water, improving or maintaining the efficiency in the use of water, or increasing recycling and reuse of water. It contains best management practices measures to try to meet the targets and goals identified in the plan. *The Drought Contingency (Emergency Demand Management) Plan* is a strategy or combination of strategies for responding to temporary and potentially recurring water supply shortages and other supply emergencies.

### THE WATER CONSERVATION PLAN REQUIREMENTS:

A. \_\_\_\_ An evaluation of the Applicant's water and wastewater system and customer use characteristics to identify water conservation opportunities and potential targets and goals. Completion of the *Water Conservation Utility Profile, TWDB-1965* (formerly WRD-264), as part of the evaluation is required. A completed Utility Profile should be submitted with the Plan.

B. \_\_\_\_ Inclusion of 5-year and 10-year targets that are specific and quantified for water savings and include goals for water loss programs in gallons per capita per day and goals for municipal use in gallons per capita per day. Include a base use figure to be able to calculate your savings from. Consider state and regional targets and goals, local climate, demographics, and the utility profile. Consider the anticipated savings that can be achieved by utilizing the appropriate Best Management Practices and other conservation techniques.

C. \_\_\_\_ A schedule for implementing the plan to achieve the applicant's targets and goals.

D. \_\_\_\_ A method for tracking the implementation and effectiveness of the plan. The method should track annual water use and provide information sufficient to evaluate the implementation of conservation measures. The plan should measure progress annually, and, at a minimum, evaluate the progress towards meeting the targets and goals every five years.

E. \_\_\_\_ A master meter to measure and account for the amount of water diverted from the source of supply.

F. \_\_\_\_ A program of universal metering of both customer and public uses of water, for meter testing, repair and for periodic replacement.

# MASTER METER

phase of its water reuse program by 2011. When this system is fully implemented, it will provide nearly 1 million gallons per day of reclaimed water to the parks, reducing demand on the potable water system. In the future, the City plans to expand its water reuse program to include large volume commercial customers, such as shopping centers and business parks.

## WATER LOSS CONTROL MEASURES

The goal of the City's water loss control program is to maintain unaccounted-for water (unbilled authorized and unbilled unauthorized usage) water at or below 10% of water produced, on a monthly basis. In order to meet this goal, the City has several programs in place, including routine water audits, a program of leak detection and repair, and meter testing and accuracy.

### Routine Audits of Water System

The Water Services Department generates a monthly water loss report that compares metered production with metered consumption, as well as accounted-for and unaccounted-for water losses.

WATER SERVICES DEPARTMENT

Page 3 of 6

Resolution No. 04-23-09-2h

2008 WATER CONSERVATION PLAN

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

### Leak Detection and Repair

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

### Universal Metering

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

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

The City will continue to provide a preventive maintenance program for its water meters, wherein regular scheduled testing, repairs, and replacement are performed in accordance with American Water Works Association (AWWA) standards.

## RECORDS MANAGEMENT SYSTEM

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

Description of how water diverted from source supply is tracked using a master metering system.

# WATER CONSERVATION PLAN CHECKLIST

- The sixth Water Conservation Plan requirement is to describe the universal metering system.

TWDB-1946  
Rev. 1/08/2013

F. \_\_\_ A program of universal metering of both customer and public uses of water, for meter testing, repair and for periodic replacement.

G. \_\_\_ Measures to determine and control water loss (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections, abandoned services, etc.)

H. \_\_\_ A continuous program of leak detection, repair, and water loss accounting for the transmission, delivery, and distribution system in order to control water loss.

I. \_\_\_ A program of continuing education and information regarding water conservation. This should include providing water conservation information directly to each residential, industrial and commercial customer at least annually, and providing water conservation literature to new customers when they apply for service.

J. \_\_\_ A water rate structure which is not "promotional," i.e., a rate structure which is cost-based and which does not encourage the excessive use of water. Include copy of the rate structure.

K. \_\_\_ A means of implementation and enforcement, evidenced by adoption of the plan:  
1. a copy of the ordinance, resolution, or tariff indicating official adoption of the water conservation plan by the applicant and  
2. a description of the authority by which the applicant will implement and enforce the conservation plan.

L. \_\_\_ If the Applicant will utilize the project financed by the TWDB to furnish water or wastewater services to another supplying entity that in turn will furnish the water or wastewater services to the ultimate consumer, the requirements for the water conservation plan also pertain to these supplier entities. To comply with this requirement the applicant shall:  
1. submit its own water conservation plan;  
2. submit the other entity's (or entities) water conservation plan;  
3. require, by contract, that the other entity (or entities), adopt a water conservation plan that conforms to the board's requirement and submit it to the board. If the requirement is to be included in an existing water or wastewater service contract, it may be included, at the earliest of the renewal or substantial amendment of that contract, or by other appropriate measures.

M. \_\_\_ Documentation that the regional water planning group for the service area of the applicant has been notified of the applicant's water conservation plan.

Note: The water conservation plan may also include other conservation methods or techniques that the applicant deems appropriate.

N. The Drought Contingency Plan (for Financial Assistance Programs) shall include:

1. \_\_\_ **Trigger conditions.** Describe information to be monitored. For example, reservoir levels, daily water demand, water production or distribution system limitations. Supply source contamination and system outage or equipment failure should be considered too. Determine specific quantified targets of water use reduction.

# UNIVERSAL METERING SYSTEM

phase of its water reuse program by 2011. When this system is fully implemented, it will provide nearly 1 million gallons per day of reclaimed water to the parks, reducing demand on the potable water system. In the future, the City plans to expand its water reuse program to include large volume commercial customers, such as shopping centers and business parks.

## WATER LOSS CONTROL MEASURES

The goal of the City's water loss control program is to maintain unaccounted-for water (unbilled authorized and unbilled unauthorized usage) water at or below 10% of water produced, on a monthly basis. In order to meet this goal, the City has several programs in place, including routine water audits, a program of leak detection and repair, and meter testing and accuracy.

### Routine Audits of Water System

The Water Services Department generates a monthly water loss report that compares metered production with metered consumption, as well as accounted-for and unaccounted-for water losses.

WATER SERVICES DEPARTMENT

Page 3 of 6

Resolution No. 04-23-09-2h

2009 WATER CONSERVATION PLAN

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

### Leak Detection and Repair

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

### Universal Metering

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

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

The City will continue to provide a preventive maintenance program for its water meters, wherein regular scheduled testing, repairs, and replacement are performed in accordance with American Water Works Association (AWWA) standards.

## RECORDS MANAGEMENT SYSTEM

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

Description of universal  
metering system



# WATER CONSERVATION PLAN CHECKLIST

TWDB-1968  
Rev.1/08/2013

- The seventh Water Conservation Plan requirement is to describe the measures used to control water loss.

G. \_\_\_ Measures to determine and control water loss (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections, abandoned services, etc.)

H. \_\_\_ A continuous program of leak detection, repair, and water loss accounting for the transmission, delivery, and distribution system in order to control water loss.

I. \_\_\_ A program of continuing education and information regarding water conservation. This should include providing water conservation information directly to each residential, industrial and commercial customer at least annually, and providing water conservation literature to new customers when they apply for service.

J. \_\_\_ A water rate structure which is not "promotional," i.e., a rate structure which is cost-based and which does not encourage the excessive use of water. Include copy of the rate structure.

K. \_\_\_ A means of implementation and enforcement, evidenced by adoption of the plan:  
1. a copy of the ordinance, resolution, or tariff indicating official adoption of the water conservation plan by the applicant and  
2. a description of the authority by which the applicant will implement and enforce the conservation plan.

L. \_\_\_ If the Applicant will utilize the project financed by the TWDB to furnish water or wastewater services to another supplying entity that in turn will furnish the water or wastewater services to the ultimate consumer, the requirements for the water conservation plan also pertain to these supplier entities. To comply with this requirement the applicant shall:  
1. submit its own water conservation plan;  
2. submit the other entity's (or entities) water conservation plan;  
3. require, by contract, that the other entity (or entities), adopt a water conservation plan that conforms to the board's requirement and submit it to the board. If the requirement is to be included in an existing water or wastewater service contract, it may be included, at the earliest of the renewal or substantial amendment of that contract, or by other appropriate measures.

M. \_\_\_ Documentation that the regional water planning group for the service area of the applicant has been notified of the applicant's water conservation plan.

**Note:** The water conservation plan may also include other conservation methods or techniques that the applicant deems appropriate.

**N. The Drought Contingency Plan (for Financial Assistance Programs) shall include:**

1. \_\_\_ **Trigger conditions.** Describe information to be monitored. For example, reservoir levels, daily water demand, water production or distribution system limitations. Supply source contamination and system outage or equipment failure should be considered too. Determine specific quantified targets of water use reduction.
2. \_\_\_ **Demand management measures.** Actions that will be implemented by the utility during each stage of the plan when predetermined triggering criteria are met. Drought plans must include quantified and specific targets for water use reductions to be achieved during periods of water shortage and drought. Supply management measures typically can be taken by the utility to better manage available water supply, as well as the use of backup or alternative water sources.

# WATER LOSS CONTROL MEASURES

Description of measures  
to control water loss



phase of its water reuse program by 2011. When this system is fully implemented, it will provide nearly 1 million gallons per day of reclaimed water to the parks, reducing demand on the potable water system. In the future, the City plans to expand its water reuse program to include large volume commercial customers, such as shopping centers and business parks.

## WATER LOSS CONTROL MEASURES

The goal of the City's water loss control program is to maintain unaccounted-for water (unbilled authorized and unbilled unauthorized usage) water at or below 10% of water produced, on a monthly basis. In order to meet this goal, the City has several programs in place, including routine water audits, a program of leak detection and repair, and meter testing and accuracy.

### Routine Audits of Water System

The Water Services Department generates a monthly water loss report that compares metered production with metered consumption, as well as accounted-for and unaccounted-for water losses.

Page 3 of 6

WATER SERVICES DEPARTMENT

Resolution No. 04-23-09-2h

2009 WATER CONSERVATION PLAN

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

### Leak Detection and Repair

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

### Universal Metering

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

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

The City will continue to provide a preventive maintenance program for its water meters, wherein regular scheduled testing, repairs, and replacement are performed in accordance with American Water Works Association (AWWA) standards.

## RECORDS MANAGEMENT SYSTEM

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

# WATER CONSERVATION PLAN CHECKLIST

TWDB-1968  
Rev.1/08/2013

- The eighth Water Conservation Plan requirement is the inclusion of a leak detection program to control water loss.

G. \_\_\_ Measures to determine and control water loss (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections, abandoned services, etc.)

H. \_\_\_ A continuous program of leak detection, repair, and water loss accounting for the transmission, delivery, and distribution system in order to control water loss.

I. \_\_\_ A program of continuing education and information regarding water conservation. This should include providing water conservation information directly to each residential, industrial and commercial customer at least annually, and providing water conservation literature to new customers when they apply for service.

J. \_\_\_ A water rate structure which is not "promotional," i.e., a rate structure which is cost-based and which does not encourage the excessive use of water. Include copy of the rate structure.

K. \_\_\_ A means of implementation and enforcement, evidenced by adoption of the plan:  
1. a copy of the ordinance, resolution, or tariff indicating official adoption of the water conservation plan by the applicant and  
2. a description of the authority by which the applicant will implement and enforce the conservation plan.

L. \_\_\_ If the Applicant will utilize the project financed by the TWDB to furnish water or wastewater services to another supplying entity that in turn will furnish the water or wastewater services to the ultimate consumer, the requirements for the water conservation plan also pertain to these supplier entities. To comply with this requirement the applicant shall:  
1. submit its own water conservation plan;  
2. submit the other entity's (or entities) water conservation plan;  
3. require, by contract, that the other entity (or entities), adopt a water conservation plan that conforms to the board's requirement and submit it to the board. If the requirement is to be included in an existing water or wastewater service contract, it may be included, at the earliest of the renewal or substantial amendment of that contract, or by other appropriate measures.

M. \_\_\_ Documentation that the regional water planning group for the service area of the applicant has been notified of the applicant's water conservation plan.

**Note:** The water conservation plan may also include other conservation methods or techniques that the applicant deems appropriate.

**N. The Drought Contingency Plan (for Financial Assistance Programs) shall include:**

1. \_\_\_ **Trigger conditions.** Describe information to be monitored. For example, reservoir levels, daily water demand, water production or distribution system limitations. Supply source contamination and system outage or equipment failure should be considered too. Determine specific quantified targets of water use reduction.
2. \_\_\_ **Demand management measures.** Actions that will be implemented by the utility during each stage of the plan when predetermined triggering criteria are met. Drought plans must include quantified and specific targets for water use reductions to be achieved during periods of water shortage and drought. Supply management measures typically can be taken by the utility to better manage available water supply, as well as the use of backup or alternative water sources.

# LEAK DETECTION PROGRAM

phase of its water reuse program by 2011. When this system is fully implemented, it will provide nearly 1 million gallons per day of reclaimed water to the parks, reducing demand on the potable water system. In the future, the City plans to expand its water reuse program to include large volume commercial customers, such as shopping centers and business parks.

## WATER LOSS CONTROL MEASURES

The goal of the City's water loss control program is to maintain unaccounted-for water (unbilled authorized and unbilled unauthorized usage) water at or below 10% of water produced, on a monthly basis. In order to meet this goal, the City has several programs in place, including routine water audits, a program of leak detection and repair, and meter testing and accuracy.

### Routine Audits of Water System

The Water Services Department generates a monthly water loss report that compares metered production with metered consumption, as well as accounted-for and unaccounted-for water losses.

WATER SERVICES DEPARTMENT

Page 3 of 6

Description of a leak detection and repair program



Resolution No. 04-23-09-2h

2009 WATER CONSERVATION PLAN

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

### Leak Detection and Repair

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### Universal Metering

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The City will continue to provide a preventive maintenance program for its water meters, wherein regular scheduled testing, repairs, and replacement are performed in accordance with American Water Works Association (AWWA) standards.

## RECORDS MANAGEMENT SYSTEM

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

# WATER CONSERVATION PLAN CHECKLIST

TWDB-1968  
Rev.1/08/2013

- The ninth Water Conservation Plan requirement is the inclusion of a continuing education program on water conservation.



G. \_\_\_ Measures to determine and control water loss (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections, abandoned services, etc.)

H. \_\_\_ A continuous program of leak detection, repair, and water loss accounting for the transmission, delivery, and distribution system in order to control water loss.

I. \_\_\_ A program of continuing education and information regarding water conservation. This should include providing water conservation information directly to each residential, industrial and commercial customer at least annually, and providing water conservation literature to new customers when they apply for service.

J. \_\_\_ A water rate structure which is not "promotional," i.e., a rate structure which is cost-based and which does not encourage the excessive use of water. Include copy of the rate structure.

K. \_\_\_ A means of implementation and enforcement, evidenced by adoption of the plan:  
1. a copy of the ordinance, resolution, or tariff indicating official adoption of the water conservation plan by the applicant and  
2. a description of the authority by which the applicant will implement and enforce the conservation plan.

L. \_\_\_ If the Applicant will utilize the project financed by the TWDB to furnish water or wastewater services to another supplying entity that in turn will furnish the water or wastewater services to the ultimate consumer, the requirements for the water conservation plan also pertain to these supplier entities. To comply with this requirement the applicant shall:  
1. submit its own water conservation plan;  
2. submit the other entity's (or entities) water conservation plan;  
3. require, by contract, that the other entity (or entities), adopt a water conservation plan that conforms to the board's requirement and submit it to the board. If the requirement is to be included in an existing water or wastewater service contract, it may be included, at the earliest of the renewal or substantial amendment of that contract, or by other appropriate measures.

M. \_\_\_ Documentation that the regional water planning group for the service area of the applicant has been notified of the applicant's water conservation plan.

**Note:** The water conservation plan may also include other conservation methods or techniques that the applicant deems appropriate.

## N. The Drought Contingency Plan (for Financial Assistance Programs) shall include:

1. \_\_\_ **Trigger conditions.** Describe information to be monitored. For example, reservoir levels, daily water demand, water production or distribution system limitations. Supply source contamination and system outage or equipment failure should be considered too. Determine specific quantified targets of water use reduction.
2. \_\_\_ **Demand management measures.** Actions that will be implemented by the utility during each stage of the plan when predetermined triggering criteria are met. Drought plans must include quantified and specific targets for water use reductions to be achieved during periods of water shortage and drought. Supply management measures typically can be taken by the utility to better manage available water supply, as well as the use of backup or alternative water sources.

# EDUCATION PROGRAM

Description of water conservation education program. Many educational programs include outreach, public information, and school programs.



## RECORDS MANAGEMENT SYSTEM

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

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

## PUBLIC EDUCATION PROGRAM

The City's public education program typically makes at least 6,000 direct customer contacts each year through presentations, booths at community fairs, and plant tours. This figure does not include indirect contacts through utility bill inserts, newspaper and radio ads, and similar programs. The City promotes water conservation issues by informing the public in the following ways:

- Making water conservation information available to new customers
- Making residential water audits available to all customers
- Providing water conservation information to all customers upon request

WATER SERVICES DEPARTMENT

Page 4 of 6

Resolution No. 04-23-09-2h

2009 WATER CONSERVATION PLAN

- Coordinating educational presentations, lectures, and demonstrations for schools, civic groups, and the general public
- Providing exhibits at public events held throughout the year
- Publishing water conservation information on a regular basis in the City's utility bill insert or other written form
- Providing book covers with a water conservation message for ISD students
- Participating in community environmental education activities with the City and other local organizations to promote water conservation education
- Supporting annual events and demonstrations relating to water conservation and environmental issues that affect water supply and quality

## WHOLESALE WATER SUPPLY CONTRACTS

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

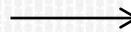
## PLUMBING CODE AND RETROFIT PROGRAM

The City has adopted the International Plumbing Code, which requires the use of water saving, Ultra Low Flow (ULF) fixtures to be installed in new construction and in the replacement of plumbing in existing structures.

# WATER CONSERVATION PLAN CHECKLIST

TWDB-1968  
Rev.1/08/2013

- The tenth Water Conservation Plan requirement is the inclusion of a rate structure that is not promotional. This means your rate structure is cost-based and does not encourage the excessive use of water. An example of this is the use of an inclining block rate, so when the customer uses more water they are charged more money.
- A copy of your current rate structure should be included with your Plan.



G. \_\_\_ Measures to determine and control water loss (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections, abandoned services, etc.)

H. \_\_\_ A continuous program of leak detection, repair, and water loss accounting for the transmission, delivery, and distribution system in order to control water loss.

I. \_\_\_ A program of continuing education and information regarding water conservation. This should include providing water conservation information directly to each residential, industrial and commercial customer at least annually, and providing water conservation literature to new customers when they apply for service.

J. \_\_\_ A water rate structure which is not "promotional," i.e., a rate structure which is cost-based and which does not encourage the excessive use of water. Include copy of the rate structure.

K. \_\_\_ A means of implementation and enforcement, evidenced by adoption of the plan:

1. a copy of the ordinance, resolution, or tariff indicating official adoption of the water conservation plan by the applicant and
2. a description of the authority by which the applicant will implement and enforce the conservation plan.

L. \_\_\_ If the Applicant will utilize the project financed by the TWDB to furnish water or wastewater services to another supplying entity that in turn will furnish the water or wastewater services to the ultimate consumer, the requirements for the water conservation plan also pertain to these supplier entities. To comply with this requirement the applicant shall:

1. submit its own water conservation plan;
2. submit the other entity's (or entities) water conservation plan;
3. require, by contract, that the other entity (or entities), adopt a water conservation plan that conforms to the board's requirement and submit it to the board. If the requirement is to be included in an existing water or wastewater service contract, it may be included, at the earliest of the renewal or substantial amendment of that contract, or by other appropriate measures.

M. \_\_\_ Documentation that the regional water planning group for the service area of the applicant has been notified of the applicant's water conservation plan.

**Note:** The water conservation plan may also include other conservation methods or techniques that the applicant deems appropriate.

**N. The Drought Contingency Plan (for Financial Assistance Programs) shall include:**

1. \_\_\_ **Trigger conditions.** Describe information to be monitored. For example, reservoir levels, daily water demand, water production or distribution system limitations. Supply source contamination and system outage or equipment failure should be considered too. Determine specific quantified targets of water use reduction.
2. \_\_\_ **Demand management measures.** Actions that will be implemented by the utility during each stage of the plan when predetermined triggering criteria are met. Drought plans must include quantified and specific targets for water use reductions to be achieved during periods of water shortage and drought. Supply management measures typically can be taken by the utility to better manage available water supply, as well as the use of backup or alternative water sources.

# RATE STRUCTURE

Water rate structure



Resolution No. 04-23-09-2h

2009 WATER CONSERVATION PLAN

water loss on a percentage basis. The City has consistently maintained an average water accountability rating of 10%, meaning that water billed is greater than or equal to 90% of water produced. At a minimum, the City will continue to meet this target, and investigate ways to improve water accountability at or above 90%.

#### **Time frame for achieving conservation goals**

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

### **SECTION 3 – STRATEGIES TO ACHIEVE CONSERVATION GOALS**

#### **WATER RATE STRUCTURE**

The City utilizes an inclining water rate structure to encourage customers to reduce both peak and overall water usage, while fairly allocating cost of service to each customer class. Under an inclining rate structure, the rate per thousand gallons increases as the amount of water used increases. The City implemented this inclining water rate structure in Fiscal Year 2008. The current rate structure charges monthly service charges based on meter size, plus a uniform rate per thousand (1000) gallons up to 10,000 gallons. After 10,000 gallons, the rate per thousand increases \$0.60 per thousand gallons per 5000 gallon block up to 26,000 gallons. All residential usage above 26,000 gallons is billed at a uniform rate of \$4.86 per thousand (1000) gallons (City Ordinance No. 3116).

Currently, commercial rate structure charges monthly service charges based on meter size, plus a uniform water usage rate per thousand (1000) gallons. City Staff is currently researching the option of altering the commercial rate structure in order to meet conservation goals.

This rate structure will be reviewed on a regular basis to ensure that the rates adequately recover the cost of service and meet the goals of this water conservation plan.

#### **WASTEWATER REUSE**

The City has received authorization from the TCEQ to reuse its treated wastewater effluent as Type I reuse water, the highest quality of reuse water. The goal for the City's water reuse program is to reduce peak demand on the potable (drinking) water system by switching non-potable uses of water, such as athletic field irrigation, to reuse water. In 2006 the City has completed a feasibility study of providing reuse water for irrigation at City-owned parks and facilities.

The first part of this plan will include extending reclaimed water infrastructure to the City's two main parks: Veterans Park and Athletic Complex, and Central Park. The City hopes to complete the first phase of its water reuse program by 2011. When this system is fully implemented, it will provide nearly 1 million gallons per day of reclaimed water to the parks, reducing demand on the potable water system. In the future, the City plans to expand its water reuse program to include large volume commercial customers, such as shopping centers and business parks.

#### **WATER LOSS CONTROL MEASURES**

The goal of the City's water loss control program is to maintain unaccounted-for water (unbilled authorized and unbilled unauthorized usage) water at or below 10% of water produced, on a monthly basis. In order to meet this goal, the City has several programs in place, including routine water audits, a program of leak detection and repair, and meter testing and accuracy.

#### **Routine Audits of Water System**

The Water Services Department generates a monthly water loss report that compares metered production with metered consumption, as well as accounted-for and unaccounted-for water losses.

# WATER CONSERVATION PLAN CHECKLIST

TWDB-1968  
Rev.1/08/2013

- The eleventh Water Conservation Plan requirement is to describe the means of implementation and enforcement of your Plan by official adoption, along with the description of the authority implementing and enforcing your Plan.
- This may be shown with an attachment of an ordinance, resolution, or tariff in your Plan.

G. \_\_\_ Measures to determine and control water loss (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections, abandoned services, etc.)

H. \_\_\_ A continuous program of leak detection, repair, and water loss accounting for the transmission, delivery, and distribution system in order to control water loss.

I. \_\_\_ A program of continuing education and information regarding water conservation. This should include providing water conservation information directly to each residential, industrial and commercial customer at least annually, and providing water conservation literature to new customers when they apply for service.

J. \_\_\_ A water rate structure which is not "promotional," i.e., a rate structure which is cost-based and which does not encourage the excessive use of water. Include copy of the rate structure.

K. \_\_\_ A means of implementation and enforcement, evidenced by adoption of the plan:

1. a copy of the ordinance, resolution, or tariff indicating official adoption of the water conservation plan by the applicant and
2. a description of the authority by which the applicant will implement and enforce the conservation plan.

L. \_\_\_ If the Applicant will utilize the project financed by the TWDB to furnish water or wastewater services to another supplying entity that in turn will furnish the water or wastewater services to the ultimate consumer, the requirements for the water conservation plan also pertain to these supplier entities. To comply with this requirement the applicant shall:

1. submit its own water conservation plan;
2. submit the other entity's (or entities) water conservation plan;
3. require, by contract, that the other entity (or entities), adopt a water conservation plan that conforms to the board's requirement and submit it to the board. If the requirement is to be included in an existing water or wastewater service contract, it may be included, at the earliest of the renewal or substantial amendment of that contract, or by other appropriate measures.

M. \_\_\_ Documentation that the regional water planning group for the service area of the applicant has been notified of the applicant's water conservation plan.

**Note:** The water conservation plan may also include other conservation methods or techniques that the applicant deems appropriate.

**N. The Drought Contingency Plan (for Financial Assistance Programs) shall include:**

1. \_\_\_ **Trigger conditions.** Describe information to be monitored. For example, reservoir levels, daily water demand, water production or distribution system limitations. Supply source contamination and system outage or equipment failure should be considered too. Determine specific quantified targets of water use reduction.
2. \_\_\_ **Demand management measures.** Actions that will be implemented by the utility during each stage of the plan when predetermined triggering criteria are met. Drought plans must include quantified and specific targets for water use reductions to be achieved during periods of water shortage and drought. Supply management measures typically can be taken by the utility to better manage available water supply, as well as the use of backup or alternative water sources.

# MEANS OF IMPLEMENTATION AND ENFORCEMENT

Means of implementation  
and enforcement



4. To track the progress of the City's Leak Detection and Repair protocol, the City will maintain its GIS database, records of water consumption of its customers, and accounting information of water bought from the County WID #1.
5. The effectiveness of the City's Water Conservation and Drought Contingency Plan can be measured by tracking information similar to that found in the Utility Profile in Attachment D. The Water Conservation Implementation Report found in Attachment F must be completed to gauge the effectiveness of the City's water conservation efforts and submitted to the TCEQ by May 1<sup>st</sup> of each year. Accounting data of water purchased from the County WID #1 and records of water consumption by the City's customers can be used to monitor water usage determine the actual amount of water saved. This shall be performed annually to measure progress toward the 5 and 10 year goals in water usage reduction. If no progress is apparent, the City shall consider alternate water conservation programs.

## **E. MEANS OF IMPLEMENTATION AND ENFORCEMENT**

The City Manager or his/her duly appointed representative will act as the Administrator of the Water Conservation and Drought Contingency Plan. The Administrator will oversee the execution and implementation of all elements of the plan and be responsible to oversee the keeping of adequate records for program verification.

As a means of implementing and enforcing this plan, all plan elements discussed in this document were adopted by City Resolution (see attached Resolution in Appendix C).

# WATER CONSERVATION PLAN CHECKLIST

- The twelfth Water Conservation Plan requirement is for entities who supply water to other retail providers via a wholesale contract.
- Water Conservation Plan requirements also apply to the supplier entities.

TWDB-1968  
Rev.1/06/2013

G. \_\_\_ Measures to determine and control water loss (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections, abandoned services, etc.)

H. \_\_\_ A continuous program of leak detection, repair, and water loss accounting for the transmission, delivery, and distribution system in order to control water loss.

I. \_\_\_ A program of continuing education and information regarding water conservation. This should include providing water conservation information directly to each residential, industrial and commercial customer at least annually, and providing water conservation literature to new customers when they apply for service.

J. \_\_\_ A water rate structure which is not "promotional," i.e., a rate structure which is cost-based and which does not encourage the excessive use of water. Include copy of the rate structure.

K. \_\_\_ A means of implementation and enforcement, evidenced by adoption of the plan:

1. a copy of the ordinance, resolution, or tariff indicating official adoption of the water conservation plan by the applicant and
2. a description of the authority by which the applicant will implement and enforce the conservation plan.

L. \_\_\_ If the Applicant will furnish water or wastewater services to another supplying entity that in turn will furnish the water or wastewater services to the ultimate consumer, the requirements for the water conservation plan also pertain to these supplier entities. To comply with this requirement the applicant shall:

1. submit its own water conservation plan;
2. submit the other entity's (or entities) water conservation plan;
3. require, by contract, that the other entity (or entities), adopt a water conservation plan that conforms to the board's requirement and submit it to the board. If the requirement is to be included in an existing water or wastewater service contract, it may be included, at the earliest of the renewal or substantial amendment of that contract, or by other appropriate measures.

M. \_\_\_ Documentation that the regional water planning group for the service area of the applicant has been notified of the applicant's water conservation plan.

Note: The water conservation plan may also include other conservation methods or techniques that the applicant deems appropriate.

**N. The Drought Contingency Plan (for Financial Assistance Programs) shall include:**

1. \_\_\_ Trigger conditions. Describe information to be monitored. For example, reservoir levels, daily water demand, water production or distribution system limitations. Supply source contamination and system outage or equipment failure should be considered too. Determine specific quantified targets of water use reduction.
2. \_\_\_ Demand management measures. Actions that will be implemented by the utility during each stage of the plan when predetermined triggering criteria are met. Drought plans must include quantified and specific targets for water use reductions to be achieved during periods of water shortage and drought. Supply management measures typically can be taken by the utility to better manage available water supply, as well as the use of backup or alternative water sources.

# WHOLESALE CONTRACTS

- Each successive wholesale customer must develop and implement a WCP or utilize water conservation measures.
- If the wholesale entity receives financial assistance from TWDB, they must also submit their wholesale customers' WCPs to TWDB.

Wholesale contracts

## Section XI. Additional Wholesale Water Contract Requirements

It is Abilene's policy to include in every wholesale water supply contract entered into or renewed after official adoption of the Plan, including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using applicable elements in 30 TAC 288. If the wholesale customer intends to resell the water, then the contract between Abilene and the wholesale customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with 30 TAC 288.

## Section XII. Coordination with Brazos G Regional Water Planning Group

All of the customers served by the City of Abilene are located within the Brazos G Regional Water Planning Area. Abilene has provided a copy of this Plan to the Brazos G Regional Water Planning Group.

## Section XIII. Revisions to the Water Conservation Plan

The City of Abilene will review and update this water conservation plan, as appropriate, based on new or updated information, such as the adoption or revision of the regional water plan. As a minimum the Plan will be updated every five (5) years.

## Section XIV. Severability

It is hereby to be the intention of Abilene that the sections, paragraphs, sentences, clauses, and phrases of this Plan are severable and if, any phrase, clause, sentence, paragraph or section shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs or sections of this Plan, since the same would not have been enacted by Abilene without the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph or section.

# WATER CONSERVATION PLAN CHECKLIST

- The thirteenth Water Conservation Plan requirement is the inclusion of notification to the Regional Water Planning Group.



TWDB-1968  
Rev.1/06/2013

G. \_\_\_ Measures to determine and control water loss (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections, abandoned services, etc.)

H. \_\_\_ A continuous program of leak detection, repair, and water loss accounting for the transmission, delivery, and distribution system in order to control water loss.

I. \_\_\_ A program of continuing education and information regarding water conservation. This should include providing water conservation information directly to each residential, industrial and commercial customer at least annually, and providing water conservation literature to new customers when they apply for service.

J. \_\_\_ A water rate structure which is not "promotional," i.e., a rate structure which is cost-based and which does not encourage the excessive use of water. Include copy of the rate structure.

K. \_\_\_ A means of implementation and enforcement, evidenced by adoption of the plan:

1. a copy of the ordinance, resolution, or tariff indicating official adoption of the water conservation plan by the applicant and
2. a description of the authority by which the applicant will implement and enforce the conservation plan.

L. \_\_\_ If the Applicant will furnish water or wastewater services to another supplying entity that in turn will furnish the water or wastewater services to the ultimate consumer, the requirements for the water conservation plan also pertain to these supplier entities. To comply with this requirement the applicant shall:

1. submit its own water conservation plan;
2. submit the other entity's (or entities) water conservation plan;
3. require, by contract, that the other entity (or entities), adopt a water conservation plan that conforms to the board's requirement and submit it to the board. If the requirement is to be included in an existing water or wastewater service contract, it may be included, at the earliest of the renewal or substantial amendment of that contract, or by other appropriate measures.

M. \_\_\_ Documentation that the regional water planning group for the service area of the applicant has been notified of the applicant's water conservation plan.

Note: The water conservation plan may also include other conservation methods or techniques that the applicant deems appropriate.

**N. The Drought Contingency Plan (for Financial Assistance Programs) shall include:**

1. \_\_\_ Trigger conditions. Describe information to be monitored. For example, reservoir levels, daily water demand, water production or distribution system limitations. Supply source contamination and system outage or equipment failure should be considered too. Determine specific quantified targets of water use reduction.
2. \_\_\_ Demand management measures. Actions that will be implemented by the utility during each stage of the plan when predetermined triggering criteria are met. Drought plans must include quantified and specific targets for water use reductions to be achieved during periods of water shortage and drought. Supply management measures typically can be taken by the utility to better manage available water supply, as well as the use of backup or alternative water sources.

# REGIONAL WATER PLANNING GROUP NOTIFICATION

- A copy of the letter notifying your Regional Planning Group (RPG) of adoption of your Plan should be included.



May 7, 2009

RE: Updated Water Conservation Plan for the City of **Another City** – PWS #

Administrative Agent  
Brazos Region G Regional Water Planning Group

Brazos River Authority  
P.O. Box 7555  
Waco, TX 76714

Dear Mr. Buzbee:

Enclosed please find a copy of the updated Water Conservation Plan for the City of **Another City**. This Plan and a copy of the Council Resolution adopting the Plan (included as Appendix A to the Plan) are submitted in accordance with Texas Commission on Environmental Quality rules.

This Plan went before the \_\_\_\_\_ City Council on April 23, 2009 and was approved on that date. If you have any questions, please feel free to contact me by phone \_\_\_\_\_ or email \_\_\_\_\_

Respectfully Submitted,

Water Resource Coordinator

Enclosures:

1. City \_\_\_\_\_ Conservation Plan
2. Resolution No. 04-23-09-2h, of the City Council of the City

cc: File

# WATER CONSERVATION PLAN CHECKLIST

- The fourteenth Water Conservation Plan requirement is the inclusion of your Drought Contingency Plan if you receive financial assistance from TWDB.
- The DCP must include the following:

TWDB-1968  
Rev.1/06/2013

G. \_\_\_\_ Measures to determine and control water loss (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections, abandoned services, etc.)

H. \_\_\_\_ A continuous program of leak detection, repair, and water loss accounting for the transmission, delivery, and distribution system in order to control water loss.

I. \_\_\_\_ A program of continuing education and information regarding water conservation. This should include providing water conservation information directly to each residential, industrial and commercial customer at least annually, and providing water conservation literature to new customers when they apply for service.

J. \_\_\_\_ A water rate structure which is not "promotional," i.e., a rate structure which is cost-based and which does not encourage the excessive use of water. Include copy of the rate structure.

K. \_\_\_\_ A means of implementation and enforcement, evidenced by adoption of the plan:

1. a copy of the ordinance, resolution, or tariff indicating official adoption of the water conservation plan by the applicant and
2. a description of the authority by which the applicant will implement and enforce the conservation plan.

L. \_\_\_\_ If the Applicant will furnish water or wastewater services to another supplying entity that in turn will furnish the water or wastewater services to the ultimate consumer, the requirements for the water conservation plan also pertain to these supplier entities. To comply with this requirement the applicant shall:

1. submit its own water conservation plan;
2. submit the other entity's (or entities) water conservation plan;
3. require, by contract, that the other entity (or entities), adopt a water conservation plan that conforms to the board's requirement and submit it to the board. If the requirement is to be included in an existing water or wastewater service contract, it may be included, at the earliest of the renewal or substantial amendment of that contract, or by other appropriate measures.

M. \_\_\_\_ Documentation that the regional water planning group for the service area of the applicant has been notified of the applicant's water conservation plan.

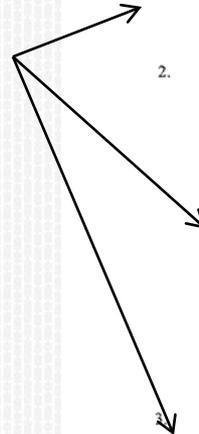
Note: The water conservation plan may also include other conservation methods or techniques that the applicant deems appropriate.

**N. The Drought Contingency Plan (for Financial Assistance Programs) shall include:**

1. \_\_\_\_ **Trigger conditions.** Describe information to be monitored. For example, reservoir levels, daily water demand, water production or distribution system limitations. Supply source contamination and system outage or equipment failure should be considered too. Determine specific quantified targets of water use reduction.
2. \_\_\_\_ **Demand management measures.** Actions that will be implemented by the utility during each stage of the plan when predetermined triggering criteria are met. Drought plans must include quantified and specific targets for water use reductions to be achieved during periods of water shortage and drought. Supply management measures typically can be taken by the utility to better manage available water supply, as well as the use of backup or alternative water sources.

# DROUGHT CONTINGENCY PLAN (DCP)

Trigger conditions that outline what will cause the DCP to be activated. Some examples are supply source contamination, system outages, and low reservoir levels.



In the spirit of cooperation, interconnections between the Cities of **A City and Any City** may be utilized to provide water in emergency conditions provided it does not create an additional emergency situation for either city. This shared water resource shall be evaluated and/or implemented prior to initiation of the trigger conditions.

The trigger conditions described below are based on the fact that the City uses groundwater as its water supply, and therefore, will likely be constrained by system capacity before shortage of supply.

## 1. Stage 1 – Voluntary Water Conservation Conditions

- (a) Requirements for initiation – Customers shall be requested to voluntarily conserve water and adhere to the water restrictions on non-essential water use, as outlined in Section G (Stage 1), each year from May 1 through September 30.
- (b) Requirements for termination – Stage 1 of the Plan may be rescinded at any time by the city manager or his/her designee of the City

## 2. Stage 2 – Moderate Water Shortage Conditions

- (a) Requirements for initiation - Customers shall be required to comply with the requirements and restrictions on non-essential water uses, as outlined in Section G (Stage 2) of this Plan, when:
  - (1) Average daily water consumption for three (3) consecutive days reaches 90% of production/distribution capacity of the City
  - (2) Weather conditions are to be considered in drought classification determination. Predicted long, cold, or dry periods are to be considered in impact analysis.
- (b) Requirements for termination - Stage 2 of the Plan may be rescinded by the city manager or his/her designee of the City 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 - Severe Water Shortage Conditions

- (a) Requirements for initiation - Customers shall be required to comply with the requirements and restrictions on non-essential water uses, as outlined in Section G (Stage 3), when:
  - (1) The City average daily water consumption for three (3) consecutive days reaches 95% of production/distribution capacity of the system, and/or City daily water consumption will not enable storage levels to be maintained, i.e., system demand exceeds available high service pump capacity.
  - (2) The City water system is contaminated whether accidentally or intentionally. Severe condition is reached immediately upon detection.

# DROUGHT CONTINGENCY PLAN (DCP)

Demand management measures that refer to actions to be taken at each stage of the DCP that include quantified and specific targets for water use reduction.

## Voluntary Water Use Measures:

- (a) Water customers shall voluntarily limit outdoor water use by participating in the 5-day Watering Schedule for outdoor water use. Outdoor water use shall only occur on a designated outdoor watering day, which will be once every five days. The 5-day Watering Schedule will be determined and be made available to customers each year by the City
- (b) Outdoor water use is discouraged between the hours of 9:00 a.m. and 8:00 p.m. except with hand-held hoses equipped with a positive pistol grip nozzle or other device that automatically shuts off water flow when the hose is not being used, or hand-held buckets. The time restrictions do not apply to:
  - (1) the irrigation of commercial plant nurseries,
  - (2) irrigation using reclaimed water,
  - (3) new landscape installation during installation and the first ten days, and
  - (4) the testing of new irrigation systems or existing irrigation systems being tested or under repair.
- (c) Water customers are requested to practice water conservation and prohibit non-essential water uses, defined in Section D of this Plan.
- (d) All operations of the City shall prohibit non-essential water uses, defined in Section D of this Plan.

## 2. Stage 2 -- Moderate Water Shortage Conditions

The goal for Stage 2 of the Plan is to reduce and maintain average daily water demand at or below ninety percent (90%) of system capacity.

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

- (a) Water customers are required to participate in the 5-day Watering Schedule for outdoor water use in the 5 day Watering Schedule for outdoor water uses. Outdoor water use shall only occur on a designated outdoor watering day, which will be once every five days. The 5-day Watering Schedule will be determined and distributed each year by the City
- (b) Outdoor water use is prohibited between the hours of 9:00 a.m. and 8:00 p.m. except with hand-held hoses equipped with a positive pistol grip nozzle or other device that automatically shuts off water flow when the hose is not being used, or hand-held buckets. The time restrictions do not apply to:
  - (1) the irrigation of commercial plant nurseries,
  - (2) irrigation using reclaimed water,
  - (3) new landscape installation during installation and the first ten days, and
  - (4) the testing of new irrigation systems or existing irrigation systems being tested or under repair.

# DROUGHT CONTINGENCY PLAN (DCP)

Initiation and termination procedures of each stage, including public notification.



- (3) The City water system fails – from acts of God (tornadoes, hurricanes) or man. Severe condition is reached immediately upon detection.
- (4) Any mechanical failure of pumping equipment or system component failure which will require more than 12 hours to repair which causes a loss of capability to provide water service in the City
- (b) Requirements for termination - Stage 3 of the Plan may be rescinded by the city manager or his/her designee of the City 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 as directed by the city manager or his/her designee of the City

## F. NOTIFICATION AND PUBLIC EDUCATION

1. Public Meeting – This plan has been presented to the public at a formal public meeting with a request for comments.
2. Public notification of the initiation or termination of drought response stages shall be by means of publication in the *Station Eagle* and public service announcements on KBTX – Channel 3. Additional methods of public notification may include signs posted in public places, utility bill inserts, and other means to be determined by the city manager or his/her designee of the City
3. When mandatory restrictions are enacted with the initiation of Stage 2 and/or Stage 3, the Executive Director of TNRCC will be notified, at a minimum via telephone, within five (5) business days.
4. Public Education of the Plan will be provided periodically to update the public with information about the conditions under which each stage of the Plan is to be initiated or terminated as well as the drought measures to be implemented in each stage. This information may be provided through utility bill inserts, public events, or other means as to be determined by the City manager or his/her designee of the City

## G. DROUGHT RESPONSE STAGES

The city manager or his/her designee of the City shall monitor water supply and/or demand conditions on a daily basis and, in accordance with the triggering criteria set forth in Section E of the Plan, shall determine that a voluntary, moderate or severe water shortage condition exists and shall implement the following actions upon publication of notice in the *Station Eagle*:

### 1. Stage 1 - Voluntary Water Conservation Conditions

The goal for Stage 1 of the Plan is to raise public and customer awareness of water demand conditions.

# DROUGHT CONTINGENCY PLAN (DCP)

## Specific variances and enforcement in the DCP.

- (2) The Department of Environmental Services may seek assistance through the local and/or state emergency management system.

### H. VARIANCES

1. The city manager or his/her designee of the City may, in writing, grant temporary variance for existing water uses otherwise prohibited under this Plan if it is determined that failure to grant such a 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.
2. Persons requesting an exemption from the provisions of this Ordinance shall file a petition for variance to the City within 5 days after the Plan has been initiated or a particular drought response stage has been invoked. Persons requesting such an exemption shall file the petition with the city in which water service is purchased. All petitions for variances shall be reviewed by the city manager or his/her designee of the City and shall include the following:

### J. ENFORCEMENT

No person shall knowingly or intentionally allow the use of water from the City 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 city manager or his/her designee of the City, in accordance with provisions of this Plan.

Any person who violates this Plan is guilty of a misdemeanor and, upon conviction shall be punished by a fine not to exceed 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 or more distinct violations of this Plan, the city manager or his/her designee of the City 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 fifty dollars (\$50.00), and any other costs incurred by the City in discontinuing service. In addition, suitable assurance must be given to the city manager or his/her designee of the City, 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.

Any person, including a person classified as a water customer of the City, 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.

Any employee of the City police officer, or other employee designated by the city manager or his/her designee of the City, 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 Municipal Court, as appropriate, 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 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 the Municipal Court, a warrant for his/her arrest may be issued. A summons to appear may be issued in lieu of an arrest warrant. These cases shall be expedited and given preferential setting in the Municipal Court before all other cases.

# DROUGHT CONTINGENCY PLAN (DCP)

Measures to inform and educate the public on the preparation of the DCP.



- (3) The City water system fails – from acts of God (tornadoes, hurricanes) or man. Severe condition is reached immediately upon detection.
- (4) Any mechanical failure of pumping equipment or system component failure which will require more than 12 hours to repair which causes a loss of capability to provide water service in the City
- (b) Requirements for termination - Stage 3 of the Plan may be rescinded by the city manager or his/her designee of the City 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 as directed by the city manager or his/her designee of the City

## F. NOTIFICATION AND PUBLIC EDUCATION

1. Public Meeting – This plan has been presented to the public at a formal public meeting with a request for comments.
2. Public notification of the initiation or termination of drought response stages shall be by means of publication in the *Station Eagle* and public service announcements on KBTX – Channel 3. Additional methods of public notification may include signs posted in public places, utility bill inserts, and other means to be determined by the city manager or his/her designee of the City
3. When mandatory restrictions are enacted with the initiation of Stage 2 and/or Stage 3, the Executive Director of TNRCC will be notified, at a minimum via telephone, within five (5) business days.
4. Public Education of the Plan will be provided periodically to update the public with information about the conditions under which each stage of the Plan is to be initiated or terminated as well as the drought measures to be implemented in each stage. This information may be provided through utility bill inserts, public events, or other means as to be determined by the City manager or his/her designee of the City

## G. DROUGHT RESPONSE STAGES

The city manager or his/her designee of the City shall monitor water supply and/or demand conditions on a daily basis and, in accordance with the triggering criteria set forth in Section E of the Plan, shall determine that a voluntary, moderate or severe water shortage condition exists and shall implement the following actions upon publication of notice in the *Station Eagle*:

### 1. Stage 1 - Voluntary Water Conservation Conditions

The goal for Stage 1 of the Plan is to raise public and customer awareness of water demand conditions.

# WATER CONSERVATION PLAN CHECKLIST

Rev.1/08/2013

- The fifteenth Water Conservation Plan requirement is the inclusion of an official adoption of your Plan.

The demand management measures should curtail nonessential water uses, for example, outdoor water use.

3. \_\_\_ **Initiation and termination procedures.** The drought plan must include specific procedures to be followed for the initiation or termination of each drought response stage, including procedures for notification of the public.
4. \_\_\_ **Variances and enforcement.** The plan should specify procedures for considering (approving and denying) variances to the plan. Equally as important is the inclusion of provisions for enforcement of any mandatory water use restrictions, including specification of penalties for violations of such restrictions.
5. \_\_\_ **Measures to inform and educate the public.** Involving the public in the preparation of the drought contingency plan provides an important means for educating the public about the need for the plan and its content.

0. \_\_\_ **Adoption.** No water conservation plan is complete without formal adoption by the governing body of the entity. For a municipal water system, adoption would be by the city council as an ordinance, or a resolution by an entity's board of directors.

P. \_\_\_ **Reporting Requirement:** Identify who will be responsible for preparing the annual report on the utility profile form TWDB-1965. Loan/Grant Recipients must maintain an approved water conservation program in effect until all financial obligations to the state have been discharged and shall report **annually** to the executive administrator of the TWDB on the progress in implementing each of the minimum requirements in its water conservation plan and the status of any of its customers' water conservation plan required by contract. The content and format for the annual reporting is included in the forms: *Water Conservation Plan Annual Report*, TWDB-1966 for retail water suppliers, TWDB-1967 for non-water suppliers and TWDB-1969 for wholesale water suppliers.

For information and assistance for utilities requesting TWDB financial assistance contact:

Water Conservation Plans  
Texas Water Development Board  
P.O. Box 13231  
Austin, Texas 78711-3231  
[wcpteam@twdb.texas.gov](mailto:wcpteam@twdb.texas.gov)  
512-463-7955

Water Conservation Plan Forms:

<http://www.twdb.texas.gov/conservation/municipal/plans/index.asp>

Best Management Practices Information:

<http://www.twdb.texas.gov/conservation/bmps/index.asp>

Quantification Techniques:

<http://www.twdb.texas.gov/conservation/municipal/plans/doc/GDSReport.pdf>

# PLAN ADOPTION

- Your Plan is not complete unless a signed copy of the official adoption is included.

RESOLUTION NO. 04-23-09-2h

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF Another City TEXAS, APPROVING AN AMENDED CITY OF Another City WATER CONSERVATION PLAN AS REQUIRED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ).

WHEREAS, the City Council of the City of Another City, Texas, adopted a Water Conservation Plan on June 27, 1996 and

WHEREAS, the City Council of the City of Another City approved an updated Water Conservation Plan in October 2006 as a requirement for filing its application for a Bed and Banks permit with the TCEQ; and

WHEREAS, effective January 10, 2008, Water Conservation Plans are required to be reviewed and updated every five years to include specific quantified five-year and ten-year targets for water savings to include goals for water loss programs and goals for municipal use, in gallons per capita per day; now, therefore,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF Another City, TEXAS:

PART 1: That the City Council hereby approves an Amended Water Conservation Plan, a copy of which is attached hereto as Exhibit "A".

PART 2: That this resolution shall take effect immediately from and after its passage.

ADOPTED this 23rd day of April, A.D. 2009.

ATTEST:

Connie F. Holt  
City Secretary

APPROVED:

Super M. Valencia  
MAYOR Mayor Pro Tem

APPROVED:

Carla A. Robinson  
City Attorney

# WATER CONSERVATION PLAN CHECKLIST

Rev.1/08/2013

- The final Water Conservation Plan requirement is to report annually on the effectiveness of your Plan by submitting a Water Conservation Plan Annual Report every year.

The demand management measures should curtail nonessential water uses, for example, outdoor water use.

3. Initiation and termination procedures. The drought plan must include specific procedures to be followed for the initiation or termination of each drought response stage, including procedures for notification of the public.
4. Variances and enforcement. The plan should specify procedures for considering (approving and denying) variances to the plan. Equally as important is the inclusion of provisions for enforcement of any mandatory water use restrictions, including specification of penalties for violations of such restrictions.
5. Measures to inform and educate the public. Involving the public in the preparation of the drought contingency plan provides an important means for educating the public about the need for the plan and its content.

0. Adoption. No water conservation plan is complete without formal adoption by the governing body of the entity. For a municipal water system, adoption would be by the city council as an ordinance, or a resolution by an entity's board of directors.

P. Reporting Requirement: Identify who will be responsible for preparing the annual report on the utility profile form TWDB-1965. Loan/Grant Recipients must maintain an approved water conservation program in effect until all financial obligations to the state have been discharged and shall report **annually** to the executive administrator of the TWDB on the progress in implementing each of the minimum requirements in its water conservation plan and the status of any of its customers' water conservation plan required by contract. The content and format for the annual reporting is included in the forms: *Water Conservation Plan Annual Report*, TWDB-1966 for retail water suppliers, TWDB-1967 for non-water suppliers and TWDB-1969 for wholesale water suppliers.

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Quantification Techniques:

<http://www.twdb.texas.gov/conservation/municipal/plans/doc/GDSReport.pdf>

# ANNUAL REPORT

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- The Annual Report (AR) is due May 1<sup>st</sup> of every year.
  - There are three different AR forms; one for retail water suppliers, one for wholesale water suppliers, and one for non-water suppliers.
  - The AR should be submitted using the [online forms](#).
  - AR [tutorials](#) are provided to assist you with submitting these forms.

# WATER CONSERVATION PLAN

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- Once your Plan is submitted, TWDB staff will review your Plan for completeness.
- Additional comments or questions should be directed to [wcpteam@twdb.texas.gov](mailto:wcpteam@twdb.texas.gov).

For additional help, contact:

**TWDB MUNICIPAL: 512-463-7955**

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