

**11986 US HIGHWAY 190 EAST** 

**KEMPNER, TX 76539** 

(254) 547-9430 or (512) 932-3701

www.KEMPNERWSC.com

# WATER CONSERVATION, DROUGHT CONTINGENCY, AND EMERGENCY RESPONSE PLAN

2014

Revised: 7/15/15

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# **Overview**

### DEFINITIONS

Water Conservation Plan - A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water.

Drought Contingency Plan - A strategy or combination of strategies for temporary supply and demand management responses to temporary and potentially recurring water supply shortages and other water supply emergencies. A drought contingency plan may be a separate document identified as such or may be contained within another water management document(s).

### OBJECTIVE

Kempner Water Supply Corporation (the Utility) recognizes that the amount of water available to the Utility and its water customers may be limited and subject to depletion during periods of extended drought. Representing the best interests of the customers of the Utility, the Board of Directors and General Manager deem it expedient and necessary to establish certain rules and policies for the ongoing conservation of water and the orderly and efficient management of limited water supplies during drought and other water supply emergencies.

### STATUTORY AND RULE REQUIREMENTS

### WATER CONSERVATION PLAN

Texas Water Code §13.146. WATER CONSERVATION PLAN. The commission shall require a retail public utility that provides potable water service to 3,300 or more connections to submit to the executive administrator of the board a water conservation plan based on specific targets and goals developed by the retail public utility and using appropriate best management practices, as defined by Section 11.002, or other water conservation strategies.

Title 30 Texas Administrative Code, Chapter 288.30(10)(A) Water conservation plans for retail public water suppliers. For retail public water suppliers providing water service to 3,300 or more connections, a water conservation plan meeting the minimum requirements of Subchapter A of this chapter and using appropriate best management practices must be developed, implemented, and submitted to the executive administrator of the Texas Water Development Board not later than May 1, 2009, and every five years after that date to coincide with the regional water planning group.

### DROUGHT CONTINGENCY PLAN

Texas Water Code §11.1272. ADDITIONAL REQUIREMENT: DROUGHT CONTINGENCY PLANS FOR CERTAIN APPLICANTS AND WATER RIGHT HOLDERS. (a) The commission shall by rule require wholesale and retail public water suppliers and irrigation districts to develop drought contingency plans consistent with the appropriate approved regional water plan to be implemented during periods of water shortages and drought.

Title 30 Texas Administrative Code, Chapter 288.30(5)(A) For retail public water suppliers providing water service to 3,300 or more connections, the drought contingency plan must be submitted to the executive director not later than May 1, 2005. Thereafter, the retail public water suppliers providing water service to 3,300 or more connections shall submit the next revision of the plan not later than May 1, 2009, and every five years after that date to coincide with the regional water planning group.

Title 30 Texas Administrative Code, Chapter 288.30(6) Drought contingency plans for wholesale public water suppliers. Wholesale public water suppliers shall submit a drought contingency plan meeting the requirements of Subchapter B of this chapter to the executive director not later than May 1, 2005, after adoption of the drought contingency plan by the governing body of the water supplier. Thereafter, the wholesale public water suppliers shall submit the next revision of the plan not later than May 1, 2009, and every five years after that date to coincide with the regional water planning group.

### EMERGENCY RESPONSE

Title 30 Texas Administrative Code, Chapter 288.20(a)(1)(E) The drought contingency plan must include drought or emergency response stages providing for the implementation of measures in response to at least the following situations: (i) reduction in available water supply up to a repeat of the drought of record; (ii) water production or distribution system limitations; (iii) supply source contamination; or (iv) system outage due to the failure or damage of major water system components (e.g., pumps).

### ADDITIONAL REPORTING REQUIREMENTS

### TWDB Annual Reports:

- May 1 Annual Water Conservation Report
- March 1 Water Use Survey Annual

May 1 - Water Loss Audit – Annual



# INTRODUCTION

# Introduction

Kempner WSC (KWSC) is a public water supplier providing water service to residents in Bell, Burnet, Coryell, and Lampasas counties. Formed in 1973, the population of the utility has continued to grow through the years. KWSC currently serves nearly 15,000 customers over 310 square miles.

The area receives an average rainfall of 29.9 inches per year and averages 60 days with rainfall each year. The climate fluctuates from an average high temperature of 96.5 degrees in August to an average low temperature of 32.6 degrees in January. The Utility is located within the boundaries of the Region G and K Water Planning Groups.

The source of water for KWSC is 100% surface water from Stillhouse Hollow Lake. Water is treated by KWSC at the Cliff and Eldine Poe Regional Water Treatment Plant. Water is purchased through a water supply contract with Central Texas WSC. Wholesale water service is also provided to the City of Lampasas and Salado WSC.



WATER CONSERVATION PLAN

# WATER CONSERVATION PLAN



# UTILITY PROFILE

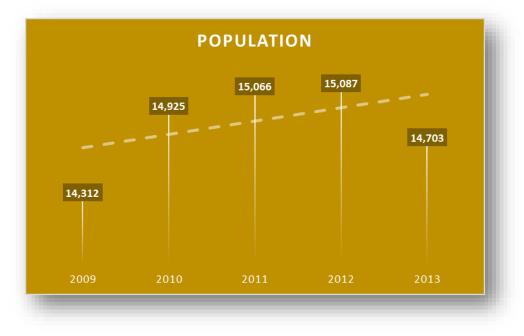
# **Utility Profile**

A completed TWDB Utility is attached in Appendix A.

CCN#: 10456 PWS#: 1410028 RWPG: Region G and Region K Planning Groups COUNTY: Bell, Burnet, Coryell, and Lampasas SERVICE AREA: 310 square miles WATER SOURCE: Stillhouse Hollow Lake DESIGNED DAILY CAPACITY: 7,080,000 gallons STORAGE CAPACITY: 12,600,000 gallons

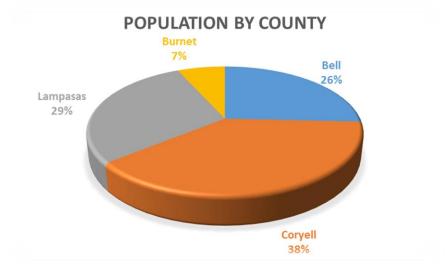
### POPULATION

The population of KWSC was calculated by assigning a single-family equivalent of 3 people per connection and a multi-family equivalent of 1.5 people per connection.

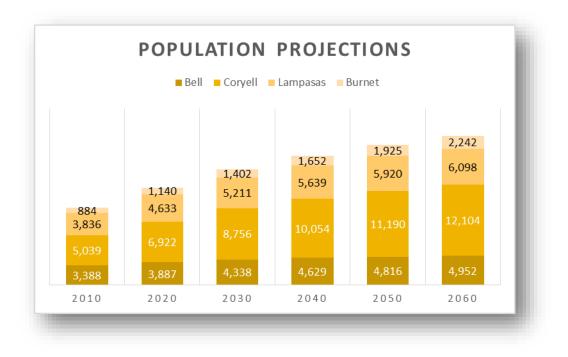


# UTILITY PROFILE

The population of KWSC is divided within 4 counties, Bell, Burnet, Coryell, and Lampasas.



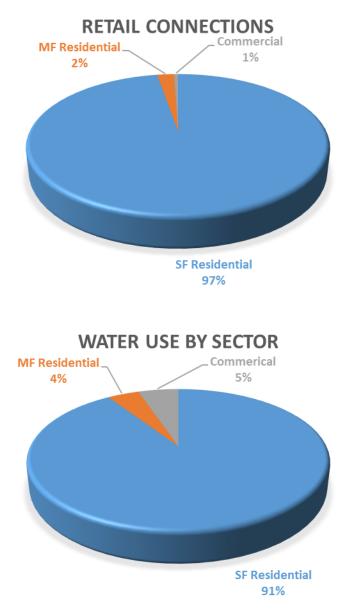
The combined Region G Water Planning group (Bell, Coryell, and Lampasas Counties), the Region K Planning Group (Burnet County), and the TWDB 50-year population projections for KWSC are shown below:



# UTILITY PROFILE

### WATER USE

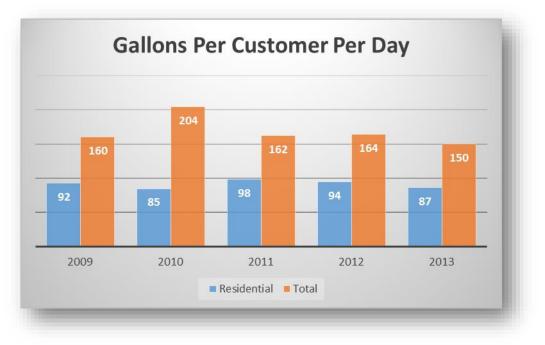
The primary water use sector for KWSC is single-family residential use, accounting for 97% of retail service connections and 91% of total water use.



# Water Conservation Goals

Per capita water use is generally expressed in gallons per customer per day (GPCD) and is the average amount of water used by each person in the population served by a water utility. Variable factors that can influence GPCD include the relative amount of non-residential water uses, the rate and type of growth, economics, climatic conditions, and demographics. Residential GPCD is a superior metric for understanding how much water each customer is actually using and does not include commercial, industrial, and institutional uses.

For the previous 5 years, the average number of gallons per person per day for KWSC was 168 for Total GPCD and 91 for Residential GPCD. Single family use accounts for of 91% of residential use in the service area. The previous 5 years of per capita water use is shown below.



# WATER CONSERVATION GOALS

KWSC's 5 and 10-year Water Conservation Goals are based upon the Texas Water Conservation Implementation Task Force's recommendation of a reduction in per capita water use by 1% per year. Per capita usage and water loss goals (discussed in greater detail on page 14) are shown below. The General Manager will assess KWSC's progress in achieving the stated goals and assess the effectiveness of water conservation activities on an annual basis.





# PUBLIC EDUCATION (CONSERVATION)

# Public Education (Conservation)

KWSC conducts a program of ongoing public water conservation education that includes:

Periodic distribution of water conservation brochures and information	Availability of water conservation brochures and materials at the main office and other public places	Informational presentations by Utility staff to local organizations, schools, and civic groups
Information provided to local newspaper, television, and radio outlets	Water Conservation information posted on website	Water conservation information provided to applicants for new service



# METERS

# Meters



KWSC meters 100% of water use in residential, industrial, and commercial accounts. Meters are tested upon customer request. Per the Utility's meter testing, repair, and replacement program:

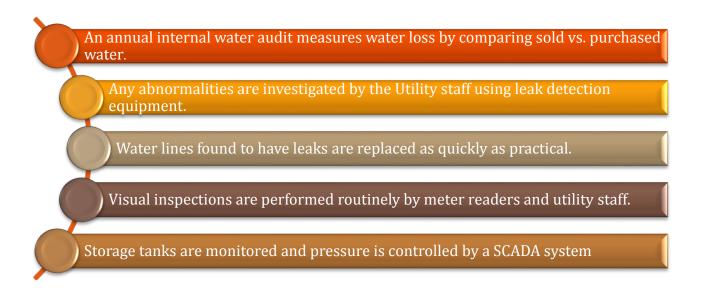
Master meters are tested and calibrated periodically to within an accuracy of plus or minus 5% All retail meters are tested and calibrated or replaced in accordance with AWWA standards after every 10 years

Meters that have abnormally high or low water usage are changed out as they are identified

# WATER LOSS

# Water Loss

KWSC maintains an ongoing program of leak detection and repair. In 2013, water loss for the Utility was calculated to be 22%. Much of the water loss in recent years can be attributed to leaks caused by ground shifting and fire suppression, both associated with severe drought conditions. The long term goal is to maintain less than 15% water loss.



As a rural water system that covers a large geographic area, KWSC relies upon customers to report any leaks or water loss observed. Future strategies to minimize water loss include the installation of in-line meters at critical points of the system. KWSC continues to explore new practices and technologies to minimize the loss of water.



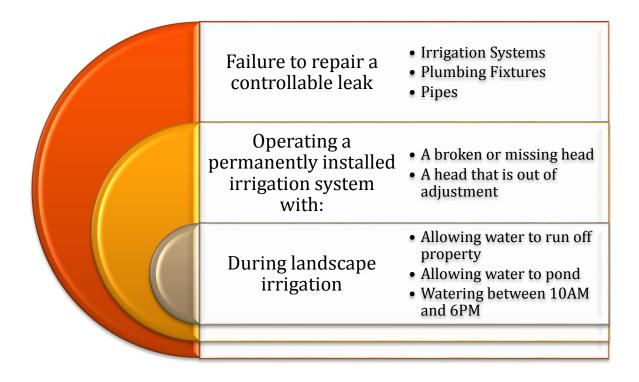
# WATER RATES

# Water Rates

KWSC has a uniform water rate structure that is cost based and does not encourage the excessive use of water. All water customers are subject to the same uniform rate per 1,000 gallons. The Utility will continue to review rates annually to ensure that the cost of service is being met and to discourage excessive and wasteful use.

# Water Waste

Water waste is prohibited at all times. Water waste is defined as:



Each instance of a violation is a separate offense and may be punishable by as described in the Enforcement section of this plan.

# PLUMBING FIXTURES

# **Plumbing Fixtures**

The State of Texas has recently adopted more stringent water saving performance measures for plumbing fixtures, found in the Health & Safety Code Chapter 372. The following maximum flow standards are subsequently listed in the Texas Administrative Code Title 30 Chapter 290 Subchapter G:



Customers in existing buildings that do not have water saving plumbing fixtures are encouraged through educational materials to retrofit their old plumbing fixtures. Additionally, in recent years there have been an increasing number of water efficient clothes and dish washing machines available that provide the same performance, but use less water. A water efficient home can save more than 20% of annual indoor water use.

# LANDSCAPE POLICIES

# Landscape Policies

#### Irrigation Audits

# An audit for residential, commercial, and institutuional irrigation systems will be available.

- The results of an audit will show the DU (Distribution Uniformity: A measure of the actual system performance), seasonal scheduling, and potential cost savings.
- With proper landscape irrigation management, not only will water usage be reduced, but the quality of the landscape can be preserved or increased.

### Landscape Irrigation

#### Commercial, Industrial, and Residential landscapes should implement the following water conservation measures.

- TCEQ requires all irrigation systems to be designed and installed by a Texas State liscensed professional
- All systems will have separate zones for turf and shrubs, sun and shade, high and low runoff areas.
- Irrigation heads should be located after a thorough evaluation of physical, environmental, and hydraulic site conditions. 'Head to Head' spacing should be the minimum standard, with consideration for wind conditions that will occur during the normal irrigation period.
- Do not allow irrigation water to land directly on impervious surfaces.
- A water budget consisting of: estimated monthly water use, area to be irrigated including application rates for each zone, and a monthly irrigation schedule for both new landscapes and established landscapes with subsequent seasonal adjustments.
- Over-watering needs to be avoided. During peak-use periods, apply the least amount of water necessary, while still keeping the plant material alive.
- Irrigation plans should identify the location of the emergency shut off valve.
- Adjustable flow control shall be required on all zone valves. Pressure regulation components will be installed where static pressure exceeds the manufacturer's recommended operating range.
- An automatic controller capable of dual or multiple programming capable of programming the appropriate watering schedule.
- All automatic controllers should be equipped with an automatic rain sensor shut off device.
- All irrigation systems must comply with TCEQ rules and regulations.

# LANDSCAPE POLICIES

### Landscape Installations Landscape installations should follow the proven principles listed below.

- Planning and design before installation.
- Have a soil analysis performed.
- Use adaptable and sustainable plants.
- Limit turf areas and preserve natural areas.
- Mulch all plantings.
- Install and maintain efficient irrigation systems.
- Landscape irrigation is supplemental.
- Maintain landscapes by properly responding to the changing requirements of plant materials and site conditions.



# **CROSS CONNECTION CONTROL**

# **Cross Connection Control**

KWSC maintains required cross connection control. Risk of backflow is reduced by taking steps to ensure that system pressures do not fall during periods of emergency repairs and asking for the cooperation of customers when there is a risk that system pressures could fall below safe levels. KWSC approved backflow assembly devices will be installed and inspected by a KWSC approved backflow assembly tester. Testing of all testable backflow assemblies will be required every three years with the exception of RPZ backflow assemblies which are required by TCEQ to be tested annually.



# WHOLESALE CONTRACTUAL PROVISION

# Wholesale Contractual Provision

Kempner Water Supply Corporation will include a requirement in every water supply contract entered into or renewed after official adoption of the water conservation plan, and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements of this chapter. If the customer intends to resell the water, then the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with applicable provisions of Title 30 Texas Administrative Code, Chapter 288.



# DROUGHT CONTINGENCY PLAN



# DECLARATION OF POLICY, PURPOSE, AND INTENT

# Declaration of Policy, Purpose, and Intent

In order to conserve the available water supply and protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, Kempner WSC hereby adopts the following regulations and restrictions on the delivery and consumption of water by Resolution.

Water uses regulated or prohibited under this Drought Contingency Plan are considered to be non-essential or discretionary and continuation of such uses during times of water shortage or other emergency water supply conditions are deemed to constitute a waste of water which subjects the offender(s) to penalties as defined in the Enforcement of Drought Contingency Plan section of this Plan.

# Authorization

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

# APPLICATION

# Application

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

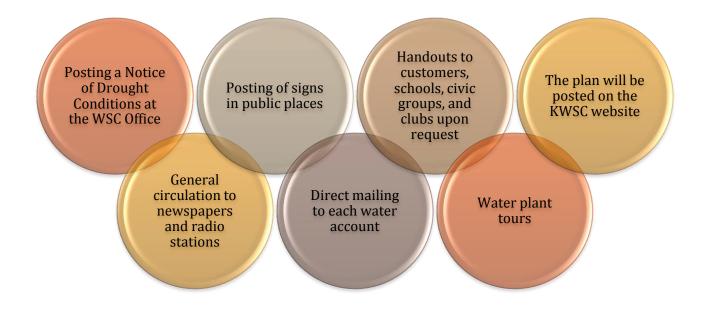
# Public Involvement



# PUBLIC EDUCATION (DROUGHT)

# Public Education (Drought)

KWSC will periodically provide the public with information about this Drought Contingency Plan, including information and/or notification about the conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage. Water conservation tips and information will also be provided. This information will be provided by means of:



On an ongoing basis, KWSC affirmatively provides the opportunity for customers to provide input regarding this Plan.

# **DISCRETIONARY USES**

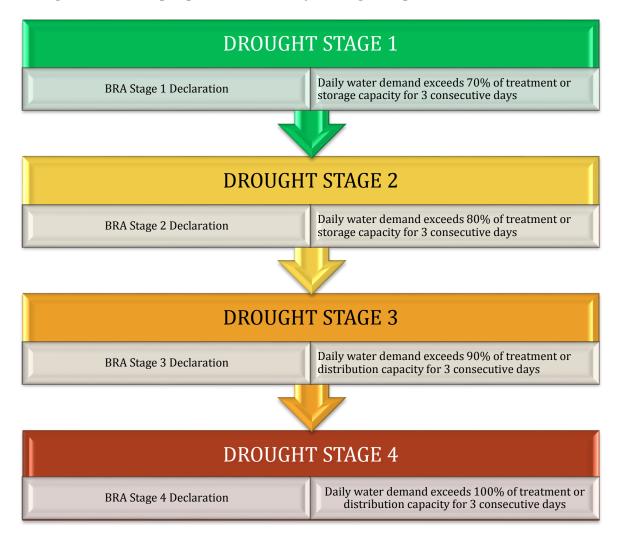
# **Discretionary Uses**



# DROUGHT AND EMERGENCY TRIGGERS

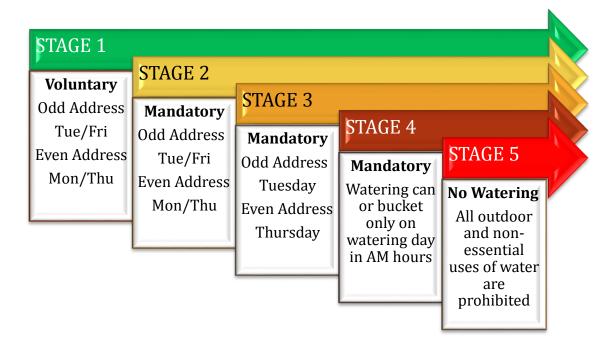
# **Drought and Emergency Triggers**

The General Manager monitors Brazos River Authority (BRA) reservoir storage levels and prepares a monthly drought report.



EMERGENCY STAGE 5			
Major water production or distribution limitations	Supply Source Contamination	System outage due to failure of major water system components	

# Watering Schedule





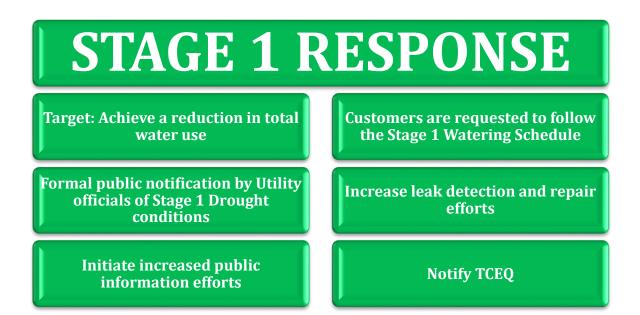
# **Response Stages**

During times when this Drought Contingency Plan is in effect, it is a violation of this Plan for any person, firm, corporation, or entity to irrigate landscapes between 8:00AM and 10:00PM.

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

- Local Fire Chief
- County Emergency Management Coordinators
- County Judge
- > DPS, Division of Emergency Management, (512) 424-2208
- TCEQ, Water Supply Division, (512) 239-4697

While this Drought Contingency Plan is in effect, water customers are requested to continue to practice water conservation and to minimize or discontinue water use for non-essential or discretionary purposes



# **STAGE 2 RESPONSE**

Target: Achieve a 10% reduction in total water use

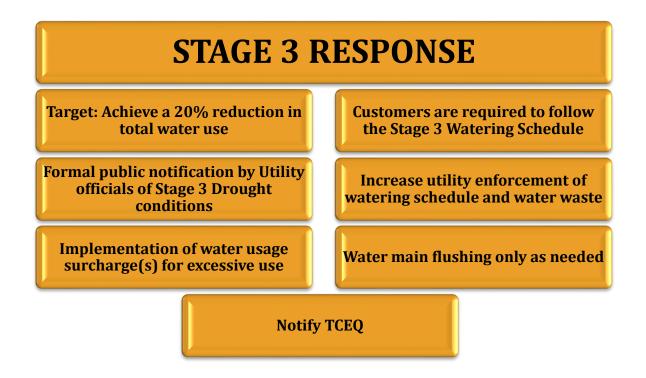
Formal public notification by Utility officials of Stage 2 Drought conditions

Parks, institutional, and commercial landscapes limited to drip and hand held hose Customers are required to follow the Stage 2 Watering Schedule

Increase utility oversight of watering schedule and water waste

Water main flushing only as needed

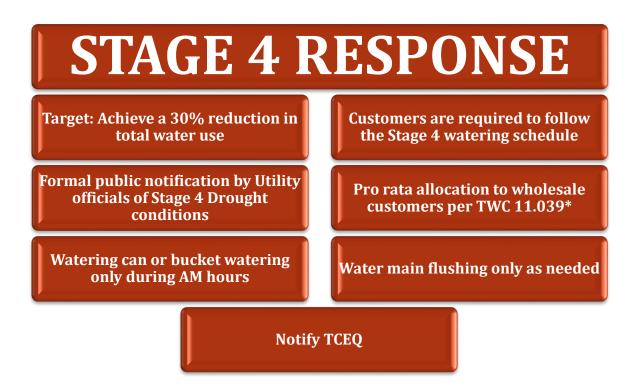
**Notify TCEQ** 



Water use surcharges to be implemented in Stage 3:



During Stages 3 and 4, members may apply for a variance, as described on page 35, from the above stated water use surcharges for up to 36,000 gallons. Agricultural variances must include a tax exemption certificate with the application. Variances will be approved on a case by case basis.



Water use surcharges to be implemented in Stage 4:



During Stages 3 and 4, members may apply for a variance, as described on page 35, from the above stated water use surcharges for up to 36,000 gallons. Agricultural variances must include a tax exemption certificate with the application. Variances will be approved on a case by case basis.



Notify TCEQ and appropriate Emergency contacts



# **EMERGENCY RESPONSE PLAN**

# **EMERGENCY RESPONSE PLAN**

### **Emergency water shortage**

In the event of an identified water shortage declaration, the Utility will distribute water to wholesale customers according to Texas Water Code, §11.039\* and initiate water allocation to municipal water customers.

#### Supply source contamination

In the event of a contamination event, appropriate emergency procedures will be implemented and appropriate emergency response officials will be notified immediately. In the event of a backflow incident, loss of pressure, or an Acute Maximum Contaminant Level coliform violation, a Boiled Water Notice will be implemented as prescribed in 30 TAC Chapter 290.

# System outage due to the failure or damage of major water system components

In the event of a catastrophic failure due to natural or man-made events, appropriate emergency procedures will be implemented and appropriate emergency response officials will be notified.

### **Alternative Sources**

In the event of an emergency loss of water supply, the KWSC will consider purchases of water by the truckload or in bottles for the health and public safety of the Utility's residents.

### EMERGENCY RESPONSE PLAN

### **TCEQ Security Notification**

Kempner WSC maintains internal procedures to notify the executive director by a toll-free reporting phone number (888-777-3186) immediately of the following events, if the event may negatively impact the production or delivery of safe and adequate drinking water:

- 1. An unusual or unexplained unauthorized entry at property of the public water system;
- 2. An act of terrorism against the public water system;
- 3. An unauthorized attempt to probe for or gain access to proprietary information that supports the key activities of the public water system;
- 4. A theft of property that supports the key activities of the public water system; or
- 5. A natural disaster, accident, or act that results in damage to the public water system.

# EMERGENCY RESPONSE PLAN

### **EMERGENCY CONTACT NUMBERS**

NATIONAL RESPONSE CENTER 1-800-	887-6063
	424-8802
HOMELAND SECURITY 1-202	<u>-282-8000</u>
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ)	
MAIN SWITCHBOARD 512-23	39-1000
WATER SUPPLY DIVISION 512-2	39-4691
HOMELAND SECURITY 512-23	39-2525
SHERIFF DEPARTMENT	
LAMPASAS COUNTY 512-55	56-8255
CORYELL COUNTY 254-86	65-7201
BELL COUNTY 254-63	34-1663
FIRE DEPARTMENT	
LAMPASAS 512-55	56-3446
KEMPNER 512-93	32-3993
COPPERAS COVE254-54	47-2091
SALADO 254-94	47-8961
KEMPNER WSC MANAGEMENT	
DELORES GOODE – GM 254-68	31-8042
JW WARD – FIELD MANAGER 512-73	34-3813
MATT MONFREDA – PLANT MANAGER 512-73	34-2301
JIM HUBBARD – FINANCIAL MANAGER 254-29	90-9443
SUSAN ISENBURG – OFFICE MANAGER 512-73	34-2048
ON-CALL EMPLOYEE 512-55	56-7511
BOARD OF DIRECTORS	
REX HOOTEN 325-66	60-3547
ORVILLE MAANINGA – VICE PRESIDENT 254-29	90-1722
SHIELA SELLERS – SEC/TREASURER 254-36	58-1843

### EMERGENCY RESPONSE PLAN

KWSC will include a provision in every wholesale water contract entered into or renewed after adoption of the plan, including contract extensions, that in the case of a shortage of water resulting from drought, the water to be distributed shall be divided in accordance with Texas Water Code, §11.039\*.

### \* Texas Water Code, Sec. 11.039.

### DISTRIBUTION OF WATER DURING SHORTAGE.

(a) If a shortage of water in a water supply not covered by a water conservation plan prepared in compliance with Texas Commission on Environmental Quality or Texas Water Development Board rules results from drought, accident, or other cause, the water to be distributed shall be divided among all customers pro rata, according to the amount each may be entitled to, so that preference is given to no one and everyone suffers alike.

(b) If a shortage of water in a water supply covered by a water conservation plan prepared in compliance with Texas Commission on Environmental Quality or Texas Water Development Board rules results from drought, accident, or other cause, the person, association of persons, or corporation owning or controlling the water shall divide the water to be distributed among all customers pro rata, according to:

(1) The amount of water to which each customer may be entitled; or

(2) The amount of water to which each customer may be entitled, less the amount of water the customer would have saved if the customer had operated its water system in compliance with the water conservation plan.

(c) Nothing in Subsection (a) or (b) precludes the person, association of persons, or corporation owning or controlling the water from supplying water to a person who has a prior vested right to the water under the laws of this state.

### VARIANCES

## Variances

The General Manager or his/her designee may, in writing, grant temporary variance for existing water uses otherwise prohibited under this Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance and if one or more of the following conditions are met:

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

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

- 1. Name and address of the petitioner(s).
- 2. Purpose of water use.
- 3. Specific provision(s) of the Plan from which the petitioner is requesting relief.
- 4. Detailed statement as to how the specific provision of the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Ordinance.
- 5. Description of the relief requested.
- 6. Period of time for which the variance is sought.
- 7. Alternative water use restrictions or other measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date.
- 8. Other pertinent information.

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			CORPORATION		
	CUSTOMER	REQUEST FO	R VARIANCE		
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urpose of water use.					
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Other pertinent information	on				
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### ENFORCEMENT

# Enforcement

First Violation:

The customer will be notified by written notice of their specific violation.

Subsequent violations:

After written notice, the utility may install a flow restricting device in the line to limit the amount of water which will pass through the meter in a 24-hour period. The utility may charge the customer for the actual cost of installing and removing the flow restricting device.

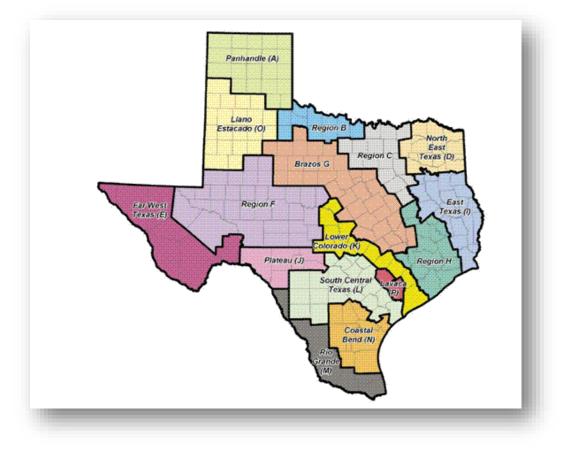
### COORDINATION WITH REGIONAL PLANNING GROUPS

# **Coordination with Regional Planning Groups**

The service area of the Kempner WSC is located within the Region G and Region K Water Planning Groups and the Utility will provide a copy of this Plan to the Planning Groups at:

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

Lower Colorado River Authority P.O. Box 220 Austin, TX 78767



### RESOLUTION

# Resolution

### RESOLUTION FOR ADOPTION OF A WATER CONSERVATION, DROUGHT CONTINGENCY. AND EMERGENCY RESPONSE PLAN

### A RESOLUTION OF THE BOARD OF DIRECTORS OF KEMPNER WATER SUPPLY CORPORATION ADOPTING A WATER CONSERVATION, DROUGHT CONTINGENCY, AND EMERGENCY RESPONSE PLAN.

WHEREAS, the Board recognizes that the amount of water available to Kempner Water Supply Corporation and its water utility customers is limited and subject to depletion during periods of extended drought;

WHEREAS, the Board recognizes that natural limitations due to drought conditions and other acts of God cannot guarantee an uninterrupted water supply for all purposes;

WHEREAS, the Water Code and the regulations of the Texas Commission on Environmental Quality (the "Commission") and the Texas Water Development Board (the "Board") require that the Utility adopt a Water Conservation, Drought Contingency, and Emergency Response Plan;

WHEREAS, as authorized under law, and in the best interests of the customers of the Kempner Water Supply Corporation, the Board deems it expedient and necessary to establish certain rules and policies for the orderly and efficient management of limited water supplies during drought and other water supply emergencies;

# NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF KEMPNER WATER SUPPLY CORPORATION:

SECTION 1. That the Water Conservation, Drought Contingency, and Emergency Response Plan attached hereto as Exhibit "A" and made part hereof for all purposes be, and the same is hereby, adopted as the official policy of Kempner Water Supply Corporation.

SECTION 2. That the General Manager is hereby directed to implement, administer, and enforce the Water Conservation, Drought Contingency, and Emergency Response Plan.

SECTION 3. That this resolution shall take effect immediately upon its passage.

DULY PASSED BY THE BOARD OF DIRECTORS OF THE KEMPNER WATER SUPPLY CORPORATION, ON THIS 15<sup>TH</sup> DAY OF JULY, 2015.

ATTESTED TO:

President, Board of Directors

Rex & Hoten Rex Hooten

Secretary, Board of Directors

Shilio Sellers Shelia Sellers

### CONTACT INFORMATION

# **Contact Information**

DELORES GOODE	
GENERAL MANAGER	

REX HOOTEN PRESIDENT



**Tel** (512) 932-2715 **Fax** (512) 932-2546 delores@kempnerwsc.com



**Tel** (512) 932-2715 **Fax** (512) 932-2546

Delores Goode – General Manager Rex Hooten – President Orville Maaninga – Vice President Shelia Sellers – Secretary Treasure Mack Carroll - Director George Gondorchin – Director Rex Hooten – Director Randy Lake – Director Orville Maaninga – Director George Schoenfeld – Director

# Appendix A – TWDB Utility Profile

Utility Profile TWDB Form No. 1965 - R Revised on: 9/1/13 Texas Water (San Development Board

#### 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: Kempner Water Supply Corpora	ition	
Public Water Supply Identification Number (PWS ID): _	1410028	
Certificate of Convenience and Necessity (CCN) Number		
Surface Water Right ID Number:		
Wastewater ID Number: <u>N/A</u>		
Completed By:		
Address: P.O. Box 103		
Email:	Telephone Number:	512-932-2715
Date: 2/7/2014		
Regional Water Planning Group: <u>G, K</u> <u>Map</u> Groundwater Conservation District: <u>N/A Map</u>		
Check all that apply:	nore from TWDB	

Have 3,300 or more retail connections

Have a surface water right with TCEQ

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

### 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.)
- Provide historical service area population for the <u>previous five years</u>, 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
2009	14,312		
2010	14,925		
2011	15,066		
2012	15,087		
2013	14,703		

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	16,582		
2030	19,707	el montre la construcción de la deservación de la construcción de la construcción de la construcción de la cons	
2040	21,974		
2050	23,851		
2060	25,396		

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

The population of KWSC was calculated by assigning a single-family equivalent of 3 people per connection and a multi-family equivalent of 1.5 people per connection.

Projected population was obtained from the Region G and Region K water plans.

Kempner WSC supplies a variable portion of water to its wholesale customers, the Cities of Lampasas and Salado, therefore, it was not possible to estimate projected wholesale population served.

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4.

## Texas Water (Second

#### 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
2009		1,240,094,800	401,938,000	838,156,800	160
2010		1,515,470,484	404,540,200	1,110,930,284	204
2011		1,394,069,400	505,722,400	888,347,000	162
2012		1,354,678,500	452,750,000	901,928,500	164
2013	and the second	1,304,011,800	497,595,200	806,416,600	150
Historic 5- year Average	0	1,361,664,997	452,509,160	909,155,837	168

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

1.	Designed daily ca	pacity of system		7,080,000 gallons per day	1.
2.	Storage Capacity:				
	Elevated	0	gallons		
	Ground	12,600,000	gallons		

#### 3. List all current water supply sources in gallons.

Water Supply Source	Source Type*	Total Gallons
Central Texas WSC	Contract	1,766,212,800
	Choose One	

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

If surface water is a source type, do you recycle backwash to the head of the plant?

• Yes \_\_\_\_\_\_ estimated gallons per day

O No

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

#### D. Projected Demands

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

Year	Population	Water Demands (gallons)
2014	14,971	918,021,720
2015	15,239	934,455,480
2016	15,507	950,889,240
2017	15,775	967,323,000
2018	16,043	983,756,760
2019	16,311	1,000,190,520
2020	16,582	1,016,808,240
2021	16,847	1,033,058,040
2022	17,115	1,049,491,800
2023	17,383	1,065,925,560

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

Population for the next 10 years was extrapolated using the equation y = 268.43x + 14435 obtained from the slope between the current population and the 2020 population. Water demand was projected using the average total GPCD for the last 5 years (168).

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#### E. High Volume Customers

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

Retail Customer	Water Use Category*	Annual Water Use	Treated or Raw
Metzger Enterprises	Commercial	18,174,000	Treated
Ratliff Ready Mix	Commercial	5,682,000	Treated
4 Jacks Ranch	Residential	2,096,000	Treated
McGehee Moblile Homes	Commercial	1,927,000	Treated
Scott Stone Mobile Homes	Commercial	1,742,000	Treated

\*For definitions on recommended customer categories for classifying customer water use, refer to the online <u>Guidance and</u> <u>Methodology for Reporting on Water Conservation and Water Use.</u>

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

Wholesale Customer	Water Use Category*	Annual Water Use	Treated or Raw
City of Lampasas	Municipal	497,595,200	Treated
Salado WSC	Municipal	20,731,200	Treated
	Choose One		Choose One
	Choose One		Treated
	Choose One		Choose One

\*For definitions on recommended customer categories for classifying customer water use, refer to the online <u>Guidance and</u> <u>Methodology for Reporting on Water Conservation and Water Use.</u>

#### F. Utility Data Comment Section

Provide additional comments about utility data below.

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Utility Profile TWDB Form No, 1965 - R Revised on: 9/1/13 Texas Water Component Board

### Section II: System Data

#### A. Retail Connections

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

	Active Retail Connections				
Water Use Category*	Metered	Unmetered	Total Connections	Percent of Total Connections	
Residential – Single Family	5,025		5,025	97%	
Residential – Multi-family (units)	108		108	2%	
Industrial			0	0%	
Commercial	25		25	0%	
Institutional			0	0%	
Agricultural			0	0%	
TOTAL	5,158	0	5,158		

\*For definitions on recommended customer categories for classifying customer water use, refer to the online <u>Guidance and</u> <u>Methodology for Reporting on Water Conservation and Water Use.</u>

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

	Net Number of New Retail Connections						
Water Use Category*	2009	2010	2011	2012	2013		
Residential – Single Family	4,659	4,869	4,968	4,975	4,847		
Residential – Multi- family (units)	223	212	108	108	108		
Industrial							
Commercial	25	25	25	25	25		
Institutional							
Agricultural							
TOTAL	4,907	5,106	5,101	5,108	4,980		

\*For definitions on recommended customer categories for classifying customer water use, refer to the online <u>Guidance and</u> <u>Methodology for Reporting on Water Conservation and Water Use.</u>

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

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#### B. Accounting Data

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

	Total Gallons of Retail Water					
Water Use Category*	2009	2010	2011	2012	2013	
Residential - Single Family	471,801,988	452,323,194	533,323,194	514,312,931	459,506,832	
Residential – Multi-family	29,017,940	21,771,520	23,354,520	20,522,210	20,632,970	
Industrial						
Commercial	11,615,460	13,044,470	18,423,760	23,502,680	26,250,600	
Institutional						
Agricultural						
TOTAL	512,435,388	487,139,184	575,101,474	558,337,821	506,390,402	

\*For definitions on recommended customer categories for classifying customer water use, refer to the online <u>Guidance and</u> <u>Methodology for Reporting on Water Conservation and Water Use.</u>

#### C. Residential Water Use

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

Water Use Category*	Residential GPCD					
	2009	2010	2011	2012	2013	
Residential - Single Family	92	85	98	94	87	
Residential – Multi-family						
TOTAL	92	85	98	94	87	

#### D. Annual and Seasonal Water Use

 For the <u>previous five years</u>, enter the gallons of treated water provided to RETAIL customers.

Month	Total Gallons of Treated Retail Water							
	2009	2010	2011	2012	2013			
January	59,294,040	59,513,931	61,866,383	58,389,150	61,703,280			
February	55,586,760	46,486,195	58,676,056	50,954,630	55,582,490			
March	60,531,161	52,434,402	63,136,566	53,247,040	60,777,100			
April	67,062,626	57,878,761	84,089,504	73,563,390	46,992,130			
May	71,636,214	71,570,952	94,420,062	88,310,800	82,118,380			
June	96,485,339	101,028,589	115,316,226	107,059,670	104,746,680			
July	130,323,889	94,197,492	147,908,390	107,423,150	128,173,090			
August	119,625,232	112,287,103	141,468,612	124,954,970	120,666,560			
September	88,380,972	91,004,706	124,362,231	104,616,630	110,305,130			
October	60,489,605	82,194,523	96,133,043	90,499,580	78,365,410			
November	56,842,127	62,973,969	67,756,314	80,074,383	66,532,070			
December	51,225,248	60,420,691	56,674,071	69,614,770	63,775,060			
TOTAL	917,483,213	891,991,314	1,111,807,458	1,008,708,163	979,737,380			

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### 2. For the <u>previous five years</u>, enter the gallons of raw water provided to RETAIL customers.

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

3. Summary of seasonal and annual water use.

Water Use 2	Seasonal and Annual Water Use					Average in
	2009	2010	2011	2012	2013	Gallons
Summer Retail (Treated + Raw)	346,434,460	307,513,184	404,693,228	339,437,790	353,586,330 _	350,332,998 5yr Average
TOTAL Retail	917,483,213	891,991,314	1,111,807,458	1,008,708,163	979,737,380	981,945,506
(Treated + Raw)					-	5yr Average

#### E. Water Loss

Provide Water Loss data for the previous five years.

Water Loss GPCD = [Total Water Loss in Gallons ÷ Permanent Population Served] ÷ 365 Water Loss Percentage = [Total Water Loss ÷ Total System Input] x 100

Year	Total Water Loss in Gallons	Water Loss in GPCD	Water Loss as a Percentage
2009		. 0	0%
2010	500,038,951	92	45%
2011	371,874,414	68	42%
2012	377,284,927	69	42%
2013	179,394,970	33	22%
5-year average	285,718,652	52	30%

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#### F. Peak Water Use

Provide the Average Daily Water Use and Peak Day Water Use for the previous five years.

Year	Average Daily Use (gal)	Peak Day Use (gal)	Ratio (peak/avg)
2009	2,296,320	5,900,000	2.57
2010	3,043,645	6,588,000	2.16
2011	2,433,827	7,415,000	3.05
2012	2,471,037	7,111,000	2.88
2013	2,209,361	6,176,000	2.80

#### G. Summary of Historic Water Use

Water Use Category	Historic 5-year Average	Percent of Connections	Percent of Water Use
Residential SF	486,253,628	97%	50%
Residential MF	23,059,832	2%	2%
Industrial	0	0%	0%
Commercial	18,567,394	0%	2%
Institutional	0	0%	0%
Agricultural	0	0%	0%

#### H. System Data Comment Section

Provide additional comments about system data below.

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Utility Profile TWDB Form No. 1965 - R Revised on: 9/1/13 Texas Water (San 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 <u>Water Conservation Plan Checklist</u> to complete your Water Conservation Plan.

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

1. Design capacity of wastewater treatment plant(s): <u>N/A</u> gallons per day.

	Active Wastewater Connections					
Water Use Category*	Metered	Unmetered	Total Connections	Percent of Total Connections		
Municipal			0	0%		
Industrial			0	0%		
Commercial			0	0%		
Institutional			0	0%		
Agricultural			0	0%		
TOTAL	0	0	0			

2. List the active wastewater connections by major water use category.

- 2. What percent of water is serviced by the wastewater system? \_\_\_\_\_%
- 3. For the <u>previous five years</u>, enter the number of gallons of wastewater that was treated by the utility.

	Total Gallons of Treated Wastewater					
Month	2009	2010	2011	2012	2013	
January						
February						
March	T.					
April						
May						
June						
July						
August						
September						
October						
November						
December						
TOTAL	0	0	0	0	0	

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

Can treated wastewater be substituted for potable water?
Yes
No

#### B. Reuse Data

1. Provide data on the types of recycling and reuse activities implemented during the current reporting period.

Type of Reuse	Total Annual Volume (in gallons)
On-site irrigation	
Plant wash down	
Chlorination/de-chlorination	
Industrial	
Landscape irrigation (parks, golf courses)	
Agricultural	
Discharge to surface water	
Evaporation pond	
Other	
TOTAL	0

#### C. Wastewater System Data Comment

Provide additional comments about wastewater system data below.

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### APPENDIX B – TWDB WATER CONSERVATION TIPS

# Appendix B – TWDB Water Conservation Tips

### **Bathroom:**

- Replace your showerhead with a water-efficient model.
- Get in the shower as soon as the water becomes warm enough.
- Take short showers.
- Take a shower instead of a bath. A shower with a water-efficient showerhead often uses less water than a bath.
- Reduce the level of water used in a bathtub by 1 or 2 inches if a shower is not available.
- Turn off the water while you are shaving. Fill the sink with hot water instead of letting the water run continuously.
- Replace your old toilet with a high-efficiency toilet that uses 1.28 gallons per flush.
- Test toilets for leaks. Once in a while, take the top off of your toilet tank and watch it flush. Do you notice any leaks? Yes? Replace the flapper or rubber washer. Don't forget about those less obvious leaks. Add a few drops of food coloring or a dye tablet to the water in the tank, but do not flush the toilet. If the coloring appears in the bowl within a few minutes, the toilet has a leak that needs to be repaired.
- Never use the toilet to dispose of trash.
- Don't waste water when brushing your teeth or washing your hands. Shut off the water until it's time to rinse.

### Kitchen:

• Run the dishwasher only when full. This practice will save water, energy, detergent, and money. If your dishes are not very dirty, use the

### APPENDIX B – TWDB WATER CONSERVATION TIPS

short wash cycle. You can spend less money on water and energy by installing a high-efficiency dishwasher.

- Install faucet aerators. You'll never notice the difference, and you'll cut your sink water consumption in half! Also, don't ignore leaky faucets.
- Keep a container of water in the refrigerator. It will be refreshingly cool and won't waste water.
- Dry scrape dishes instead of rinsing. Your dishwasher will take care of the rest.
- Use garbage disposals sparingly. They can waste water unnecessarily.
- Soak pans rather than scrubbing them while the water is running.
- Rinse vegetables in a pan of cold water.

### Laundry room:

- Conventional washing machines use 32 to 59 gallons of water per load.
- Wash only full loads.
- Use the lowest water level setting on the washing machine for light or partial loads whenever possible.
- Use cold water as often as possible to save energy and conserve hot water for uses that cold water cannot serve.

### Additional tips:

• Don't ignore leaky faucets; they are usually easy and inexpensive to repair. Turn off the valve under the sink until you get around to repairing the leak. A slow drip can waste as much as 170 gallons of water each day and will add to the water bill.

### APPENDIX B – TWDB WATER CONSERVATION TIPS

- Know where your master water shut-off valve is in case a pipe bursts. Insulate hot water pipes. You won't waste water waiting for it to get hot, and you will save energy too.
- Install water-softening systems only when necessary, and if you have one, save water and salt by running the minimum amount of regenerations necessary to maintain water softness.
- Replace water-to-air heat pumps and air conditioners with air-to-air if you are purchasing new units. They are just as efficient and do not waste water.
- Find other uses for water rather than letting it go down the drain, such as watering house plants with fish tank water.