City of Weslaco
Water Conservation and Drought Contingency Study

May 2009

Prepared for
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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

EXECUTIVE SUMMARY

The Texas Commission for Environmental Quality requires municipalities to adopt, monitor, and maintain both a Water Conservation Plan and a Drought Contingency Plan. The intent of these requirements is to promote water conservation and to help cities to develop plans to address drought related water shortages.

To develop these plans, this study analyzes recent and current water usage patterns, and current system capacities. This is done to provide the basis for the conservation and drought plans, and to begin to identify how those consumption plans and conservation proposals impact usable system capacities and available water rights, as well as a brief summary of the economics of sample conservation efforts. This identifies that a modest conservation plan would primarily include meter replacement & calibration, and public education efforts.. Such a plan would provide significant savings through reducing unbilled water and in delaying the need for additional water rights or treatment costs.

The City of Weslaco enjoys a privileged position in terms of the two water use indicators common in the industry. The Unaccounted-For Water, or the water produced but not sold, or water losses, has been decreasing in the last five years from 16% to 5%; this is considered very low since the "normal" value in the water industry is 15%. The second indicator, the per-capita use of water, or the amount of water the City produces to satisfy the community needs has also decreased from 154 to 143 gallons per capita per day. In comparison to others, the number is also very low, for example, the goal established by the Rio Grande Regional Water Planning Group for the per-capita consumption is 160 gpm, with a decrease in 40 years to 150 gpcd; Weslaco is already at that level.

The scenario is benign but the City must continue to make strides to reduce the water consumption so they can optimize their water resources. This study provides the elements needed to understand the current situation and prepare a strategy for the future. The study also provides an initial set of goals for water conservation that consider the average data for 2004-2008 period as the basis for calculating further reductions. This is done because, even though the indicators are trending down, there is still some variability that must be accounted for such as the influence of extremely wet weather in some years, before the indicators reliability is established.

An item of importance for the City of Weslaco is that current amount of water rights they own is very limited. The City would do well to purchase additional water rights to match their growth potential. Said purchases will be scrutinized by the TCEQ against the background of the water conservation plan, thus it is important for the City to begin implementation measures as soon as possible.

CHAPTER 1: INTRODUCTION

Overview

The City of Weslaco retained Tetra Tech to prepare a water conservation and drought response plan that meets the requirements of Title 30, Chapter 288 of the Texas Administrative Code (30 TAC § 288), as a continuation of the previously adopted 2005 study. The Texas Commission for Environmental Quality (TCEQ) requires water conservation plans to be updated every five years.

The study is needed to comply with the TCEQ requirements that all municipal water right holders of 1,000 acre-feet of water per year or more, and cities applying for a new water right or an amendment to an existing water right, must submit a water conservation and drought response plan.

The study will include a review of the City's current and future water demand, supply and production capacity, an analysis of water conservation opportunities and reduction goals with initial five and ten year water conservation targets; and preparation of the water conservation and drought contingency plans for adoption.

The study will establish a baseline to understand the current water demand, metered or unmetered, and develop steps to reduce it. The demand reduction should eventually result in a more durable water supply, i.e. satisfying the demand caused by the city's growth while limiting water right purchases.

As the City moves in the direction of water conservation and reuse, the water conservation plan will serve as a planning guide to create conservation activities and monitoring programs. The drought contingency and emergency response plan is designed to give the City clear guidelines and lines of authority during specific natural or man-made events that may disrupt the normal delivery of water service.

The study begins with a discussion of the regulatory requirements applicable to Weslaco, followed by a review of projected population growth and its impact on water demand as required by the State Water Plan (through the TWDB Region "M" Water Planning Group). Finally the most typical sources of water losses are analyzed to provide the City the basis for the implementation of programs destined to help them reach the five and ten year conservation goals of the plan.

Throughout the study a reference to per capita consumption is made as a useful tool to quantify water usage status and changes. The per capita consumption is a number that reflects the total amount of water produced divided by the total population, regardless of how the water is used.

Regulatory Requirements

The TCEQ has been moving in the direction of water conservation for many years, with requirements that started on January 1, 1992, when the Environmental Performance Standards for Plumbing Fixtures was enacted. The law mandates that plumbing fixtures sold in Texas meet specific water use efficiency standards. The program was expected to reduce per-capita municipal water consumption by 12 percent by the year 2020.

The water conservation rules under 30 TAC § 288 were adopted on October 2004 and amended on January 2008. These rules outline the minimum content requirements for the water conservation plan applicable to municipal users like the City of Weslaco.

Pursuant to the acquisition or amendment of water rights, the Commission must consider information in the City's water conservation plan to determine if feasible alternatives to the desired appropriation exist; if the proposed appropriation is reasonable and necessary for the proposed use; and to foster diligence in avoiding waste and conserving water. The review results will determine approval or denial of the requested appropriation.

The City has to submit the water conservation plan no later than May 1, 2009 and every five years after that date to coincide with the regional water planning process. The Chapter 288 Rules require specific, quantified five and ten year targets for water savings to be included in all water conservation plans.

In addition to the revised water conservation plans, water conservation Implementation Reports must be submitted to the TCEQ by May 1, 2009. The City is also required to file a report no later than May 1, 2010, and annually thereafter on the entity's progress in implementing the plan.

The Texas Water Development Board (TWDB) requires a municipality to have a water conservation plan on file in order to access the State Revolving Fund, and the investments must be in line with the state water plan. The City of Weslaco is affiliated with Region M of the Texas Water Development Board regional water planning groups, for the purpose of developing the state water plan, and is required to submit a water conservation plan as a part of the regional supply projections.

Service Area

The City of Weslaco is located in South Texas, east of McAllen and west of Harlingen in the Rio Grande Valley area. The City holds Certificate of Convenience and Necessity (CCN) no. 10568, serving an area of 12.9 square miles.

The City provides water to residential, commercial, and industrial concerns within its municipal boundaries and Extra-Territorial Jurisdiction (ETJ); the service are also includes subdivisions and *colonias* in the ETJ. In addition, Weslaco provides water on a wholesale basis to Military Highway and North Alamo Water Supply Corporations.

Wastewater service is provided inside the City limits and to selected developments in the ETJ.

Water System Description

The City of Weslaco has one water treatment plant originally constructed in 1945. The plant treats Rio Grande river surface water with a conventional surface water treatment and is rated at 8.25 MGD. A below-ground storage tank at the plant site has a capacity of 1.085 million

gallons. Over the last three years the plant worked at an average daily flow of 4.8 MGD, with a high production summer peaks nearing its rated capacity.

The distribution system includes 126 miles of transmission lines and water mains and it has three elevated storage tank with a combined capacity of 1.3 million gallons.

A Utility Profile meeting TCEQ requirements is included in Appendix A.

Wastewater System Description

The wastewater system includes 52 lift stations, and two wastewater treatment plants, with a combination of VCP and PVC pipe, ranging in size from 6 to 21 inches. A 30-in interceptor is being constructed.

The North WWTP is 3 MGD in capacity and the South WWTP. 2.5 MGD. Both plants treat water to a secondary level and discharge into unnamed tributaries. The North plant is operating at 70 percent capacity; its effluent continues to the Arroyo Colorado and eventually reaches the Laguna Madre in the Gulf of Mexico. The South plant is operating at 62 % capacity; its effluent takes the Rio Grande valley floodway to the Laguna Madre. The treatment plants are owned by the City of Weslaco and operated by CH2MHILL OMI.

CHAPTER 2: POPULATION GROWTH & WATER DEMAND

Population Growth

Weslaco's population has been growing at a 1.4% annual rate of growth, according to the Standard and Poor's report entitled Weslaco, Texas; General Obligation. Table 1 presents statistical information obtained from the US Census Bureau for the years 2003, 2005 and 2006. 2004 population was interpolated from 2003 and 2005 , and the population for 2007 and 2008 was derived using the above mentioned rate of growth factor.

Table 1. Population statistics for the City of Weslaco

Population History	
Year	**Population**
2004	30,929
2005	31,442
2006	32,092
2007	32,541
2008	32,997

The Texas Water Development Board (TWDB) State Water Plan requires that population projections be made based on U.S. Census information as modified by local, documentable factors, accepted by the Board. The planning group to which the City of Weslaco belongs, the Rio Grande River Water Planning Group, submitted population projections for the whole region, as shown in Table 2.

Table 2. Population Projection for Region M Water Planning Group

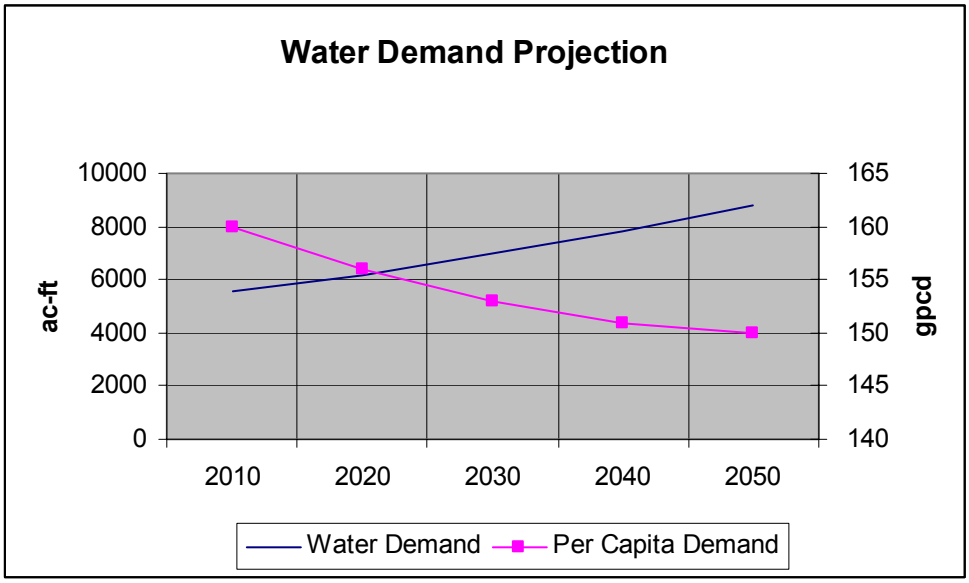
Population Forecast	
Year	**Population**
2010	30,878
2020	35,485
2030	40,645
2040	46,229
2050	52,328

There is a difference in population projections that is traditionally discussed in water planning. The official census data, which must be used, tends to be a lower number than what the cities experience historically. That is why the data in Tables 1 and 2 shows a discontinuity. Table 2 is extracted from the official State Water Plan information and presented unchanged.

Water Demand

The Rio Grande Water Planning Group studied the water supply options for cities along the Rio Grande River to diversify the available water sources; the group identified water conservation as one of the sources of water to be developed. Water demand targets for each community were developed based on census data and existing patterns, and to show the effects of water conservation, the per-capita (individual) water consumption for the next 50 years was also developed. Figure 1 summarizes the information pertaining to Weslaco.

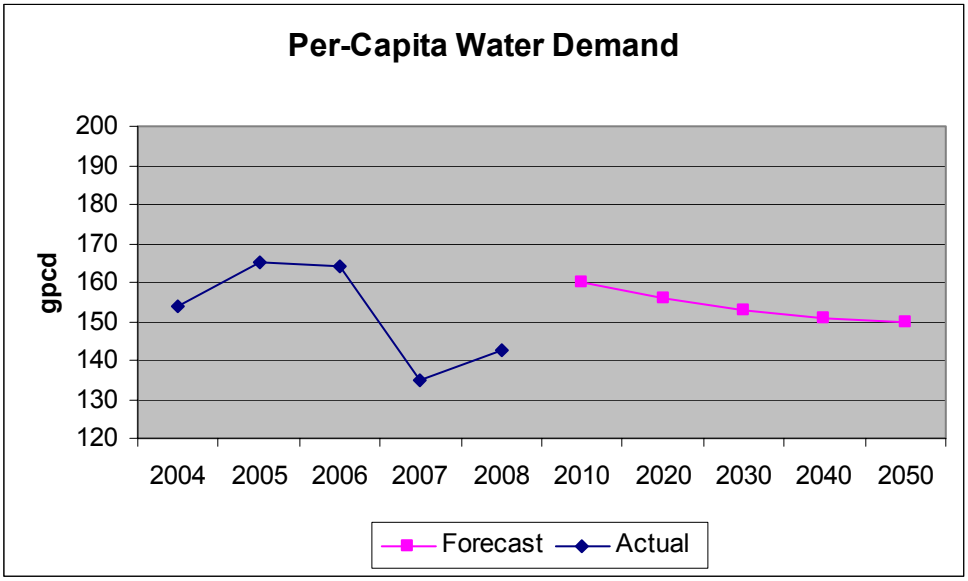
Figure 1. Water Demand and Per Capita Consumption Projection Based on Region M Water Planning Group



Weslaco's per-capita demand is relatively low when compared with other cities. The City has been successful in reducing the amount of water used per person below that of the Rio Grande Planning Group target. Figure 2 illustrates the actual performance of the Weslaco water system and the expected performance under the Water Planning Group 2010-2050 period.

It is important to note that the 2007 and 2008 marked decreases may be the result of extraordinarily wet years, which reduced the demand for outdoor water, thus the numbers cannot be taken as stable yet. Nevertheless, the average data for the 2004-2008 is a good starting point for the projections to come.

Figure 2. Comparison of Actual and Forecasted Per Capita Water Demand



Additional reductions in personal or institutional water use brought about by the implementation of the water conservation plan should result in even lower indicator numbers.

Water Rights

The City has municipal water rights totaling 7,976.25 ac-ft. 7,240 ac-ft is owned by the Hidalgo and Cameron Counties Water Control and Improvement District No. 9 (the District), in Mercedes, Texas. The balance, 736.25 ac-ft, is the City's own water rights. Of the water held by the District, 5,240 are under one adjudication specifically tagged to the City, and approximately 2,000 ac-ft are available for City use under the general District adjudications. The water is conveyed by the District to Weslaco through its canal system, and delivers it at a pump station owned by the City. .

The highest historical use is 5,908 ac-ft (1,925,124 Kgal/yr in 2006) or 74 percent of its water rights. Subsequently the City has seen a reduction in the use of water rights to 5,273 ac-ft/yr, or 66 percent of its supply (1,718,206 Kgal/yr in 2008).

The City owns one well with a capacity of 1.44 MGD. The well is located inside the City limits and draws water from a local aquifer. The supply is not yet considered reliable, as groundwater studies have not been made to understand the aquifer behavior.

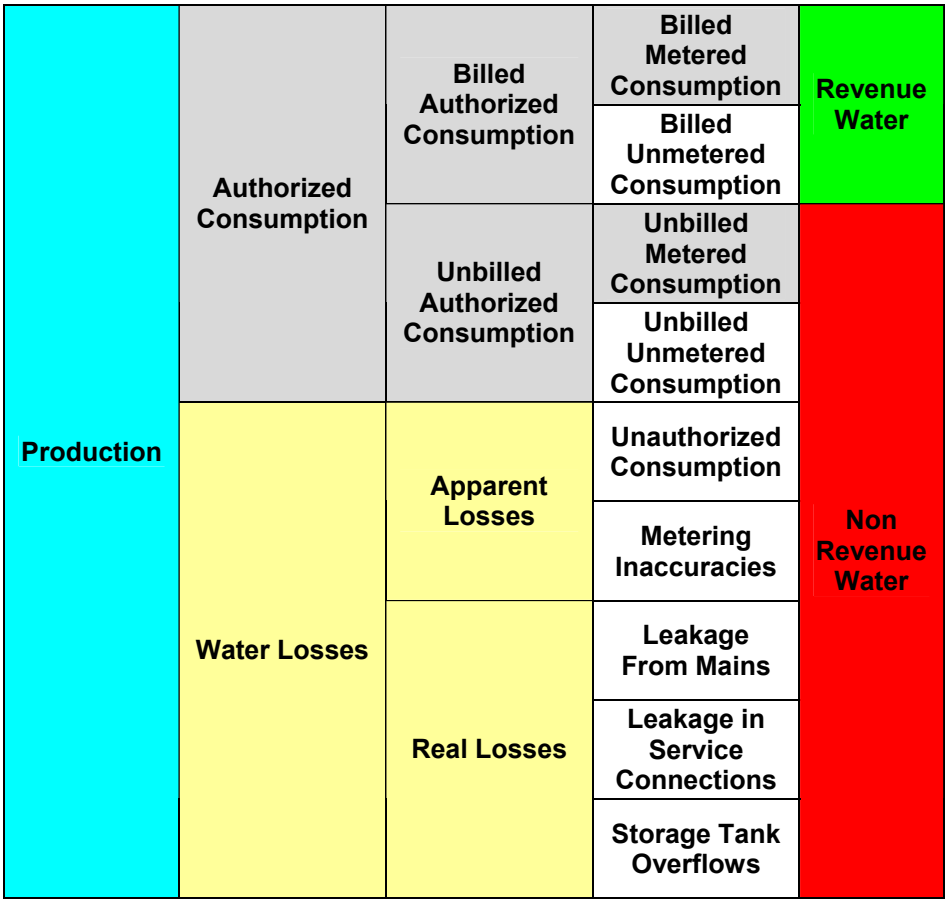
CHAPTER 3: WATER LOSSES / UNBILLED WATER

Water Losses

Water systems lose water physically through pipe or services leaks, system overflow, or theft; or virtually, through metering inaccuracies or unmetered services. Every category contributes to the difference between the amount of water produced at the plant minus the amount billed which, when expressed as a percentage of production, is known as unbilled, or unaccounted-for water.

Figure 3 illustrates the distribution of the water produced into "authorized consumption" and "water losses", with subcategories that suggest how the fate of the water once it leaves the production facility. The white blocks indicate the categories that as a whole constitute the unbilled water. The categories are developed in Appendix C as a tool to help define the water conservation goals for the City.

Figure 3. Fate of water in the distribution system

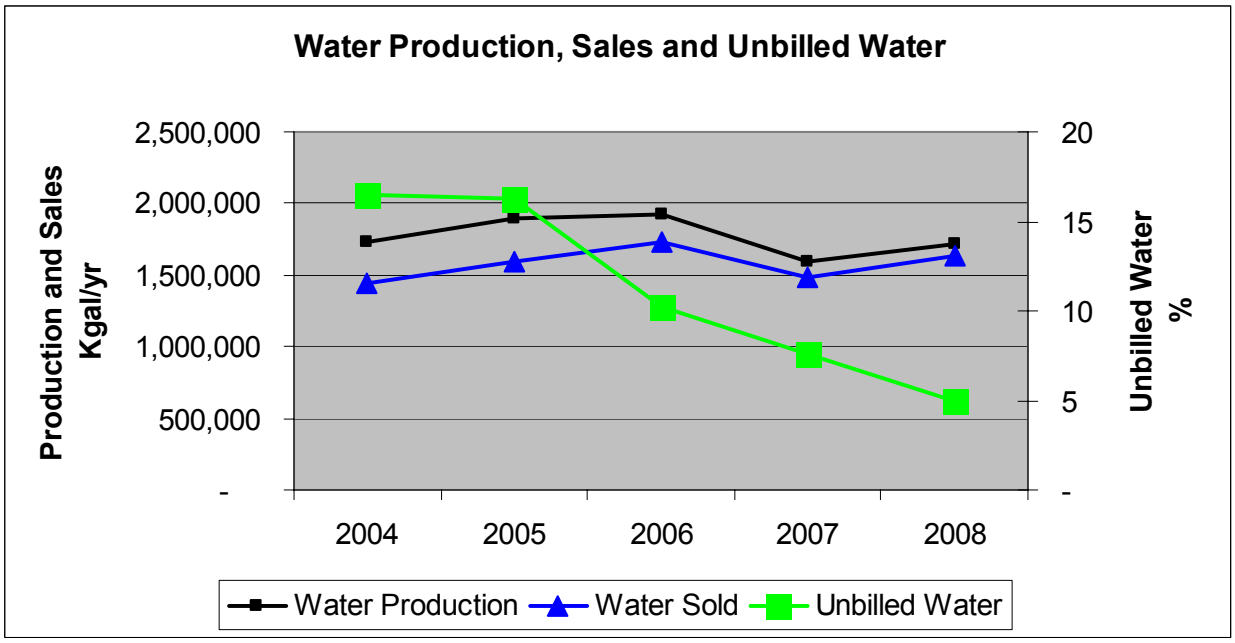


Unaccounted-For Water

Unaccounted-For Water is defined as the total amount of water that is produced but not metered. The term unbilled water is also used to reflect the fact that the water is produced and delivered somewhere but not sold, in fact it is water that carries all production and distribution cost but it is not "sold" to anyone, thus not billed, with obvious negative impacts in the financial health of the system. It is desirable for the City to understand how this water is used so that a program to minimize it in some other way can be developed.

Figure 4 is a graphic representation of the water production and sales for the last five years. The green line (unbilled water) represents the difference between production and sales, expressed as a percentage of production. The City of Weslaco's unbilled water is low in comparison to the industry where 15 % is considered normal, and trending down.

Figure 4. Water Production, Sales, and Unbilled Water



Meter Calibration and Replacement

An important source of unbilled water comes from meter inaccuracies. This is recognized by the TCEQ in their requirement that municipal water systems use meters with a guaranteed accuracy of at least 95%. The meter manufacturing industry in general designs meters that meet that requirement and since the City uses major meter brands, it is reasonable to expect at least that accuracy on new meters.

When meters get old, the mechanical components wear down and cause the meters to under-register. Meters can develop registering inaccuracies of 10 % or more when they get old. It is in the best interest of the City to assess the calibration of meters periodically. Due to their cost, small meters (5/8"- 3/4") can often be replaced moe cheaply than they can be calibrated and should be replaced every ten years or once they read one million gallons. Other small sizes (1", 1-1/2", and 2") should be evaluated and a decision to replace or calibrate them made based on cost considerations. Larger meters should be calibrated yearly.

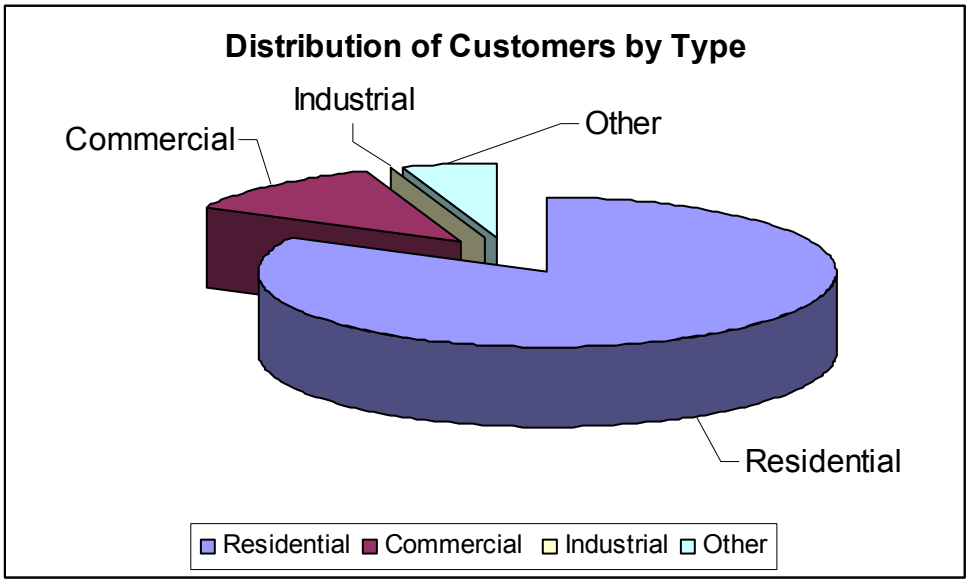
Meter inaccuracy as a source of unbilled water is most important to the financial condition of the system, since this water is actually delivered to the client and should generate revenue.

As of 2007 the City of Weslaco has approximately 10,000 meters, with 83% of them in residential service. Figure 6 shows the meter distribution by category.

Table 3. Customer Distribution by Type

2009 Active Connections				
User Group	**Metered**	**Unmetered**	**Total**	**Percentage**
Residential	8140		8140	83
Commercial	1177		1177	12
Industrial	0		0	
Other	505		505	5
Total	9822	0	9822	100

Figure 5. Distribution of Customers by Type



In order to establish a meter replacement program, the City needs to know the meter age and plan to replace the oldest and largest first. In the case of meters larger than 2" a calibration program would be parallel to the replacement program.

Following is a table of the depicting the distribution of meters by size and age.

Table 4. Meter Distribution by Age and Size

Number of Meters by Size and Age							
Meter Size	Meter Age, years						
(inches)	1 TO 3	4 TO 6	7 TO 10	11 TO 15	16 TO 20	OVER 20	Unknown
5/8"	1,983	1,276	776	817	480	1,640	2,112
1	118	69	25	35	43	131	99
1-1/2"	14	17	9	6	8	18	21
2	74	65	24	36	24	83	56
3	18	12	14	9	6	21	7
4	11	4	6	9	2	5	6
6	2	2	1	0	3	2	2

To illustrate the importance of meter replacement and calibration, the following scenario is developed:

Assuming that the average residential consumption is 10,000 gallons per month, the meter most commonly found in the system is 5/8" inch, and that consumption for the other meter sizes is proportional to their diameter, a monthly volume flowed per size can also be assumed. Table 5 shows the meter equivalency as determined by AWWA.

Table 5. AWWA Equivalency for Water Meters

AWWA Equivalency	
Meter Size (inches)	Flow Multiplier
5/8"	1.0
1	1.1
1-1/2"	1.4
2	2.9
3	11
4	14
6	21

Water World Magazine reports that in the Village of Tinley Park, Illinois, a meter accuracy study revealed that the weighted average accuracy for the sample studied was 89.6%. For this study, a 10 percent meter inaccuracy for meters over 10 years of age is assumed to approximate the annual volume of unbilled water and estimate the potential revenue loss.

From Table 4 the number of meters of each size older than 10 years is extracted and applied to this scenario. Table 6 shows the assumptions discussed above and the total revenue theoretically lost. The current city rate inside city limits for the water volume in excess of the minimum is $1.79 per thousand gallons (Kgal).

Table 6 Annual Revenue Loss Due to Meter Inaccuracy

Annual Revenue Loss					
Meter Size (inches)	**No. of Meters Older than 10 years**	**Average Monthly Use, gal/mo**	**Annual Volume, Kgal/yr**	**Volume Not Read, Kgal/yr**	**Annual Revenue Loss**
5/8"	5,049	10,300	624,056	62,406	$ 111,706
1	308	11,330	41,876	4,188	$ 7,496
1-1/2"	53	14,420	9,171	917	$ 1,642
2	199	29,870	71,330	7,133	$ 12,768
3	43	113,300	58,463	5,846	$ 10,465
4	22	144,200	38,069	3,807	$ 6,814
6	7	216,300	18,169	1,817	$ 3,252
Total	5,681	539,720	861,134	86,113	154,143

The cost of a meter replacement program can be estimated using the results of Table 6 and applying the cost of meters purchased by the City. In Table 7 the meter cost does not reflect the cost of installation, and it assumes that City personnel will be deputed for the job. Under this scenario, a payback period of under seven years is possible. This is favorable considering meters will remain in service for ten years.

Table 7 Cost of Meter Replacement Program

Meter Replacement Program - Initial Cost					
		Meters > 10 Years			
Meter Size (inches)	**Unit Cost**	**No. Meters**	**Replacement Cost**	**Annual Revenue Loss**	**Pay Back Period, yr**
5/8"	$ 148	5,049	$ 747,252	$ 111,706	6.7
1	$ 200	308	$ 61,600	$ 7,496	8.2
1-1/2"	$ 380	53	$ 20,140	$ 1,642	12.3
2	$ 500	199	$ 99,500	$ 12,768	7.8
3	$ 730	43	$ 31,390	$ 10,465	3.0
4	$ 1,000	22	$ 22,000	$ 6,814	3.2
6	$ 1,800	7	$ 12,600	$ 3,252	3.9
Total		5,681	$ 994,482	$ 154,143	6.5

The scenario presented above uses broad assumptions simply to illustrate the order of magnitude for both revenue loss and program cost. Even if the scenario had a 10 percent margin of error with respect to real numbers, the findings are still relevant and point out to the benefits of the program.

In the case of Weslaco this is even a better fitting program, given the City's desire to replace its meters with automatic reading meters in the short term.

CHAPTER 4: WATER CONSERVATION SOURCES

The challenge for any utility that wants to institute a water conservation program is to identify and quantify the most likely sources of potential savings. In general the candidate categories are: operational losses, public water use, meter inaccuracy, and residential use.

Tables with a summarized discussion on water conservation potential sources, impact on the system, typical control methods, and measures to reduce impacts, are presented in Appendices B and C. Selected topics are discussed in more detail in this section.

Operational Losses

An inherent aspect of operating a water system is the repair and replacement of lines that have deteriorated due to age, corrosion, or system shocks. The system is constantly under many forces that can result in broken mains and important water losses.

Broken mains can happen because of the age and deterioration of the system; from temperature changes in the system; and from pressure-related effects created by improperly functioning equipment, among others.

A water system is dynamic and the water in it can experience quality changes that are addressed by the operator by system flushing. System flushing is done to expel air from the lines after a broken main repair to clear turbid water, to increase chlorine residual in poor circulation areas, or to measure flows. All these operations are done at a fire hydrant and can cause a shock in the system if opening and closing is done without care.

Public Water

Public water use includes water used for parks and medians, fire fighting, and street sweeping; of these categories, irrigation of parks and medians and street sweeping are controllable uses, while fire fighting is not.

The city parks are watered manually or with automated sprinklers. City personnel focus their watering on athletic fields and use predetermined times to stop watering. In the future the City may consider the use of moisture meters or other measure to ensure the parks are properly watered while reducing the water use.

Water used in fire fighting is extremely hard to calculate and given that the first and most important priority of the operation is to save life and property, the amount of water used is not considered as a candidate for conservation measures.

Street sweeping is usually not metered because the operation is usually disseminated throughout the city and installing fire hydrant meters may be impractical; alternatively the volume used can be estimated by multiplying the number of sweepers in the city by the average number of times it refills the tank and times the tank volume. Steet sweepers use a very small volume of water but it is important to control waste given the high visibility to the public.

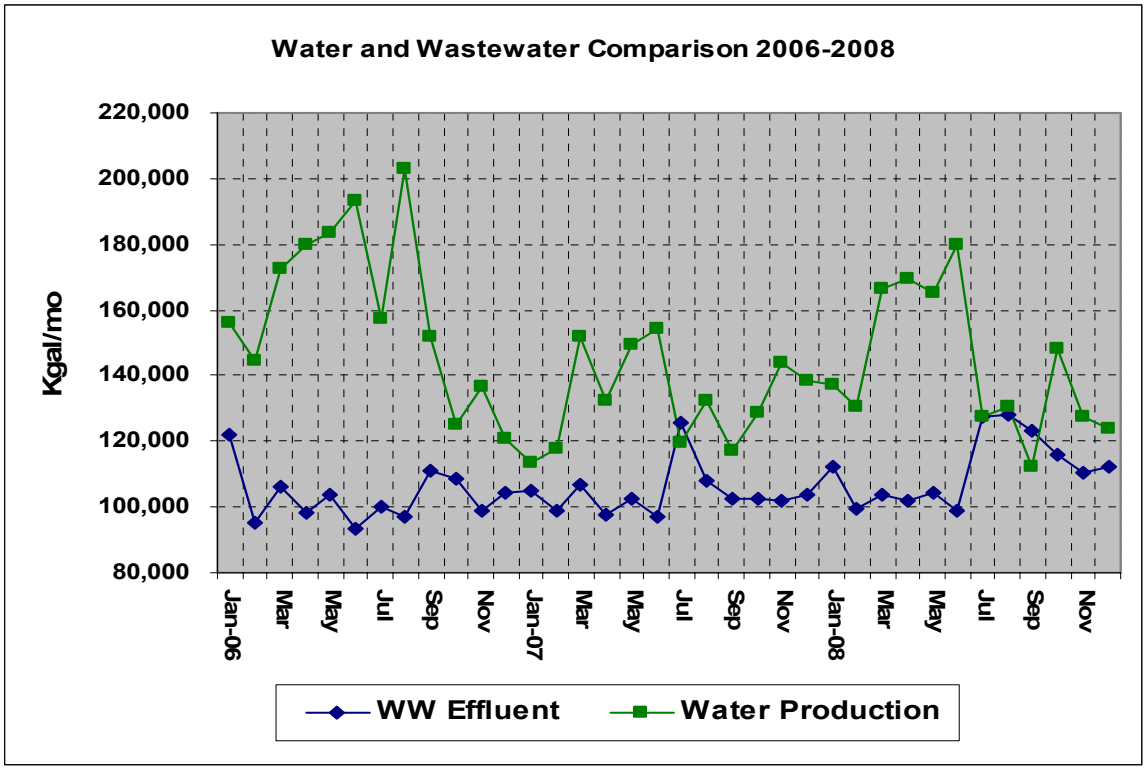
Residential Water Use

Residential water use offers great potential for water conservation, from measured irrigation to fixing plumbing fixtures, although savings are subject to the willingness of the homeowner.

Landscape Watering

The amount of water used for landscape watering can be approximated by understanding the water production and wastewater generated in the city over a period of time. In the absence of significant inflow and infiltration into the sewer system, the wastewater flow is equivalent to the indoor water use, and the difference to the water production is equivalent to the outdoor use. Figure 6 shows the two parameters over the period of time 2006-2008.

Figure 6. Comparison of Water Production and Wastewater Treatment



The data used to generate Figure 6 can be used to calculate the amount of water used outdoors. Tables 8 and 9 shows the calculation of outdoor use in thousand gallons per year and million gallons per year respectively.

Table 8. Outdoor Water Use Approximation, Kgal/yr

Outdoor Water Use Calculation, Kgal/yr			
	2006	2007	2008
Water Production	1,925,124	1,599,172	1,718,206
Wastewater Effluent	1,238,718	1,252,402	1,337,699
Outdoor Use	686,406	346,770	380,507
% Water Production	36	22	22

Table 9. Outdoor Water Use Approximation in MGD

Average Outdoor Water Use Calculation, MGD			
	2006	2007	2008
Water Production	5.274	4.381	4.707
Wastewater Effluent	3.394	3.431	3.665
Outdoor Use	1.881	0.950	1.042
% Water Production	36	22	22

Landscape irrigation is a major use of water, and cities like Phoenix and surrounding areas which are in extremely dry climates, have imposed rules aimed at curtailing or avoiding the use of water for residential irrigation (e.g. the City of Scottsdale prohibits the use of landscape irrigation, forcing the use of xeriscaping in all new homes). The City of Weslaco does not have to resort to such a drastic measure at this point, but a long-term, sustainability-based philosophy should be developed to adapt to a future with limited water supplies.

The City could consider a program to encourage the use of dry-tolerant grass species instead of the more water dependant ones. A joint commission with nurseries and landscape business could be formed to study the ability of the local market to provide the desirable drought tolerant species. If the analysis suggests that the public could easily find the drought tolerant species, in time an ordinance could be developed to prohibit the use of "thirsty" grasses. The water savings from such measures would go on for years.

Inside Home Use

The American Water Works Association estimates that the average American family uses 28 percent of the water used in their home to flush the toilet; 22 percent to wash clothes; 21 percent to take showers; 12 percent from faucets; 9 percent to take baths; 5 percent toilet leakage; and 3 percent to wash dishes.

Table 10 shows the typical water use in the home in percentage, and in gallons per month, assuming a monthly consumption of 10,000 gallons.

Table 10. Water Use in the Home

Use of Water In the Home		
Use	**Pct**	**Gal/mo***
Toilet	28	2,800
Laundry	22	2,200
Showers	21	2,100
Faucets	12	1,200
Bath	9	900
Toilet Leak	5	500
Dishwashing	3	300

Notes:
1. Source: AWWA
2. Assuming 10,000 gal/month consumption

The benefits of developing a water conservation culture can be seen in the following example:

Assume population represented by 8,000 families and average water use of 10,000 gal/month per home.

- Landscape watering. If the citizens could be motivated to save 10 percent of the landscape watering volume, there would be a decrease of 104,200 gpd, or 2.2 % of the 2008 production level.
- Showers can provide a significant source of water savings. At 21 percent of the family use, Weslaco could save 112,000 gpd if the citizens reduce their shower time by 20 percent, i.e., eight minutes long instead of ten. The savings would represent 2.4% of the 2008 daily average production (see Table 11).
- Leaking toilets consume 133,300 gpd of water. If half that volume could be saved by citizen action, approximately 66,650 gpd, or 1.4 percent of the average daily production could be saved.

In the foregoing three examples, summarized in Table 11 the City could already reduce the daily demand by six percent.

Table 11 Water Conservation Savings Example

Potential Water Savings		
Category	**Daily Volume Saved [Gal/day]**	**Percent of Average Daily Production**
Lawn Irrigation	104,200	2.2
Showers	112,000	2.4
Toilet Leaks	66,650	1.4
Total Savings	282,850	6.0

CHAPTER 5: WATER CONSERVATION PLAN

Overview

The preceding sections have developed the concepts needed to derive tangible, quantified water conservation targets. The City of Weslaco understands that simply stating a level of savings does not translate into a successful program implementation, thus the need to discuss the possible opportunities for conservation with measurable results.

As shown in Table 11, 282,850 gallons per day can be saved if certain behaviors are modified. It is not known how many years it will take to achieve such changes, as it depends in the intensity, duration, and efficacy of a public education program, but as starting point the City will propose the following goals:

5 & 10-Year Targets

The City of Weslaco water use patterns suggest further conservation gains will require great efforts. This is manifested by the fact that both parameters of importance in water conservation: per-capita water use and unbilled water percentage are very low (143 gpcd and 5 percent respectively in 2008); however, the values in the 2004-2008 range showed in Table 12 have an important variation which suggests they may not be stable yet, thus the City has elected to use the average values as starting point in establishing improvement goals.

Table 12. Water Conservation Indicators in the 2004-2008 Period

Water Conservation Indicators					
Parameter	**2004**	**2005**	**2006**	**2007**	**2008**
Unbilled Water, %	16	16	10	8	5
Per Capita Use, gpcd	154	165	164	135	143

The water conservation goals are expressed in Table 13 as targets for production and billing. They are calculated based on population projections derived from the observed rate of growth and the per-capita and unbilled water targets. The starting point is the average for the period 2004-2008 for the reasons explained before, that is, that the significant reductions in per-capita demand and unbilled water are not stable and predicable yet, thus being of limited value, but the average values absorb the variations to some degree and provide a better initial point for the projections.

Table 13 Water Conservation Goals

Water Conservation Goals			
Parameter	**Average 2004-2008**	**5-yr**	**10-yr**
Water Production, Kgal/yr	1,774,412	1,936,638	2,048,371
Water Sold, Kgal/yr	1,574,885	1,742,974	1,864,017
Unbilled Water, %	11	10	9
Per Capita Use, gpcd	152	150	148
Population 2008	32,997	35,372	37,919

Metering Devices

The City of Weslaco requires calibration of the raw water meter on an annual basis.

Universal Metering

All water uses in Weslaco require the issuance of a meter. Meters are replaced on a case by case basis, but the City is considering a meter replacement program for meters 10 years and older. Once all the meters are 10 years or less, the City will consider reducing the frequency of replacement to a shorter period that meets the revised conservation goals at the time

.

Unaccounted-For Water Use

Given the low unaccounted-for water values for the City, efforts to improve them will be focused on leak detection primarily. If the City accelerates the meter replacement program, meter audit efforts will come as a complement to that program.

Continuing Public Education & Information

The City recognizes the fact that considerable gains in water conservation come from individual actions thus it will develop a permanent public education campaign to promote a culture of prudent water use at home. Specific plans will be developed in the next year so that a reasonable approach can be matched with an adequate budget.

Non-Promotional Water Rate Structure

The City had a Cost of Service and Rate Design study done in October 2008 and believes that the current rate adequately fulfills the revenue needs of the City, without encouraging unnecessary consumption. The water rate structure consists of a minimum service charge plus a flat rate per thousand gallons, maintained at the same level regardless of consumption.

Water Rates

Residential (Inside City Limits)	
Minimum monthly bill (not including water)	$ 10.36
Minimum monthly bill (not including water) if applied for by resident over 65, a veteran of the armed services of the United States or a disabled person	$ 7.25
Minimum monthly bill, second meter (solely for sprinkler system, not including water)	$ 5.38
Charge per 1,000 gallons or portion thereof	$ 1.79
Residential (Outside City Limits)	
Minimum monthly bill (not including water)	$ 15.04
Charge per 1,000 gallons or portion thereof	$ 1.79
Commerical Users	
Minimum monthly bill (not including water)	
0 to 15,000 gallons	$ 10.36
15,001 to 35,000 gallons	$ 21.49
35,001 gallons and over	$ 32.23
Charges per each 1,000 gallons or portion thereof	
0 to 15,000 gallons	$ 1.79
15,001 gallons and over	$ 2.00

Reservoir Systems Operations Plan

The City of Weslaco does not operate any reservoirs other than ground and elevated storage systems.

Enforcement Procedure & Plan Adoption

An ordinance adopting the water conservation plan is attached in Appendix D. The authority to implement and enforce the plan resides with the City Manager and his/her designees.

Coordination with the Regional Water Planning Group(s)

The service area of the City of Weslaco is located within the Rio Grande Regional Water Planning Group. The City has provided a copy of this water conservation plan to said group for inclusion in the State Water Plan.

Program for Leak Detection, Repair, and Water Loss Accounting

The City has only 5% unaccounted-for water and it is not compelled to undertake immediate measures to locate leaks, however, within the next five years the City will conduct a leak detection program.

Record Management System

Records for raw water, water pumped into the distribution system and water sales are already available. The billing system categorizes the users in residential, commercial, and wholesale. Other classifications can be added as needed.

CHAPTER 6: DROUGHT CONTINGENCY AND WATER EMERGENCY PLAN

DROUGHT & EMERGENCY CONTINGENCY PLAN

3.0 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 drought, emergency conditions, or other water shortages, this water plan incorporates the following regulations and restrictions o the delivery and consumption of water, to be adopted and enforced via City of Weslaco (the City) ordinance.

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

3.0 Public Involvement

Public meetings were conducted by the City to provide public input into the preparation and adoption of the Plan. Notices of these public meetings were posted by the City as part of the preparation of this plan.

3.2 Public Education

The City will periodically provide the public with information about the Plan, including information about conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage. This information will be provided by means of periodic publications in the local newspaper and utility bill inserts or mail-outs.

3.3 Coordination with Regional Water Planning Groups

The service area of the City is located within Region M, the Rio Grande Regional Water Planning Group. The City has provided a copy of the Plan to Region M.

3.4 Implementation and Enforcement

The City Manager, or his/her designee, is authorized and directed to implement the applicable provisions of this plan upon their determination that such implementation is necessary to protect public health, safety, and welfare. The City Manager, or his/her designee, is authorized to initiate or terminate response measures as described in this Plan. In case of an emergency situation (e.g. canal breakdown, pump failures, line ruptures, etc.) the City Manager, or his/her designee, is authorized to take immediate actions deemed necessary to minimize or mitigate the risks and impacts of the water supply emergency. Steps in an emergency can include activation of any relevant portions of this plan, as determined appropriate by the City Manager, or his/her designee.

3.5 Application

The provisions of this Plan shall apply to all persons, customers, and property utilizing water provided by the City. The terms “persons” and “customers” as used in the plan includes individuals, corporations, partnerships, associations, and all other legal entities.

3.6 Definitions

For the purpose of this plan, the following definitions shall apply:

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

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

Customer: Any person, company or organization using water supplied by the City

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

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

Industrial water use: The use of water in processes designed to convert material of lower value into forms having greater usability and value.

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

Major Water Users: These are the top ten water users based on annual consumption.

Non-essential water use: Water uses that are neither essential nor required for the protection of public health, safety, and welfare, including:

- Landscape irrigation use, as defined above, except otherwise provided under this Plan.
- Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane, or other vehicle.
- Use of water to wash down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas.
- Use of water to wash down buildings or structures for purposes other than immediate fire protection.
- Flushing gutters or permitting water to run into any gutter or street.
- Use of water to fill, refill, or add to any indoor or outdoor swimming pools or Jacuzzi type pools.
- Aesthetic water use, as defined above, except where necessary to support aquatic life.
- Use of water from hydrants for construction purposes or any other purposes other than fire fighting.

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

3.7 Criteria for Initiation and Termination of Plan Stages

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

The triggering criteria described below are based on water supply considerations and extraordinary circumstances faced by the water system. For the water supply, the source of information is the levels of U.S. water storage in Amistad and Falcon Reservoirs at which stages of the Plan will be implemented or terminated. For the non-supply related triggers, the stages will be terminated whenever the level of service is restored to normal.

In the case of the water supply triggers, the stage determination is intended to be progressive, but for extraordinary circumstances the City Manager or his/her designee may invoke any stage at any time, at his/her discretion.

Stage 1 Triggers – Mild Water Shortage Conditions

When the level of U.S. water stored in Amistad and Falcon reservoirs reaches 51% or 1,660,000 AF (or below), Stage 1 of the Plan shall be initiated. When the level is above this amount this stage may be terminated.

When water demand projections for the year suggest that the City's available water rights may be used at 95 percent.

Stage 2 Triggers – Moderate Water Shortage Conditions

When the level of U.S. water stored in Amistad and Falcon reservoirs reaches 25% or 834,600 AF (or below), Stage 2 of the Plan shall be initiated. When the level is above this amount this stage may be terminated.

When a condition, natural or man made, causes system-wide problems and in the opinion of the City, the normal and customary level of water service may be diminished for a period of time.

When water demand projections for the year suggest that the City's available water rights may be used at 98 percent.

Stage 3 Triggers – Severe Water Shortage Conditions

When the level of U.S. water stored in Amistad and Falcon reservoirs reaches 15% or 504,600 MAF (or below), Stage 3 of the Plan shall be initiated. When the level is above this amount this stage may be terminated.

When a condition related to extraordinary circumstances, such as impact on the water system due to natural disasters or unanticipated restrictions on the raw water delivery system, severely and immediately diminishes the City's ability to deliver a normal and customary level of water.

When water demand projections for the year suggest that the City's available water rights may be used at 100 percent.

3.8 Drought Response Stages

Upon determining that a trigger condition has been reached and a stage of the Plan initiated, the City Manager, or, shall implement the following notification procedures and practices.

Notification

The public will be notified of what will be expected in either a drought or emergency situation. The public will be regularly informed of the content and purpose of the Plan before the onset of any water shortage or emergency condition. The information will describe trigger conditions and drought measures, and the need to implement the measures in the event of water shortage or emergency. Once the Plan is initiated, the public will also be notified at that time of the relevant portions of the Plan, and these notifications will be repeated at regular intervals throughout the duration of the Plan's activation. The methods of education and informing the public will include

- public meetings;
- radio and television public service announcements and news stories;
- newspaper articles;
- letter, bill inserts or messages, and brochures to water customers; and
- the use of volunteer groups to promote water conservation practices.

Stage 1 Response – Mild Water Shortage Condition

Target
Achieve a voluntary 2% reduction in total daily water use. This reduction will be measured based on the average water use for thirty (30) days prior to the initiation of the stage.

Best Management Practices for Demand Management
Inform the public through notification channels described above that a trigger condition has been reached, and that they should look for ways to voluntarily reduce water use. Specific steps which can be taken will be provided as part of the public notification. Directly notify major water users, as defined previously, of the situation and request voluntary water use restrictions.

Wholesale customers are also directly notified of the activation of the Plan, and requested to voluntarily reduce consumption to the target levels. Where contracts include appropriate clauses, water supplied to these customers will be automatically reduced by the target amount to guarantee compliance with the Plan.

Stage 2 Response – Moderate Water Shortage Condition

Target
Achieve a three percent reduction in total daily water use. This reduction will be measured based on the average water use for thirty (30) days prior to the initiation of the stage.

Best Management Practices for Demand Management
1. Under Stage 2 the City Manager, or his/her designee, may restrict the watering of grass and vegetation as follows:

    a. The watering of trees, shrubbery, gardens, vegetables, and flowers may be permitted through the means of a hand-held hose equipped with a positive shutoff nozzle, a drip

irrigation system, a hand-held bucket or watering can, or a sprinkler system which is either attended throughout its use or is equipped with an automatic shutoff.

b. The watering of residential lawns will be prohibited except on irrigation days. Irrigation days will be permitted once every seven (7) days from midnight to 7:00am and from 7:00pm to midnight. Odd numbered addresses will be allowed to water on Tuesdays, and even numbered addresses will be allowed to water on Thursday. Hand-held hose or drip irrigation is permitted any day.

c. Commercial nurseries and sod farms shall be exempted from the prohibitions of this subparagraph and shall be permitted to water nursery stock by means of a hand-held bucket or watering can, or a sprinkler system which is attended throughout its use, is equipped with an automatic shutoff, or recaptures and re-circulates irrigation water.

2. Adding water to swimming pools is permitted only on irrigation days.

3. Allowing water to run off yards or plants into gutters or streets shall be deemed a waste of water and is prohibited.

4. The washing of automobiles, trucks, trailers, boats, airplanes, and any other type of mobile equipment is prohibited except that individuals may wash their private cars or boats if they use a bucket, pail, or normal sized receptacles, and further that filling stations shall wash their customers' cars with a bucket, pan, pail, or other receptacle not larger than of five-gallon capacity. An individual or filling station, after washing, shall be permitted to rinse the car or boat off with a hose, using only a reasonable amount of water in doing so. Commercial or automatic car wash establishments shall use minimum practical water settings.

5. The washing of building exteriors and interiors, trailers, trailer houses, and railroad cars is prohibited, except where in the interests of public health the City Manager, or his/her designee, may permit limited use of water on a case-by-case basis.

6. The permitting or maintaining of defective plumbing in a home, business establishment, or any location where water is used on the premises is prohibited. This defective plumbing shall include, but not be limited to, the existence of out-of-repair water closets, underground leaks, defective faucets and taps. The permitting of water to flow constantly through a tap, hydrant, valve, or otherwise by a user of water connected to the city system, shall be considered as wasting of water and is prohibited.

7. The use of fire hydrants for any purpose other than fire fighting is prohibited, except where the City Manager, or his/her designee, may permit the use of metered fire hydrant water by the city of by commercial operators using jet rodding equipment to clear sanitary and storm sewers.

8. The use of water in ornamental fountains or in artificial waterfalls where the water is not reused or re-circulated in any manner is prohibited.

9. The use of water to wash down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced area, building, or structure is prohibited.

10. The use of water for dust control is prohibited.

11. The use of potable water by a golf course to irrigate any portion of its grounds except those areas designated as tees and greens, and except between the hours of 6:00 am and 9:00 AM on designated watering days (see 1a above) is prohibited.

12. Any use of water for the purposes or in a manner prohibited in this section shall be deemed to be a waste of water, and any person violating any of the provisions of this article and any person in whose name a water meter connection is registered in the water department which water connection serves premises upon which a violation occurs, and proof that the particular premises has a water meter connection registered in the name of the defendant in the complaint, shall constitute in evidence a prima facie presumption that the person in whom such water connection was registered was the person who permitted or caused the act of waste charged to occur on the premises.

13. Wholesale customers are also directly notified of the activation of this Stage, and requested to voluntarily reduce consumption to the target levels. Where contracts include appropriate clauses, water supplied to these customers will be automatically reduced by the target amount to guarantee compliance with the Plan. See section 3.12 below

Stage 3 Response – Severe Water Shortage Condition

Target
Achieve a four percent reduction in total daily water use. This reduction will be measured based on the average water use for thirty (30) days prior to the initiation of the stage.)

Best Management Practices for Demand Management

1. New service connections to the City's water system are prohibited where some other source independent of the City's water supply is existing and in use at the time of adoption of this Plan.

2. The use of water to serve a customer in a restaurant unless requested by the customer is prohibited.

3. The use of water for the expansion of commercial nursery facilities is prohibited.

4. The use of water for scenic and recreational ponds and lakes is prohibited.

5. The use of water for private, single-family residential swimming, wading, and Jacuzzi-type pools, hot tubs and the like or similar uses is prohibited.

6. The use of water for municipally owned swimming pools is prohibited.

7. The use of water for privately owned neighborhood and subdivision swimming pools is prohibited.

8. The use of water to put new agricultural land into production is prohibited.

9. The use of water for new planting or landscaping is prohibited.

10. No application for new, additional, further expanded, or increased in size water service connection, meters, service lines, pipeline extensions, mains, or other water service facilities

of any kind shall be allowed, approved, or installed except as approved by the City Manager, Allocation and Review Committee, and City Planning Department.

11. The City will require that industrial and commercial users implement an individual curtailment plan. The curtailment goal will aim to allow the user a reasonable level of operation; however the City will reserve the right to require additional mandatory curtailments, if a state of emergency is declared.

12. The maximum monthly use for a residential customer will be 15,000 gallons. Revised rates and penalties will be implemented on all water used in excess of that amount. The rate will increase to 1-1/2 times the normal rate, and penalties will be administered as listed in section 3.10 below.

13. The City Council and City Manager shall take those actions deemed necessary to meet the conditions resulting from any emergency.

14. Wholesale customers are also directly notified of the activation of this Stage, and requested to voluntarily reduce consumption to the target levels. Where contracts include appropriate clauses, water supplied to these customers will be automatically reduced by the target amount to guarantee compliance with the Plan. See section 3.12 below.

Section 3.9 Water Conservation Management Committee

Upon adoption of this plan, the City Manager, or his/her designee, will establish a Water Conservation Management Committee consisting of selected City Department Directors, Water Plant Management, and individuals with vested interest. The Water Conservation Management Committee will meet in accordance with drought conditions, analyze the water supply and water system status information, and prepare recommendations for the City Manager. The City Manager can, however, act with or without the committee's input, during an emergency.

Section 3.10 Enforcement

The following enforcement provisions shall be activated as part of the Plan to ensure compliance with its restrictions.

(a) No person shall knowingly or intentionally allow the use of water from the City of Weslaco for residential, commercial, industrial, agricultural, governmental, or any purpose in a manner contrary to the provisions of this plan, or in an amount in excess of that permitted by the stage in effect at the time pursuant to action taken by the City Manager, or his/her designee, in accordance with provisions of this plan.

(b) Any person who violates this Plan is guilty of a misdemeanor and, upon conviction, shall be punished by a fine of not less than $50.00 dollars and not more than $500.00 dollars.

(c) To implement the requirements of this plan, the following steps will be utilized to address those individuals who are not complying with the plan.

Any City of Weslaco Code Enforcement Officer may issue a citation to a person he/she reasonably believes to be in violation of this ordinance. The citation issues will be the standard NOTICE OF VIOLATION currently in use.

Step 1: Verbal communication instructing the party to discontinue non-compliance

Step 2: If non-compliance continues, a citation will be issued

Step 3: If non-compliance continues, assess fines according to the City Ordinance instituting this plan.

Step 4: If non-compliance continues, and the fines are not paid, the City will disconnect the water service and a reconnect fee will be required to re-institute the service.

Section 3.11 Variances

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

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

Persons requesting an exemption from the provisions of this Ordinance shall file a petition for variance with the City of Weslaco within five (5) days after the Plan or a particular stage has been invoked. All petitions for variances shall be reviewed by the Water Conservation Management Committee and shall include the following:

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

Section 3.12 Wholesale Customers

The City of Weslaco, in the event this plan is activated, shall distribute water to all current and future wholesale providers in accordance with this plan. Existing customers shall be requested to reduce demand as described below, and are subject to the same use prohibitions listed above.

Upon activation of any stage of this Plan, wholesale customers shall be directly notified within twenty-four (24) hours. Wholesalers are required to notify their customers within seven (7) days of the activation of any stage of this plan. All relevant portions of this plan are effective at the end of this seven (7) day period.

The notification to wholesale customers shall include the following language:

"The City reserves the right, under section 11.039(b)(2) of the Texas Water Code, to reduce the amount of water supplied to wholesale customers in accordance with the goals established under the Drought & Emergency Contingency Plan. Wholesale suppliers are encouraged to adopt this or a similar plan to achieve the necessary demand reductions within their system that will accomplish the goals of the City of Weslaco Drought Contingency Plan. Any reduction in water supplied to wholesale customers shall be limited to those stated in the targets for each stage (e.g. Stage 1, 2% reduction from previous thirty day water consumption), unless otherwise determined by the City Manager, or his/her designee, as described in the complete plan."

APPENDIX A: UTILITY PROFILE

Texas Commission on Environmental Quality

UTILITY PROFILE & WATER CONSERVATION PLAN REQUIREMENTS FOR MUNICIPAL WATER USE BY PUBLIC WATER SUPPLIERS

This form is provided to assist entities in water conservation plan development for municipal water use by a retail public water supplier. Information from this form should be included within a water conservation plan for municipal use. If you need assistance in completing this form or in developing your plan, please contact the conservation staff of the Resource Protection Team in the Water Supply Division at (512) 239-4691.

Name of Entity: City of Weslaco

Address & Zip: 255 S. Kansas, Weslaco, TX 78596-6285

Telephone Number: (956) 973-3146 **Fax:** (956) 447-3298

Form Completed By: David Salinas

Title: Public Facilities Director

Date:

Signature

Name and Phone Number of Person/Department responsible for implementing a water conservation program: David Salinas, Public Facilities Director_____

UTILITY PROFILE

I. POPULATION AND CUSTOMER DATA

A. Population and Service Area Data

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

2. Service area size (square miles): 12.9

3. Current population of service area: 32,997

4. Current population served:

a. water 32997
b. wastewater 32337 (98%)

5. Population served by water utility for the previous five years:

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

Year	Population	Year	Population
2004	30,929	2010	30,878
2005	31,442	2020	3,5485
2006	32,092	2030	40,645
2007	32,541	2040	46,229
2008	32,997	2050	52,328

7. List source/method for the calculation of current and projected population:

Used US Census Bureau data for years 2003, 2005 and 2006, extrapolating 2004. Population for the years 2007 and 2008 was determined by applying a 1.4% annual growth rate factor to the 2006 US Census figure.

B. Active Connections

1. Current number of active connections. Check whether multi-family service is counted as Residential **X** ~~or Commercial~~ _____

2009 Active Connections (Treated Water Users)			
User Group	**Metered**	**Unmetered**	**Total**
Residential	8,140	0	8,140
Commercial	1,177	0	1,177
Industrial	0	0	0
Other	505	0	505
Total	9,,822	0	9,822

2. List the net number of new connections per year for most recent three years:

New Connections Last Three Years			
User Group	2006	2007	2008
Residential	268	237	228
Commercial	22	30	39
Industrial	0	0	0
Other	0	0	0

C. High Volume Customers

List annual water use for the five highest volume customers
(indicate if treated or ~~raw water delivery~~)

High Volume Customers (Treated Water)		
	Customer	Use (Kgal)
1	Weslaco Ind. School District	72,098
2	City of Weslaco	60,020
3	Military Highway Water Supply	56,353
4	Pine to Palm Trailer Park	25,646
5	Northside Apartments	25,074

II. WATER USE DATA FOR SERVICE AREA

A. Water Accounting Data

1. Amount of water use for previous five years (in 1,000 gal.):
Please indicate: ~~Diverted Water~~
Treated Water

Water Production Last Five Years (Kgal)					
Month	2004	2005	2006	2007	2008
January	132,339	139,562	156,085	113,460	137,206
February	121,828	123,340	144,788	117,880	130,284
March	19,872	156,519	172,732	151,683	166,377
April	123,000	177,000	180,120	132,180	169,530
May	138,756	196,850	183,241	149,482	165,199
June	140,550	181,140	193,260	154,560	180,060
July	145,483	170,500	157,356	119,288	127,317
August	181,071	161,262	203,205	132,587	130,448
September	180,030	156,090	151,950	117,420	112,320
October	146,072	156,271	124,775	128,433	148,304
November	147,270	141,180	136,650	143,970	127,440
December	138,477	135,098	120,962	138,229	123,721
Total	**1,734,748**	**1,894,812**	**1,925,124**	**1,599,172**	**1,718,206**

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

The water treatment plant has a meter for finished water going into the distribution system. The meter is read daily and amount of treated water delivered is calculated.

_____

_____

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

Water Sold to All Users (Kgal)					
User Group	**2004**	**2005**	**2006**	**2007**	**2008**
Residential	852,829	937,685	1,030,322	879,108	1,006,225
Commercial	542,911	587,433	629,708	534,924	559,467
Industrial	0	0	0	0	0
Wholesale	52,788	62,234	67,597	63,290	67,906
Other	0	0	0	0	0
Total	**1,448,528**	**1,587,352**	**1,727,627**	**1,477,322**	**1,633,598**

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

Water Losses		
Year	**Amt (Kgal)**	**%**
2004	286,220	16
2005	307,460	16
2006	197,497	10
2007	121,850	8
2008	84,608	5

4. Municipal water use for previous five years:

Municipal Water Diverted for Treatment		
Year	**Population**	**Amount (Kgal)**
2004	30929	1,712,580
2005	31442	1,922,455
2006	32092	1,991,440
2007	32541	1,887,050
2008	32997	2,034,875

B. Projected Water Demands

If applicable, attach projected water supply demands for the next ten years using information such as population trends, historical water use, and economic growth in the service area over the next ten years and any additional water supply requirement from such growth.

III. WATER SUPPLY SYSTEM DATA

A. Water Supply Sources

List all current water supply sources and the amounts authorized with each:

Water Supply (ac-ft)		
Type	**Source**	**Amount**
Surface Water	Rio Grande River	5,976.25
Groundwater	Local Aquifer	525.6
Contracts		
Other		

B. Treatment and Distribution System

1. Design daily capacity of system: _____8.25_____ MGD
2. Storage Capacity: Elevated __1.3__ MGD, Ground ___1.087 MGD

3. If surface water, do you recycle filter backwash to the head of the plant? Yes _X_ No _____. If yes, approximately 0.4 MGD

4. Please attach a description of the water system. Include the number of treatment plants, wells, and storage tanks. If possible, include a sketch of the system layout.

IV. WASTEWATER SYSTEM DATA

A. Wastewater System Data

1. Design capacity of wastewater treatment plant(s): __5.5____ MGD

2. Is treated effluent used for irrigation on-site ____, off-site ___X___, plant washdown __X___, or cholorination/dechlorination____?
   If yes, approximately 700,000 gallons per month.

3. Briefly describe the wastewater system(s) of the area serviced by the water utility. Describe how treated wastewater is disposed of. Where applicable, identify treatment plant(s) with the TCEQ name and number, the operator, owner, and, if wastewater is discharged, the receiving stream. If possible, attach a sketch or map which locates the plant(s) and discharge points or disposal sites.

B. Wastewater Data for Service Area

1. Percent of water service area served by wastewater system: __98___%

2. Monthly volume treated for previous three years (in 1,000 gallons):

Wastewater Treatment Last Three Years (Kgal)			
Month	**2006**	**2007**	**2008**
January	122,001	104,972	112,108
February	95,138	98,666	99,478
March	106,336	107,012	103,974
April	98,466	97,770	101,667
May	103,664	102,498	104,176
June	93,309	96,849	98,763
July	99,851	125,792	127,323
August	97,111	108,097	127,928
September	110,859	102,510	123,459
October	108,788	102,557	116,002
November	98,967	102,048	110,619
December	104,228	103,630	112,201
Total	**1,238,718**	**1,252,402**	**1,337,699**

REQUIREMENTS FOR WATER CONSERVATION PLANS FOR MUNICIPAL WATER USE BY PUBLIC WATER SUPPLIERS

In addition to the utility profile, a water conservation plan for municipal use by a public water supplier must include, at minimum, additional information as required by Title 30, Texas Administrative Code, ' 288.2. Note: If the water conservation plan does not provide information for each requirement, an explanation must be included as to why the requirement is not applicable.

Specific, Quantified 5 & 10-Year Targets

The water conservation plan must include specific, quantified five-year and ten-year targets for water savings to include goals for water loss programs and goals for ***municipal use in gallons per capita per day*** (see Appendix A). Note that the goals established by a public water supplier under this subparagraph are not enforceable.

Metering Devices

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

Universal Metering

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

Unaccounted-For Water Use

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

Continuing Public Education & Information

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

Non-Promotional Water Rate Structure

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

Reservoir Systems Operations Plan

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

Enforcement Procedure & Plan Adoption

The water conservation plan must include a means of implementation and enforcement which shall be evidenced by 1) a copy of the ordinance, resolution, or tariff indicating **official adoption** of the water conservation plan by the water supplier; and 2) a description of the authority by which the water supplier will implement and enforce the conservation plan.

Coordination with the Regional Water Planning Group(s)

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

Example statement to be included within the water conservation plan:

The service area of the _____ (name of water supplier) is located within the _____ (name of regional water planning area or areas) and _____ (name of water supplier) has provided a copy of this water conservation plan to the _____ (name of regional water planning group or groups).

Additional Requirements:

required of suppliers serving population of 5,000 or more or a projected population of 5,000 or more within ten years)

1. Program for Leak Detection, Repair, and Water Loss Accounting

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

2. Record Management System

The plan must include a record management system to record water pumped, water deliveries, water sales, and water losses which allows for the desegregation of water sales and uses into the following user classes (residential; commercial; public and institutional; and industrial.

Plan Review and Update

Beginning May 1, 2005, a public water supplier for municipal use shall review and update its water conservation plan, as appropriate, based on an assessment of previous five-year and ten-year targets and any other new or updated information. The public water supplier for municipal use shall review and update the next revision of its water conservation plan not later than May 1, 2009, and every five years after that date to coincide with the regional water planning group. The revised plan must also include an implementation report.

Best Management Practices Guide

On November 2004, the Texas Water Development Board=s (TWDB) Report 362 was completed by the Water Conservation Implementation Task Force. Report 362 is the Water Conservation Best Management Practices (BMP) Guide. The BMP Guide is a voluntary list of management practices that water users may implement in addition to the required components of Title 30, Texas Administrative Code, Chapter 288. The BMP Guide is available on the TWDB's website at the link below or by calling (512) 463-7847.

http://www.twdb.state.tx.us/assistance/conservation/TaskForceDocs/WCITFBMPGuide.pdf

Definitions of Commonly Used Terms

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

Industrial use B The use of water in processes designed to convert materials of a lower order of value into forms having greater usability and commercial value, commercial fish production, and the development of power by means other than hydroelectric, but does not include agricultural use.

Irrigation B The agricultural use of water for the irrigation of crops, trees, and pastureland, including, but not limited to, golf courses and parks which do not receive water through a municipal distribution system.

Municipal per capita water use B The sum total of water diverted into a water supply system for residential, commercial, and public and institutional uses divided by actual population served.

Municipal use B The use of potable water within or outside a municipality and its environs whether supplied by a person, privately owned utility, political subdivision, or other entity as well as the use of sewage effluent for certain purposes, including the use of treated water for domestic purposes, fighting fires, sprinkling streets, flushing sewers and drains, watering parks and parkways, and recreational purposes, including public and private swimming pools, the use of potable water in industrial and commercial enterprises supplied by a municipal distribution system without special construction to meet its demands, and for the watering of lawns and family gardens.

Municipal use in gallons per capita per day B The total average daily amount of water diverted or pumped for treatment for potable use by a public water supply system. The calculation is made by dividing the water diverted or pumped for treatment for potable use by population served. Indirect reuse volumes shall be credited against total diversion volumes for the purpose of calculating gallons per capita per day for targets and goals.

Pollution B The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any water in the state that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property, or to the public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

Public water supplier B An individual or entity that supplies water to the public for human consumption.

Regional water planning group B A group established by the Texas Water Development Board to prepare a regional water plan under Texas Water Code, '16.053.

Retail public water supplier B An individual or entity that for compensation supplies water to the public for human consumption. The term does not include an individual or entity that supplies water to itself or its employees or tenants when that water is not resold to or used by others.

Reuse B The authorized use for one or more beneficial purposes of use of water that remains unconsumed after the water is used for the original purpose of use and before that water is either disposed of or discharged or otherwise allowed to flow into a watercourse, lake, or other body of state-owned water.

Water conservation plan B 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. A water conservation plan may be a separate document identified as such or may be contained within another water management document(s).

Water loss - The difference between water diverted or treated and water delivered (sold). Water loss can result from:

1. inaccurate or incomplete record keeping;
2. meter error;
3. unmetered uses such as firefighting, line flushing, and water for public buildings and water treatment plants;
4. leaks; and
5. water theft and unauthorized use.

Wholesale public water supplier B An individual or entity that for compensation supplies water to another for resale to the public for human consumption. The term does not include an individual or entity that supplies water to itself or its employees or tenants as an incident of that employee service or tenancy when that water is not resold to or used by others, or an individual or entity that conveys water to another individual or entity, but does not own the right to the water which is conveyed, whether or not for a delivery fee.

If you have any questions on how to fill out this form or about the _____ program, please contact us at 512/239-_____.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512-239-3282.

APPENDIX B: POTENTIAL CONSERVATION SOURCES

Potential Water Conservation Sources			
Source	**Impact on Conservation**	**Measurement**	**Customary Control Method**
System Operations			
Broken Main Repair	Medium impact and high visibility. Water runs from the time the leak happens to the time the maintenance crew isolates the circuit. Very visible water, it is seen as huge waste by the citizens	Estimates on flow are usually based on visual observation; they are not accurate and nearly impossible to prove, however good faith estimates can be made for documentation purposes	Maintenance crews close distribution systems valves to isolate the broken pipe until the pipe is repaired. Regulations requiring the maintenance of minimum pressure requirements in the water system prevent the immediate closure of the pipe section.
Fire Hydrant Flushing	Medium impact and high visibility. Flushing is needed to eliminate stagnant water in distribution system ends, raise chlorine residual, remove dirt from system after a broken pipe repair	Pitot tube can be used to accurately know fire hydrant flow rate. Crews measure flushing time.	Visual observation, chlorine readings, or estimated flushing time.
Public Use Water			
Parks/Medians	Medium to high impact depending on land irrigated.	All uses should be metered. If not metered it could be a significant amount of non-revenue water and contribute to a higher unaccounted-for water figure.	Ensure public works maintenance personnel adhere to acceptable watering practices and/or restrictions
Sweepers	Low impact. Not a high use of water but the public perception should be managed by avoiding waste while loading water into sweeper	If not metered, the volume can be estimated by the number of times water is taken from system.	Ensure sweepers take water from metered hydrants or keep a log of how many times they fill up their water tank
Fire Fighting	Low impact. While a 2-hr fire could take 180,000 gal, the number of such fires is usually not significant	No measurement	Water usage control is not a priority when fighting a fire.
Metering Inaccuracy			
Calibration, Plant Meter	High impact. Unaccounted-for water calculations use the plant meter as the basis to establish the percentage lost.	Difference in metering accuracy before and after calibration	Calibrate meter annually
Calibration, Commercial and Industrial Meters	High impact. A large meter out of calibration can produce significant revenue losses over the years. Owners may pay more attention to their water use if the proper amount is metered.	Difference in metering accuracy before and after calibration. Impact could be estimated by knowing the number of meters calibrated per year, the average flow, and the estimated increase in accuracy	Calibrate meter annually and replace after a predetermined volume
Inappropriate Sizing	High Impact. Larger meters can under-measure at low flows, especially as they age. Over sizing meters lends itself to under-metering. Owners may pay more attention to their water use if the proper amount is metered.	Estimate of inaccuracy at low end of range as a function of time meter operated in that part of the range. Difficult to measure since it requires hourly knowledge of water use pattern for each meter.	Establish a chart of appropriate meter size for expected maximum volume and institute a departmental system to ensure large meter applications are reviewed against this chart
Replacement	High impact. Meters slow down as they wear out; owners may pay more attention to their water use if the proper amount is metered.	Estimate the impact by knowing the improvement in flow measurement, the number of meters replaced, and the average flow per meter	Replace every 7-10 years or after a predetermined volume (i.e. one million gallons for 5/8" meters)
Water Sales			
Illicit Taking by Contractors	Medium impact. Unreported use of water (theft) can be substantial in there is no control of water used in construction activities	Estimate of water taken based on metered applications on record and the number of contractors suspected of taking water illicitly. This is an extremely subjective estimation	Determine an approved metered water point for each contractor and have personnel visit periodically to ensure contractor is respecting assignment. Enforce the rules regarding illicit taking of City property.
Landscape Watering			
Yards	High impact. Approximately 30-40% of the water used in summer is for yard irrigation.	Measure the average daily water production in winter and in summer	Customer controls watering according to perception or need
Home Repairs			
Broken Sprinklers	Low impact.	Difficult to measure given the typical night watering programming and inability to quantify number of sprinklers broken at any given time	Public education campaign
Leaking Toilets	High impact. A "running" toilet can waste 2 gallons of water per minute (...that's 96,000 gallons a month). A "silent leak" in a toilet can waste up to 7,000 gallons of water per month.	The AWWA estimates that 20 % of all toilets leak, representing 5% of the family's water use. A good approximation is to take 5% of the annualized	Public education campaign

Potential Water Conservation Sources			
Source	**Impact on Conservation**	**Measurement**	**Customary Control Method**
	Sources: East Bay Municipal Utility District (EBMUD) and This Old House (Oct 2007)	residential winter usage.	
Normal Toilets	High Impact. A 'normal' toilet uses five gallons of water; a low volume toilet can use up to half of that volume.	Water savings may be calculated by estimating the number of expected low flow toilets and knowing the difference in volume flushed between a normal and a low flow toilet	Some cities offer free toilet exchange (San Antonio), others offer rebates
Personal Habits			
Showers, shaving, laundry, car washing, dishwater	High impact. For communities with low awareness of this subject, the amount of water wasted can be significant when the cumulative effect of the population is considered. Showers are an obvious area of opportunities for conservation.	The American Water Works Association estimates that the average American family uses 28 percent of the water used in their home to flush the toilet; 22 percent to wash clothes; 21 percent to take showers; 12 percent from faucets; 9 percent to take baths; 5 percent toilet leakage; and 3 percent to wash dishes.–	Public education campaign

APPENDIX C: MEASUREMENT OF SELECTED CONSERVATION SOURCES

Measurement of Selected Conservation Sources			
Category	**Reduction Goal**	**Goal Measurement**	**Steps to Achieve Goal**
Unmetered Consumption			
Fire Hydrant Flushing	10%	Flushing time is reduced by 10 % or more	Optimize flushing procedures by assigning a clear end point to the event. If raising the chlorine residual is the target, assign a minimum value required to end and provide chlorine kits to the flushing crew; if expelling air is the target, determine whether a shorter time can achieve the objective; if the objective is to get rid of dirty water after a pipe repair, instruct the crews to take frequent samples to help them determine when the water is clear.
Sweepers	N/A	Water use is intrinsic to sweeper operation, savings may be negligible	Interdepartmental conversations to elicit the help of the sweepers in saving water
Fire Fighting	N/A	N/A	Volume control is not a goal in fire fighting
Unauthorized Consumption			
Illicit Taking by Contractors	100%	Extremely difficult to estimate but a log of illicit taking events should be kept to estimate progress	Fines, denial of service or construction permits to recurring thieves
Metering Inaccuracies			
Calibration, Plant Meter	1%	Plant records show evidence of calibration according to program	Ensure sufficient funds are budgeted to pay for calibration; include calibration in water plant maintenance schedule
Calibration, Commercial and Industrial Meters	1%	Records indicate that meters are calibrated according to program	Quantify the numbers of meters that need to be calibrated; establish a calibration program either in-house or outsourced; establish a budget for the program; establish a documentation protocol and periodic program review
Inappropriate Sizing	5%	Personnel responsible for sizing meters has and follows clear guidelines foe determining adequate size	Consult meter manufacturers to determine optimum meter sizing, especially on sizes 2” and above
Residential Meter Replacement	5%	City replaces meters that have reached a predetermined volume or age	Ensure funding for meter replacement (personnel, equipment, and meters) is adequate. Give meter replacement program a high priority.
Leakage			
Broken Main Repair	10%	Average response time to isolate leaking pipe is reduced by 10%. Maintenance crews keep a broken pipe log where they record the time the call came in and the time they controlled the water.	Set procedures and priorities for water pipe repair; instruct dispatcher to get as much information as possible from caller; review stock of necessary repair parts to ensure all pipe sizes are covered; ensure maintenance crews leave the Utility yard with all necessary materials and tools to achieve the repair expeditiously; budget and fund the purchase of tools and equipment that will facilitate repairs, i.e. backhoes, dewatering pumps, air compressors, pneumatic saws.
Service Connections	10%	Same as above	Same as above
Storage Tank Overflows			
Operational Overflows in Storage Tanks	100%	Eliminate the overflows in storage tanks.	Install instrumentation to allow the operator to monitor the system continuously or have the necessary manpower for the same. System overflows may have disrupting effects in the streets due to the large volumes usually involved
Metered Consumption			
Parks/Medians	10%	Public works meters must reflect a decrease in consumption	Opportunity to save would come from automating the parks and medians so the watering time follows the agronomic requirements, not staff schedules.
Existing Yards and Landscapes	10%	Per capita summer consumption is lowered by 2-3 percent (approximately 30 percent of water use in summer is for irrigation, one tenth of that equals 3 percent of the total summer use).	Educating the public as to proper watering frequency and intensity is critical to achieve water savings. Joint public education programs with local nurseries and sprinkler system installers can be beneficial.
New Yards and	25%	If number of new yards or yards with drought resistant	Create task force to discuss adopting heat resistant grass ordinance, including nursery

Measurement of Selected Conservation Sources			
Category	**Reduction Goal**	**Goal Measurement**	**Steps to Achieve Goal**
Landscapes		grass can be approximated, the typical summer use compared to a house with normal grass could give a number. Difficult to track if no ordinances are enacted	and landscape representatives for market input; if idea is workable, create ordinances that restrict the type of grass in new subdivisions or remodeling, to heat and drought resistant varieties. Extreme case: Phoenix adopted a no-water landscape in the 80s.
Broken Sprinklers	N/A	Difficult to measure given the typical night watering programming and inability to quantify number of sprinklers broken at any given time. Quantification of this item is lumped together with the landscape watering goals	Establish a permanent public education campaign with renewable funds and periodic reviews
Leaking Toilets	50%	Difficult to measure given that the number of leaking toilets is always unknown.	Establish a permanent public education campaign with renewable funds and periodic reviews
Normal Toilets	5%	Number of toilets replaced times the savings between the old toilet and the low flow toilets	Encourage home appliance and improvement stores to carry low flow toilets; include this in the public education campaign. Long-term, consider creating an ordinance to require this type of toilets.
Showers, shaving Car washing Dishwater	10%	Difficult to measure given it depends on personal habits	Establish a permanent public education campaign with renewable funds and periodic reviews

APPENDIX D: WATER CONSERVATION ADOPTION ORDINANCE

ORDINANCE NO. 2008-27

AN ORDINANCE AMENDING ORDINANCE 96-11, WHICH ADOPTED THE CITY OF WESLACO WATER CONSERVATION AND EMERGENCY WATER DEMAND MANAGEMENT PLAN, TO REQUIRE WHOLESALE PUBLIC WATER SUPPLIERS TO SUBMIT A DROUGHT CONTINGENCY PLAN IN COMPLIANCE WITH SUBCHAPTER B OF CHAPTER 288 TITLE 30 TEXAS ADMINISTRATIVE CODE AND ORDAINING OTHER MATTERS WITH RESPECT TO THE SUBJECT MATTER HEREOF.

BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF WESLACO, TEXAS THAT:

SECTION I:

Ordinance 96-11, which adopted The City of Weslaco Water Conservation and Emergency Water Demand Management Plan, was passed and approved by The Weslaco City Commission on May 7, 1996 is hereby amended to add a new Section 3.13 to the Plan to require wholesale Public Water Suppliers To Submit a Drought Contingency Plan in Compliance with Subchapter B of Chapter 288 Title 30 Texas Administrative Code so that after second and final reading of this Ordinance Section 3.13 of the City of Weslaco Water Conservation and Emergency Water Demand Management Plan will read as follows:

3.13 Wholesale Customers

The City of Weslaco, in the event this plan is activated, shall distribute water to all current and future wholesale providers in accordance with this plan. Existing customers shall be requested to reduce demand as described below, and are subject to the same use prohibitions listed above.

Upon activation of any stage of this Plan, wholesale customers shall be directly notified within twenty-four (24) hours. Wholesalers are required to notify their customers within seven (7) days of the activation of any stage of this plan. All relevant portions of this plan are effective at the end of this seven (7) day period.

The notification to wholesale customers shall include the following language: "The City reserves the right, under Section 11.039(b) (2) of the Texas Water Code, to reduce the amount of water supplied to wholesale customers in accordance with the goals established under the Drought & Emergency Contingency Plan. Wholesale suppliers are encouraged to adopt this or a similar plan to achieve the necessary demand reductions within their system that will accomplish the goals of the City of Weslaco Drought Contingency Plan. Any reduction in water supplied to wholesale customers shall be limited to those stated in the targets for each stage (e.g. Stage 1, 2% reduction from previous thirty day water consumption), unless otherwise determined by the City Manager, or his/her designee, as described in the complete plan."

SECTION II:

All other existing provisions of The City of Weslaco Water Conservation and Emergency Water Demand Management Plan will remain in effect.

PASSED AND APPROVED on first reading at a regular meeting of the City Commission this 11th day of September, 2008.

PASSED AND APPROVED on second reading at a regular meeting of the City Commission this 25th day of September, 2008.

CITY OF WESLACO

Buddy de la Rosa, **MAYOR**

ATTEST:

Amanda C. Elizondo, **CITY SECRETARY**

APPROVED AS TO FORM:

Ramon Vela, **CITY ATTORNEY**

ORDINANCE NO. 2002-04

AN ORDINANCE AMENDING THE WESLACO WATER CONSERVATION AND EMERGENCY WATER DEMAND MANAGEMENT PLAN OF ORDINANCE NO. 96-11 TO INCLUDE NEW REGULATIONS AFFECTING WATER CONSERVATION; AND ORDAINING OTHER MATTERS WITH RESPECT TO THE SUBJECT MATTER HEREOF.

BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF WESLACO:

SECTION 1: The Weslaco Water Conservation and Emergency Water Demand Management Plan of Ordinance No. 96-11, passed and approved on May 7, 1996, revised in August 1998 and made part hereof for all purposes, is amended to include new regulations affecting water conservation.

SECTION 2: This Ordinance and the provisions hereof shall become effective on the day this Ordinance is passed on second and final reading.

PASSED AND APPROVED on first reading by the City Commission of the City of Weslaco, Texas this the 4th of June 2002.

PASSED AND APPROVED on second reading by the City Commission of the City of Weslaco, Texas this the 2nd day of July 2002.

CITY OF WESLACO

Joe V. Sanchez

MAYOR, Joe V. Sanchez

ATTEST:

Amanda C. Elizondo

CITY SECRETARY, Amanda C. Elizondo

APPROVED AS TO FORM:

Ramon Vela

CITY ATTORNEY, Ramon Vela

ORDINANCE NO. 96-11

AN ORDINANCE OF THE CITY OF WESLACO, TEXAS, ADOPTING A WATER CONSERVATION AND EMERGENCY WATER DEMAND MANAGEMENT PLAN; PROVIDING FOR THE REPEAL OF ALL ORDINANCES IN CONFLICT; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR A PENALTY OF FINE NOT TO EXCEED THE SUM OF FIVE HUNDRED DOLLARS ($500.00) FOR EACH OFFENSE; DECLARING AN EMERGENCY AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, it is necessary that a Water Conservation and Emergency Water Demand Management Plan be adopted by the City of Weslaco; and

WHEREAS, such a program has been formally submitted to the Texas Water Development Board for approval in connection with a utility system capital improvements program to expand and upgrade wastewater treatment plant capacity, wastewater collection system, water treatment plant, and water distribution and storage facilities; and

WHEREAS, the City Commission of the City of Weslaco believes that it is in the best interest of the City of Weslaco to adopt such a program; **NOW, THEREFORE,**

BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF WESLACO, TEXAS;

SECTION 1.

That the Weslaco Water Conservation and Emergency Water Demand Management 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 the City.

SECTION 2.

That all ordinances of the City in conflict with the provisions of this ordinance be, and the same are hereby, repealed and all other ordinances of the City not in conflict with the provisions of this ordinance shall remain in full force and effect.

SECTION 3.

Should any paragraph, sentence, subdivision, clause, phrase or section of this ordinance be adjusted or held to be unconstitutional, illegal or invalid, the same shall not affect the validity of this ordinance as a whole or any part or provision thereof, other than the part so declared to be invalid, illegal or unconstitutional.

SECTION 4.

Any person, firm or corporation violating any of the provisions of the mandatory water use restrictions which have been formally initiated by the City and contained in the Weslaco Water Conservation and Emergency Water Demand Management Plan as adopted hereby shall, upon conviction in the Municipal Court of the City of Weslaco, Texas, be deemed guilty of a misdemeanor and shall be punished by a fine not to exceed the sum of Five Hundred Dollars

($500.00) for each offense, and each and every day any such violation shall be deemed to constitute a separate offense.

SECTION 5.

An emergency exists which affects the health and safety of the citizens of Weslaco, Texas, as such, this ordinance shall take effect immediately from and after its passage upon first reading and the publication of the caption as provided by the laws of the State of Texas and by the Charter of the City of Weslaco.

PASSED and **APPROVED** by the City Commission of the City of Weslaco, Texas on first reading this the 16th day of April, 1996.

PASSED and **APPROVED** on second and final reading this 7th day of May, 1996.

CITY OF WESLACO

Gene A. Braught, **MAYOR**

ATTEST:

Amanda C. Elizondo, **CITY SECRETARY**

APPROVED AS TO FORM:

Ramon Vela, **CITY ATTORNEY**