



CITY OF TAYLOR

WATER CONSERVATION PLAN

**City of Taylor
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Taylor, Texas 76574
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April 2009

Prepared by:



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SECTION I INTRODUCTION

The City of Taylor is located in Williamson County, Texas at the intersection of U.S. Highway 79 and State Highway 95. According to the 2000 Census, Taylor had a population of 13,575. The City not only provides water and sewer service to persons within the city limits but also certain population centers in the surrounding area. Exhibit A shows the Certificate of Convenience and Necessity (CCN) and Service Area Map.

The City of Taylor purchases treated water from the Brazos River Authority (BRA) Granger Lake Regional Water System (PWS #2460155) via a long-term water purchase contract. BRA supplies water through treated surface water from Granger Lake which is located approximately 7 miles north of Taylor. The City delivers this treated water via their distribution system (PWS #2460004) to Taylor's citizens and to the Noack Water Supply Corporation (PWS #2460020).

The wastewater treatment plant and collection system are owned and operated by the City. The current plant was constructed in 1997 and is permitted with the TCEQ (TPDES Permit No. 10299-001). The plant has a capacity of 4.0 MGD, a permitted average daily flow of 4.0 MGD, and a peak two hour flow of 6,944 gpm (10 MGD). The wastewater collection system provides service for approximately 95% of the City's retail water customers.

The City currently has a Drought Contingency Plan adopted via Ordinance No. XX, dated XX. This document only addresses reduction in water use during emergency conditions. It is not intended to encourage on-going reduction in water use through conservation efforts. To aid the City in its efforts to conserve water and remain in compliance with the Texas Commission on Environmental Quality (TCEQ) requirements for Water Conservation Plans set forth by the amendment of the Texas Administrative Code, Title 30, Chapter 288 in January 2008, the City of Taylor finds that a stand-alone document outlining the water conservation efforts, goals, and updated water system data is needed.

The information found herein represents the Water Conservation Plan developed for and implemented by the City of Taylor. This document has been developed, in part, in accordance with the guidelines and direction of the Texas Water Development Board (TWDB) and through consultation with City officials and KSA Engineers, Inc.

A. Utility Evaluation Data

In order to develop a comprehensive and effective water conservation plan, the conditions of the existing water and wastewater systems must be evaluated. The Water

Conservation Utility Profile (TWDB Form WRD-264) was completed with the most updated information available. This profile is included as Appendix C. This form refers to the Certificate of Convenience and Necessity (CCN) and Service Area Map which is included as Exhibit A to this Plan.

B. Program Goals

The City of Taylor recognizes the importance of developing an effective water conservation plan. Proper planning will help all users in the system conserve water and reduce the City's contribution to the water needs of Texas today and in the future.

The City of Taylor is committed to conservation to avoid waste, save costs, and conserve Texas's natural resources. The City has already accomplished many goals in its efforts to conserve water. These include adopting a water conservation-oriented rate structure, installing meters at all City facilities, implementing a plan for meter replacement, and providing information on non-wasteful uses of water and techniques that can be employed to conserve water to all customers. The City has also adopted standard construction details and specifications which require proper embedment of all water lines and provides standards for all services and meters.

To further the City's progress, Taylor proposes to establish the following goals for its long-term water conservation plan:

- 1) Promote water conservation, non-wasteful uses of water, and techniques that can be employed to conserve water through education and information efforts that will be provided on a yearly basis.
- 2) Reduce unaccounted-for water (from the metered purchase amounts from BNA to the metered sales) in the system from the current levels of 22% to 15%. This water loss percentage should be obtained within the next 10 years.
- 3) Maintain water meters and a water meter testing program and expand the Automatic Meter Reading (AMR) System to accurately account for water sold by the City.
- 4) Establish and maintain water rate structures that promote conservation of water.

C. Coordination with Regional Water Planning Group

The water service area of the City of Taylor is located within the Brazos G Regional Water Planning Group. The City of Taylor actively participates in the regional water planning effort and has provided a copy of this Plan to the Brazos G Regional Water

Planning Group to seek comment and insure consistency with the approved regional water plan. A copy of this correspondence is provided in Appendix A.

D. Public Involvement

Opportunity for public and wholesale customers to provide input into the preparation of this Plan will be provided by the City of Taylor in the form of:

- City Council meeting seeking public comment before adoption of the Plan (see Appendix B for adoption resolution)
- Correspondence with the City's wholesale supplier – Brazos River Authority Granger Lake Regional Water System (see Appendix A)
- Correspondence with the City's wholesale water customer – Noack WSC (see Appendix A).

In addition, this Plan will be continually available for public review during normal business hours of the City at the City Hall located at 400 Porter Street, Taylor, Texas 76574. Any comments received should be considered for inclusion in a revision or amendment to the Water Conservation Plan.

E. Plan Implementation

This Plan and subsequent Plan elements discussed in this document were adopted by City Resolution of the City of Taylor (see attached Resolution in Appendix B).

SECTION II LONG-TERM WATER CONSERVATION PLAN

The main goals associated with the long-term water conservation planning for the City of Taylor involve maintaining a non-wasteful water rate structure, reducing unaccounted for water, maintaining City meters through testing and replacement, and providing education and information to all customers. These long-term water conservation goals can only be achieved through adherence to the following plan elements and methods.

A. Education and Information

According to the document titled "Guidelines for Municipal Water Conservation and Emergency Water Demand Management" prepared by the TWDB (November 1991), statistics for municipal water uses in Texas indicate many areas in which water can be conserved or better utilized. Some of the facts about municipal water use include:

- Seasonal use (primarily for landscape irrigation) averages 20-30% of the total annual municipal use.
- Single family homes often use half of the water purchased in the summer months for exterior purposes such as lawn watering and car washing.
- Residential in-home water consumption indicates that 40% is used for toilet flushing, 35% for bathing, 14% for laundry, and 11% for kitchen needs.

As can be seen from these water use facts, a great potential exists for reducing water consumption if the public is informed about water conservation practices. In fact, a municipality can employ low cost investments to educate the public on how to save water inside homes, with landscaping practices, and in recreational activities. The focus of public education, therefore, relies on proper communication.

Various media outlets exist for effectively communicating water conservation information. Some of these methods include television, radio, and newspaper announcements and advertisements; posters and public displays; exhibits at fairs, contests and school programs; bill inserts, brochures, pamphlets, and newsletters; and speaker's programs. The vehicle by which information is distributed is dependent on the changing availability of these media types. It is also dependent on the future approaches taken by City officials in educating the public. At a minimum, the City of Taylor will provide education and information on a yearly basis to all customers presenting non-wasteful uses of water and techniques that can be employed to conserve water through the following vehicles:

1. Annual Educational Water Conservation Activity

The City can provide annual water conservation education through media advertisements in the local newspaper or other local publication. Publication materials could include selected material from the TWDB giving water conservation strategies for residential, commercial, and industrial customers. Providing City water use data concerning variations in seasonal consumption and yearly/monthly changes in per capita use can illustrate time periods where water conservation is the most important. Timely publication of these conservation tips during peak seasons can help initiate conservation when per capita consumption is the highest.

2. Water Conservation Literature for Customers

The City can maintain water conservation materials available to customers at all times. General water conservation brochures (such as those available through the TWDB) can be mailed to each customer on an annual or biannual basis. New customer packets can also be developed to deliver the water conservation message. Various literatures are available for distribution to current and future customers, and Taylor specific documents can be developed as deemed appropriate and necessary by City officials. The City maintains an up-to-date website containing useful information for residents, and water conservation materials can be published online to help reach a wider audience of water users.

The public education program can also include information about techniques and practices that can be employed to conserve water. Specific consideration should be given to the following:

1. Water-Conserving Landscaping (Xeriscape)

Public education on Xeriscape should include landscaping and irrigation procedures which reduce water consumption while lowering water bills. The City can strive to provide an example by applying these procedures to public property whenever and wherever practical.

2. Retrofit Program

Through the education and information program, plumbers and water consumers can be encouraged to retrofit old fixtures (such as interior plumbing fixtures, lawn

watering equipment, and water-using appliances) with water saving devices. The educational process should focus on the advantages of installing water conservation devices as well as the availability of these items.

B. Conservation-Oriented Water and Wastewater Rate Structures

The City maintains a rate structure as shown in Table 1, and a copy of the utility rate ordinance is found in Appendix D. Such a structure is a step towards maintaining a rate that promotes water conservation.

The flat-rate water structure used by the City applies a base charge by meter type and size for the first 2,000 gallons of water use and a flat charge for each 1,000 gallons thereafter. Wastewater is billed in a similar manner dependent on water use. This rate structure is more conducive to water conservation than a regressive rate structure since increasing water and sewer use is charged at a flat rate instead of a declining rate.

However, the City's current rate structure is not as water conservation oriented as a progressive rate structure, where increasing water and sewer use is charged at an increasing rate. It remains the responsibility of the future City government to maintain a water conservation-oriented rate structure for their water and wastewater utilities and consider the adoption of progressive rate structures as a further step to advance the City's goal of reduced water use. Maintaining a water conservation oriented rate structure and evaluating its effectiveness is an ongoing task.

Table 1. City of Taylor Water Rate Structure

Single-Family, Commercial, & Industrial	Size of Meter	Base Rate + 2000 Gallons	Rate Per 1000 Gallons Thereafter
	3/4"	\$20.28	\$4.14
	1"	\$23.08	\$4.14
	1 1/2"	\$46.86	\$4.14
	2"	\$69.69	\$4.14
	3"	\$122.97	\$4.14
	4"	\$199.08	\$4.14
	6"	\$389.17	\$4.14
Multi-Family Base Rate +\$7.99 per LUE	Size of Meter	Base Rate + 2000 Gallons	Rate Per 1000 Gallons Thereafter
	3/4"	\$15.00	\$4.14
	1"	\$21.00	\$4.14
	1 1/2"	\$33.00	\$4.14
	2"	\$52.00	\$4.14
	3"	\$122.97	\$4.14
	4"	\$199.08	\$4.14
	6"	\$389.17	\$4.14

Table 2. City of Taylor Sewer Rate Structure

	Base Rate + 2000 Gallons	Rate/1000 Gallons
Residential Sewer	\$14.91	\$4.83
Multi-Family / Commercial Sewer	\$14.91	\$4.83

C. Universal Metering and Meter Repair and Replacement

Unaccounted-for water is water that is supplied to the system but not metered. An example of unmetered water is flushing of water distribution mains. Unaccounted for water also involves any losses to the system through faulty meter readings or distribution line leaks. These losses to the system should be calculated and reported on an annual basis. To meet this objective, the following concepts should be included in a water loss audit program:

1. Universal Metering of Customer Uses

It is essential that all customers and water users be metered. In addition to installing new meters on previously unmetered connections, the City can also implement a meter replacement program whereby old and faulty meters are replaced with new ones and connected to an automatic meter reading system. This generally improves

the accuracy of the meter system and therefore reduced the potential for unaccounted-for water.

2. Periodic Meter Testing and Repair

A maintenance program of meter testing and repair is essential in gathering accurate data on the water system. To ensure problems are detected on a consistent and methodical basis, all meters owned by the City should be tested according to the following schedule:

- Master Meters – test annually
- Customer Meters (larger than 1 ½”) – test every 5 years.
- Customer Meters (smaller than 1 ½”) – test sample group of meters of similar age every 10 years

To avoid testing every customer meter in one year, stagger testing should be utilized to ensure that an equal number of meters are tested each year. Monthly meter readings should also be checked versus previous readings to determine if there is a dramatic change in water use. A large variation would indicate that the meter is not operating properly and should be investigated further.

D. Leak Detection and Repair Programs

A leak detection, location, and repair program is an important part of reducing water losses in the system. Such a program will tend to finance itself from savings in water purchased by the City.

A monthly accounting of the amount of water purchased from BRA versus the water metered to the consumers should be maintained and updated on a continual basis. Unaccounted-for water can be monitored by examining these records and reduced as sources are located and eliminated. These sources could include defective hydrants, abandoned services, unmetered water used for fire fighting or other municipal uses, inaccurate meters, illegal hookups, unauthorized use of fire hydrants, and leaks in mains and services.

E. Plumbing Codes

According to the TWDB, “the single most effective method of conserving water inside the home is to replace older, inefficient plumbing fixtures with modern, efficient fixtures”. A

strong plumbing ordinance is, therefore, essential in meeting water conservation goals. The City of Taylor has adopted the 2003 International Plumbing Code via City ordinance. A copy of this ordinance is located in Appendix E. Enforcement of this ordinance is vital to achieving the City's water conservation goals. Additionally, future plumbing code modifications must include the most current Texas Legislature regulations and additional standards as appropriate.

Table 3. Plumbing Minimum Standards

Fixture	Standard
Texas Legislature (January 1, 1992)	
Shower Heads	No more than 2.75 gpm at 80 psi
Lavatory & Sinks Faucets and Aerators	No more than 2.2 gpm at 60 psi
Wall-mounted, Flushometer Toilets	No more than 2.0 gallons per flush
All other Toilets	No more than 1.6 gallons per flush
Urinals	No more than 1.0 gallons per flush
Drinking Water Fountains	Must be self-closing
Additional Requirements	
All Hot Water Lines	Must be insulated
New Swimming Pools	Must have recirculating filtration equipment

F. Recycling and Reuse

Recycling or reuse of waters is currently not practiced in Taylor. The effluent from the wastewater treatment plant is available for reuse by an authorized entity. Although it is possible to use the treated effluent for some industrial purposes or for irrigation, the City of Taylor does not practice this currently. The City will evaluate and consider possible implementation of a reuse program to help achieve the water conservation goals outlined in this Plan.

G. Pressure Reduction

Excessive pressures in water distribution systems and customer connections are directly related to the mechanical wear experienced on plumbing fixtures and the quantities of water lost through system leaks. With lower pressures in a system, line and valve breaks occur less frequently and less water is lost when breaks do occur.

It is essential that an updated water distribution system model be maintained to examine impacts of new lines to the existing variations in pressures. At such time that pressures exceed 80 psi in certain portions of the City, installation of pressure reducing valves (PRV) will be warranted to reduce the potential for increases in unaccounted-for water through system leaks. Furthermore, the City is currently conducting improvements to help alleviate pressure differentials found within the distribution system.

H. Targeted Goals for Municipal Water Use Conservation

In order to advance water conservation efforts, the City has established 5-year and 10-year target goals for reduction in municipal use including a schedule for implementing the Plan to achieve the targeted reductions and a method of tracking its implementation and effectiveness.

The TWDB provides a tool for use in estimating the targeted goals for municipal water use conservation. The Water Conservation Utility Profile (TWDB Form WRD-264) was completed with updated information from the original plan. This profile is included as Appendix C. This form refers to the Certificate of Convenience and Necessity (CCN) and Service Area Map which is included as Exhibit A to this Water Conservation Plan. The City of Taylor has made great strides in accomplishing water use reduction before the statement of the following targeted goals, and the TWDB estimates for water savings have been adjusted to reflect local conditions. The estimated water savings from the previously described long term goals are as follows:

1. Education and information will be provided on a yearly basis to all customers presenting non-wasteful uses of water and techniques that can be employed to conserve water. Based on the TWDB “most likely” scenario, a 2% savings in the average annual per capita use can be realized through education programs and for the “advanced” scenario, a 5% savings can be realized. To reflect for education efforts already taken by the City, these estimated savings are adjusted to be 1% for the “most likely” scenario and 2.5% for the “advanced” scenario. The “most likely” scenario equates to 1.4 gallons per capita per day (gpcpd) reduction (5-year average annual gpcpd of 137.8 multiplied by 1%), and the “advanced” scenario equates to a 3.5 gallons per capita per day (gpcpd) reduction (5-year average annual gpcpd of 137.8 multiplied by 2.5%).
2. As part of education measures, customers will be encouraged to retrofit old plumbing fixtures with water-conserving units. The TWDB has set a “most-likely” goal of 20.5 gpcpd and an “advanced” goal of 21.7 gpcpd by replacing old plumbing fixtures. The

- City of Taylor has already realized some savings from the retrofit and new installation of water-conserving plumbing fixtures. Substantial new development in the City utilizes water efficient plumbing fixtures required by the City's building code. These existing local conditions allow for an estimated 4.1 gpcpd for a "most-likely" goal and an estimated savings of 4.3 gpcpd for an "advanced" goal.
3. Education will also help in reduction of summer usage. Seasonal water uses from June to August have represented approximately 30% of the total annual production over the last 5 years. This seasonal peak can be offset with an increasing water charge as the usage rises and increased public awareness of water-conserving activities. The seasonal per capita usage contributes 41.3 gpcpd (5-year average per capita use of 137.8 multiplied by 30%). With consideration for existing local conditions, the "most likely" conservation scenario can achieve a 3% reduction in this use and the "advanced" can achieve a 10% reduction. The resulting gpcpd seasonal use reduction provides approximately 1.2 gpcpd in water savings (41.3 multiplied by 3%) for the "most likely" scenario and 4.1 gpcpd in water savings (41.3 multiplied by 10%) for the "advanced" scenario.
 4. Unaccounted for water from water production to the consumers on the system should be reduced from the previous 5-year average of 22% (average calculated from water losses for 2004 through 2008). This loss should be reduced to no more than 15%. The associated potential savings by reducing unaccounted for water loss is 9.6 gpcpd (137.8 gpcpd multiplied by difference between 22% and 15%) for the "advanced" scenario and 50% of the potential savings for the "most likely" scenario. This goal will require on-going metering and operational adjustments as well as continual repair of old lines and meters in the distribution system. The result will be a decrease in per capita water consumption thus reducing water demands on the system.

These goals provide a total potential for reducing water usage in the most likely scenario by 11.5 gpcpd. This would reduce the average year annual per capita use from 137.8 to 126.3 gpcpd. An advanced scenario gives a maximum reduction in water usage of 21.5 gpcpd. This would reduce the average year annual per capita use from 137.8 to 116.3 gpcpd. The City intends to meet one-half of this goal within 5 years of plan adoption (2014) and the second-half of this goal within 10 years of plan adoption (2019). The following table summarizes the targeted goals.

Table 4. Targeted 5 and 10 Year Goals

	Average Annual Per Capita Use (gpcpd)	Water Savings (gpcpd)
Current	137.8	-
2014 (5 Year Goal) Most Likely	132.1	5.7
2014 (5 Year Goal) Advanced	127.1	10.7
2019 (10 Year Goal) Most Likely	126.3	11.5
2019 (10 Year Goal) Advanced	116.3	21.5

It is important to note that the *2006 Region G Water Plan* adopted by the Brazos G Regional Water Planning Group and accepted by the TWDB estimates the per capita use for Taylor in 2020 to be 142 gpcpd. This per capita use is actually slightly higher than the previous 5-year average used in this Plan as the starting point for water use reduction. Therefore, the City believes these targeted 5 and 10 year goals are aggressive but representative of the City's desire to conserve the State's vital and limited water resources.

These stated targeted 5 and 10 year goals do not account for possible future changes in the makeup of the City's water users. For example, additional heavy water users are expected to be added to the system, including new educational facilities and regional parks currently under construction. Changes to the makeup and usage patterns of the City's water users will affect the per capita water usage, but the water conservation strategies outlined in this Plan will still apply to all the City's water users, and the City will make every effort to accommodate new heavy water users while maintaining its goals for water use reduction.

It is also important that updates to the Region G Water Plan be coordinated with the City so that water use demand and projections accurately reflect the trends in Taylor's water use. The City believes that historical production volumes from years as far back as a decade provide a better representation of the City's historical water use, and this data coupled with current and future water use trends would provide greater accuracy for modeling future water use projections.

I. Schedule of Program

In order to maintain a schedule for its program, the City must consider a wide variety of tasks in order to successfully meet the goals of its Plan. The City has made significant

progress on many conservation efforts before the adoption of this Plan. Programs to inform the public about water conservation exist, new water conservation oriented rates have been adopted, and most meters have been replaced. However, many of these programs have ongoing steps that will need to be performed consistently in order to maintain effectiveness. The following is a schedule of tasks for the City's Water Conservation Plan.

1. The City of Taylor should complete a Public Information Plan encompassing all aspects of information and education programs already mentioned within 6 months of adopting the 2009 Water Conservation Plan. In the second year after the Public Information Plan is complete, the City of Taylor should revise the Public Information Plan and conduct a survey of its customers to measure the effectiveness of its plan. For each subsequent year, a revision of the Public Information Plan should be completed. Every other year after the first survey has been completed, the City should survey its customers or determine some method to measure the effectiveness of its information campaign.
2. Once a year, the City of Taylor should review consumption patterns and its income and expense levels and evaluate whether or not the current water rates are effective and appropriate. Adjustments should be made as needed, and consideration should be given to the adoption of a progressive water and sewer rate structure.
3. The City of Taylor should provide information regarding the water rate structure to each of its customers once a year. Also, every five years, or when the billing software is changed, the City of Taylor should provide customers with historical water use for the previous 12 months.
4. Meters will be tested according to Periodic Meter Testing and Repair on page 10 of this plan.
5. A leak detection and repair program will be maintained as mentioned previously. Accounting data of the water purchased from BRA versus the measured consumption from the City water meters should be maintained on a continual basis. These records can be monitored to determine water loss and unaccounted-for water. In addition, the City should also consider implementing surveys of the water system once a year to find possible leaks in the system.

6. Replacement of old and leaking water lines should be completed as soon as practical when a leak is identified. Even when leaks are not apparent, a schedule for replacement of old water lines should be maintained and updated as needed.
7. The City should consider adopting provisions to require the installation of pressure reducing valves for areas with pressure greater than 80 psi. A water distribution system model should be updated on a periodic basis and can be used to determine information about the City's water system and where pressure problems can be alleviated.

J. Method of Tracking

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

1. For information programs, the City should collect information about its programs and conduct surveys of the population to evaluate the effectiveness of the program. For literature pieces, the number of such pieces and topics covered should be documented. The number of news programs or advertisements should be documented and the total population of the service area should be tracked. After this information is collected, surveys should be conducted and recorded to evaluate the effectiveness of the program.
2. The billing structure should be evaluated annually. Several pieces of information are required to evaluate this structure effectively. A copy of the rate ordinance should be documented. Billing and customer records should be kept and water consumption by each customer class at the beginning and end of the reporting period should be recorded.
3. In order to evaluate the meter installation program, guidelines of meter installation based upon customer usage should be written and available, a meter repair and replacement policy should be documented, and meter number, size, make, and model should be recorded for each meter repair and replacement.
4. To track the progress of the City's Leak Detection and Repair Program, the City should maintain a water distribution model, records of water consumption of its customers, and accounting information of water bought from BRA. This

information will also be helpful in evaluating the City's Pressure Reduction Program.

5. The effectiveness of the City's Water Conservation Plan can be measured by tracking information similar to that found in the Utility Profile in Attachment C. The Water Conservation Implementation Report, found in Appendix F, should be completed periodically to gauge the effectiveness of the City's water conservation efforts. Accounting data of water purchased from BRA and records of water consumption by the City's customers can be used to monitor water usage and demand. It is recommended that this be performed annually to measure progress toward the 5 and 10 year goals in water usage reduction. If no progress is apparent, the City may want to consider alternate water conservation programs.

K. Means of Implementation and Enforcement

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

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

L. Periodic Reviews and Evaluations

The TCEQ requires (under 30 TAC §288.30) that the Water Conservation Implementation Report located in Appendix F be completed every 5 years and whenever this Plan is updated or amended.

When under financial obligation to the TWDB, the City is required (under 31 TAC §363.71) to submit an annual report describing the implementation, status, and quantitative effectiveness of the water conservation program. This annual report can be completed in the form of the Water Conservation Implementation Report, which is found in Appendix F, and is due within 60 days after the anniversary date of the loan closing for each year that the City is under financial obligation to the TWDB. The Administrator will undertake the task of completing this annual report.

M. Contracts With Other Entities

The adoption of this plan does not affect the water contracts with BNA or the City's wholesale customers. The City will require, through contractual agreements, that any political subdivision or utility contracting with the City in the future for treated water adopt a water conservation plan acceptable to the TWDB and TCEQ.

Appendix A

Correspondence, Coordination, and Notification



CITY OF TAYLOR

400 Porter Street, Taylor, Texas 76574

Ph:512-352-3675

Fax:512-352-8483

April 23, 2009

Mr. Dale Spurgin, Chair
Region G Brazos Water Planning Group
Jones County Judge
P.O. Box 148
Anson, TX 75901

**RE: City of Taylor - 2009 Water Conservation Plan
Review and Comment Requested**

Mr. Smalley:

The City of Taylor is seeking to adopt the 2009 Water Conservation Plan. This Plan will incorporate the TCEQ requirements set forth by the passage of 2007 House Bill 4.

To this end and on behalf of the City of Taylor, transmitted herewith please find one (1) copy of the "City of Taylor 2009 Water Conservation Plan". As the City's water planning group, this Plan is submitted for your review and to provide you the opportunity for input in the preparation of this document.

If you have any questions or would like to provide any comments to the Plan, please feel free to contact me.

Sincerely,
CITY OF TAYLOR


Jim Dunaway
City Manager

Enclosures

cc: Stephen P. Dorman, P.E., KSA Engineers, Inc.
File: TAY.017



CITY OF TAYLOR

400 Porter Street, Taylor, Texas 76574

Ph: 512-352-3675

Fax: 512-352-8483

April 23, 2009

Attention: Curtis Smalley
Brazos River Authority Granger Lake Regional Water System
102 W Morrow Street, Suite 202
Georgetown, TX 78626-4310

**RE: City of Taylor - 2009 Water Conservation Plan
Review and Comment Requested**

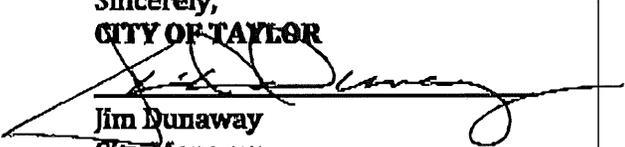
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Sincerely,
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Jim Dunaway
City Manager

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cc: Stephen P. Dorman, P.E., KSA Engineers, Inc.
File: TAY.017



CITY OF TAYLOR

400 Porter Street, Taylor, Texas 76574

Ph:512-352-3675

Fax:512-352-8483

April 23, 2009

Attention: Ralph Bachmayor
Noack Water Supply Corporation
12105 FM 619
Coupland, TX 78615-4973

**RE: City of Taylor - 2009 Water Conservation Plan
Review and Comment Requested**

Mr. Bachmayor:

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CITY OF TAYLOR



Jim Dunaway
City Manager

Enclosures

cc: Stephen P. Dorman, P.E., KSA Engineers, Inc.
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Appendix B
Adoption Resolution

Adoption of 2009 Water Conservation Plan

RESOLUTION NO. R09-12

AN RESOLUTION ADOPTING THE 2009 WATER CONSERVATION PLAN FOR THE CITY OF TAYLOR TO PROMOTE RESPONSIBLE USE OF WATER AND TO ESTABLISH SPECIFIC GOALS AND TARGETS FOR WATER CONSUMPTION REDUCTION AS REQUIRED BY 2007 HOUSE BILL 4 OF THE TEXAS STATE LEGISLATURE.

WHEREAS, the City of Taylor, Texas (City), recognizes that the amount of water available to its citizens and customers is limited; and

WHEREAS, the City desires to conserve water resources; and

WHEREAS, the City desires to comply with Section 11.1271 of the Texas Water Code and applicable rules of the Texas Commission on Environmental Quality which require these plans for all public water supply systems; and

WHEREAS, the City desires to comply with the rules of the Texas Water Development Board should it decide to avail itself of various financial assistance programs found in Title 31, Texas Administrative Code Chapter 363; and

WHEREAS, pursuant to Chapter 54 of the Local Government Code and in the best interests of its citizens, the City is authorized to adopt Resolutions it deems are necessary and expedient to preserve and conserve its water resources;

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF TAYLOR, TEXAS THAT:

Section 1. The City Council does hereby find and declare that sufficient and timely written notice of place and subject matter of this meeting adopting this Resolution was posted. The City Council further ratifies, approves and confirms such written notice and the posting thereof.

Section 2. The City Council adopts the 2009 Water Conservation Plan attached to this resolution. All resolutions that are in conflict with the provisions of this Resolution are hereby repealed.

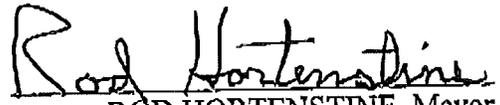
Section 3. Should any paragraph, sentence, clause, phrase or word of this Resolution be declared unconstitutional or invalid for any reason, the remainder of this Resolution shall not be affected.

Section 4. The City Clerk is hereby authorized and directed to publish this Resolution.

Section 5. The City Manager or chief administrative officer or his designee is hereby directed to file a copy of the Plan and this Resolution with the Texas Water Development Board in accordance with Title 31, Chapter 363 of the Texas Administrative Code.

Section 6. This Resolution shall take effect after passage and publication.

Passed and Approved by the City council on this 28th day of April, 2009.


ROD HORTENSTINE, Mayor

Attest:


SUSAN BROCK, City Clerk

Appendix C
Water Conservation Utility Profile
(TWDB Form WRD-264)



TEXAS WATER DEVELOPMENT BOARD

UTILITY PROFILE

The purpose of the Utility Profile is to assist with water conservation plan development and to ensure that important information and data be considered when preparing your water conservation plan and its target and goals. Please complete all questions as completely and objectively as possible. See *Water Conservation Plan Guidance Checklist* (WRD-022) for information on other water conservation provisions. You may contact the Municipal Water Conservation Unit of the TWDB at 512-936-2391 for assistance.

APPLICANT DATA

Name of Utility: City of Taylor

Address & Zip: 400 Porter Street, Taylor, TX 76574

Telephone Number: 512-342-3675 Fax: 512-342-8483

Form Completed By: KSA Engineers, Inc. Title: Consultant

Signature: _____ Date: April 2009

Name and Phone Number of Person/Department responsible for implementing a water conservation program:

Name: City Manager Phone: 512-342-3675

UTILITY DATA

I. CUSTOMER DATA

A. Population and Service Area Data

1. Please attach a copy of your Certificate of Convenience and Necessity (CCN) from the TCEQ
2. Service area size (square miles): 14

3. Current population of service area: 18,120
4. Current population served by utility: a: water 18,120
 b: wastewater 17,214
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
<u>2004</u>	<u>14,233</u>	2010	<u>15,530</u>
<u>2005</u>	<u>14,336</u>	2020	<u>17,849</u>
<u>2006</u>	<u>16,307</u>	2030	<u>20,606</u>
<u>2007</u>	<u>17,202</u>	2040	<u>23,604</u>
<u>2008</u>	<u>17,663</u>	2050	<u>26,865</u>

7. List source(s)/method(s) for the calculation of current and projected population:
Texas State Data Center population estimates for 2004-2008
TWDB 2006 Regional Water Plan, City Population Projections for 2000-2060

B. Active Connections

1. Current number of active connections by user type. If not a separate classification, check whether multi-family service is counted as Residential X or Commercial _____

<u>Treated water users:</u>	<u>Metered</u>	<u>Not-metered</u>	<u>Total</u>
Residential-Single-Family	<u>4,969</u>	_____	<u>4,969</u>
Residential-Multi-Family	<u>57</u>	_____	<u>57</u>
Commercial	<u>439</u>	_____	<u>439</u>
Industrial	<u>30</u>	_____	<u>30</u>
Public	<u>93</u>	_____	<u>93</u>
Other	<u>3</u>	_____	<u>3</u>

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

Year	<u>2006</u>	<u>2007</u>	<u>2008</u>
Residential –Single-Family	<u>202</u>	<u>153</u>	<u>14</u>
Residential-Multi-Family	<u>0</u>	<u>0</u>	<u>0</u>
Commercial	<u>0</u>	<u>1</u>	<u>0</u>
Industrial	<u>0</u>	<u>0</u>	<u>0</u>
Public	<u>24</u>	<u>17</u>	<u>10</u>
Other	<u>0</u>	<u>0</u>	<u>0</u>

C. High Volume Customers

List annual water use for the five highest volume retail and wholesale customers
(Please indicate if treated or raw water delivery.)

	<u>Customer</u>	<u>Use (1,000gal./yr.)</u>	<u>indicate Treated OR Raw</u>
(1)	<u>Noack Water Supply</u>	<u>46,796</u>	<u>Treated</u>
(2)	<u>ERCOT</u>	<u>11,452</u>	<u>Treated</u>
(3)	<u>Corrections Corp.</u>	<u>11,239</u>	<u>Treated</u>
(4)	<u>Taylor Golf Course</u>	<u>9,405</u>	<u>Treated</u>
(5)	<u>Lone Star Linen</u>	<u>8,782</u>	<u>Treated</u>

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 X

Year	2004	2005	2006	2007	2008
January	54,722	64,082	84,887	63,387	52,683
February	51,767	54,521	50,413	58,251	50,180
March	55,044	54,828	55,796	63,317	51,221
April	52,378	62,310	62,131	61,128	53,282
May	59,995	72,106	73,109	63,773	64,063
June	59,564	89,543	82,788	62,379	86,732
July	78,673	97,158	95,680	61,229	98,125
August	87,906	82,789	110,606	73,432	82,899
September	79,663	91,945	72,980	70,893	74,685
October	71,109	82,512	65,689	69,681	70,047
November	63,681	73,878	64,040	55,895	62,046
December	66,808	73,135	67,634	54,025	59,431
Total	781,310	898,807	885,753	757,390	805,395

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

Meters located at interconnect pumping stations

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

Year	Residential	Commercial	Industrial	Wholesale	Other	Total Sold
2004	444,155	131,007	4,434	0	51,090	630,686
2005	383,131	145,428	9,593	0	94,799	632,952
2006	378,670	110,922	38,550	118,962	41,872	688,976*
2007	329,056	83,380	41,396	0	130,388	520,160
2008	402,854	84,256	55,031	46,796	12,611	601,547**

*Total excludes "Compound Water 4" Meter" category due to meter error in 2006

**Total excludes "No Charge Water Meter" category due to system errors in 2008

3. List previous five years records for water loss
(See #2, Appendix A)

<u>Year</u>	<u>Amount (gal.)</u>
<u>2004</u>	<u>150,623,800</u>
<u>2005</u>	<u>256,855,100</u>
<u>2006</u>	<u>77,814,800</u>
<u>2007</u>	<u>237,230,400</u>
<u>2008</u>	<u>203,847,300</u>

4. List previous five years records for annual peak-to-average daily use ratio
(See #3, Appendix A)

<u>Year</u>	<u>Average MGD</u>	<u>Peak MGD</u>	<u>Ratio</u>
<u>2004</u>	<u>2.141</u>	<u>4.6</u>	<u>2.15</u>
<u>2005</u>	<u>2.463</u>	<u>4.6</u>	<u>1.87</u>
<u>2006</u>	<u>2.427</u>	<u>4.6</u>	<u>1.90</u>
<u>2007</u>	<u>2.075</u>	<u>4.6</u>	<u>2.22</u>
<u>2008</u>	<u>2.206</u>	<u>4.6</u>	<u>2.08</u>

5. Total per capita water use for previous five years (See #4, Appendix A):

<u>Year</u>	<u>Population</u>	<u>Total Diverted (or Treated Less Wholesale Sales (1,000 gal.))</u>	<u>Per Capita (gpcd)</u>
<u>2004</u>	<u>14,233</u>	<u>630,686</u>	<u>150.50</u>
<u>2005</u>	<u>14,336</u>	<u>898,807</u>	<u>171.77</u>
<u>2006</u>	<u>16,307</u>	<u>766,791</u>	<u>128.83</u>
<u>2007</u>	<u>17,202</u>	<u>757,390</u>	<u>120.63</u>
<u>2008</u>	<u>17,663</u>	<u>758,599</u>	<u>117.67</u>

6. Seasonal water use for the previous five years (in gallons per person per day)
(See #5, Appendix A):

<u>Year</u>	<u>Population</u>	<u>Base Per Capita Use</u>	<u>Summer Per Capita Use</u>
<u>2004</u>	<u>14,233</u>	<u>135.38</u>	<u>176.66</u>
<u>2005</u>	<u>14,336</u>	<u>148.61</u>	<u>208.87</u>
<u>2006</u>	<u>16,307</u>	<u>138.27</u>	<u>196.97</u>
<u>2007</u>	<u>17,202</u>	<u>113.46</u>	<u>127.27</u>
<u>2008</u>	<u>17,663</u>	<u>102.09</u>	<u>168.44</u>

B. Projected Water Demands

Project water supply requirements for at least the next ten years using population trends, historical water use, and economic growth, etc. Indicate sources of data and how projected water demands were determined.

<u>Year</u>	<u>Projected Municipal Water Use (MG)</u>
2010	821.8
2020	925.1
2030	1,045.3
2040	1,180.2
2050	1,333.7

Source: TWDB, 2006 Regional Water Plan, City Water Demand Projections 2000-2060

III. WATER SUPPLY SYSTEM

A. Water Supply Sources

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

	<u>Source</u>	<u>Amount Available</u>
Surface Water:	_____	_____MGD
Groundwater:	_____	_____MGD
Contracts:	<u>Brazos River Authority (Granger Lake)</u>	_____MGD
Other:	_____	_____MGD

B. Treatment and Distribution System

1. Design daily capacity of system: 5.0 MGD
2. Storage Capacity: Elevated 1.25 MGD, Ground 1.00 MGD
3. If surface water, do you recycle filter backwash to the head of the plant?
Yes _____ No X. If yes, approximately _____ MGD.
4. Please describe the water system. Include the number of treatment plants, wells, and storage tanks. If possible, include a sketch of the system layout.

The Taylor water distribution system receives water through an interconnect with the Brazos River Authority Granger Lake Regional Water System. From there, water travels to one of 4 existing ground and elevated storage tanks before reaching Taylor's water customers. An additional elevated storage tank is currently under construction and an additional ground storage tank will be completed within 2 years.

IV. WASTEWATER UTILITY SYSTEM

A. Wastewater System Data

1. Design capacity of wastewater treatment plant(s): 1.103 MGD
2. Is treated effluent used for irrigation on-site _____, off-site _____, plant washdown _____, or chlorination/dechlorination _____? *N/A*
If yes, approximately _____ gallons per month. Could this be substituted for potable water now being used in these areas _____? *N/A*
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. Please provide a sketch or map which locates the plant(s) and discharge points or disposal sites.

The wastewater serves approximately 95% of Taylor's water customers, with only a handful of water customers still on septic sewer. The wastewater is treated at the Mustang Creek WWTP (TPDES Permit No 10299-001) and finished effluent is discharged into Mustang Creek, thence to Brushy Creek in Segment No. 1244 of the Brazos River Basin.

B. Wastewater Data for Service Area

1. Percent of water service area served by wastewater system: 95%
2. Monthly volume treated for previous three years (in 1,000 gallons):

Year	<u>2006</u>	<u>2007</u>	<u>2008</u>
January	<u>72,980</u>	<u>87,170</u>	<u>46,600</u>
February	<u>47,300</u>	<u>49,970</u>	<u>42,510</u>
March	<u>52,507</u>	<u>73,872</u>	<u>51,940</u>
April	<u>50,782</u>	<u>40,387</u>	<u>48,719</u>
May	<u>54,262</u>	<u>73,188</u>	<u>52,723</u>
June	<u>48,974</u>	<u>64,468</u>	<u>39,227</u>
July	<u>54,079</u>	<u>83,083</u>	<u>39,488</u>
August	<u>30,951</u>	<u>57,359</u>	<u>44,989</u>
September	<u>40,165</u>	<u>30,770</u>	<u>37,668</u>
October	<u>56,525</u>	<u>43,897</u>	<u>36,849</u>
November	<u>48,110</u>	<u>44,990</u>	<u>35,980</u>
December	<u>60,310</u>	<u>47,540</u>	<u>37,470</u>
Total	<u>616,945</u>	<u>686,694</u>	<u>514,163</u>

Appendix D
Water and Sewer Rates
(Excerpt from City Fee Schedule Ordinance)

ORDINANCE NO. 2008-31

AN ORDINANCE AMENDING ORDINANCE NO. 2007-26 ADOPTED ON SEPTEMBER 25, 2007 BY CHANGING CERTAIN RATES AND OTHER SERVICES PROVIDED BY THE CITY

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF TAYLOR:

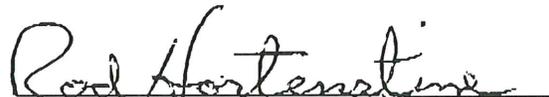
SECTION 1.0 That the certain rates for utilities and other services provided by the city, for the support of the general government of the City of Taylor, Texas be amended in accordance with the changes shown in the attached Exhibit A.

SECTION 2.0 That the amendment, as shown in words and figures in Exhibit A, is hereby approved in all aspects and adopted as an amendment to Ordinance No. 2007-26.

SECTION 3.0 All other provisions of Ordinance No. 2007-26 shall remain in full force and effect.

SECTION 4.0 In accordance with Article 8 of the City Charter, this ordinance was introduced before the City Council of the City of Taylor, Texas on the 4th day of September, 2008.

PASSED, APPROVED, and ADOPTED on the 23rd day of Sept, 2008.


Rod Hortenstine, Mayor

ATTEST:


Susan Brock, City Clerk

Fee Schedule for City Services 2008-09

D. Water Rates

Rates for all single family, commercial, industrial and irrigation accounts per connection.

Meter Size	Initial Consumption	Minimum Charge
5/8" x 3/4"	First 2,000 gallons consumed in billing period	\$ 20.28
1"	First 2,000 gallons consumed in billing period *	\$ 23.08
1"	First 2,000 gallons consumed in billing period.	\$ 27.93
1-1/2"	First 2,000 gallons consumed in billing period	\$ 46.86
2"	First 2,000 gallons consumed in billing period	\$ 69.69
3"	First 2,000 gallons consumed in billing period	\$ 122.97
4"	First 2,000 gallons consumed in billing period	\$ 199.08
6"	First 2,000 gallons consumed in billing period	\$ 389.17

* Total Charge includes monthly minimum plus \$4.14 per 1,000 gallons in excess of 2,000 gallon minimum per billing period.

Rates for all multi-family dwelling accounts per connection.

Meter Size	Initial Consumption	Minimum Charge
5/8" x 3/4"	First 2,000 gallons consumed in billing period	\$ 20.28
1"	First 2,000 gallons consumed in billing period	\$ 27.93
1-1/2"	First 2,000 gallons consumed in billing period	\$ 46.86
2"	First 2,000 gallons consumed in billing period	\$ 69.69
3"	First 2,000 gallons consumed in billing period	\$ 122.97
4"	First 2,000 gallons consumed in billing period	\$ 199.08
6"	First 2,000 gallons consumed in billing period	\$ 389.17

+ 7.99 for each LUE
+ 7.99 for each LUE

Total monthly charge includes monthly minimum plus \$4.14 per 1,000 gallons in excess of 2,000 gallon minimum per billing period plus \$7.99 LUE charge per unit minus 1.

Unmetered Fire Protection Systems per connection.

Service Size	Minimum Charge
2"	\$ 8.00
6"	\$ 20.00
8"	\$ 30.00

Bulk Water Rate \$ 2.20 per 1,000 gallons

E. Sewer Rates

Rates for all Single Family Dwelling accounts per connection.

Meter Size	Initial Consumption	Minimum Charge
5/8" x 3/4"	First 2,000 gallons consumed in billing period	\$ 14.91
1"	First 2,000 gallons consumed in billing period	\$ 14.91
1-1/2"	First 2,000 gallons consumed in billing period	\$ 14.91
2"	First 2,000 gallons consumed in billing period	\$ 14.91
3"	First 2,000 gallons consumed in billing period	\$ 14.91
4"	First 2,000 gallons consumed in billing period	\$ 14.91
6"	First 2,000 gallons consumed in billing period	\$ 14.91

Total "charge" includes monthly minimum plus \$4.83 per 1,000 gallons in excess of 2,000 gallon minimum. Excess usage

Rates for all multi-family dwelling, commercial and industrial accounts per connection.

Meter Size	Initial Consumption	Minimum Charge
5/8" x 3/4"	First 2,000 gallons consumed in billing period	\$ 14.91
1"	First 2,000 gallons consumed in billing period	\$ 14.91
2"	First 2,000 gallons consumed in billing period	\$ 14.91
3"	First 2,000 gallons consumed in billing period	\$ 14.91
4"	First 2,000 gallons consumed in billing period	\$ 14.91
6"	First 2,000 gallons consumed in billing period	\$ 14.91

* Total monthly charge includes monthly minimum plus \$4.83 per 1,000 gallons in excess of 2,000 gallon minimum per billing period.

Appendix E
Plumbing Ordinance

ORDINANCE NO. 2006 - 16

AN ORDINANCE OF THE CITY OF TAYLOR, TEXAS ADOPTING THE 2003 INTERNATIONAL RESIDENTIAL CODE, THE 2003 INTERNATIONAL BUILDING CODE, THE 2003 NATIONAL ELECTRIC CODE; 2003 EXISTING BUILDING CODE; 2003 INTERNATIONAL FIRE CODE; 2003 INTERNATIONAL MECHANICAL CODE; 2003 INTERNATIONAL PLUMBING CODE; 2003 INTERNATIONAL FUEL GAS CODE; 2003 PROPERTY MAINTENANCE CODE; 2003 ENERGY CONSERVATION CODE; 2003 INTERNATIONAL ELECTRICAL CODE; AMENDING THE 2003 INTERNATIONAL RESIDENTIAL CODE AND THE INTERNATIONAL PLUMBING CODE TO ADD THE PROVISIONS SET FORTH IN THIS ORDINANCE; ADOPTING A REPEALER CLAUSE; ADOPTING A SAVINGS CLAUSE; ADOPTING A PENALTY CLAUSE PROVIDING THAT ANY PERSON VIOLATING THE PROVISIONS OF THIS ORDINANCE SHALL BE DEEMED GUILTY OF A MISDEMEANOR AND, UPON CONVICTION IN THE MUNICIPAL COURT OF THE CITY OF TAYLOR, TEXAS, OR ANY OTHER COURT OF PROPER JURISDICTION, SHALL BE SUBJECT TO A FINE NOT TO EXCEED THE SUM OF FIVE HUNDRED DOLLARS (\$500.00) FOR EACH OFFENSE, EXCEPT HOWEVER, WHERE A DIFFERENT PENALTY HAS BEEN ESTABLISHED BY STATE LAW FOR SUCH OFFENSE FOR SUCH OFFENSE THE PENALTY SHALL BE THAT FIXED BY STATE LAW, AND FOR ANY OFFENSE THAT GOVERNS FIRE, SAFETY, ZONING, OR PUBLIC HEALTH AND SANITATION, INCLUDING DUMPING OF REFUSE, THE PENALTY SHALL BE A FINE NOT TO EXCEED THE SUM OF TWO THOUSAND (\$2000.00) FOR EACH OFFENSE; AND REQUIRING PUBLICATION.

BE IT ORDAINED BY THE CITY OF TAYLOR:

SECTION 1.0 ADOPTION OF THE INTERNATIONAL CODES.

The City of Taylor, Texas hereby adopts the 2003 International Residential Code, the 2003 International Building Code, the 2003 National Electric Code, the 2003 International Existing Building Code, the 2003 International Fire Code, the 2003 International Mechanical Code, the 2003 International Plumbing Code, the 2003 International Fuel gas Code, the 2003 International Property Maintenance Code, the 2003 International Energy Conservation Code, and the 2003 ICC Electrical Code.

SECTION 2.0 AMENDMENT TO THE INTERNATIONAL RESIDENTIAL CODE.

The International Residential Code adopted by this Ordinance is amended to include and to require the following:

In dwellings and dwelling units a smoke detector shall be mounted on the ceiling or wall at a point centrally located in the corridor or area giving access to each group of rooms used for sleeping purposes and a smoke detector shall also be mounted in all rooms used for sleeping purposes. Where the dwelling unit contains more than one story, detectors are required on each story including basements, but not including unfinished attics, and shall be located in close proximity to the stairway leading to the floor above.

In dwelling, dwelling units, and sleeping rooms smoke detectors shall be hardwired into an AC electrical power source and shall be equipped with a monitored battery backup in all new construction. A monitored battery power source shall be permitted in existing construction.

Ordinance No. 2002-36 relating to residential foundations is not repealed and the provisions contained within Ordinance No. 2002-36 shall be requirements in addition to the requirements of the International Building Code adopted by this Ordinance.

SECTION 3.0 AMENDMENT TO THE INTERNATIONAL PLUMBING CODE.

The International Plumbing Code adopted by this Ordinance is amended to include and to require the following:

"Cross-Connection Control Program"

A. General.

1. No water service connection shall be made to any establishment where a potential or actual contamination hazard exists unless the water supply is protected in accordance with the Texas Commission on Environmental Quality (TCEQ) Rules and Regulations for Public Water Systems and the provisions contained in this Ordinance. The water purveyor shall discontinue water service if a required backflow prevention assembly is not installed, maintained, and tested in accordance with the TNRCC Rules and this Ordinance.

B. Backflow Prevention Assembly Installation, Testing and Maintenance.

1. All backflow prevention assemblies shall be tested upon installation by a recognized backflow prevention assembly tester and certified to be operating within specifications. Backflow prevention assemblies which are installed to provide protection against health hazards must also be tested and certified to be operating within specification at least annually by a recognized backflow prevention assembly tester.

2. All backflow prevention assemblies shall be installed and tested in accordance with the manufacturer's instructions, the American Water Work Association's Recommended Practice for Backflow Prevention and Cross-Connection Control (Manual M14) or The University of Southern California Manual of Cross-Connection Control.

3. Assemblies shall be repaired, overhauled, or replaced at the expense of the customer whenever assemblies are found to be defective. Original forms of such test, repair, and overhaul shall be kept and submitted to the City of Taylor within five (5) working days of the test, repair, or overhaul of each backflow prevention assembly.

4. No backflow prevention assembly or device shall be removed from use, relocated, or other assembly or device substituted without the approval of the City of Taylor. Whenever the existing assembly or device is moved from the present location or cannot be repaired, the backflow assembly or device shall be replaced with a backflow prevention assembly or device that complies with this section, the American Water Works Association's Recommended Practice for Backflow Prevention and Cross-Connection Control Manual (M14), current addition, the University of Southern California Manual of Cross-Connection Control, Current addition, or the current plumbing code of the City of Taylor, whichever is more stringent.

5. Test gauges used for backflow prevention assembly testing shall be calibrated at least annually in accordance with The American Water Works Association's Recommended Practice for Backflow Prevention and Cross-Connection Control (Manual M14), current addition, or The University

of Southern California's Manuel of Cross-Connection, current addition. The original calibration form must be submitted to the City of Taylor within five (5) working days after calibration.

6. A recognized backflow prevention assembly tester must hold a current endorsement form the Texas Commission on Environmental Quality (TCEQ).

SECTION 4.0 SAVINGS CLAUSE.

In the event any clause, phrase, provision, sentence, or part of this Ordinance or the application of the same to any person or circumstances shall for any reason be adjudged invalid or held unconstitutional by a court of competent jurisdiction, it shall not affect, impair, or invalidate this Ordinance as a whole or any part or provision hereof other than the part declared to be invalid or unconstitutional; and the City Council of the City of Taylor, Texas, declares that it would have passed each and every part of the same notwithstanding the omission of any such part thus declared to be invalid or unconstitutional, whether there be one or more parts.

SECTION 5.0 REPEALER CLAUSE.

All ordinances or parts of ordinances inconsistent or in conflict herewith are, to the extent of such inconsistency or conflict, hereby repealed.

SECTION 6.0 PUBLICATION.

The City Clerk is hereby authorized and directed to publish the caption of this Ordinance, together with the penalty provision contained therein, in the manner and for the length of time prescribed by law.

SECTION 6.0 PENALTY.

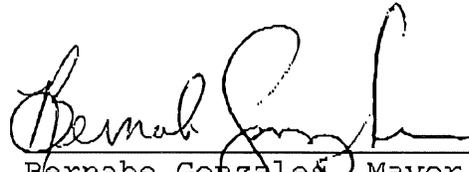
Any person violating the provisions of this Ordinance shall be deemed guilty of a misdemeanor and, upon conviction in the municipal court of the City of Taylor, Texas, or any other Court of proper jurisdiction, shall be subject to a fine not to exceed the sum of Five Hundred Dollars (\$500.00) for each offense, except however, where a different penalty has been established by state law for such offense the penalty shall be that fixed by state law,

and for any offense which is a violation of any provision of law that governs fire safety, zoning, or public health and sanitation, including dumping of refuse, the penalty shall be a fine not to exceed the sum of two thousand dollars (\$2,000.00) for each offense.

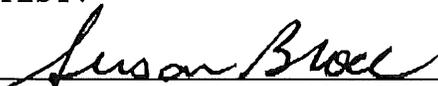
SECTION 7.0 INTRODUCTION.

In accordance with Article VIII, Section 1 of the City Charter, this Ordinance was introduced before the City Council on the 13th day of July, 2006.

PASSED, APPROVED and ADOPTED on this the 22nd day of August, 2006.


Bernabe Gonzalez, Mayor
Taylor City Council

ATTEST:


Susan Brock, City Clerk

APPROVED AS TO FORM:

Ted W. Hejl, City Attorney

Appendix F
Water Conservation Implementation Report
(TCEQ-20159)



Texas Commission on Environmental Quality

Water Conservation Implementation Report

This report must be completed by entities that are required to submit a water conservation plan to the TCEQ in accordance with Title 30 Texas Administrative Code, Chapter 288. Please complete this report and submit it to the TCEQ. If you need assistance in completing this form, please contact the Resource Protection Team in the Water Supply Division at (512) 239-4691.

Name: City of Taylor

Address: 400 Porter Street, Taylor, Texas 76574

Telephone Number: (512) 342 - 3675 **Fax:** (512) 342 - 8483

Form Completed By: _____ **Title:** _____

Signature: _____ **Date:** _____

I. WATER USES

Indicate the type(s) of water uses (example: municipal, industrial, or agricultural).

- _____ Use
- _____ Use
- _____ Use

II. WATER CONSERVATION MEASURES IMPLEMENTED

Provide the water conservation measures and the dates the measures were implemented.

Description of Water Conservation Measure:

Date Implemented: _____

Description of Water Conservation Measure:

Date Implemented: _____

Description of Water Conservation Measure:

Date Implemented: _____

Description of Water Conservation Measure:

Date Implemented: _____

Description of Water Conservation Measure:

Date Implemented: _____

Description of Water Conservation Measure:

Date Implemented: _____

Description of Water Conservation Measure:

Date Implemented: _____

Description of Water Conservation Measure:

Date Implemented: _____

Description of Water Conservation Measure:

Date Implemented: _____

Description of Water Conservation Measure:

Date Implemented: _____

III. TARGETS

A. Provide the **specific and quantified five and ten-year targets** as listed in water conservation plan for previous planning period.

5-Year Specific/Quantified Target: _____

Date to achieve target: _____

10-Year Specific/Quantified Target: _____

Date to achieve target: _____

B. State if these targets in the water conservation plan are being met.

C. List the **actual amount of water saved**.

D. If the targets are not being met, provide an explanation as to why, including any

progress on the targets.

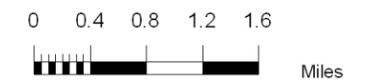
If you have any questions on how to fill out this form or about the Water Conservation program, please contact us at 512/239-4691.

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.

Exhibit A
Certificate of Convenience and Necessity
and
Service Area Map

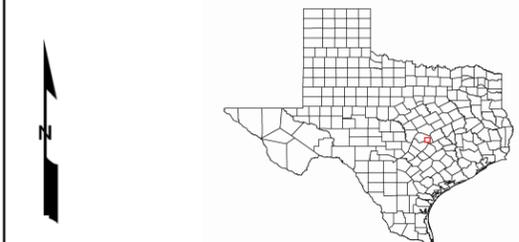
Texas Commission on Environmental Quality
 P.O. Box 13087
 Austin, Texas 78711-3087
 For more information
 concerning this map, please contact the
 Water Supply Division at (512) 239-4691.
 04/20/2009

**The Selected Area
of Interest**



Legend

-  Water CCN Facility Line
 -  Sewer CCN Facility Line
 -  Senate - Districts
 -  House - Districts
 -  TCEQ Service Region Boundary
 -  County Boundary
 -  Sewer CCN Service Area
 -  Water CCN Service Area
 -  City Boundary
- CCN Overlap Key**
-  Sewer-Water CCN Service Area



Disclaimer:
 This map was generated by the Integrated Water Utilities
 Database (IWUD) from the Texas Commission on
 Environmental Quality. No claims are made to the
 accuracy or completeness of the data or to its suitability
 for a particular use.

