

TOWN OF ANNETTA SOUTH

**WATER CONSERVATION
AND
DROUGHT CONTINGENCY PLAN**

June 2007

TABLE OF CONTENTS

1. INTRODUCTION AND OBJECTIVES	1
2. TEXAS COMMISSION ON ENVIRONMENTAL QUALITY RULES	2
2.1. Conservation Plans	2
2.2. Drought Contingency Plans	2
3. MINIMUM REQUIRED WATER CONSERVATION PLAN CONTENT	2
3.1. Utility Profile	3
3.2. Specification of Water Conservation Goals	3
3.3. Accurate Metering of Raw Water Supplies and Treated Water Deliveries	3
3.4. Metering of Customer and Public Uses and Meter Testing, Repair, and Replacement	3
3.5. Determination and Control of Unaccounted Water	3
3.6. Continuing Public Education and Information Campaign	3
3.7. Non-Promotional Water Rate Structure	4
3.8. Reservoir System Operation Plan	4
3.9. Implementation and Enforcement of the Water Conservation Plan	4
3.10. Coordination with Regional Water Planning Group	4
4. ADDITIONAL REQUIRED WATER CONSERVATION PLAN CONTENT	5
5. OPTIONAL WATER CONSERVATION PLAN CONTENT	5
5.1. Ordinances, Plumbing Codes, or Rules on Water-Conserving Fixtures	5
6. DROUGHT CONTINGENCY PLAN	6
6.1. Introduction	6
6.2. State Requirements for Drought Contingency Plans	6
6.3. Provisions to Inform the Public and Opportunity for Public Input	7
6.4. Provisions for Continuing Public Education and Information	7
6.5. Initiation and Termination of Drought Response	7
6.5.1. Initiation of Drought Response	7

6.5.2. Termination of Drought Response	7
6.6. Drought and Emergency Response	8
6.6.1. Triggering and Termination Conditions	8
6.6.2. Goal for Use Reductions and Actions	8
6.7. Procedure for Granting Variances to the Plan	9
6.8. Procedure for Enforcement of Mandatory Restrictions	9
6.9. Coordination with the Regional Water Planning Group	9
6.10. Review and Update of Drought Contingency Plan	9

APPENDICES

APPENDIX A : List of References

APPENDIX B Texas Commission on Environmental Quality Rules on Municipal Water Conservation and Drought Contingency Plans

APPENDIX C City Council Resolution Adopting this Water Conservation and Drought Contingency Plan

CITY OF ANNETTA SOUTH

Water Conservation and Drought Contingency Plan

June 2007

1. INTRODUCTION AND OBJECTIVES

This report outlines the City's water conservation and emergency water demand management program. The objective of the conservation program is to reduce the quantity required for each water using activity, insofar as is practical, through the implementation of efficient water practices.

Parker County has experienced significant increases in population in recent years, with a majority of water being drawn from water wells. Frequent drought conditions have made conservation measures a prudent approach to ensure that water resources are available in the future. Additionally, oil and gas activities in Parker County have increased significantly, with reliance on a considerable volume groundwater for completion of each well.

The entire population of Annetta South relies on groundwater for their water supply. This Water Conservation Plan is an initial step by the town of Annetta South to promote conservation of this valuable resource. Annetta South recognizes that developing future water supplies and distribution infrastructure will be expensive and disruptive, making conservation of our groundwater resources all the more critical.

The Texas Commission on Environmental Quality (TCEQ) has developed guidelines and requirements governing the development of water conservation and drought contingency plans for public water suppliers. The TCEQ guidelines and requirements for water suppliers are included in Appendix B.

In 2006, a consortium of east Parker County cities and agencies, including Annetta South, was awarded a Research and Planning Fund Grant by the Texas Water Development Board (TWDB) for development of an east Parker County regional wastewater facilities plan. One of the requirements of the grant was for each participating entity to develop a water conservation plan. The Town of Annetta South has adopted this water conservation and drought contingency plan to fulfill our TWDB grant obligations and pursuant to TCEQ guidelines and requirements.

The objectives of the water conservation plan are:

- To reduce water consumption.
- To reduce the loss and waste of water.
- To identify the level of water reuse.
- To encourage efficiency in the use of water.
- To encourage the use of native and introduce species of drought tolerant lawns and plants
- To extend the life of current water supplies by reducing the rate of growth in demand.

The objectives of the drought contingency plan are:

- To conserve the available water supply in times of drought and emergency

- To maintain supplies for domestic water use, sanitation, and fire protection
- To protect and preserve public health, welfare, and safety
- To minimize the adverse impacts of water supply shortages
- To minimize the adverse impacts of emergency water supply conditions.

2. TEXAS COMMISSION ON ENVIRONMENTAL QUALITY RULES

2.1 Conservation Plans

The TCEQ rules governing development of water conservation plans for public water suppliers are contained in Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.2 of the Texas Administrative Code, which is included in Appendix B. For the purpose of these rules, a water conservation plan is defined as: “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) 4.” According to TCEQ rules, water conservation plans for public water suppliers must have a certain minimum content (Section 3), must have additional content for public water suppliers that are projected to supply 5,000 or more people in the next ten years (Section 4), and may have additional optional content (Section 5).

2.2 Drought Contingency Plans

The TCEQ rules governing development of drought contingency plans for public water suppliers are contained in Title 30, Part 1, Chapter 288, Subchapter B, Rule 288.20 of the Texas Administrative Code, which is included in Appendix B. For the purpose of these rules, a drought contingency plan is defined as: “A strategy or combination of strategies for temporary supply and demand management responses to temporary and potentially recurring water supply shortages and other water supply emergencies. A drought contingency plan may be a separate document identified as such or may be contained within another water management document(s) 4.” The drought contingency plan for the Town of Annetta South is contained in Section 6 of this water conservation and drought contingency plan.

3. MINIMUM REQUIRED WATER CONSERVATION PLAN CONTENT

- The minimum requirements in the Texas Administrative Code for water conservation plans for public drinking water suppliers covered in this report are as follows:
 - §288.2(a)(1)(A) – Utility Profile – Section 3.1
 - §288.2(a)(1)(B) – Specification of Goals Before May 1, 2005 – Section 3.2
 - §288.2(a)(1)(C) – Specification of Goals After May 1, 2005 – Section 3.2
 - §288.2(a)(1)(D) – Accurate Metering – Sections 3.3 and 3.4
 - §288.2(a)(1)(E) – Universal Metering – Section 3.4
 - §288.2(a)(1)(F) – Determination and Control of Unaccounted Water – Section 3.5
 - §288.2(a)(1)(G) – Public Education and Information Program – Section 3.6
 - §288.2(a)(1)(H) – Non-Promotional Water Rate Structure – Section 3.7
 - §288.2(a)(1)(I) – Reservoir System Operation Plan – Section 3.8
 - §288.2(a)(1)(J) – Means of Implementation and Enforcement – Section 3.9
 - §288.2(a)(1)(K) – Coordination with Regional Water Planning Group – Section 3.10

Many of these requirements are clearly intended for application to municipalities who supply, distribute, or otherwise manage water resources for their citizenry. According to 2000 census data, Annetta South has 1150 citizens and is zoned Agricultural and Residential. Virtually all citizens of Annetta South receive their water supply from private water wells drawing from the Paluxy and Trinity Aquifers. Because Annetta South is not a water utility provider, many of the requirements for a water conservation and drought contingency plan do not apply. Those sections addressing requirements which are not applicable will be noted.

3.1 Utility Profile

Not applicable. The Town of Annetta South does not water supply or wastewater treatment utilities.

3.2 Specification of Water Conservation Goals

Because its citizens' water needs are supplied by private water wells, it is not possible for the Town of Annetta South to measure current water use, quantify water conservation goals, or develop metrics to evaluate progress. Instead, Annetta South's water conservation strategy focuses on public education and awareness.

The Town's water conservation goals include the following:

- Raise public awareness of water conservation and encourage responsible public behavior through a public education and information program, as discussed in Section 3.6.
- Explore the potential for establishing ordinances designed to foster low-water landscaping; decrease waste in lawn irrigation; encourage rainwater harvesting; and promote utilization or retrofit of water efficient showerheads, toilets, and clothes and dishwashers.

3.3 Accurate Metering of Raw Water Supplies and Treated Water Deliveries

Not applicable. Annetta South does not provide water supply utilities. Citizens acquire water through private, un-metered water supply wells.

3.4 Metering of Customer and Public Uses and Meter Testing, Repair, and Replacement

Not applicable. Annetta South does not provide water supply utilities. Citizens acquire water through private, un-metered water supply wells.

3.5 Determination and Control of Unaccounted Water

Not applicable. Annetta South does not provide water supply utilities. Citizens acquire water through private, un-metered water supply wells.

3.6 Continuing Public Education and Information Campaign

The continuing public education and information campaign on water conservation for the Town of Annetta

South includes the following elements:

- Promote the town's water conservation measures (presented in Sections 3, 4, and 5).
- Request contractors providing broad-based services for the town, such as trash collection, to include inserts on water conservation with bills at least twice per year. Inserts will include material developed by Annetta South and material obtained from the TWDB, the TCEQ, and other appropriate sources.
- Encourage local media coverage of water conservation issues and the importance of water conservation.
- Notify local organizations, schools, and civic groups that water conservation experts are available to make presentations on the importance of water conservation and ways to save water.
- Make information on water conservation available online at <http://aggie-horticulture.tamu.edu/extension/xeriscape/xeriscape.html> and include links to the *Texas Smartscape* website and to information on water conservation on the TWDB and TCEQ web sites.

3.7 Non-Promotional Water Rate Structure

Annetta South does provide water supply utilities, however the system is so new that there is no data at this time. Most citizens acquire water through private, un-metered water supply wells.

3.8 Reservoir System Operation Plan

Annetta South does provide water supply utilities, however the system is so new that there is no data at this time. Most citizens acquire water through private, un-metered water supply wells.

3.9 Implementation and Enforcement of the Water Conservation Plan

Annetta South will begin implementing this water conservation plan following its adoption by the city council.

3.10 Coordination with Regional Water Planning Group

There are efforts currently underway to create a Groundwater Conservation District (GCD) which will include Annetta South. Annetta South has provided, and will continue to provide input concerning the GCD. Upon formation of the GCD, Annetta South intends to work closely with the organization to optimize utilization of our groundwater resources.

Additionally, Annetta South will continue to reach out and develop relationships with other groups and agencies involved with water supply or planning, such as the Parker County Utility District (PCUD), the Tarrant Regional Water District (TRWD), the TWDB, the TCEQ, and neighboring municipalities in east Parker County.

4. ADDITIONAL REQUIRED WATER CONSERVATION PLAN CONTENT

The Texas Administrative Code also includes additional requirements for water conservation plans for public drinking water suppliers that serve a population of 5,000 people or more and/or a projected population of 5,000 people or more within the next ten years:

- §288.2(a)(2)(A) – Leak Detection, Repair, and Water Loss Accounting
- §288.2(a)(2)(B) – Record Management System
- §288.2(a)(2)(C) – Requirement for Water Conservation Plans by Wholesale Customers

5. OPTIONAL WATER CONSERVATION PLAN CONTENT

TCEQ rules also list optional (not required) conservation strategies, which may be adopted by suppliers to achieve the stated goals of the plan. The following optional strategies are listed in the rules:

- §288.2(a)(3)(A) – Conservation Oriented Water Rates – Section 3.7
- §288.2(a)(3)(B) – Ordinances, Plumbing Codes or Rules on Water-Conserving Fixtures – Section 5.1
- §288.2(a)(3)(C) – Programs for the Replacement or Retrofit of Water-Conserving Plumbing Fixtures in Existing Structures
- §288.2(a)(3)(D) – Reuse and Recycling of Wastewater
- §288.2(a)(3)(E) – Pressure Control and/or Reduction
- §288.2(a)(3)(F) – Landscape Water Management Ordinance
- §288.2(a)(3)(G) – Monitoring Method
- §288.2(a)(3)(H) – Other Conservation Methods

Annetta South will explore the possibility of enacting ordinances which encourage both indoor and outdoor water conservation.

5.1 Ordinances, Plumbing Codes, or Rules on Water-Conserving Fixtures

The State of Texas has required water-conserving fixtures in new construction and renovations since 1992. The state standards call for flows of no more than 2.5 gallons per minute (gpm) for faucets, 3.0 gpm for showerheads, and 1.6 gallons per flush for toilets. Similar standards are also required under federal law. These state and federal standards assure that all new construction and renovations in Annetta South will use water conserving fixtures. In addition, federal rules requiring energy-conserving clothes washers by 2007 are expected to assure that new clothes washers in Annetta South will be water-efficient.

6. DROUGHT CONTINGENCY PLAN

6.1 Introduction

The purpose of this drought contingency plan is as follows:

- To conserve the available water supply in times of drought and emergency
- To maintain supplies for domestic water use, sanitation, and fire protection
- To protect and preserve public health, welfare, and safety
- To minimize the adverse impacts of water supply shortages
- To minimize the adverse impacts of emergency water supply conditions.

6.2 State Requirements for Drought Contingency Plans

Texas Commission on Environmental Quality (TCEQ) guidelines and requirements for the development of drought contingency plans by public drinking water suppliers are contained in Title 30, Part 1, Chapter 288, Subchapter B, Rule 288.20 of the Texas Administrative Code. This rule is included in Appendix B. TCEQ's minimum requirements for drought contingency plans are addressed in the following subsections of this report:

288.20(a)(1)(A) – Provisions to Inform the Public and Provide Opportunity for Public Input – Section 6.3

288.20(a)(1)(B) – Provisions for Continuing Public Education and Information – Section 6.4

288.20(a)(1)(C) – Coordination with the Regional Water Planning Group – Section 6.9

288.20(a)(1)(D) – Criteria for Initiation and Termination of Drought Stages – Section 6.6

288.20(a)(1)(E) – Drought and Emergency Response Stages – Section 6.6

288.20(a)(1)(F) – Specific, Quantified Targets for Water Use Reductions – Section 6.6

288.20(a)(1)(G) – Water Supply and Demand Management Measures for Each Stage – Section 6.6

288.20(a)(1)(H) – Procedures for Initiation and Termination of Drought Stages – Section 6.5

288.20(a)(1)(I) - Procedures for Granting Variances – Section 6.7

288.20(a)(1)(J) - Procedures for Enforcement of Mandatory Restrictions – Section 6.8

288.20(a)(3) – Consultation with Wholesale Supplier – Not applicable

288.20(b) – Notification of Implementation of Mandatory Measures – Section 6.5

288.20(c) – Review and Update of Plan – Section 6.10

As with the water conservation plan, most of the requirements for the drought contingency plan are oriented towards those municipalities which provide water supply utilities and services to their citizens. Annetta South is not a water provider, with virtually all residents procuring water through private groundwater wells.

Since private groundwater wells are the source of water for all of Annetta South, the drought contingency plan is necessarily limited to qualitative monitoring of the water situation and increasing public awareness of the situation. There are no means in place for 'municipal' or wide-area monitoring of groundwater levels or usage of the Trinity Aquifer – the primary source of water for Annetta South. Accordingly, there is no viable mechanism for measuring or triggering phased drought contingency provisions. Within the context of 'right of capture', Annetta South additionally has no recognized authority to restrict or enforce water use from private water wells.

6.3 Provisions to Inform the Public and Opportunity for Public Input

The Town of Annetta South provided opportunity for public input in the development of this drought

contingency plan by the following means:

- Providing written notice of the proposed plan and the opportunity to comment on the plan by notice on the Town of Annetta South's City Hall door. Making the draft plan available at the town of Annetta South's City Hall
- Providing the draft plan to anyone requesting a copy.
- Placing the draft water conservation and drought contingency plan on the July 19, 2007, special city council meeting agenda.

6.4 Provisions for Continuing Public Education and Information

The Town of Annetta South will inform and educate the public about its drought contingency plan by the following means:

- Making the draft plan and final plan continuously available at the Town of Annetta South's City Hall
- Notifying local organizations, schools, and civic groups that Annetta South conservation committee members are available to make presentations on the drought contingency plan (in conjunction with presentations on water conservation programs).
- At any time that the drought contingency plan is activated or the drought stage changes, Annetta South will notify local media of the issues, the drought response stage, and the specific actions requested of the public. The information will also be publicized on the Town of Annetta South's City Hall notification board. Billing inserts will also be used as appropriate.

6.5 Initiation and Termination of Drought Response

6.5.1 Initiation of Drought Response Stages

The City Mayor or his/her official designee may order the implementation of a drought response or water emergency when one or more of the trigger conditions is met. The following actions will be taken when a drought stage is initiated:

- The public will be notified through local media.
- Following establishment and implementation of a regional Groundwater Conservation District, GCD representatives will be consulted for coordination of response measures.

The Mayor or his/her designee may decide not to order the implementation of a drought response or water emergency even though one or more of the trigger criteria for the stage are met. Factors that could influence such a decision include, but are not limited to, the time of the year, weather conditions, the anticipation of replenished water supplies, or the anticipation that additional resources will become available to meet needs.

6.5.2 Termination of Drought Response Stages

The Mayor or official designee may order the termination of a drought response or water emergency when the conditions for termination are met or at his/her discretion. The following actions will be taken when a drought stage is terminated:

- The public will be notified through local media.
- Following establishment and implementation of a regional Groundwater Conservation District, GCD representatives will be consulted for coordination.

The Mayor or his/her designee may decide not to order the termination of a drought response or water emergency even though the conditions for termination of the stage are met. Factors that could influence such a decision include, but are not limited to, the time of the year, weather conditions, or the anticipation of potential changed conditions that warrant the continuation of the drought stage.

6.6 Drought and Emergency Response

6.6.1 TRIGGERING AND TERMINATION CONDITIONS

Since private water wells supply all the residents of Annetta South and no mechanism exists for quantitative monitoring of the aquifer resources, triggering of drought and emergency responses is necessarily qualitative. City officials will regularly monitor the following drought indicators:

- Drought conditions and stages declared by neighboring municipalities in east Parker County and evaluating the cause of the situation.
- Notification of drought conditions by the regional GCD (after its formation and implementation).
- Input from Annetta South citizens regarding their private water well situation.

Drought and emergency response can be terminated at the discretion of the Mayor or when the circumstances that caused the initiation of drought or emergency response no longer prevail.

6.6.2 GOAL FOR USE REDUCTIONS AND ACTIONS

In lieu of quantitative metrics or enforcement authority for drought response, the purpose of drought or emergency response actions is to raise public awareness of potential drought problems and solicit active citizen participation in managing the situation. The Mayor or his/her designee can order the implementation of any of the actions, or combinations of actions, listed below, as deemed necessary. Without definable triggering mechanisms for various drought stages, the Mayor may accelerate, repeat, or emphasize these actions as deemed necessary for the situation.

- Request voluntary reductions in water use by the public.
- Increase public education efforts on ways to reduce water use.
- Review the problems that caused the initiation of drought response.
- Notify major water users and work with them to achieve voluntary water use reductions.
- Ask the public to follow voluntary landscape watering schedules.
- Initiate engineering studies to evaluate alternatives should conditions worsen.
- Encourage the public to wait until the current drought or emergency situation has passed before establishing new landscaping.
- Discourage hosing of paved areas, buildings, or windows.
- Discourage operation of ornamental fountains.
- Discourage washing or rinsing of vehicles by hose.
- Discourage using water in such a manner as to allow runoff or other waste.
- Discourage draining and filling of existing pools and filling of new pools. (Pools may add water to replace losses during normal use.)
- Implement viable alternative water supply strategies.

6.7 Procedure for Granting Variances to the Plan

The Mayor or his/her designee may grant temporary variances for existing water uses otherwise discouraged or prohibited under this drought contingency plan if one or more of the following conditions is met:

- Failure to grant such a variance would cause an emergency condition adversely affecting health, sanitation, or fire safety for the public or the person requesting the variance.
- Compliance with this plan cannot be accomplished due to technical, legal, or other limitations.
- Alternative methods that achieve the same level of reduction in water use can be implemented.
- Variances shall be granted or denied at the discretion of the Mayor or his/her designee. All petitions for variances should be in writing and should include the following information:
- Name and address of the petitioner(s)
- Purpose of water use
- Specific provisions from which relief is requested
- Detailed statement of the adverse effect of the provision from which relief is requested
- Description of the relief requested
- Period of time for which the variance is sought
- Alternative measures that will be taken to reduce water use
- Other pertinent information.

6.8 Procedure for Enforcement of Mandatory Restrictions

With private water wells being the source of water for citizens of Annetta South, the town currently has no authority to enforce or mandate water restrictions.

6.9 Coordination with the Regional Water Planning Group

A GCD is currently being created for the area which includes east Parker County and Annetta South. After official establishment and implementation of the GCD, Annetta South will regularly communicate and coordinate with the GCD for drought and emergency responses.

6.10 Review and Update of Drought Contingency Plan

As required by TCEQ rules, Annetta South will review this drought contingency plan every five years, beginning in 2012. The plan will be updated as appropriate based on new or updated information. As the plan is reviewed and subsequently updated, a copy of the revised drought contingency plan will be submitted to the appropriate water planning groups for their records.

APPENDIX A

List of References

- (1) Freese and Nichols, Inc.: "North Texas Municipal Water District Water Conservation and Drought Contingency Plan," prepared for North Texas Municipal Water District, Fort Worth, August 2004.
- (2) City of Fort Worth: "Emergency Water Management Plan for the City of Fort Worth," Fort Worth, August 19, 2003.
- (3) City of Dallas Water Utilities Department: "City of Dallas Water Conservation Plan," adopted by the City Council, Dallas, September 1999.
- (4) Texas Commission on Environmental Quality: "Water Conservation Plans for Municipal Uses by Public Water Suppliers," *Texas Administrative Code* Title 30 Part I Subchapter A §288.2, effective October 7, 2004.
- (5) Texas Commission on Environmental Quality: "Water Utility Profile," accessed online at <http://www.tceq.state.tx.us/assets/public/permitting/forms/10218.pdf>, September 2005
- (6) Texas Water Development Board: "Water Demand Projections, 2006 Regional Water Plan Data," accessed online at <http://www.twdb.state.tx.us/data/popwaterdemand/2003Projections/DemandProjections.asp> , August 2004.
- (7) Texas Water Development Board: *Report 362 Water Conservation Best Management Practices Guide*, prepared for the Water Conservation Implementation Task Force, Austin, November 2004.
- (8) Modeled after the City of Dallas landscape irrigation ordinance, accessed online at <http://www.dallascityhall.com/dallas/eng/pdf/dwu/DWUConservationOrd.pdf>, August 2004.
- (9) Texas Commission on Environmental Quality: "Model Drought Contingency Plan," accessed online at <http://www.tnrcc.state.tx.us/permitting/waterperm/wrpa/contingency.html>, August 2004.

APPENDIX B

Texas Commission on Environmental Quality Rules on Municipal Water Conservation and Drought Contingency Plans

SUBCHAPTER A: WATER CONSERVATION PLANS §§288.1 - 288.7 Effective October 7, 2004 §288.1.

Definitions.

The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise.

- (1) **Agricultural or Agriculture** - Any of the following activities:
 - (A) cultivating the soil to produce crops for human food, animal feed, or planting seed or for the production of fibers;
 - (B) the practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or non-soil media by a nursery grower;
 - (C) raising, feeding, or keeping animals for breeding purposes or for the production of food or fiber, leather, pelts, or other tangible products having a commercial value;
 - (D) raising or keeping equine animals;
 - (E) wildlife management; and
 - (F) planting cover crops, including cover crops cultivated for transplantation, or leaving land idle for the purpose of participating in any governmental program or normal crop or livestock rotation procedure.
- (2) **Agricultural use** . Any use or activity involving agriculture, including irrigation.
- (3) **Conservation** 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.
- (4) **Drought contingency plan** A strategy or combination of strategies for temporary supply and demand management responses to temporary and potentially recurring water supply shortages and other water supply emergencies. A drought contingency plan may be a separate document identified as such or may be contained within another water management document(s).
- (5) **Industrial use** The use of water in processes designed to convert materials of a lower order of value into forms having greater usability and commercial value, and the development of power by means other than hydroelectric, but does not include agricultural use.
- (6) **Irrigation**. 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.
- (7) **Irrigation water use efficiency** The percentage of that amount of irrigation water which is beneficially used by agriculture crops or other vegetation relative to the amount of water diverted from the source(s) of supply. Beneficial uses of water for irrigation purposes include, but are not limited to, evapotranspiration needs for vegetative maintenance and growth, salinity management, and leaching requirements associated with irrigation.

- (8) **Mining use.** The use of water for mining processes including hydraulic use, drilling, washing sand and gravel, and oil field repressuring.
- (9) **Municipal per capita water use.** The sum total of water diverted into a water supply system for residential, commercial, and public and institutional uses divided by actual population served.
- (10) **Municipal use.** 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.
- (11) **Municipal use in gallons per capita per day** 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.
- (12) **Nursery grower** . A person engaged in the practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or nonsoil media, who grows more than 50% of the products that the person either sells or leases, regardless of the variety sold, leased, or grown. For the purpose of this definition, grow means the actual cultivation or propagation of the product beyond the mere holding or maintaining of the item prior to sale or lease, and typically includes activities associated with the production or multiplying of stock such as the development of new plants from cuttings, grafts, plugs, or seedlings.
- (13) **Pollution** . 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.
- (14) **Public water supplier** . An individual or entity that supplies water to the public for human consumption.
- (15) **Regional water planning group** . A group established by the Texas Water Development Board to prepare a regional water plan under Texas Water Code, §16.053.
- (16) **Retail public water supplier** . 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.
- (17) **Reuse** 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.
- (18) **Water conservation plan** . A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water. A water conservation plan may be a separate document identified as such or may be contained within another water management document(s).
- (19) **Wholesale public water supplier** 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. Adopted September 15, 2004 Effective October 7, 2004

§288.2. Water Conservation Plans for Municipal Uses by Public Water Suppliers.

- (A) A water conservation plan for municipal water use by public water suppliers must provide

- information in response to the following. If the plan does not provide information for each
- (1) requirement, the public water supplier shall include in the plan an explanation of why the requirement is not applicable.
 - (1) Minimum requirements. All water conservation plans for municipal uses by public drinking water suppliers must include the following elements:
 - (A) a utility profile including, but not limited to, information regarding population and customer data, water use data, water supply system data, and wastewater system data;
 - (B) until May 1, 2005, specification of conservation goals including, but not limited to, municipal per capita water use goals, the basis for the development of such goals, and a time frame for achieving the specified goals;
 - (C) beginning May 1, 2005, 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. The goals established by a public water supplier under this subparagraph are not enforceable;
 - (D) 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;
 - (E) a program for universal metering of both customer and public uses of water, for meter testing and repair, and for periodic meter replacement;
 - (F) 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.);
 - (G) a program of continuing public education and information regarding water conservation;
 - (H) 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;
 - (I) 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; and
 - (J) a means of implementation and enforcement which shall be evidenced by:
 - (i) a copy of the ordinance, resolution, or tariff indicating official adoption of the water conservation plan by the water supplier; and
 - (ii) a description of the authority by which the water supplier will implement and enforce the conservation plan; and
 - (K) documentation of coordination with the regional water planning groups for the service area of the public water supplier in order to ensure consistency with the appropriate approved regional water plans.
 - (2) Additional content requirements. Water conservation plans for municipal uses by public drinking water suppliers serving a current population of 5,000 or more and/or a projected population of 5,000 or more within the next ten years subsequent to the effective date of the plan must include the following elements:
 - (A) a 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;
 - (B) 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:
 - (i) residential;
 - (ii) commercial;
 - (iii) public and institutional; and
 - (iv) industrial;
 - (C) a requirement in every wholesale water supply contract entered into or renewed after official adoption of the plan (by either ordinance, resolution, or tariff), and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements in this chapter. If the customer intends to resell the water, the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that
 - (2) each successive customer in the resale of the water will be required to implement water conservation measures in accordance with the provisions of this chapter.
 - (3) Additional conservation strategies. Any combination of the following strategies shall be selected by the water supplier, in addition to the minimum requirements in paragraphs (1) and (2) of this subsection, if they are necessary to achieve the stated water conservation goals of the plan. The commission may require that any of the following strategies be implemented by the water supplier if the commission determines that the strategy is necessary to achieve the goals of the water conservation plan:
 - (A) conservation-oriented water rates and water rate structures such as uniform or increasing block rate schedules, and/or seasonal rates, but not flat rate or decreasing block rates;
 - (B) adoption of ordinances, plumbing codes, and/or rules requiring water-conserving plumbing fixtures

- to be installed in new structures and existing structures undergoing substantial modification or addition;
- (C) a program for the replacement or retrofit of water-conserving plumbing fixtures in existing structures;
- (D) reuse and/or recycling of wastewater and/or graywater;
- (E) a program for pressure control and/or reduction in the distribution system and/or for customer connections;
- (F) a program and/or ordinance(s) for landscape water management;
- (G) a method for monitoring the effectiveness and efficiency of the water conservation plan; and
- (H) any other water conservation practice, method, or technique which the water supplier shows to be appropriate for achieving the stated goal or goals of the water conservation plan.
 - (a) A water conservation plan prepared in accordance with 31 TAC §363.15 (relating to Required Water Conservation Plan) of the Texas Water Development Board and substantially meeting the requirements of this section and other applicable commission rules may be submitted to meet application requirements in accordance with a memorandum of understanding between the commission and the Texas Water Development Board.
 - (b) 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. Adopted September 15, 2004 Effective October 7, 2004

SUBCHAPTER B: DROUGHT CONTINGENCY PLANS §§288.20 - 288.22

Effective October 7, 2004 §288.20.

Drought Contingency Plans for Municipal Uses by Public Water Suppliers.

- (a) A drought contingency plan for a retail public water supplier, where applicable, must include the following minimum elements.
 - (1) Minimum requirements. Drought contingency plans must include the following minimum elements.
 - (A) Preparation of the plan shall include provisions to actively inform the public and affirmatively provide opportunity for public input. Such acts may include, but are not limited to, having a public meeting at a time and location convenient to the public and providing written notice to the public concerning the proposed plan and meeting.
 - (B) Provisions shall be made for a program of continuing public education and information regarding the drought contingency plan.
 - (C) The drought contingency plan must document coordination with the regional water planning groups for the service area of the retail public water supplier to ensure consistency with the appropriate approved regional water plans.
 - (D) The drought contingency plan must include a description of the information to be monitored by the water supplier, and specific criteria for the initiation and termination of drought response stages, accompanied by an explanation of the rationale or basis for such triggering criteria.
 - (E) The drought contingency plan must include drought or emergency response stages providing for the implementation of measures in response to at least the following situations:
 - (i) reduction in available water supply up to a repeat of the drought of record;
 - (ii) water production or distribution system limitations;
 - (iii) supply source contamination; or
 - (iv) system outage due to the failure or damage of major water system components (e.g., pumps).
 - (F) The drought contingency plan must include specific, quantified targets for water use reductions to be achieved during periods of water shortage and drought. The entity preparing the plan shall establish the targets. The goals established by the entity under this subparagraph are not enforceable.
 - (G) The drought contingency plan must include the specific water supply or water demand management measures to be implemented during each stage of the plan including, but not limited to, the following:
 - (i) curtailment of non-essential water uses; and

- (ii) utilization of alternative water sources and/or alternative delivery mechanisms with the prior approval of the executive director as appropriate (e.g., interconnection with another water system, temporary use of a non-municipal water supply, use of reclaimed water for non-potable purposes, etc.).
 - (H) The drought contingency plan must include the procedures to be followed for the initiation or termination of each drought response stage, including procedures for notification of the public.
 - (I) The drought contingency plan must include procedures for granting variances to the plan.
 - (J) The drought contingency plan must include procedures for the enforcement of mandatory water use restrictions, including specification of penalties (e.g., fines, water rate surcharges, discontinuation of service) for violations of such restrictions.
- (2) Privately-owned water utilities. Privately-owned water utilities shall prepare a drought contingency plan in accordance with this section and incorporate such plan into their tariff.
- (3) Wholesale water customers. Any water supplier that receives all or a portion of its water supply from another water supplier shall consult with that supplier and shall include in the drought contingency plan appropriate provisions for responding to reductions in that water supply.
- (b) A wholesale or retail water supplier shall notify the executive director within five business days of the implementation of any mandatory provisions of the drought contingency plan.
 - (c) The retail public water supplier shall review and update, as appropriate, the drought contingency plan, at least every five years, based on new or updated information, such as the adoption or revision of the regional water plan. Adopted September 15, 2004 Effective October 7, 2004

APPENDIX C

City Council Resolution

Adopting this

**Water Conservation and Drought Contingency Plan
Ordinance No. 63**

AN ORDINANCE ADOPTING A CITY OF ANNETTA SOUTH WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN; TO PROMOTE RESPONSIBLE USE OF WATER.

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

WHEREAS, applicable law and regulations of the Texas Commission on Environmental Quality require that the City adopt a Water Conservation Plan and Drought Contingency Plan;

WHEREAS, the City has determined an urgent need in the best interest of the public to adopt a Water Conservation and Drought Contingency Plan; and

WHEREAS, the City Council of the City of Annetta South desires approval of the Water Conservation and Drought Contingency Plan and adopt such Plan as official City policy;

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ANNETTA SOUTH:

Section 1. The City Council hereby approves and adopts the City's Water Conservation and Drought Contingency Plan, attached hereto as Addendum A, and to be included in full as a part of this Ordinance as if recited verbatim herein. The City commits to implement the program according to the procedures set forth in the adopted Plan.

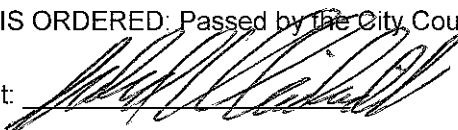
Section 2. The City Council finds and declares that a sufficient written notice of the date, hour, place and subject of the meeting of the Council was posted at a designated place convenient to the public for the time required by law preceding this meeting, that such place of posting was readily accessible at all times to the general public, and that all of the foregoing was done as required by law at all times during which this Ordinance and the subject matter thereof has been discussed, considered and formally acted upon. The City Council further ratifies, approves and confirms such written notice and the posting thereof.

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

Section 4. The City Special Assistant to the Mayor is hereby authorized and directed to cause publication of the descriptive caption of this Ordinance as an alternative method of publication provided by law.

AND SO IT IS ORDERED: Passed by the City Council on this 19th day July, 2007.

Mayor Attest:



Gerhard Kleinschmidt

City Secretary



By Daina Lawler, Special Assistant to Mayor