CITY OF DENTON WATER CONSERVATION PLAN

April 2024

1. INTRODUCTION AND OBJECTIVES

Water supply has always been a key issue in the development of Texas. The increasing population and economic development in Region C have led to growing demands for water. Additional supplies to meet higher demands will be expensive and difficult to develop. It is important to preserve water availability by making efficient use of existing supplies. Effective conservation strategies will delay the need for new supplies, minimize the environmental impacts associated with developing new supplies, and delay the high cost of additional water supply development.

Recognizing the need for efficient use of existing water supplies, 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.[1] The TCEQ guidelines and requirements for water suppliers are included in Appendix B. The City of Denton has adopted this water conservation and drought contingency plan pursuant to TCEQ guidelines and requirements.

The objectives of the water conservation plan are:

- To reduce per capita water consumption.
- To reduce operational water loss
- To reduce wasteful uses of water.
- To promote water reuse.
- To improve efficiency in the use of water.
- To extend the life of current water supplies by implementing sustainable practices

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 "A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the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)."[1]

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. The rules for wholesale water suppliers are contained in Rule 288.22, 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)."[1]

The drought contingency plan for the City of Denton 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 and Appendix C
- 288.2(a)(1)(B) – Records Management System – Section 3.2

- 288.2(a)(1)(C) – Specification of 5- and 10-Year Savings Targets – Section 3.3
- 288.2(a)(1)(D) – Accurate Metering – Sections 3.4.A
- 288.2(a)(1)(E) – Universal Metering – Section 3.4.B
- 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, Appendix D
- 288.2(a)(1)(K) – Coordination with Regional Water Planning Group – Section 3.10 and Appendix E

TCEQ places additional requirements on wholesale water suppliers in Title 30, Part 1, Chapter 288, Subchapter B, Rule 288.5 of the Texas Administrative Code. This Rule is included in Appendix B.

TCEQ's minimum requirements for water conservation plans are addressed in the following subsections of this report:

- 288.5(1)(C) – Maximum Acceptable Unaccounted-For Water Goal – Section 3.5

3.1 Utility Profile

Appendix C to this water conservation plan is a water utility profile for the City of Denton, based on the format recommended by the TCEQ.[2]

3.2 Records Management System

The Texas Administrative Code requires water systems maintain a record management system which allows for the classification of water sales and uses into the most detailed level of water use data currently available to it, including, if possible, the sectors listed in clauses (i) - (vi) of this subparagraph. Any new billing system purchased by a public water supplier must be capable of reporting detailed water use data as described in clauses (i) - (vi) of this subparagraph:

(i) residential;
  (I) single family;
  (II) multi-family;
(ii) commercial;
(iii) institutional;
(iv) industrial;

(v) agricultural; and,
(vi) wholesale.

The City of Denton Currently Utilizes NorthStar Billing System. While the acquisition and implementation of this software predates the above records management requirements, the system can accommodate the classification of water uses into detailed water use data.

3.3 Specification of 5- and 10-Year Savings Targets

The Texas Administrative Code requires specific, quantified five-year and ten-year targets for water savings to include goals for water loss programs and goals for municipal use in total GPCD and residential GPCD.

In December of 1999, the average gallon per capita per day (gpcd) water usage was roughly 160. This figure is arrived at by taking the amount of produced water, subtracting wholesale water amounts, then dividing the remaining amount by the current population. It is important to note, that gpcd is an industry standard, however gpcd does include commercial and industrial water usages. Therefore, it is important to make the distinction that a gpcd figure does not represent household usage alone, but also considers an individual's "water footprint" based on the water consumption of goods and services they enjoy.

In 1999, when gpcd was 160, the original water conservation plan articulated a conservation goal of a 15 percent reduction in per capita water use by 2050, which would be 136 gpcd.

The City's water conservation goals were further amended May 1, 2005, to include the goal of a one percent reduction yearly in per-capita usage for ten years. Resulting in 152 gpcd by 2024. Weather variability presents data interpretation challenges. On average, Denton receives 38 inches of rain. In 2015 Denton received 69.5 inches of rain, that year saw a 132.64 gpcd consumption, surpassing our 2050 goal. In 2023 Denton received 28.8 inches of rain, that year saw 149.78 gpcd consumption. While the 2024 usage is much higher than thew 2015 usage, it is fair to argue 2024 more accurately represents successful reduction. Additionally, the pattern and frequency of rainfall has significant effects on irrigation patterns. For example, if 1" of rain falls per week in .25" increments every other day in August, irrigation would be largely curtailed, however if 1" of rain falls on a Sunday then the rest of the week is dry, irrigation would likely occur by mid-to-end of the week.

Due to a shift in a larger percent of population living in multifamily homes, some of the assumptions comprising the 2050 goal of 136 gpcd were reexamined, and a new goal of 130 gpcd by 2050 is the new target.

The figure below represents Denton's conservation in 2019, 2024 to date actuals, and 5-, 10- and 15-year goals through 2039.

Unit	Unit	2019	2024	2029	2034	2039
City of Denton Population		133,610	156,643	231,334	255412	281995
Gallons Per Capita per Day	gpcd	140	148	145	142	140
Residential Gallons Per-Capita per Day	gpcd	58.3	63.38	60	56.5	53

3.4.A Accurate Metering of Raw Water Supplies and Treated Water Deliveries

The City of Denton meters all raw water diversions from Lake Lewisville and Lake Ray Roberts to each of the Water Treatment Plants. The City of Denton also meters all treated water deliveries to the distribution system from each water treatment plant. Each meter has an accuracy of plus or minus one percent. The meters are calibrated on a semiannual basis by City of Denton personnel to maintain the required accuracy and are repaired or replaced as needed. Both Raw meters for Lake Ray Roberts were replaced in 2018, and both Lake Lewisville meters were replaced in 2021.

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

Water usage for all customers of the City of Denton, including public and governmental use, is metered. As part of the water conservation plan, the City of Denton will continue to implement a meter replacement program. Denton Water Utility (DWU) staff conducted an extensive study in 2004 in which over 2,000 water meters were bench tested for accuracy. Throughout the years since this study was conducted, it has been updated and to date holds validity in results. In addition, a cost-benefit analysis was conducted to maximize the efficiency of the meters versus the costs of the replacement program. Based on the study, ¾ to 2-inch meters are replaced on a twelve- to fourteen-year cycle. The program focused on replacing the oldest meters in the system first. From 2009 to 2013 DWU has replaced meters to meet the twelve- to fourteen-year cycle. Meters that are 3-inch or larger are tested every year and repaired or replaced as necessary. The meter inventory for the city is in the process of transitioning to AMI or Automatic Meters. A pilot study is currently in progress and it is anticipated that the AMI meters will begin to replace analogue meters in 2027.

In addition, meters registering any unusual or questionable readings are automatically flagged in the billing process and be tested and repaired to restore full functionality.

3.5 Determination and Control of Water Loss

The amended 2003, Texas Water Code (Chapter 16.0121) requires that DWU (a retail public utility that provides potable water) to file an annual audit of system water loss. DWU continues to follow annually in compliance with the TWC.

DWU staff performs a yearly water audit, using the International Water Association/ American Water Works Association (IWA/AWWA) method required by the TWDB. DWU staff has been conducting water audits since the early 1990s. Historically, the City of Denton's non-revenue water, has always been below the AWWA goal. The City of Denton unaccounted-for water is also below the national average and the 2017 Texas average. The City of Denton's system has always met the suggested targets of the newer IWA/AWWA methodology as specified by the TWDB Task Force on water conservation.

The City of Denton will continue to conduct annual water audits using the IWA/AWWA methodologies.

Non-revenue water for the City of Denton has varied from 3.3 percent to 7.5 percent in the last five years, with the highest value still under review regarding accuracy of a source meter. Previous audits led to the discovery and correction of a systematic source metering error at the Ray Roberts Water Treatment Plant. Staff will continue to conduct comprehensive water audits annually and take appropriate measure to minimize system water loss.

3.6 Public Education and Information; Partnerships with Non-profits

The City of Denton continues to have an active role in the education of water conservation with several methods of outreach and public information. Along with their Partnerships with Non-Profits, they execute campaigns throughout the year(s) to spread information on conservation. The continuing public education and information campaign and the partnerships with Non-Profit organizations on water conservation includes the following elements:

a. Promote the City's water conservation measures (presented in Sections 3, 4, and 5).
b. Enforcement of a mandatory twice-a-week watering schedule for landscape.
c. Include inserts on water conservation with water bills at least twice per year. Inserts will include material developed by City of Denton staff and material obtained from the TWDB, the TCEQ, and other sources that pertain to water conservation, irrigation conservation, and protecting pipes from freezing.
d. Encourage local media coverage of water conservation issues and the importance of water conservation.
e. Make the Texas Smartscape materials, water conservation brochures, and other water conservation materials available to the public at the City of Denton Utility Department, other City facilities, and at special events.

f. Make information pertaining to water conservation and irrigation conservation available online at www.sustainabledenton.com and water utilities website www.discussdenton.com/water-wise-denton include links to the Texas Smartscape website and to information relating to water conservation on the TWDB and TCEQ web sites.
g. Provide a Xeriscape class once a year to promote conservation landscaping and conservation irrigation practices.
h. Encourage attendance at Texas A&M Water University water classes. Offered options include Rain barrel and Drip irrigation classes.
i. Promote and educate with non-profit conservation partners such as Master Naturalist, Master Gardeners, and Natural Plant Society, organizations that actively hold informational and educational meetings and volunteer opportunities regularly within our community.
j. Offer presentations to local organizations, schools, and civic groups on the importance of water conservation and ways to save water.

3.7 Non-Promotional Water Rate Structure

With the intent of encouraging water conservation and discouraging waste and excessive use of water, the City of Denton adopted an increasing block (inverted block) rate in 1998. In an inverted-block structure the unit price of water increases with increasing water use.

The City of Denton initially employed an inverted-block rate from May through October. We have since adopted this structure year-round. The structure consists of four blocks. The first block provides enough water to cover a typical household's water usage, which includes a moderate amount for irrigation. The second, third, and fourth blocks are designed to curb discretionary and seasonal outdoor water use. The inverted-block structure only applies to residential customers. DWU bills commercial customers on a flat rate, but has implemented seasonal pricing on commercial irrigation meters to curb summer peak demand.

3.8 Reservoir System Operation Plan

The City of Denton has the right to divert water from Lake Lewisville and Lake Ray Roberts, which we limit to firm yield calculations as follows:

- 19.76 MGD from Lake Ray Roberts
- 4.34 MGD from Lake Lewisville

The City of Denton is the minority water right holder in both reservoirs. The expired agreement with the City of Dallas (majority water right holder) delegates comprehensive coordination of reservoir management to the City of Dallas.

3.9 Implementation and Enforcement of the Water Conservation Plan

Appendix D contains a copy of the resolution of the City of Denton City Council adopting this water conservation and drought contingency plan. The resolution designates responsible officials to implement and enforce the water conservation and drought contingency plan.

3.10 Coordination with Regional Water Planning Group

The City of Denton will provide a copy of this water conservation and drought contingency plan to the Region C Water Planning Group, which is currently developing the Regional Water Plan. Appendix E includes a copy of a letter sent to the Chair of the Region C Water Planning Group.

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 10 years:

- §288.2(a)(2)(A) – Leak Detection, Repair, and Water Loss Accounting – Sections 3.5, 4.1, and 5.5
- §288.2(a)(1)(B) – Record Management System – Section 4.2
- §288.2(a)(2)(C) – Requirement for Water Conservation Plans by Wholesale Customers – Section 4.3

4.1 Leak Detection and Repair; Pressure Control

Measures to control unaccounted-for water are part of the routine operations of the City of Denton. Meter readers, water and wastewater utility personnel, and the public report leaks in the system. Maintenance crews are on-call 24-hours a day and respond quickly to repair reported leaks. DWU has invested in leak detection and correlator equipment that helps in identifying more leaks and locating leaks more accurately for repair.

The City of Denton also proactively decreases water loss through the waterline replacement program. Areas of the water distribution system in which numerous leaks and line breaks occur are targeted for replacement.

DWU will continue analysis on the life cycle of transmission lines. These pipes have an assumed lifespan of 75 years. DWU continuously assesses the current condition of existing transmission lines and maintains a detailed maintenance history. DWU revises the replacement schedules accordingly for all existing transmission lines to reduce water loss from main breaks by better estimating end of useful live.

To reduce real water losses, the City of Denton will maintain a proactive water loss program. As part of this program, the City will implement the following actions:

a. Continue to implement and improve the waterline replacement program.
b. Conduct an analysis to revise the replacement schedule of transmission lines.
c. Conduct regular inspections of all water main fittings and connections during periods of maintenance and repair.

4.2 Record Management System

As required by TAC Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.2(a)(1)(B), the record management system for the City of Denton records water pumped, water delivered, and water sold. However, the City of Denton's record management system does not allow for the separation of water sales and uses into residential, commercial, public/institutional, and industrial categories as required.

The current billing system separates sales and uses into residential, commercial, and wholesale user classes. At such time that the City of Denton procures a new record management system, such system will have the capabilities required in section 288.2(a)(1)(B).

4.3 Requirement for Water Conservation Plans by Wholesale Customers

Each contract for the wholesale sale of water by the City of Denton will include a requirement that the wholesale customer develop and implement a water conservation plan meeting the requirements of Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.2(a)(2)(c) of the Texas Administrative Code. If the customer intends to resell the water, then the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with applicable provisions of Chapter 288.

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; some are not included in this plan:

- §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 – (Not included in plan)
- §288.2(a)(3)(D) – Reuse and Recycling of Wastewater – Section 5.2
- §288.2(a)(3)(E) – Pressure Control and/or Reduction – (Not included in plan)
- §288.2(a)(3)(F) – Landscape Water Management Ordinance – Section 5.3
- §288.2(a)(3)(G) – Monitoring Method – Section 5.4

- §288.2(a)(3)(H) – Other Conservation Methods – Section 5.5 and 5.6

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

The State of Texas has required 2.5 gpm faucets, 3.0 gpm showerheads, and 1.6 gpf toilets for new construction since 1992. Similar standards are also required under federal law. Denton's Plumbing Code complies with the State of Texas requirements. The implementation of the federal rules requiring energy-conserving clothes washers in 2007 improved the water-efficiency of residential clothes washers.

5.2 Reuse and Recycling of Wastewater

The City of Denton's current reuse program delivers approximately 0.5 MGD of reclaimed wastewater effluent. The current distribution system has a maximum capacity of 4 MGD. The city is currently partnering with a consultant to perform an analysis on the system and increase usage by identifying new customers that can feasibly be connected to the system, and identifying infrastructure improvements to allow for expansion. Lasty, new developments of a certain size are required to be constructed with purple pipe to accommodate future system expansion. Staff is identifying internal processes that can be accomplished with reuse water, such as sewer cleaning and street sweeping, and working to accommodate the change from potable to reuse water to accomplish these tasks.

5.3 Landscape Management Ordinance

As part of the development of this water conservation plan, the City of Denton has implemented a lawn and landscape irrigation and water waste ordinance. This ordinance is intended to minimize waste in landscape irrigation and other uses. The ordinance was implemented in 2006, during a drought period when public awareness of the drought was high. The ordinance includes the following elements:

a. Prohibition of outdoor watering, except by hand and for watering foundations, from 10:00 a.m. to 6:00 p.m. every day from June 1 through September 30.
b. Requirement that all new irrigation systems include rain and freeze sensors.
c. Prohibition of designs and installations that spray directly onto impervious surfaces such as sidewalks and roads or onto other non-irrigated areas.
d. Prohibition of use of poorly maintained sprinkler systems that waste water.
e. Requirement that any outside faucet or service line leak be repaired.
f. Enforcement of the ordinance by a system of warnings followed by fines for continued or repeat violations.

Staff is expanding the rules and regulations above to include a twice a week irrigation schedule for all users, as well as hiring an additional staff member to support the public and uphold the restrictions.

The irrigation schedule is as follows:

Address	Irrigation Day
Even Addresses (ending in 0,2,4,6,8 or no address)	Tuesday and Saturday
Odd Addresses (ending in 1,3,5,7,9)	Wednesday and Sunday
Commercial and Multi-Family	Monday and Thursday

5.4 Monitoring Method

Currently there is not a system in place to accurately measure consumption per capita per day. The meter inventory for the city is in the process of transitioning to AMI or Automatic Meters. A pilot study is currently in progress and it is anticipated that the AMI meters will begin to replace analogue meters in 2027. As meters are replaced, AMI technology will allow for individual gpcd monitoring.

5.5 Customer Water Audit

The City of Denton will continue to conduct water audits for single- and multi-family residential customers. The four main purposes are to: educate customers about conservative water use habits and replacement of inefficient toilets, clothes washers, and dishwashers; educate customers about water-efficient showerheads and faucet aerators; identify leaks; and optimize irrigation water usage. The City's auditor will review the water use habits of the customer, inspect the system for leaks and excessive use, and recommend any equipment repairs or changes to increase the efficiency of both the domestic and irrigation water systems. Although overall water savings from residential water audits are minimal, residential water audits are crucial to maintaining good customer relations particularly related to high billing complaints.

The City of Denton has and will explore new organizational options that would allow for expansion of the water audit program. In addition to increasing availability of personnel for residential water audits, DWU will begin to expand its focus and implement a program for commercial customers. As Denton's highest volume water customers are in the commercial sector, commercial water efficiency is expected to make a significant impact toward overall reductions.

5.6 Park, Athletic Fields and Golf Course Conservation

The City of Denton will explore the possibility of additional savings by the proper management of park and athletic field irrigation, landscape, and turf practices. The Texas Water Development Board Water

Conservation Best Management Practices Guide includes guidelines for water conservation in parks, athletic fields, and golf courses.[3] DWU will work with other city departments to determine the potential for water and cost savings by proper management practices and implement them when practical. Additionally, Denton is exploring the use of Effluent or Reuse water as a sustainable alternative to potable water. We are currently in the planning stage of this process.

6. DROUGHT CONTINGENCY PLAN

6.1 Introduction

The purpose of this drought contingency plan is as follows:

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

6.2 State Requirements for Drought Contingency Plans

This drought contingency plan is consistent with Texas Commission on Environmental Quality (TCEQ) guidelines and requirements for the development of drought contingency plans by public drinking water suppliers, 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 6.5
- 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 6.6
- 288.20(a)(1)(I) - Procedures for Granting Variances – Section 6.8
- 288.20(a)(1)(J) - Procedures for Enforcement of Mandatory Restrictions – Section 6.7
- 288.20(a)(3) – Consultation with Wholesale Supplier – Not applicable
- 288.20(b) – Notification of Implementation of Mandatory Measures – Section 6.6

288.20(c) – Review and Update of Plan – Section 6.10TCEQ places additional requirements on wholesale water suppliers in Title 30, Part 1, Chapter 288, Subchapter B, Rule 288.22 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:

- 288.22(a)(1) – Provisions to Inform Wholesale – Section 6.3
- 288.22(a)(7) – Water Supply and Demand Management Measures Conform to Texas Water Code 11.039 – Section 6.6
- 288.22(a)(8) – Wholesale Contract Supply Provisions Conform to Texas Water Code 11.039 – Section 6.6

6.3 Provisions to Inform the Public and Opportunity for Public Input

The City of Denton provided opportunity for public input in the development of this drought contingency plan from January 22 through February 22 of 2024:

a. Written notice of the proposed plan and the opportunity to comment on the plan was posted on the water utilities website www.discussdenton.com/water-wise-denton
b. Notification was given before, after and during the comment period
c. The plan is always available to the public at the City of Denton's web site www.cityofdenton.com and water utilities website www.discussdenton.com/water-wise-denton
d. The public may comment on updates to the plan.
e. The plan will be provided to anyone requesting a copy.

The City of Denton shares water rights with the City of Dallas. Denton is the minority water right holder in both water supply reservoirs. It is by design that Denton's Drought Contingency Plan closely resembles Dallas' plan. The need to coordinate Denton's Plan with the Dallas plan is appropriate and fosters Consistent communication within a media market common to many different water utilities.

6.4 Provisions for Continuing Public Education and Information

The City of Denton will inform and educate the public about its drought contingency plan by the following means:

a. The plan is available to the public through the City of Denton web site at www.cityofdenton.com and the water utility's website www.discussdenton.com/water-wise-denton
b. Including information about the drought contingency plan on the City of Denton's web site, www.cityofdenton.com water utility's website www.discussdenton.com/water-wise-denton.
c. Upon request, make presentations to local organizations, schools, and civic groups on the drought contingency plan (usually in conjunction with presentations on water conservation programs).

d. Open public meetings with the Public Utilities Board, Environment Committee, and City Council.

Any time the drought contingency plan is activated, or the drought stage changes, the City of Denton will notify local media of the issues, the drought response stage, and the specific actions required of the public. The information will also be publicized on the City of Denton website, www.cityofdenton.com. Billing inserts will be used as appropriate.

6.5 Initiation and Termination of Drought Response Stages

6.5.1 Initiation of Drought Response Stages

The Director of Water Utilities or designee may order the implementation of a drought response stage or water emergency when one or more of the trigger conditions for that stage are met. The following actions will be taken when a drought stage is initiated:

a. The public will be notified through local media.
b. Wholesale customers will be notified by telephone with a follow-up letter or email.
c. If any mandatory provisions of the drought contingency plan are activated, the City of Denton will notify the Executive Director of the TCEQ within 5 business days.

The Director of Water Utilities or designee may decide not to order the implementation of a drought response stage 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 facilities will become available to meet needs.

Trigger Condition Types: The three types of water management conditions are discussed below:

For a ***Type A situation*****,** preservation of the total water supply is critical and corresponding water management measures should stress overall reductions in water use. This condition is measured by a reduction in lake supply and results from extended drought. The best opportunity to respond to a drought is early in the drought cycle. Drought Contingency measures should stress overall reductions in water demand (i.e., average-day water demand).

For a ***Type B situation***, in which the water demand approaches the delivery capacity of the system, managing and lessening the peak water demand will be critical, and corresponding drought contingency measures should stress water-use reductions or shifts to off-peak hours. In this situation, the objective of Stages 1 and 2 are to avoid triggering the next stage. A Stage 3 trigger requires immediate and severe water demand reductions. Equipment or system failures that result from

increased stresses to the transmission, treatment, or distribution systems can worsen a ***Type B*** situation. This condition is a result of an increase in demand. In the short term, this typically occurs during the summer months when irrigation requires more water. In the long term, it could occur if treatment plant or distribution system expansions do not keep pace with the growth in consumer demand, which is especially possible in times of significant population growth. Drought contingency measures should stress reductions in peak water demand or redistribution of the demand to off-peak hours.

For a ***Type C situation*** where deficiencies limit the supply capacity, both water-use reductions and shifts to off-peak hours may be necessary. Although the area involved may be localized, immediate action requiring water demand reduction is necessary. Depending upon the severity of the triggering conditions, it is feasible that the plan could proceed immediately to implementation of stage 3. This condition is a result of a break in a large transmission main, mechanical failure to one or more large pumps, or production plant breakdown. Contamination of water supplies or other unforeseen occurrences may also instigate this condition. They may arise with little warning and require immediate and/or aggressive actions.

Drought contingency measures should stress reductions in peak water demand and/or redistribution of the demand to off-peak hours.

6.5.2 Termination of Drought Response Stages

The Director of Water Utilities or designee may order the termination of a drought response stage 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:

a. The public will be notified through local media.
b. Wholesale customers will be notified by telephone with a follow-up letter or email.
c. When any mandatory provisions of the drought contingency plan that have been activated are terminated, the City of Denton will notify the Executive Director of the TCEQ within 5 business days.

The Director of Water Utilities or designee may decide not to order the termination of a drought response stage 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 conditions that warrant the continuation of the drought stage.

6.6 Drought and Emergency Response Stages

6.6.1 Stage 1, Mild

6.6.1.1 Triggering and Termination Conditions for Stage 1, Mild

6.6.1.1.1 ***Type A*** *Water Management Condition*
Total raw water supply in (1) Denton and Dallas connected lakes (east and west); or (2) western connected lakes; or (3) eastern connected lakes drops below 65% of the total conservation storage of the lakes

6.6.1.1.2 ***Type B*** *Water Management Condition*
Water demand reaches or exceeds 85% of delivery capacity for 4 consecutive days

6.6.1.1.3 ***Type C*** *Water Management Condition*

a. Water demand approaches a reduced delivery capacity for all or part of the system, as determined by DWU
b. A major water line breaks, or a pump or system failure occurs, which cause unprecedented loss of capability to provide treated water service
c. Natural or man-made contamination of the water supply

Requirements for Termination:
Stage 1 may be terminated when Stage 1 conditions no longer exist and would be unlikely to recur upon termination.

6.6.1.2 Goal for Use Reductions And Actions Available Under Stage 1, Mild

The goal for water use reduction under Stage 1, Mild, is a 5 percent reduction of the use that would have occurred in the absence of drought contingency measures. The Director of Water Utilities or a designee can order the implementation of any of the actions listed below, or other actions not listed, as deemed necessary:

All Water Users

a. Require that all landscape watering be limited to the day-of-week schedule between the hours of 6:00PM to 10:00AM. Irrigation of landscaped areas with hose-end sprinklers, or automatic irrigation systems should be limited to Sundays and Thursdays for customers with a street address ending in an even number (0, 2, 4, 6 or 8) and for locations without addresses and limited to Saturdays and Wednesdays for water customers with a street address ending in an odd number (1, 3, 5, 7 or 9). Apartments, office building complexes or other property containing multiple addresses may be identified by the lowest address number.

b. Require written approval for additional watering beyond twice a week for new and first year landscaping.

c. Encourage only initial filling of ornamental fountains.
d. Encourage reduction in frequency of washing or rinsing of vehicles. Use of bucket/container, hand- held hose with positive shut-off valve or commercial car wash is required.
e. Require written approval for the draining and refilling of swimming pools.
f. Encourage reduction in frequency of recreational water use including use of faucets, hoses or hydrants.
g. Foundations may be watered on any day of the week between the hours of 10 PM and 6 AM. Foundations may be watered with a soaker hose or a hand-held hose equipped with a positive shutoff nozzle only.
h. Prohibit using the hose to clean paved areas, buildings, windows or other surfaces.

City Government

a. Staff will begin review of the problems initiating Stage 1 actions and will identify possible solutions to address the water shortage.
b. Initiate public education campaign teaching and encouraging reduced water use practices.
c. Intensify normal leak detection and repair activities on water pipes and mains.
d. Restrict use of potable water for the irrigation of parks by 25 percent. Park landscape may be irrigated on any day of the week, portions of the park irrigated with reuse water are not required to reduce irrigation,
e. Only flush newly constructed mains and mains that are essential for water quality maintenance.

f. Encourage 25 percent reduction in frequency of wet street sweeping and city vehicle washing and rinsing. Street sweeping and vehicle washing with reuse water are not subject to potable water restrictions.

Commercial Customers

a. Identify and encourage voluntary reduction measures by high-volume water users through water use audits.
b.
c. Restrict water use for the irrigation of parks by 25 percent. Park landscape may be irrigated on any day of the week. Park facilities irrigating with reuse water are not subject to the same watering restrictions.
d. Reduce potable water use for landscape nursery stock by 25 percent.
e.
f. Require reduction of water use through day-of-week landscape watering schedule for golf courses. Golf courses irrigating with reuse water are not subject to the same watering restrictions.
g. Encourage area restaurants to serve customers water by request only.
h. Encourage hotel/motels to request multiple day patrons to reuse linens instead of changing every day.

Interruptible Customers

a. Reduce usage for interruptible customers per contract terms.

Wholesale Customer Cities

a. Request proof of implementation of like procedures by wholesale customers.

Notifications

City of Denton

d. Notify major City departments, by telephone and follow-up memo, of Water Awareness Stage #1 and request voluntary water use reduction.

e. Stress voluntary elimination of non-essential uses.

External Customers

f. Issue press release, radio and video public service announcement to area media describing Water

    - Awareness Stage #1 and the voluntary restrictions that apply.

- Distribute water conservation materials to Denton Independent School District, UNT, TWU and community groups if appropriate.
- Post Water Awareness notices at public buildings including city buildings, county buildings and the federal post office.
- Stress reduction of water use through the publication of the mandatory landscape watering schedule.

Wholesale Customers

g. Advise wholesale customers by telephone and follow-up memo, of Water Awareness Stage #1 and request proof of water use reduction consistent with actions taken by the City of Denton.

6.6.2 Stage 2, Moderate

6.6.2.1 Triggering Conditions for Stage 2, Moderate

6.6.2.1.1 ***Type A*** *Water Management Condition*
Total raw water supply in (1) Denton and Dallas connected lakes (east and west); or (2) western connected lakes; or (3) eastern connected lakes drops below 50% of the total conservation storage

6.6.2.1.2 ***Type B*** *Water Management Condition*
Water demand reaches or exceeds 90% of delivery capacity for 3 consecutive days

6.6.2.1.3 ***Type C*** *Water Management Condition*

h. Water demand equals a reduced delivery capacity for all or part of the system, as determined by DWU

i. A major water line breaks, or a pump or system failure occurs, which cause unprecedented loss of capability to provide treated water service
j. Natural or man-made contamination of the water supply

Requirements for Termination:
Stage 2 may be terminated when Stage 2 conditions no longer exist and would be unlikely to recur upon termination.

6.6.2.2 Goal For Use Reduction And Actions Available Under Stage 2, Moderate

The goal for water use reduction under Stage 2, Moderate, is a 15 percent reduction of the use that would have occurred in the absence of drought contingency measures. The Director of Water Utilities or a designee can order the implementation of any of the actions listed below, or other actions not listed, as deemed necessary:

All Water Users

a. Require that all landscape watering be limited to single day-of-week schedule between the hours of 6:00 PM to 10:00AM. Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems should be limited to Thursdays for customers with a street address ending in an even number (0, 2, 4, 6 or 8) and for locations without addresses, and Wednesdays

for water customers with a street address ending in an odd number (1, 3, 5, 7 or 9). Apartments, office building complexes or other property containing multiple addresses may be identified by the lowest address number.

b. Restrict operation of ornamental fountains or ponds to initial only filling except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system.
c. Prohibit recreational water use including use of faucets, hoses or hydrants.
d. Restrict washing of any motor vehicle, motorbike, boat, trailer, airplane or other vehicle to the use of a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rinses on the designated watering day. Vehicle washing may be done at any time on the immediate premises of a commercial car wash or commercial service station. Further, such washing may be exempted from these regulations if the health, safety, and welfare of the public is contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables.
e. Restrict water use to replacing losses during normal use and replacing evaporation in order to maintain proper water quality and proper operation of the pool equipment. Request that use of water to fill, refill, or add to any indoor or outdoor swimming, wading, or jacuzzi pools be limited to the day-of-week schedule.
f. Prohibit hosing off paved areas, buildings, windows, or other surfaces.
g. Foundations may be watered for a two-hour period only between the hours of 10 PM and 6 AM on the designated single day of the week watering day with soaker or hand-held hose equipped with a positive shutoff nozzle on the watering schedule.

City Government

a. Staff will begin review of the problems initiating Stage 2 actions and will identify possible solutions to address the water shortage.
b. Accelerate public education campaign teaching and encouraging reduced water use practices.
c. Restrict flushing of new mains not immediately required to provide service.

d. Continue intensified leak detection and repair activities on water pipes and mains.
e. Restrict water use for the irrigation of parks by 50 percent. Park landscape may be irrigated on any day of the week. Portions of the park irrigated with reuse water are not subject to the same restrictions.
f. Increase enforcement efforts.
g. Reduce frequency of wet street sweeping and city vehicle washing by 50 percent.
h. Use of water from fire hydrants is limited to firefighting and essential distribution system activities. All other water use from fire hydrants will be by special permit only, including SWPPP related activities. Reuse water hydrants are not subject to the same restrictions.

Commercial Customers

a. Enforce single day-of-week watering schedule for golf courses. Golf courses irrigating with reuse water are not subject to the same restrictions.
b. Reduce potable water use for landscape nursery stock by 50 percent. Nurseries irrigating with reuse water are not subject to the same restrictions.
c. Restrict water use for the irrigation of parks by 50 percent. Park landscape may be irrigated on any day of the week. Park areas irrigated with reuse water are not subject to the same restrictions.

Interruptible Customers

a. Reduce usage for interruptible customers per contract terms.

Wholesale Customers

a. Require proof of water demand reductions in accordance with contract obligations for wholesale customers.
b. Wholesale water systems asked to abide by City of Denton policy for both internal operations and all retail customers. Reduction in rate of flow controller settings by 10% -20% are optional.

Notifications

City of Denton

a. By telephone and attached follow-up memo, notify all major City department water users of Water Watch Stage #2 and the water use restrictions under this stage. Instruct them to implement restrictions on non-essential uses. Use city department contacts in Appendix F.
b. Coordinate distribution of water emergency plan details, posters, and handouts to customer service representatives, utility dispatch personnel and Denton public access buildings.

Retail Customers

a. TCEQ notified of Stage 2 restrictions.
b. Issue press release, radio and video public service announcement to area media describing Water Watch Stage #2 and the water use restrictions under this stage. Keep media updated on the water situation. Use media contacts listed in Appendix F.
c. By telephone and follow-up letter, notify major area water users of Water Watch Stage #2 and the restrictions that apply. Use plant manager contacts listed in Appendix F.
d. Accelerate public education campaign to promote and encourage efficient water use.

e. If applicable, notify the U.S. Corp of Engineers by telephone and follow-up letter of the Water Watch Stage #2 conservation measures.

Wholesale Customers

Advise wholesale customers by telephone and attached letter of the actions taken by the City of Denton in response to Water Watch Stage #2 and require the implementation of like procedures among their customers. Wholesale customer cities shall either impose water use restrictions equivalent to those imposed on Denton's retail customers OR where applicable, Denton may reduce rate-of-flow controller settings by 10%-20%. Use wholesale customer contacts in Appendix F.

Penalties

a. Initiate a 10% rate increase for residential customers for water usage greater than 15,000 gallons per account per 30 days.
b. Impose a 10% surcharge penalty for commercial and industrial customers for monthly water use above 80% of prior billing volumes for a 30-day period.
c. Initiate code enforcement fines for any violation of the Drought Contingency Plan.

6.6.3 Stage 3, Severe

6.6.3.1 Triggering Conditions for Stage 3, Severe

6.6.3.1.1 ***Type A*** *Water Management Condition*

Total raw water supply in (1) Denton and Dallas connected lakes (east and west); or (2) western connected lakes or (3) eastern connected lakes, drops below 35% of the total conservation storage.

6.6.3.1.2 ***Type B*** *Water Management Condition*

Water demand reaches or exceeds 95% of delivery capacity for 2 consecutive days.

6.6.3.1.3 ***Type C*** *Water Management Condition*

a. Water demand exceeds a reduced delivery capacity for all or part of the system, as determined by DWU
b. A major water line breaks, or a pump or system failure occurs, which cause unprecedented loss of capability to provide treated water service
c. Natural or man-made contamination of the water supply

Requirements for Termination:

Stage 3 may be terminated when Stage 3 conditions no longer exist and would be unlikely to recur upon termination.

6.6.3.2 Goal For Use Reduction And Actions Available Under Stage 3, Severe

The goal for water use reduction under Stage 3, Severe, is a reduction of 20 percent of the use that would have occurred in the absence of drought contingency measures. If the circumstances warrant, the Director of Water Utilities, or a designee can set a goal for greater water use reduction. The Director of Water Utilities or a designee can order the implementation of any of the actions listed below, or other actions not listed, as deemed necessary:

All Water Users

a. Irrigation of landscape with potable water is absolutely prohibited unless otherwise indicated within this section.
b. Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane other vehicle not occurring on the premises of a commercial car wash and commercial service stations and not in the immediate interest of public health, safety, and welfare is prohibited. Further, such vehicle washing at commercial car washes and commercial service stations shall occur only between the hours of 6 PM to 10 AM.
c. The filling, refilling, or adding of water to swimming pools, wading pools, and Jacuzzi type pools is prohibited. Existing pools may add water to replace losses during normal use and to replace evaporation to maintain proper water quality and proper operation of the pool equipment.
d. Prohibit operation of ornamental fountains or ponds to initial filling except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system.
e. Foundations may be watered for a two-hour period only between the hours of 10 PM and 6 AM on the designated watering day from Stage 2 with soaker or hand-held hose equipped with a positive shutoff nozzle on the watering schedule.
f. No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved, and time limits for approval of such applications are hereby suspended for such time as this drought response stage or a higher-numbered stage shall be in effect.
g. Permitting of new swimming pools, hot tubs, spas, ornamental ponds and fountain construction is prohibited.
h. Request a 25% reduction of indoor water uses.

City Government

a. Wet street sweeping and city vehicle washing or rinsing using potable water is prohibited, except when in the immediate interest of public health, safety, and welfare.

b. Restrict water use for the irrigation of parks by 75 percent. Park landscape may be irrigated on any day of the week.
c. Restrict use of water from fire hydrants to firefighting, essential distribution system maintenance and related activities. All other water use from fire hydrants will be by special permit only.

Commercial Customers

a. Restrict watering of golf course greens and tee boxes restricted to the allowed watering hours and the day-of-week watering schedule from Stage 2; watering of other golf course areas and parks is prohibited unless the golf course utilizes non potable water or another water source other than that provided by the City of Denton.
b. Reduce potable water use for landscape nursery stock by 75 percent.
c. Restrict potable water use for the irrigation of parks by 75 percent. Park landscape may be irrigated on any day of the week. Parks irrigated with reuse water are not subject to the same restrictions.

Interruptible Customers

a. Service to interruptible customers is temporarily suspended.

Wholesale Customers

b. Same external restrictions apply to wholesale suppliers.

Notifications

City of Denton

a. Coordinate dissemination of water conservation plan details, posters, and handouts to customer service representatives, utility dispatch personnel and public access buildings.
b. By telephone and attached follow-up memo, notify all major City department users of Water Warning Stage #3 and of the water use restrictions under this stage. Instruct them to eliminate non-essential uses including street and vehicle washing and operation of ornamental fountains, and to implement restrictions on essential uses. Use same contacts as those listed in Appendix F.

Retail Customers

a. TCEQ notified of Stage 3 restrictions.
b. Issue press release, radio and video public service announcement to area media describing Water Warning Stage #3 and the water use restrictions under this stage. Keep media updated on the water situation. Use same media contacts as those in Appendix F.
c. By telephone and follow-up letter, notify major water users of Water Warning #3 and the mandatory water use reduction. Use contacts listed in Appendix F.

d. Post Water Warning notices at public buildings including city buildings, county buildings, and the federal post office.
e. If applicable, notify U.S. Corps of Engineers by telephone and attached letter of the Water Warning Stage #3 conservation measures.

Wholesale Customers

a. Advise wholesale customers by telephone and attached letter of actions being taken by the City in response to Water Warning Stage #3 and mandatory implementation of similar procedures among their customers. Wholesale customer cities shall impose water use restrictions equivalent to those imposed on Denton's retail customers or, where applicable, reduce their rate-of-flow controller settings by a percentage determined by the Director of Water Utilities. Appendix F lists wholesale customers that need to be contacted.

Penalties

a. Initiate a 20% rate increase for residential customers for water usage greater than 15,000 gallons per account per 30 days.
b. Impose a 20% surcharge penalty for commercial and industrial customers for monthly water use above 70% of prior billing volumes for a 30-day period.
c. Initiate code enforcement fines for any violation of the Drought Contingency Plan.

Water Allocation

Retail Customers:

During Stages 2 and 3 of the Drought Contingency Plan, DWU may impose a retail water rate increase to discourage water use. All rates for usage more than 15,000 gallons per month (per single-family residential account), or any other usage amount above 15,000 gallons per month, as deemed appropriate by the Director, may be increased by a minimum of an additional 10 percent or any other percentage deemed appropriate by the Director.

Wholesale Customers

If the triggering criteria specified above for Stage 3 have been met, the Director is hereby authorized to initiate allocation of water supplies on a pro rata basis in accordance with the latest revision of Texas Water Code Section 11.039. Texas Water Code Section 1.039, Distribution of Water During Shortage, states:

a. (If a shortage of water in a water supply not covered by a water conservation plan prepared in compliance with Texas Commission on Environmental Quality or Texas Water Development Board rules results from drought, accident, or other cause, the water to be distributed shall be divided among all customers pro rata, according to the amount each may be entitled to, so that preference is given to no one and everyone suffers alike.
b. (If a shortage of water in a water supply covered by a water conservation plan prepared in compliance with Texas Commission on Environmental Quality or Texas Water Development Board rules results from drought, accident, or other cause, the person, association of person, or corporation owning or controlling the water shall divide the water to be distributed among all customers pro rata, according to:
    1. the amount of water to which each customer may be entitled; or
    2. the amount of water to which each customer may be entitled, less the amount of water the customer would have saved if the customer had operated its water system in compliance with water conservation plan.
c. Nothing in Subsection (a) or (b) precludes the person, association of persons or corporation owning or controlling the water from supplying water to a person who has a prior vested right to the water under the laws of this state.

DWU may curtail water deliveries or reduce diversions in accordance with the terms and conditions of its wholesale water supply contracts. If necessary, or if specific contract provisions are not provided for, DWU may curtail water deliveries or reduce diversions in accordance with Texas Water Code Section 11.039. DWU will have authority to restrict flow to its wholesale water customers through the rate-of-flow controllers.

The Director will establish pro rata water allocations, determined as a percentage reduction of the wholesale customer's water usage, at the time of implementation. The total volume reduction for each wholesale customer will be calculated monthly, based on average water usage for the previous three years. The Director will establish the percentage reduction based on an assessment of the severity of the water shortage condition and the need to curtail water diversions and/or deliveries, and the percentage reduction may be adjusted periodically by the Director. Once pro rata allocation is in effect, water diversions by, or deliveries to, each wholesale customer will be limited to the allocation established for each month.

6.7 Procedures for Enforcement of Mandatory Restrictions

Violations

A person commits an offense if he or she knowingly makes, causes, or permits a use of water contrary to the measures implemented in the Drought Contingency Plan. It is presumed that a person has knowingly made, caused, or permitted use of water contrary to the measures implemented if the mandatory measures have been implemented according to the Plan and any one of the following conditions apply:

a. The Drought Contingency Plan prohibits the manner of use.
b. The amount of water used exceeds that allowed by the Drought Contingency Plan.
c. The manner of use or the amount used violates the terms and conditions of a compliance agreement made following a variance granted by the ACM/Utilities.

Any person in apparent control of the property where a violation occurs or originates shall be presumed to be the violator, and proof that the violation occurred on the person's property shall constitute a rebuttable presumption that the person in apparent control of the property committed the violation, but any such person shall have the right to show that he/she did not commit the violation. Parents shall be presumed to be responsible for their minor children and proof that a violation, committed by a child, occurred on the property within control of the parents shall constitute a rebuttable presumption that the parent committed the violation. But, any such parent may be excused if he/she proves that he/she had previously directed the child not to use the water as it was used in violation of this Plan and that the parent could not have reasonably known of the violation.

Any Code Enforcement Officer, Police Officer, or other city employee designated by the City Manager , Assistant City Manager or Director of Utilities, may issue a citation to a person he/she reasonably believes to be in violation of this Ordinance. The citation shall be prepared in duplicate and shall contain the name and address of the alleged violator, if known, the offense charged, and shall direct him/her to appear in municipal court on the date shown on the citation.

Any person who violates this Plan is guilty of a misdemeanor and, upon conviction, shall be punished by a fine of not less than $250 and not more than $2,000. Each day that one or more provisions in this Plan is violated shall constitute a separate offense. Flow restrictors may be placed in lines after two violations have occurred to limit the amount of water passing through the meter in a 24-hour period. The City of Denton Utilities reserves the right to temporarily cancel water service to the customer until the situation can be resolved. Services

discontinued under such circumstances shall be restored only upon payment of a re-connection charge, at an amount established by City ordinance, and any other costs incurred by the DWU in discontinuing service. In addition, suitable assurance must be given to the Director that the same action will not be repeated while the Plan is in effect. Compliance with this Plan may also be sought through injunctive relief in the district court.

6.8 Procedures for Granting Variances

Granting a Variance

The ACM/Utilities may grant variances from the Drought Contingency Plan in special cases to persons demonstrating extreme hardship and need. In order to obtain a variance, the applicant must sign a compliance agreement on forms provided by the ACM/Utilities and approved by the City Attorney. The applicant must agree to use the water only in the amount and manner permitted by the variance. A variance must meet the following conditions:

a. Granting of a variance must not cause an immediate significant reduction in the City's water supply.
b. The applicant must demonstrate that the extreme hardship or need is related to the health, safety, or welfare of the person requesting it.
c. The variance will not adversely affect the health, safety, or welfare of other persons.
d. No variance is retroactive, nor can it justify any violation of this Drought Contingency Plan before its issuance.
e. The variance will remain in effect during the stage in which it was issued and will expire when the Plan is no longer in effect, or a new stage is activated.

Revoking a Variance

The ACM may revoke a variance granted when the Director of Water Utilities determines any one of the following:

a. Conditions causing initial issuance of the variance are no longer applicable.
b. Violation of the terms of the compliance agreement.
c. The health, safety, or welfare of other persons requires revocation.

Wholesale Customer Variances

The ACM/Utilities may grant variances from the Drought Contingency Plan to wholesale water customers in special cases. Wholesale water customers may request reduced variance allocations for the following conditions:

a. The designated period does not accurately reflect a wholesale customer's normal water usage.
b. The customer agrees to transfer part of its allocation to another wholesale customer.
c. Other objective evidence demonstrates that the designated allocation is inaccurate under present conditions.

To grant a variance, the applicant must sign a compliance agreement on forms provided by the ACM/Utilities and approved by the City Attorney. No variance shall be retroactive or otherwise justify any violation of this Drought Contingency Plan occurring before the issuance of the variance.

6.9 Coordination with the Regional Water Planning Group

The City of Denton is located within the Region C water planning area. Appendix E includes a copy of a letter sent to the Chair of the Region C Water Planning Group (RCWPG) along with the water conservation and drought contingency plan.

6.10 Review and Update of Drought Contingency Plan

As required by TCEQ rules, the City of Denton will review this drought contingency plan every five years, beginning in 2009. 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 TCEQ and the RCWPG for their records.

7.0 Severability

The City of Denton Public Utility Board agrees that sections, paragraphs, sentences, clauses, and phrases of this Drought Contingency Plan are severable. If any phrase, clause, sentence, paragraph, or section of this Drought Contingency Plan is declared unconstitutional by the valid judgment or

decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Drought Contingency Plan, since the same City of Denton Public Utility Board without the incorporation into this Drought Contingency Plan of any such unconstitutional phrase clause, sentence paragraph, or section.