

DROUGHT CONTINGENCY PLAN FOR CITY OF DENISON, TEXAS

April 2005 (Revised December 2007)

1. Introduction and Objectives

Water supply has always been a key issue in the development of Texas. In recent years, the increasing population and economic development in Region C have led to growing demands for water. At the same time, local and less expensive sources of water supply are largely developed. Additional supplies to meet higher demands will be expensive and difficult to develop. Therefore, it is important that we make efficient use of existing supplies and make them last as long as possible. This 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 drought contingency plans for public water suppliers.

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. 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).”

The City of Denison has adopted this drought contingency plan pursuant to TCEQ guidelines and requirements.

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

1.1 State Requirements for Drought Contingency Plans

This drought contingency plan is consistent with Texas Commission on Environmental Quality (TCEQ) guidelines and requirements for 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, and contained in Section 11.039 of the Texas Water Code.

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 1.2.
- 288.20(a)(1)(B) – Provisions for Continuing Public Education and Information – Section 1.3
- 288.20(a)(1)(C) – Coordination with Regional Water Planning Group – Section 1.8
- 288.20(a)(1)(D) – Criteria for Initiation and Termination of Drought Stages – Section 1.4
- Section 11.039, TWC – Initiation of Drought Response Stages
- 288.20(a)(1)(E) – Drought and Emergency Response Stages – Section 1.5
- 288.20(a)(1)(F) – Specific, Quantified Targets for Water Use Reductions – Section 1.5
- 288.20(a)(1)(G) – Water Supply and Demand Management Measures for Each Stage – Section 1.5
- 288.20(a)(1)(H) – Procedures for Initiation and Termination of Drought Stages – Section 1.5
- 288.20(a)(1)(I) – Procedures for Granting Variances – Section 1.6
- 288.20(a)(1)(J) – Procedures for Enforcement of Mandatory Restrictions – Section 1.7
- 288.20(a)(3) – Consultation with Wholesale Supplier.
- 288.20(b) – Notification of Implementation of Mandatory Measures – Section 1.5
- 288.20(c) – Review and Update of Plan – Section 1.9

1.2 Provisions to Inform the Public and Opportunity for Public Input

The City of Denison provided opportunity for public input in the development of this drought contingency plan by the following means:

- Making the draft plan available on City of Denison's web site, www.ci.denison.tx.us
- Providing the draft plan to anyone requesting a copy
- Held a public meeting at the Denison City Hall at 6 p.m. on Tuesday, April 26, 2005.

1.3 Provisions for Continuing Public Education and Information

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

- Making the plan available to the public through the City of Denison's web site at www.ci.denison.tx.us
- Notifying local organizations, schools, and civic groups that City of Denison staff members are available to make presentations on the drought contingency plan

At any time that the drought contingency plan is activated or the drought stage changes, the City of Denison 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 Denison's web site, www.ci.denison.tx.us. Billing inserts or mail outs will also be used as appropriate.

1.4 Initiation and Termination of Drought Response Stages

1.4.1 Initiation of Drought Response Stages

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

- The public will be notified through local media.
- Wholesale customers will be notified by telephone with a follow-up letter or fax. Notification to them will include reminder that water will be distributed to all customers pro rata, in accordance with Section 11.039 of the Texas Water Code.
- If any mandatory provisions of the drought contingency plan are activated, the City of Denison will notify the Executive Director of the TCEQ within five business days.

For other trigger conditions, the Mayor or his/her 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.

1.4.2 Termination of Drought Response Stages

The Mayor or official 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:

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

The Mayor or his/her 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 potential changed conditions that warrant the continuation of the drought stage.

1.5 Drought and Emergency Response Stages

1.5.1 Stage 1, Mild

1.5.1.1 Triggering and Termination Conditions for Stage 1, Mild

- Demand exceeds 11 MGD of the amount that can be delivered to customers for seven consecutive days
- Water demand for all or part of the delivery system approaches delivery capacity because delivery capacity is inadequate
- Supply source becomes contaminated
- Water supply system is unable to deliver water due to the failure or damage of major water system components

- Water demand is approaching the limit of the permitted supply

Stage 1 can be terminated when the circumstances that caused the initiation of Stage 1 no longer prevail.

1.5.1.2 Goal for Use Reductions and Actions Available Under Stage 1, Mild

The goal for water use reduction under Stage 1, Mild is a 0 percent reduction of the use that would have occurred in the absence of drought contingency measures. The purpose of actions under Stage 1, Mild is to raise public awareness of potential drought problems. The Mayor or his/her designee can order the implementation of any of the actions listed below, as deemed necessary:

- Request voluntary reductions in water use by the public and by wholesale customers
- Increase public education efforts on ways to reduce water use
- Review the problems that caused the initiation of Stage 1
- Notify major water users and work with them to achieve voluntary water use reductions
- Intensify efforts on leak detection and repair
- Reduce non-essential city government water use, including street cleaning, vehicle washing, and operation of ornamental fountains
- Reduce city government water use for landscape irrigation
- Ask the public to follow voluntary landscape watering schedules
- Notify wholesale customers of actions being taken in the City of Denison and request implementation of similar procedures

1.5.2 Stage 2, Moderate

1.5.2.1 Triggering and Termination Conditions for Stage 2, Moderate

- Demand exceeds 12 MGD of the amount that can be delivered to customers for three consecutive days
- Water demand for all or part of the delivery system equals delivery capacity because delivery capacity is inadequate
- Supply source becomes contaminated
- Water supply system is unable to deliver water due to the failure or damage of major water system components
- Water demand is approaching the limit of the permitted supply

Stage 2 can terminate when the circumstances that caused the initiation of Stage 2 no longer prevail. Stage 1 becomes operative on termination of Stage 2.

1.5.2.2 Goal for Use Reduction and Actions Available Under Stage 2, Moderate

The goal for water use reduction under Stage 2, Moderate is a 2 percent reduction of the use that would have occurred in the absence of drought contingency measures. The Mayor or his/her designee can order the implementation of any of the actions listed below, as deemed necessary:

- Continue or initiate any actions available under Stage 1
- Initiate engineering studies to evaluate alternatives should conditions worsen
- Further accelerate public education efforts on ways to reduce water use
- Halt non-essential city government water use, including street cleaning, vehicle washing, and operations of ornamental fountains

- Encourage the public to wait until the current drought or emergency situation has passed before establishing new landscaping
- Notify wholesale customers of actions being taken in the City of Denison and request them to implement similar procedures

1.5.3 Stage 3, Severe

1.5.3.1 Triggering and Termination Conditions for Stage 3, Severe

- Demand exceeds 12.5 MGD of the amount that can be delivered to customers for three consecutive days
- Water demand for all or part of the delivery system exceeds delivery capacity because delivery capacity is inadequate
- Supply source becomes contaminated
- Water supply system is unable to deliver water due to the failure or damage of major water system components
- Water demand is approaching the limit of the permitted supply

Stage 3 can terminate when the circumstances that caused the initiation of Stage 3 no longer prevail. Stage 2 becomes operative on termination of Stage 3.

1.5.3.2 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 5 percent of the use that would have occurred in the absence of drought contingency measures. If the circumstances warrant, the Mayor or his/her designee can set a goal for greater water use reduction.

The Mayor or his/her designee can order the implementation of any of the actions listed below, as deemed necessary. Measures described as “requires notification to TCEQ” impose mandatory requirements on retail and wholesale customers. The City of Denison staff must notify TCEQ within five business days if these measures are implemented.

- Continue or initiate any actions available under Stage 1 and 2
- Implement viable alternative water supply strategies
- **Requires Notification to TCEQ** – Initiate mandatory water use restrictions as follows:
 - Prohibit hosing of paved areas, buildings, or windows
 - Prohibit operation of ornamental fountains
 - Prohibit washing or rinsing of vehicles by hose
 - Prohibit using water in such a manner as to allow runoff or other waste
- **Requires Notification to TCEQ** – Limit landscape watering at each service address to once every five days based on the last digit of the address. (Exceptions: Foundations, new plantings (first year) of trees and shrubs may be watered for up to two hours on any day by a hand-held hose or a soaker hose. Golf courses may water greens and tee boxes without restrictions. Restrictions do not apply to locations using treated wastewater effluent for irrigation.)
- **Requires Notification to TCEQ** – Prohibit draining and filling of existing pools and filling of new pools. (Pools may add water to replace losses during normal use.)
- **Requires Notification to TCEQ** – Prohibit establishment of new landscaping
- Discontinue city government water use for landscape irrigation, except as needed to prevent foundation damage, keep golf course greens and tee boxes alive, and preserve new plantings

- Notify all wholesale customers that a shortage of water resulting from drought necessitates curtailment of delivery and that the City’s water production will be divided in accordance with Texas Water Code, Section 11.039.

1.5.4 Stage 4 - Emergency

1.5.4.1 Triggering and Termination Conditions for Stage 4 – Emergency

- Demand exceeds the amount that can be delivered to customers
- Water demand for all or part of the delivery system seriously exceeds delivery capacity because the delivery capacity is inadequate
- Supply source becomes contaminated
- Water supply system unable to deliver water due to the failure or damage of major water system components
- Water demand is approaching the limit of the permitted supply

Stage 4 can terminate when the circumstances that caused the initiation of Stage 4 no longer prevail. Stage 3 becomes operative on termination of Stage 4.

1.5.4.2 Goal for Use Reduction and Actions Available Under Stage 4, Emergency

The goal for water use reduction under Stage 4, Emergency, is a reduction of 10 percent of the use that would have occurred in the absence of drought contingency measures. If circumstances warrant, the Mayor/Manager or his/her designee can set a goal for greater water use reduction.

The Mayor or his/her designee can order the implementation of any of the actions listed below, as deemed necessary. Measures described as “requires notification to TCEQ” impose mandatory requirements on retail and wholesale customers. The City of Denison staff must notify TCEQ within five business days if these measures are implemented.

- Continue or initiate any actions available under Stages 1, 2 and 3
- Implement viable alternative water supply strategies
- **Requires notification to TCEQ** – Prohibit washing of vehicles except as necessary for health, sanitation or safety reasons, including car washes
- **Requires notification to TCEQ** – Prohibit commercial and residential landscape watering, except that foundations may be watered for 2 hours each day with a hand-held hose or soaker hose
- **Requires notification to TCEQ** – Prohibit golf course watering except for greens and tee boxes
- **Requires notification of TCEQ** – Prohibit any filling of private pools. Commercial and public pools may refill to replace losses during normal use
- **Requires notification of TCEQ** – Require all commercial water users to reduce water use by a percentage established by the Mayor and his/her designee
- Notify wholesale customers of actions being taken by the City of Denison and request them to implement similar procedures

1.6 Procedure for Granting Variances to the Plan

The Mayor/Manager and his/her designee may grant temporary variances for existing water uses otherwise 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 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 relief requested
- Period of time for which the variance is sought
- Alternative measures that will be taken to reduce water use
- Other pertinent information

1.7 Procedure for Enforcement of Mandatory Restrictions

Mandatory water use restrictions may be imposed in Stage 3 and Stage 4 drought stages. These mandatory water use restrictions will be enforced by warnings and penalties as follows:

- On the first violation, customers will be given a written warning that they have violated the mandatory water use restriction.
- On the second and subsequent violations, citations may be issued to customers, with fines not less than \$200 and not to exceed \$2,000 per incident.
- After two violations have occurred, the City of Denison may install a flow restrictor in the line to limit the amount of water that may pass through the meter in a 24-hour period.
- After three violations have occurred, the City of Denison may cut off water service to the customer.

1.8 Coordination with the Regional Water Planning Group

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

1.9 Review and Update of Drought Contingency Plan

As required by TCEQ rules, the City of Denison will review this drought contingency plan not later than May 1, 2009 and every five years after that date to coincide with RCWPG. 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 kept on file at the Denison Public Library and submitted to the RCWPG for their records.



This is the final version of the City of Denison’s 2005 Drought Contingency Plan, as approved and adopted by the Denison Council on December 17, 2007, after incorporation of comments received from Mr. Trent Jennings of the Texas Commission on Environmental Quality on November 27, 2007.

Signature _____ Honorable Robert Brady, Mayor Date _____