

CITY OF KAUFMAN DROUGHT CONTINGENCY PLAN

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APPENDICES

APPENDIX A	List of References
APPENDIX B	Texas Commission on Environmental Quality Rules on Drought Contingency Plans <ul style="list-style-type: none">• Texas Administrative Code Title 30, Part 1, Chapter 288, Subchapter A, Rule §288.20 – Drought Contingency Plans for Municipal Uses by Public Water Suppliers
APPENDIX C	Letter to Region C Water Planning Group

APPENDIX D

Adoption of Drought Contingency Plan

- Municipal Ordinance Adopting Drought Contingency Plan
- Water Supply Corporation Resolution Adopting Drought Contingency Plan

Drought Contingency Plan for North Texas Municipal Water District Member Cities and Customers

June 2005

1. INTRODUCTION AND OBJECTIVES

This document is a model drought contingency plan, intended to be available for adoption by North Texas Municipal Water District (NTMWD) member cities and customers. This model plan addresses all of the current TCEQ requirements for a drought contingency plan.

The purpose of this model 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.

The North Texas Municipal Water District (NTMWD) supplies treated water to its member cities and customers. This model plan was developed by NTMWD in consultation with its member cities. In order to adopt this model plan, each NTMWD member city and customer will need to adopt ordinance(s) or regulation(s) implementing the plan, including the determination of fines and enforcement procedures. The model plan calls for member cities and customers to adopt drought stages initiated by NTMWD during a drought. Member cities and customer may also adopt more stringent drought stages than NTMWD if conditions warrant.

¹ Superscripted numbers match references listed in Appendix A.

2. TEXAS COMMISSION ON ENVIRONMENTAL QUALITY RULES

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 ¹.”

Minimum Requirements

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 3.1
- 288.20(a)(1)(B) – Provisions for Continuing Public Education and Information – Section 3.2
- 288.20(a)(1)(C) – Coordination with the Regional Water Planning Group – Section 3.7
- 288.20(a)(1)(D) – Criteria for Initiation and Termination of Drought Stages – Section 3.3
- 288.20(a)(1)(E) – Drought and Emergency Response Stages – Section 3.4
- 288.20(a)(1)(F) – Water Supply and Demand Management Measures for Each Stage – Section 3.4
- 288.20(a)(1)(G) – Procedures for Initiation and Termination of Drought Stages – Section 3.3
- 288.20(a)(1)(H) - Procedures for Granting Variances – Section 3.5
- 288.20(a)(1)(I) - Procedures for Enforcement of Mandatory Restrictions – Section 3.6
- 288.20(a)(3) – Consultation with Wholesale Supplier – Sections 1, 3.3, and 3.4
- 288.20(b) – Notification of Implementation of Mandatory Measures – Section 3.3
- 288.20(c) – Review and Update of Plan – Section 3.8

3. DROUGHT CONTINGENCY PLAN

3.1 Provisions to Inform the Public and Opportunity for Public Input

Member cities and customers will provide 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 newspaper, posted notice, and notice on the supplier's web site (if available).
- Making the draft plan available on the supplier's web site (if available).
- Providing the draft plan to anyone requesting a copy.
- Holding a public meeting.

3.2 Provisions for Continuing Public Education and Information

Member cities and customers will inform and educate the public about the drought contingency plan by the following means:

- Preparing a bulletin describing the plan and making it available at city hall and other appropriate locations.
- Making the plan available to the public through the supplier's web site (if available).
- Including information about the drought contingency plan on the supplier's web site (if available).
- Notifying local organizations, schools, and civic groups that staff are available to make presentations on the drought contingency plan (usually in conjunction with presentations on water conservation programs).

At any time that the drought contingency plan is activated or the drought stage changes, member cities and customers 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 supplier's web site (if available). Billing inserts will also be used as appropriate.

3.3 Initiation and Termination of Drought Response Stages

Initiation of a Drought Response Stage

The City Manager, or 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 and the supplier's web site (if available) as described in Section 3.2.
- Wholesale customers (if any) and the NTMWD will be notified by telephone with a follow-up letter, e-mail, or fax.

- If any mandatory provisions of the drought contingency plan are activated, member cities and customers will notify the Executive Director of the TCEQ within 5 business days.

Drought stages imposed by NTMWD action must be initiated by member cities and customers. For other trigger conditions, the City Manager, or official 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 which 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. The reason for this decision should be documented.

Termination of a Drought Stage

The City Manager, or official designee may order the termination of a drought response stage or water emergency when the conditions for termination are met or at their discretion. The following actions will be taken when a drought stage is terminated:

- The public will be notified through local media and the supplier's web site (if available) as described in Section 3.2.
- Wholesale customers (if any) and the NTMWD will be notified by telephone with a follow-up letter, e-mail, or fax.
- If any mandatory provisions of the drought contingency plan that have been activated are terminated, member cities and customers will notify the Executive Director of the TCEQ within 5 business days.

The City Manager, or official 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 which 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. The reason for this decision should be documented.

3.4 Drought and Emergency Response Stages

Stage 1, Mild

Initiation and Termination Conditions for Stage 1, Mild

- The NTMWD has initiated Stage 1, Mild, which may also be initiated by one or more of the following:
 - The water level in Lake Lavon has fallen below elevation 484.0 msl (8 feet below the top of conservation storage).
 - NTMWD demand exceeds 90% of the amount that can be delivered to customers for seven consecutive days.

- Water demand for all or part of NTMWD's delivery system approaches delivery capacity because delivery capacity is inadequate.
- NTMWD's supply source becomes contaminated.
- NTMWD's water supply system is unable to deliver water due to the failure or damage of major water system components.
- Water use is approaching the limit of the permitted supply.
- Supplier's demand exceeds 90% of the amount that can be delivered to customers for three consecutive days.
- Supplier's water demand for all or part of the delivery system approaches delivery capacity because delivery capacity is inadequate.
- Supply source becomes contaminated.
- Supplier's water supply system is unable to deliver water due to the failure or damage of major water system components.
- Supplier's individual plan may be implemented if other criteria dictate.

Stage 1 would terminate when NTMWD terminates its Stage 1 condition or when the circumstances that caused the initiation of Stage 1 no longer prevail.

Goal for Use Reduction and Actions Available under Stage 1, Mild

Stage 1, Mild, is intended to raise public awareness of potential drought problems. There is no goal for reduction of water use. The City Manager, or official designee may 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. (Examples include street cleaning, vehicle washing, operation of ornamental fountains, etc.)
- Reduce city government water use for landscape irrigation.
- Ask the public to follow voluntary landscape watering schedules.
- Notify wholesale customers of actions being taken and request implementation of similar procedures.

Stage 2, Moderate

Initiation and Termination Conditions for Stage 2, Moderate

- The NTMWD has initiated Stage 2, Moderate, which may be initiated by one or more of the following:
 - The water level in Lake Lavon has fallen below elevation 481.0 msl (11 feet below the top of conservation storage).
 - NTMWD demand exceeds 95% of the amount that can be delivered to customers for five consecutive days.
 - NTMWD demand for all or part of the delivery system equals delivery capacity because delivery capacity is inadequate.
 - NTMWD's supply source becomes contaminated.
 - NTMWD's water supply system is unable to deliver water due to the failure or damage of major water system components.
 - Water use is approaching the limit of the permitted supply.
- Supplier's demand exceeds 95% of the amount that can be delivered to customers for three consecutive days.
- Supplier's demand for all or part of the delivery system equals delivery capacity because delivery capacity is inadequate.
- Supply source becomes contaminated.
- Supplier's water supply system is unable to deliver water due to the failure or damage of major water system components.
- Supplier's individual plan may be implemented if other criteria dictate.

Stage 2 can terminate when NTMWD terminates its Stage 2 condition or when the circumstances that caused the initiation of Stage 2 no longer prevail.

Goal for Use Reduction and Actions Available under Stage 2, Moderate

The goal for water use reduction under Stage 2, Moderate, is a two percent reduction in the use that would have occurred in the absence of drought contingency measures. The City Manager, or official designee may 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. (Examples include street cleaning, vehicle washing, operation of ornamental fountains, etc.)

- 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 and request them to implement similar procedures.

Stage 3, Severe

Initiation and Termination Conditions for Stage 3, Severe

- The NTMWD has initiated Stage 3, Severe, which may also be initiated by one or more of the following:
 - The water level in Lake Lavon has fallen below elevation 478.0 msl (14 feet below the top of conservation storage).
 - NTMWD demand exceeds 98% of the amount that can be delivered to customers for three consecutive days.
 - NTMWD demand for all or part of the delivery system exceeds delivery capacity because delivery capacity is inadequate.
 - NTMWD's supply source becomes contaminated.
 - NTMWD's water supply system is unable to deliver water due to the failure or damage of major water system components.
 - Water use is approaching the limit of the permitted supply.
- Supplier's demand exceeds 98% of the amount that can be delivered to customers for three consecutive days.
- Supplier's demand for all or part of the delivery system exceeds delivery capacity because delivery capacity is inadequate.
- Supply source becomes contaminated.
- Supplier's water supply system is unable to deliver water due to the failure or damage of major water system components.
- Supplier's individual plan may be implemented if other criteria dictate.

Stage 3 can terminate when NTMWD terminates its Stage 3 condition or when the circumstances that caused the initiation of Stage 3 no longer prevail.

Goals for Use Reduction and Actions Available under Stage 3, Severe

The goal for water use reduction under Stage 3, Severe, is a reduction of five percent in the use that would have occurred in the absence of drought contingency measures. If circumstances warrant or if required by NTMWD, the City Manager, or official designee can set a goal for a greater water use reduction.

The City Manager, or official designee must implement any action(s) required by North Texas Municipal Water District. In addition, the City Manager, or official designee may order the implementation of any of the actions listed below, as deemed necessary. Measures

described as “requires notification to TCEQ” impose mandatory requirements on customers. The supplier must notify TCEQ within five business days if these measures are implemented:

- Continue or initiate any actions available under Stages 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, azaleas, new plantings (first year) of trees and shrubs may be watered for up to 2 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.
- Initiate a rate surcharge of up to 10% for all water use over 4,000 gallons per month.
- 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 wholesale customers of actions being taken and request them to implement similar procedures.
- If NTMWD has imposed a reduction in water available to member cities and customers, impose the same percent reduction on wholesale customers.

Stage 4, Emergency

Initiation and Termination Conditions for Stage 4, Emergency

- The NTMWD has initiated Stage 4, Emergency, which may also be initiated by one or more of the following:
 - The water level in Lake Lavon has fallen below elevation 475.0 msl (17 feet below the top of conservation storage).
 - NTMWD demand exceeds the amount that can be delivered to customers.

- NTMWD demand for all or part of the delivery system seriously exceeds delivery capacity because the delivery capacity is inadequate.
- NTMWD's supply source becomes contaminated.
- NTMWD's water supply system is unable to deliver water due to the failure or damage of major water system components.
- Water use is approaching the limit of the permitted supply.
- Supplier's demand exceeds the amount that can be delivered to customers.
- Supplier's demand for all or part of the delivery system seriously exceeds delivery capacity because the delivery capacity is inadequate.
- Supply source becomes contaminated.
- Supplier's water supply system is unable to deliver water due to the failure or damage of major water system components.
- Supplier's individual plan may be implemented if other criteria dictate.

Stage 4 can terminate when NTMWD terminates its Stage 4 condition or when the circumstances that caused the initiation of Stage 4 no longer prevail.

Goals for Use Reduction and Actions Available under Stage 4, Emergency

The goal for water use reduction under Stage 4, Emergency, is a reduction of ten percent in the use that would have occurred in the absence of drought contingency measures. If circumstances warrant or required by NTMWD, the City Manager, or official designee can set a goal for a greater water use reduction.

The City Manager, or official designee must implement any action(s) required by North Texas Municipal Water District. In addition, the City Manager, or official designee may order the implementation of any of the actions listed below, as deemed necessary. Measures described as "requires notification to TCEQ" impose mandatory requirements on member cities and customers. The supplier 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
- **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 a soaker hose.
- **Requires Notification to TCEQ** – Prohibit golf course watering except for greens and tee boxes.
- **Requires Notification to TCEQ** – Prohibit any filling of private pools. Commercial and public pools may refill to replace losses during normal use.

- **Requires Notification to TCEQ** – Require all commercial water users to reduce water use by a percentage established by the City Manager, or official designee.
- Initiate a rate surcharge of up to 25% over normal rates for all water use over 4,000 gallons per month.
- Notify wholesale customers of actions being taken and request them to implement similar procedures.
- If NTMWD has imposed a reduction in water available to member cities and customers, impose the same percent reduction on wholesale customers.

3.5 Procedures for Granting Variances to the Plan

The City Manager, or official designee may grant temporary variances for existing water uses otherwise prohibited under this drought contingency plan if one or more of the following conditions are 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 City Manager, or official designee. All petitions for variances should be in writing and should include the following information:

- Name and address of the petitioners
- 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.

3.6 30 TAC § 288.22 Drought Contingency Plans for Wholesale Water Suppliers

After the adoption of this plan, every wholesale water contract entered into or renewed, including contract extensions, that in the case of a shortage of water resulting from drought, the water shall be divided in accordance with the Texas Water Code, § 11.039.

3.7 Procedures for Enforcing Mandatory Water Use 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 minimum and maximum fines established by ordinance.
- After two violations have occurred, member cities and customers 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, member cities and customers may cut off water service to the customer.

Appendix D contains a draft of a resolution to be adopted by the city council, board, or governing body approving the drought contingency plan and enforcement.

3.8 Coordination with the Regional Water Planning Group and NTMWD

Appendix C includes a copy of a letter sent to the Chair of the Region C water planning group with this water conservation and drought contingency plan.

The suppliers will send a draft of its ordinance(s) or other regulation(s) implementing this plan to NTMWD for their review and comment. The supplier will also send the final ordinance(s) or other regulation(s) to NTMWD.

3.9 Review and Update of Drought Contingency Plan

As required by TCEQ rules, member cities and customers will review this drought contingency plan every five years. The plan will be updated as appropriate based on new or updated information.