

**DROUGHT
CONTINGENCY
AND WATER
EMERGENCY
RESPONSE PLAN
FOR CASH SPECIAL
UTILITY DISTRICT**

APRIL 2009



FORWARD

This model water conservation and drought contingency and water emergency response plan was prepared by Freese and Nichols for the North Texas Municipal Water District (NTMWD). It is intended to be used as a guide by NTMWD Member Cities and Customers as they develop their own water conservation and drought contingency and water emergency response plans. The model plan was prepared pursuant to Texas Commission on Environmental Quality rules. Some material is based on the existing water conservation plans listed in Appendix A. To develop a regional approach, the conservation plans for the City of Fort Worth and the City of Dallas were consulted.

Questions regarding this model water conservation and drought contingency and water emergency response plan should be addressed to the following:

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The model water conservation and drought contingency and water emergency response plan is based on the Texas Administrative Code in effect on August 31, 2007. The Texas Commission on Environmental Quality (TCEQ) is currently preparing additional regulations in compliance with the mandates of Senate Bill 3 and House Bill 4 enacted in 2007 by the 80th Texas Legislature. The draft regulations have been considered in the preparation of this plan. The following items are presented in the draft regulations and are not currently in the regulations:

- A definition for “best management practices” will be added.
- A copy of the plan must be submitted to the Executive Administrator of the Texas Water Development Board.
- An annual progress report will be required to be submitted to the Texas Water Development Board. (The annual report may be in a different format than the annual report included in Appendix I).
- Requirement that water suppliers providing service to 3,300 or more connections must prepare a water conservation plan.
- Enforcement authority in relation to violations of the rules regulating water conservation plans and annual report is provided to the Texas Water Development Board.

None of the proposed adjustments will cause this model plan to be obsolete. The most current annual report form should be obtained from TCEQ when preparing the annual report (Appendix I) to submit to the TCEQ. A copy of the annual report should be sent to the Texas Water Development Board as well as to the TCEQ.

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APPENDIX A List of References

APPENDIX B Texas Commission on Environmental Quality Rules on Drought Contingency Plans

- Texas Administrative Code Title 30, Part 1, Chapter 288, Subchapter B, Rule §288.20 – Drought Contingency Plans for Municipal Uses by Public Water Suppliers (Page B-7)

APPENDIX C Letters to Region C and Region D Water Planning Groups

APPENDIX D Adoption of Drought Contingency and Water Emergency Response Plan

- Special Utility District Order Adopting Water Conservation and Drought Contingency and Water Emergency Response Plan

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1. INTRODUCTION AND OBJECTIVES

In order to conserve the available water supply and/or to protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, the Cash SUD “The District” adopts the following Drought Contingency Plan.

Water uses regulated or prohibited under this Drought Contingency Plan (the Plan) are considered to be non-essential and continuation of such uses during times of water shortage or other emergency water supply condition are deemed to constitute a waste of water which subjects the offender(s) to penalties as referenced in Section XIII of this plan.

This drought contingency and water emergency response plan was developed in concert with the NTMWD’s drought contingency and water emergency response plan.⁴ This drought contingency and water emergency response plan replaces the plan dated April 2004.

The drought contingency and water emergency response plan address strategies designed to temporarily reduce water use in response to specific conditions. The Plan’s purpose 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 supplies

This plan was developed by NTMWD in consultation with the District.

2. TEXAS COMMISSION ON ENVIRONMENTAL QUALITY RULES

2.1 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, a current copy of which is included in Appendix B. For the purpose of these rules, a drought contingency and water emergency response 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.”²

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 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) – Specific, quantified targets for water use reductions Section 3.4

288.20(a)(1)(G) – Water supply and demand management measures for each stage Section 3.4

288.20(a)(1)(H) – Procedures for initiation and termination of drought stages Section 3.3

288.20(a)(1)(I) – Procedures for granting variances Section 3.5

288.20(a)(1)(J) – Procedures for enforcement of mandatory restrictions Section 3.6

288.20(a)(3) – Consultation with wholesale suppliers Section 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 AND WATER EMERGENCY RESPONSE PLAN

3.1 Provisions to Inform the Public and Opportunity for Public Input

The District will provide opportunity for public input in the development of this drought contingency and water emergency response 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 District’s web site.
- Providing the draft plan to anyone requesting a copy.
- Holding a public meeting.

3.2 Provisions for Continuing Public Education and Information

The District will inform and educate the public about the drought contingency and water emergency response plan by the following means:

- Preparing a bulletin describing the plan and making it available at the District’s Office.
- Making the plan available to the public through the District’s web site.
- Notifying local organizations, schools, and civic groups that staff are available to make presentations on the drought contingency and water emergency response plan (usually in conjunction with presentations on water conservation programs).

At any time that the drought contingency and water emergency response plan is activated or the drought stage or water emergency response stage changes, the District will notify local media of the issues, the drought response stage or water emergency response stage (if applicable), and the specific actions required of the public. The information will also be publicized on the District’s web site. Billing inserts will also be used as appropriate.

3.3 Initiation and Termination of Drought or Water Emergency Response Stages

Initiation of a Drought or Water Emergency Response Stage

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

- The public will be notified through local media and the District’s web site as described in Section 3.2.
- Wholesale customers and the NTMWD will be notified by e-mail with a follow-up letter or fax that provides details of the reasons for initiation of the drought/water emergency response stage.

- If any mandatory provisions of the drought contingency and water emergency response plan are activated, the District will notify the Executive Director of the TCEQ and the Executive Director of the NTMWD within 5 business days.

Drought contingency/water emergency response stages imposed by NTMWD action must be initiated by the District. For other trigger conditions internal to the District the General 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/Water Emergency Response Stage

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

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

The General Manager or official designee may decide not to order the termination of a drought or water emergency response stage 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 Contingency and Water Emergency Response Stages and Measures

Stage 1

Initiation and Termination Conditions for Stage 1

- The NTMWD and the District has initiated Stage 1, which may be initiated due to one or more of the following:
 - The NTMWD Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the declaration of Stage 1.
 - Water demand is projected to approach the limit of the permitted supply.
 - The storage in Lavon Lake is less than 65 percent of the total conservation pool capacity.
 - NTMWD’s storage in Jim Chapman Lake is less than 65 percent of NTMWD’s total conservation pool capacity.
 - .The Sabine River Authority has indicated that its Upper Basin water supplies used by NTMWD (Lake Tawakoni and/or Lake Fork) are in a Mild drought.
 - NTMWD has concern that Lake Texoma, the East Fork Raw Water Supply Project, or some other NTMWD source may be limited in availability in the next 6 months.
 - NTMWD water demand exceeds 90 percent of the amount that can be delivered to customers for three 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.
- District’s water demand exceeds 90 percent of the amount that can be delivered to customers for three consecutive days.
- District’s water demand for all or part of the delivery system approaches delivery capacity because delivery capacity is inadequate.
- District’s supply source becomes contaminated.
- District’s water supply system is unable to deliver water due to the failure or damage of major water system components.
- District’s individual plan may be implemented if other criteria dictate.

Stage 1 may terminate when NTMWD or the District 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

Stage 1 is intended to raise public awareness of potential drought or water emergency problems. The goal for water use reduction under Stage 1 is a two percent reduction in the amount of water produced by NTMWD and the District. The General 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.
- Notify wholesale customers of actions being taken and request implementation of similar procedures.
- Increase public education efforts on ways to reduce water use.
- Review the problems that caused the initiation of Stage 1.
- Intensify efforts on leak detection and repair.
- Reduce non-essential water use. (Examples include street cleaning, vehicle washing, operation of ornamental fountains, etc.)
- Notify major water users and work with them to achieve voluntary water use reductions.
- Reduce water use for landscape irrigation.
- Ask the public to follow voluntary landscape watering schedules.

Stage 2

Initiation and Termination Conditions for Stage 2

- The NTMWD and the District has initiated Stage 2, which may be initiated due to one or more of the following:
 - The NTMWD Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the declaration of Stage 2.
 - Water demand is projected to approach the limit of the permitted supply.
 - The storage in Lavon Lake is less than 55 percent of the total conservation pool capacity.
 - NTMWD's storage in Jim Chapman Lake is less than 55 percent of NTMWD's total conservation pool capacity.
 - The Sabine River Authority has indicated that its Upper Basin water supplies used by NTMWD (Lake Tawakoni and/or Lake Fork) are in a Mild drought.
 - NTMWD has concern that Lake Texoma, the East Fork Raw Water Supply Project, or some other NTMWD source may be limited in availability in the next 3 months.
 - NTMWD water demand exceeds 95 percent of the amount that can be delivered to customers for three consecutive days.

- NTMWD water 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.
- District’s water demand exceeds 95 percent of the amount that can be delivered to customers for three consecutive days.
- District’s water demand for all or part of the delivery system equals delivery capacity because delivery capacity is inadequate.
- District’s supply source becomes contaminated.
- District’s water supply system is unable to deliver water due to the failure or damage of major water system components.
- District’s individual plan may be implemented if other criteria dictate.

Stage 2 may terminate when NTMWD and the District 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

The goal for water use reduction under Stage 2 is a five percent reduction in the amount of water produced by NTMWD and or the District. If circumstances warrant or if required by NTMWD, the General Manager or official designee can set a goal for greater water use reduction. The General 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 and NTMWD within five business days if these measures are implemented:

- Continue or initiate any actions available under Stage 1.
- Notify wholesale customers of actions being taken and request them to implement similar procedures.
- Initiate engineering studies to evaluate alternatives should conditions worsen.
- Further accelerate public education efforts on ways to reduce water use.
- Halt non-essential 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.
- **Requires Notification to TCEQ** – Limit landscape watering with sprinklers or irrigation systems to no more than two days per week. An exception is allowed for landscape associated with new construction that may be watered as necessary for 30 days from the date of the certificate of occupancy. An exemption is also allowed for registered and properly functioning ET/Smart irrigation systems and

drip irrigation systems, which do not have restrictions to the number of days per week of operation.

- **Requires Notification to TCEQ** – Restrict landscape and lawn irrigation from 10 AM to 6 PM beginning April 1 through October 31 of each year.
- **Requires Notification to TCEQ** – Prohibit planting of cool season grasses (such as rye grass or other similar grasses) that intensify cool season water requirements.

Stage 3

Initiation and Termination Conditions for Stage 3

- The NTMWD and or the District has initiated Stage 3, which may be initiated due to one or more of the following:
 - The NTMWD Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the declaration of Stage 3.
 - Water demand is projected to approach or exceed the limit of the permitted supply.
 - The storage in Lavon Lake is less than 45 percent of the total conservation pool capacity.
 - NTMWD’s storage in Jim Chapman Lake is less than 45 percent of NTMWD’s total conservation pool capacity.
 - The Sabine River Authority has indicated that its Upper Basin water supplies used by NTMWD (Lake Tawakoni and/or Lake Fork) are in a Moderate drought. (Measures required by SRA under a Moderate drought designation are similar to those under NTMWD’s Stage 3.)
 - The supply from Lake Texoma, the East Fork Raw Water Supply Project, or some other NTMWD source has become limited in availability.
 - NTMWD water demand exceeds 98 percent of the amount that can be delivered to customers for three consecutive days.
 - NTMWD water 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.
- District’s water demand exceeds 98 percent of the amount that can be delivered to customers for three consecutive days.
- District’s water demand for all or part of the delivery system exceeds delivery capacity because delivery capacity is inadequate.
- District’s supply source becomes contaminated.

- District’s water supply system is unable to deliver water due to the failure or damage of major water system components.
- District’s individual plan may be implemented if other criteria dictate.

Stage 3 may terminate when NTMWD and or the District 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

The goal for water use reduction under Stage 3 is a reduction of ten percent in the amount of water obtained from NTMWD or the District. If circumstances warrant or if required by NTMWD, General Manager or official designee can set a goal for a greater water use reduction.

The General Manager or official designee must implement any action(s) required by NTMWD. In addition, the General 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 District must notify TCEQ and NTMWD within five business days if these measures are implemented:

- Continue or initiate any actions available under Stages 1 and 2.
- Notify wholesale customers of actions being taken and request them to implement similar procedures.
- 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. (Pressure washing of impervious surfaces is allowed.)
 - Prohibit operation of all ornamental fountains or other amenity impoundments to the extent they use treated water.
 - Prohibit washing or rinsing of vehicles by hose except with a hose end cutoff nozzle.
 - Prohibit using water in such a manner as to allow runoff or other waste.
- **Requires Notification to TCEQ** – Limit landscape watering with sprinklers or irrigation systems at each service address to once every seven days. Exceptions are as follows:
 - Foundations, new landscaping, new plantings (first year) of shrubs, and trees may be watered for up to 2 hours on any day by a hand-held hose, a soaker hose, or a dedicated zone using a drip irrigation system.
 - Golf courses may water greens and tee boxes without restrictions.
 - Public athletic fields used for competition may be watered twice per week.
 - Locations using other sources of water supply for irrigation may irrigate without restrictions.

- Registered and properly functioning ET/Smart irrigation systems and drip irrigation systems may irrigate without restrictions.
- **Requires Notification to TCEQ** – Limit landscape watering with sprinklers or irrigation systems between November 1 and March 31 to once every two weeks. An exception is allowed for landscape associated with new construction that may be watered as necessary for 30 days from the date of the certificate of occupancy, temporary certificate of occupancy, or certificate of completion.
- **Requires Notification to TCEQ** – Prohibit hydroseeding, hydromulching, and sprigging.
- **Requires Notification to TCEQ** – Existing swimming pools may not be drained and refilled (except to replace normal water loss).
- **Requires Notification to TCEQ** - Initiate a rate surcharge as requested by NTMWD and or the District’s Drought Rate (Appendix E).
- **Requires Notification to TCEQ** - Initiate a rate surcharge for all water use over a certain level including the District’s Pro Rata Water Allocation for Wholesale Customer (Appendix E).
- **Requires Notification to TCEQ** – If NTMWD has imposed a reduction in water available to the District, impose the same percent reduction on wholesale customers if the amount is above the District’s Wholesale Baseline.
- **Requires Notification to TCEQ** – Prohibit watering of golf courses using treated water, except as needed to keep greens and tee boxes alive.

Stage 4

Initiation and Termination Conditions for Stage 4

- The NTMWD and or the District has initiated Stage 4, which may be initiated due to one or more of the following:
 - The NTMWD Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the declaration of Stage 4.
 - Water demand is projected to approach or exceed the limit of the permitted supply.
 - The storage in Lavon Lake is less than 35 percent of the total conservation pool capacity.
 - NTMWD’s storage in Jim Chapman Lake is less than 35 percent of NTMWD’s total conservation pool capacity.
 - The Sabine River Authority has indicated that its Upper Basin water supplies used by NTMWD (Lake Tawakoni and/or Lake Fork) are in a Severe drought or Emergency.
 - The supply from Lake Texoma, the East Fork Raw Water Supply Project, or some other NTMWD source has become severely limited in availability.

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

Stage 4 may terminate when NTMWD or the District 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

The goal for water use reduction under Stage 4 is a reduction of whatever amount is necessary in the amount of water obtained from NTMWD or the District. If circumstances warrant or if required by NTMWD, the General Manager or official designee can set a goal for a greater water use reduction.

The General Manager or official designee must implement any action(s) required by NTMWD. In addition, the General 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 District must notify TCEQ and NTMWD within five business days if these measures are implemented.

- Continue or initiate any actions available under Stages 1, 2, and 3.
- Notify wholesale customers of actions being taken and request them to implement similar procedures.
- Implement viable alternative water supply strategies.
- **Requires Notification to TCEQ** – Prohibit the irrigation of new landscaping using treated water.
- **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 and trees may be watered for 2 hours on any day with a hand-held hose, a soaker hose, or a dedicated zone using a drip

- irrigation system. ET/Smart irrigation systems are not exempt from this requirement.
- **Requires Notification to TCEQ** – Prohibit golf course watering with treated water except for greens and tee boxes.
 - **Requires Notification to TCEQ** – Prohibit the permitting of private pools. Pools already permitted may be completed and filled with water. Existing private and public pools may add water to maintain pool levels but may not be drained and refilled.
 - **Requires Notification to TCEQ** – Require all commercial water users to reduce water use by a percentage established by the General Manager, or official designee.
 - **Requires Notification to TCEQ** – If NTMWD has imposed a reduction in water available to the District, impose the same percent reduction on wholesale customers.
 - **Requires Notification to TCEQ** - Initiate a rate surcharge for all water use over normal rates for all water use.

3.5 Procedures for Granting Variances to the Plan

The General Manager or official designee may grant temporary variances for existing water uses otherwise prohibited under this drought contingency and water emergency response 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 or entity 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 Board of Directors 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 Procedures for Enforcing Mandatory Water Use Restrictions

Mandatory water use restrictions may be imposed in Stage 2, Stage 3 and Stage 4 drought contingency and water emergency response stages. The penalties associated with the mandatory water use restrictions will be determined by each entity.

Appendix G contains potential ordinances, resolutions, and orders that may be adopted by the city council, board, or governing body approving the drought contingency plan and water response plan, including enforcement of same.

3.7 Coordination with the Regional Water Planning Groups

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

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

3.8 Review and Update of Drought Contingency and Water Emergency Response Plan

As required by TCEQ rules, the District must review the drought contingency and water emergency response plan every five years. The plan will be updated as appropriate based on new or updated information.

APPENDIX A
LIST OF REFERENCES

Appendix A List of References

- (1) Title 30 of the Texas Administrative Code, Part 1, Chapter 288, Subchapter B, Rule 288.20, downloaded from <http://www.tnrcc.state.tx.us/oprd/rules/pdflib/288a.pdf>, July 2007.
- (2) Freese and Nichols, Inc.: *North Texas Municipal Water District Water Conservation and Drought Contingency and Water Emergency Response Plan*, prepared for the North Texas Municipal Water District, Fort Worth, March 2008.

The following conservation and drought contingency plans and related documents were reviewed in the development of this plan. References marked with a * were used heavily in the development of this plan.

- (3) Edward Motley, Marisa Vergara, Tom Gooch, and Stephanie Griffin: Memorandum to File on “Region C Municipal Water Use Projections Adopted on August 18, 2003,” Fort Worth, August 21, 2003.
- (4) City of Austin Water Conservation Division: “City of Austin Water Drought Contingency Plan, Developed to Meet Senate Bill 1 Regulatory Requirements,” Austin, August 1999.
- (5) City of Austin Water Conservation Division: “City of Austin Water Conservation Plan, Developed to Meet Senate Bill 1 Regulatory Requirements,” Austin, August 1999.
- (6) Upper Trinity Regional Water District: “Water Conservation Plan and Emergency Water Demand Management Plan,” adopted by the Board of Directors, Lewisville, August 5, 1999.
- (7) Upper Trinity Regional Water District: “Water Conservation Plan and Emergency Water Demand Management Plan (2002 Amended),” adopted by the Board of Directors, Lewisville, February 2002.
- (8) *City of Dallas Water Utilities Department: “City of Dallas Water Management Plan,” adopted by the City Council, Dallas, September 1999.
- (9) Updates to City of Dallas Water Management Plan found at <http://www.dallascityhall.com> in September 2003.
- (10) *City of Dallas Water Utilities Department: “City of Dallas Water Conservation Plan,” adopted by the City Council, Dallas, September 1999.
- (11) *City of Fort Worth: “Water Conservation plan for the City of Fort Worth,” Fort Worth, August 1999.
- (12) Updates to the City of Fort Worth water conservation plan found at <http://ci.fort-worth.tx.us> in September 2003.

- (13) *City of Fort Worth: "Emergency Water Management Plan for the City of Fort Worth," Fort Worth, August 19, 2003.
- (14) HDR Engineering, Inc.: "Water Conservation and Emergency Demand Management Plan," prepared for the Tarrant Regional Water District, Austin, February 2000.
- (15) Freese and Nichols, Inc.: "Water Conservation and Drought Contingency Plan," prepared for Brown County Water Improvement District No. 1, Fort Worth, August 1999.
- (16) Freese and Nichols, Inc.: "Water Conservation and Drought Contingency Plan," prepared for the Sabine River Authority of Texas, Fort Worth, September 1994.
- (17) HDR Engineering, Inc.: "Water Conservation and Emergency Demand Management Plan," prepared for the Tarrant Regional Water District, Austin, June 1998.
- (18) HDR Engineering, Inc.: "Water Conservation Plan for the City of Corpus Christi," adopted by the City of Corpus Christi City Council, August 24, 1999.
- (19) City of Houston's water conservation plan downloaded September 2003 from <http://www.cityofhouston.gov>
- (20) City of Houston: "Ordinance N. 2001-753, Amending Chapter 47 of the Code of Ordinances Relating to Water Emergencies," Houston, August 2001.
- (21) City of Houston: "Ordinance No. 98-764, Relating to Water Conservation," Houston, September 1998.
- (22) City of Houston: "Water Conservation Plan," 1998.
- (23) City of Houston: "Water Emergency Response Plan," Houston, July 15, 1998.
- (24) City of Lubbock: "Water Conservation Plan," ordinance number 10177 adopted by the City Council in August 1999.
- (25) City of El Paso Water Conservation Ordinance downloaded August 14, 2003 from <http://www.epwu.org/ordinance.html>
- (26) San Antonio Water System: "Water Conservation and Reuse Plan," San Antonio, November 1998 with June 2002 updates.
- (27) North Texas Municipal Water District: "District Policy No. 24 Water Conservation Plan Containing Drought Contingency Plan," adopted August 1999.
- (28) GDS Associates, Inc.: "Water Conservation Study," prepared for the Texas Water Development Board, Fort Worth, 2002.
- (29) A & N Technical Services, Inc.: "BMP Costs & Savings Study: A Guide to Data and Methods for Cost-Effectiveness Analysis of Urban Water Conservation Best Management Practices," prepared for The California Urban Water Conservation Council, Santa Monica, California, July 2000.
- (30) *City of Dallas: "City of Dallas Ordinances, Chapter 49, Section 21.1," Dallas, October 1, 2001.

APPENDIX B

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY RULES

APPENDIX B

Texas Administrative Code

<u>TITLE 30</u>	ENVIRONMENTAL QUALITY
<u>PART 1</u>	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
<u>CHAPTER 288</u>	WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS
<u>SUBCHAPTER B</u>	DROUGHT CONTINGENCY PLANS
RULE §288.20	Drought Contingency Plans for Municipal Uses by Public Water Suppliers

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

drought. The entity preparing the plan shall establish the targets. The goals established by the entity under this subparagraph are not enforceable.

- (G) The drought contingency plan must include the specific water supply or water demand management measures to be implemented during each stage of the plan including, but not limited to, the following:
 - (i) curtailment of non-essential water uses; and
 - (ii) utilization of alternative water sources and/or alternative delivery mechanisms with the prior approval of the executive director as appropriate (e.g., interconnection with another water system, temporary use of a non-municipal water supply, use of reclaimed water for non-potable purposes, etc.).
 - (H) The drought contingency plan must include the procedures to be followed for the initiation or termination of each drought response stage, including procedures for notification of the public.
 - (I) The drought contingency plan must include procedures for granting variances to the plan.
 - (J) The drought contingency plan must include procedures for the enforcement of any mandatory water use restrictions, including specification of penalties (e.g., fines, water rate surcharges, discontinuation of service) for violations of such restrictions.
- (2) Privately-owned water utilities. Privately-owned water utilities shall prepare a drought contingency plan in accordance with this section and incorporate such plan into their tariff.
 - (3) Wholesale water customers. Any water supplier that receives all or a portion of its water supply from another water supplier shall consult with that supplier and shall include in the drought contingency plan appropriate provisions for responding to reductions in that water supply.
- (b) A wholesale or retail water supplier shall notify the executive director within five business days of the implementation of any mandatory provisions of the drought contingency plan.
 - (c) The retail public water supplier shall review and update, as appropriate, the drought contingency plan, at least every five years, based on new or updated information, such as the adoption or revision of the regional water plan.

Source Note: The provisions of this §288.20 adopted to be effective February 21, 1999, 24 TexReg 949; amended to be effective April 27, 2000, 25 TexReg 3544; amended to be effective October 7, 2004, 29 TexReg 9384.

APPENDIX C
LETTERS TO REGION C AND REGION D
WATER PLANNING GROUPS

April 1, 2009

Region C Water Planning Group
North Texas Municipal Water District
P.O. Box 2408
Wylie, TX 75098

Dear Sir:

Enclosed please find a copy of the recently updated Drought Contingency and Water Emergency Response Plan for the Cash Special Utility District. I am submitting a copy of this model plan to the Region C Water Planning Group in accordance with the Texas Water Development Board and Texas Commission on Environmental Quality rules. The Board of the Cash Special Utility District adopted the updated model plan on March 23, 2009.

Sincerely,

Clay Hodges, General Manager
Cash Special Utility District

April 1, 2009

Mr. Jim Thompson
Chair, Region D Water Planning Group
P.O. Box 1107
Atlanta, TX 75551

Dear Mr. Thompson:

Enclosed please find a copy of the recently updated Drought Contingency and Water Emergency Response Plan for the Cash Special Utility District. I am submitting a copy of this model plan to the Region D Water Planning Group in accordance with the Texas Water Development Board and Texas Commission on Environmental Quality rules. The Board of the Cash Special Utility District adopted the updated model plan on March 23, 2009.

Sincerely,

Clay Hodges, General Manager
Cash Special Utility District

APPENDIX D
ADOPTION OF WATER DROUGHT PLAN

**Cash Special Utility District Order
Adopting Drought Contingency
and Water Emergency Response Plan**

Order No. 3232009C

AN ORDER ADOPTING A DROUGHT CONTINGENCY AND WATER EMERGENCY RESPONSE PLAN FOR THE CASH SPECIAL UTILITY DISTRICT TO PROMOTE THE RESPONSIBLE USE OF WATER AND TO PROVIDE FOR PENALTIES AND/OR THE DISCONNECTION OF WATER SERVICE FOR NONCOMPLIANCE WITH THE PROVISIONS OF THE WATER CONSERVATION AND DROUGHT CONTINGENCY AND WATER EMERGENCY RESPONSE PLAN.

WHEREAS, the Cash Special Utility District (the “District”), recognizes that the amount of water available to its water customers is limited; and

WHEREAS, the District recognizes that due to natural limitations, drought conditions, system failures and other acts of God which may occur, the District cannot guarantee an uninterrupted water supply for all purposes at all times; and

WHEREAS, the Water Code and the regulations of the Texas Commission on Environmental Quality (the “Commission”) require that the District adopt a Drought Contingency and Water Emergency Response Plan; and

WHEREAS, pursuant to Chapter 65 of the Water Code, the District is authorized to adopt such policies necessary to accomplish the purposes for which it was created, including but not limited to the preservation and conservation of water resources; and

WHEREAS, the Board of Directors of the District desires to adopt the Drought Contingency and Water Emergency Response Plan as official District policy for the conservation of water.

NOW THEREFORE, BE IT ORDERED BY THE BOARD OF DIRECTORS OF THE CASH SPECIAL UTILITY DISTRICT THAT:

Section 1. The Board of Directors hereby approves and adopts the Drought Contingency and Water Emergency Response Plan (the “Plan”), attached hereto as Addendum A, as if recited verbatim herein. The District commits to implement the requirements and procedures set forth in the adopted Plan.

Section 2. Any customer, defined pursuant to 30 Tex. Admin. Code Chapter 291, failing to comply with the provisions of the Plan shall be subject to a monetary fine as allowed by law, and/or discontinuance of water service by the District. Proof of a culpable mental

state is not required for a conviction of an offense under this section. Each day a customer fails to comply with the Plan is a separate violation. The District's authority to seek injunctive or other civil relief available under the law is not limited by this section.

Section 3. The Board of Directors does hereby find and declare that sufficient written notice of the date, hour, place and subject of the meeting adopting this Order was posted at a designated place convenient to the public for the time required by law preceding the meeting, that such place of posting was readily accessible at all times to the general public, and that all of the foregoing was done as required by law at all times during which this Order and the subject matter thereof has been discussed, considered and formally acted upon. The Board of Directors further ratifies, approves and confirms such written notice and the posting thereof.

Section 4. The General Manager or his designee is hereby directed to file a copy of the Plan and this Ordinance with the Commission in accordance with Title 30, Chapter 288 of the Texas Administrative Code.

Section 5. Should any paragraph, sentence, clause, phrase or word of this Order be declared unconstitutional or invalid for any reason, the remainder of this Order shall not be affected.

Approved and adopted by the Board of Directors on this 23rd day of March, 2009.

President, Board of Directors

Attest:

Secretary

APPENDIX E
PRO RATA ALLOCATIONS FOR WHOLESALE CUSTOMER AND
DROUGHT RATE FOR RETAIL CUSTOMER

APPENDIX E

Pro Rata Water Allocation for Wholesale Customers

In the event that the triggering criteria specified in Stage 3 of the Plan for or water rationing conditions have been met, the General Manager is hereby authorized to initiate allocation of water supplies on a pro rata basis in accordance with Texas Water Code Section 11.039 and according to the following water allocation policies and procedures:

1. A wholesale customer's monthly allocation shall be a percentage of the customer's water usage baseline. The percentage will be set by resolution of the Board of Directors based on the General Manager's assessment of the severity of the water shortage condition and the need to curtail water deliveries and may be adjusted periodically by resolution of the Board of Directors as conditions warrant. Once pro rata allocation is in effect, water deliveries to each wholesale customer shall be limited to the allocation established for each month.
2. A monthly water usage allocation shall be established by the General Manager, or his/her designee, for each wholesale customer. The wholesale customer's water usage baseline will be computed on the average water usage by month for the three most recent calendar years as shown in the example included in this Appendix. If the wholesale water customer's billing history is less than 3 years, the monthly average for the period for which there is a record shall be used for any monthly period for which no billing history exists.
3. The General Manager shall provide notice, by certified mail, to each wholesale customer informing them of their monthly water usage allocations and shall notify the news media and the executive director of the TECQ upon initiation of pro rata water allocation.
4. Upon request of the wholesale customer or at the initiative of the General Manager, the allocation may be reduced or increased if, (a) the designated period does not accurately reflect the wholesale customer's normal water usage; (b) the customer agrees to transfer part of its allocation to another wholesale customer; or (c) other objective evidence demonstrates that the designated allocation is inaccurate under present conditions. A wholesale customer may appeal an allocation established hereunder to the Board of Directors of Cash SUD.

During any period when pro rata allocation of available water supplies is in effect, wholesale customers shall pay the following surcharges on excess water diversions and/or deliveries:

- a. 1.5 times the normal water charge per 1000 gallons for water deliveries in excess of the monthly allocation up through 5 percent above the monthly allocation.
- b. 2.0 times the normal water charge per 1000 gallons for water deliveries in excess of the monthly allocation from 5 percent through 10 percent above the monthly allocation.
- c. 2.5 times the normal water charge per 1000 gallons for water deliveries in excess of the monthly allocation from 10 percent through 15 percent above the monthly allocation.
- d. 3.0 times the normal water charge per 1000 gallons for water diversions and/or deliveries more than 15 percent above the monthly allocation.
- e. The above surcharges shall be cumulative.

Drought Rate for Retail Customers

In times of drought the District, by resolution of the Board of Directors, may implement the following drought rate for retail customers to reduce the demand of water.

0 – 5,000 gallons	= \$3.50 per 1000 gallons
5,001 – 10,000 gallons	= \$7.50 per 1000 gallons
10,001 – 15,000 gallons	= \$8.50 per 1000 gallons
15,001 – 20,000 gallons	= \$9.50 per 1000 gallons
20,001 – 25,000 gallons	= \$10.00 per 1000 gallons
Over 25,000 gallons	= \$12.00 per 1000 gallons