Appendix 6B Sample Drought Contingency Plans

Table of Contents

Appendix 6B1	Sample Drought Contingency Plan for Municipal Suppliers
Appendix 6B2	Sample Drought Contingency Plan for Irrigation Districts

Drought Contingency Plan for [Public Water Supplier]

Date

TABLE OF CONTENTS

- 1. Objectives
- 2. Texas Commission on Environmental Quality Rules
- 3. Provisions to Inform the Public and Opportunity for Public Input
- 4. Coordination with the Region F Water Planning Group
- 5. Initiation and Termination of Drought Response Stages
- 6. Goals for Reduction in Water Use
- 7. Drought and Emergency Response Stages
- 8. Penalty for Violation of Water Use Restriction
- 9. Review and Update of Drought Contingency Plan

APPENDICES

APPENDIX A List of References

APPENDIX B Texas Commission on Environmental Quality Rules on Drought

Contingency Plans

Drought Contingency Plan for [Public Water Supplier]

1. Objectives

This drought contingency plan (the Plan) is intended for use by [municipal water supplier]. The plan includes all current TCEQ requirements for a drought contingency plan.

This drought contingency plan serves to:

- Conserve available water supplies during times of drought and emergency.
- Minimize adverse impacts of water supply shortages.
- Minimize the adverse impacts of emergency water supply conditions.
- Preserve public health, welfare, and safety.

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.

3. Provisions to Inform the Public and Opportunity for Public Input

[Public water supplier] will give customers the opportunity to provide public input into the preparation of the plan by one of the following methods:

- Holding a public meeting.
- Providing written notice of the proposed plan and the opportunity to comment on the plan by newspaper or posted notice.

4. Public Education

[Public water supplier] will notify the public about the drought contingency plan, including changes in Stage and drought measures to be implemented, by one or more of the following methods:

- Prepare a description of the Plan and make it available to customers at appropriate locations.
- Include utility bill inserts that detail the Plan
- Provide radio announcements that inform customers of stages to be initiated or terminated and drought measures to be taken
- Include an ad in a newspaper of general circulation to inform customers of stages to be initiated or terminated and drought measures to be taken

5. Coordination with the Regional F Water Planning Group

This drought contingency plan will be sent to the Chair of the Region F Water Planning Group in order to ensure consistency with the Region F Water Plan. If any changes are made to the drought contingency plan, a copy of the newly adopted plan will be sent to the Regional Water Planning Group.

6. Initiation and Termination of Drought Response Stages

The designated official will order the implementation of a drought response stage when one or more of the trigger conditions for that stage exist. Official designees may also order the termination of a drought response stage when the termination criteria are met or at their own discretion.

If any mandatory provisions have been implemented or terminated, the water supplier is required to notify the Executive Director of the TCEQ within 5 business days.

7. Goals for Reduction in Water Use

TCEQ requires that each public water supplier develop quantifiable goals for water use reduction for each stage of the drought contingency plan. These goals are outlined below.

[To be developed by each supplier. An example is provided.]

- Stage 1, Mild
 - o 0 to 2 percent reduction in use that would have occurred in the absence of drought contingency measures.
- Stage 2, Moderate
 - o 2 to 6 percent reduction in use that would have occurred in the absence of drought contingency measures
- Stage 3, Severe
 - o 6 to 10 percent reduction in use that would have occurred in the absence of drought contingency measures
- Stage 4, Emergency
 - o 10 to 14 percent reduction in use that would have occurred in the absence of drought contingency measures

8. Drought and Emergency Response Stages

Stage 1, Mild

Trigger Conditions for Stage 1, Mild

• A wholesale water supplier that provides all or part of [public water supplier]'s supply has initiated Stage 1, Mild

- [To be otherwise completed by public water supplier]
 - o Potential triggers are:
 - When [public water supplier]'s available water supply is equal or less than [amount in ac-ft, percent of storage, etc.].
 - When total daily demand equals [number] million gallons for [number] consecutive days or [number] million gallons on a single day.
 - When the water level in [public water supplier]'s well(s) is equal or less than [number] feet above/below mean sea level.
 - When flows in the [name of river or stream segment] are equal to or less than [number] cubic feet per second.

Stage 1 will end when the circumstances that caused the initiation of Stage 1 no longer exist.

Goals for Use Reduction and Actions Available Under Stage 1, Mild

[Public water supplier] will reduce water use by [goal]. [Public water supplier] may order the implementation of any of the strategies listed below in order to decrease water use:

- Request voluntary reductions in water use.
- Review the problems that caused the initiation of Stage 1.
- Intensify leak detection and repair efforts

Stage 2, Moderate

Trigger Conditions for Stage 2, Moderate

- A wholesale water supplier that provides all or part of [public water supplier]'s supply has initiated Stage 2, Moderate
- [To be otherwise completed by public water supplier]
 - o Potential triggers are:
 - When [public water supplier]'s available water supply is equal or less than [amount in ac-ft, percent of storage, etc.].
 - When total daily demand equals [number] million gallons for [number] consecutive days or [number] million gallons on a single day.
 - When the water level in [public water supplier]'s well(s) is equal or less than [number] feet above/below mean sea level.
 - When flows in the [name of river or stream segment] are equal to or less than [number] cubic feet per second.

Stage 2 will end when the circumstances that caused the initiation of Stage 2 no longer exist.

Goals for Use Reduction and Actions Available Under Stage 2, Moderate

[Public water supplier] will reduce water use by [goal]. [Public water supplier] may order the implementation of any of the strategies listed below in order to decrease water use:

- Request voluntary reductions in water use.
- Halt non-essential city government use
- Review the problems that caused the initiation of Stage 2.
- Intensify leak detection and repair efforts
- Implement mandatory restrictions on time of day outdoor water use in the summer.

Stage 3, Severe

Trigger Conditions for Stage 3, Severe

- A wholesale water supplier that provides all or part of [public water supplier]'s supply has initiated Stage 3, Severe
- [To be otherwise completed by public water supplier]
 - o Potential triggers are:
 - When [public water supplier]'s available water supply is equal or less than [amount in ac-ft, percent of storage, etc.].
 - When total daily demand equals [number] million gallons for [number] consecutive days or [number] million gallons on a single day.
 - When the water level in [public water supplier]'s well(s) is equal or less than [number] feet above/below mean sea level.
 - When flows in the [name of river or stream segment] are equal to or less than [number] cubic feet per second.

Stage 3 will end when the circumstances that caused the initiation of Stage 3 no longer exist.

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

[Public water supplier] will reduce water use by [goal]. [Public water supplier] may order the implementation of any of the strategies listed below in order to decrease water use:

- Request voluntary reductions in water use.
- Require mandatory reductions in water use
- Halt non-essential city government use
- Review the problems that caused the initiation of Stage 3.
- Intensify leak detection and repair efforts
- Implement mandatory restrictions on time of day outdoor water use in the summer
- Limit outdoor watering to specific weekdays.

• Create and implement a landscape ordinance.

Stage 4, Emergency

Trigger Conditions for Stage 4, Emergency

- A wholesale water supplier that provides all or part of [public water supplier]'s supply has initiated Stage 4, Emergency
- [To be otherwise completed by public water supplier]
 - o Potential triggers are:
 - When [public water supplier]'s demand exceeds the amount that can be delivered to customers.
 - When [public water supplier]'s source becomes contaminated
 - [Public water supplier]'s system is unable to deliver water due to the failure or damage of major water system components.

Stage 4 will end when the circumstances that caused the initiation of Stage 4 no longer exist.

Goals for Use Reduction and Actions Available Under Stage 4, Emergency [Public water supplier] will reduce water use by [goal]. [Public water supplier] may order the implementation of any of the strategies listed below in order to decrease water use:

- Require mandatory reductions in water use
- Halt non-essential city government use
- Review the problems that caused the initiation of Stage 4.
- Intensify leak detection and repair efforts
- Implement mandatory restrictions on time of day outdoor water use in the summer.
- Limit outdoor watering to specific weekdays.
- Create and implement a landscape ordinance.
- Prohibit washing of vehicles except as necessary for health, sanitation, or safety reasons.
- Prohibit commercial and residential landscape watering
- Prohibit golf course watering except for greens and tee boxes
- Prohibit filling of private pools.
- Initiate a rate surcharge for all water use over [amount in gallons per month].

9. Penalty for Violation of Water Use Restriction

Mandatory restrictions are required by TCEQ regulation to have a penalty. These restrictions will be strictly enforced with the following penalties:

- Potential penalties
 - o Written warning that they have violated the mandatory water use restriction.

- o Issue a citation. Minimum and maximum fines are established by ordinance.
- o Discontinue water service to the user.

10. Review and Update of Drought Contingency Plan

This drought contingency plan will be updated at least every 5 years as required by TCEQ regulations.

Appendix A List of References

APPENDIX A

List of References

Title 30 of the Texas Administrative Code, Part 1, Chapter 288, Subchapter B, Rule 288.20, downloaded from http://info.sos.state.tx.us/pls/pub/readtac\$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=2 88, October 2009.

Texas Commission or	A _I n Environmental	opendix B Quality Rules on	Drought Contingency I	Plans

APPENDIX B

Texas Commission on Environmental Quality Rules on Drought Contingency Plans

Texas Administrative Code

TITLE 30 ENVIRONMENTAL QUALITY PART 1 TEXAS COMMISSION ON ENVIRONMENTAL QUALITY CHAPTER 288 WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS SUBCHAPTER B 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, shall provide information in response to each of the following.
- (1) Minimum requirements. Drought contingency plans shall 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 insure consistency with the appropriate approved regional water plans.
- (D) The drought contingency plan shall include a description of the information to be monitored by the water supplier, and specific criteria for the initiation and termination of drought response stages, accompanied by an explanation of the rationale or basis for such triggering criteria.
- (E) The drought contingency plan must include drought or emergency response stages providing for the implementation of measures in response to at least the following situations:
 - (i) reduction in available water supply up to a repeat of the drought of record;
 - (ii) water production or distribution system limitations;

- (iii) supply source contamination; or
- (iv) system outage due to the failure or damage of major water system components (e.g., pumps).
- (F) The drought contingency plan must include specific, quantified targets for water use reductions to be achieved during periods of water shortage and drought. The entity preparing the plan shall establish the targets. The goals established by the entity under this subparagraph are not enforceable.:
- (G) The drought contingency plan must include the specific water supply or water demand management measures to be implemented during each stage of the plan including, but not limited to, the following:
 - (i) curtailment of non-essential water uses; and
- (ii) utilization of alternative water sources and/or alternative delivery mechanisms with the prior approval of the executive director as appropriate (e.g., interconnection with another water system, temporary use of a non-municipal water supply, use of reclaimed water for non-potable purposes, etc.).
- (H) The drought contingency plan must include the procedures to be followed for the initiation or termination of each drought response stage, including procedures for notification of the public.
- (I) The drought contingency plan must include procedures for granting variances to the plan.
- (J) The drought contingency plan must include procedures for the enforcement of 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 shall 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.

Model Drought Contingency Plan for [Irrigation District]

Date

TABLE OF CONTENTS

- 1. Objectives
- 2. Texas Commission on Environmental Quality Rules
- 3. Provisions to Inform the Public and Opportunity for Public Input
- 4. Coordination with the Region F Water Planning Group
- 5. Initiation and Termination of Drought Response Stages
- 6. Goals for Reduction in Water Use
- 7. Drought and Emergency Response Stages
- 8. Penalty for Violation of Water Use Restriction
- 9. Review and Update of Drought Contingency Plan

Drought Contingency Plan for [Irrigation District]

1. Objectives

This drought contingency plan is intended for use by [irrigation district]. The plan includes all current TCEQ requirements for a drought contingency plan.

This drought contingency plan serves to:

- Conserve available water supplies during times of drought and emergency.
- Minimize adverse impacts of water supply shortages.
- Minimize the adverse impacts of emergency water supply conditions.

2. Texas Commission on Environmental Quality Rules

The TCEQ rules governing development of drought contingency plans for irrigation districts are contained in Title 30, Part 1, Chapter 288, Subchapter B, Rule 288.21 of the Texas Administrative Code.

3. Provisions to Inform the Public and Opportunity for Public Input

[Irrigation district] will give customers the opportunity to provide public input into the preparation of the plan by one of the following methods:

- Holding a public meeting.
- Providing written notice of the proposed plan and the opportunity to comment on the plan by newspaper or posted notice.

4. Coordination with the Region F Water Planning Group

This drought contingency plan will be sent to the Chair of the Region F Water Planning Group in order to ensure consistency with the Region F Water Plan.

5. Initiation and Termination of Drought Response Stages

Official designees order the implementation of a drought response stage when one or more of the trigger conditions for that stage are met. Official designees may also order the termination of a drought response stage when the termination criteria are met or at their own discretion. The official designee for the [irrigation district] is:

Name Title Contact Information

If any mandatory provisions have been implemented or terminated, [irrigation district] is required to notify the Executive Director of the TCEQ within 5 business days.

6. Goals for Reduction in Water Use

TCEQ requires that each irrigation water user develop specific, quantifiable goals for water use reduction for each stage of the drought contingency plan. [Entity]'s goals are independently developed and given below.

7. Drought and Emergency Response Stages

Stage 1, Mild

Trigger Conditions for Stage 1, Mild

- A wholesale water supplier that provides all or part of an irrigation user's supply has initiated Stage 1, Mild
- [Select appropriate other triggers]
 - When [irrigation district]'s available water supply is equal or less than [amount in ac-ft, percent of storage, etc.].
 - o When total daily demand equals [number] million gallons for [number] consecutive days or [number] million gallons on a single day.
 - When the water level in [irrigation district]'s well(s) is equal or less than [number] feet above/below mean sea level.
 - When flows in the [name of river or stream segment] are equal to or less than [number] cubic feet per second.

Goals for Use Reduction and Actions Available Under Stage 1, Mild

[Entity]'s will reduce water use by [goal]. Irrigation water suppliers may order the implementation of any of the strategies listed below in order to reduce water use:

- Request voluntary reductions in water use.
- Review the problems that caused the initiation of Stage 1.

Stage 1 is intended to raise awareness of potential drought problems. Stage 1 will end when the circumstances that caused the initiation of Stage 1 no longer exist.

Stage 2, Moderate

Trigger Conditions for Stage 2, Moderate

- A wholesale water supplier that provides all or part of an irrigation user's supply has initiated Stage 2, Moderate
- [Select appropriate other triggers]
 - When [irrigation district]'s available water supply is equal or less than [amount in ac-ft, percent of storage, etc.].
 - o When total daily demand equals [number] million gallons for [number] consecutive days or [number] million gallons on a single day.

- When the water level in [irrigation district]'s well(s) is equal or less than [number] feet above/below mean sea level.
- When flows in the [name of river or stream segment] are equal to or less than [number] cubic feet per second.

Goals for Use Reduction and Actions Available Under Stage 2, Moderate [Entity]'s will reduce water use by [goal]. Irrigation water suppliers may order the implementation of any of the strategies listed below in order to reduce water use:

- Request voluntary reductions in water use.
- Review the problems that caused the initiation of Stage 2.
- Intensify leak detection and repair efforts.
- Other.

Stage 2 will end when the circumstances that caused the initiation of Stage 2 no longer exist.

Stage 3, Severe

Trigger Conditions for Stage 3, Severe

- A wholesale water supplier that provides all or part of an irrigation user's supply has initiated Stage 3, Severe
- [Select appropriate other triggers]
 - When [irrigation district]'s available water supply is equal or less than [amount in ac-ft, percent of storage, etc.].
 - o When total daily demand equals [number] million gallons for [number] consecutive days or [number] million gallons on a single day.
 - When the water level in [irrigation district]'s well(s) is equal or less than [number] feet above/below mean sea level.
 - When flows in the [name of river or stream segment] are equal to or less than [number] cubic feet per second.

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

[Entity]'s will reduce water use by [goal]. Irrigation water suppliers may order the implementation of any of the strategies listed below in order to reduce water use:

- Request voluntary reductions in water use.
- Review the problems that caused the initiation of Stage 3.
- Intensify leak detection and repair efforts.
- Implement mandatory watering days and/or times.
- Other.

Stage 3 will end when the circumstances that caused the initiation of Stage 3 no longer exist.

Stage 4, Emergency

Trigger Conditions for Stage 4, Emergency

- A wholesale water supplier that provides all or part of an irrigation user's supply has initiated Stage 4, Emergency
- [Select appropriate other triggers]
 - When [irrigation district]'s available water supply is equal or less than [amount in ac-ft, percent of storage, etc.].
 - o When total daily demand equals [number] million gallons for [number] consecutive days or [number] million gallons on a single day.
 - When the water level in [irrigation district]'s well(s) is equal or less than [number] feet above/below mean sea level.
 - When flows in the [name of river or stream segment] are equal to or less than [number] cubic feet per second.

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

[Entity]'s will reduce water use by [goal]. Irrigation water suppliers may order the implementation of any of the strategies listed below in order to reduce water use:

- Review the problems that caused the initiation of Stage 4.
- Intensify leak detection and repair efforts.
- Implement mandatory watering days and/or times.
- Implement mandatory reductions in water deliveries.
- Other.

Stage 4 will end when the circumstances that caused the initiation of Stage 4 no longer exist.

8. Penalty for Violation of Water Use Restriction

Mandatory water use restrictions are implemented in Stages [1, 2, 3, or 4]. These restrictions will be strictly enforced with the following penalties:

- Potential penalties include:
 - o Written warning that they have violated the mandatory water use restriction.
 - o Issue a citation. Minimum and maximum fines are established by ordinance or other order.
 - o Discontinue water service to the user.

9. Review and Update of Drought Contingency Plan

This drought contingency plan will be updated at least every 5 years as required by TCEQ regulations.