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6. Water Conservation and Drought Management Plans

This chapter presents the minimum necessary requirements for conservation plans and drought contingency plans and provides (at the end of the Chapter) model conservation plans and drought contingency plans for the various water user categories. The model conservation plans and drought contingency plans were developed specifically for Region H in accordance with and as described in Texas Water Code 11.1271 and 11.1272.

6.1 Water Conservation Plan

Water conservation plans are required by the Texas Commission on Environmental Quality (TCEQ, formerly the TNRCC)/Texas Water Development Board (TWDB) for the following water users:

- Applicants who apply for TWDB loan requests
- Applicants for new or amended water rights
- Any holder of an existing permit, certified filing, or certificate of adjudication if requested by TCEQ/TWDB for appropriation of a water right greater than 1000 acre-feet per year for municipal, industrial, and other uses excluding irrigation. For irrigation uses, the threshold is 10,000 acre-feet per year.

Conservation plans developed for submittal with water right applications for appropriation of State water should discuss the evaluation of water conservation with respect to their application. This would include discussions of water conservation as an alternative to the potentially appropriated State water as well as the evaluation of any other conservation Best Management Practices (BMP) as an alternative to the new water right.

Minimum conservation and drought management plan requirements for specific water use categories are discussed in the following subsections.

6.1.1 Municipal Uses by Public Water Suppliers¹

Water conservation plans for municipal water use by public water suppliers (i.e., documented Region H Municipal Water User Groups) must include specific information as listed below. If the plans do not provide information for each requirement, the public water supplier shall include in the plans an explanation of why the requirement is not applicable.

- A utility profile including, but not limited to, information regarding population and customer data, water use data, water supply system data, and wastewater system data.
- Specification of conservation goals including, but not limited to, municipal per capita water use goals, the basis for the development of such goals, and a time frame for achieving the specified goals (until May 1, 2005).

¹ Information in this subsection was obtained from the Texas Administrative Code, specifically TAC Title 30 Part 1 Chapter 288 Subchapter A Rule 288.2

- Specific, quantified 5-year and 10-year targets for water savings to include goals for water loss programs and goals for municipal use in gallons per capita per day. The goals established by a public water supplier under this subparagraph are not enforceable.
- Metering device(s) within an accuracy of plus or minus 5.0 percent in order to measure and account for the amount of water diverted from the source of supply.
- A program for universal metering of both customer and public uses of water, for meter testing and repair, and for periodic meter replacement.
- Measures to determine and control unaccounted-for uses of water (for example: periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections, abandoned services, etc.).
- A program of continuing public education and information regarding water conservation.
- A water rate structure which is not “promotional,” i.e., a rate structure which is cost-based and which does not encourage the excessive use of water.
- A reservoir systems operations plan, if applicable, providing for the coordinated operation of reservoirs owned by the applicant within a common watershed or river basin in order to optimize available water supplies.
- A means of implementation and enforcement which should be shown by either of the following:
 1. A copy of the ordinance, resolution, or tariff indicating official adoption of the water conservation plan by the water supplier, or
 2. A description of the authority by which the water supplier will implement and enforce the conservation plan.
- Documentation of coordination with the Region H Regional Water Planning Group for the service area of the public water supplier to ensure consistency with the appropriate, approved Region H Regional Water Plan.

Water conservation plans for municipal uses by public drinking water suppliers serving a current population of 5,000 or more and/or a projected population of 5,000 or more within the next 10 years subsequent to the effective date of the plan must also include the following information:

- A program of leak detection, repair, and water loss accounting for the water transmission, delivery, and distribution system to control unaccounted-for uses of water.
- A record management system to record water pumped, water deliveries, water sales, and water losses that allows for the separation of water sales and uses into residential, commercial, public and institutional, and industrial users.

- A requirement in every wholesale water supply contract entered into or renewed after official adoption of the plan (by either ordinance, resolution, or tariff), and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements in this chapter. If the customer intends to resell the water, the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with the provisions of this chapter.

If the conservation goals cannot be achieved through the minimum conservation plan requirements, the water supplier can implement water conservation strategies to help achieve their goals. The TCEQ can also require the water supplier to implement a conservation BMP strategy to achieve the goals set in the conservation plan. Some of the water conservation BMPs are listed below, and a more detailed list can be found in the *Water Conservation Best Management Practices Guide, Report 362. Texas Water Development Board, November 2004.*

- Conservation-oriented water rates and water rate structures such as uniform or increasing block rate schedules, and/or seasonal rates, but not flat rate or decreasing block rates.
- Adoption of ordinances, plumbing codes, and/or rules requiring water-conserving plumbing fixtures to be installed in new structures and existing structures undergoing substantial modification or addition.
- A program encouraging the replacement or retrofit of existing structures built prior to 1991 with water conserving plumbing fixtures.
- Reuse and/or recycling of wastewater and/or graywater.
- A program for pressure control and/or reduction in the distribution system and/or for customer connections.
- A program and/or ordinance(s) for landscape water management.
- A method for monitoring the effectiveness and efficiency of the water conservation plan.
- Any other water conservation practice, method, or technique which the water supplier shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

A water conservation plan prepared in accordance with *31 TAC §363.15* (relating to Required Water Conservation Plan) of the TWDB, and substantially meeting the requirements of this section and other applicable commission rules, may be submitted to meet application requirements in accordance with a memorandum of understanding between the commission and the TWDB.

Beginning May 1, 2005, a public water supplier for municipal use shall review and update its water conservation plan, as appropriate, based on an assessment of previous 5-year and 10-year targets and any other new or updated information. The public water supplier for municipal use shall review and update the next revision of its water conservation plan no later than May 1, 2009, and every five years after that date to coincide with the Region H Water Planning Group's regional water plan update.

6.1.2 Industrial or Mining²

Water conservation plans for industrial or mining uses of water must provide the information as outlined below. If the plan does not provide information for each requirement, the industrial or mining water user shall include in the plan an explanation of why the requirement is not applicable.

- A description of the use of the water in the production process, including how the water is diverted and transported from the source(s) of supply, how the water is utilized in the production process, and the estimated quantity of water consumed in the production process and therefore unavailable for reuse, discharge, or other means of disposal.
- Until May 1, 2005, specification of conservation goals, the basis for the development of such goals, and a time frame for achieving the specified goals.
- Beginning May 1, 2005, specific, quantified 5-year and 10-year targets for water savings and the basis for the development of such goals. The goals established by industrial or mining water users under this paragraph are not enforceable.
- A description of the device(s) and/or method(s) within an accuracy of plus or minus 5.0 percent to be used in order to measure and account for the amount of water diverted from the source of supply.
- Leak-detection, repair, and accounting for water loss in the water distribution system.
- Application of state-of-the-art equipment and/or process modifications to improve water use efficiency.
- Any other water conservation practice, method, or technique which the user shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

Beginning May 1, 2005, an industrial or mining water user shall review and update its water conservation plan, as appropriate, based on an assessment of previous 5-year and 10-year targets and any other new or updated information. The industrial or mining water user shall review and update the next revision of its water conservation plan no later than May 1, 2009, and every 5 years after that date to coincide with the Region H Water Planning Group regional water plan update.

² Information in this subsection was obtained from the Texas Administrative Code, specifically TAC Title 30 Part 1 Chapter 288 Subchapter A Rule 288.3

6.1.3 Agriculture³

A water conservation plan for agricultural use of water must provide information in response to the following subsections. If the plan does not provide information for each requirement, the agricultural water user must include in the plan an explanation of why the requirement is not applicable.

For an individual agricultural user other than for irrigation:

- A description of the use of the water in the production process, including how the water is diverted and transported from the source(s) of supply, how the water is utilized in the production process, and the estimated quantity of water consumed in the production process and therefore unavailable for reuse, discharge, or other means of disposal.
- Until May 1, 2005, specification of conservation goals, the basis for the development of such goals, and a time frame for achieving the specified goals.
- Beginning May 1, 2005, specific, quantified five-year and ten-year targets for water savings and the basis for the development of such goals. The goals established by agricultural water users under this subparagraph are not enforceable.
- A description of the device(s) and/or method(s) within an accuracy of plus or minus 5.0 percent to be used in order to measure and account for the amount of water diverted from the source of supply.
- Leak-detection, repair, and accounting for water loss in the water distribution system.
- Application of state-of-the-art equipment and/or process modifications to improve water use efficiency.
- Any other water conservation practice, method, or technique which the user shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

For an individual agricultural irrigation user:

- A description of the irrigation production process which shall include, but is not limited to, the type of crops and acreage of each crop to be irrigated, monthly irrigation diversions, any seasonal or annual crop rotation, and soil types of the land to be irrigated.
- A description of the irrigation method or system and equipment including pumps, flow rates, plans, and/or sketches of the system layout.
- A description of the device(s) and/or methods within an accuracy of plus or minus 5.0 percent to be used in order to measure and account for the amount of water diverted from the source of supply.

³ Information in this subsection was obtained from the Texas Administrative Code, specifically TAC Title 30 Part 1 Chapter 288 Subchapter A Rule 288.4

- Until May 1, 2005, specification of conservation goals including, where appropriate, quantitative goals for irrigation water use efficiency and a pollution abatement and prevention plan.
- Beginning May 1, 2005, specific, quantified 5-year and 10-year targets for water savings including, where appropriate, quantitative goals for irrigation water use efficiency and a pollution abatement and prevention plan. The goals established by an individual irrigation water user under this subparagraph are not enforceable.
- Water-conserving irrigation equipment and application system or method including, but not limited to, surge irrigation, low pressure sprinkler, drip irrigation, and nonleaking pipe.
- Leak-detection, repair, and water-loss control.
- Scheduling the timing and/or measuring the amount of water applied (e.g., soil moisture monitoring).
- Land improvements for retaining or reducing runoff and increasing the infiltration of rain and irrigation water including, but not limited to, land leveling, furrow diking, terracing, and weed control.
- Tailwater recovery and reuse.
- Any other water conservation practice, method, or technique which the user shows to be appropriate for preventing waste and achieving conservation.

For a system providing agricultural water to more than one user:

- A system inventory for the supplier's:
 - Structural facilities including the supplier's water storage, conveyance, and delivery structures.
 - Management practices, including the supplier's operating rules and regulations, water pricing policy, and a description of practices and/or devices used to account for water deliveries.
 - A user profile including square miles of the service area, the number of customers taking delivery of water by the system, the types of crops, the types of irrigation systems, the types of drainage systems, and total acreage under irrigation, both historical and projected.
- Until May 1, 2005, specification of water conservation goals, including maximum allowable losses for the storage and distribution system.
- Beginning May 1, 2005, specific, quantified 5-year and 10-year targets for water savings including maximum allowable losses for the storage and distribution system. The goals

- established by a system providing agricultural water to more than one user under this subparagraph are not enforceable.
- A description of the practice(s) and/or device(s) which will be utilized to measure and account for the amount of water diverted from the source(s) of supply.
 - A monitoring and record management program of water deliveries, sales, and losses.
 - A leak-detection, repair, and water loss control program.
 - A program to assist customers in the development of on-farm water conservation and pollution prevention plans and/or measures.
 - A requirement in every wholesale water supply contract entered into or renewed after official adoption of the plan (by either ordinance, resolution, or tariff), and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements in this chapter. If the customer intends to resell the water, the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with applicable provisions of this chapter.
 - Official adoption of the water conservation plan and goals, by ordinance, rule, resolution, or tariff, indicating that the plan reflects official policy of the supplier.
 - Any other water conservation practice, method, or technique which the supplier shows to be appropriate for achieving conservation.
 - Documentation of coordination with the regional water planning groups in order to ensure consistency with appropriate approved regional water plans.

A water conservation plan prepared in accordance with the rules of the United States Department of Agriculture Natural Resource Conservation Service, the Texas State Soil and Water Conservation Board, or other Federal or State agencies and substantially meeting the requirements of this section and other applicable commission rules may be submitted to meet application requirements in accordance with a memorandum of understanding between the commission and that agency.

Beginning May 1, 2005, an agricultural water user shall review and update its water conservation plan, as appropriate, based on an assessment of previous 5-year and 10-year targets and any other new or updated information. An agricultural water user shall review and update the next revision of its water conservation plan no later than May 1, 2009, and every 5 years after that date to coincide with the Region H Water Planning Group regional water plan update.

6.1.4 Wholesale Water Providers⁴

A water conservation plan for a wholesale water supplier must provide information in response to each of the following paragraphs. If the plan does not provide information for each requirement, the wholesale water supplier shall include in the plan an explanation of why the requirement is not applicable.

- A description of the wholesaler's service area, including population and customer data, water use data, water supply system data, and wastewater data.
- Until May 1, 2005, specification of conservation goals including, where appropriate, target per capita water use goals for the wholesaler's service area, maximum acceptable unaccounted-for water, the basis for the development of these goals, and a time frame for achieving these goals.
- Beginning May 1, 2005, specific, quantified 5-year and 10-year targets for water savings including, where appropriate, target goals for municipal use in gallons per capita per day for the wholesaler's service area, maximum acceptable unaccounted-for water, and the basis for the development of these goals. The goals established by wholesale water suppliers under this subparagraph are not enforceable.
- A description as to which practice(s) and/or device(s) will be utilized to measure and account for the amount of water diverted from the source(s) of supply.
- A monitoring and record management program for determining water deliveries, sales, and losses.
- A program of metering and leak detection and repair for the wholesaler's water storage, delivery, and distribution system.
- A requirement in every water supply contract entered into or renewed after official adoption of the water conservation plan, and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements of this chapter. If the customer intends to resell the water, the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with applicable provisions of this chapter.
- A reservoir systems operations plan, if applicable, providing for the coordinated operation of reservoirs owned by the applicant within a common watershed or river basin. The reservoir systems operations plans shall include optimization of water supplies as one of the significant goals of the plan.

⁴ Information in this subsection was obtained from the Texas Administrative Code, specifically TAC Title 30 Part 1 Chapter 288 Subchapter A Rule 288.5

- A means for implementation and enforcement, which shall be evidenced by a copy of the ordinance, rule, resolution, or tariff, indicating official adoption of the water conservation plan by the water supplier; and a description of the authority by which the water supplier will implement and enforce the conservation plan.
- Documentation of coordination with the regional water planning groups for the service area of the wholesale water supplier in order to ensure consistency with the Region H Regional Water Plan.

6.1.5 Additional Conservation Strategies

Any combination of the following strategies shall be selected by the water wholesaler, in addition to the minimum requirements of paragraph (1) of this section, if they are necessary in order to achieve the stated water conservation goals of the plan. The commission may require by commission order that any of the following strategies be implemented by the water supplier if the commission determines that the strategies are necessary in order for the conservation plan to be achieved:

- Conservation-oriented water rates and water rate structures such as uniform or increasing block rate schedules, and/or seasonal rates, but not flat rate or decreasing block rates.
- A program to assist agricultural customers in the development of conservation pollution prevention and abatement plans.
- A program for reuse and/or recycling of wastewater and/or graywater.
- Any other water conservation practice, method, or technique which the wholesaler shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

Beginning May 1, 2005, the wholesale water supplier shall review and update its water conservation plan, as appropriate, based on an assessment of previous five-year and ten-year targets and any other new or updated information. A wholesale water supplier shall review and update the next revision of its water conservation plan no later than May 1, 2009, and every five years after that date to coincide with the Region H Water Planning Group regional water plan update.

6.1.6 Other Water Uses⁵

A water conservation plan for any other purpose or use not covered in this subchapter shall provide information where applicable about those practices, techniques, and technologies that will be used to reduce the consumption of water, prevent or reduce the loss or waste of water, maintain or improve the efficiency in the use of water, increase the recycling and reuse of water, or prevent the pollution of water.

⁵ Information in this subsection was obtained from the Texas Administrative Code, specifically TAC Title 30 Part 1 Chapter 288 Subchapter A Rule 288.6

6.2 Drought Contingency Plan⁶

Drought contingency plans can be required by the TCEQ/TWDB for certain applicants and water rights holders.

- The commission shall by rule require wholesale and retail public water suppliers and irrigation districts to develop drought contingency plans consistent with the appropriate approved regional water plan to be implemented during periods of water shortages and drought.
- The wholesale and retail public water suppliers and irrigation districts shall provide an opportunity for public input during preparation of their drought contingency plans and before submission of the plans to the commission.

Beginning in May 2005, the following are additional requirements in the drought contingency plan:

- Specific, quantified targets for water use reductions to be achieved during periods of water shortages and drought. The entity preparing the plan shall establish the targets.
- The commission and the board by joint rule shall identify quantified target goals for drought contingency plans that wholesale and retail public water suppliers, irrigation districts, and other entities may use as guidelines in preparing drought contingency plans. Goals established under this subsection are not enforceable requirements.

The commission and the board jointly shall develop model drought contingency programs for different types of water suppliers that suggest best management practices for accomplishing the highest practicable levels of water use reductions achievable during periods of water shortages and drought for each specific type of water supplier.

6.2.1 Municipal Uses by Public Water Suppliers⁷

Drought contingency plans for retail public water suppliers, where applicable, and for public water suppliers, must include the following minimum elements.

- 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.
- Provisions shall be made for a program of continuing public education and information regarding the drought contingency plan.

⁶ Model drought contingency plans specifically for Region H were developed for each water use category and are located at the end of this Chapter.

⁷ Information in this subsection was obtained from the Texas Administrative Code, specifically TAC Title 30 Part 1 Chapter 288 Subchapter A Rule 288.20

- 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.
- 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.
- 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:
 - Reduction in available water supply up to a repeat of the drought of record.
 - Water production or distribution system limitations.
 - Supply source contamination.
 - System outage due to the failure or damage of major water system components (e.g., pumps).
- 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.
- 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:
 - Curtailment of nonessential water uses.
 - 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 nonmunicipal water supply, use of reclaimed water for nonpotable purposes, etc.).
- 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.
- The drought contingency plan must include procedures for granting variances to the plan.
- The drought contingency plan must include procedures for the enforcement of mandatory water use restrictions, including specification of penalties (e.g., fines, water rate surcharges, discontinuation of service) for violations of such restrictions.

Privately owned water utilities shall prepare a drought contingency plan in accordance with this section and incorporate such plan into their tariff.

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. A wholesale or retail water supplier shall notify the executive director within 5 business days of the implementation of any mandatory provisions of the drought contingency plan.

The retail public water supplier shall review and update, as appropriate, the drought contingency plan, at least every 5 years, based on new or updated information, such as the adoption or revision of the Region H Regional Water Plan.

6.2.2 Irrigation Uses⁸

A drought contingency plan for an irrigation use, where applicable, must include the following minimum elements. Drought contingency plans for irrigation water suppliers must include policies and procedures for the equitable and efficient allocation of water on a pro rata basis during times of shortage in accordance with *Texas Water Code, §11.039*.

- Preparation of the plan shall include provisions to actively inform and to affirmatively provide opportunity for users of water from the irrigation system to provide input into the preparation of the plan and to remain informed of the plan. Such acts may include, but are not limited to, having a public meeting at a time and location convenient to the water users and providing written notice to the water users concerning the proposed plan and meeting.
- The drought contingency plan must document coordination with the regional water planning groups to ensure consistency with the appropriate approved regional water plans.
- The drought contingency plan must include water supply criteria and other considerations for determining when to initiate or terminate water allocation procedures, accompanied by an explanation of the rationale or basis for such triggering criteria.
- 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.
- The drought contingency plan must include methods for determining the allocation of irrigation supplies to individual users.
- The drought contingency plan must include a description of the information to be monitored by the water supplier and the procedures to be followed for the initiation or termination of water allocation policies.

⁸ Information in this subsection was obtained from the Texas Administrative Code, specifically TAC Title 30 Part 1 Chapter 288 Subchapter A Rule 288.21

- The drought contingency plan must include procedures for use accounting during the implementation of water allocation policies.
- The drought contingency plan must include policies and procedures, if any, for the transfer of water allocations among individual users within the water supply system or to users outside the water supply system.
- The drought contingency plan must include procedures for the enforcement of water allocation policies, including specification of penalties for violations of such policies and for wasteful or excessive use of water.
- Wholesale water customers. Any irrigation 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.
- Protection of public water supplies. Any irrigation water supplier that also provides or delivers water to a public water supplier(s) shall consult with that public water supplier(s) and shall include in the plan, mutually agreeable and appropriate provisions to ensure an uninterrupted supply of water necessary for essential uses relating to public health and safety. Nothing in this provision shall be construed as requiring the irrigation water supplier to transfer irrigation water supplies to non-irrigation use on a compulsory basis or without just compensation.

Irrigation water users shall review and update, as appropriate, the drought contingency plan at least every five years, based on new or updated information such as adoption or revision of the Region H Regional Water Plan.

6.2.3 Wholesale Water Providers⁹

A drought contingency plan for a wholesale water provider should include at a minimum the following information:

- Preparation of the plan shall include provisions to actively inform the public, to affirmatively provide opportunity for user input in the preparation of the plan, and for informing wholesale customers about the plan. 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.
- The drought contingency plan must document coordination with the Region H Regional Water Planning Group for the service area of the wholesale water provider to ensure consistency with the Region H Regional Water Plan.
- 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

⁹ Information in this subsection was obtained from the Texas Administrative Code, specifically TAC Title 30 Part 1 Chapter 288 Subchapter A Rule 288.22

drought response stages, accompanied by an explanation of the rationale or basis for such triggering criteria.

- The drought contingency plan must include a minimum of three drought or emergency response stages providing for the implementation of measures in response to water supply conditions during a repeat of the drought-of-record.
- The drought contingency plan must include the procedures to be followed for the initiation or termination of drought response stages, including procedures for notification of wholesale customers regarding the initiation or termination of drought response stages.
- 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 paragraph are not enforceable.
- 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:
 - Pro rata curtailment of water deliveries to or diversions by wholesale water customers as provided in *Texas Water Code*, §11.039; and
 - Utilization of alternative water sources 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.).
- The drought contingency plan must include a provision in every wholesale water contract entered into or renewed after adoption of the plan, including contract extensions, that in case of a shortage of water resulting from drought, the water to be distributed shall be divided in accordance with *Texas Water Code*, §11.039.
- The drought contingency plan must include procedures for granting variances to the plan.
- The drought contingency plan must include procedures for the enforcement of any mandatory water use restrictions, including specification of penalties (e.g., liquidated damages, water rate surcharges, discontinuation of service) for violations of such restrictions.

The wholesale water provider shall notify the executive director within five business days of the implementation of any mandatory provisions of the drought contingency plan. The wholesale water provider shall review and update, as appropriate, the drought contingency plan at least every five years, based on new or updated information such as adoption or revision of the Region H Regional Water Plan.

**Model Water Conservation Plan Template
Municipal Uses**

Model Water Conservation Plan Template – Municipal Uses
Introduction and Background

Brief introduction describing WUG, its provided services, and general information.

1. Purpose

Purpose is to identify and establish principles, practices, and standards to effectively conserve and efficiently use available water supplies and water distribution system capacity.

Possibly provide historical annual average residential water demands and the goals for reductions in municipal demand included in the plan.

2. Location

General location of WUG and its service area

3. Customer Data

Population and Service Area Data

- Provide CCN certificate (if applicable) from TCEQ and service area map.
- Provide service area size in square miles.
- Provide current population of service area.
- Provide current population served by utility (water, wastewater, etc.).
- Provide population served by utility for previous five years.
- Provide projected population for service area for 2010, 2020, 2030, 2040, 2050.
- Provide source/method of calculating current and projected populations.

Active Connections

- Provide current number of active connections by user type and whether they are metered or not-metered (Metered Residential, Not-metered Residential, Metered Commercial, Not-metered Commercial, Metered Industrial, Not-metered Industrial, Metered Public, Not-metered Public, Metered Other, Not-metered Other).
- Provide net number of new connections/year for most recent three years by user type.

High Volume Customers

- Provide annual water use for five highest volume retail and wholesale customers indicating if treated or raw water delivery.

4. Water Use Data

Water Accounting Data

- Provide amount of water use monthly for previous five years in 1,000 gallons and indicate whether the water is raw water diverted or treated water distributed.
- Provide source/method of obtaining monthly water use for previous five years.
- Provide amount of water in 1,000 gallons delivered as recorded by user type (residential, commercial, industrial, wholesale, other).
- Provide previous five year records for unaccounted for water use.
- Provide previous five year records for annual peak-to-average daily use ratio.
- Provide municipal per capita water use for previous five years.
- Provide seasonal water use for previous five years (gpd).

Projected Water Demands

- Provide total water demand estimates for utility's planning horizon indicating data sources/methods for determining water demand.
- Discuss conservation measures already implemented, if any, including impacts of measures and methods of determination of impacts.

5. Water Supply System

Water Supply Sources

- Provide current water supply sources and amounts available for surface water, groundwater, contracts, and other.

Treatment and Distribution System

- Provide daily system capacity of treatment facilities.
- Provide storage capacity (elevated and ground).
- Provide description of water system including number of treatment plants, wells, storage tanks along with sketch or map of system.
- Provide estimates of time before additional facilities for supply, storage, and pumping will be needed without conservation measures.

6. Wastewater Utility System

Wastewater System Data

- Provide design capacity of wastewater treatment plant.
- Provide description of wastewater system in service area including TCEQ name, number of treatment plants, operator, owner, receiving stream of discharge if applicable.
- Provide sketch of plant and discharge point locations

Wastewater Data for Service Area

- Provide percent of water service area served by wastewater system.
- Provide monthly volume treated for previous three years.
- Provide quality information on treatment plant effluent for reuse applications.
- Determine ratio between treated water pumped and wastewater flow.

7. Utility Operating Data

Water and wastewater rates/ rate structure for all classes – provide list of rates
(Rates should be cost-based so that they do not promote the excessive use of water)

Other relevant data

8. Water Conservation Goals

Goals for municipal utilities established to maintain/reduce consumption measured in:

- Gallons per capita per day used
- Unaccounted for water uses
- Peak day to average day ratio
- Increase in reuse or recycling of water

TCEQ/TWDB will assess conservation goals based on whether the following is addressed:

- *Identification of a water/wastewater problem*
- *Completion of utility profile*
- *Selection of goals based on technical potential to save water as in utility profile*
- *Performance of cost-benefit analysis of strategies*

Complete following (in gpcd) to quantify conservation goals for utility's service area:

Estimation for reducing per capita water use:

- Reduction in unaccounted-for uses

- Reduction in indoor water use due to water-conserving plumbing fixtures
- Reduction in seasonal use
- Reduction in water use due to public education program

Planning goal (Specific quantified five and ten year targets for water savings to include goals for water loss programs and goals for municipal use, in gallons per capita day)

A schedule for implementing the plan to achieve the applicant's targets and goals

Needed reduction in per capita to meet planning goal

9. Water Conservation Plan Elements – Other Programs/BMPs That Should be Part of the Conservation Plan

Supplier:

A method for tracking the implementation and effectiveness of the plan

Metering Program

- A master meter(s) to measure and account for the amount of water diverted from the source of supply
- A program for universal metering of both customer and public uses of water, for meter testing and repair, and for periodic meter replacement)

Measures to Determine and Control Unaccounted for Water

- Measures to determine and control unaccounted-for uses of water (e.g., periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections, abandoned services, etc.)

Leak Detection and Repair (a program for leak detection, repair, and water loss accounting for the water transmission, delivery, and distribution system in order to control unaccounted-for uses of water)

Reservoir System Operating Plan

Customer:

Education Programs

- Media Campaign
- School Programs
- Public Exhibitions

Water Rate Structure

Examples of programs/BMPs that could be considered
Supplier:

- Plumbing and Landscape Ordinances
- Toilet Replacement/Rebates
- Clothes Washer Replacement/Rebates
- Hot-on-demand Rebate – circulating pumps installed to reduce water waste while waiting for the water to get warm
- Refrigerated Air Conditioning Cash Rebate
- Rain Barrel Rebate
- Rainwater Harvesting Program
- Efficient Irrigation Rebate

Customer:

- Reuse and Recycling of Wastewater and Graywater

10. Regional Water Planning and Coordination

Being located within Region H, a copy of this plan has been provided to the Region H Regional Water Planning Group.

11. Authority and Adoption

- Means of implementation and enforcement

**Model Water Conservation Plan Template
Industrial and Mining Uses**

***Model Water Conservation Plan Template – Industrial and Mining Uses
Introduction and Background***

Brief introduction describing WUG, its provided services, and general information.

1. Purpose

Purpose is to identify and establish principles, practices, and standards to effectively conserve and efficiently use available water supplies and water distribution system capacity.

Possibly provide historical annual average Industrial or Mining water demands and the goals for industrial or mining water demand reduction included in the plan. (The water conservation plan 5- and 10-year targets should be discussed in *Section 1.4 – Water Conservation Plan Goals*).

2. Location

General location of WUG and its service area

3. Water Use Data

Water Accounting Data

- Description of the use of the water in the production process, including how the water is diverted and transported from the source(s) of supply, how the water is utilized in the production process, and estimated quantity of water consumed in the production process and therefore unavailable for reuse, discharge, or other means of disposal.

Projected Water Demands

- Provide total water demand estimates for utility's planning horizon indicating data sources/methods for determining water demand.
- Discuss conservation measures already implemented, if any, including impacts of measures and methods of determination of impacts.

4. Water Conservation Goals

Planning goal (Specific quantified five and ten year targets for water savings to include goals for water loss programs and goals for industrial and mining uses).

A schedule for implementing the plan to achieve the applicant's targets and goals.

Needed reduction in gallons per day (gpd) to meet planning goal.

5. Water Conservation Plan Elements –Other Programs/BMPs that should be part of the conservation plan

A method for tracking the implementation and effectiveness of the plan

Metering Program

- A master meter(s) (accurate to within plus or minus 5 percent) to measure and account for the amount of water diverted from the supply source

Measures to Determine and Control Unaccounted for Water

- Measures to determine and control unaccounted-for uses of water (e.g., periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections, abandoned services, etc.)

Leak Detection and Repair (a program for leak detection, repair, and water loss accounting for the water transmission, delivery, and distribution system in order to control unaccounted-for uses of water)

List any application of state-of-the-art equipment and/or process modifications to improve water use efficiency

Examples of programs/BMPs that could be considered in achieving the conservation goals:

- Industrial Water Audit
- Industrial Water Waste Reduction
- Industrial Submetering
- Cooling Towers
- Cooling Systems (other than cooling towers)
- Industrial Alternative Sources and Reuse of Process Water
- Rinsing/Cleaning
- Water Treatment
- Boiler and Steam Systems
- Refrigeration (including chilled water)
- Once through Cooling
- Management and Employee Programs
- Industrial Landscape
- Industrial Site Specific Conservation

6. Regional Water Planning and Coordination

Beginning May 1, 2005, an industrial or mining water user shall review and update its water conservation plan, as appropriate, based on an assessment of previous five-year and ten-year targets and any other new or updated information. The industrial or mining water user shall review and update the plan with the next revision of this water conservation plan coinciding with the Region H regional water planning process.

**Model Water Conservation Plan Template
Agricultural Uses**

Model Water Conservation Plan Template – Agricultural Uses
Introduction and Background

Brief introduction describing WUG, its provided services, and general information

1. Purpose

Purpose is to identify and establish principles, practices, and standards to effectively conserve and efficiently use available water supplies and water distribution system capacity.

Possibly provide historical annual average agricultural water demands and the goals for reduction in agricultural water demand included in the plan.

2. Location and General Information

General location of WUG and its service area

System Providing Agricultural Water to More Than One User

- System Inventory for the Suppliers facilities including water storage, conveyance, and delivery structures. Also discuss the operating practices and rules as well as water pricing policy. Accounting practices for the water should be briefly discussed.
- User profile including square miles of the service area, the number of customers taking delivery of water by the system, the types of crops, the types of irrigation systems, the types of drainage systems, and total acreage under irrigation, both historical and projected.

3. Water Use Data

Water Accounting Data

Agricultural User Other than Irrigation

- Description of the use of the water in the production process, including how the water diverted and transported from the source(s) of supply, how the water is utilized in the production process, and estimated quantity of water consumed in the production process and therefore unavailable for reuse, discharge, or other means of disposal.

Individual Irrigation User

- Description of the irrigation production process, including type of crops to be irrigated, monthly irrigation diversions, any seasonal or annual crop rotation, and soil types of the land to be irrigated.
- A description of the irrigation method or delivery system and equipment including pumps, flow rates, plans, and/or schematics of the system layout.

All Agricultural Users

Projected Water Demands

- Provide total water demand estimates for utility's planning horizon indicating data sources/methods for determining water demand
- Discuss conservation measures already implemented, if any, including impacts of measures and methods for determination of impacts.

4. Water Conservation Goals

All Agricultural Users

- Planning goal (Specific, quantified five-year and ten-year targets for water savings including, where appropriate, quantitative goals for irrigation/agricultural water use efficiency and a pollution abatement and prevention plan. The targets established by a water user under this section are not enforceable.

5. Water Conservation Plan Elements –Other Programs/BMPs That Should be Part of the Conservation Plan

All Agricultural Users

- A method for tracking the implementation and effectiveness of the plan
- Metering Program
 - A master meter(s) or other **device/method** (accurate to within +/- 5 percent) to measure and account for the amount of water diverted from the source of supply.
- Measures to Determine and Control Unaccounted for Water
 - Measures to determine and control unaccounted-for uses of water (e.g., periodic visual inspections along distribution lines and canals; annual or monthly audit of the water system to determine illegal connections, abandoned services, etc.)
- Leak Detection and Repair (a program for leak detection, repair, and water loss accounting for the water transmission, delivery, and distribution system in order to control unaccounted-for uses of water)

Agricultural User Other than Irrigation

- List any application of state-of-the-art equipment and/or process modifications to improve water use efficiency

- Any other water conservation practice, method, or technique which the user shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

Individual Irrigation User

- Water-conserving irrigation equipment and application system or method including surge irrigation, low-pressure sprinkler, lining of on-farm irrigation ditches, and non-leaking pipe are a few examples of equipment to aid in conservation. List all conservation measures utilized to conserve water.
- Scheduling the timing and/or measuring the amount of water applied (e.g., soil moisture monitoring, etc.)
- Land improvements for retaining or reducing runoff, and increasing the infiltration of rain and irrigation water including, but not limited to, land leveling, furrow diking, terracing, and weed control
- Tailwater recovery and reuse
- Any other water conservation practice, method, or technique which the user shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

System Providing Agricultural Water to more than one User

- Monitoring and record management program of water deliveries, sales, and loses.
- A program to assist customers in the development of on-farm water conservation and pollution prevention plans and/or measures.
- Any other water conservation practice, method, or technique which the user shows to be appropriate for achieving the stated goal or goals of the water conservation plan. Lining of district irrigation canals and replacement of canals with pipelines are a few examples of measures to aid in conservation.
- The customers of the agricultural water provider should also develop a water conservation plan or implement water conservation measures.

6. Regional Water Planning and Coordination

System Providing Agricultural Water to more than one User

- Beginning May 1, 2005, an agricultural water user shall review and update its water conservation plan, as appropriate, based on an assessment of previous five-year and ten-year targets and any other new or updated information. The industrial or mining water user shall review and update the plan with the next revision of this water conservation plan coinciding with the regional water planning process.

7. Adoption of Plan

Official adoption of the water conservation plan and goals, by ordinance, rule, resolution, or tariff, indicating that the plan reflects official policy.

A review and update of this plan should occur in conjunction with the regional water planning groups update of the Region H Water Plan as well as modify the five and ten-year targets modified as necessary.

Model Water Conservation Plan Template
Wholesale Water Providers

***Model Water Conservation Plan Template – Wholesale Water Providers
Introduction and Background***

Brief introduction describing WWP, its provided services, and general information.

1. Purpose

Purpose is to identify and establish principles, practices, and standards to effectively conserve and efficiently use available water supplies and water distribution system capacity.

Possibly provide historical annual average residential water demands and the goals for reduction in water demands included in the plan.

2. Location

General location of WWP and its service area

3. Customer Data

Population and Service Area Data

- Provide CCN certificate from TCEQ and service area map
- Provide service area size in square miles
- Provide current population of service area
- Provide current population served by utility (water, wastewater, etc.)
- Provide population served by utility for previous five years
- Provide projected population for service area for 2010, 2020, 2030, 2040, 2050
- Provide source/method of calculating current and projected populations

Active Connections

- Provide current number of active connections by user type and whether they are metered or not-metered (Metered Residential, Not-metered Residential, Metered Commercial, Not-metered Commercial, Metered Industrial, Not-metered Industrial, Metered Public, Not-metered Public, Metered Other, Not-metered Other)
- Provide net number of new connections/year for most recent three years by user type

High Volume Customers

- Provide annual water use for five highest volume retail and wholesale customers indicating if treated or raw water delivery

4. Water Use Data

Water Accounting Data

- Provide amount of water use monthly for previous five years in 1,000 gallons and indicate whether the water is raw water diverted or treated water distributed
- Provide source/method of obtaining monthly water use for previous five years
- Provide amount of water in 1,000 gallons delivered as recorded by user type (residential, commercial, industrial, wholesale, other)
- Provide previous five year records for unaccounted for water use
- Provide previous five year records for annual peak-to-average daily use ratio
- Provide municipal per capita water use for previous five years
- Provide seasonal water use for previous five years (gpd)

Projected Water Demands

- Provide total water demand estimates for utility's planning horizon indicating data sources/methods for determining water demand
- Discuss conservation measures already implemented, if any, including impacts of measures and methods of determination of impacts.

5. Water Supply System

Water Supply Sources

- Provide current water supply sources and amounts available for surface water, groundwater, contracts, and other

Treatment and Distribution System

- Provide design daily system capacity
- Provide storage capacity (elevated and ground)
- Provide description of water system including number of treatment plants, wells, storage tanks along with sketch of system
- Provide estimates of time before additional facilities for supply, storage, and pumping will be needed without conservation measures.

6. Wastewater Utility System

Wastewater System Data

- Provide design capacity of wastewater treatment plant
- Provide description of wastewater system in service area including TCEQ name, number of treatment plants, operator, owner, receiving stream of discharge if applicable.
- Provide sketch of plant and discharge point locations

Wastewater Data for Service Area

- Provide percent of water service area served by wastewater system
- Provide monthly volume treated for previous three years
- Provide quality information on treatment plant effluent for reuse applications
- Determine ratio between treated water pumped and wastewater flow

7. Utility Operating Data

Water and wastewater rates/ rate structure for all classes – provide list of rates
(Rates should be cost-based so that they do not promote the excessive use of water)
Other relevant data

8. Water Conservation Goals

Goals for WWPs established to maintain/reduce consumption measured in

- Gallons per capita per day used
- Unaccounted for water uses
- Peak day to average day ratio
- Increase in reuse or recycling of water

TCEQ/TWDB will assess conservation goals based on whether the following is addressed:

- Identification of a water/wastewater problem
- Completion of utility profile
- Selection of goals based on technical potential to save water as in utility profile
- Performance of cost-benefit analysis of strategies

Complete following (in gpcd) to quantify conservation goals for WWP's service area:

- Estimation for reducing per capita water use:
 - Reduction in unaccounted-for uses
 - Reduction in indoor water use due to water-conserving plumbing fixtures
 - Reduction in seasonal use
 - Reduction in water use due to public education program
- Planning goal (Specific quantified five and ten year targets for water savings to include goals for water loss programs and goals for municipal use, in gallons per capita day)
- A schedule for implementing the plan to achieve the applicant's targets and goals
- Needed reduction in per capita to meet planning goal

9. Water Conservation Plan Elements – Other Programs/BMPs That Should be Part of the Conservation Plan

Supplier:

- A method for tracking the implementation and effectiveness of the plan
- Metering Program
 - A master meter(s) to measure and account for the amount of water diverted from the source of supply
- Measures to Determine and Control Unaccounted for Water
 - Measures to determine and control unaccounted-for uses of water (e.g., periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections, abandoned services, etc.)
- Leak Detection and Repair (a program for leak detection, repair, and water loss accounting for the water storage, delivery, and distribution system in order to control unaccounted-for uses of water)
- Reservoir System Operating Plan
 - Water Rate Structure (should be conservation oriented)

- Program to assist agricultural customers in the development of conservation pollution prevention and abatement plans.
- Program for Reuse and Recycling of Wastewater and Greywater (if not feasible explain why)
- Any other conservation measure which the WWP shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

10. Regional Water Planning and Coordination

11. Authority and Adoption

Means of implementation and enforcement

Model Drought Contingency Plan Template
Utility / Water Supplier

Model Drought Contingency Plan Template (Utility / Water Supplier)
Brief Introduction and Background

Include information such as

- Name of Utility
- Address, City, Zip Code
- CCN#
- PWS #s

Section 1 Declaration of Policy, Purpose, and Intent

In cases of extreme drought, periods of abnormally high usage, system contamination, or extended reduction in ability to supply water due to equipment failure, temporary restrictions may be instituted to limit nonessential water usage. The purpose of the Drought Contingency Plan (Plan) is to encourage customer conservation in order to maintain supply, storage, or pressure or to comply with the requirements of a court, government agency or other authority.

Water uses regulated or prohibited under this Drought Contingency 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 defined in *Section 6* of this plan.

(Please note: Water restriction is not a legitimate alternative if a water system does not meet the Texas Commission on Environmental Quality (TCEQ) capacity requirements under normal conditions **or** if the utility fails to take all immediate and necessary steps to replace or repair malfunctioning equipment.)

Section 2 Public Involvement

Opportunity for the public to provide input into the preparation of the Plan was provided by the _____ (name of utility/water supplier) by means of _____ (describe methods used to inform the public about the preparation of the plan and provide opportunities for input; see below for examples)

- *Scheduling and providing public notice of a public meeting to accept input on the Plan*

The meeting took place at:

Date: _____

Time: _____

Location: _____

- *Mailed survey with summary of results (attach survey and results)*
 - *Bill insert inviting comment (attach bill insert)*
 - *Other method*
-

Section 3 Public Education

_____ (*name of utility/name of supplier*) will periodically provide the public with information about the Plan, including information about the conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage.

Drought plan information will be provided by:
(Check at least one of the following)

- Public meeting*
- Press releases*
- Utility bill inserts*
- Other* _____

Section 4 Coordination with Regional Water Planning Groups

The service area of the _____ (*name of your utility/water supplier*) is located within Region H. _____ (*name of your utility/water supplier*) has mailed a copy of this Plan to the Region H Regional Water Planning Group.

Section 5 Notice Requirements

Written notice will be provided to each customer **prior to implementation or termination of each stage of the water restriction program**. Mailed notice must be given to each customer 72 hours prior to the start of water restriction. If notice is hand delivered, the utility cannot enforce the provisions of the plan for 24 hours after notice is provided. The written notice to customers will contain the following information:

- the date restrictions will begin,
- the circumstances that triggered the restrictions,
- the stages of response and explanation of the restrictions to be implemented, and,
- an explanation of the consequences for violations.

The utility must notify the TCEQ by telephone at (512) 239-4691, or electronic mail at watermon@tceq.state.tx.us prior to implementing Stage III and must notify in writing the Public Drinking Water Section at MC - 155, P.O. Box 13087, Austin, Texas 78711-3087 within five (5) working days of implementation including a copy of the utility's restriction notice. The utility must file a status report of its restriction program with the TCEQ at the initiation and termination of mandatory water use restrictions (i.e., Stages III and IV).

Section 6 Violations

First violation - The customer will be notified by written notice of their specific violation.

Subsequent violations:

After written notice, the utility may install a flow restricting device in the line to limit the amount of water which will pass through the meter in a 24-hour period. The utility may charge the customer for the actual cost of installing and removing the flow restricting device, not to exceed \$50.00.

After written notice, the utility may discontinue service at the meter for a period of seven (7) days, or until the end of the calendar month, whichever is LESS. The normal reconnect fee of the utility will apply for restoration of service.

Section 7 Exemptions or Variances

The utility may grant any customer an exemption or variance from the drought contingency plan for good cause **upon written request**. A customer who is refused an exemption or variance may appeal such action of the utility in writing to the Texas Commission on Environmental Quality. The utility will treat all customers equally concerning exemptions and variances, and shall not discriminate in granting exemptions and variances. No exemption or variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance.

Section 8 Response Stages

Unless there is an immediate and extreme reduction in water production, or other absolute necessity to declare an emergency or severe condition, the utility will initially declare Stage I restrictions. If, after a reasonable period of time, demand is not reduced enough to alleviate outages, reduce the risk of outages, or comply with restrictions required by a court, government agency or other authority, Stage II may be implemented with Stage III to follow if necessary.

STAGE I - CUSTOMER AWARENESS

Stage I will begin:

Every April 1st, the utility will mail a public announcement to its customers. No notice to TCEQ required.

Stage I will end:

Every September 30th, the utility will mail a public announcement to it's customers. No notice to TCEQ required.

Utility Measures:

This announcement will be designed to increase customer awareness of water conservation and encourage the most efficient use of water. A copy of the current public

announcement on water conservation awareness shall be kept on file available for inspection by the TCEQ.

Voluntary Water Use Restrictions:

Water customers are requested to voluntarily limit the use of water for nonessential purposes and to practice water conservation.

STAGE II - VOLUNTARY WATER CONSERVATION:

Target: Achieve a _____ percent reduction in _____ (example: total water use, daily water demand, etc.)

The water utility will implement Stage II when any one of the selected triggers is reached:

Supply-Based Triggers: (check at least one and fill in the appropriate value)

- Well level reaches _____ ft. mean sea level (m.s.l.)
- Overnight recovery rate reaches _____ ft.
- Reservoir elevation reaches _____ ft. (m.s.l.)
- Stream flow reaches _____ cfs at USGS gage # _____
- Wholesale supplier's drought Stage II _____
- Annual water use equals _____ % of well permit/Water Right/purchased water contract amount
- Other _____

Demand- or Capacity-Based Triggers: (check at least one and fill in the appropriate value)

- Drinking water treatment as % of capacity _____ %
- Total daily demand as % of pumping capacity _____ %
- Total daily demand as % of storage capacity _____ %
- Pump hours per day _____ hrs.
- Production or distribution limitations
- Other _____

Upon initiation and termination of Stage II, the utility will mail a public announcement to its customers. No notice to TCEQ required.

Requirements for Termination:

Stage II of the Plan may end when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days. Upon termination of Stage II, Stage I becomes operative.

Utility Measures:

Visually inspect lines and repair leaks on a daily basis. Monthly review of customer use records and follow-up on any that have unusually high usage.

Describe additional measures, if any, to be implemented directly by the utility to manage limited water supplies and/or reduce water demand. Examples include: reduced or discontinued flushing of water mains, activation and use of an alternative supply source(s); use of reclaimed water for non-potable purposes.

The second water source for _____ (name of utility) is:

(check one)

- Other well
- Inter-connection with other system
- Purchased water
- Other

Voluntary Water Use Restrictions:

Restricted Hours: Outside watering is allowed daily, but only during periods specifically described in the customer notice; between 10:00 p.m. and 5:00 a.m. for example;

Restricted Days/Hours: Water customers are requested to voluntarily limit the irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems. Customers are requested to limit outdoor water use to **Mondays for water customers with a street address ending with the numbers 1, 2, or 3, Wednesdays for water customers with a street address ending with the numbers 4, 5, or 6, and Fridays for water customers with a street address ending with the numbers 7, 8, 9, or 0.** Irrigation of landscaped areas is further limited to the hours of 12:00 midnight until 10:00 a.m. and between 8:00 p.m. and 12:00 midnight on designated watering days. However, irrigation of landscaped areas is permitted at anytime if it is by means of a hand-held hose, a faucet-filled bucket or watering can of five (5) gallons or less, or drip irrigation system; or Other uses that waste water such as water running down the gutter.

STAGE III - MANDATORY WATER USE RESTRICTIONS:

Target: Achieve a _____ percent reduction in _____ (example: total water use, daily water demand, etc.)

The water utility will implement Stage III when any one of the selected triggers is reached:

Supply-Based Triggers: (check at least one and fill in the appropriate value)

**Region H Water Planning Group
2006 Regional Water Plan**

- Well level reaches _____ ft. (m.s.l.)
- Overnight recovery rate reaches _____ ft.
- Reservoir elevation reaches _____ ft. (m.s.l.)
- Stream flow reaches _____ cfs at USGS gage # _____
- Wholesale supplier's drought Stage III

- Annual water use equals _____ % of well permit/Water Right/purchased water contract amount
- Other _____

Demand- or Capacity-Based Triggers: (check at least one and fill in the appropriate value)

- Drinking water treatment as % of capacity _____ %
- Total daily demand as % of pumping capacity _____ %
- Total daily demand as % of storage capacity _____ %
- Pump hours per day _____ hrs.
- Production or distribution limitations
- Other _____

Upon initiation and termination of Stage III, the utility will mail a public announcement to its customers. Notice to TCEQ required.

Requirements for Termination:

Stage III of the Plan may end when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days. Upon termination of Stage III, Stage II becomes operative.

Utility Measures:

Visually inspect lines and repair leaks on a regular basis. Flushing is prohibited except for dead end mains.

Describe additional measures, if any, to be implemented directly by the utility to manage limited water supplies and/or reduce water demand. Examples include: activation and use of an alternative supply source(s); use of reclaimed water for non-potable purposes; offering low-flow fixtures and water restrictors.

Mandatory Water Use Restrictions:

The following water use restrictions shall apply to all customers.

1. Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems **shall be limited to Mondays for water customers with a street address ending with the numbers 1, 2, or 3, Wednesdays for water customers with a street address ending with the numbers 4, 5, or 6, and Fridays for water customers with a street address ending with the numbers 7, 8, 9, or 0.** Irrigation of landscaped areas is further limited to the hours of 12:00 midnight until 10:00 a.m. and between 8:00 p.m. and 12:00 midnight on designated watering days. However, irrigation of landscaped areas is permitted at anytime if it is by means of a hand-held hose, a faucet-filled bucket or watering can of five (5) gallons or less, or drip irrigation system.
2. Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is prohibited except on designated watering days between the hours of 12:00 midnight and 10:00 a.m. and between 8:00 p.m. and 12:00 midnight. Such washing, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rinses. Vehicle washing may be done at any time on the immediate premises of a commercial car wash or commercial service station. Further, such washing may be exempted from these regulations if the health, safety, and welfare of the public are contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables.
3. Use of water to fill, refill, or add to any indoor or outdoor swimming pools, wading pools, or “jacuzzi” type pool is prohibited except on designated watering days between the hours of 12:00 midnight and 10:00 a.m. and between 8:00 p.m. and 12:00 midnight.
4. Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system.
7. Use of water from hydrants or flush valves shall be limited to maintaining public health, safety, and welfare.
6. Use of water for the irrigation of golf courses, parks, and green belt area is prohibited except by hand-held hose and only on designated watering days between the hours 12:00 midnight and 10:00 a.m. and between 8:00 p.m. and 12:00 midnight.
7. The following uses of water are defined as nonessential and are prohibited:
 - a. wash down of any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;

- b. use of water to wash down buildings or structures for purposes other than immediate fire protection;
- c. use of potable water for dust control;
- d. flushing gutters or permitting water to run or accumulate in any gutter or street;
- e. failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s); and
- f. any waste of water.

STAGE IV - CRITICAL WATER USE RESTRICTIONS:

Target: Achieve a _____ percent reduction in _____ (example: total water use, daily water demand, etc.)

The water utility will implement Stage IV when any one of the selected triggers is reached:

Supply-Based Triggers: (check at least one and fill in the appropriate value)

- Well level reaches _____ ft. (m.s.l.)
- Overnight recovery rate reaches _____ ft.
- Reservoir elevation reaches _____ ft. (m.s.l.)
- Stream flow reaches _____ cfs at USGS gage # _____
- Wholesale supplier's drought Stage IV

- Annual water use equals _____ % of well permit/Water Right/purchased water contract amount
- Supply contamination
- Other _____

Demand- or Capacity-Based Triggers: (check at least one and fill in the appropriate value)

- Drinking water treatment as % of capacity _____ %
- Total daily demand as % of pumping capacity _____ %
- Total daily demand as % of storage capacity _____ %
- Pump hours per day _____ hrs.
- Production or distribution limitations
- System outage
- Other _____

Upon initiation and termination of Stage IV, the utility will mail a public announcement to its customers. Notice to TCEQ required.

Requirements for Termination:

Stage IV of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days. Upon termination of Stage IV, Stage III becomes operative.

Operational Measures:

The utility shall visually inspect lines and repair leaks on a daily basis. Flushing is prohibited except for dead end mains and only between the hours of 9:00 p.m. and 3:00 a.m. Emergency interconnects or alternative supply arrangements shall be initiated. All meters shall be read as often as necessary to insure compliance with this program for the benefit of all the customers. *Describe additional measures, if any, to be implemented directly to manage limited water supplies and/or reduce water demand.*

Mandatory Water Use Restrictions: (all outdoor use of water is prohibited)

1. Irrigation of landscaped areas is absolutely prohibited.
2. Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is absolutely prohibited.

SYSTEM OUTAGE or SUPPLY CONTAMINATION

Notify TCEQ Regional Office immediately.

**EXAMPLE RESOLUTION FOR ADOPTION OF A
DROUGHT CONTINGENCY PLAN**

RESOLUTION NO. _____

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE
_____ (name of water supplier) ADOPTING A
DROUGHT CONTINGENCY PLAN.

WHEREAS, the Board recognizes that the amount of water available to the _____
(name of water supplier) and its water utility customers are limited and subject to depletion
during periods of extended drought;

WHEREAS, the Board recognizes that natural limitations due to drought conditions and other
acts of God cannot guarantee an uninterrupted water supply for all purposes;

WHEREAS, Section 11.1272 of the Texas Water Code and applicable rules of the Texas
Commission on Environmental Quality require all public water supply systems in Texas to
prepare a drought contingency plan; and

WHEREAS, as authorized under law, and in the best interests of the customers of the
_____ (name of water supply system), the Board deems it expedient and necessary
to establish certain rules and policies for the orderly and efficient management of limited water
supplies during drought and other water supply emergencies;

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE
_____ (name of water supplier):

SECTION 1. That the Drought Contingency Plan attached hereto as Exhibit "A" and
made part hereof for all purposes be, and the same is hereby, adopted as the official policy of the
_____ (name of water supplier).

SECTION 2. That the _____ (e.g., general manager) is hereby directed to
implement, administer, and enforce the Drought Contingency Plan.

SECTION 3. That this resolution shall take effect immediately upon its passage.

DULY PASSED BY THE BOARD OF DIRECTORS OF THE _____, ON THIS ___
day of _____, 20__.

President, Board of Directors

ATTESTED TO:

Secretary, Board of Directors

**Model Drought Contingency Plan Template
Irrigation Uses**

Model Drought Contingency Plan Template (Irrigation Uses)

DROUGHT CONTINGENCY PLAN

FOR

(Name of irrigation district)

(Date)

Section 1: Declaration of Policy, Purpose, and Intent

The Board of Directors of the _____ (name of irrigation district) deems it to be in the interest of the District to adopt Rules and Regulations governing the equitable and efficient allocation of limited water supplies during times of shortage. These Rules and Regulations constitute the District's drought contingency plan required under Section 11.1272, Texas Water Code, *Vernon's Texas Codes Annotated*, and associated administrative rules of the Texas Commission on Environmental Quality (Title 30, Texas Administrative Code, Chapter 288).

Section 2: User Involvement

Opportunity for users of water from the _____ (name of irrigation district) was provided by means of _____ (describe methods used to inform water users about the preparation of the plan and opportunities for input; for example, scheduling and providing notice of a public meeting to accept user input on the plan).

Section 3: User Education

The _____ (name of irrigation district) will periodically provide water users with information about the Plan, including information about the conditions under which water allocation is to be initiated or terminated and the district's policies and procedures for water allocation. This information will be provided by means of _____ (e.g. describe methods to be used to provide water users with information about the Plan; for example, by providing copies of the Plan and by posting water allocation rules and regulations on the district's public bulletin board).

Section 4: Authorization

The _____ (e.g., general manager) is hereby authorized and directed to implement the applicable provision of the Plan upon determination by the Board that such implementation is necessary to ensure the equitable and efficient allocation of limited water supplies during times of shortage.

Section 5: Application

The provisions for the Plan shall apply to all persons utilizing water provided by the _____ (name of irrigation district). The term "person" as used in the Plan includes individuals, corporations, partnerships, associations, and all other legal entities.

Section 6: Initiation of Water Allocation

The _____ (designated official) shall monitor water supply conditions on a _____ (e.g. weekly, monthly) basis and shall make recommendations to the Board regarding irrigation of water allocation. Upon approval of the Board, water allocation will become effective when _____ (describe the criteria and the basis for the criteria):

Below are examples of the types of triggering criteria that might be used; singly or in combination, in an irrigation district’s drought contingency plan:

Example 1: Water in storage in the _____ (name of reservoir) is equal to or less than _____ (acre-feet and/or percentage of storage capacity).

Example 2: Combined storage in the _____ (name or reservoirs) reservoir system is equal to or less than _____ (acre-feet and/or percentage of storage capacity).

Example 3: Flows as measured by the U.S. Geological Survey gage on the _____ (name of reservoir) near _____, Texas reaches ____ cubic feet per second (cfs).

Example 4: The storage balance in the district’s irrigation water rights account reaches _____ acre-feet.

Example 5: The storage balance in the district’s irrigation water rights account reaches an amount equivalent to _____ (number) irrigations for each flat rate acre in which all flat rate assessments are paid and current.

Example 6: The _____ (name of entity supplying water to the irrigation district) notifies the district that water deliveries will be limited to _____ acre-feet per year (i.e. a level below that required for unrestricted irrigation).

Section 7: Termination of Water Allocation

The district’s water allocation policies will remain in effect until the conditions defined in Section IV of the Plan no longer exist and the Board deems that the need to allocate water no longer exists.

Section 8: Notice

Notice of the initiation of water allocation will be given by notice posted on the District’s public bulletin board and by mail to each _____ (e.g. landowner, holders of active irrigation accounts, etc.).

Section 9: Water Allocation

(a) In identifying **specific, quantified targets** for water allocation to be achieved during periods of water shortages and drought, each irrigation user shall be allocated _____ irrigations or _____ acre-feet of water each flat rate acre on which all taxes, fees, and charges have been paid. The water allotment in each irrigation account will be expressed in acre-feet of water.

Include explanation of water allocation procedure. For example, in the Lower Rio Grande Valley, an “irrigation” is typically considered to be equivalent to eight (8) inches of water per irrigation acre; consisting of six (6) inches of water per acre applied plus two (2) inches of water lost in transporting the water from the river to the land.

Thus, three irrigations would be equal to 24 inches of water per acre or an allocation of 2.0 acre-feet of water measured at the diversion from the river.

(b) As additional water supplies become available to the District in an amount reasonably sufficient for allocation to the District's irrigation users, the additional water made available to the District will be equally distributed, on a pro rata basis, to those irrigation users having _____.

Example 1: An account balance of less than _____ irrigations for each flat rate acre (i.e. _____ acre-feet).

Example 2: An account balance of less than _____ acre-feet of water for each flat rate acre.

Example 3: An account balance of less than _____ acre-feet of water.

(c) The amount of water charged against a user's water allocation will be _____ (e.g. eight inches) per irrigation, or one allocation unit, unless water deliveries to the land are metered. Metered water deliveries will be charges based on actual measured use. In order to maintain parity in charging use against a water allocation between non-metered and metered deliveries, a loss factor of _____ percent of the water delivered in a metered situation will be added to the measured use and will be charged against the users water allocation. Any metered use, with the loss factor applied, that is less than eight (8) inches per acre shall be credited back to the allocation unit and will be available to the user. It shall be a violation of the Rules and Regulations for a water user to use water in excess of the amount of water contained in the users irrigation account. (d) Acreage in an irrigation account that has not been irrigated for any reason within the last two (2) consecutive years will be considered inactive and will not be allocated water. Any landowner whose land has not been irrigated within the last two (2) consecutive years, may, upon application to the District expressing intent to irrigate the land, receive future allocations. However, irrigation water allocated shall be applied only upon the acreage to which it was allocated and such water allotment cannot be transferred until there have been two consecutive years of use.

Section 10: Transfers of Allotments

- (a) A water allocation in an active irrigation account may be transferred within the boundaries of the District from one irrigation account to another. The transfer of water can only be made by the landowner's agent who is authorized in writing to act on behalf of the landowner in the transfer of all or part of the water allocation from the described land of the landowner covered by the irrigation account.
- (b) A water allocation may not be transferred to land owned by a landowner outside the District boundaries. **Or** A water allocation may be transferred to land outside the District's boundaries by paying the current water charge as if the water was actually delivered by the District to the land covered by an irrigation account. The amount of water allowed to be transferred shall be stated in terms of acre-feet and deducted from the landowner's current allocation balance in the irrigation account. Transfers

of water outside the District shall not affect the allocation of water under Section VII of these Rules and Regulations.

- (c) Water from outside the District may not be transferred by a landowner for use within the District. **Or** Water from outside the District may be transferred by a landowner for use within the District. The District will divert and deliver the water on the same basis as District water is delivered, except that a ___ percent conveyance loss will be charged against the amount of water transferred for use in the District as the water is delivered.

Section 11: Penalties

Any person who willfully opens, closes, changes or interferes with any headgate or uses water in violation of these Rules and Regulations, shall be considered in violation of Section 11.0083, Texas Water Code, *Vernon's Texas Codes Annotated*, which provides for punishment by fine of not less than \$10.00 nor more than \$200.00 or by confinement in the county jail for not more than thirty (30) days, or both, for each violation, and these penalties provided by the laws of the State and may be enforced by complaints filed in the appropriate court jurisdiction in _____ County, all in accordance with Section 11.083; and in addition, the District may pursue a civil remedy in the way of damages and/or injunction against the violation of any of the foregoing Rules and Regulations.

Section 12: Severability

It is hereby declared to be the intention of the Board of Directors of the _____ (name of irrigation district) that the sections, paragraphs, sentences, clauses, and phrases of this Plan shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Plan, since the same would not have been enacted by the Board without the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph, or section.

Section 13: Authority

The foregoing rules and regulations are adopted pursuant to and in accordance with *Sections 11.039, 11.083, 11.1272; Section 49.004; and Section 58.127-130 of the Texas Water Code, Vernon's Texas Codes Annotated.*

Section 14: Effective Date of Plan

The effective date of this Rule shall be five (5) days following the date of Publication hereof and ignorance of the Rules and Regulations is not a defense for a prosecution for enforcement of the violation of the Rules and Regulations.

**EXAMPLE RESOLUTION FOR ADOPTION OF A
DROUGHT CONTINGENCY PLAN
RESOLUTION NO. _____**

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE _____ (Name of water supplier) ADOPTING A DROUGHT CONTINGENCY PLAN. WHEREAS, the Board recognizes that the amount of water available to the _____ (name of water supplier) and its water utility customers is limited and subject to depletion during periods of extended drought; WHEREAS, the Board recognizes that natural limitations due to drought conditions and other acts of God cannot guarantee an uninterrupted water supply for all purposes; WHEREAS, Section 11.1272 of the Texas Water Code and applicable rules of the Texas Commission on Environmental Quality require all public water supply systems in Texas to prepare a drought contingency plan; And WHEREAS, as authorized under law, and in the best interests of the customers of the _____ (name of water supply system), the Board deems it expedient and necessary to establish certain rules and policies for the orderly and efficient management of limited water supplies during drought and other water supply emergencies;

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE _____ (name of water supplier):

SECTION 1. That the Drought Contingency Plan attached hereto as Exhibit AA @ and made part hereof for all purposes be, and the same is hereby, adopted as the official policy of the _____ (name of water supplier).

SECTION 2. That the _____ (e.g., general manager) is hereby directed to implement, administer, and enforce the Drought Contingency Plan.

SECTION 3. That this resolution shall take effect immediately upon its passage.

DULY PASSED BY THE BOARD OF DIRECTORS OF THE _____, ON THIS ___ day of _____, 20__.

President, Board of Directors
ATTESTED TO:

Secretary, Board of Directors

**Model Drought Contingency Plan Template
Wholesale Water Providers**

Model Drought Contingency Plan Template (Wholesale Public Water Suppliers)

**DROUGHT CONTINGENCY PLAN
FOR THE
(Name of wholesale water supplier)
(Date)**

Section 1: Declaration of Policy, Purpose, and Intent

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 fire protection, 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 _____ (name of water supplier) adopts the following Drought Contingency Plan (the Plan).

Section 2: Public Involvement

Opportunity for the public and wholesale water customers to provide input into the preparation of the Plan was provided by _____ (name of water supplier) by means of _____ (describe methods used to inform the public and wholesale customers about the preparation of the plan and opportunities for input; for example, scheduling and proving public notice of a public meeting to accept input on the Plan).

Section 3: Wholesale Water Customer Education

The _____ (name of water supplier) will periodically provide wholesale water customers with information about the Plan, including information about the conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage. This information will be provided by means of _____ (e.g., describe methods to be used to provide customers with information about the Plan; for example, providing a copy of the Plan or periodically including information about the Plan with invoices for water sales).

Section 4: Coordination with Regional Water Planning Groups

The water service area of the _____ (name of water supplier) is located within the _____ (name of regional water planning area or areas) and the _____ (name of water supplier) has provided a copy of the Plan to the _____ (name of regional water planning group or groups).

Section 5: Authorization

The _____ (designated official; for example, the general manager or executive director), or his/her designee, is hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The _____, or his/her designee, shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan.

Section 6: Application

The provisions of this Plan shall apply to all customers utilizing water provided by the _____ (name of supplier). The terms “person” and “customer” as used in the plan include individuals, corporations, partnerships, associations, and all other legal entities.

Section 7: Triggering Criteria for Initiation and Termination of Drought Response Stages

The _____ (designated official), or his/her designee, shall monitor water supply and/or demand conditions on a (e.g., weekly, monthly) basis and shall determine when conditions warrant initiation or termination of each stage of the Plan. Customer notification of the initiation or termination of drought response stages will be made by mail or telephone. The news media will also be informed.

The triggering criteria described below are based on:

(Provide a brief description of the rationale for the triggering criteria; for example, triggering criteria are based on a statistical analysis of the vulnerability of the water source under drought of record conditions).

(a) Stage 1 - Mild Water Shortage Conditions

Requirements for initiation – The _____ (name of water supplier) will recognize that a mild water shortage condition exists when _____ (describe triggering criteria, see examples below).

Below are examples of the types of triggering criteria that might be used in a wholesale water supplier’s drought contingency plan. One or a combination of such criteria may be defined for each drought response stage:

Example 1: Water in storage in the _____ (name of reservoir) is equal to or less than _____ (acre-feet and/or percentage of storage capacity).

Example 2: When the combined storage in the _____ (name of reservoirs) is equal to or less than _____ (acre-feet and/or percentage of storage capacity).

Example 3: Flows as measured by the U.S. Geological Survey gage on the _____ (name of river) near _____, Texas reaches _____ cubic feet per second (cfs).

Example 4: When total daily water demand equals or exceeds _____ million gallons for _____ consecutive days or _____ million gallons on a single day.

Example 5: When total daily water demand equals or exceeds _____ percent of the safe operating capacity of _____ million gallons per day for _____ consecutive days or _____ percent on a single day.

Requirements for termination - Stage 1 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of _____ (e.g., 30) consecutive days. The _____ (name of water supplier) will notify its wholesale customers and the media of the termination of Stage 1 in the same manner as the notification of initiation of Stage 1 of the Plan.

(b) Stage 2 - Moderate Water Shortage Conditions

Requirements for initiation – The _____ (name of water supplier) will recognize that a moderate water shortage condition exists when _____ (describe triggering criteria).

Requirements for termination - Stage 2 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of ____ (e.g., 30) consecutive days.

Upon termination of Stage 2, Stage 1 becomes operative. The _____ (name of water supplier) will notify its wholesale customers and the media of the termination of Stage 2 in the same manner as the notification of initiation of Stage 1 of the Plan.

(c) Stage 3 - Severe Water Shortage Conditions

Requirements for initiation – The _____ (name of water supplier) will recognize that a severe water shortage condition exists when _____ (describe triggering criteria).

Requirements for termination - Stage 3 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of ____ (e.g., 30) consecutive days.

Upon termination of Stage 3, Stage 2 becomes operative. The _____ (name of water supplier) will notify its wholesale customers and the media of the termination of Stage 2 in the same manner as the notification of initiation of Stage 3 of the Plan.

(d) Stage 4 – Emergency Water Shortage Conditions

Requirements for initiation - The _____ (name of water supplier) will recognize that an emergency water shortage condition exists when _____ (describe triggering criteria).

Example 1. Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service; or

Example 2. Natural or man-made contamination of the water supply source(s). Requirements for termination - Stage 4 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of ____ (e.g., 30) consecutive days. The _____ (name of water supplier) will notify its wholesale customers and the media of the termination of stage 4.

Section 8: Drought Response Stages

The _____ (designated official), or his/her designee, shall monitor water supply and/or demand conditions and, in accordance with the triggering criteria set forth in Section VI, shall determine that mild, moderate, or severe water shortage conditions exist or that an emergency condition exists and shall implement the following actions:

Stage 1 - Mild Water Shortage Conditions

Target: Achieve a voluntary ____ percent reduction in _____ (e.g., total water use, daily water demand, etc.).

Best Management Practices for Supply Management:

Describe measures, if any, to be implemented directly by _____ (designated official), or his/her designee(s), to manage limited water supplies and/or reduce water demand. Examples

include modifying reservoir operations procedures, interconnection with another water system, and use of reclaimed water for non-potable purposes.

Water Use Restrictions for Reducing Demand:

(a) The _____ (designated official), or his/her designee(s), will contact wholesale water customers to discuss water supply and/or demand conditions and will request that wholesale water customers initiate voluntary measures to reduce water use (e.g., implement Stage 1 of the customer's drought contingency plan).

(b) The _____ (designated official), or his/her designee(s), will provide a weekly report to news media with information regarding current water supply and/or demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.

Stage 2 - Moderate Water Shortage Conditions

Target: Achieve a ___ percent reduction in _____ (e.g., total water use, daily water demand, etc.).

Best Management Practices for Supply Management:

Describe measures, if any, to be implemented directly by _____ (designated official), or his/her designee(s), to manage limited water supplies and/or reduce water demand. Examples include modifying reservoir operations procedures, interconnection with another water system, and use of reclaimed water for non-potable purposes.

Water Use Restrictions for Reducing Demand:

(a) The _____ (designated official), or his/her designee(s), will initiate weekly contact with wholesale water customers to discuss water supply and/or demand conditions and the possibility of pro rata curtailment of water diversions and/or deliveries.

(b) The _____ (designated official), or his/her designee(s), will request wholesale water customers to initiate mandatory measures to reduce non-essential water use (e.g., implement Stage 2 of the customer's drought contingency plan).

(c) The _____ (designated official), or his/her designee(s), will initiate preparations for the implementation of pro rata curtailment of water diversions and/or deliveries by preparing a monthly water usage allocation baseline for each wholesale customer according to the procedures specified in Section VI of the Plan.

(d) The _____ (designated official), or his/her designee(s), will provide a weekly report to news media with information regarding current water supply and/or demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.

Stage 3 - Severe Water Shortage Conditions

Target: Achieve a ___ percent reduction in _____ (e.g., total water use, daily water demand, etc.).

Best Management Practices for Supply Management:

Describe measures, if any, to be implemented directly by _____ (designated official), or his/her designee(s), to manage limited water supplies and/or reduce water demand. Examples include modifying reservoir operations procedures, interconnection with another water system, and use of reclaimed water for non-potable purposes.

Water Use Restrictions for Reducing Demand:

(a) The _____ (designated official), or his/her designee(s), will contact wholesale water customers to discuss water supply and/or demand conditions and will request that wholesale water customers initiate additional mandatory measures to reduce non-essential water use (e.g., implement Stage 2 of the customer's drought contingency plan).

(b) The _____ (designated official), or his/her designee(s), will initiate pro rata curtailment of water diversions and/or deliveries for each wholesale customer according to the procedures specified in Section VI of the Plan.

(c) The _____ (designated official), or his/her designee(s), will provide a weekly report to news media with information regarding current water supply and/or demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.

Stage 4 – Emergency Water Shortage Conditions

Whenever emergency water shortage conditions exist as defined in Section VII of the Plan, the _____ (designated official) shall:

1. Assess the severity of the problem and identify the actions needed and time required to solve the problem.
2. Inform the utility director or other responsible official of each wholesale water customer by telephone or in person and suggest actions, as appropriate, to alleviate problems (e.g., notification of the public to reduce water use until service is restored).
3. If appropriate, notify city, county, and/or state emergency response officials for assistance.
4. Undertake necessary actions, including repairs and/or clean-up as needed.
5. Prepare a post-event assessment report on the incident and critique of emergency response procedures and actions.

Section 9: Pro Rata Water Allocation

In the event that the triggering criteria specified in Section VII of the Plan for Stage 3 – Severe Water Shortage Conditions have been met, the _____ (designated official) is hereby authorized initiate allocation of water supplies on a pro rata basis in accordance with Texas Water Code Section 11.039.

Section 10: Enforcement

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:

____ Times the normal water charge per acre-foot for water diversions and/or deliveries in excess of the monthly allocation up through 5 percent above the monthly allocation.

____ Times the normal water charge per acre-foot for water diversions and/or deliveries in excess of the monthly allocation from 5 percent through 10 percent above the monthly allocation.

____ Times the normal water charge per acre-foot for water diversions and/or deliveries in excess of the monthly allocation from 10 percent through 15 percent above the monthly allocation.

____ Times the normal water charge per acre-foot for water diversions and/or deliveries more than 15 percent above the monthly allocation.

The above surcharges shall be cumulative.

Section 11: Variances

The _____ (designated official), or his/her designee, may, in writing, grant a temporary variance to the pro rata water allocation policies provided by this Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the public health, welfare, or safety and if one or more of the following conditions are met:

(a) Compliance with this Plan cannot be technically accomplished during the duration of the water supply shortage or other condition for which the Plan is in effect.

(b) Alternative methods can be implemented which will achieve the same level of reduction in water use. Persons requesting an exemption from the provisions of this Plan shall file a petition for variance with the _____ (designated official) within 5 days after pro rata allocation has been invoked.

All petitions for variances shall be reviewed by the _____ (governing body), and shall include the following:

(a) Name and address of the petitioner(s).

(b) Detailed statement with supporting data and information as to how the pro rata allocation of water under the policies and procedures established in the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Ordinance.

(c) Description of the relief requested.

(d) Period of time for which the variance is sought.

(e) Alternative measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date.

(f) Other pertinent information.

Variances granted by the _____ (governing body) shall be subject to the following conditions, unless waived or modified by the _____ (governing body) or its designee: (a) Variances granted shall include a timetable for compliance. (b) Variances granted shall expire when the Plan is no longer in effect, unless the petitioner has failed to meet specified requirements. No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance.

Section 12: Severability

It is hereby declared to be the intention of the _____ (governing body of water supplier) that the sections, paragraphs, sentences, clauses, and phrases of this Plan are severable and, if any phrase, clause, sentence, paragraph, or section of this Plan shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Plan, since the same would not have been enacted by the _____ (governing body of the water supplier) without the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph, or section.

**EXAMPLE ORDINANCE FOR ADOPTION OF A DROUGHT CONTINGENCY PLAN
ORDINANCE NO. _____**

AN ORDINANCE OF THE CITY OF _____, TEXAS, ADOPTING A DROUGHT CONTINGENCY PLAN; ESTABLISHING CRITERIA FOR THE INITIATION AND TERMINATION OF DROUGHT RESPONSE STAGES; ESTABLISHING RESTRICTIONS ON CERTAIN WATER USES; ESTABLISHING PENALTIES FOR THE VIOLATION OF AND PROVISIONS FOR ENFORCEMENT OF THESE RESTRICTIONS; ESTABLISHING PROCEDURES FOR GRANTING VARIANCES; AND PROVIDING SEVERABILITY AND AN EFFECTIVE DATE. WHEREAS, the City of _____, Texas recognizes that the amount of water available to the City and its water utility customers is limited and subject to depletion during periods of extended drought; WHEREAS, the City recognizes that natural limitations due to drought conditions and other acts of God cannot guarantee an uninterrupted water supply for all purposes; WHEREAS, Section 11.1272 of the Texas Water Code and applicable rules of the Texas Commission on Environmental Quality require all public water supply systems in Texas to prepare a drought contingency plan; and WHEREAS, as authorized under law, and in the best interests of the citizens of _____, Texas, the _____ (governing body) deems it expedient and necessary to establish certain rules and policies for the orderly and efficient management of limited water supplies during drought and other water supply emergencies;

NOW THEREFORE, BE IT ORDAINED BY THE CITY OF _____, TEXAS:

SECTION 1. That the City of _____, Texas Drought Contingency Plan attached hereto as Exhibit “A” and made part hereof for all purposes be, and the same is hereby, adopted as the official policy of the City.

SECTION 2. That all ordinances that are in conflict with the provisions of this ordinance be, and the same are hereby, repealed and all other ordinances of the City not in conflict with the provisions of this ordinance shall remain in full force and effect.

SECTION 3. Should any paragraph, sentence, subdivision, clause, phrase, or section of this ordinance be adjudged or held to be unconstitutional, illegal or invalid, the same shall not affect the validity of this ordinance as a whole or any part or provision thereof, other than the part so declared to be invalid, illegal or unconstitutional. SECTION 4. This ordinance shall take effect immediately from and after its passage and the publication of the caption, as the law in such cases provides. DULY PASSED BY THE CITY OF _____, TEXAS, on the _____ day of _____, 20__.

APPROVED:

MAYOR

ATTESTED TO:

CITY SECRETARY

APPROVED AS TO FORM:

CITY ATTORNEY

**EXAMPLE RESOLUTION FOR ADOPTION OF A
DROUGHT CONTINGENCY PLAN
RESOLUTION NO. _____**

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE _____ (name of water supplier) ADOPTING A DROUGHT CONTINGENCY PLAN. WHEREAS, the Board recognizes that the amount of water available to the _____ (name of water supplier) and its water utility customers is limited and subject to depletion during periods of extended drought; WHEREAS, the Board recognizes that natural limitations due to drought conditions and other acts of God cannot guarantee an uninterrupted water supply for all purposes; WHEREAS, Section 11.1272 of the Texas Water Code and applicable rules of the Texas Commission on Environmental Quality require all public water supply systems in Texas to prepare a drought contingency plan; and WHEREAS, as authorized under law, and in the best interests of the customers of the _____ (name of water supply system), the Board deems it expedient and necessary to establish certain rules and policies for the orderly and efficient management of limited water supplies during drought and other water supply emergencies; NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE _____ (name of water supplier):

SECTION 1. That the Drought Contingency Plan attached hereto as Exhibit AA@ and made part hereof for all purposes be, and the same is hereby, adopted as the official policy of the _____ (name of water supplier).

SECTION 2. That the _____ (e.g., general manager) is hereby directed to implement, administer, and enforce the Drought Contingency Plan.

SECTION 3. That this resolution shall take effect immediately upon its passage.
DULY PASSED BY THE BOARD OF DIRECTORS OF THE _____, ON THIS
__ day of _____, 20__.

President, Board of Directors

ATTESTED TO:

Secretary, Board of Directors