7

Drought Response Information, Activities, and Recommendations

[31 TAC §357.42]

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Chapter 7: Drought Response Information, Activities, and Recommendations

Droughts are of great importance to the planning and management of water resources in Texas. Although droughts can occur in all climatic zones, they have the greatest potential for environmental and public health concern in arid regions such as Texas. It is not uncommon for mild droughts to occur over short periods of time in the state, however, there is no reliable way to fully predict how long or severe a drought will be until it is over. The best defense available to WUGs in drought prone areas, such as those in Region N, is proper planning and preparation for worst case scenarios with contingencies for drought uncertainty. This requires understanding of drought patterns and the historical droughts in the region.

With population growth expected to continue in the Region N area based on TWDB projections, the demand for water will continue to increase. This growing demand compounded by climate uncertainty and extended drought periods makes planning even more important to prevent shortages, deterioration of water quality and lifestyle/financial impacts on water suppliers and users. This chapter presents information on Region N's drought preparedness, including regional droughts of record, current model drought contingency plans, emergency interconnects, and responses to local drought conditions.

Texas Administrative Code Chapter 357.42 presents guidance for drought and emergency response information for inclusion in the Regional Water Plans. A drought template provided by the TWDB in April 2019 included guidance on drought information to include in 2021 Regional Water Plans, which the CBRWPG considered during development of this chapter.

7.1 Droughts of Record in the RWPA

7.1.1 Background

One of the best tools in drought preparedness is a thorough understanding of the drought of record (DOR), or the worst drought to occur for a particular area during the available period of record. However, there are many ways that the "worst drought" can be defined (degree of dryness, agricultural impacts, socioeconomic impacts, effects of precipitation, etc.). Regional planning focuses on the hydrological drought or the drought with the largest shortfalls on surface and/or subsurface water supply. The frequency and severity of hydrological drought is often defined on a watershed or river basin scale, although it could be different from one area to the next, even within a planning region.

7.1.2 Current Drought of Record

The Corpus Christi Water Supply Model is used to determine water supply availability for the four basin regional CCR/LCC/Texana/MRP Phase II system (or Corpus Christi Regional Water Supply System). Prior to the 2021 Region N Plan, the 1992-2002 drought was used to define water availability. The 2016 Plan considered the recent drought beginning in 2007 as potentially

being a new drought of record, but was not able to confirm that assumption because the Corpus Christi Water Supply Model did not include hydrology past 2003.

With the Corpus Christi Water Supply Model updated during this planning cycle to include recent hydrology through 2015, the new drought of record was confirmed. In terms of severity and duration, the drought from 2007-2013 is considered to be a new DOR for the Region N planning area. Although the LCC/CCR system has not yet returned to full capacity, rainfall events in October 2013 and June 2015 ameliorated the severity of drought during this time and replenished stored water levels. The combined CCR/LCC system has not been full since September 2007 and system storage as of February 2020 is approximately 52%, hence, it is important to understand that estimates of firm or safe yield reported herein represent maximum values.

The critical drawdown was 73 months from October 2007 to October 2013 during which time the reservoirs went from full to a minimum storage of 32.6% before inflows restored lake storage. From 2010-2012, inflows into LCC and CCR were 32% less (or 59,000 ac-ft less) than the inflows from 1994-1996 into LCC and CCR. For additional comparison, the 2010-2012 inflows were almost 50% less (or 98,200 ac-ft less) than the inflow into LCC and CCR from 1954-1956. Annual inflow to the CCR/LCC System for the model period from 1934 to 2015 is shown in Figure 7.1. The 3-year moving average shows the severity and duration of the recent drought relative to other droughts since the 1930s, and includes the recovery in 2013 and 2015.

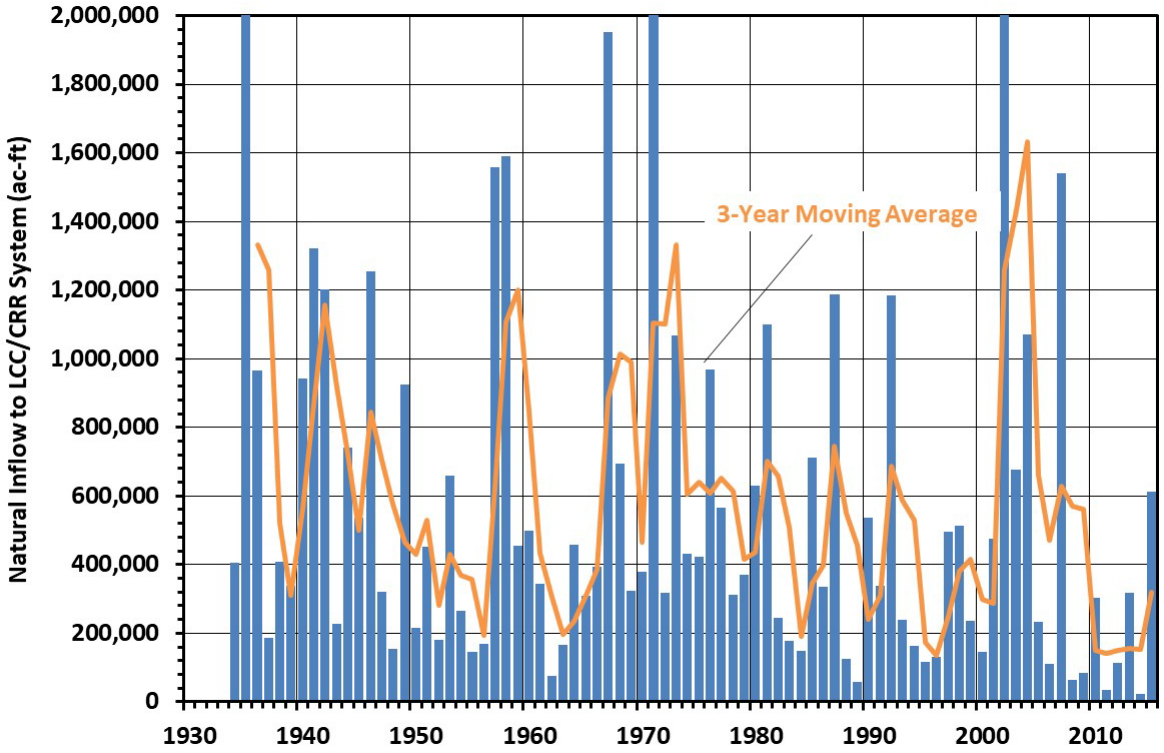

Figure 7.1.
Annual Natural Inflow to the CCR/LCC System

A large amount of water supplied to the region is provided by Lake Texana in Region P and the Colorado River (Mary Rhodes Phase II) in Region K which helps mitigate drought impacts in the Nueces Basin. For example, on September 27, 2013, while the combined storage in Choke Canyon Reservoir and Lake Corpus Christi was at 33% of capacity, storage in Lake Texana was at 81.9% of capacity. Often, drought occurs at different times and at different levels of severity in the Nueces, Lavaca-Navidad, and Colorado River basins. This frequent situation gives the City flexibility in operating the CCR/LCC/Texana/MRP Phase II system to optimize water supplies[1]. The DOR for the Lavaca-Navidad and Colorado River basins are December 1952 to April 1957 and October 2007 to April 2015, respectively.[2]

7.1.3 Corpus Christi Water Supply Model

Engineers and planners often use surface water models to demonstrate the effects of historical droughts on water supply. Surface water effects are more readily observed than groundwater; and, although reservoirs were not yet constructed before historic droughts, they can be simulated and assessed using historical hydrology. The main tool used to assess the performance of Region N reservoirs under historic drought conditions is the Corpus Christi Water Supply Model (CCWSM). This model simulates operations of the CCR/LCC/Texana/MRP Phase II system in addition to adhering to the pass-through schedule from the 2001 Agreed Order between the City and TCEQ governing freshwater inflows to the Nueces Estuary. Actual pass-through information can be accessed from the Nueces River Authority website[3].

During development of the 2021 Region N Plan, the Corpus Christi Water Supply Model was updated to include:

- Recent hydrology through 2015 to include the most recent drought of record for a total model period of 82 years (1934 to 2015), including extensions to net evaporation and ungaged runoff below LCC using methods consistent with the previous model version (1934 to 2003);
- New TWDB volumetric survey data for Lake Corpus Christi (2016), Choke Canyon Reservoir (2012), and Lake Texana (2010) with updated sediment accumulation rates;
- Recent hydrology for Lake Texana and the Colorado River (for Mary Rhodes Phase II supplies) through 2015;
- Verification that all enhancements adhere to the provisions of the TCEQ 2001 Agreed Order;
- Lake Texana callback of 10,400 ac-ft/yr as exercised by LNRA for local water users in Jackson County pursuant to City of Corpus Christi contract terms; and

[1] Subject to permitted or contracted supply amounts.
[2] https://www.lcra.org/download/2020-water-management-plan/?wpdmdl=11923 p. 3-2
[3] https://www.nueces-ra.org/CP/CITY/passthru/index.php

- Operational flexibility to exercise water supply calls on the Colorado River-Garwood water right at a variable rate according to diversion rate and priority date of the rights and based on MRP Phase II system capacities.

At the August 10, 2017 CBRWPG meeting, the planning group considered guidance from the TWDB to consider firm yield when determining surface water availability as well the Region N approach that had been taken in previous planning cycles to determine availability based on safe yield. The Corpus Christi Water Supply Model was used to estimate firm yield of the system for 2020 and 2070 sediment conditions, which is the maximum amount of water volume that can be provided under a repeat of drought of record conditions assuming that all senior water rights will be totally utilized and all permit conditions met. In this case, this is the yield that would be available such that reservoir active storage would be equal to zero during the worst month of the drought of record. Figure 7.2 shows a storage trace for the LCC/CCR system under a hypothetical 2020 firm yield demand of 194,000 ac-ft/yr. The critical month of the DOR is September 2013.

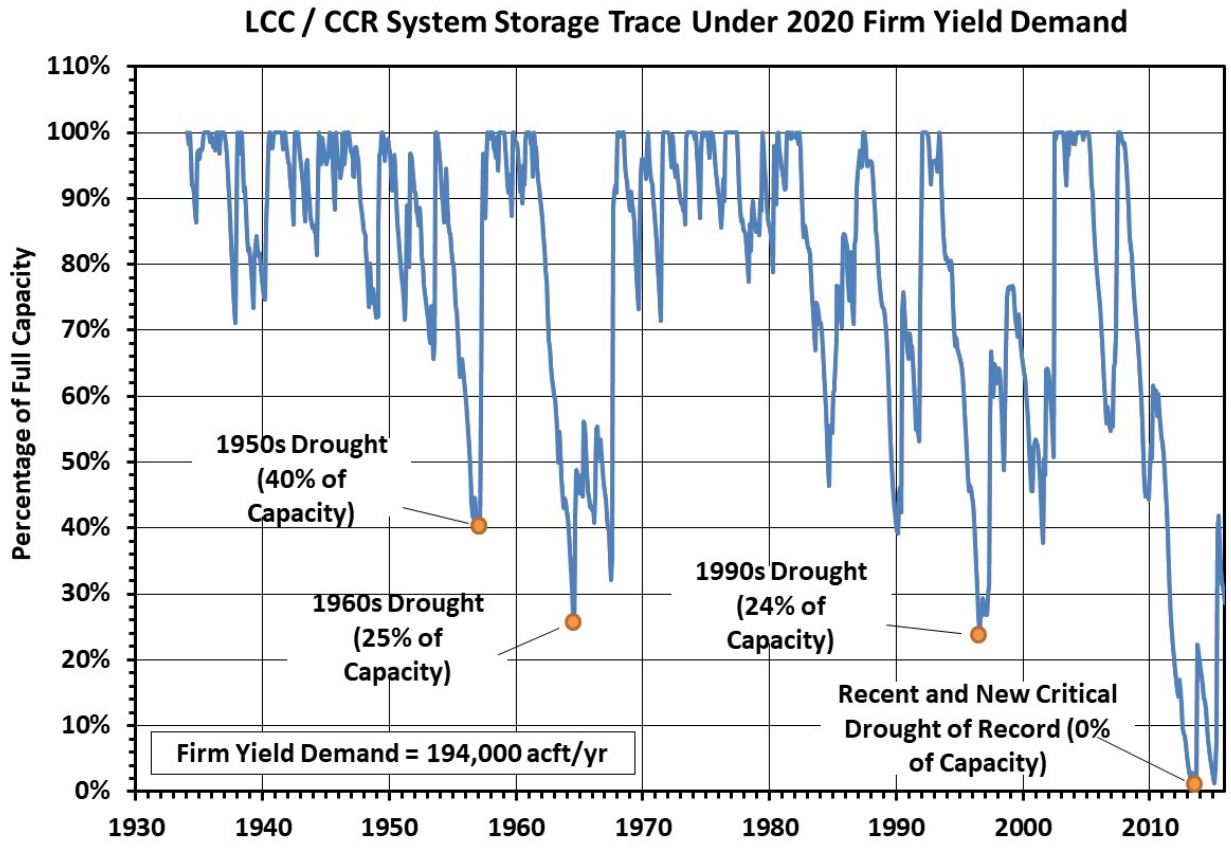

Figure 7.2.
CCR/LCC System Storage Trace- 2020 Firm Yield of 194,000 ac-ft/yr

During the meeting, the Coastal Bend Regional Water Planning Group decided to limit supply availability for the CCR/LCC/Texana/MRP Phase II System based on safe yield to maintain a reserve in storage during the worst, historical drought of record that occurred from 2007 to (at least) 2013. Safe yield is a standard approach that the CBRWPG and City of Corpus Christi have consistently used in previous planning cycles as a provision for climate and growth uncertainty, such that a *specified reserve amount remains* in storage during the modeled critical drought. Based on a presentation by the City of Corpus Christi and additional information at the November 9, 2017 meeting, the CBRWPG approved submittal of a hydrologic variance request to use safe yield with 75,000 ac-ft reserve in the CCR/LCC system for determining surface water supplies available from the City's Regional Water Supply System, which was subsequently granted by the TWDB on January 5, 2018. Figure 7.3 shows a storage trace for the LCC/CCR system similar to Figure 7.2 except that a 75,000 ac-ft reserve is maintained during the critical month of the DOR (September 2013) resulting in a 2020 safe yield of 178,000 ac-ft/yr. This safe yield supply from the City's Regional Water Supply System is the basis of the needs analysis of this plan for entities relying on surface water supplies from the City of Corpus Christi, SPMWD, and STWA. The safe yield maintains the 75,000 ac-ft reserve through the planning period (2020-2070) and declines to 167,000 ac-ft/yr by 2070 due to sedimentation.

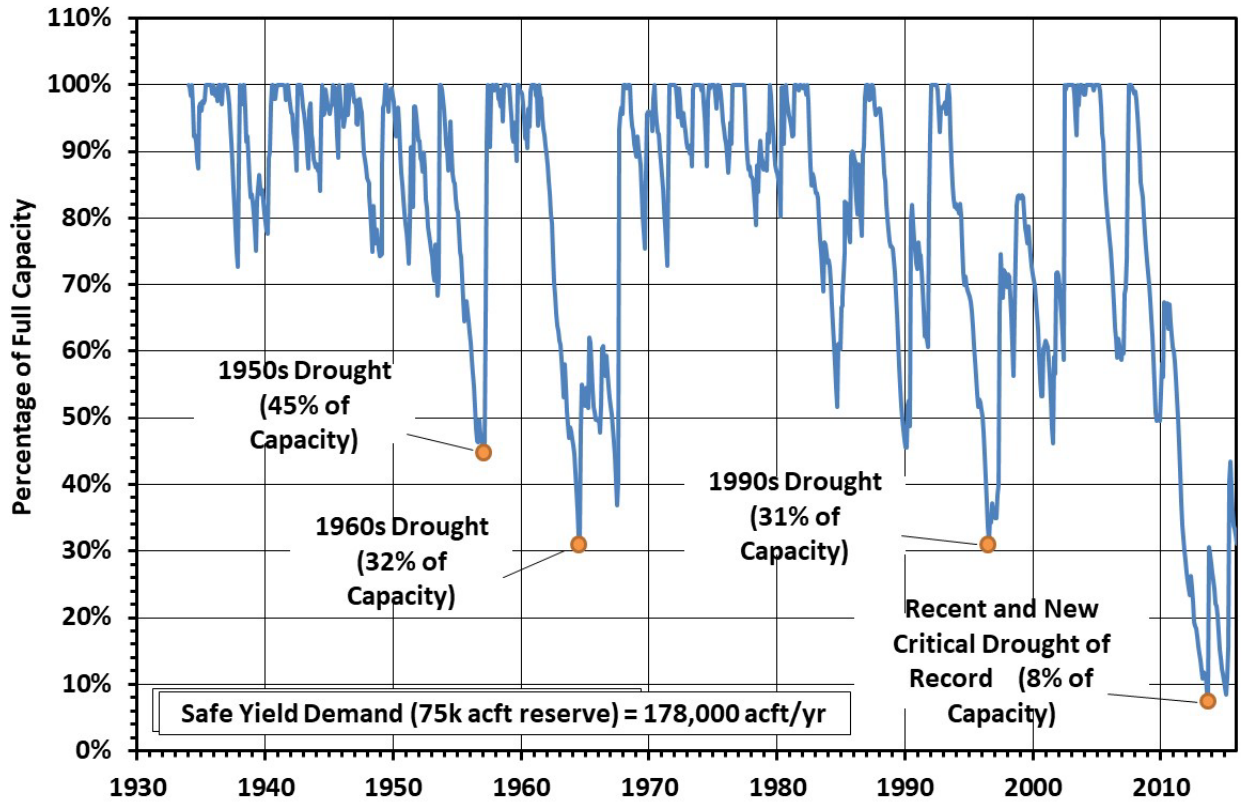

Figure 7.3.
CCR/LCC System Storage Trace- 2020 Safe Yield of 178,000 ac-ft/yr

7.2 Current Drought Preparations and Response

7.2.1 Current Drought Preparations and Responses WUG Level Planning

Water User Groups in Region N prepare for drought by implementing their drought contingency plans and participating in planning discussions. The regional planning process attempts to meet projected water demands during a drought of equal severity to the DOR. WUGs that provide accurate information to the Texas Water Development Board and consider recommendations accepted by the regional planning group should be able to supply water to customers throughout drought periods. In addition, all wholesale Water Providers and most municipalities develop individual drought contingency plans (DCPs) or emergency action plans to be implemented at various stages of a Drought.

7.2.2 Overall Assessment of Local Drought Contingency Plans

While it's impossible to predict the timing, severity and length of a drought, it is an inevitable component of water supply planning in Texas. For this reason, it is critical to plan for these occurrences with policy outlining adjustments to the use, allocation and conservation in response to drought conditions. Drought and other circumstances threaten interruption of supply or water quality of a source, potentially leading to water shortages. When water shortages occur there is generally a greater demand on the already decreased supply as individuals may attempt to keep lawns green. In the twenty months from June 2013 to February 2015 coinciding with the DOR when once a week watering was implemented, the residential water use was reduced by 18% (or total of 5-6% for all users).[4] This behavior reduces the rate of water supply depletion during drought.

TCEQ requires all wholesale public water suppliers, retail public water suppliers serving 3,300 connections or more, and irrigation districts to submit drought contingency plans (DCPs). In accordance with the requirements of Texas Administrative Code §288(b), DCPs must be updated every 5 years and adopted by retail public water providers. The TCEQ defines a DCP as "A strategy or combination of strategies for temporary supply and demand management responses to temporary and potentially recurring water supply shortages and other water supply emergencies." [5] According to the TCEQ handbook for drought contingency[6], the underlying philosophy of drought contingency planning is that:

- While often unpreventable, short-term water shortages and other water supply emergencies can be anticipated;

[4] Email correspondence from Brent Clayton, March 2015.
[5] http://www.twdb.texas.gov/conservation/training/archives/more-than-a-drop-workshop/doc/5_%20TCEQ%20Rules.pdf.
[6] https://www.rcac.org/wp-content/uploads/2015/08/TX_Drought_Planning_Handbook_2014.pdf.

- The potential risks and impacts of drought or other emergency conditions can be considered and evaluated in advance of an actual event; and, most importantly

- Response measures and best management practices can be pre-determined with implementation procedures defined, again in advance, to avoid, minimize, or mitigate the risks and impacts of drought-related shortages and other emergencies.

Example Drought Contingency plans are available on TCEQ's website; however, it is not possible to create a single DCP model that will adequately address local concerns throughout the State of Texas. The conditions that define a water shortage are location specific and may vary for water users that use groundwater versus surface water or those that have sole-source of supply versus those with a multiple source, diversified water system. While the approach to planning may be different between entities, all DCPs should include:

- Specific, quantified targets for water use reductions,
- Drought response stages,
- Triggers to begin and end each stage,
- Supply management measures,
- Demand management measures,
- Descriptions of drought indicators,
- Notification procedures,
- Enforcement procedures,
- Procedures for granting exceptions,
- Public input to the plan,
- Ongoing public education,
- Adoption of plan, and
- Coordination with regional water planning group.

For water suppliers, the primary goal of DCP development is to have a plan that can reliably provide an uninterrupted supply of water in an amount that can satisfy essential human needs. A secondary, but also important, goal is to minimize negative impacts on quality of life, the economy, and the local environment. In order to meet these goals, action needs to be taken quickly which is why an approved DCP needs to be in place before drought conditions occur.

In accordance with Texas Administrative Code, most Region N entities have submitted DCPs to be implemented during drought conditions. Region N was able to obtain DCPs from all four wholesale water providers, the LNRA, and 27 municipal WUGs and county-other entities as seen in Table 7.1. These plans identify multiple triggers for initiation and termination of drought stages, responses to be implemented and reduction targets based on each stage. The plans also include information regarding public notification procedures and enforcement measures. Some WUGs or WWPs have included a method of granting a variance should the need arise. The most recent DCPs for each entity in Region N range in date from 2000 to 2020. The Texas Water Code Chapter 11 and TAC Chapter 288 requires retail public water suppliers with 3,300 or more connections, irrigation water providers, and wholesale public water suppliers to develop, implement, and submit updated DCPs to the TCEQ every five years. Detailed DCP

information for the four wholesale water providers who supply water to the majority of WUGs in the region can be found in Tables 7.2 to 7.6.

Table 7.1.
Region N Entities with Available DCP

Region	County Name	WUG	DB22 EntityRwp Id	DCP on File	DCP Date
Wholesale Water Providers and Lavaca Navidad River Authority					
N	Nueces	Corpus Christi	32	x	2018
N	San Patricio & Nueces	SPMWD (San Patricio Municipal Water District)	119	x	2019
N	Kleberg	South Texas Water Authority	123	x	2018
N	Nueces	Nueces County WCID #3	104	x	2019
N	Jackson	LNRA	n/a	x	2014
Water User Groups					
N	Aransas	Aransas Pass	185	x	2008
N	Aransas	Rockport	2152	x	2013
N	Live Oak	Three Rivers	2369	x	2014
N	Bee	Beeville	222	x	2020
N	Bee	Pettus MUD	13190	x	2000
N	Brooks	Falfurrias	710	x	1999
N	Duval	Freer WCID	740	x	2000
N	Duval	San Diego MUD #1	2176	x	2000
N	Jim Wells	Alice	163	x	2019
N	Jim Wells	Orange Grove	2033	x	2000
N	Kleberg	Kingsville	1163	x	2002
N	Kleberg	Ricardo WSC	2126	x	2018
N	Kleberg	Riviera WSC	13216	x	2000
N	Live Oak	El Oso WSC	4104	x	2009
N	Live Oak	McCoy WSC	4250	x	2000
N	Nueces	Nueces WSC	2871	x	2019
N	Nueces	River Acres WSC	2141	x	2000
N	San Patricio	Odem	2024	x	2013
N	San Patricio	Ingleside	874	x	2018
N	San Patricio	Taft	2349	x	2013
N	San Patricio	Portland	2093	x	2013
N	San Patricio	Rincon WSC	2846	x	2009
County-Other Entities					
N	Aransas	Aransas County MUD #1	n/a	x	2009
N	Bee	Blueberry Hills	n/a	x	2005
N	Aransas	Copano Heights Water Company	n/a	x	2018
N	Hidalgo	Escondido Creek Estates	n/a	x	2000
N	McMullen	McMullen County WCID #2	n/a	x	2002
N	Kleberg	Baffin Bay WSC	n/a	x	2015

Table 7.2.
City of Corpus Christi Surface Water Sources Drought Contingency Response

Drought Contingency Stage	Reservoir System Storage	Actions
Stage I – Mild	*Less than 40%	• Target treated water demand reduction of 10 percent, including for wholesale water contracts. • City Manager issues a public notice implementing required water conservation measures. • More repair crews will be used if necessary to repair leaks. • Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems shall be limited to once per week based on the City Manager's watering schedule. • Fire hydrant use is restricted to the interest of public health and safety. • Prohibits use of water for Golf Course irrigation to designated water days unless the course uses a source other than Corpus Christi Utilities. • Use of water to maintain integrity of building foundations is limited to watering days and hand held hose or drip irrigation.
Stage II – Moderate	*Less than 30%	In addition to Actions under Stage I, take the following actions: • Target water demand reduction of 20 percent, including for wholesale water contracts • Flushing of water mains is eliminated unless in interest of public safety. • Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems shall be limited to once every other week. • The watering of golf course fairways with potable water is prohibited
Stage III – Critical	*Less than 20%	In addition to Actions under Stage II, take the following actions: • Target water demand reduction of 30 percent, including for wholesale water contracts • Irrigation of landscaped areas shall be prohibited at all times. • Use of water to wash any motor vehicle, motorbike, boat, trailer, or other vehicle not occurring on the premises of a commercial car wash and not in the immediate interest of public health, safety, and welfare is prohibited. • The filling, refilling, or adding of water to swimming pools, wading pools, and jacuzzi-type pools, and water parks (unless utilizing water from a non-city source) is prohibited. Fountains may operate to maintain equipment. • Optional: prohibit applications for water service facilities of any kind.
Stage IV – Emergency	Not applicable	In addition to Actions under Stage III, take the following actions: • Achieve a 50% or greater reduction in daily treated water demand relative to treated water demand. • Irrigation of landscaped area is absolutely prohibited. • Use of water to wash any motor vehicle, motorbike, boat, trailer, or other vehicle is absolutely prohibited. • Associated uses of water not related to business process which are discretionary, such as equipment washing, shall be deferred until the Stage 5 emergency has been terminated.

* CCR/LCC combined storage

** Other purposes include vehicle washing, indoor and outdoor pools, golf course irrigation, and use of water for the integrity of building foundations.

Table 7.3.
San Patricio Municipal Water District Drought Contingency Response

Drought Contingency Stage	Reservoir System Storage	Actions
Stage I – Mild	*less than 50% or if Lake Texana is less than 40%	• District Manager issues a public notice to inform water users of the Corpus Christi water supply region to begin voluntary conservation measures. • Target water demand reduction of 5 percent, including for wholesale water contracts. • All operations of the District shall adhere to water use restrictions prescribed for Stage 2 of the DCP
Stage II – Moderate	*Less than 40%	• District Manager issues a public notice implementing required water conservation measures. • Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems shall be limited to once per week. • District Manager issues a lawn watering schedule and designates watering days and specific exemptions for **other purposes. • Prohibits use of water to wash down of any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas, except if it is in the interest of public health and safety. • Prohibits use of water to wash down buildings or structures for purposes other than immediate fire protection without permit granted by the District Manager. • Prohibits use of water for dust control without permit granted by the District Manager. • Target water demand reduction of 10 percent, including for wholesale water contracts.
Stage III – Severe	*Equal to or less than 30%	In addition to Actions under Stage II, take the following actions: • Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems shall be limited to once every other week. • The watering of golf course fairways with potable water is prohibited. • Target water demand reduction of 15 percent, including for wholesale water contracts.
Stage IV – Critical	*Equal to or less than 20%	• Irrigation of landscaped areas shall be prohibited at all times. • Use of water to wash any motor vehicle, motorbike, boat, trailer, or other vehicle not occurring on the premises of a commercial car wash and not in the immediate interest of public health, safety, and welfare is prohibited. • The filling, refilling, or adding of water to swimming pools, wading pools, and jacuzzi-type pools, and water parks (unless utilizing water from a non-city alternative source) is prohibited. • The use of water to maintain the integrity of a building foundation is permitted on the designated watering day and shall be done by hand or drip irrigation method. • Target water demand reduction of 30 percent, including for wholesale water contracts.

* CCR/LCC combined storage

** Other purposes include vehicle washing, indoor and outdoor pools, golf course irrigation, and use of water for the integrity of building foundations.

Table 7.4.
South Texas Water Authority Drought Contingency Response

Drought Contingency Stage	Reservoir System Storage	Actions
Stage I – Mild Water Shortage Conditions	*Less than 40%	1. Notify all its wholesale water customers regarding the initiation of the drought response stage. 2. Provide reports to the City of Corpus Christi with information regarding current wholesale customer usage. 3. 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. 4. Contact wholesale water customers to discuss water supply and/or demand conditions and request that wholesale water customers initiate voluntary measures to reduce water use. 5. Request wholesale customers and assist in the effort to organize a committee of business, industrial, and residential representatives to make recommendations for the necessary regulations and prohibitions. 6. Provide a 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. 7. Target water demand reduction of 10 percent.
Stage II – Moderate Water Shortage Conditions	*Less than 30%	In addition to Actions 1-3 under Stage I, take the following actions: 8. Request wholesale customers continue with conditions set during Stage I. In addition, request that wholesale customers consider implementation of additional regulations and prohibitions. 9. Contact with wholesale water customers to discuss water supply and/or demand conditions and the possibility of pro rata curtailment of water diversion and/or deliveries. 10. Request wholesale water customers to initiate mandatory measures to reduce non-essential water use. 11. Target water demand reduction of 15 percent.
Stage III – Severe Water Shortage Conditions	*Less than 20%	12. Request wholesale customers continue with conditions set during Stage II. In addition, request that wholesale customers consider implementation of additional regulations and prohibitions. 13. Provide reports to the City of Corpus Christi with information regarding current wholesale customer usage. 14. Target water demand reduction of 30 percent.
Stage IV – Critical Water Shortage Conditions	Not applicable	15. Request wholesale customers continue with conditions set during Stage III. In addition, request that wholesale customers consider implementation of additional regulations and prohibitions. 16. Provide reports to the City of Corpus Christi with information regarding current wholesale customer usage. 17. Target water demand reduction of 50 percent.

*Corpus Christi/Choke Canyon Reservoirs (CCR/LCC) combined storage

Table 7.5.
Nueces County WCID #3 Drought Contingency Response

Drought Contingency Stage	Reservoir System Storage	Actions
Stage I – Water Shortage Possibility	Water in the reservoirs is less than 40% of total storage capacity	• The District will notify all its customers regarding the initiation of the drought response stage. • Target water demand reduction of 10%, preferable during times of peak use. • Agricultural irrigation shall be limited to twice per week. • Stage 1 Drought Condition Water Rates may be initiated.
Stage II – Water Shortage Watch	Water in the reservoirs is less than 30% storage capacity	• The District will notify all its customers regarding the initiation of the drought response stage. • Target water demand reduction of 20%, preferable during times of peak use. • Use of water to wash motor vehicle, boat, trailers, other vehicles, refilling swimming pools is prohibited except on designated watering days. Operation of ornamental ponds is prohibited. • Use of water from hydrants should be limited to firefighting, related activities, or other activities necessary to maintain public health, safety, and welfare, except that use of water from designated fire hydrants for construction purposes may be allowed under special permit from the District. • The district will discontinue routine flushing of water mains. • Agricultural irrigation shall be limited to twice per week. • Stage 2 Drought Condition Water Rates may be initiated by the District Manager and Board of Directors.
Stage III – Water Shortage Warning	Water in the reservoirs is less than 20% of total storage capacity	• The District will notify all its customers regarding the initiation of the drought response stage. • Target water demand reduction of 30%, preferable during times of peak use. • All Stage II provisions will be enforced. • New service connections to the District's water system may be prohibited where some other source independent of the District's water system is existing and in use. • The use of potable water for watering golf course tees is prohibited. • The use of water for construction purposes from designated fire hydrants under special permit may be discontinued. • Agricultural irrigation shall be limited to designated watering days. The use of hose-end sprinklers is prohibited at all times. • Stage 3 Drought Condition Water Rates may be initiated.
Stage IV – Water Shortage Emergency	Major line break, pump or system failure, water production or distribution limitations, contamination of water supply	• The District will notify all its customers regarding the initiation of the drought response stage. • Target water demand reduction of 50%, preferable during times of peak use. • All requirements of Stage 1, 2, and 3 shall remain in effect. • Use of water to wash motor vehicle, boat, trailers, other vehicles, and refilling swimming pools is prohibited. • Agricultural irrigation water will be eliminated. • Associated uses of water not related to business process which are discretionary, such as equipment washing, shall be deferred until Stage 5 is terminated.

Table 7.6.
Lavaca Navidad River Authority's Drought Contingency Response

Drought Condition	Trigger	Actions
Condition I – Mild Water Shortage Condition	Lake Texana Reservoir elevation is at or below elevation 43.00 ft msl	1. LRNA will notify TCEQ Watermaster of reservoir condition. 2. Inform public, giving notice of reservoir condition to the customers served by the LNRA system and upstream water rights permit holders. 3. *Impacts permit holders upstream of Lake Texana who divert water for irrigation purposes.* Diversions must cease within 24 hours following the time when the reservoir level drops below elevation 43.00 ft msl.
Condition II – Moderate Water Shortage Condition	Lake Texana Reservoir elevation is at or below elevation 39.95 ft msl	In addition to Actions 1–3 under Conditions I, take the following actions 4. *Impacts freshwater releases to bays and estuaries.* LNRA may reduce the volume of freshwater releases to bays and estuaries to 5 cubic feet per second, when Lake Texana reaches roughly 78% of the reservoir capacity. 5. Target water demand reduction of 5 percent of the use that would have occurred in the absence of drought contingency measures. 6. Notify TPWD of reservoir condition and change in B&E release schedule. 7. Include recommendations to conserve water in information to the public.
Condition III – Severe Water Shortage Condition	Lake Texana Reservoir elevation is at or below elevation 35.00 ft msl Water supply emergency occurs or drought worse than the Drought of Record is declared	8. LRNA will notify TCEQ Watermaster and Dam Safety Team of reservoir condition. 9. Inform public, giving notice of reservoir condition and delivery volume. 10. Implement pro rata reduction of water deliveries to industrial and municipal customers. 11. Through the news media, the public should be advised daily of the trigger conditions, the mandatory reduction, and that water users conserve water.
Condition IV – Critical Water Shortage Condition	Contamination of water supply source Failure or damage to the operating structures due to a natural or catastrophic event Water supply emergency occurs or drought worse than the Drought of Record is declared	12. LRNA will notify TCEQ Watermaster and Dam Safety Team of reservoir condition. 13. Inform public, giving notice of reservoir condition and delivery volume. 14. Implement pro rata reduction of water deliveries to industrial and municipal customers. 15. Through the news media, the public should be advised daily of the trigger conditions, the mandatory reduction, and that water users conserve water.

7.2.3 Summary of Existing Triggers and Responses

Through timely implementation of drought response measures, it is possible to meet the goals of the DCP by avoiding, minimizing or mitigating risks and impacts of water shortages and Drought. In order to accomplish this, DCPs are built around a collection of drought responses and triggers based on various drought stages. Inclusion of stages is typical of all DCP's, but stage definition can vary from entity to entity. Stage one will normally represent mild water shortage conditions and the severity of the situation will increase through the stages until

emergency water conditions are reached and, in some cases, a water allocation stage is defined.

The CBRWPG conducted an overall assessment of current preparations for drought within the Coastal Bend Region to determine how water suppliers in the region identify and respond to drought. Drought contingency plan information on stage, trigger and response for 31 DCPs in the region and LNRA was compiled, including those from WWPs, WUGs and County-Other suppliers. The majority of the DCPs in the region have voluntary Stage I and Mandatory Stage II and III categories. Most entities include a Stage IV and a few entities specify a Stage V scenario. Target reductions, triggers and responses are included for most stages. Triggers for individual Region N water user groups can be found in Table 7.7 and corresponding responses can be found in Table 7.8.

Table 7.7.
Region N DCP Drought Triggers

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
Water User Groups						
City of Aransas Pass (Aransas County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/AransasPass.pdf	***SW***	***Mild Water Shortage Conditions*** When the LCC/CCR system storage falls below 50% of maximum capacity.	***Moderate Water Shortage Conditions*** When the LCC/CCR system storage falls below 40% of maximum capacity.	***Severe Water Shortage Conditions*** When the LCC/CCR system storage falls below 30% of maximum capacity.	***Critical Water Shortage Conditions*** When the LCC/CCR system storage falls below 15% of maximum capacity. Whenever there is an interruption in the City of Corpus Christi or SPMWD's raw water supply. When there is a mechanical breakdown in the City of Corpus Christi or SPMWD's WTP which causes plant shutdown for an extended period of time.	***Emergency Water Shortage Conditions*** When the City Council or their designee determines that a water supply emergency exists. Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service. Natural or man-made contamination of the water supply source(s).

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
City of Rockport (Aransas County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Rockport.pdf	***SW***	***Mild Water Shortage Conditions*** When the LCC/CCR system storage falls below 50% of maximum capacity. OR Lake Texana storage declines below 40%	***Moderate Water Shortage Conditions*** When the LCC/CCR system storage falls below 40% of maximum capacity.	***Severe Water Shortage Conditions*** When the LCC/CCR system storage falls below 30% of maximum capacity.	***Critical Water Shortage Conditions*** When the LCC/CCR system storage falls below 20% of maximum capacity.	***Emergency Water Shortage Conditions*** When the City Council or their designee determines that a water supply emergency exists. Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service. Water production or transmission system limitations. Natural or man-made contamination of the water supply source(s).
City of Three Rivers (Live Oak County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/3rivers.pdf	***SW***	***Mild Water Shortage Conditions*** When CCR storage falls below 50% of maximum capacity. OR City of Corpus Christi declares Stage 1 *OR* When there is high demand on the system.	***Moderate Water Shortage Conditions*** When CCR storage falls below 40% of maximum capacity. OR City of Corpus Christi declares Stage 2 *OR* When daily water demand exceeds 85% of capacity for 3 consecutive days.	***Severe Water Shortage Conditions*** When CCR storage falls below 30% of maximum capacity. OR City of Corpus Christi declares Stage 3 OR When daily water demand exceeds 90% of capacity for 3 consecutive days.	***Critical Water Shortage Conditions*** When CCR storage falls below 20% of maximum capacity. OR City of Corpus Christi declares Stage 4 OR When daily water demand exceeds 95% of capacity for 3 consecutive days.	***Emergency Water Shortage Conditions*** Major limitations to water system components, water productions or distribution limitations, or supply contamination.
City of Beeville (Bee County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/beeville_cp.pdf	***SW***	***Mild Water Shortage Condition*** Lake Levels less than40% and production from Chase Wells cannot meet system demand	***Moderate Water Shortage Condition*** Lake Levelsless than 30% and production from Chase Wells cannot meet system demands	***Severe Water Shortage Condition*** Lake Levels less than 20% and production from Chase Wells cannot meet system demands	***Emergency Water Shortage*** In the case of an emergency, contamination, or if water system fails to produce water	

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
Pettus MUD (Bee County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/PettusMUD.pdf	*GW*	***Mild Water Shortage Conditions*** Total exceeds daily water demand equals safe or operating 85% of capacity the for system's three consecutive days or equals or exceeds 90% of system capacity on a single day.	***Moderate Water Shortage Conditions*** Total daily water demand equals or exceeds 90% of the systems safe operating capacity for three consecu-tive days or equals or exceeds 95% of system capacity on a single day.	***Severe Water Shortage Conditions*** Total daily water demand equals or exceeds 95% of the systems safe operating capacity for three consecu-tive days or equals or exceeds 100% of system capacity on a single day.	***Critical Water Shortage Conditions*** Total daily water demand equals or exceeds 100% of the systems safe operating capacity for three consecu-tive days or equals or exceeds 100% of system capacity on a single day.	***Emergency Water Shortage Conditions*** Designee determines that a water supply emergency exists based on: Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to pro-vide water service. Natural or man-made contamination of the water supply source(s).
Falfurrias (Brooks County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Falfurrias_DCP_WCP_1999.pdf	*GW*	***Mild Water Shortage Conditions*** Static water level in the Falfurrias water wells equal to or below mean sea level OR specific capacity is equal to or less than 5% original specific capacity OR total daily water demand exceeds 2.5 MG for 10 days or 5 MG on a single day; OR falling treated reservoir levels that do not refill above 80% overnight	***Moderate Water Shortage Conditions*** Two or more triggering criteria listed for Stage 1 exist	***Severe Water Shortage Conditions*** Three or more triggering criteria listed for Stage 1 exist	***Critical Water Shortage Conditions*** Four or more triggering criteria listed for Stage 1 exist	***Emergency Water Shortage Conditions*** General manager or designee determines that a water supply emergency exists based on: Major water line breaks or Natural or man-made contamination of the water supply source(s).

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
Freer WCID (Duval County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Freer.pdf	***GW***	***Mild Water Shortage Conditions (voluntary)*** Annually, beginning May 1 through September 1. When the static level in the Freer WCID is equal to or less than 10 feet above sea level. When the specific capacity of the Freer WCID wells are equal to or less than 70% of the well's original specific capacity. When total daily water demand equals or exceeds 700,000 gallons for 10 consecutive days or 700,000 gallons on a single day.	***Moderate Water Shortage Conditions*** When daily water demand total equals or exceeds 700,000 gallons for 10 consecutive days or 700,000 gallons on a single day.	***Severe Water Shortage Conditions*** When the specific capacity of the Freer WCID wells is equal to or less than 70% of the well's original specific capacity.	***Critical Water Shortage Conditions*** When the static water level in the Freer WCID wells is equal to or less than 10 feet above sea level.	***Emergency Water Shortage Conditions*** Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service OR Natural or man-made contamination of the water supply source(s)

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
San Diego MUD #1 (Duval County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/SanDiego.pdf	*GW*	***Mild Water Shortage Conditions*** Annually, beginning on May 1 through October 31 of every year. When the water supply available to the San Diego Municipal Utility District No. 1 is equal or less than 70% of storage capacity. When the static water level in the San Diego Municipal Water Utility District No. 1 well(s) is equal or less than 100 feet above water pump level. When the specific capacity of the San Diego Municipal Utility District No. 1 well(s) is equal to or less than 70% of the well's original specific capacity. When total daily water demands equal or exceed one million gallons for 3 consecutive days.	***Moderate Water Shortage Conditions*** Water levels fall below 70% of storage capacity. Water demands exceed 70% of water well capacity. When the static water level in the San Diego Municipal Utility District No. 1 well(s) is equal to or less than 100 feet above water pumps.	***Severe Water Shortage Conditions*** Water levels fall below 50% of storage capacity. Water demands exceed 90% of water well capacity. When the static water level in the San Diego Municipal Utility District No. 1 well(s) is equal to or less than 100 feet above water pumps. System outages due to equipment failure.	***Emergency Water Shortage Conditions*** Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service OR Natural or man-made contamination of the water supply source(s).	
City of Alice (Jim Wells County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Alice_DCP_2019.pdf	*SW*	***Mild Water Shortage Conditions*** When the LCC water elevation is below 88 feet.	***Moderate Water Shortage Conditions*** When the LCC water elevation is below 86 feet.	***Severe Water Shortage Conditions*** When the LCC water elevation is below 82 feet.	***Critical Water Shortage Conditions*** When the LCC water elevation is below 74 feet.	***Emergency Water Shortage Conditions*** Major line breaks, or pump or system failures occur, which cause unprecedented loss of capacity to provide water service. Natural or man-made contamination of water supply source(s).

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
City of Orange Grove (Jim Wells County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/OrangeGrove.pdf	***GW***	***Mild Water Shortage Conditions (voluntary)*** When the static water level in City Water Well No. 4 is equal or more than 140 feet below the top of the casing. When total daily water demands equals or exceeds 90% of system safe operating capacity which is 750,000 gallons per day, for 10 consecutive days.	***Moderate Water Shortage Conditions*** When the static water level in City Water Well No. 4 drops to 150 feet below the top of the casing.	***Severe Water Shortage Conditions*** When the static water level in City Water Well No. 4 reaches 160 feet below the top of the casing.	***Critical Water Shortage Conditions*** When the static water level in City Water Well No. 4 reaches 165 feet below the top of the casing.	***Emergency Water Shortage Conditions*** Major line breaks, or pump or system failures occur, which cause unprecedented loss of capacity to provide water service. Natural or man-made contamination of water supply source(s).
City of Kingsville (Kleberg County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Kingsville.pdf	***GW***	***Mild Water Shortage Conditions*** Capacity of groundwater wells less than= 90% capacity AND Total daily water demand exceeds 6 million gallons for 3 consecutive days	***Moderate Water Shortage Conditions*** Capacity of groundwater wells less than= 85% capacity AND Total daily water demand exceeds 7 million gallons for 3 consecutive days	***Severe Water Shortage Conditions*** Capacity of groundwater wells less than= 80% capacity AND Total daily water demand exceeds 7.5 million gallons for 3 consecutive days	***Emergency Water Shortage Conditions*** Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service. Natural or man-made contamination of the water supply source(s).	***Water Allocation*** City manager determines that water shortage conditions threaten public health, safety and welfare.
Ricardo WSC (Kleberg County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Ricardo.pdf	***SW***	***Mild Water Shortage Conditions*** When the LCC/CCR system storage falls below 40% of combined level.	***Severe Water Shortage Conditions*** When the LCC/CCR system storage falls below 30% of combined level.	***Critical Water Shortage Conditions*** When the LCC/CCR system storage falls below 20% of combined level.	***Emergency Water Shortage Conditions*** When the City Council or their designee determines that a water supply emergency exists. Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service. Water production or distribution system limitations. Natural or man-made contamination of the water supply source(s).	

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
Riviera Water System (Kleberg County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Riviera.pdf	*GW*	***Customer Awareness*** Every April 1st, the utility will mail a public announcement to its customers.	***Voluntary Water Conservation*** Overnight Recovery rate reaches 4 ft. 17 Pump hours per day.	***Mandatory Water Use Restrictions*** Overnight Recovery rate reaches 2 ft. 20 Pump hours per day.	***Critical Water Use Restrictions*** Overnight Recovery rate reaches 0 ft. 22 Pump hours per day.	
El Oso WSC (Service area includes 500 square miles located in Karnes, Bee, Wilson, and **Live Oak Counties**) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/ElOso.pdf	*GW*	***Mild Water Shortage Conditions*** Well flow from any regularly used well is less than 90% of full capacity. A storage facility is not filled for 72 consecutive hours. An elevated storage tank is out of service due to repainting or other required maintenance.	***Moderate Water Shortage Conditions*** Well flow from any regularly used well is less than 80% of full capacity. A storage facility is not filled for 96 consecutive hours.	***Severe Water Shortage Conditions*** Well flow from any regularly used well is less than 70% of full capacity. A storage facility is not filled for 120 consecutive hours.	***Critical Water Shortage Conditions*** Well flow from any regularly used well is less than 60% of full capacity. A storage facility is not filled for 144 consecutive hours.	***Emergency Water Shortage Conditions*** Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service. Natural or man-made contamination of the water supply source(s).
McCoy WSC (Service area includes 608 square miles located in Atascosa, Wilson, and **Live Oak Counties**) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/McCoy.pdf	*GW*	***Mild Water Shortage Conditions*** Well flow from any regularly used well is less than 90% of full capacity. A storage facility is not filled for 72 consecutive hours. An elevated storage tank is out of service due to repainting or other required maintenance.	***Moderate Water Shortage Conditions*** Well flow from any regularly used well is less than 80% of full capacity. A storage facility is not filled for 96 consecutive hours.	***Severe Water Shortage Conditions*** Well flow from any regularly used well is less than 70% of full capacity. A storage facility is not filled for 120 consecutive hours.	***Critical Water Shortage Conditions*** Well flow from any regularly used well is less than 60% of full capacity. A storage facility is not filled for 144 consecutive hours.	***Emergency Water Shortage Conditions*** Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service. Natural or man-made contamination of the water supply source(s).
Nueces WSC (Nueces County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/NuecesWSC.pdf	*SW*	***Mild Water Shortage Conditions*** When the LCC/CCR system storage falls below 40% of combined level.	***Severe Water Shortage Conditions*** When the LCC/CCR system storage falls below 30% of combined level.	***Critical Water Shortage Conditions*** When the LCC/CCR system storage falls below 20% of combined level.	***Emergency Water Shortage Conditions*** When the City Council or their designee determines that a water supply emergency exists. Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service. Water production or distribution system limitation. Natural or man-made contamination of the water supply source(s).	

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
River Acres WSC (Nueces County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/RiverAcres.pdf	***SW***	***Water Shortage Possibility*** Combined water stored in the Reservoirs is estimated to be 40% of total storage Capacity (LCC/CC)	***Water Shortage Warning*** Combined water supply in the reservoirs is less than 40% but greater than 30% of total storage capacity And the System Manager directs implementation in Order to protect reservoir levels (LCC/CC..	***Water Shortage Conditions*** Combine water stored in the reservoir system is equal To or less than 30% of total storage capacity and the System Manager directs implementation in order to Protect reservoir storage levels. (LCC/CC.	***Water Shortage Emergency*** Water supply in CCR/LCC reservoir system is estimated to be less than 65,000 acre-feet.	
City of Odem (San Patricio County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Odem.pdf	***SW***	***Mild Water Shortage Conditions*** When the LCC/CCR system storage falls below 50% of maximum capacity. OR Lake Texana storage declines below 40% Water demand reaches 85% of firm production capacity OR ***A water system issue reduces capacity below 85% during high demand periods.***	***Moderate Water Shortage Conditions*** When the LCC/CCR system storage falls below 40% of maximum capacity. Water demand reaches 90% of firm production capacity OR ***A water system issue reduces capacity below 75% during high demand periods.***	***Severe Water Shortage Conditions*** When the LCC/CCR system storage falls below 30% of maximum capacity. Water demand reaches 95% of firm production capacity OR ***A water system issue reduces capacity below 70% during high demand periods.***	***Critical Water Shortage Conditions*** When the LCC/CCR system storage falls below 20% of maximum capacity. Water demand reaches 100% of firm production capacity.	***Emergency Water Shortage Conditions*** Extended period of the Severe or Critical condition. Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to pro-vide water service. Natural or man-made contamination of the water supply source(s).

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
City of Ingleside (San Patricio County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Ingleside.pdf	***SW***	***Mild Water Shortage Conditions*** Combined storage level of Choke Canyon Reservoir and Lake Corpus Christi declines below 50% or Lake Texana storage level declines below 40%. OR Water demand reaches eighty-five percent (85%) of firm production capacity OR A disruption due to equipment or distribution system failure that would limit the capacity of the water system below eighty-five percent (85%) of capacity during high demand periods	***Moderate Shortage Conditions*** Combined Lake and Reservoir levels declines to below 40%, OR Water demand exceeds ninety percent (90%) of the firm production Capacity OR A disruption due to equipment or distribution system failure that would limit the capacity of the water system below seventy five percent (75%) of capacity during high demand periods	***Severe Water Shortage Conditions*** Combined Lake and Reservoir levels declines to below 30%, OR Water demand reaches ninety-five percent (95%) of firm production capacity OR A disruption due to equipment or distribution system failure that would limit the capacity of the water system below seventy percent (70%) of capacity during high demand periods.	***Critical Water Shortage Conditions*** Combined Lake and Reservoir levels declines to below 20%. OR Water demand reaches one hundred percent (100%) of firm production capacity	***Emergency Water Shortage Conditions*** Extended period of the severe or critical condition, OR Any natural catastrophic situations that interrupt or have the potential to interrupt the City's potable water supply, including but not limited to the following: a) A major water line break, or pump or system failure occurs, which causes unprecedented loss of capability to provide water service: or b) Water distribution system limitations; OR c) Natural or man-made contamination of the water supply source occurs.
City of Taft (San Patricio County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Taft.pdf	***SW***	***Mild Water Shortage Conditions*** When the City of Corpus Christi and/or the San Patricio Municipal Water District declares this water shortage condition.	***Moderate Water Shortage Conditions*** When the City of Corpus Christi and/or the San Patricio Municipal Water District declares this water shortage condition.	***Severe Water Shortage Conditions*** When the City of Corpus Christi and/or the San Patricio Municipal Water District declares this water shortage condition.	***Emergency Water Shortage Conditions*** When the City of Corpus Christi and/or the San Patricio Municipal Water District declares this water shortage condition.	***Water Allocation*** When the City of Corpus Christi and/or the San Patricio Municipal Water District declares this water shortage condition. Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to pro-vide water service. Natural or man-made contamination of the water supply source(s).

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
City of Portland (San Patricio County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Portland.pdf	***SW***	***Mild Water Shortage Conditions*** When the LCC/CCR system storage is below 50% of maximum capacity. When Lake Texana storage is below 40% of maximum capacity.	***Moderate Water Shortage Conditions*** When the LCC/CCR system storage is estimated to be less than 40% of maximum capacity but greater than 30%.	***Severe Water Shortage Conditions*** When the LCC/CCR system storage is estimated to be less than or equal to 30% of maximum capacity.	***Critical Water Shortage Conditions*** When the LCC/CCR system storage is estimated to be less than or equal to 20% of maximum capacity.	***Emergency Water Shortage Conditions*** When the City of Corpus Christi determines that a water supply emergency exists based on: Major line breaks, or pump or system failures occur, which cause unprece-dented loss of capacity to provide water service. Water production or distribution system limitations. Natural or man-made contamination of water supply source(s).
Rincon WSC (San Patricio County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Rincon.pdf	***SW***	***Water Watch*** Any short-term or long-term situation requiring a 10% reduction in water consumption.	***Water Alert*** Any short-term or long-term situation requiring an 11% to 20% reduction in water consumption.	***Water Warning*** Any short-term or long-term situation requiring a 21% to 35% reduction in water consumption.	***Water Emergency*** Any short-term or long-term situation requiring a 36%or greater reduction in water consumption.	
County-Other Entities						
Aransas County MUD #1 (Aransas County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/AransasMUD.pdf	***GW***	***Mild Drought Conditions (voluntary)*** When demand on the District's water supply reaches or exceeds 70% of the production capacity of such facilities for 5 consecutive days.	***Moderate Drought Conditions*** When demand on the District's water supply reaches or exceeds 90% of the production capacity of such facilities for 3 consecutive days.	***Severe Drought Conditions*** When demand on the District's water supply reaches or exceeds 100% of the production capacity of such facilities for 24 hours.		
Blueberry Hills (Bee County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/BlueberryHills.pdf	***GW***	***Customer Awareness*** Every April 1st, the utility will mail a public announce-ment to its customers.	***Voluntary Water Conservation*** Overnight Recovery fails to restore 90% of full storage capacity. Production or distri-bution limitations.	***Mandatory Water Use Restrictions*** Overnight Recovery fails to restore 85% of full storage capacity. Production or distri-bution limitations.	***Critical Water Use Restrictions*** Overnight Recovery fails to restore 80% of full storage capacity. Production or distri-bution limitations.	
Copano Heights Water Company (Aransas County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Copano_2018.pdf	***SW***	***Customer Awareness*** Every April 1st, the utility will mail a public announce-ment to its customers.	***Voluntary Water Conservation*** Pump Flow less than 180 gpm or Total Daily Demand as 60% of pumping capacity	***Mandatory Water Use Restrictions*** Pump Flow less than 170 gpm or Total Daily Demand as 70% of pumping capacity	***Critical Water Use Restrictions*** Pump Flow less than 160 gpm or Total Daily Demand as 80% of pumping capacity	

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
Escondido Creek Estates (Hidalgo County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Escondido.pdf	***GW***	***Customer Awareness*** Every April 1st, the utility will mail a public announce-ment to its customers.	***Voluntary Water Conservation*** Wholesale Supplier, City of Rockport, Implements Drought Stage II (see Rockport)	***Mandatory Water Use Restrictions*** Wholesale Supplier, City of Rockport, Implements Drought Stage III (see Rockport)	***Critical Water Use Restrictions*** Wholesale Supplier, City of Rockport, Implements Drought Stage IV (see Rockport)	
McMullen County WCID #2 (McMullen County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/McMullen.pdf	***GW***	***Mild Water Shortage Conditions (voluntary)*** When total daily water demands equals or exceeds 2 million gallons on 3 consecutive days or 2.2 million gallons on a single day.	***Moderate Water Shortage Conditions*** When total daily water demands equals or exceeds 2 million gallons on 3 consecutive days or 2.2 million gallons on a single day and/or continually falling treated water reservoir levels do not refill above 90% overnight.	***Severe Water Shortage Conditions*** When total daily water demands equals or exceeds 2 million gallons on 3 consecutive days or 2.2 million gallons on a single day and/or continually falling treated water reservoir levels do not refill above 80% overnight.	***Critical Water Shortage Conditions*** When total daily water demands equals or exceeds 2 million gallons on 3 consecutive days or 2.2 million gallons on a single day and/or continually falling treated water reservoir levels do not refill above 75% overnight.	***Emergency Water Shortage Conditions*** Major line breaks, or pump or system failures occur, which cause unprece-dented loss of capacity to provide water service. Natural or man-made contamination of water supply source(s).
Baffin Bay WSC (Kleberg County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Baffin%20Bay%20WSC_DCP.pdf	***SW***	***Mild Conditions*** Consumption reaches 80% of Daily Max for 3 days OR Supply is 20% greater than average previous month consumption OR Extended period of low rain and daily use has risen 20% over same time last year.	***Moderate Conditions*** Consumption reaches 90% of Daily Max for 3 days. OR Water level in any storage tank cannot be replenished for 3 consecutive days.	***Severe Conditions*** Failure of major system component reducing minimum pressure in system below 20 psi for at least a day. OR Consumption of 95% or more of the maximum available for 3 days OR Natural of man-made disaster, or safety risk to public ORDeclaration of a state of disaster due to drought conditions in a county OR unforeseen events which could cause imminent health or safety risks to the public		

Table 7.8.
Region N DCP Responses for Each Trigger Level

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
Water User Groups						
City of Aransas Pass (Aransas County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/AransasPass.pdf	***SW***	***Mild Water Shortage Conditions*** *Achieve a voluntary 10% reduction in daily water demand.* All customers will be notified. Industrial customers, wholesale customers, and certain commercial customers will be required to develop and submit individual Water rationing plans to the City. All operations of the City of Aransas Pass shall adhere to water use restrictions.	***Moderate Water Shortage Conditions*** *Achieve a 15% reduction in daily water demand.* All City-owned facilities and operations will be placed on mandatory conservation practices. Restrictions on irrigation of landscaped areas, vehicle washing, use of water for pools, and ponds. Prohibits: Wash down of hard-surfaced areas and structures for purposes other than immediate fire protection; use of fire hydrants for any purpose other than firefighting; use of water for dust control; flushing gutters; failure to repair controllable leak(s).	***Severe Water Shortage Conditions*** *Achieve a 25% reduction in daily water demand.* Continuation of restrictions set forth in previous conditions and implementation of additional regulations and prohibitions. Certain industrial and commercial water users, which are not essential to the health and safety of the community, will be prohibited from water usage. Additional restrictions on irrigation of landscaped areas, watering of golf course, and use of water for construction purposes.	***Critical Water Shortage Conditions*** *Achieve a 35% reduction in daily water demand.* Additional restrictions on irrigation of landscaped areas and use of water for washing vehicles. The use of water for any type of pool is prohibited. No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved during this stage.	***Emergency Water Shortage Conditions*** *Achieve a 45% reduction in daily water demand.* Continuation of restrictions set forth in previous conditions and implementation of additional regulations and prohibitions. Irrigation of landscaped areas and use of water to wash any vehicle is prohibited.

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
City of Rockport (Aransas County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Rockport.pdf	***SW***	***Mild Water Shortage Conditions*** *Achieve a voluntary 5% reduction in daily water demand.* All customers are requested to limit landscape irrigation to once per week. Customers are requested to practice water conservation (minimize or discontinue use for non-essential purposes) All operations of the City of the city will adhere to water use restrictions.	***Moderate Water Shortage Conditions*** *Achieve a 10% reduction in daily water demand.* Use more repair crews for quicker response for water line leak repair. City crews monitor compliance with stage 2 restrictions on daily rounds. Restrictions on irrigation (Once per week) of landscaped areas, vehicle washing, use of water for pools, and ponds. Prohibits: Wash down of hard-surfaced areas and structures for purposes other than immediate fire protection; use of fire hydrants for any purpose other than firefighting; use of water for dust control; flushing gutters; failure to repair controllable leak(s).	***Severe Water Shortage Conditions*** *Achieve a 15% reduction in daily water demand.* Eliminate Main Flushing unless needed for safety. Review customer water usage. Continuation of restrictions set forth in previous conditions and implementation of additional regulations and prohibitions. Irrigation limited to once every other week. Additional restrictions on irrigation of landscaped areas, watering of golf course, and use of water for construction purposes.	***Critical Water Shortage Conditions*** *Achieve a 30% reduction in daily water demand* Landscaped watering prohibited at all times The use of water for any type of pool or vehicle is prohibited. Upon written notice cut off willful violators.	***Emergency Water Shortage Conditions*** *Achieve a 50% reduction in daily water demand.* Continuation of restrictions set forth in previous conditions and implementation of additional regulations and prohibitions. Call 10 largest users and spread message of major outage. Business process discretionary practices are prohibited.
City of Three Rivers (Live Oak County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/3rivers.pdf	***SW***	***Mild Water Shortage Conditions*** *Achieve a 5% reduction in water use.* Formal public notice of drought stage 1; notify TCEQ. Initiate increased public information campaign. Retail customers requested to follow stage 1 watering schedule. Increase leak detection activities.	***Moderate Water Shortage Conditions*** *Achieve a 10% reduction in water use.* Formal public notice of drought stage 2; notify TCEQ. Increase utility oversight of water use restrictions. Retail customers requested to follow stage 2 watering schedule. Increase utility oversight of water waste.	***Severe Water Shortage Conditions*** *Achieve a 15% reduction in water use.* Formal public notice of drought stage 3; notify TCEQ. Increase utility enforcement of water use restrictions. Retail customers requested to follow stage 3 watering schedule. Increase utility enforcement of water waste.	***Critical Water Shortage Conditions*** *Achieve a 30% reduction in water use.* Formal public notice of drought stage 4; notify TCEQ. Increase utility enforcement of water use restrictions. Retail customers requested to follow stage 3 watering schedule. No watering. Consider surcharges for excessive use.	***Emergency Water Shortage Conditions*** *Achieve necessary water use reduction.* Contact county and state emergency management coordinators; notify TCEQ. Implementation of appropriate emergency procedures. Consideration of water purchases by truckload or in bottles.

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
City of Beeville (Bee County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/beeville_cp.pdf	***SW***	***Mild Water Shortage Possibility*** Target limit of total treated water to less than 4.5 MGD. Water customers are requested to voluntarily reduce water use.	***Moderate Water Shortage Warning*** Target limit of total treated water to less than 3.5 MGD. Reduce water use for foundations, washing automobiles, prohibit building washings, restrict use of potable water to irrigate golf courses	***Severe Water Shortage Conditions*** Target limit of total treated water to less than 3 MGD. Reduce water use for foundations, washing automobiles, prohibit building washings, establish maximum monthly use for residential customers	***Critical Water Shortage*** Target limit of total treated water to less than 2.5 MGD. Reduce water use for foundations, washing automobiles, prohibit building washings, establish maximum monthly use for residential customers	***Emergency Water*** All non-essential water uses must cease in accordance with the Corpus Christi DCP. All customers will be notified.
Pettus MUD (Bee County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/PettusMUD.pdf	***GW***	***Mild Water Shortage Conditions*** All customers will be notified and asked to limit non-essential use. Raise Public Awareness	***Moderate Water Shortage Conditions*** Initiate mandatory restrictions on non-essential use (lawn watering etc.)	***Severe Water Shortage Conditions*** Additional restrictions on irrigation of landscaped areas, watering of golf course, and use of water for construction purposes. Initiate water surcharge	***Critical Water Shortage Conditions*** Initiate enforcement, fees, fines, and surcharges	***Emergency Conditions*** Initiate emergency response conditions
Falfurrias (Brooks County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Falfurrias_DCP_WCP_1999.pdf	***GW***	***Mild Water Shortage Conditions*** Achieve a voluntary 30% reduction in total water use or daily water demand. Water customers are requested to voluntarily limit the irrigation of landscaped areas to once per week and are requested to practice water conservation and to minimize or discontinue non-essential water use. No flushing of fire hydrants or hydrant testing at this time. City to adhere to Stage 2 water user restrictions.	***Moderate Water Shortage Conditions*** Achieve a 40% reduction in total water use or daily water demand. Restrictions on irrigation of landscaped areas, vehicle washing, use of water for hydrants pools, and ponds. Prohibits: Wash down of hard-surfaced areas and structures for purposes other than immediate fire protection; use of water for dust control; flushing gutters; failure to repair controllable leak(s); serving water to patrons at restaurants except when requested. No flushing of fire hydrants or flushing of dead end mains. Reduce irrigation of all public landscaped areas.	***Severe Water Shortage Conditions*** Achieve a 50% reduction in total water use or daily water demand Phase 2 restrictions and Prohibitions. Use of water for construction purposes to be discontinued. Prohibited: irrigation, watering of golf courses, pool use, vehicle washing construction and hydrant use under special permit	***Critical Water Shortage Conditions*** Achieve a 60% reduction in total water use or daily water demand All Phase 2 and 3 restrictions and Prohibitions. Prohibits: Irrigation of landscaped areas with hose end sprinkler or automatic sprinkler system, use of water to wash any vehicle, use of water for any type of pool. No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved during this stage.	***Emergency Water Shortage Conditions*** All Phase 2, 3, and 4 restrictions and Prohibitions. Irrigation of landscaped areas and use of water to wash motor vehicle, boat, trailers, or other vehicles is absolutely prohibited.

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
Freer WCID (Duval County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Freer.pdf	***GW***	***Mild Water Shortage Conditions*** *Achieve a voluntary 25% reduction in total water use.* All customers will be notified and asked to limit non-essential use Restricted use of water for ornamental fountains or ponds. All operations of Freer W.C.I.D. adhere to water use restrictions pre-scribed for Stage II of the plan.	***Moderate Water Shortage Conditions*** *Achieve a 30% reduction in total water use.* Restrictions on irrigation of landscaped areas, vehicle washing, and use of water for pools. Prohibits: Wash down of hard-surfaced areas and structures for purposes other than immediate fire protection; use of fire hydrants for any purpose other than firefighting; use of water for dust control; flushing gutters; failure to repair controllable leak(s).	***Critical Water Shortage Conditions*** *Achieve a 40% reduction in total water use.* Additional restrictions on irrigation of landscaped areas, watering of golf course, and use of water for construction purposes.	***Emergency Water Shortage Conditions*** *Achieve a 50% reduction in total water use.* Prohibits: Irrigation of landscaped areas, use of water to wash any vehicle, use of water for any type of pool. No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved during this stage.	
San Diego MUD #1 (Duval County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/SanDiego.pdf	***GW***	***Mild Water Shortage Conditions*** Customers requested to voluntarily limit irrigation to twice a week at night. And to discontinue or mini-mize non-essential use. All operations of the City shall adhere to water use restrictions prescribed.	***Moderate Water Shortage Conditions*** *Achieve a reduction in daily water use.* Restrictions on irri-gation of landscaped areas, vehicle wash-ing, use of water for hydrants pools, and ponds. Prohibits: Wash down of hard-surfaced areas and structures for purposes other than immediate fire protection; use of water for dust control; flushing gutters; failure to repair controllable leak(s).	***Severe Water Shortage Conditions*** *Achieve an appro-priate reduction in daily water use.* Phase 2 restrictions and Prohibitions. Prohibited: irrigation, pool use, vehicle washing construction and hydrant use under special permit	***Mild Water Shortage Conditions*** Water use may be rationed	

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
City of Alice (Jim Wells County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Alice_DCP_2019.pdf	***SW***	***Mild Water Shortage Conditions*** *Achieve a voluntary 10% reduction in total water use, daily water demand.* Weekly reports are provided to the news media. Wholesale water customers are contacted to discuss conditions and to request voluntary measures. Customers requested to voluntarily limit irrigation to twice a week. And to discontinue or minimize non- essential use. Flushing of water mains and watering of parks facilities is reduced. Alternative water sources are investigated. City operations shall adhere to Stage 2 water use restrictions.	***Moderate Water Shortage Conditions*** *Achieve a 15% reduction in total water use, daily water demand.* Wholesale water customers are contacted weekly requested to implement mandatory measures. Restrictions on irrigation of landscaped areas, vehicle washing, use of water for pools, and ponds. Prohibits: Wash down of hard-surfaced areas and structures for purposes other than immediate fire protection; use of fire hydrants for any purpose other than firefighting; use of water for dust control; flushing gutters; failure to repair controllable leak(s). Serving water to patrons unless requested.	***Severe Water Shortage Conditions*** *Achieve a 20% reduction in daily water demand.* Wholesale water customers are contacted to discuss conditions and to request additional mandatory measures. Continuation of restrictions set forth in previous conditions and implementation of additional regulations and prohibitions. Additional restrictions on irrigation of landscaped areas, watering of golf course, and use of water for construction purposes. Pro Rata curtailment of water diversions and/or deliveries for retail customers is initiated.	***Emergency Water Shortage Conditions*** *Reduce water use to less than 25% of the City's maximum daily supply capacity.* Utility directors of each wholesale water customer are contacted. Additional restrictions on irrigation of landscaped areas and water use for fountains or ponds. The use of water to wash any vehicle or for any type of pool is prohibited. Applications for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall require approval.	***Water Allocation*** *Achieve a 45% reduction in daily water demand.* Water is allocated according to the water allocation plan.

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
City of Orange Grove (Jim Wells County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/OrangeGrove.pdf	***GW***	***Mild Water Shortage Conditions*** *Achieve a voluntary 10% reduction in total water use.* All customers will be notified. Restricted use of water for ornamental fountains or ponds. All operations of the City shall adhere to water use restrictions prescribed for Stage II of the plan. Customers requested to practice conservation and minimize non-essential use	***Moderate Water Shortage Conditions*** *Achieve a 20% reduction in total water use.* Restrictions on irrigation of landscaped areas, vehicle washing, and use of water for pools. All restaurants are prohibited from serving water to patrons except upon request of the patron. Prohibits: Wash down of hard-surfaced areas and structures for purposes other than immediate fire protection; use of fire hydrants for any purpose other than firefighting; use of water for dust control; flushing gutters; failure to repair controllable leak(s). Restaurants cannot provide water unless requested.	***Severe Water Shortage Conditions*** *Achieve a 30% reduction in total water use.* Additional restrictions on irrigation of landscaped areas, watering of golf course, and use of water for construction purposes.	***Critical Water Shortage Conditions*** *Achieve a 40% reduction in total water use.* Prohibits: Irrigation of landscaped areas, use of water to wash any vehicle, use of water for any type of pool. Further Restrictions: Irrigation of landscaped areas, use of water to wash any vehicle, No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved during this stage.	***Emergency Water Shortage Conditions*** *Achieve a 40% reduction in total water use.* Prohibits: Irrigation and vehicle washing.

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
City of Kingsville (Kleberg County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Kingsville.pdf	***GW***	***Mild Water Shortage Conditions*** *Achieve a voluntary 10% reduction in total water use.* All customers will be notified. Restricted use of water for ornamental fountains or ponds. All operations of the City shall adhere to water use restrictions prescribed for Stage II of the plan. Restricted flushing of water mains. Meetings are schedules with large industrial and commercial water users to exchange information regarding methods of saving water.	***Moderate Water Shortage Conditions*** *Achieve a 15% reduction in total water use.* Restrictions on irrigation of landscaped areas, vehicle washing, and use of water for pools. All restaurants are prohibited from serving water to patrons except upon request of the patron. Prohibits: Wash down of hard-surfaced areas and structures for purposes other than immediate fire protection; use of fire hydrants for any purpose other than firefighting; use of water for dust control; flushing gutters; failure to repair controllable leak(s).	***Severe Water Shortage Conditions*** *Achieve a 25% reduction in total water use.* Additional restrictions on irrigation of landscaped areas, watering of golf course, and use of water for construction purposes.	***Emergency Water Shortage Conditions*** *Achieve a 35% reduction in total water use.* Prohibits: Irrigation of landscaped areas, use of water to wash any vehicle, use of water for any type of pool. No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved during this stage.	***Water Allocation*** The City Manager is authorized to allocate water according to the water allocation plan.

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
Ricardo WSC (Kleberg County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Ricardo.pdf	***SW***	***Mild Water Shortage Conditions*** *Achieve a voluntary 10% reduction in daily water demand.* All customers will be notified. Restrictions on irrigation of landscaped areas.	***Severe Water Shortage Conditions*** *Achieve a 15% reduction in daily water demand.* Additional restrictions on irrigation of landscaped areas and limits use of water from hydrants.	***Critical Water Shortage Conditions*** *Achieve a 30% reduction in daily water demand.* May prohibit irrigation of landscaped areas. Additional restrictions on vehicle washing, use of water for pools, and use of water for building integrity. Water rate surcharges are implemented for retail and wholesale customers. Water rate surcharges may be implemented for residential customers. Upon written notice cut off willful violators. Applications for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind may not be approved during this stage.	***Emergency Water Shortage Conditions*** *Achieve a voluntary 50% reduction in daily water demand.* Contact the largest ten water customers affected Prohibits: Irrigation of landscaped areas, use of water to wash any vehicle, and associated uses of water not related to business processes which are discretionary. Water rate surcharges may be implemented for residential customers.	
Riviera (Kleberg County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Riviera.pdf	***GW***	***Customer Awareness*** Water customers requested to limit non- essential use	***Voluntary Water Conservation*** Restricted days/hours for outside watering Restriction on wasting water (gutter flushing etc.)	***Mandatory Water Conservation*** Further restrictions on days/hours for outside watering, vehicle washing, pool filling, hydrant use. Prohibited: wash down of hard surfaces, dust con-trol, gutter flushing, other water wasting.	***Critical Water Conservation*** Prohibited: all outdoor water use, vehicle washing.	

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
El Oso WSC (Service area includes 500 square miles located in Karnes, Bee, Wilson, and Live Oak Counties) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Eloso.pdf	*GW*	***Mild Water Shortage Conditions*** *Achieve a voluntary 20% reduction in total water use.* All customers will be notified. All operations of the corporation shall adhere to water use restrictions prescribed for Stage II of the plan.	***Moderate Water Shortage Conditions*** *Achieve a 30% reduction in total water use.* Restrictions on irrigation of landscaped areas, vehicle washing, and use of water for pools, ornamental fountains, or ponds. All restaurants are prohibited from serving water to patrons except upon request of the patron. Prohibits: Wash down of hard-surfaced areas other than for immediate fire protection; use of fire hydrants for any purpose other than firefighting; use of water for dust control; flushing gutters; failure to repair controllable leak(s).	***Severe Water Shortage Conditions*** *Achieve a 40% reduction in total water use.* Additional restrictions on irrigation of landscaped areas, watering of golf course, and use of water for construction purposes.	***Critical Water Shortage Conditions*** *Achieve a 50% reduction in total water use.* Prohibits: Irrigation of landscaped areas, use of water to wash any vehicle, use of water for any type of pool. No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved during this stage.	***Emergency Water Shortage Conditions*** *Achieve a 60% reduction in total water use.* Prohibits: Irrigation of landscaped areas and use of water to wash any vehicle.

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
McCoy WSC (Service area includes 608 square miles located in Atascosa, Wilson, and Live Oak Counties) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/McCoy.pdf	***GW***	***Mild Water Shortage Conditions*** *Achieve a voluntary 20% reduction in total water use.* All customers will be notified. All operations of the corporation shall adhere to water use restrictions prescribed for Stage II of the plan.	***Moderate Water Shortage Conditions*** *Achieve a 30% reduction in total water use.* Restrictions on irrigation of landscaped areas, vehicle washing, and use of water for pools, ornamental fountains, or ponds. All restaurants are prohibited from serving water to patrons except upon request of the patron. Prohibits: Wash down of hard-surfaced areas other than for immediate fire protection; use of fire hydrants for purposes other than firefighting; use of water for dust control; flushing gutters; failure to repair controllable leak(s).	***Severe Water Shortage Conditions*** *Achieve a 40% reduction in total water use.* Additional restrictions on irrigation of landscaped areas, watering of golf course, and use of water for construction purposes.	***Critical Water Shortage Conditions*** *Achieve a 50% reduction in total water use.* Prohibits: Irrigation of landscaped areas, use of water to wash any vehicle, use of water for any type of pool. No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved during this stage.	***Emergency Water Shortage Conditions*** *Achieve a 60% reduction in total water use.* Continuation of restrictions set forth in previous conditions and implementation of additional regulations and prohibitions. Prohibits: Irrigation of landscaped areas and use of water to wash any vehicle.

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
Nueces WSC (Nueces County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/NuecesWSC.pdf	***SW***	***Mild Water Shortage Conditions*** *Achieve a voluntary 10% reduction in daily water demand.* All customers will be notified. Restrictions on irrigation of landscaped areas.	***Severe Water Shortage Conditions*** *Achieve a 15% reduction in daily water demand.* Additional restrictions on irrigation of landscaped areas and limits use of water from hydrants.	***Critical Water Shortage Conditions*** *Achieve a 30% reduction in daily water demand.* May prohibit irrigation of landscaped areas. Additional restrictions on vehicle washing, use of water for pools, and use of water for building integrity. Water rate surcharges are implemented for retail and wholesale customers. Water rate surcharges may be implemented for residential customers. Upon written notice cut off willful violators. Applications for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind may not be approved during this stage.	***Emergency Water Shortage Conditions*** *Achieve a voluntary 50% reduction in daily water demand.* Contact the largest ten water customers affected Prohibits: Irrigation of landscaped areas, use of water to wash any vehicle, and associated uses of water not related to business processes which are discretionary. Water rate surcharges may be implemented for residential customers.	
River Acres WSC (Nueces County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/RiverAcres.pdf	***SW***	***Water Shortage Possibility*** Restrictions on irrigation of landscaped areas.	***Water Shortage Watch*** Additional restrictions on irrigation of landscaped areas, vehicle washing, and use of water for pools, ornamental fountains, or ponds, and wash down of buildings and structures. Prohibits: Wash down of hard-surfaced areas other than for immediate fire protection; use of fire hydrants for any purpose other than firefighting; use of water for dust control; flushing gutters; failure to repair controllable leak(s).	***Water Shortage Warning*** Additional restrictions on irrigation of landscaped areas and new service connections to the City's water system. Mandatory water use limits go into effect. All restaurants are prohibited from serving water to patrons except upon request of the patron. The use of water for any type of pool is prohibited.	***Water Shortage Emergency*** Water allocations to commercial and industrial customers are established. Maximum monthly water use and revised rate schedules established for resi-dential customers. No outside water use Any application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be must be approved.	

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
City of Odem (San Patricio County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Odem.pdf	***SW***	***Mild Water Shortage Conditions*** All customers will be notified. Water customers will be requested to voluntarily limit landscape irrigation to once a week. Commercial customers will be requested to voluntarily reduce use. Reduced watering of public parks and facilities.	***Moderate Water Shortage Conditions*** All customers will be notified. Additional restrictions on irrigation of landscaped areas, vehicle washing, use of water to maintain buildings, and use of water for pools, fountains, hydrants or ponds. Prohibits: Wash down of hard-surfaced areas and structures for purposes other than immediate fire protection; use of fire hydrants for any purpose other than firefighting; use of water for dust control; flushing gutters.	***Severe Water Shortage Conditions*** All customers will be notified. Additional restrictions on landscape irrigation and commercial nursery facilities. All restaurants are prohibited from serving water to patrons except upon request of the patron. Mandatory water use limits go into effect.	***Critical Water Shortage Conditions*** All customers will be notified. Prohibits irrigation of landscaped areas. Additional restrictions on the use of water for new agricultural land, to wash any vehicle, for building integrity, or for any type of pool. Drought surcharges are applied to deter discretionary water use.	***Emergency Water Shortage Conditions*** All customers will be notified. Prohibits irrigation of landscaped areas and use of water to wash any vehicle.
City of Ingleside (San Patricio County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Ingleside.pdf	***SW***	***Water Shortage Possibility*** All municipal operations are placed on mandatory conservation. Restrictions on irrigation of landscaped areas.	***Water Shortage Watch*** Additional restrictions on irrigation of landscaped areas, vehicle washing, and use of water for pools, ornamental fountains, or ponds, and wash down of buildings and structures. Prohibits: Wash down of hard-surfaced areas; use of fire hydrants for any purpose other than firefighting; use of water for dust control; flushing gutters; failure to repair defective plumbing and controllable leak(s).	***Water Shortage Warning*** Additional restrictions on irrigation and new service connections to the City's water system. Mandatory water use limits go into effect. All restaurants are prohibited from serving water to patrons except upon request of the patron. The use of water for any type of pool is prohibited.	***Water Shortage Emergency*** Water allocations to commercial and industrial customers are established. Maximum monthly water use and revised rate schedules established for residential customers. Any application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind must be approved.	

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
City of Taft (San Patricio County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Taft.pdf	***SW***	***Mild Water Shortage Conditions*** *Achieve a voluntary 5% reduction in total water use.* All customers will be notified. All operations of the City shall adhere to water use restrictions prescribed for Stage II of the plan.	***Moderate Water Shortage Conditions*** *Achieve a voluntary 10% reduction in total water use.* Restrictions on irrigation of landscaped areas, vehicle washing, and use of water for pools, ornamental fountains, or ponds, and wash down of buildings and structures. All restaurants are prohibited from serving water to patrons except upon request of the patron. Prohibits: Wash down of hard-surfaced areas other than for immediate fire protection; use of fire hydrants for any purpose other than firefighting; use of water for dust control; flushing gutters; failure to repair controllable leak(s).	***Severe Water Shortage Conditions*** *Achieve a voluntary 15% reduction in total water use.* Continuation of restrictions set forth in previous conditions and implementation of additional regulations and prohibitions. Additional restrictions on irrigation of landscaped areas, watering of golf course, and use of water for construction purposes.	***Critical Water Shortage Conditions*** *Achieve a voluntary 30% reduction in total water use.* Additional restrictions on irrigation of landscaped areas and use of water for washing vehicles. The use of hose-end sprinklers and water for any type of pool is prohibited. No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved during this stage.	***Emergency Water Shortage Conditions*** *Achieve a voluntary 30% reduction in total water use.* Continuation of restrictions set forth in previous conditions and implementation of additional regulations and prohibitions. Prohibits: Irrigation of landscaped areas and use of water to wash any vehicle.

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
City of Portland (San Patricio County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Portland.pdf	***SW***	***Mild Water Shortage Conditions*** *Achieve a 5% reduction in daily water demand.* Minimize or discontinue water system flushing and utilize reclaimed water for non-potable uses to the greatest extent possible. Water customers will be requested to voluntarily limit landscape irrigation to once a week. Water customers will be requested to limit or discontinue non-essential use.	***Moderate Water Shortage Conditions*** *Achieve a 10% reduction in daily water demand. More repair crews may be used for quicker response to water-line leaks.* Water customers are monitored for compliance. Additional restrictions on irrigation of landscaped areas, vehicle washing, use of water to maintain buildings, and use of water for pools, fountains, hydrants or ponds. Prohibits: Wash down of hard-surfaced areas and structures for purposes other than immediate fire protection; use of fire hydrants for any purpose other than firefighting; use of water for dust control; flushing gutters.	***Severe Water Shortage Conditions*** *Achieve a 15% reduction in daily water demand.* Additional restrictions on irrigation of landscaped areas and the flushing of water mains. Water customers are monitored for compliance and violators are notified.	***Critical Water Shortage Conditions*** *Achieve a 30% reduction in daily water demand.* Water meters of willful violators are disconnected as necessary to prevent wasting of water. Prohibits irrigation of landscaped areas. Additional restrictions on the use of water to wash any vehicle or for any type of pool.	***Emergency Water Shortage Conditions*** *Achieve a 50% reduction in daily water demand.* Prohibits: Irrigation of landscaped areas and use of water to wash any vehicle. Business process water shall be reduced to a basic amount necessary.

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
Rincon WSC (San Patricio County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Rincon.pdf	***SW***	***Water Watch*** *Achieve a 10% reduction in total water use.* All customers will be notified. Disseminate water conservation information to retail customers. Minimize water system flushing and system water-waste. Intensify efforts of the Leak Detection and Repair Program.	***Water Alert*** *Achieve a 11% to 20% reduction in total water use.* Additional restrictions on irrigation of land-scaped areas, and ornamental ponds. Establish mandatory water consumption restrictions. All water taken from flush valves, other than for flushing purposes shall be metered, and the Corporation shall charge for this water in accordance with the current rate schedule. Prohibits: Wash down of hard-surfaced areas; and water to run or accumulate in any gutter or street.	***Water Warning*** *Achieve a 21% to 35% reduction in total water use.* Additional landscape irrigation restrictions. Except when empty, all swimming pools shall be covered when not in use. Restricted use of water to wash any vehicle.	***Water Emergency*** *Achieve a 36% or greater reduction in total water use.* Prohibition of all non-essential water use, unless necessary for the preservation of health and safety and welfare. Water usage for livestock is exempt.	
County-Other Entities						
Aransas County MUD #1 (Aransas County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/AransasMUD.pdf	***GW***	***Mild Drought Conditions (voluntary)*** *Target Reduction in Well Run Time = 5%* All customers will be notified. Restricted landscape irrigation.	***Moderate Drought Conditions*** *Target Reduction in Well Run Time = 10%* All outdoor water use must be conducted with a hand-held hose with a manual on-off nozzle. Restricted street washing, fire hydrant flushing, and filling of swimming pools.	***Severe Drought Conditions*** *Target Reduction in Well Run Time = 15%* All outdoor water use is prohibited. A surcharge equal to 200% of the appli-cable rate for all water used in excess of 10,000 gallons/ month shall be imposed on all customers.		
Blueberry Hills (Bee County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/BlueberryHills.pdf	***GW***	***Customer Awareness*** Water customers requested to limit non- essential use	***Voluntary Water Conservation*** *Achieve 25% reduction in total use* Restricted days/hours for outside watering Restriction on wasting water (gutter flushing etc.)	***Mandatory Water Conservation*** *Achieve 40% reduction in total use* Further restrictions on days/hours for outside watering, vehicle washing, pool filling, hydrant use. Prohibited: wash down of hard sur-faces, dust control, gutter flushing, other water wasting.	***Critical Water Conservation*** *Achieve 55% reduction in total use* Prohibited: all outdoor water use, vehicle washing.	

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
Copano Heights Water Company (Aransas County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Copano_2018.pdf	***SW***	***Customer Awareness*** Water customers requested to limit non- essential use and voluntary limit the irrigation of landscaped areas to once per week	***Voluntary Water Conservation*** *Achieve 10% reduction in total use* Restricted days/hours for outside watering Restriction on wasting water (gutter flushing etc.)	***Mandatory Water Conservation*** *Achieve 15% reduction in total use* Further restrictions on days/hours for outside watering, vehicle washing, pool filling, hydrant use. Prohibited: wash down of hard sur-faces, dust control, gutter flushing, other water wasting.	***Critical Water Conservation*** *Achieve 30% reduction in total use* Prohibited: all outdoor water use, vehicle washing.	
Escondido Creek Estates (Hidalgo County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Escondido.pdf	***GW***	***Customer Awareness*** Water customers requested to limit non- essential use	***Voluntary Water Conservation*** Restricted days/hours for outside watering Restriction on wasting water (gutter flushing etc.)	***Mandatory Water Conservation*** Further restrictions on days/hours for outside watering, vehicle washing, pool filling, hydrant use. Prohibited: wash down of hard sur-faces, dust control, gutter flushing, other water wasting.	***Critical Water Conservation*** Prohibited: all outdoor water use, vehicle washing.	
McMullen County WCID #2 (McMullen County) https://www.nueces-ra.org/CP/RWPG/dcp_pdf/McMullen.pdf	***GW***	***Mild Water Shortage Conditions*** *Achieve a voluntary 10% reduction in total water use.* All customers will be notified and asked to limit non-essential use Restricted use of water for ornamental fountains or ponds. All operations of Freer WCID adhere to water use restric-tions prescribed for Stage II of the plan.	***Moderate Water Shortage Conditions*** *Achieve a 25% reduction in total water use.* Restrictions on irrigation of landscaped areas, vehicle washing, and use of water for pools. All restaurants are prohibited from serving water to patrons except upon request of the patron. Prohibits: Wash down of hard-surfaced areas and structures for purposes other than immediate fire protection; use of fire hydrants for any purpose other than firefighting; use of water for dust control; flushing gutters; failure to repair controllable leak(s).	***Critical Water Shortage Conditions*** *Achieve a 50% reduction in total water use.* Additional restrictions on irrigation of landscaped areas, watering of golf course, and use of water for construction purposes. No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved during this stage.	***Emergency Water Shortage Conditions*** *Achieve a 75% reduction in total water use.* Prohibits: Irrigation of landscaped areas, use of water to wash any vehicle, use of water for any type of pool.	

Water Systems	(SW/ GW)	Stage I (Voluntary)	Stage II	Stage III	Stage IV (If applicable)	Stage V
Baffin Bay WSC https://www.nueces-ra.org/CP/RWPG/dcp_pdf/Baffin%20Bay%20WSC_DCP.pdf	***SW***	***Mild Conditions*** Outside water use restrictions, reduced flushing operations, encouraged customer use reduction	***Moderate Conditions*** Prohibited outside water use, public service announce-ments	***Severe Conditions*** All outside watering prohibited. Use will be restricted to a percentage of previous months use. WSC shall continue enforcement and educational efforts.		

Note: Stages 2- 5 for all drought contingency plans include continuation of restrictions set forth in previous conditions and implementation of additional regulations and prohibitions.

7.2.4 Coastal Bend RWPG Drought Response Recommendations

On February 7, 2019, a subcommittee[7] comprised of Coastal Bend Regional Water Planning Group members was formed to develop drought response recommendations and compile information about emergency water interconnections in the region. The subcommittee met on April 23, 2019 and prepared the following recommendations which were adopted by the Coastal Bend Regional Water Planning Group on May 9, 2019:

- The Coastal Bend Regional Water Planning Group considered TAC Chapter 357.42(c) provisions to identify factors specific to each source of water supply to be considered in determining whether to initiate a drought response, actions to be taken as part of the drought response, and triggers and actions in response to drought. The Coastal Bend Regional Water Planning Group supports the drought response triggers and actions identified in local WUG DCPs for existing sources (see Tables 7.1 to 7.8).

- In response to a new TWDB provision to include whether measures have been recently implemented in response to drought conditions, the Coastal Bend Regional Water Planning Group recognizes that the City of Corpus Christi's direct and indirect customers are required to adhere to the City of Corpus Christi DCP criteria and reductions. At this time, it is impractical to poll all 40+ municipal WUGs to inquire about the implementation status of DCP measures and TWDB funding has not been provided for this activity.

- The Coastal Bend Regional Water Planning Group considered the new provision from the TWDB for RWPGs to identify unnecessary or counterproductive variations in specific drought response strategies that may confuse the public or otherwise impede drought response efforts. The Coastal Bend Regional Water Planning Group assumes WUGs during development of their DCPs have identified meaningful triggers, water reduction goals, and best management practices to achieve those goals and are tracking their progress and revising when appropriate in DCP updates.

[7] Coastal Bend Drought Response Subcommittee participants included: Ms. Teresa Carrillo, Ms. Carola Serrato, Mr. Mark Scott, and Mr. Scott Bledsoe.

- The Coastal Bend Regional Water Planning Group does not recommend alternative drought management water management strategies for WUGs and/or WWPs beyond those identified in the local DCPs. The CBRWPG recognizes that local entities invest time and resources in preparing their DCPs and, for this reason, does not recommend preparing additional recommendations that might deviate, conflict, or alter drought measures identified in local WUG and WWP DCPs.

- The Coastal Bend Regional Water Planning Group considered not meeting needs as a potentially feasible drought management water management strategy and requested at the February 7, 2019 meeting that the TWDB conduct a socioeconomic impact need analysis of the cost of not meeting needs. Although this drought management strategy was considered, it was not recommended by the Coastal Bend Regional Water Planning Group, as discussed in more detail in Chapter 7.6.

- The Coastal Bend Regional Water Planning Group recommends that the triggers and drought stages for severe and critical/emergency conditions identified in local DCPs be implemented and enforced accordingly to protect human health and water supply. See Tables 7.7 and 7.8 for details.

7.3 Existing and Potential Interconnects

A goal of the regional planning process is to provide for sufficient supplies that meet or exceed DOR demands for the next 50 years. However, it is also important for regions to plan for emergency supplies in the event of a prolonged drought or an interruption/impairment of supply from an existing source. An interconnection between two collaborating municipal water user groups (WUGs) can serve as an alternative means of providing drinking water in case of these events in lieu of trucking in supply or other expensive options. In compliance with Texas Administrative Code (TAC) Chapter 357 Regional Water Planning Guidelines, available information on existing major water infrastructure facilities that may be used for interconnections in event of an emergency shortage of water was collected by the Coastal Bend Regional Water Planning Group.

On April 23, 2019, a subcommittee comprised of CBRWPG members met to discuss emergency interconnections identified in the 2016 Coastal Bend Regional Water Plan and updates for emergency interconnections for new WUGs in the area. TCEQ representatives were in attendance at the meeting and reported that no new WUGs have emergency connections. Existing and potential interconnects that were identified for municipal WUGs with populations less than 7,500, utilities with a single source of water supply, or county-other WUGs in accordance with TAC 357.42(d)-(g) provisions are presented in Chapter 7.4, Table 7.9. The subcommittee also evaluated potential emergency responses to local drought conditions or loss of existing water supplies and likely alternative water sources and major water infrastructure facilities in the event that the existing supplies become temporarily unavailable due to unforeseeable conditions. Local DCPs were reviewed for information related to emergency connections or facilities that are disallowed for emergency connection. For the purposes of

emergency response analysis, it was assumed that entities evaluated would have 180 days or less of remaining supply.

7.4 Emergency Response to Local Drought Conditions or Loss of Municipal Supply

The regional and state water plans aim to prepare entities for worst case drought scenarios based on the DOR as described in Chapter 7.1. While rare, it is important to have a back-up plan in case of infrastructure failure or water supply contamination. This is especially important for smaller entities which rely on a sole source of supply or a sole WWP. While many WUGs and WWPs have DCP's as described in Chapter 7.2, it is less common for small municipalities or county-other WUGs to have these emergency plans.

The Region N drought response and emergency connections subcommittee identified 43 potential interconnects as reported in Table 7.9 for small WUGs with populations less than 7,500, those relying on a sole-source of water, and all County-Other WUGs in the Region. These potential emergency interconnects were assigned under the general principle that entities relying on surface water supplies would consider groundwater; and entities relying on groundwater would consider surface water supplies from the nearest neighboring water system.

A broad range of emergency situations could result in a loss of a reliable municipal supply and it is not possible to plan one solution to meet any possible emergency, for that reason a range of possible responses were selected for each entity in Table 7.9 based on source type and location. A WUG utilizing groundwater was analyzed for potential additional fresh water and brackish water wells based on the existence of appropriate aquifers in the area. MAG availability was not considered since the wells are assumed temporary over the course of an emergency. Surface water WUGs were analyzed for curtailment of junior water rights, no releases from upstream reservoirs were considered since most surface water users in the region rely on Corpus Christi reservoirs.

Table 7.9.
Potential Emergency Supply Options for Small WUGs

Entity								Implementation Requirements		
Water User Group	County	2020 Population	2020 Demand (ac-ft)	Local Groundwater Well	Brackish Groundwater Well	Truck in Water	Supply from Nearby Entity	Known Existing Interconnect	Potential Entity Providing Supply	Type of Infrastructure Required
Aransas County-Other	Aransas	4,416	491	X		X				Well, Pipeline, Transportation
Aransas Pass	Aransas, Nueces,	10,541	1,504	X		X				Well, Pipeline, Transportation

Entity				Local Groundwater Well	Brackish Groundwater Well	Truck in Water	Supply from Nearby Entity	Implementation Requirements		
Water User Group	County	2020 Population	2020 Demand (ac-ft)					Known Existing Interconnect	Potential Entity Providing Supply	Type of Infrastructure Required
	San Patricio									
Baffin Bay WSC	Kleberg	1,440	237			X	X			Pipeline, Transportation
Bee County-Other	Bee	13,472	1,875	X		X				Well, Pipeline, Transportation
Bishop	Nueces	3,446	593	X	X	X	X	STWA		Well, Pipeline, Transportation
Brooks County-Other	Brooks	1,765	224			X				
Corpus Christi Naval Air Station	Nueces	707	1,085	X	X	X				Well, Pipeline, Transportation
Driscoll	Nueces	812	105	X	X	X				Well, Pipeline, Transportation
Duval County CRD	Duval	1,859	260			X	X			Pipeline, Transportation
Duval County-Other	Duval	3,771	477			X	X		Alice	Pipeline, Transportation
El Oso WSC	Live Oak	1,290	278			X	X		Karnes City	Pipeline, Transportation
Falfurrias	Brooks	6,018	1,639			X	X		Alice or Premont	Pipeline, Transportation
Freer	Duval	3,041	687			X	X			Pipeline, Transportation
George West	Live Oak	2,374	435			X	X		Three Rivers	Pipeline, Transportation
Gregory	San Patricio	2,024	339	X		X				Well, Pipeline, Transportation
Jim Wells County FWSD 1	Jim Wells	1,943	131			X	X			Pipeline, Transportation
Jim Wells County-Other	Jim Wells	14,775	2,095	X		X				Well, Pipeline, Transportation
Kenedy County-Other	Kenedy	463	244			X				Transportation
Kleberg County-Other	Kleberg	1,527	257			X	X	Ricardo WSC		Pipeline, Transportation
Live Oak County-Other	Live Oak	5,166	637	X		X				Well, Pipeline, Transportation
Mathis	San Patricio	5,144	653			X	X		Interconnection to MRP supplies through Corpus Christi	Pipeline, Transportation

Entity				Local Groundwater Well	Brackish Groundwater Well	Truck in Water	Supply from Nearby Entity	Implementation Requirements		
Water User Group	County	2020 Population	2020 Demand (ac-ft)					Known Existing Interconnect	Potential Entity Providing Supply	Type of Infrastructure Required
McCoy WSC	Live Oak	170	21			X	X		Three Rivers	Pipeline, Transportation
McMullen County-Other	McMullen	734	97			X				
Naval Air Station Kingsville	Kleberg	53	256			X	X		Ricardo WSC	Pipeline, Transportation
Nueces County WCID 3	Nueces	12,467	2,957			X	X		STWA	Pipeline, Transportation
Nueces County WCID 4	Nueces	4,846	2,465		X	X	X	SPMWD, Corpus Christi		Pipeline, Transportation
Nueces County-Other	Nueces	11,222	1,475	X	X	X				Well, Pipeline, Transportation
Nueces WSC	Nueces	2,713	457		X	X	X	Nueces County WCID # 3	Nueces County WCID #3	Pipeline, Transportation
Odem	San Patricio	2,647	395	X	X	X	X		GW	Well, Pipeline, Transportation
Orange Grove	Jim Wells	1,838	476			X	X		Alice	Pipeline, Transportation
Pettus MUD	Bee	700	104			X	X			Pipeline, Transportation
Premont	Jim Wells	2,923	709			X	X		Alice	Pipeline, Transportation
Ricardo WSC	Kleberg	2,919	340		X	X	X	City of Kingsville	City of Kingsville	Pipeline, Transportation
Rincon WSC	San Patricio	3,660	368	X	X	X	X		Sinton	Well, Pipeline, Transportation
River Acres WSC	Nueces	2,662	426			X	X		Corpus Christi	Pipeline, Transportation
Riviera Water System	Kleberg	736	114			X	X			Pipeline, Transportation
San Diego MUD 1	Duval and Jim Wells	4,986	921			X	X		Alice	Pipeline, Transportation
San Patricio County-Other	San Patricio	5,950	843	X		X				Well, Pipeline, Transportation
Sinton	San Patricio	5,738	1,345			X	X		SPMWD	Pipeline, Transportation
Taft	San Patricio	3,768	540			X	X		Sinton	Pipeline, Transportation
TDCJ Chase Field	Bee	3,425	1,024			X	X		Beeville	Pipeline, Transportation
Three Rivers	Live Oak	3,146	545	X		X				Well, Pipeline, Transportation

Entity								Implementation Requirements		
Water User Group	County	2020 Population	2020 Demand (ac-ft)	Local Groundwater Well	Brackish Groundwater Well	Truck in Water	Supply from Nearby Entity	Known Existing Interconnect	Potential Entity Providing Supply	Type of Infrastructure Required
Violet WSC	Nueces	2,142	186			X	X		NUECES COUNTY WCID 3	Pipeline, Transportation

A nearby entity that could provide supply in the case of an isolated incident was identified for each WUG if existing or potential interconnects were known. In addition, trucking in water was considered as a supply option under severe circumstances. Any infrastructure required for implementation of the options was noted as well. Information on existing and potential interconnect supply capacity or location was generally not available from either source.

The TCEQ provides support to help public water systems plan in advance of an emergency or service interruption at the following website:
https://www.tceq.texas.gov/drinkingwater/homeland_security/disasterprep/disasterprep.html

At the request of the CBRWPG, a list of resources and local Emergency Management Offices in the Coastal Bend Region that can help provide aide and assistance in case of emergency include:

American Red Cross- Coastal Bend (361) 887-9991
Nueces County Emergency Management (361) 888-0513
Texas Division of Emergency Management- Region 3 (956) 565-7120
TCEQ- Region N (361) 825- 3100
Corpus Christi Emergency Management (361) 826-1100

7.5 Region Specific Drought Response Recommendations and Model Drought Contingency Plans

7.5.1 Region Specific Drought Response Recommendations

The CBRWPG acknowledges that DCPs are a useful drought management tool for entities with both surface and groundwater sources and recommends that all entitles consider adopting a DCP in preparation for drought conditions. The region also recommends that in accordance with TCEQ guidelines, entities update their DCPs every 5 years as triggers can change as wholesale and retail water providers reassess their contracts and supplies. The Nueces River Authority obtained 31 drought contingency plans from across the region. Fifteen of these

participating water providers and WUGs rely solely on surface water, 11 entities rely solely on groundwater and 5 of them utilize both sources to meet needs.

An analysis was performed based on the known DCPs to determine the most common drought contingency measures used in Region N. A summary of the results is shown in Table 7.10 and the detailed information is found in Table 7.11. Region N suggests that entities without a DCP could determine which drought contingency measures to adopt by considering the DCPs of other regional WUGS with similar populations and supply types.

7.5.2 Model Drought Contingency Plans

TCEQ provides model drought contingency plans[8] for wholesale and retail water suppliers to provide guidance and suggestions to entities with regard to the preparation of drought contingency plans. Not all items in the model will apply to every systems situation, but the overall model can be used as a starting point for most entities.

The CBRWPG recommends that a list of the common drought contingency measures for the Coastal Bend Region (Table 7.11) be considered for municipal and WWPs, in addition to TCEQ Model DCPs for Region N entities wishing to develop a new DCP. Region-specific model drought contingency plans are included in Appendix D.

Table 7.10.
Region N Drought Contingency Summary

Common Drought Contingency Measure	Number of Region N DCPs Recommending
Watering schedules/ Landscape irrigation restrictions	31
Water demand reduction targets	28
Potable water use restrictions	10
Vehicle washing restrictions	28
Restrictions on wash down of hard-surfaces, buildings, and/or structures	26
Restrictions on new service connections, pipeline extensions, etc.	16
Restrictions on serving water to patrons at restaurants	15
Restrictions on flushing gutters, controllable leaks, and/or permitting water to run or accumulate	27
Restrictions on the use of water for pools, ponds, or fountains	28
Restrictions on use of water for dust control	22
Others	27

[8] https://www.tceq.texas.gov/assets/public/permitting/watersupply/drought/dcpiou.pdf

Table 7.11. Common Drought Response Measures

Wholesale Water Provider/Water User Group	Census 2010 (For Water User Groups Only)	DCP Available	Date	Drought Contingency Measures: Watering schedules/ Landscape irrigation restrictions	Water demand reduction targets	Potable water use restrictions	Vehicle washing restrictions	Restrictions on wash down of hard-surfaces, buildings, and/or structures	Restrictions on new service connections, pipeline extensions, etc.	Restrictions on serving water to patrons at restaurants	Restrictions on flushing gutters, controllable leaks, and/or permitting water to run or accumulate	Restrictions on the use of water for pools, ponds, or fountains	Restrictions on use of water for dust control	Others	Water Supplies: SW	GW
Wholesale Water Providers																
City of Corpus Christi		Y	2018	√	√	√	√	√	√			√		√	√	
SPMWD		Y	2019	√	√	√	√	√				√	√	√	√	
South Texas Water Authority		Y	2018	√	√									√	√	
Nueces County WCID #3		Y	2019	√	√	√	√	√				√			√	
LNRA		Y	2014	√	√									√	√	
Water User Groups																
Aransas Pass	8,204	Y	2008	√	√		√	√	√	√	√	√	√	√	√	√
Rockport	8,766	Y	2013	√	√		√	√			√	√	√	√	√	
Baffin Bay WSC	N/A	Y	2015	√	√		√	√			√	√				√
Beeville	12,863	Y	2020	√	√	√	√	√	√			√	√	√	√	
City of Three Rivers	1,848	Y	2014	√	√		√	√			√	√	√		√	√
San Diego MUD #1	4,488	Y	2000	√	√		√	√			√	√	√	√	√	√
Alice	19,104	Y	2019	√	√		√	√	√	√	√	√	√	√	√	
Orange Grove	1,318	Y	2000	√	√		√	√	√	√	√	√	√	√		√
Kingsville	26,213	Y	2002	√	√		√	√	√	√	√	√	√	√	√	√
Ricardo WSC	2,631	Y	2018	√	√	√	√	√	√	√	√	√	√	√	√	
El Oso WSC	1,019	Y	2009	√	√		√	√	√	√	√	√	√	√		√
McCoy WSC	169	Y	2000	√	√		√	√	√	√	√	√	√	√		√
Nueces WSC	2,322	Y	2019	√	√	√	√	√	√	√	√	√	√	√	√	
River Acres WSC	2,421	Y	2000	√	√	√	√	√	√	√	√	√	√	√	√	
Odem	2,389	Y	2013	√	√	√	√	√	√	√	√	√		√	√	
Ingleside	9,387	Y	2018	√	√	√	√	√	√	√	√	√	√	√	√	√
Taft	3,048	Y	2013	√	√		√	√	√	√	√	√	√	√	√	
Portland	15,099	Y	2013	√	√	√	√	√	√	√	√	√	√	√	√	
Rincon WSC	3,243	Y	2009	√	√		√				√	√		√	√	
County-Other Entities																
Aransas County MUD #1		Y	2009	√							√			√		√
Blueberry Hills		Y	2005	√	√		√	√			√	√	√	√		√
Copano Heights Water Company		Y	2018	√	√		√	√			√	√	√		√	
Escondido Creek Estates		Y	2000	√			√			√	√	√	√	√		√
Freer WCID		Y	2000	√	√		√	√	√	√	√	√	√	√		√
Riviera		Y	2000	√			√	√			√	√	√	√		√
Baffin Bay WSC			2015	√	√											√
Pettus MUD		Y	2000	√			√	√			√	√		√		√

7.6 Drought Management WMS

The Coastal Bend Regional Water Planning Group adopted safe yield measures when considering water supplies for nearly 80% of the regional water demands. The regional water plan is developed to meet projected water demands with a safe yield reserve of 75,000 ac-ft in CCR/LCC storage during worst historical drought conditions as a provision for future drought uncertainty. The Coastal Bend Regional Water Planning Group sees the purpose of the planning as ensuring that sufficient supplies are available to meet future water demands. Additional drought management recommendations have not been made by the CBRWPG as a water management strategy for specific WUG needs. Reducing water demands during a drought as a defined water management strategy does not ensure that sufficient supplies will be available to meet the projected water demands; but simply eliminates the demands.

While the CBRWPG encourages entities in the region to promote demand management during a drought, it should not be identified as a "new source" of supply. Recommending demand reductions as a water management strategy is antithetical to the concept of planning to meet projected water demands. It does not make more efficient use of existing supplies as does conservation, but instead effectively turns the tap off when the water is needed most. It is planning to not meet future water demands. At CBRWPG request, the TWDB conducted a Socio-economic Analysis of Not Meeting Needs for the 2021 Region N Plan, included in Appendix B.

While Drought Management WMSs are not identified by Region N, DCPs are encouraged for all entities and the region supports the implementation of the drought responses outlined in these DCPs when corresponding triggers occur. While the relief provided from these DCP responses can prolong supply and reduce impacts to communities, they are not seen as reliable for all entities under all potential droughts.

7.7 Other Drought Recommendations

7.7.1 Model Updates

It is of utmost importance that regional water planning groups have the most up-to-date information available to make decisions. The Corpus Christi Water Supply Model is used to determine both the DOR and the safe yield of reservoirs, and was updated through 2015. The CBRWPG recommends that the Texas legislature continue to support TCEQ and regional water planning groups to pursue updated WAMs and Water Supply Models. This will be especially important if the duration of the recent drought continues or the severity increases.

7.7.2 Monitoring and Assessment

Region N recommends that all entities monitor the drought situation around the state and locally in order to prepare and facilitate decisions. Several state and local agencies are monitoring and reporting on conditions with up to date information. A few informative sources are listed below.

- Nueces River Authority Pass-Through Data: https://www.nuecesra.org/CP/CITY/passthru/index.php.

- TWDB Drought Information: http://waterdatafortexas.org/drought/.
- TCEQ Drought Information: https://www.tceq.texas.gov/response/drought.

In addition, the CBRWPG supports the efforts of the Texas Drought Preparedness Council (DPC) and recommends that entities review information developed by the council. The DPC was established by the legislature in 1999 and is composed of 15 representatives from several state agencies. The council is responsible for assessment and public reporting of drought monitoring and water supply conditions, advising the governor on drought conditions, and ensuring effective coordination among agencies. The DPC is currently promoting outreach to inform entities of the assistance they can provide and looking for input as to how they can be more useful. The CBRWPG suggests that WUGs consider the resources available to them through the DPC such as the Drought Annex which describes the activities that help minimize potential impacts of drought and outlines an effective mechanism for proactive monitoring and assessment and was published in 2014. More information on the DCP can be found here: http://www.txdps.state.tx.us/dem/CouncilsCommittees/droughtCouncil/stateDroughtPrepCouncil.htm.

The CBRWPG received a letter from the DPC dated August 1, 2019 that included recommendations to (a) fully address assessment of current drought preparations according to Chapter 7 template and (b) develop region-specific model DCPs for all water use categories in the region that account for more than 10% water demands in any decade over the 50-year planning horizon. Specifically, the DPC recommendation translates to request that Region N consider developing *region-specific* model drought contingency plans for: Irrigation, Manufacturing, and Municipal sectors. The CBRWPG considered the recommendations of the DPC; however, it was determined that it was not practical to develop region specific DCPs for manufacturing and irrigation sectors. The CBRWPG requests that representatives from the DPC present information early in the planning process regarding their recommendations and that the TWDB provide financial support to Regional Water Planning Groups to address DPC recommendations. Furthermore, the CBRWPG encourages the DPC to attend a regional water planning group meeting during future planning cycles.

The State Drought Preparedness Plan, issued by the DPC in February 2006, emphasizes the importance of pro-active drought monitoring and provides agency resources that collect drought-related data and provide assistance. The State Drought Preparedness Plan presents resources that are available for mitigation and preparedness, response, and recovery. It continues by identifying climatological, agriculture, and water availability indices for each of ten climatic regions in Texas to consider when assessing drought severity. The Coastal Bend Region (Region N) counties are located in two climatic regions (Region 7 and 8) and, as discussed in the report, “climatic regions are so large, that drought indices developed across regions of this magnitude routinely mask smaller, regional drought problems and emerging drought conditions”. For this reason, the CBRWPG considered the State Drought Preparedness Plan and information from the DPC but selected information provided by local, approved drought contingency plans for development of drought response recommendations.

Appendix D

Model Water Conservation Plans and Drought Contingency Plans (Region Specific)

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Model Water Conservation Plans

For municipal water users, the CBRWPG compiled a summary of frequent best management practices and water conservation goals (5 year and 10 year) from existing water conservation plans submitted to the TCEQ for water user groups in the Coastal Bend Region. The CBRWPG recommends appending these region specific tables, beginning on the next page, with the TCEQ model water conservation form (also attached). The TCEQ form can also be accessed electronically on the TCEQ website at:
https://www.tceq.texas.gov/permitting/water_rights/wr_technical-resources/conserve.html

Municipal water user groups in the area seeking to develop a water conservation plan are encouraged to consider the attached information from the CBRWPG as a guide. However, a one-size-fits-all approach is often impractical for all municipal water utilities and accordingly, it is to the discretion of the utility to develop a water conservation approach and target goals that serves its utility the best.

Summary of Water Conservation BMPs in the Coastal Bend Region

Wholesale Water Provider	*WCP Available*	*Date*	*Best Management Practices*							
			Reduce Water Losses/ Unaccounted for Water/Leak Detection	*Water Conservation Pricing/Seasonal or Inverted Block Rates*	*Reuse*	*Improve Meter Accuracy*	*Toilet Replacement/ Retrofit Programs*	*Public/School Education*	*Landscape Conservation/ Xeriscape*	*Others*
City of Corpus Christi[1]	Y	2019	√	√	√	√		√	√	√
San Patricio Municipal Water District[1]	Y	2019	√	√	√	√		√	√	√
South Texas Water Authority[1]	Y	2018	√	√		√		√		
Nueces County WCID 3[1,2]	Y	2019	√	√	√	√	√	√		
Water User Group										
Alice[1]	Y	2019	√	√	√	√		√	√	
Aransas Pass[2]	Y	2008	√	√		√	√	√	√	
Beeville	Y	2020	√	√	√	√		√		
El Oso WSC	Y	2009	√	√		√		√		√
Falfurrias	Y	1999	√	√		√		√	√	
Holiday Beach WSC	Y	2018	√	√	√	√	√		√	
Ingleside	Y	2018	√	√	√	√		√	√	√
Kingsville[2]	Y	2018	√	√	√	√		√	√	
McCoy WSC[2]	Y	2014	√	√		√		√		
Nueces County WCID 4[1]	Y	2019	√	√	√	√		√	√	
Nueces WSC[1]	Y	2019	√	√		√		√		
Odem[1]	Y	2013	√	√		√		√	√	√
Portland[1]	Y	2015	√	√	√	√	√	√	√	
Ricardo WSC[1]	Y	2018	√	√		√		√		
Robstown[2]	Y	2011						√		
Rockport[2]	Y	2015	√	√	√	√				
Taft[1]	Y	2013	√	√	√	√	√	√	√	
Three Rivers[2]	Y	2019	√	√	√	√		√	√	√

[1] Water Conservation Plan on-file with the Nueces River Authority.
[2] Water Conservation Plan provided by the TWDB.

Summary of 5 and 10 Year Water Conservation Goals in the Coastal Bend Region

Wholesale Water Provider	5-Year Goal		10-Year Goal	
	GPCD Target	General	GPCD Target	General
City of Corpus Christi[1,2,3]	195[2]	1% annual reduction over next decade	184[2]	1% annual reduction over next decade
San Patricio Municipal Water District[1]	141	1% annual reduction over next decade	134	1% annual reduction over next decade
South Texas Water Authority[1]	140-145	Not Available	140-145	Not Available
Nueces County WCID 3[1,2]	103	Not Available	108	Not Available
Water User Group				
Alice[1,2]	176	Reduce per capita use by 3%	173	Reduce per capita use by 3%
Aransas Pass[2]	225	2.5% per capita	260	5% per capita
Beeville	161	1% annual reduction over next decade	160	1% annual reduction over next decade
Corpus Christi[1,2,3]	195	1% annual reduction over next decade	184	1% annual reduction over next decade
El Oso WSC	N/A	Reduce water loss	N/A	Reduce water loss
Falfurrias	N/A	Not Available	N/A	Not Available
Holiday Beach WSC	58	Reduce water loss	56	Reduce water loss
Ingleside	106	1% reduction in water loss and usage within the next 5 years	105	2% within the next 10 years
Kingsville[2]	130	1% annual reduction	125	1% annual reduction
McCoy WSC[1]	115	Maintain current per capita usage; Reduce water loss to 4% of water pumped, line flushing and fire fighting	110	Reduce usage by 4.5%; Reduce water loss to 2% of water pumped, not including line flushing and fire fighting
Nueces County WCID 4[1,2]	396	1% annual reduction over next decade	376	1% annual reduction over next decade
Nueces WSC[1]	118	Maintain current per capita usage	118	Maintain current per capita usage
Odem[1]	149	5% over the next 10 years	146	7% reduction in unaccounted-for water over the next 10 years
Portland[1]	272	5% reduction	258	10% reduction
Ricardo WSC[1]	95	Maintain current per capita usage	95	Maintain current per capita usage
Robstown[2]	N/A	Not Available	N/A	Not Available
Rockport	107	Maintain unaccounted water in the system below 12% annually in 2016 and subsequent years and reduce other water demands	107	Maintain unaccounted water in the system below 12% annually in 2016 and subsequent years and reduce other water demands
Taft[1,2]	147	Reduce per capita use by 3%	140	Reduce per capita use by 3%
Three Rivers[2,3]	386	0.5% annual reduction	377	0.5% annual reduction

[1] Water Conservation Plan on-file with the Nueces River Authority.
[2] Information is from the 2019 Water Conservation Plans, Target and Goal Table, provided by the TWDB.
[3] Calculated by taking volume of treated water, excluding water sold to wholesale customers, and dividing by permanent population, divided by 365. Because industrial use is close to 40% of treated water, the per capita rate is higher. Target goal for residential use is 73 gpcd (2018) and 69 gpcd (Year 2023).
N/A = Not Available

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Texas Commission on Environmental Quality

Water Availability Division
MC-160, P.O. Box 13087 Austin, Texas 78711-3087
Telephone (512) 239-4691, FAX (512) 239-2214

Utility Profile and Water Conservation Plan Requirements for Municipal Water Use by Retail Public Water Suppliers

This form is provided to assist retail public water suppliers in water conservation plan assistance in completing this form or in developing your plan, please contact the Conservation staff of the Resource Protection Team in the Water Availability Division at (512) 239-4691.

Water users can find best management practices (BMPs) at the Texas Water Development Board's website http://www.twdb.texas.gov/conservation/BMPs/index.asp. The practices are broken out into sectors such as Agriculture, Commercial and Institutional, Industrial, Municipal and Wholesale. BMPs are voluntary measures that water users use to develop the required components of Title 30, Texas Administrative Code, Chapter 288. BMPs can also be implemented in addition to the rule requirements to achieve water conservation goals.

Contact Information

Name of Water Supplier:	Click to add text
Address:	
Telephone Number:	( ) Fax: ( )
Water Right No.(s):	
Regional Water Planning Group:	
Water Conservation Coordinator (or person responsible for implementing conservation program):	Phone: ( )
Form Completed by:	
Title:	
Signature:	Date: / /

A water conservation plan for municipal use by retail public water suppliers must include the following requirements (as detailed in 30 TAC Section 288.2). If the plan does not provide information for each requirement, you must include in the plan an explanation of why the requirement is not applicable.

Utility Profile

I. POPULATION AND CUSTOMER DATA

A. Population and Service Area Data

1. Attach a copy of your service-area map and, if applicable, a copy of your Certificate of Convenience and Necessity (CCN).

2. Service area size (in square miles):

   (Please attach a copy of service-area map)

3. Current population of service area:

4. Current population served for:

   a. Water

   b. Wastewater

5. Population served for previous five years:

Year	*Population*

6. Projected population for service area in the following decades:

Year	*Population*
2020	
2030	
2040	
2050	
2060	

7. List source or method for the calculation of current and projected population size.

B. Customer Data

Senate Bill 181 requires that uniform consistent methodologies for calculating water use and conservation be developed and available to retail water providers and certain other water use sectors as a guide for preparation of water use reports, water conservation plans, and reports on water conservation efforts. A water system must provide the most detailed level of customer and water use data available to it, however, any new billing system purchased must be capable of reporting data for each of the sectors listed below. More guidance can be found at: http://www.twdb.texas.gov/conservation/doc/SB181Guidance.pdf

1. Quantified 5-year and 10-year goals for water savings:

	Historic 5–year Average	*Baseline*	*5–year goal for year*	*10–year goal for year*
Total GPCD				
Residential GPCD				
Water Loss GPCD				
Water Loss Percentage				

Notes:
Total GPCD = (Total Gallons in System ÷ Permanent Population) ÷ 365
Residential GPCD = (Gallons Used for Residential Use ÷ Residential Population) ÷ 365
Water Loss GPCD = (Total Water Loss ÷ Permanent Population) ÷ 365
Water Loss Percentage = (Total Water Loss ÷ Total Gallons in System) x 100; or (Water Loss GPCD ÷ Total GPCD) x 100

2. Current number of active connections. Check whether multi-family service is counted as ☐ Residential or ☐ Commercial?

Treated Water Users	*Metered*	*Non–Metered*	*Totals*
Residential			
Single-Family			
Multi-Family			
Commercial			
Industrial/Mining			
Institutional			
Agriculture			
Other/Wholesale			

3. List the number of new connections per year for most recent three years.

Year			
Treated Water Users			
Residential			
Single-Family			
Multi-Family			
Commercial			
Industrial/Mining			
Institutional			
Agriculture			
Other/Wholesale			

4. List of annual water use for the five highest volume customers.

Customer	*Use (1,000 gal/year)*	*Treated or Raw Water*

II. WATER USE DATA FOR SERVICE AREA

A. Water Accounting Data

1. List the amount of water use for the previous five years (in 1,000 gallons).

   Indicate whether this is ☐ diverted or ☐ treated water.

Year					
Month					
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
Totals					

2. Describe how the above figures were determined (e.g, from a master meter located at the point of a diversion from the source or located at a point where raw water enters the treatment plant, or from water sales).

3. Amount of water (in 1,000 gallons) delivered/sold as recorded by the following account types for the past five years.

Year					
Account Types					
Residential					
Single-Family					
Multi-Family					
Commercial					
Industrial/Mining					
Institutional					
Agriculture					
Other/Wholesale					

4. List the previous records for water loss for the past five years (the difference between water diverted or treated and water delivered or sold).

Year	*Amount (gallons)*	*Percent %*

B. Projected Water Demands

1. If applicable, attach or cite projected water supply demands from the applicable Regional Water Planning Group for the next ten years using information such as population trends, historical water use, and economic growth in the service area over the next ten years and any additional water supply requirements from such growth.

III. WATER SUPPLY SYSTEM DATA

A. Water Supply Sources

1. List all current water supply sources and the amounts authorized (in acre feet) with each.

Water Type	*Source*	*Amount Authorized*
Surface Water		

Groundwater		
Other		

B. Treatment and Distribution System (if providing treated water)

1. Design daily capacity of system (MGD):
2. Storage capacity (MGD):
   a. Elevated
   b. Ground
3. If surface water, do you recycle filter backwash to the head of the plant?

   ☐ Yes ☐ No If yes, approximate amount (MGD):

IV. WASTEWATER SYSTEM DATA

A. Wastewater System Data (if applicable)

1. Design capacity of wastewater treatment plant(s) (MGD):
2. Treated effluent is used for ☐ on-site irrigation, ☐ off-site irrigation, for ☐ plant wash-down, and/or for ☐ chlorination/dechlorination.

   If yes, approximate amount (in gallons per month):
3. Briefly describe the wastewater system(s) of the area serviced by the water utility. Describe how treated wastewater is disposed. Where applicable, identify treatment plant(s) with the TCEQ name and number, the operator, owner, and the receiving stream if wastewater is discharged.

B. Wastewater Data for Service Area (if applicable)

1. Percent of water service area served by wastewater system: %
2. Monthly volume treated for previous five years (in 1,000 gallons):

Year					
Month					
January					
February					
March					
April					

May					
June					
July					
August					
September					
October					
November					
December					
Totals					

Water Conservation Plan

In addition to the utility profile, please attach the following as required by Title 30, Texas Administrative Code, §288.2. Note: If the water conservation plan does not provide information for each requirement, an explanation must be included as to why the requirement is not applicable.

A. Record Management System

The water conservation plan must include a record management system which allows for the classification of water sales and uses in to the most detailed level of water use data currently available to it, including if possible, the following sectors: residential (single and multi-family), commercial.

B. Specific, Quantified 5 & 10–Year Targets

The water conservation plan must include specific, quantified five-year and ten-year targets for water savings to include goals for water loss programs and goals for municipal use in gallons per capita per day. Note that the goals established by a public water supplier under this subparagraph are not enforceable. These goals must be updated during the five-year review and submittal.

C. Measuring and Accounting for Diversions

The water conservation plan must include a statement about the water suppliers metering device(s), within an accuracy of plus or minus 5.0% in order to measure and account for the amount of water diverted from the source of supply.

D. Universal Metering

The water conservation plan must include and a program for universal metering of both customer and public uses of water, for meter testing and repair, and for periodic meter replacement.

E. Measures to Determine and Control Water Loss

The water conservation plan must include measures to determine and control water loss (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections; abandoned services; etc.).

F. Continuing Public Education & Information

The water conservation plan must include a description of the program of continuing public education and information regarding water conservation by the water supplier.

G. Non–Promotional Water Rate Structure

The water supplier must have 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. This rate structure must be listed in the water conservation plan.

H. Reservoir Systems Operations Plan

The water conservation plan must include 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.

I. Enforcement Procedure and Plan Adoption

The water conservation plan must include 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.

J. Coordination with the Regional Water Planning Group(s)

The water conservation plan must include documentation of coordination with the regional water planning groups for the service area of the public water supplier in order to ensure consistency with the appropriate approved regional water plans.

K. Plan Review and Update

A public water supplier for municipal use 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 public water supplier for municipal use shall review and update the next revision of its water conservation plan not later than May 1, 2009, and every five years after that date to coincide with the regional water planning group. The revised plan must also include an implementation report.

VI. ADDITIONAL REQUIREMENTS FOR LARGE SUPPLIERS

Required of suppliers serving population of 5,000 or more or a projected population of 5,000 or more within the next ten years:

A. Leak Detection and Repair

The plan must include a description of the program of leak detection, repair, and water loss accounting for the water transmission, delivery, and distribution system in order to control unaccounted for uses of water.

B. Contract Requirements

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.

VII. ADDITIONAL CONSERVATION STRATEGIES

Any combination of the following strategies shall be selected by the water supplier, in addition to the minimum requirements of 30 TAC §288.2(1), 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:

1. 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;

2. 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;

3. A program for the replacement or retrofit of water-conserving plumbing fixtures in existing structures;

4. A program for reuse and/or recycling of wastewater and/or graywater;

5. A program for pressure control and/or reduction in the distribution system and/or for customer connections;

6. A program and/or ordinance(s) for landscape water management;

7. A method for monitoring the effectiveness and efficiency of the water conservation plan; and

8. 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.

VIII. WATER CONSERVATION PLANS SUBMITTED WITH A WATER RIGHT APPLICATION FOR NEW OR ADDITIONAL STATE WATER

Water Conservation Plans submitted with a water right application for New or Additional State Water must include data and information which:

1. support the applicant's proposed use of water with consideration of the water conservation goals of the water conservation plan;

2. evaluates conservation as an alternative to the proposed appropriation; and

3. evaluates any other feasible alternative to new water development including, but not limited to, waste prevention, recycling and reuse, water transfer and marketing, regionalization, and optimum water management practices and procedures.

Additionally, it shall be the burden of proof of the applicant to demonstrate that no feasible alternative to the proposed appropriation exists and that the requested amount of appropriation is necessary and reasonable for the proposed use.

Texas Commission on Environmental Quality

Water Availability Division
MC-160, P.O. Box 13087 Austin, Texas 78711-3087
Telephone (512) 239-4691, FAX (512) 239-2214

Utility Profile and Water Conservation Plan Requirements for Wholesale Public Water Suppliers

This form is provided to assist wholesale public water suppliers in water conservation plan development. If you need assistance in completing this form or in developing your plan, please contact the Conservation staff of the Resource Protection Team in the Water Availability Division at (512) 239-4691.

Water users can find best management practices (BMPs) at the Texas Water Development Board's website http://www.twdb.texas.gov/conservation/BMPs/index.asp. The practices are broken out into sectors such as Agriculture, Commercial and Institutional, Industrial, Municipal and Wholesale. BMPs are voluntary measures that water users use to develop the required components of Title 30, Texas Administrative Code, Chapter 288. BMPs can also be implemented in addition to the rule requirements to achieve water conservation goals.

Contact Information

Name: Click to add text

Address: _____

Telephone Number: ( ) Fax: ( )

Water Right No.(s): _____

Regional Water Planning Group: _____

Person responsible for implementing conservation program: _____ Phone: ( )

Form Completed By: _____

Title: _____

Signature: _____ Date: / /

A water conservation plan for wholesale public water suppliers must include the following requirements (as detailed in 30 TAC Section 288.5). If the plan does not provide information for each requirement, you must include in the plan an explanation of why the requirement is not applicable.

Utility Profile

I. WHOLESALE SERVICE AREA POPULATION AND CUSTOMER DATA

A. Population and Service Area Data:

1. Service area size (in square miles):

   (Please attach a copy of service-area map)

2. Current population of service area:

3. Current population served for:

   a. Water

   b. Wastewater

4. Population served for previous five years:

Year	*Population*

5. Projected population for service area in the following decades:

Year	*Population*
2020	
2030	
2040	
2050	
2060	

6. List source or method for the calculation of current and projected population size.

B. Customer Data

List (or attach) the names of all wholesale customers, amount of annual contract, and amount of annual use for each customer for the previous year:

Wholesale Customer	*Contracted Amount (Acre–feet)*	*Previous Year Amount of Water Delivered (acre–feet)*

II. WATER USE DATA FOR SERVICE AREA

A. Water Delivery

Indicate if the water provided under wholesale contracts is treated or raw water and the annual amounts for the previous five years (in acre feet):

Year	*Treated Water*	*Raw Water*
Totals		

B. *Water Accounting Data*

1. Total amount of water diverted at the point of diversion(s) for the previous five years (in acre-feet) for all water uses:

Year					
Month					
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

Totals _____ _____ _____ _____ _____

2. Wholesale population served and total amount of water diverted for **municipal use** for the previous five years (in acre-feet):

Year	*Total Population Served*	*Total Annual Water Diverted for Municipal Use*

C. Projected Water Demands

If applicable, project and attach water supply demands for the next ten years using information such as population trends, historical water use, and economic growth in the service area over the next ten years and any additional water supply requirements from such growth.

III. WATER SUPPLY SYSTEM DATA

A. Projected Water Demands

List all current water supply sources and the amounts authorized (in acre feet) with each.

Water Type	*Source*	*Amount Authorized*
Surface Water		
Groundwater		
Other		

B. Treatment and Distribution System (if providing treated water)

1. Design daily capacity of system (MGD):

2. Storage capacity (MGD):

   a. Elevated

   b. Ground

3. Please attach a description of the water system. Include the number of treatment plants, wells, and storage tanks

IV. WASTEWATER SYSTEM DATA

A. Wastewater System Data (if applicable)

1. Design capacity of wastewater treatment plant(s) (MGD):

2. Briefly describe the wastewater system(s) of the area serviced by the wholesale public water supplier. Describe how treated wastewater is disposed. Where applicable, identify treatment plant(s) with the TCEQ name and number, the operator, owner, and the receiving stream if wastewater is discharged.

B. Wastewater Data for Service Area (if applicable)

1. Percent of water service area served by wastewater system: %

2. Monthly volume treated for previous five years (in 1,000 gallons):

Year					
Month					
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
Totals					

Water Conservation Plan

In addition to the description of the wholesaler's service area (profile from above), a water conservation plan for a wholesale public water supplier must include, at a minimum, additional information as required by Title 30, Texas Administrative Code, Chapter 288.5. Note: If the water conservation plan does not provide information for each requirement an explanation must be included as to why the requirement is not applicable.

A. Specific, Quantified 5 & 10–Year Targets

The water conservation plan must include 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 water loss, and the basis for the development of these goals. Note that the goals established by a wholesale water supplier under this subparagraph are not enforceable. These goals must be updated during the 5-year review and submittal.

B. Measuring and Accounting for Diversions

The water conservation plan must include 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.

C. Record Management Program

The water conservation plan must include a monitoring and record management program for determining water deliveries, sales, and losses.

D. Metering/Leak–Detection and Repair Program

The water conservation plan must include a program of metering and leak detection and repair for the wholesaler's water storage, delivery, and distribution system.

E. Contract Requirements for Successive Customer Conservation

The water conservation plan must include 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 Title 30 TAC Chapter 288. If the customer intends to resell the water, then 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.

F. Reservoir Systems Operations Plan

The water conservation plan must include 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 plan shall include optimization of water supplies as one of the significant goals of the plan.

G. Enforcement Procedure and Official Adoption

The water conservation plan must include 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.

H. Coordination with the Regional Water Planning Group(s)

The water conservation plan must include 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 appropriate approved regional water plans.

Example statement to be included within the water conservation plan:

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

I. Plan Review and Update

A wholesale water supplier 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. 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 regional water planning group. The revised plan must also include an implementation report.

V. ADDITIONAL CONSERVATION STRATEGIES

Any combination of the following strategies shall be selected by the water wholesaler, in addition to the minimum requirements of 30 TAC §288.5(1), 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:

1. 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;

2. A program to assist agricultural customers in the development of conservation, pollution prevention and abatement plans;

3. A program for reuse and/or recycling of wastewater and/or graywater;

4. 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.

VI. WATER CONSERVATION PLANS SUBMITTED WITH A WATER RIGHT APPLICATION FOR NEW OR ADDITIONAL STATE WATER

Water Conservation Plans submitted with a water right application for New or Additional State Water must include data and information which:

1. support the applicant's proposed use of water with consideration of the water conservation goals of the water conservation plan;

2. evaluates conservation as an alternative to the proposed appropriation; and

3. evaluates any other feasible alternative to new water development including, but not limited to, waste prevention, recycling and reuse, water transfer and marketing, regionalization, and optimum water management practices and procedures.

Additionally, it shall be the burden of proof of the applicant to demonstrate that no feasible alternative to the proposed appropriation exists and that the requested amount of appropriation is necessary and reasonable for the proposed use.

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Model Drought Contingency Plans

For municipal water users, wholesale public water suppliers, and irrigation districts the CBRWPG compiled a summary of common drought contingency measures identified in existing drought contingency plans for water user groups in the Coastal Bend Region. The CBRWPG recommends appending this region specific table, beginning on the next page, with the TCEQ model drought contingency plan for retail public water suppliers (also attached). The TCEQ form can be accessed electronically on the TCEQ website, along with a handbook for drought contingency planning or a customized drought contingency plan form for water supply corporations, at: https://www.tceq.texas.gov/permitting/water_rights/wr_technical-resources/contingency.html

Municipal water users, wholesale water providers, and irrigation districts in the area seeking to develop a drought contingency plan are encouraged to consider the attached information from the CPRWPG as a guide for utilities comparable in size and with similar water source (included in summary table). However, a one-size-fits-all approach is often impractical for all municipal water utilities and accordingly. It is to the discretion of the utility to develop a drought contingency plan that serves its utility best. Current links to TCEQ model drought contingency forms based on entity type are listed below.

Municipal Water Users (see attached Retail Public Water Supplier form)

https://www.tceq.texas.gov/assets/public/permitting/watersupply/drought/20191.pdf

Wholesale Public Water Providers (see attached Wholesale Public Water Supplier form)

https://www.tceq.texas.gov/assets/public/permitting/watersupply/drought/20193.pdf

Irrigation Districts (see attached Irrigation District Supplier form)

https://www.tceq.texas.gov/assets/public/permitting/watersupply/drought/dcpirr.pdf

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Wholesale Water Provider/Water User Group	Census 2010 (For Water User Groups Only)	DCP Available	Date	Drought Contingency Measures												Water Supplies	
				Watering schedules/ Landscape irrigation restrictions	Water demand reduction targets	Potable water use restrictions	Vehicle washing restrictions	Restrictions on wash down of hard-surfaces, buildings, and/or structures	Restrictions on new service connections, pipeline extensions, etc.	Restrictions on serving water to patrons at restaurants	Restrictions on flushing gutters, controllable leaks, and/or permitting water to run or accumulate	Restrictions on the use of water for pools, ponds, or fountains	Restrictions on use of water for dust control	Others	SW	GW
Wholesale Water Providers																	
City of Corpus Christi		Y	2018	√	√	√	√	√	√			√		√	√	
SPMWD		Y	2019	√	√	√	√	√				√	√	√	√	
South Texas Water Authority		Y	2018	√	√									√	√	
Nueces County WCID #3		Y	2019	√	√	√	√	√				√			√	
LNRA		Y	2014		√									√	√	
Water User Groups																	
Aransas Pass	8,204	Y	2008	√	√		√	√	√	√	√	√	√	√	√	√
Rockport	8,766	Y	2013	√	√		√	√			√	√	√	√	√	
Baffin Bay WSC	N/A	Y	2015	√	√		√	√			√	√				√
Beeville	12,863	Y	2020	√	√	√	√	√	√			√	√	√	√	
City of Three Rivers	1,848	Y	2014	√	√		√	√			√	√	√		√	√
San Diego MUD #1	4,488	Y	2000	√	√		√	√			√	√	√	√		√
Alice	19,104	Y	2019	√	√		√	√	√	√	√	√	√	√	√	
Orange Grove	1,318	Y	2000	√	√		√	√	√	√	√	√	√	√		√
Kingsville	26,213	Y	2002	√	√		√	√	√	√	√	√	√	√	√	√
Ricardo WSC	2,631	Y	2018	√	√	√	√	√	√	√	√	√	√	√	√	
El Oso WSC	1,019	Y	2009	√	√		√	√	√	√	√	√	√	√		√
McCoy WSC	169	Y	2000	√	√		√	√	√	√	√	√	√	√		√
Nueces WSC	2,322	Y	2019	√	√	√	√	√	√	√	√	√	√	√	√	
River Acres WSC	2,421	Y	2000	√	√	√	√	√	√	√	√	√	√	√	√	
Odem	2,389	Y	2013	√	√	√	√	√	√	√	√	√		√	√	
Ingleside	9,387	Y	2018	√	√	√	√	√	√	√	√	√	√	√	√	√
Taft	3,048	Y	2013	√	√		√	√	√	√	√	√	√	√	√	
Portland	15,099	Y	2013	√	√	√	√	√	√	√	√	√	√	√	√	
Rincon WSC	3,243	Y	2009	√	√		√				√	√		√	√	
County-Other Entities																	
Aransas County MUD #1		Y	2009	√							√			√		√
Blueberry Hills		Y	2005	√	√		√	√			√	√	√	√		√
Copano Heights Water Company		Y	2018	√	√		√	√			√	√	√		√	
Escondido Creek Estates		Y	2000	√			√			√	√	√	√	√		√
Freer WCID		Y	2000	√	√		√	√	√	√	√	√	√	√		√
Riviera		Y	2000	√			√	√			√	√	√	√		√
Baffin Bay WSC			2015	√	√											√
Pettus MUD		Y	2000	√			√	√			√	√		√		√

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Texas Commission on Environmental Quality
Water Availability Division
MC-160, P.O. Box 13087 Austin, Texas 78711-3087
Telephone (512) 239-4691, FAX (512) 239-2214

Drought Contingency Plan for a Retail Public Water Supplier

This form is provided as a model of a drought contingency plan for a retail public water supplier. If you need assistance in completing this form or in developing your plan, please contact the Conservation Staff of the Resource Protection Team in the Water Availability Division at (512) 239-4691.

Drought Contingency Plans must be formally adopted by the governing body of the water provider and documentation of adoption must be submitted with the plan. For municipal water systems, adoption would be by the city council as an ordinance. For other types of publicly-owned water systems (example: utility districts), plan adoption would be by resolution of the entity's board of directors adopting the plan as administrative rules. For private investor-owned utilities, the drought contingency plan is to be incorporated into the utility's rate tariff. Each water supplier shall provide documentation of the formal adoption of their drought contingency plan.

Name: _____

Address: _____

Telephone Number: ( ) _____ Fax: ( ) _____

Water Right No.(s): _____

Regional Water Planning Group: _____

Form Completed by: _____

Title: _____

Person responsible for implementation: _____ Phone: ( ) _____

Signature: _____ Date: / / _____

Section I: Declaration of Policy, Purpose, and Intent

In order to conserve the available water supply and 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 your water supplier*) hereby adopts the following regulations and restrictions on the delivery and consumption of water.

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

Section II: Public Involvement
Opportunity for the public to provide input into the preparation of the Plan was provided by the _____ (*name of your water supplier*) by means of _____ _____ (*describe methods used to inform the public about the preparation of the plan and provide opportunities for input; for example, scheduling and providing public notice of a public meeting to accept input on the Plan*).

Section III: Public Education
The _____ (*name of your water 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. This information will be provided by means of _____ (*describe methods to be used to provide information to the public about the Plan; for example, public events, press releases or utility bill inserts*).

Section IV: Coordination with Regional Water Planning Groups
The service area of the _____ (*name of your water supplier*) is located within the _____ (*name of regional water planning area or areas*) and _____ (*name of your water supplier*) has provided a copy of this Plan to the _____ (*name of your regional water planning group or groups*).

Section V: Authorization
The _____ (*designated official; for example, the mayor, city manager, utility director, general manager, etc.*), 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 _____ (*designated official*) 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 VI: Application
The provisions of this Plan shall apply to all persons, customers, and property utilizing water provided by the _____ (*name of your water supplier*). The terms "person" and "customer" as used in the Plan include individuals, corporations, partnerships, associations, and all other legal entities.

Section VII: Definitions
For the purposes of this Plan**,** the following definitions shall apply:

Aesthetic water use: water use for ornamental or decorative purposes such as fountains, reflecting pools, and water gardens.

Commercial and institutional water use: water use which is integral to the operations of commercial and non-profit establishments and governmental entities such as retail establishments, hotels and motels, restaurants, and office buildings.

Conservation: those practices, techniques, and technologies that reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water or increase the recycling and reuse of water so that a supply is conserved and made available for future or alternative uses.

Customer: any person, company, or organization using water supplied by _____ (*name of your water supplier*).

Domestic water use: water use for personal needs or for household or sanitary purposes such as drinking, bathing, heating, cooking, sanitation, or for cleaning a residence, business, industry, or institution.

Even number address: street addresses, box numbers, or rural postal route numbers ending in 0, 2, 4, 6, or 8 and locations without addresses.

Industrial water use: the use of water in processes designed to convert materials of lower value into forms having greater usability and value.

Landscape irrigation use: water used for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including residential and commercial lawns, gardens, golf courses, parks, and rights-of-way and medians.

Non-essential water use: water uses that are not essential nor required for the protection of public, health, safety, and welfare, including:

(a) irrigation of landscape areas, including parks, athletic fields, and golf courses, except otherwise provided under this Plan;
(b) use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle;
(c) use of water to wash down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
(d) use of water to wash down buildings or structures for purposes other than immediate fire protection;
(e) flushing gutters or permitting water to run or accumulate in any gutter or street;
(f) use of water to fill, refill, or add to any indoor or outdoor swimming pools or Jacuzzi-type pools;
(g) use of water in a fountain or pond for aesthetic or scenic purposes except where necessary to support aquatic life;
(h) failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s); and
(i) use of water from hydrants for construction purposes or any other purposes other than fire fighting.

Odd numbered address: street addresses, box numbers, or rural postal route numbers ending in 1, 3, 5, 7, or 9.

Section VIII: 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 _____ (*example: daily, weekly, monthly*) basis and shall determine when conditions warrant initiation or termination of each stage of the Plan, that is, when the specified "triggers" are reached.

The triggering criteria described below are based on:
_____.
(*Provide a brief description of the rationale for the triggering criteria; for example, triggering criteria / trigger levels based on a statistical analysis of the vulnerability of the water source under drought of record conditions, or based on known system capacity limits*).

Utilization of alternative water sources and/or alternative delivery mechanisms:

Alternative water source(s) for _____ (*name of utility*) is/are: _____.

(Examples: Other well(s), Inter-connection with other system, Temporary use of a non-municipal water supply, Purchased water, Use of reclaimed water for non-potable purposes, etc.).

Stage 1 Triggers -- MILD Water Shortage Conditions

Requirements for initiation
Customers shall be requested to voluntarily conserve water and adhere to the prescribed restrictions on certain water uses, defined in Section VII Definitions, when _____.
(*Describe triggering criteria / trigger levels; see examples below*).

Following are examples of the types of triggering criteria that might be used in one or more successive stages of a drought contingency plan. The public water supplier may devise other triggering criteria and an appropriate number of stages tailored to its system. One or a combination of the criteria selected by the public water supplier must be defined for each drought response stage, but usually not all will apply.

Example 1: *Annually, beginning on May 1 through September 30.*

Example 2: *When the water supply available to the _____ (name of your water supplier) is equal to or less than _____ (acre-feet, percentage of storage, etc.).*

Example 3: *When, pursuant to requirements specified in the _____ (name of **your** water supplier) wholesale water purchase contract with _____ (name of your wholesale water supplier), notification is received requesting initiation of Stage 1 of the Drought Contingency Plan.*

Example 4: *When flows in the _____ (name of stream or river) are equal to or less than _____ cubic feet per second.*

Example 5: *When the static water level in the _____ (name of your water supplier) well(s) is equal to or less than _____ feet above/below mean sea level.*

Example 6: *When the specific capacity of the _____ (name of your water supplier) well(s) is equal to or less than _____ percent of the well's original specific capacity.*

Example 7: *When total daily water demand equals or exceeds _____ million gallons for _____ consecutive days of _____ million gallons on a single day (example: based on the safe operating capacity of water supply facilities).*

Example 8: *Continually falling treated water reservoir levels which do not refill above _____ percent overnight (example: based on an evaluation of minimum treated water storage required to avoid system outage).*

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 _____ (*example: 3*) consecutive days.

Stage 2 Triggers – MODERATE Water Shortage Conditions

Requirements for initiation
Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses provided in Section IX of this Plan when _____ (*describe triggering criteria; see examples in Stage 1*).

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 _____ (*example: 3*) consecutive days. Upon termination of Stage 2, Stage 1, or the applicable drought response stage based on the triggering criteria, becomes operative.

Stage 3 Triggers – SEVERE Water Shortage Conditions

Requirements for initiation
Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses for Stage 3 of this Plan when _____ (*describe triggering criteria; see examples in Stage 1*).

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 _____ (*example: 3*) consecutive days. Upon termination of Stage 3, Stage 2, or the applicable drought response stage based on the triggering criteria, becomes operative.

Stage 4 Triggers – CRITICAL Water Shortage Conditions

Requirements for initiation
Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses for Stage 4 of this Plan when _____ (*describe triggering criteria; see examples in Stage 1*).

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 _____ (*example: 3*) consecutive days. Upon termination of Stage 4, Stage 3, or the applicable drought response stage based on the triggering criteria, becomes operative.

Stage 5 Triggers – EMERGENCY Water Shortage Conditions

Requirements for initiation
Customers shall be required to comply with the requirements and restrictions for Stage 5 of this Plan when _____ (*designated official*), or his/her designee, determines that a water supply emergency exists based on:

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

2. Natural or man-made contamination of the water supply source(s).

Requirements for termination
Stage 5 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of _____ (*example: 3*) consecutive days.

Stage 6 Triggers – WATER ALLOCATION

Requirements for initiation
Customers shall be required to comply with the water allocation plan prescribed in Section IX of this Plan and comply with the requirements and restrictions for Stage 5 of this Plan when _____ (*describe triggering criteria, see examples in Stage 1*).

Requirements for termination - Water allocation may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of _____ (*example: 3*) consecutive days.

Note: The inclusion of WATER ALLOCATION as part of a drought contingency plan may not be required in all cases. For example, for a given water supplier, an analysis of water supply availability under drought of record conditions may indicate that there is essentially no risk of water supply shortage. Hence, a drought contingency plan for such a water supplier might only address facility capacity limitations and emergency conditions (example: supply source contamination and system capacity limitations).

Section IX: Drought Response Stages
The _____ (*designated official*), or his/her designee, shall monitor water supply and/or demand conditions on a daily basis and, in accordance with the triggering criteria set forth in Section VIII of this Plan, shall determine that a mild, moderate, severe, critical, emergency or water shortage condition exists and shall implement the following notification procedures:

Notification
Notification of the Public:
The _____ (*designated official*) or his/ her designee shall notify the public by means of:

Examples:
publication in a newspaper of general circulation,
direct mail to each customer,
public service announcements,
signs posted in public places
take-home fliers at schools.

Additional Notification:
The _____ (*designated official*) or his/ her designee shall notify directly, or cause to be notified directly, the following individuals and entities:

Examples:
Mayor / Chairman and members of the City Council / Utility Board
Fire Chief(s)
City and/or County Emergency Management Coordinator(s)
County Judge & Commissioner(s)
State Disaster District / Department of Public Safety
TCEQ *(required when* mandatory *restrictions are imposed)*
Major water users
Critical water users, i.e. hospitals
Parks / street superintendents & public facilities managers

Note: The plan should specify direct notice only as appropriate to respective drought stages.

Stage 1 Response – MILD Water Shortage Conditions

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

Best Management Practices for Supply Management:

D*escribe additional measures, if any, to be implemented directly by (name of your water supplier) to manage limited water supplies and/or reduce water demand. Examples include: system water loss control, activation and use of an alternative supply source(s); use of reclaimed water for non-potable purposes.*

Voluntary Water Use Restrictions for Reducing Demand:

(a) Water customers are requested to voluntarily limit the irrigation of landscaped areas to Sundays and Thursdays for customers with a street address ending in an even number (0, 2, 4, 6 or 8), and Saturdays and Wednesdays for water customers with a street address ending in an odd number (1, 3, 5, 7 or 9), and to irrigate landscapes only between the hours of midnight and 10:00 a.m. and 8:00 p.m. to midnight on designated watering days.

(b) All operations of the _____ (*name of your water supplier*) shall adhere to water use restrictions prescribed for Stage 1 of the Plan.

(c) Water customers are requested to practice water conservation and to minimize or discontinue water use for non-essential purposes.

Stage 2 Response – MODERATE Water Shortage Conditions

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

Best Management Practices for Supply Management:

Describe additional measures, if any, to be implemented directly by _____ (name of your water supplier) to manage limited water supplies and/or reduce water demand. Examples include: system water loss control, reduced or discontinued irrigation of public landscaped areas; use of an alternative supply source(s); use of reclaimed water for non-potable purposes.

Water Use Restrictions for Demand Reduction:
Under threat of penalty for violation, the following water use restrictions shall apply to all persons:

(a) Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems shall be limited to Sundays and Thursdays for customers with a street address ending in an even number (0, 2, 4, 6 or 8), and Saturdays and Wednesdays for water customers with a street address ending in an odd number (1, 3, 5, 7 or 9), and 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.

(b) 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 rises. 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 is contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables.

(c) Use of water to fill, refill, or add to any indoor or outdoor swimming pools, wading pools, or Jacuzzi-type pools is prohibited except on designated watering days between the hours of 12:00 midnight and 10:00 a.m. and between 8 p.m. and 12:00 midnight.

(d) 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.

(e) Use of water from hydrants shall be limited to fire fighting, related activities, or other activities necessary to maintain public health, safety, and welfare, except that use of water from designated fire hydrants for construction purposes may be allowed under special permit from the _____ (*name of your water supplier*).

(f) Use of water for the irrigation of golf course greens, tees, and fairways is prohibited except on designated watering days between the hours 12:00 midnight and 10:00 a.m. and between 8 p.m. and 12:00 midnight. However, if the golf course utilizes a water source other than that provided by the _____ (*name of your water supplier*), the facility shall not be subject to these regulations.

(g) All restaurants are prohibited from serving water to patrons except upon request of the patron.

(h) The following uses of water are defined as non-essential and are prohibited:

1. wash down of any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
2. use of water to wash down buildings or structures for purposes other than immediate fire protection;
3. use of water for dust control;
4. flushing gutters or permitting water to run or accumulate in any gutter or street; and
5. failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s).

Stage 3 Response – SEVERE Water Shortage Conditions

<u>Target</u>: Achieve a _____ percent reduction in _____ (*example: total water use, daily water demand, etc.*).

<u>Best Management Practices for Supply Management</u>:

Describe additional measures, if any, to be implemented directly by _____ (name of your water supplier) to manage limited water supplies and/or reduce water demand. Examples include: system water loss control,

reduced or discontinued irrigation of public landscaped areas; use of an alternative supply source(s); use of reclaimed water for non-potable purposes.

Water Use Restrictions for Demand Reduction:
All requirements of Stage 2 shall remain in effect during Stage 3 except:

(a) Irrigation of landscaped areas shall be limited to designated watering days between the hours of 12:00 midnight and 10:00 a.m. and between 8 p.m. and 12:00 midnight and shall be by means of hand-held hoses, hand-held buckets, drip irrigation, or permanently installed automatic sprinkler system only. The use of hose-end sprinklers is prohibited at all times.

(b) The watering of golf course tees is prohibited unless the golf course utilizes a water source other than that provided by the _____ (*name of your water supplier*).

(c) The use of water for construction purposes from designated fire hydrants under special permit is to be discontinued.

Stage 4 Response – CRITICAL Water Shortage Conditions

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

Best Management Practices for Supply Management:

Describe additional measures, if any, to be implemented directly by _____ (name of your water supplier) to manage limited water supplies and/or reduce water demand. Examples include: system water loss control, reduced or discontinued irrigation of public landscaped areas; use of an alternative supply source(s); use of reclaimed water for non-potable purposes.

Water Use Restrictions for Reducing Demand:
All requirements of Stage 2 and 3 shall remain in effect during Stage 4 except:

(a) Irrigation of landscaped areas shall be limited to designated watering days between the hours of 6:00 a.m. and 10:00 a.m. and between 8:00 p.m. and 12:00 midnight and shall be by means of hand-held hoses, hand-held buckets, or drip irrigation only. The use of hose-end sprinklers or permanently installed automatic sprinkler systems are prohibited at all times.

(b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle not occurring on the premises of a commercial car wash and commercial service stations and not in the immediate interest of public health, safety, and welfare is prohibited. Further, such vehicle washing at commercial car washes and commercial service stations shall occur only between the hours of 6:00 a.m. and 10:00 a.m. and between 6:00 p.m. and 10 p.m.

(c) The filling, refilling, or adding of water to swimming pools, wading pools, and Jacuzzi-type pools is prohibited.

(d) 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.

(e) No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved, and time limits for approval of such applications are hereby suspended for such time as this drought response stage or a higher-numbered stage shall be in effect.

Stage 5 Response – EMERGENCY Water Shortage Conditions

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

Best Management Practices for Supply Management:

Describe additional measures, if any, to be implemented directly by _____ (name of your water supplier) to manage limited water supplies and/or reduce water demand. Examples include: system water loss control, reduced or discontinued irrigation of public landscaped areas; use of an alternative supply source(s); use of reclaimed water for non-potable purposes.

Water Use Restrictions for Reducing Demand:
All requirements of Stage 2, 3, and 4 shall remain in effect during Stage 5 except:

(a) Irrigation of landscaped areas is absolutely prohibited.

(b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is absolutely prohibited.

Stage 6 Response – WATER ALLOCATION

In the event that water shortage conditions threaten public health, safety, and welfare, the _____ (*designated official*) is hereby authorized to allocate water according to the following water allocation plan:

Single-Family Residential Customers

The allocation to residential water customers residing in a single-family dwelling shall be as follows:

Persons per Household	Gallons per Month
1 or 2	6,000
3 or 4	7,000
5 or 6	8,000
7 or 8	9,000
9 or 10	10,000
11 or more	12,000

"Household" means the residential premises served by the customer's meter. "Persons per household" include only those persons currently physically residing at the premises and expected to reside there for the entire billing period. It shall be assumed that a particular customer's household is comprised of two (2) persons unless the customer notifies the _____ (*name of your water supplier*) of a greater number of persons per household on a form prescribed by the _____

(*designated official*). The _____ (*designated official*) shall give his/her best effort to see that such forms are mailed, otherwise provided, or made available to every residential customer. If, however, a customer does not receive such a form, it shall be the customer's responsibility to go to the _____ (*name of your water supplier*) offices to complete and sign the form claiming more than two (2) persons per household. New customers may claim more persons per household at the time of applying for water service on the form prescribed by the _____ (*designated official*). When the number of persons per household increases so as to place the customer in a different allocation category, the customer may notify the _____ (*name of water supplier*) on such form and the change will be implemented in the next practicable billing period. If the number of persons in a household is reduced, the customer shall notify the _____ (*name of your water supplier*) in writing within two (2) days. In prescribing the method for claiming more than two (2) persons per household, the _____ (*designated official*) shall adopt methods to insure the accuracy of the claim. Any person who knowingly, recklessly, or with criminal negligence falsely reports the number of persons in a household or fails to timely notify the _____ (*name of your water supplier*) of a reduction in the number of person in a household shall be fined not less than $_____.

Residential water customers shall pay the following surcharges:

$_____ for the first 1,000 gallons over allocation.
$_____ for the second 1,000 gallons over allocation.
$_____ for the third 1,000 gallons over allocation.
$_____ for each additional 1,000 gallons over allocation.

Surcharges shall be cumulative.

Master-Metered Multi-Family Residential Customers

The allocation to a customer billed from a master meter which jointly measures water to multiple permanent residential dwelling units (example: apartments, mobile homes) shall be allocated 6,000 gallons per month for each dwelling unit. It shall be assumed that such a customer's meter serves two dwelling units unless the customer notifies the _____ (*name of your water supplier*) of a greater number on a form prescribed by the _____ (*designated official*). The _____ (*designated official*) shall give his/her best effort to see that such forms are mailed, otherwise provided, or made available to every such customer. If, however, a customer does not receive such a form, it shall be the customer's responsibility to go to the _____ (*name of your water supplier*) offices to complete and sign the form claiming more than two (2) dwellings. A dwelling unit may be claimed under this provision whether it is occupied or not. New customers may claim more dwelling units at the time of applying for water service on the form prescribed by the _____ (*designated official*). If the number of dwelling units served by a master meter is reduced, the customer shall notify the _____ (*name of your water supplier*) in writing within two (2) days. In prescribing the method for claiming more than two (2) dwelling units, the _____ (*designated official*) shall adopt methods to insure the accuracy of the claim. Any person who knowingly, recklessly, or with criminal negligence falsely reports the number of dwelling units served by a master meter or fails to timely notify the _____ (*name of your water supplier*) of a reduction in the number of person in a household shall be fined not less than $_____. Customers billed from a master meter under this provision shall pay the following monthly surcharges:

$_____ for 1,000 gallons over allocation up through 1,000 gallons for each dwelling unit.
$_____, thereafter, for each additional 1,000 gallons over allocation up through a second 1,000 gallons for each dwelling unit.
$_____, thereafter, for each additional 1,000 gallons over allocation up through a third 1,000 gallons for each dwelling unit.
$_____, thereafter for each additional 1,000 gallons over allocation.

Surcharges shall be cumulative.

Commercial Customers

A monthly water allocation shall be established by the _____ (*designated official*), or his/her designee, for each nonresidential commercial customer other than an industrial customer who uses water for processing purposes. The non-residential customer's allocation shall be approximately _____ (*example: 75%*) percent of the customer's usage for corresponding month's billing period for the previous 12 months. If the customer's billing history is shorter than 12 months, the monthly average for the period for which there is a record shall be used for any monthly period for which no history exists. Provided, however, a customer, _____percent of whose monthly usage is less than _____ gallons, shall be allocated _____ gallons. The _____ (*designated official*) shall give his/her best effort to see that notice of each non-residential customer's allocation is mailed to such customer. If, however, a customer does not receive such notice, it shall be the customer's responsibility to contact the _____ (*name of your water supplier*) to determine the allocation. Upon request of the customer or at the initiative of the _____ (*designated official*), the allocation may be reduced or increased if, (1) the designated period does not accurately reflect the customer's normal water usage, (2) one nonresidential customer agrees to transfer part of its allocation to another nonresidential customer, or (3) other objective evidence demonstrates that the designated allocation is inaccurate under present conditions. A customer may appeal an allocation established hereunder to the _____ (*designated official or alternatively, a special water allocation review committee*). Nonresidential commercial customers shall pay the following surcharges:

Customers whose allocation is _____ gallons through _____ gallons per month:

$_____ per thousand gallons for the first 1,000 gallons over allocation.
$_____ per thousand gallons for the second 1,000 gallons over allocation.
$_____ per thousand gallons for the third 1,000 gallons over allocation.
$_____ per thousand gallons for each additional 1,000 gallons over allocation.

Customers whose allocation is _____ gallons per month or more:

_____times the block rate for each 1,000 gallons in excess of the allocation up through 5 percent above allocation.
_____times the block rate for each 1,000 gallons from 5 percent through 10 percent above allocation.
_____times the block rate for each 1,000 gallons from 10 percent through 15 percent above allocation.
_____times the block rate for each 1,000 gallons more than 15 percent above allocation.

The surcharges shall be cumulative. As used herein, "block rate" means the charge to the customer per 1,000 gallons at the regular water rate schedule at the level of the

customer's allocation.

Industrial Customers

A monthly water allocation shall be established by the _____ (*designated official*), or his/her designee, for each industrial customer, which uses water for processing purposes. The industrial customer's allocation shall be approximately _____ (*example: 90%*) percent of the customer's water usage baseline. Ninety (90) days after the initial imposition of the allocation for industrial customers, the industrial customer's allocation shall be further reduced to _____ (*example: 85%*) percent of the customer's water usage baseline. The industrial customer's water use baseline will be computed on the average water use for the _____ month period ending prior to the date of implementation of Stage 2 of the Plan. If the industrial water customer's billing history is shorter than _____ months, the monthly average for the period for which there is a record shall be used for any monthly period for which no billing history exists. The _____ (*designated official*) shall give his/her best effort to see that notice of each industrial customer's allocation is mailed to such customer. If, however, a customer does not receive such notice, it shall be the customer's responsibility to contact the _____ (*name of your water supplier*) to determine the allocation, and the allocation shall be fully effective notwithstanding the lack of receipt of written notice. Upon request of the customer or at the initiative of the _____ (*designated official*), the allocation may be reduced or increased, (1) if the designated period does not accurately reflect the customer's normal water use because the customer had shutdown a major processing unit for repair or overhaul during the period, (2) the customer has added or is in the process of adding significant additional processing capacity, (3) the customer has shutdown or significantly reduced the production of a major processing unit, (4) the customer has previously implemented significant permanent water conservation measures such that the ability to further reduce water use is limited, (5) the customer agrees to transfer part of its allocation to another industrial customer, or (6) if other objective evidence demonstrates that the designated allocation is inaccurate under present conditions. A customer may appeal an allocation established hereunder to the _____ (*designated official or alternatively, a special water allocation review committee*). Industrial customers shall pay the following surcharges:

Customers whose allocation is _____ gallons through _____ gallons per month:

$_____ per thousand gallons for the first 1,000 gallons over allocation.
$_____ per thousand gallons for the second 1,000 gallons over allocation.
$_____ per thousand gallons for the third 1,000 gallons over allocation.
$_____ per thousand gallons for each additional 1,000 gallons over allocation.

Customers whose allocation is _____ gallons per month or more:

_____times the block rate for each 1,000 gallons in excess of the allocation up through 5 percent above allocation.
_____times the block rate for each 1,000 gallons from 5 percent through 10 percent above allocation.
_____times the block rate for each 1,000 gallons from 10 percent through 15 percent above allocation.
_____times the block rate for each 1,000 gallons more than 15 percent above allocation.

The surcharges shall be cumulative. As used herein, "block rate" means the charge to the customer per 1,000 gallons at the regular water rate schedule at the level of the customer's allocation.

Section X: Enforcement

(a) No person shall knowingly or intentionally allow the use of water from the _____ (*name of your water supplier*) for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of this Plan, or in an amount in excess of that permitted by the drought response stage in effect at the time pursuant to action taken by _____ (*designated official*), or his/her designee, in accordance with provisions of this Plan.

(b) Any person who violates this Plan is guilty of a misdemeanor and, upon conviction shall be punished by a fine of not less than _____ dollars ($_____) and not more than _____ dollars ($_____). Each day that one or more of the provisions in this Plan is violated shall constitute a separate offense. If a person is convicted of three or more distinct violations of this Plan, the _____ (*designated official*) shall, upon due notice to the customer, be authorized to discontinue water service to the premises where such violations occur. Services discontinued under such circumstances shall be restored only upon payment of a re-connection charge, hereby established at $_____, and any other costs incurred by the _____ (*name of your water supplier*) in discontinuing service. In addition, suitable assurance must be given to the _____ (*designated official*) that the same action shall not be repeated while the Plan is in effect. Compliance with this plan may also be sought through injunctive relief in the district court.

(c) Any person, including a person classified as a water customer of the _____ (*name of your water supplier*), in apparent control of the property where a violation occurs or originates shall be presumed to be the violator, and proof that the violation occurred on the person's property shall constitute a rebuttable presumption that the person in apparent control of the property committed the violation, but any such person shall have the right to show that he/she did not commit the violation. Parents shall be presumed to be responsible for violations of their minor children and proof that a violation, committed by a child, occurred on property within the parents' control shall constitute a rebuttable presumption that the parent committed the violation, but any such parent may be excused if he/she proves that he/she had previously directed the child not to use the water as it was used in violation of this Plan and that the parent could not have reasonably known of the violation.

(d) Any employee of the _____ (*name of your water supplier*), police officer, or other _____ employee designated by the _____ (*designated official*), may issue a citation to a person he/she reasonably believes to be in violation of this Ordinance. The citation shall be prepared in duplicate and shall contain the name and address of the alleged violator, if known, the offense charged, and shall direct him/her to appear in the _____ (*example: municipal court*) on the date shown on the citation for which the date shall not be less than 3 days nor more than 5 days from the date the citation was issued. The alleged violator shall be served a copy of the citation. Service of the citation shall be complete upon delivery of the citation to the alleged violator, to an agent or employee of a violator, or to a person over 14 years of age who is a member of the violator's immediate family or is a resident of the violator's residence. The alleged violator shall appear in _____ (*example: municipal court*) to enter a plea of guilty or not guilty for the violation of this Plan. If the alleged violator fails to appear in _____ (*example: municipal court*), a warrant for his/her arrest may be issued. A summons to appear may be issued

in lieu of an arrest warrant. These cases shall be expedited and given preferential setting in _____ (*example: municipal court*) before all other cases.

Section XI: Variances

The _____ (*designated official*), or his/her designee, may, in writing, grant temporary variance for existing water uses otherwise prohibited under this Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance 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 Ordinance shall file a petition for variance with the _____ (*name of your water supplier*) within 5 days after the Plan or a particular drought response stage has been invoked. All petitions for variances shall be reviewed by the _____ (*designated official*), or his/her designee, and shall include the following:

(a) Name and address of the petitioner(s).
(b) Purpose of water use.
(c) Specific provision(s) of the Plan from which the petitioner is requesting relief.
(d) Detailed statement as to how the specific provision of the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Ordinance.
(e) Description of the relief requested.
(f) Period of time for which the variance is sought.
(g) Alternative water use restrictions or other measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date.
(h) Other pertinent information.

Texas Commission on Environmental Quality

Water Availability Division
MC-160, P.O. Box 13087 Austin, Texas 78711-3087
Telephone (512) 239-4691, FAX (512) 239-2214

Drought Contingency Plan for a Wholesale Public Water Supplier

This form is provided as a model of a drought contingency plan for a wholesale public water supplier. If you need assistance in completing this form or in developing your plan, please contact the Conservation Staff of the Resource Protection Team in the Water Availability Division at (512) 239-4691.

Drought Contingency Plans must be formally adopted by the governing body of the water provider and documentation of adoption must be submitted with the plan. For example, adoption by a city council as an ordinance or by resolution of the entity's board of directors adopting the plan as administrative rules.

Name: _____

Address: _____

Telephone Number: ( ) _____ Fax: ( ) _____

Water Right No.(s): _____

Regional Water Planning Group: _____

Form Completed by: _____

Title: _____

Person responsible for implementation: _____ Phone: ( ) _____

Signature: _____ Date: / /

Section I: 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 your water supplier*) adopts the following Drought Contingency Plan (the Plan).

Section II: Public Involvement

Opportunity for the public and wholesale water customers to provide input into the preparation of the Plan was provided by _____ (*name of your 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 III: Wholesale Water Customer Education

The _____ (*name of your 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 _____ (*example: 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 IV: Coordination with Regional Water Planning Groups

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

Section V: 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 VI: Application

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

Section VII: 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 (*example: 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).*

Utilization of alternative water sources and/or alternative delivery mechanisms:

Alternative water source(s) for _____ (*name of utility*) is/are:
_____.
(Examples: Other well(s), Inter-connection with other system, Temporary use of a non-municipal water supply, Purchased water, Use of reclaimed water for non-potable purposes, etc.).

Stage 1 Triggers -- MILD Water Shortage Conditions

Requirements for initiation – The _____ (*name of your 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. *The wholesale water supplier may devise other triggering criteria and an appropriate number of stages tailored to its system; however, the plan must contain a minimum of three drought stages.* ***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 _____ (*example: 30*) consecutive days. The _____ (*name of water supplier*) will notify its wholesale customers and the media of the termination of Stage 1.

Stage 2 Triggers -- MODERATE Water Shortage Conditions

Requirements for initiation – The _____ (*name of your 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 _____ (*example: 30*) consecutive days. Upon termination of Stage 2, Stage 1, or the applicable drought response stage based on the triggering criteria, becomes operative. The _____ (*name of your water supplier*) will notify its wholesale customers and the media of the termination of Stage 2.

Stage 3 Triggers -- SEVERE Water Shortage Conditions

Requirements for initiation – The _____ (*name of your water supplier*) will recognize that a severe water shortage condition exists when _____ (*describe triggering criteria; see examples in Stage 1*).

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 _____ (*example: 30*) consecutive days. Upon termination of Stage 3, Stage 2, or the applicable drought response stage based on the triggering criteria,

becomes operative. The _____ (*name of your water supplier*) will notify its wholesale customers and the media of the termination of Stage 3.

Stage 4 Triggers -- CRITICAL Water Shortage Conditions

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

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 _____ (*example: 30*) consecutive days. The _____ (*name of your water supplier*) will notify its wholesale customers and the media of the termination of Stage 4.

Section VIII: 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 VII, shall determine that mild, moderate, severe, or critical water shortage conditions exist or that an emergency condition exists and shall implement the following actions:

Stage 1 Response -- MILD Water Shortage Conditions

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

Best Management Practices for Supply Management:

Describe additional 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 nonpotable 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 (*example: implement Stage 1 or appropriate stage 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 Response -- MODERATE Water Shortage Conditions

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

Best Management Practices for Supply Management:

Describe additional 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 request wholesale water customers to initiate mandatory measures to reduce non-essential water use (*example: implement Stage 2 or appropriate stage of the customer's drought contingency plan*).

(b) 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.

(c) The _____ (*designated official*), or his/her designee(s), will further prepare 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.

(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 Response -- SEVERE Water Shortage Conditions

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

Best Management Practices for Supply Management:

Describe additional 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 (example: implement Stage 3 or appropriate stage 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.

(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 Response -- 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 (*example: 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 IX: Pro Rata Curtailment

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 to initiate allocation of water supplies on a pro rata basis in accordance with Texas Water Code, §11.039.

Section X: Contract Provisions

The _____ (*name of your water supplier*) will 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.

Section XI: Enforcement

Example of surcharge:
During any period when either mandatory water use restrictions or pro rata allocation of available water supplies are 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 from _____ percent through _____ percent above the monthly allocation.

Examples of fines and/or discontinuation of service:
Mandatory water use restrictions or pro rata allocation of available water supplies may be imposed during drought stages and emergency water management actions. These water use restrictions will be enforced by warnings and penalties as follows:

- On the first violation, customers will be notified by written notice that they have violated the mandatory water use restriction.
- If the first violation has not been corrected after ten (10) days from the written notice, _____ (*name of your water supplier*) may assess a fine up to $_____ per violation.
- _____ (*name of your water supplier*) 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 fifty dollars ($50.00);

- _____ (*name of your water supplier*) maintains the right, at any violation or action level, to disconnect irrigation systems and/or suspend water services to a customer for public safety issues with reconnection fees and possible citations.
- Subsequent violations of the plan shall result in increased fines or upon the occurrence of _____ violations, after notice, the discontinuation of services. Services discontinued under this provision shall be restored only upon payment of a reconnection fee and any other costs incurred by the utility in discontinuing service.

Section XII: 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 XIII: Severability

It is hereby declared to be the intention of the _____ (*governing body of your 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 your water supplier*) without the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph, or section.

Texas Commission on Environmental Quality

Water Availability Division
MC-160, P.O. Box 13087 Austin, Texas 78711-3087
Telephone (512) 239-4691, FAX (512) 239-2214

Model Drought Contingency Plan for an Irrigation District

This form is provided as a model of a drought contingency plan for an irrigation district. If you need assistance in completing this form or in developing your plan, please contact the Conservation Staff of the Resource Protection Team in the Water Availability Division at (512) 239-4691.

Drought Contingency Plans must be formally adopted by the governing body of the irrigation district and documentation of adoption must be submitted with the plan. An example resolution can be found at the end of this form.

Irrigation District: _____

Address: _____

Telephone Number: ( ) _____ Fax: ( ) _____

Water Right No.(s): _____

Regional Water Planning Group: _____

Form Completed by: _____

Title: _____

Person responsible for implementation: _____ Phone: ( ) _____

Signature: _____ Date: / / _____

Section I: 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 II: 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 III: 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 _____ (*example: 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 IV: Authorization

The _____ (*example: 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 V: Application

The provisions of 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 VI: Initiation of Water Allocation

The _____ (*designated official*) shall monitor water supply conditions on a _____ (*example: 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 VII: 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 VIII: 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 _____ (*example: landowner, holders of active irrigation accounts, etc.*).

Section IX: 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 _____ (*example: 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 user's 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 user's 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 X: 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 XI: 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 by 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 XII: 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 XIII: 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 XIV: 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 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 _____ (*example: 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