



Brazos River
Authority

Drought Contingency Plan

April 29, 2019 ~~May 20XX~~, 2024

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Drought Contingency Plan

Table of Contents

	Page
1. Declaration of Policy, Purpose, and Intent	1
2. Provisions to Actively Inform the Public and Provide Opportunity for Input.....	1
3. Coordination with Regional Water Planning Groups.....	1
4. Information to be Monitored and Criteria for the Initiation and Termination of Drought Response Stages.....	2
5. Procedures to be followed for Initiation and Termination of Drought Response Stages	8
6. Drought Response Stages, Measures to be Implemented and Goals for Use Reduction.....	9
7. Required Provision on Distribution of Water in Case of Shortage in BRA Contracts.....	13
8. Procedures for Granting Variances.....	13
9. Procedures for Implementation and Enforcement.....	14
10. Review and Update.....	14

Tables

Table 1: Drought Severity Triggers.....	3
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Appendices

Appendix A	Texas Administrative Code, Section 288.22
Appendix B	Letter to Customers
Appendix C	Letter to Regional Water Planning Groups
Appendix D	Customer Water Supply Intake Structures
Appendix E	Reservoir Elevation-Capacity Tables
Appendix F	Board Resolution to Adopt the Drought Contingency Plan
Appendix G	Texas Water Code, Section 11.039, Distribution of Water during Shortage

**Brazos River Authority
Drought Contingency Plan
~~April 29, 2019~~ May 20XX, 2024**

1. ~~1.~~ Declaration of Policy, Purpose, and Intent

In order to conserve the available water supply and/or protect the integrity of the Brazos River Authority (BRA) water supply system, the BRA adopts this ~~following~~ Drought Contingency Plan (Plan) ~~:-~~.

The BRA water supply system includes eleven (11) reservoirs: ~~-~~Lakes Possum Kingdom, Granbury, Limestone, Whitney, Belton, Proctor, Somerville, Stillhouse Hollow, Granger, Georgetown and Aquilla, the Williamson County Regional Raw Water Line (WCRRWL) connecting Lake Stillhouse Hollow to Lake Georgetown, and the East Williamson County Regional Water System (EWCRWS) - Public Water System Identification Number: ~~-~~2460155.

The Plan is developed in conformance with the rules governing ~~dD~~drought ~~cC~~ontingency ~~pP~~lans for wholesale water providers set forth by the Texas Commission on Environmental Quality (TCEQ) in Texas Administrative Code Title 30, Part 1, Rule §288.22, *Drought Contingency Plans for Wholesale Water Suppliers* ~~:-~~. Appendix A includes a copy of the TCEQ rules governing ~~dD~~drought ~~cC~~ontingency ~~pP~~lans for wholesale water providers. This ~~-~~Plan, dated ~~April 29, 2019~~ May 20XX, 2024, supersedes the previous ~~P~~lan dated ~~April 29, 2019~~ ~~October 29, 2012~~, and the ~~BRA's EWCRWS Drought Contingency Plan dated April 18, 2011~~.

Any reference to statutes, rules and/or regulations in this Plan shall mean and be a reference to such statutes, rules and/or regulations as written on the effective date of this Plan or as they are subsequently amended, modified or restated from time to time. In the event any provision or part of this Plan is found to be inconsistent with applicable statutes, rules and/or regulations, that particular provision or part ~~so found~~ will be deemed inoperative, ~~and such statutes, rules and/or regulations shall control~~.

2. ~~2.~~ Provisions to Actively Inform the Public and Provide Opportunity for Input

The BRA has taken the following steps to actively inform the public and affirmatively provide an opportunity for ~~public user~~ input in the preparation of the Plan ~~'s adoption~~ and to inform wholesale customers about the Plan:

- ~~Placing a draft of the Plan on the BRA's wWeb-site at www.brazos.org and inviting comments on the draft Plan. Discussing the Plan at the BRA customer meeting conducted in March 2019 Month 2024.~~
 - ~~Sending a letter to all wholesale water customers and Regional Water Planning Groups detailing updates to the draft Plan, directing them to where the draft it could be found on the BRA's wWeb-site, offering hard copies to those who did not wish to access the draft Plan on the wWeb-site, and soliciting comments (Appendix B includes a copy of the letter sent to wholesale customers and Appendix C includes a copy of the letter sent to Regional Water Planning Groups).~~
 - ~~Providing written notice to the public concerning the draft Plan and inviting their comments (written notice is provided by posting with the Secretary of State's office and on the BRA official wWeb-site).~~

3. ~~3.~~ Coordination with Regional Water Planning Groups

The BRA has a statutory responsibility for conserving and developing the water resources of the Brazos River Basin in Texas and making such resources them available for beneficial use. The Brazos River Basin covers approximately 47,000 square miles, with 44,440 square miles in Texas (all or part of 70 counties) and slightly over 2,500 in New Mexico. The BRA's service area includes the Brazos River Basin in Texas. The BRA also supplies water outside of the Brazos River Basin to the San Jacinto-Brazos Coastal Basin and a small part of the Trinity Basin.

The BRA has directed each of the Regional Water Planning Groups located within its service area (Region B, Region C, Region F, Region G, Region H, Region K, and Region O) to the draft Plan located on the BRA official Web-site. Appendix C includes an example of the letter sent to the Regional Water Planning Groups.

4. Information to be Monitored and Criteria for the Initiation and Termination of Drought Response Stages

The BRA's gGgeneral mManager/cChief eExecutive oOfficer (GM/CEO) or designee shall monitor water supply and demand conditions. The triggering criteria described below are based on hydrologic analyses and reservoir operations experience, including lessons learned from the 2011previous droughts. Individual lake elevation triggers apply to Lakes Aquilla, Belton, Granger, Limestone, Proctor, and Somerville. For the Lake Possum Kingdom, Lake Lake Granbury, Lake Whitney sub-system, and the Lake Stillhouse Hollow, Lake Georgetown sub-system, and the BRA water supply system of all eleven (11) reservoirs, drought stage trigger levels are based on their respective combined volumes. Additional triggers associated with the Palmer Hydrologic Drought Index (PHDI) apply to all reservoirs individually, and the transfer of water from Lake Stillhouse Hollow to Lake Georgetown apply to Lake Georgetown.

Reservoir levels are continuously monitored by the BRA. The BRA, its customers, and other interested parties are all responsible for determining when lake levels approach important elevations associated with specific water supply intake structures. A table of critical elevations for customer water supply intake structures is contained in Appendix D.

The BRA also monitors the seasonal rainfall forecasts provided by the Texas Water Development Board (TWDB), and they are used such forecasts as an informational source for developing drought conditions. The forecasts are issued from January through the end of April and are located at the following website: <https://waterdatafortexas.org/drought/rainfall-forecast>.

Four levels of drought severity, as shown in Table 1, have been identified at which specific actions will be conducted. Each of the four levels includes recommendations for specific drought response actions that may be tailored to conditions as they exist at the time. Details on each of the four drought stages are also discussed. Elevation-Capacity Tables based on estimated 2030 sedimentation conditions are contained in Appendix E.

House Bill 1437, passed by the Texas legislature in 1999, allows the BRA to contract with the Lower Colorado River Authority (LCRA) for up to 25,000 acre-feet of water from the Colorado River Basin (LCRA water) for use in Williamson County. For the LCRA water, drought stage trigger levels are based on the combined conservation storage of Lakes Buchanan and Travis as stipulated in the LCRA Firm Customer Drought Contingency Plan (LCRA Plan), as contained in Appendix F of LCRA's Water Management Plan dated May 20, 2015.

The BRA will comply with the LCRA Plan for water used under the LCRA contract. Target reduction goals for LCRA water can be met by either implementing specific restrictions or utilizing an alternate water source, which may include water sourced from the Brazos Basin. For BRA customers that use LCRA water, if they obtained less than 25 percent of their water supply in the prior calendar year from

the Colorado River basin, demand measures in Section 3.1(g) of LCRA's Drought Contingency Plan Rules (LCRA Rules) for Water Sale Contracts that restrict outdoor watering in Stages 2 and 3 of the LCRA Plan are recommended, rather than required in the LCRA customer's drought contingency plan. LCRA wholesale customers, including each successive wholesale customer shall be required to develop and implement a drought contingency plan using the applicable elements in the LCRA Rules. Such plan is required to be in compliance with LCRA's rules and regulations for customer drought contingency plans. See appendix HX for more details regarding LCRA's Plan.

The BRA also owns and operates the EWCRWS adjacent to Lake Granger, which supplies wholesale treated water. -Customers of the EWCRWS include the City of Taylor, Jonah Water Special Utility -District, and Lone Star Regional Water Authority. Criteria specific for initiation and termination of Drought Stages of the EWCRWS are contained within this Plan.

Table 1. - Drought Severity Triggers¹			
Status	Surface Elevation⁴	Water Storage⁴	Reservoir Drawdown
	(ft msl)	(acre-feet)	(ft)
Lake Aquilla			
Top of Conservation (full)	537.5	43,293	0
Stage 1 Drought Watch	533.6	32,253	3.9
Stage 2 Drought Warning	530.5	25,189	7.0
Stage 3 Drought Emergency	526.8	18,125	10.7
Stage 4 Pro-rata Curtailment	523.7	13,436	13.8
Lake Belton			
Top of Conservation (full)	594	432,631	0
Stage 1 Drought Watch	588.1	363,410	5.9
Stage 2 Drought Warning	<u>578.7580.99</u>	<u>268,234289,863</u>	<u>15.313.0</u>
Stage 3 Drought Emergency	<u>566.3572.47</u>	<u>173,052216,316</u>	<u>27.721.5</u>
Stage 4 Pro-rata Curtailment	<u>550.2563.75</u>	<u>86,526156,670</u>	<u>43.830.3</u>
Lake Granger			
Top of Conservation (full)	504	51,822	0
Stage 1 Drought Watch	501.8	43,116	2.2
Stage 2 Drought Warning	<u>498.4499.25</u>	<u>31,93534,513</u>	<u>5.64.7</u>
Stage 3 Drought Emergency	<u>494.1496.27</u>	<u>20,75425,911</u>	<u>9.97.7</u>
Stage 4 Pro-rata Curtailment	<u>490.0491.5</u>	<u>12,95615,547</u>	<u>1412.5</u>
Lake Limestone			
Top of Conservation (full)	363	203,780	0
Stage 1 Drought Watch	357.6	142,646	5.4
Stage 2 Drought Warning	354.8	115,136	8.2
Stage 3 Drought Emergency	351.5	87,625	11.5
Stage 4 Pro-rata Curtailment	346.9	56,927	16.1

Lake Proctor			
Top of Conservation (full)	1162	54,762	0
Stage 1 Drought Watch	1,158.2	38,388	3.8
Stage 2 Drought Warning	1,156.1	31,297	5.9
Stage 3 Drought Emergency	1,153.3	24,206	8.7
Stage 4 Pro-rata Curtailment	1,150.1	16,976	11.9
Lake Somerville			
Top of Conservation (full)	238	150,293	0
Stage 1 Drought Watch	234.9	117,229	3.1
Stage 2 Drought Warning	231.8	88,673	6.2
Stage 3 Drought Emergency	228.2	60,117	9.8
Stage 4 Pro-rata Curtailment	223.9	30,059	14.8

Table 1. - Continued. -- Drought Severity Triggers¹			
Status	Surface Elevation²	Water Storage²	Reservoir Drawdown
	(ft msl)	(acre-feet)	(ft)
Lake Possum Kingdom, Lake Granbury, Lake Whitney³			
Top of Conservation (full)	N/A ⁴	7294,287022 ⁵	N/A ⁴
Stage 1 Drought Watch	N/A ⁴	564570,00273 7 ⁵	N/A ⁴
Stage 2 Drought Warning	N/A ⁴	427432,43817 3 ⁵	N/A ⁴
Stage 3 Drought Emergency	N/A ⁴	289,609 ⁵ 94,87 4	N/A ⁴
Stage 4 Pro-rata Curtailment	N/A ⁴	144150,804 ⁵ 06 9 ⁵	N/A ⁴
Lake Georgetown, Lake Stillhouse Hollow			
Top of Conservation (full)	N/A ⁴	267,949 ⁶	N/A ⁴
Stage 1 Drought Watch	N/A ⁴	222,398 ⁶	N/A ⁴
Stage 2 Drought Warning	N/A ⁴	178,186164,78 9 ⁶	N/A ⁴
Stage 3 Drought Emergency	N/A ⁴	107,180 ⁶ 133,9 75 ⁶	N/A ⁴
Stage 4 Pro-rata Curtailment	N/A ⁴	92,98653,590 ⁶	N/A ⁴
Brazos River Authority System			
Top of Conservation (full)	N/A ⁴	1,928,552933, 817	N/A ⁴
Stage 1 Drought Watch	N/A ⁴	1,524529,1774 42	N/A ⁴
Stage 2 Drought Warning	N/A ⁴	1,152,423195, 295	N/A ⁴

Stage 3 Drought Emergency	N/A ⁴	780,668 <u>740,57</u> 1	N/A ⁴
Stage 4 Pro-rata Curtailment	N/A ⁴	415,273 <u>532,67</u> 0	N/A ⁴

- Triggers were derived using a water availability tool specifically developed to simulate the BRA water supply system. ~~Assumptions for developing the triggers include:~~
 - ~~Estimated year 2030 sedimentation conditions and 2030 demands;~~
 - ~~Previous 3 year (2015 through 2017) average return flows;~~
 - ~~Operation of Lake Whitney hydropower;~~
 - ~~Excluded water rights above Possum Kingdom Lake; and~~
 - ~~included required environmental flow releases and assumed leakage through the dams~~
- Elevation-Capacity Tables are contained in Appendix E.
- In deriving the triggers, balancing factors established in the Possum Kingdom-Granbury Water Management Study were incorporated.
- Surface elevation and reservoir drawdown are not applicable because reservoirs are operated as a system. Their combined storage is a better drought indicator than individual elevations because elevations in each reservoir can be influenced by other reservoirs within the system. For example, water can be transferred from Lake Stillhouse Hollow to Lake Georgetown through a pipeline that connects the two lakes. Stillhouse Hollow could be completely full while Lake Georgetown was 15 feet low, or Georgetown could be completely full with Stillhouse Hollow being 2.5 feet low, and in both cases, the collective capacity of the reservoirs is 94% full. Using combined storage instead of individual reservoir elevations for the trigger levels allows the operation of the pipeline to be taken into account.
- Storages shown are for the combined conservation pool storage volume of Lakes Possum Kingdom, Granbury, and Whitney; BRA storage in Lake Whitney is limited to 51,987 acre-feet.
- Storages shown are for the combined conservation pool storage volume of Lakes Stillhouse Hollow and Georgetown.

Stage 1 – Drought Watch Condition

Requirements for Initiation – The BRA’s GM/CEO or his/her designee may initiate a Drought Watch Condition in one or more of the following circumstances:

- For a reservoir/reservoir sub-system, when the Palmer Hydrologic Drought Index (PHDI) is equal to or less than -2.4. The PHDI for each reservoir/reservoir sub-system is derived monthly.
- For a reservoir/reservoir sub-system, when the content of that reservoir/reservoir sub-system is at or below its corresponding Stage 1 Trigger (Table 1) and reasonable estimates of current annual demands, coupled with inflows and evaporation representative of the drought of record, indicate that the content could be reduced to the Stage 2 Trigger or less during the next 12 months.
- For a reservoir, group of reservoirs, or the entire BRA System, when the combined storage of the BRA System is below the Stage 1 System Storage Trigger (Table 1) and reasonable

estimates of current annual demands, coupled with inflows and evaporation representative of the drought of record, indicate that the combined system storage could be reduced to the Stage 2 System Storage Trigger or less during the next 12 months.

- For Lake Georgetown (in addition to triggers shown in Table 1),
 - When sustained pumping operations through the WCRRWL continue for longer than six months.
 - As deemed appropriate due to disruption in WCRRWL pumping operations—.
- For LCRA water, when the combined storage of Lakes Buchanan and Travis drops below 1.14 million acre-feet and interruptible stored water supplied to the Lakeside, Gulf Coast and Pierce Ranch agricultural operations ~~s to the irrigation operations~~ are being curtailed.
- For EWCRWS (in addition to triggers shown in Table 1 for Lake Granger), when the total daily water consumption reaches eighty-five (85) percent of ~~production-rated~~ capacity for a period of ~~thirty three~~ (30) consecutive days—, ~~Currently, this would equate to 9.1 million gallons a day based on a maximum output of 13.0 million gallons a day production.~~
- For a reservoir, group of reservoirs, or the entire BRA System, when an unexpected condition has the potential to adversely affect the public health, welfare or safety.

Requirements for Termination – The BRA’s GM/CEO or his/her designee may terminate a Drought Watch Condition when any of the reasons for initiation have ceased to exist for a period of ~~63~~30 consecutive days or other relevant factors determined by the BRA’s GM/CEO or designee—.

To terminate a Drought Watch Condition for LCRA water, the BRA will comply with the LCRA Plan.

Stage 2 – Drought Warning Condition

Requirements for Initiation – The BRA’s GM/CEO or his/her designee may initiate a Drought Warning Condition in one or more of the following circumstances:

- For a reservoir/reservoir sub-system, when the content of that reservoir/reservoir sub-system is at or below its corresponding Stage 2 Trigger (Table 1) and reasonable estimates of current annual demands, coupled with inflows and evaporation representative of the drought of record, indicate that the content could be reduced to the Stage 3 Trigger or less during the next 12 months.
- For a reservoir, group of reservoirs, or the entire BRA System, when the combined storage of the BRA System is below the Stage 2 System Storage Trigger (Table 1) and reasonable estimates of current annual demands, coupled with inflows and evaporation

representative of the drought of record, indicate that the combined system storage could be reduced to the Stage 3 System Storage Trigger or less during the next 12 months.

- For Lake Georgetown (in addition to triggers shown in Table 1),
 - When sustained WCRRWL pumping operations continue for longer than 18 months.
 - As deemed appropriate due to disruption in WCRRWL pumping operations—.
- ~~For LCRA water, when interruptible stored water supplied to the Lakeside, Gulf Coast and Pierce Ranch agricultural operations is being curtailed, and the combined storage of Lakes Buchanan and Travis is below 900,000 acre-feet and interruptible stored water supplies to the irrigation operations are being curtailed.~~
 - ~~The total combined storage in lakes Buchanan and Travis drops below 900,000 acre-feet; or~~
 - ~~on March 1 or July 1, the combined storage in lakes Buchanan and Travis is below 1.1 million acre-feet and the cumulative prior three months of inflows total to those lakes is less than the 25th percentile of historic inflows for the three-month periods.~~
- For EWCRWS (in addition to triggers shown in Table 1 for Lake Granger), when the total daily water consumption reaches ninety (90) percent of ~~production-rated~~ capacity for a period of 30 consecutive days—, ~~Currently this would equate to 10.4 million gallons a day based on a maximum output of 13.0 million gallons a day production.~~
- ~~For a reservoir, group of reservoirs, or the entire BRA System, when an unexpected condition has the potential to adversely affect the public health, welfare or safety.~~
-

Requirements for Termination – The BRA’s GM/CEO or his/her designee may terminate a Drought Warning Condition when any of the reasons for initiation have ceased to exist for a period of ~~630~~ consecutive days or other relevant factors determined by the BRA’s GM/CEO or designee. Upon termination of a Drought Warning, a Drought Watch may become operative depending on conditions at the time—.

To terminate a Drought Warning Condition for LCRA water, the BRA will comply with the LCRA Plan.

Stage 3 – Drought Emergency Condition

Requirements for Initiation – The BRA’s GM/CEO or his/her designee may initiate a Drought Emergency Condition in one or more of the following circumstances:

- For a reservoir/reservoir sub-system, when the content of that reservoir/reservoir sub-system is at or below its corresponding Stage 3 Trigger (Table 1) and reasonable estimates of current annual demands, coupled with inflows and evaporation representative of the drought of record, indicate that the content could be reduced to the Stage 4 Trigger within the next 12 months.
- For a reservoir, group of reservoirs, or the entire BRA System, when the combined storage of the BRA System is below the Stage 3 System Storage Trigger (Table 1) and reasonable estimates of current annual demands, coupled with inflows and evaporation representative of the drought of record, indicate that the combined system storage could be reduced to the Stage 4 System Storage Trigger within the next 12 months.
- For a reservoir/reservoir sub-system, when critical water supply infrastructure is damaged or otherwise rendered unable to meet projected demands due to natural disaster, power outage, structural failure, sabotage, or other reasons.
- For Lake Georgetown (in addition to triggers shown in Table 1),
 - When the GM/CEO or his/her designee determines that hydrologic conditions (inflow and/or evaporation) are as severe as or worse than the driest 24-month period on record—.
 - As deemed appropriate due to disruption in WCRRWL pumping operations—.
- For LCRA water, when the combined storage of Lakes Buchanan and Travis drops below 750,000 acre-feet and interruptible stored water supplied to the Lakeside, Gulf Coast and Pierce Ranch agricultural operations is being curtailedwhen LCRA, in accordance with its Water Management Plan, declares a Drought Worse than the Drought of Record.
- For EWCRWS (in addition to triggers shown in Table 1 for Lake Granger), when the total daily water consumption reaches ninety-five (95) percent of production/distribution capacity for a period of 30 consecutive days—, ~~Currently this would equate to 11.05 million gallons a day based on a maximum output of 13.0 million gallons a day production.~~
- For a reservoir, group of reservoirs, or the entire BRA System, when an unexpected condition has the potential to adversely affect the public health, welfare or safety.

Requirements for Termination – The BRA’s GM/CEO or his/her designee may terminate a Drought Emergency Condition when any of the reasons for initiation have ceased to exist for a period of ~~630~~ 30 consecutive days or other relevant factors determined by the BRA’s GM/CEO or designee. Upon termination of a Drought Emergency, a Drought Warning or a Drought Watch may become operative depending on conditions at the time—.

To terminate a Drought Emergency Condition for LCRA water, the BRA will comply with the LCRA Plan—.

Stage 4 – Pro-rata Curtailment Condition

Requirements for Initiation – The BRA’s GM/CEO or his/her designee may initiate a pro-rata Curtailment Condition in one or more of the following circumstances:

- For a reservoir/reservoir sub-system, when the content of that reservoir/reservoir sub-system is at or below its corresponding Stage 4 Trigger (Table 1).
- For a reservoir, group of reservoirs, or the entire BRA System, when the combined storage of the BRA System is below the Stage 4 System Storage Trigger (Table 1).
- For Lake Georgetown (in addition to triggers shown in Table 1), as deemed appropriate by the BRA’s GM/CEO or his/her designee due to disruption in WCRRWL pumping operations—.
- For LCRA water, when the combined storage of Lakes Buchanan and Travis drops below 600,000 acre-feet, and the LCRA Board of Directors declares a Drought Worse than the drought of record consistent with the LCRA Water Management Plan.
- For EWCRWS (in addition to triggers shown in Table 1 for Lake Granger), as deemed appropriate by the BRA’s GM/CEO or his/her designee due to a major water line break or pump or system failures, which cause unprecedented loss of capacity to provide water service, or natural or man-made contamination of the water supply source.
- For a reservoir, group of reservoirs, or the entire BRA System, when an unexpected condition has the potential to adversely affect the public health, welfare or safety.

Requirements for Termination – The BRA’s GM/CEO or his/her designee may terminate a pro-rata Curtailment Condition when any of the reasons for initiation have ceased to exist for a period of ~~630~~ consecutive days or other relevant factors determined by the BRA’s GM/CEO or designee. Upon termination of a Pro-rata Curtailment, a Drought Emergency, a Drought Warning or a Drought Watch may become operative depending on conditions at the time—.

5—. Procedures to be followed for Initiation and Termination of Drought Response Stages

Initiation of a Drought Response Stage

The BRA’s GM/CEO or his/her designee may order the implementation of a Drought Response Stage when the trigger conditions for that stage are met. The following actions will be taken when a drought stage is initiated:

- The public will be notified through the appropriate media and the BRA Web site.
- Potentially impacted cCustomers will be notified by telephone with a follow-up letter/~~fax~~ or e-mail.
- Meetings will be held with customers as appropriate.
- The Executive Director of the TCEQ will be notified within five (5) business days.

- For LCRA water, the LCRA General Manager will also be notified in writing within five (5) business days.

The BRA's GM/CEO or his/her designee may decide not to order the implementation of a Drought Response Stage even though the trigger criteria for the stage are met. Factors which could influence such a decision include, but are not limited to, the time of the year, weather conditions, the anticipation of replenished water supplies or the anticipation that additional facilities will become available to meet needs. The reason for this decision should be documented. Additional documentation is not required if a Drought Response Stage is in effect due to an alternate triggering criteria.

Termination of a Drought Response Stage

The BRA's GM/CEO or his/her designee may order the termination of a drought response stage when the conditions for termination are met or at his/her discretion. The following actions will be taken when a drought stage is terminated:

- The public will be notified through local media and the BRA Web site.
- Wholesale customers will be notified by telephone with a follow-up letter/fax or e-mail.
- The Executive Director of the TCEQ will be notified within five (5) business days.

The BRA's GM/CEO or his/her designee may decide not to order the termination of a drought response stage even though the conditions for termination of the stage are met. Factors which could influence such a decision include, but are not limited to, the time of the year, weather conditions or the anticipation of potential changed conditions that warrant the continuation of the drought stage. The reason for this decision should be documented. Additional documentation is not required if a Drought Response Stage remains in effect due to an alternate triggering criteria.

6. Drought Response Stages, Measures to be Implemented and Goals for Use Reduction

The BRA will notify the Executive Director of the TCEQ within five (5) business days when any Drought Stage is declared under this plan. In turn and in compliance with Title 30, *Texas Administrative Code*, Chapter 288, Subchapter B, Rule §288.22 (b) (included in Appendix A), the BRA's customers are required to notify the Executive Director of the TCEQ within five (5) business days of any mandatory actions that are subsequently implemented under their respective drought contingency plans.

In order to demonstrate compliance with requested water use reductions, BRA may require documentation of specific actions taken to reduce water use from customers that have irregular water use patterns that restrict the ability to establish a baseline amount to which water use restrictions will be applied.

Stage 1 – Drought Watch Condition

The Stage 1, Drought Watch condition, is intended to raise customer and public awareness of potential drought problems. For water supplied from the Brazos River System, there is a voluntary

target reduction goal of five (5) percent of the use that would have occurred in the absence of drought contingency measures. -For LCRA water, there is a ~~voluntary~~ target reduction goal of ~~five~~ ~~ten~~ (5) percent, as indicated in LCRA's Plan. -The BRA's GM/CEO or his/her designee may perform or request implementation of any of the actions listed below, as deemed necessary:

- Inform customers of the Drought Watch Condition and request them to inform their customers, if any.
- Notify customers of actions being taken and urge activation by customers of appropriate water conservation measures to achieve the target water use reduction goal.
- Meet with customers to discuss current drought and possible measures to be taken if the drought intensifies.
- Initiate Stage 1 or equivalent of customer drought contingency plans, if available.
- Intensify efforts on leak detection and repair.
- Reduce nonessential water use.
- Initiate voluntary landscape watering schedules.
- Verify the location, depth and operational requirements of intake structures.
- Increase public education efforts on ways to reduce water use.
- Investigate alternative ways to supply needs that could be implemented if the drought intensifies.
- In cooperation with customers, initiate the preparation of a specific drought response plan tailored to conditions as they exist at the time.
- Implement appropriate provisions of the specific drought response plan.
- For LCRA firm water, any requirements specified in the LCRA Drought Contingency Plan and associated Rules.
- Contact the TCEQ, United States Geological Survey (USGS) and U.S. Army Corps of Engineers—Inform them of the situation and request appropriate actions from each, such as closer monitoring to protect releases, more frequent gage inspections to reflect actual flow conditions more accurately or a greater effort to meet exact release requests.
- Other actions, as deemed appropriate, for the given situation.

Stage 2 – Drought Warning Condition

For water supplied from the Brazos River System, the goal for water use reduction under a Stage 2, Drought Warning Condition, is a ten (10) percent reduction of the use that would have occurred in the absence of drought contingency measures. If circumstances warrant, the BRA's GM/CEO

or his/her designee may modify this goal. For LCRA water, the target reduction goal is ~~ten (10)~~ ~~to twenty (20)~~ percent, as indicated in LCRA's Plan. The BRA's GM/CEO or his/her designee may perform or request implementation of any of the actions listed below, as deemed necessary:

- Inform customers of the Drought Warning Condition and request that they inform their customers, if any.
- Notify customers of actions being taken and urge activation by customers of appropriate water conservation measures to achieve the target water use reduction goal.
- Meet with customers to discuss the current drought and possible measures to be taken.
- Initiate Stage 2 or equivalent of customer drought contingency plans, if available.
- Encourage the public to wait until the current drought has passed before establishing new landscaping.
- Initiate mandatory landscape and outdoor water use restrictions needed to achieve the water use reduction goal.
- Initiate engineering studies to evaluate alternative actions if conditions worsen.
- Further accelerate public education efforts on ways to reduce water use.
- In cooperation with BRA customers, develop or update the specific drought response plan tailored to conditions as they exist at the time.
- Implement appropriate provisions of the specific drought response plan.
- For LCRA firm water, any requirements specified in the LCRA Drought Contingency Plan and associated Rules.
- ~~For LCRA firm water, begin discussions with LCRA to develop a specific curtailment plan, consistent with LCRA's TCEQ-approved Pro-rata Curtailment Plan and LCRA's Raw Water Rules related to pro-rata curtailment.~~
- ~~For LCRA firm water, any landscape water schedule used to implement restrictions should restrict daytime outdoor water use and not allow the irrigation of landscaping to occur more than twice a week.~~
- For EWCRWS, initiate preparations for the implementation of pro-rata curtailment of water diversion and/or deliveries.
- Implement other measures identified by the BRA and its customers.

Stage 3 – Drought Emergency Condition

For water supplied from the Brazos River System, the goal for water use reduction under a Stage 3, Drought Emergency Condition, is a total reduction of twenty (20) percent in the use that would have occurred in the absence of any drought contingency measures. If circumstances warrant, the BRA's GM/CEO or his/her designee may modify this goal.— For LCRA water, the target reduction goal is twenty-five (25) percent, as indicated in LCRA's Plan~~the LCRA will implement a mandatory pro-rata curtailment of a minimum of twenty (20) percent, as indicated in LCRA's Plan.~~ If the combined storage of Lakes Buchanan and Travis continue to drop below 600,000 acre-feet, the mandatory pro-rata curtailment percentage may be increased as determined by the LCRA Board of Directors.— The BRA's GM/CEO or his/her designee may perform or request implementation of any of the actions listed below, as deemed necessary:

- Continue actions commenced under Stages 1 and 2.
- Inform customers of the Drought Emergency Condition and request that they inform their customers, if any.
- Notify customers of actions being taken and urge activation by customers of appropriate water conservation measures to achieve the target water use reduction goal.
- Require BRA customers to cease diversion and use of water under Interruptible Water Availability Agreements.
- Cease the sale of water by the BRA under Interruptible Water Availability Agreements.
- Limit or restrict the temporary assignment of water by BRA customers to third parties in accordance with the terms of the underlying contracts.—
- In cooperation with BRA customers, develop or update the specific drought response plan tailored to conditions as they exist at the time.
- Implement appropriate provisions of the specific drought response plan.
- Meet with customers to discuss the current drought and measures to be taken.
- Initiate the drought emergency or equivalent stage in customer drought contingency plans as necessary to meet the target water use reduction goal.
- Initiate mandatory water use restrictions such as prohibiting hosing of paved areas, buildings or windows, prohibiting operation of ornamental fountains, prohibiting washing or rinsing of vehicle by hose and prohibiting water use in such a manner as to allow runoff or other waste.
- Limit landscape watering at each service address.
- Prohibit draining and filling of existing swimming pools and filing of new swimming pools (pools may add water to replace losses during normal use).
- Prohibit establishment of new landscaping.

- Prohibit all outdoor watering, including hand held hoses.
- Implement viable alternative water supply strategies (this may require prior approval from TCEQ).
- Coordinate with customers regarding the pro-rata curtailment process in the event that drought conditions persist or intensify and a Pro-rata Curtailment Condition is initiated.
- For LCRA firm water, any requirements specified in the LCRA Drought Contingency Plan and associated Rules.
- For EWCRWS, initiate mandatory measures to reduce non-essential water use and initiate pro-rata curtailment measures, pursuant to *Texas Water Code* §11.039.

Stage 4 – Pro-rata Curtailment Condition

Under Stage 4, Pro-rata Curtailment Condition, the BRA’s customers will be required to implement a mandatory pro-rata curtailment, pursuant to *Texas Water Code* §11.039. All uses of water under Interruptible Water Availability Agreements in the affected part of the system will be suspended prior to and during any mandatory pro-rata curtailment of water use under long-term contracts.

For LCRA Water, the LCRA will curtail and distribute the available supply of firm water among its firm water customers and firm environmental flow commitments on a pro rata basis according to the amount of firm water to which they are legally entitled consistent with the Pro Rata Plan for Firm Water Demands approved by TCEQ. For additional information regarding LCRA firm water see Appendix H.

If conditions change while pro-rata curtailment is in effect, meetings with affected customers may be necessary in order to adjust the curtailment percentage.

In the event that the BRA implements pro-rata curtailment under Stage 4 of this Plan, the GM/CEO will establish conditions under which the curtailment will be rescinded.

7. Required Provision on Distribution of Water in Case of Shortage in BRA Contracts

The BRA water contracts shall include a provision that allows water curtailment in accordance with the provisions of *Texas Water Code* §11.039 during shortages of water.

8. Procedures for Granting Variances

The BRA’s GM/CEO or his/her designee may 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:

- 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; or
- Alternative methods can be implemented which will achieve the same level of reduction in water use.

Variances shall be granted or denied at the discretion of the BRA's GM/CEO or his/her designee. All petitions for variances should be in writing and should include the following information:

- Name and address of the petitioner(s).
- Purpose of water use.
- Specific provisions from which relief is requested.
- Detailed statement of the adverse effect of the provision from which relief is requested.
- Description of the relief requested.
- Period of time for which the variance is sought.
- Alternative measures that will be taken to reduce water use.
- Other pertinent information.

For LCRA water, LCRA may consider a temporary variance to the pro-rata water allocation requirement in accordance with LCRA's Plan.

No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance.

9. Procedures for Implementation and Enforcement

Appendix F is a copy of the BRA's Board resolution approving this Plan. Compliance with this Plan, as amended from time to time, is a condition in the BRA's water supply agreements. Failure to comply with the Plan is a violation of the water supply agreement provision and will be treated as such.

For the EWCRRS, during any period when pro-rata allocation of available water supplies is in effect, wholesale customer shall pay the Excess Water Fee for all water taken that exceeds the customers pro-rata allocation. ~~The Excess Water Fee is determined by the BRA's contract.~~

10. Review and Update

The BRA shall review this Plan at least every five (5) years and shall update as appropriate based on new or updated information.

APPENDIX A
Texas Administrative Code, Section 288.22
Texas Commission on Environmental Quality Rules on Drought Contingency
Plans for Wholesale Water Suppliers

APPENDIX A
Texas Administrative Code, Section 288.22
Texas Commission on Environmental Quality Rules on Drought Contingency
Plans for Wholesale Water Suppliers

<u>TITLE 30</u>	ENVIRONMENTAL QUALITY
<u>PART 1</u>	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
<u>CHAPTER 288</u>	WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS
<u>SUBCHAPTER B</u>	DROUGHT CONTINGENCY PLANS
SECTION §288.22	Drought Contingency Plans for Wholesale Water Suppliers

(A) A drought contingency plan for a wholesale water supplier must include the following minimum elements:

- (1) Preparation of the Plan shall include provisions to actively inform the public and to affirmatively provide opportunity for user input in the preparation of the Plan and for informing wholesale customers about the Plan. Such acts may include, but are not limited to, having a public meeting at a time and location convenient to the public and providing written notice to the public concerning the proposed plan and meeting.
- (2) The drought contingency plan must document coordination with the regional water planning groups for the service area of the wholesale public water supplier to ensure consistency with the appropriate approved regional water plans.
- (3) The drought contingency plan must include a description of the information to be monitored by the water supplier and specific criteria for the initiation and termination of drought response stages, accompanied by an explanation of the rationale or basis for such triggering criteria.
- (4) The drought contingency plan must include a minimum of three drought or emergency response stages providing for the implementation of measures in response to water supply conditions during a repeat of the drought-of-record.
- (5) The drought contingency plan must include the procedures to be followed for the initiation or termination of drought response stages, including procedures for notification of wholesale customers regarding the initiation or termination of drought response stages.
- (6) The drought contingency plan must include specific, quantified targets for water use reductions to be achieved during periods of water shortage and drought. The entity preparing the Plan shall establish the targets. The goals established by the entity under this paragraph are not enforceable.

(7) The drought contingency plan must include the specific water supply or water demand management measures to be implemented during each stage of the plan including, but not limited to, the following:

(a) pro-rata curtailment of water deliveries to or diversions by wholesale water customers as provided in Texas Water Code, §11.039; and

(b) utilization of alternative water sources with the prior approval of the executive director as appropriate (e.g., interconnection with another water system, temporary use of a non-municipal water supply, use of reclaimed water for non-potable purposes, etc).

(8) The drought contingency plan must include a provision in every wholesale water contract entered into or renewed after adoption of the Plan, including contract extensions, that in case of a shortage of water resulting from drought, the water to be distributed shall be divided in accordance with Texas Water Code, §11.039.

(9) The drought contingency plan must include procedures for granting variances to the plan.

(10) The drought contingency plan must include procedures for the enforcement of any mandatory water use restrictions including specification of penalties (e.g., liquidated damages, water rate surcharges, discontinuation of service) for violations of such restrictions.

(B) The wholesale public water supplier shall notify the executive director within five (5) business days of the implementation of any mandatory provisions of the drought contingency plan.

(C) The wholesale public water supplier shall review and update, as appropriate, the drought contingency plan, at least every five (5) years, based on new or updated information, such as adoption or revision of the regional water plan.

Source Note: The provisions of this §288.22 adopted to be effective February 21, 1999, 24 TexReg 949; amended to be effective April 27, 2000, 25 TexReg 3544; amended to be effective October 7, 2004, 29 TexReg 9384

APPENDIX B
Example Letter to Wholesale Water Customers

APPENDIX B

Example Letter to Wholesale Water Customers



Brazos River Authority



QUALITY • CONSERVATION • SERVICE

April 10, 2024

«MrMs» «First_Name» «Last_Name»
«Title»
«Company_Name»
«Address_Line_1»
«Address_Line_2»
«City», «State» «ZIP_Code»

Dear «Salutation»:

The Texas Commission on Environmental Quality (“TCEQ”) requires wholesale water suppliers to update their Drought Contingency Plan every five years. The Brazos River Authority’s (BRA) current plan was adopted on April 19, 2019 and is due for renewal this year. In accordance with TCEQ regulations, we are notifying our customers that the draft plan will be available for review and comment on the BRA’s Web site—www.brazos.org—starting April 15, 2024.

The following is a summary of the proposed changes to the plan:

- 1) Established new trigger levels for Lakes Granger and Belton, and the Lake Stillhouse-Hollow-Georgetown subsystem and the Lake Possum Kingdom-Granbury-Whitney subsystem;
- 2) Updated treated water trigger levels specific to BRA’s East Williamson County Regional Water System; and,
- 3) Updated Lower Colorado River Authority (LCRA) requirements for the use of water sourced from Lakes Buchanan and Travis in Williamson County.

If you prefer to review a hard copy of the draft plan, you may request one through our Public Information Office by calling (254) 761-3174. Any comments on the draft plan will be accepted through close of business Monday, May 30, 2024. Please mail all written comments to:

Brazos River Authority
Attn: Chris Higgins
P.O. Box 7555
Waco, TX 76714-7555

Following the receipt of comments, the plan will be considered for adoption at the BRA Board of Directors meeting on May 20, 2024.

Sincerely,

AARON ABEL
Water Services Manager

AA:kl
Date

[Customer]
[Address]

Dear «Salutation»:

The Brazos River Authority (BRA) is performing an update of its Drought Contingency Plan (Plan). In accordance with Texas Commission on Environmental Quality regulations, we are notifying our customers that the draft Plan will be available for review and comment on the BRA's Web site at www.brazos.org starting on March 22, 2019.

The following is a summary of the proposed changes to the Plan:

- 1) Established new trigger levels
- 2) Incorporated requirements specific to BRA's East Williamson County Regional Water System
- 3) Referenced seasonal rainfall forecasts developed by the Texas Water Development Board as a drought monitoring tool
- 4) Clarification of Pro Rata curtailment language

If you prefer to review a hard copy of the draft Plan, you may request one through our Public Information Office by calling (254) 761-3111. Comments on the draft Plan will be accepted through close of business on Monday, April 22, 2019. Please mail written comments to:

____ Brazos River Authority
____ Attn: Chris Higgins
____ P.O. Box 7555
____ Waco, TX 76714-7555

Following the receipt of comments, the Plan will be considered for adoption at the next BRA Board of Directors meeting on April 29, 2019.

Sincerely,

AARON ABEL
Water Services Manager
AA:kld

APPENDIX C
Example Letter to Regional Water Planning Groups
[Planning Groups B, C, F, G, H, K and O]

APPENDIX C
Example Letter to Regional Water Planning Groups
[Planning Groups B, C, F, G, H, K and O]



Brazos River Authority



QUALITY • CONSERVATION • SERVICE

Date
[Chairman]
Chair, Region _ Water Planning Group
[Address]

Dear «Salutation»:

The Texas Commission on Environmental Quality (“TCEQ”) requires wholesale water suppliers to update their Drought Contingency Plan every five years. The Brazos River Authority’s (BRA) current plan was adopted on April 19, 2019 and is due for renewal this year. In accordance with TCEQ regulations, we are notifying our customers that the draft plan will be available for review and comment on the BRA’s Web site—www.brazos.org—starting April 15, 2024.

The following is a summary of the proposed changes to the plan:

- 4) Established new trigger levels for Lakes Granger and Belton, and the Lake Stillhouse-Hollow-Georgetown subsystem and the Lake Possum Kingdom-Granbury-Whitney subsystem;
- 5) Updated treated water trigger levels specific to BRA’s East Williamson County Regional Water System; and,
- 6) Updated Lower Colorado River Authority (LCRA) requirements for the use of water sourced from Lakes Buchanan and Travis in Williamson County.

If you prefer to review a hard copy of the draft plan, you may request one through our Public Information Office by calling (254) 761-3174. Any comments on the draft plan will be accepted through close of business Monday, May 15, 2024. Please mail all written comments to:

Brazos River Authority

Attn: Chris Higgins

P.O. Box 7555

Waco, TX 76714-7555

Following the receipt of comments, the plan will be considered for adoption at the BRA Board of Directors meeting on May 20, 2024.

Sincerely,

AARON ABEL
Water Services Manager

AA:kld

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~~The following is a summary of the proposed changes to the Plan:~~

- ~~1) Established new trigger levels~~
- ~~2) Incorporated requirements specific to BRA’s East Williamson County Regional Water System~~
- ~~3) Referenced seasonal rainfall forecasts developed by the Texas Water Development Board as a drought monitoring tool~~
- ~~4) Clarification of Pro-Rata curtailment language~~

If you prefer to review a hard copy of the draft Plan, you may request one through our Public Information Office by calling (254) 761-3111. Comments on the draft Plan will be accepted through close of business on Monday, April 22, 2019. Please mail written comments to:

Brazos River Authority

Attn: Chris Higgins

P.O. Box 7555

Waco, TX 76714-7555

Following the receipt of comments, the Plan will be considered for adoption at the next BRA Board of Directors meeting on April 29, 2019. A final copy of the Plan will be forwarded to the regional water planning groups after it is adopted by the BRA Board.

Sincerely,

AARON ABEL
Water Services Manager
AA:kld

APPENDIX D

Customer Water Supply Intake Structures

APPENDIX D
Customer Water Supply Intake Structures

Physical Lakeside Intakes		
RESERVOIR	BRA CUSTOMER	MINIMUM OPERATION LEVEL (ft)
AQUILLA	AQUILLA WSD	507
BELTON	BELL COUNTY WCID #1	540
	CITY OF GATESVILLE	538
	BLUEBONNET WSC	568
GEORGETOWN	GEORGETOWN, CITY OF	732
	ROUND ROCK, CITY OF	755 47
	BRUSHY CREEK MUD	753 47
GRANBURY	TXU - COMANCHE PEAK	678
	TXU - DECORDOVA	673
	LENMO INC. (LEONARDS)	682
	WOLF HOLLOW I, L.P.	673
	CITY OF GRANBURY	682
	SWATS	674
GRANGER	EAST WILLIAMSON COUNTY REGIONAL WATER SYSTEM	478 96
LIMESTONE	NRG	330
	SOUTH LIMESTONE COUNTY WATER SUPPLY	354

	LUMINANT (OAK GROVE MANAGEMENT)	331
PROCTOR	UPPER LEON RIVER MWD	1135
POSSUM KINGDOM	SPORTSMAN'S WORLD MUD	983
	POSSUM KINGDOM WSC	982
	WEST CENTRAL BRAZOS PIPELINE	967
SOMERVILLE	CITY OF BRENHAM	208
STILLHOUSE HOLLOW	BELL COUNTY WCID #!	579
	CENTRAL TEXAS WSC	582
	WILLIAMSON COUNTRY REGIONAL RAW WATER LINE	559.5
	KEMPNER WSC	59080

¹ This list includes some of the larger BRA water customers. It is not all inclusive. The Minimum Operation Levels represent the critical reservoir elevation at which the operation of the intake structure would start to be compromised. These values were provided directly by the customers. The BRA makes no statement as to their accuracy, and they are not intended for any other use outside of this DCP.

APPENDIX E
Elevation-Capacity Tables
Selected Reservoirs

APPENDIX E
Elevation-Capacity Tables
Selected Reservoirs

Table E-1 Lake Aquilla Elevation-Capacity Values Year 2030 Estimated Sedimentation Conditions			
Elevation (Feet msl)	Capacity (Acre-Feet)	Elevation (Feet msl)	Capacity (Acre-Feet)
495	0	517	4,336
496	0	518	5,139
497	0	519	6,022
498	0	520	6,996
499	0	521	8,051
500	0	522	9,179
501	0	523	10,379
502	0	524	11,651
503	0	525	13,003
504	0	526	14,446
505	0	527	16,000
506	22	528	17,667
507	96	529	19,447
508	229	530	21,337
509	421	531	23,333
510	674	532	25,450
511	988	533	27,697
512	1,364	534	30,088
513	1,805	535	32,630
514	2,327	536	35,328
515	2,929	537	38,181
516	3,599	537.5	39,656

Baseline Conditions from Texas Water Development Board,
2014 Volumetric Survey

**Table E-2 Lake Belton Elevation-Capacity Values
Year 2030 Estimated Sedimentation Conditions**

Elevation (Feet msl)	Capacity (Acre-Feet)	Elevation (Feet msl)	Capacity (Acre-Feet)	Elevation (Feet msl)	Capacity (Acre-Feet)
484	0	521	12,302	558	124,055
485	1	522	13,526	559	129,416
486	3	523	14,833	560	134,902
487	9	524	16,224	561	140,519
488	16	525	17,695	562	146,264
489	29	526	19,246	563	152,161
490	47	527	20,879	564	158,211
491	70	528	22,594	565	164,429
492	100	529	24,383	566	170,821
493	141	530	26,241	567	177,358
494	189	531	28,175	568	184,034
495	247	532	30,197	569	190,870
496	315	533	32,308	570	197,900
497	394	534	34,507	571	205,146
498	491	535	36,799	572	212,639
499	607	536	39,192	573	220,393
500	746	537	41,698	574	228,375
501	913	538	44,327	575	236,562
502	1,104	539	47,078	576	244,948
503	1,322	540	49,938	577	253,510
504	1,569	541	52,903	578	262,260
505	1,852	542	55,988	579	271,249
506	2,184	543	59,207	580	280,488
507	2,550	544	62,558	581	289,987
508	2,949	545	66,030	582	299,702
509	3,381	546	69,617	583	309,619
510	3,846	547	73,342	584	319,750
511	4,346	548	77,221	585	330,102
512	4,888	549	81,254	586	340,662
513	5,472	550	85,449	587	351,418
514	6,102	551	89,804	588	362,371
515	6,785	552	94,307	589	373,535
516	7,521	553	98,951	590	384,902
517	8,317	554	103,742	591	396,472
518	9,182	555	108,662	592	408,266
519	10,129	556	113,688	593	420,318
520	11,168	557	118,816	594	432,631

Baseline Conditions from Texas Water Development Board,
2015 Volumetric Survey

Table E-3 Lake Georgetown Elevation-Capacity Values Year 2030 Estimated Sedimentation Conditions			
Elevation (Feet msl)	Capacity (Acre-Feet)	Elevation (Feet msl)	Capacity (Acre-Feet)
714	10	753	6,256
715	14	754	6,690
716	19	755	7,136
717	27	756	7,598
718	37	757	8,079
719	48	758	8,579
720	63	759	9,098
721	80	760	9,637
722	99	761	10,198
723	122	762	10,779
724	147	763	11,380
725	176	764	12,000
726	210	765	12,643
727	252	766	13,310
728	307	767	14,001
729	372	768	14,718
730	453	769	15,462
731	549	770	16,235
732	658	771	17,038
733	780	772	17,868
734	912	773	18,721
735	1,056	774	19,594
736	1,211	775	20,490
737	1,380	776	21,405
738	1,562	777	22,342
739	1,763	778	23,302
740	1,983	779	24,286
741	2,219	780	25,293
742	2,471	781	26,323
743	2,738	782	27,380
744	3,020	783	28,463
745	3,315	784	29,573
746	3,624	785	30,708
747	3,949	786	31,869
748	4,292	787	33,057
749	4,653	788	34,271
750	5,031	789	35,511
751	5,425	790	36,776
752	5,834	791	38,068

Baseline conditions from Texas Water Development Board,
2016 Volumetric Survey

Table E-4 Lake Granbury Elevation-Capacity Values Year 2030 Estimated Sedimentation Conditions			
Elevation (Feet msl)	Capacity (Acre-Feet)	Elevation (Feet msl)	Capacity (Acre-Feet)
627	0	661	14,679
628	0	662	16,050
629	0	663	17,516
630	2	664	19,077
631	9	665	20,731
632	24	666	22,472
633	53	667	24,302
634	108	668	26,226
635	178	669	28,245
636	272	670	30,357
637	398	671	32,572
638	547	672	34,898
639	717	673	37,347
640	909	674	39,936
641	1,137	675	42,684
642	1,399	676	45,594
643	1,689	677	48,674
644	2,013	678	51,950
645	2,366	679	55,428
646	2,744	680	59,137
647	3,152	681	63,115
648	3,603	682	67,349
649	4,106	683	71,859
650	4,659	684	76,654
651	5,261	685	81,730
652	5,917	686	87,178
653	6,626	687	93,042
654	7,395	688	99,357
655	8,233	689	106,078
656	9,138	690	113,123
657	10,106	691	120,492
658	11,133	692	128,227
659	12,227	693	136,326
660	13,405		

Baseline conditions from Texas Water Development Board,
2015 Volumetric Survey

Table E-5 Lake Granger Elevation-Capacity Values Year 2030 Estimated Sedimentation Conditions			
Elevation (Feet msl)	Capacity (Acre-Feet)	Elevation (Feet msl)	Capacity (Acre-Feet)
464	0	485	6,236
465	0	486	7,359
466	0	487	8,592
467	0	488	9,937
468	0	489	11,391
469	2	490	12,966
470	7	491	14,661
471	29	492	16,477
472	85	493	18,431
473	181	494	20,528
474	316	495	22,778
475	490	496	25,208
476	697	497	27,836
477	944	498	30,665
478	1,256	499	33,695
479	1,644	500	36,940
480	2,121	501	40,389
481	2,721	502	44,022
482	3,452	503	47,825
483	4,288	504	51,822
484	5,217		

Baseline conditions from Texas Water Development Board,
2013 Volumetric Survey

Table E-6 Lake Limestone Elevation-Capacity Values Year 2030 Estimated Sedimentation Conditions			
Elevation (Feet msl)	Capacity (Acre-Feet)	Elevation (Feet msl)	Capacity (Acre-Feet)
320	0	342	33,077
321	0	343	37,179
322	0	344	41,579
323	1	345	46,420
324	8	346	51,675
325	65	347	57,327
326	264	348	63,396
327	670	349	69,866
328	1,238	350	76,714
329	1,949	351	83,920
330	2,885	352	91,534
331	4,062	353	99,673
332	5,479	354	108,245
333	7,078	355	117,238
334	8,924	356	126,640
335	11,071	357	136,422
336	13,458	358	146,621
337	16,134	359	157,259
338	19,096	360	168,273
339	22,281	361	179,655
340	25,665	362	191,546
341	29,242	363	203,780

Baseline conditions from Texas Water Development Board, 2012 Volumetric Survey

Table E-7 Lake Possum Kingdom Elevation-Capacity Values Year 2030 Estimated Sedimentation Conditions					
Elevation (Feet msl)	Capacity (Acre-Feet)	Elevation (Feet msl)	Capacity (Acre-Feet)	Elevation (Feet msl)	Capacity (Acre-Feet)
893	0	929	26,220	965	169,743
894	0	930	28,176	966	176,230
895	0	931	30,253	967	182,875
896	1	932	32,427	968	189,677
897	3	933	34,691	969	196,652
898	11	934	37,051	970	203,811
899	43	935	39,513	971	211,165
900	105	936	42,071	972	218,717
901	198	937	44,720	973	226,474
902	335	938	47,464	974	234,428
903	516	939	50,325	975	242,609
904	750	940	53,305	976	251,030
905	1,041	941	56,407	977	259,689
906	1,395	942	59,637	978	268,593
907	1,801	943	62,993	979	277,756
908	2,284	944	66,472	980	287,187
909	2,833	945	70,079	981	296,928
910	3,441	946	73,811	982	307,006
911	4,105	947	77,664	983	317,398
912	4,829	948	81,644	984	328,113
913	5,620	949	85,751	985	339,142
914	6,471	950	89,986	986	350,492
915	7,379	951	94,343	987	362,155
916	8,351	952	98,829	988	374,135
917	9,379	953	103,454	989	386,435
918	10,462	954	108,213	990	399,047
919	11,594	955	113,107	991	412,036
920	12,785	956	118,133	992	425,524
921	14,031	957	123,293	993	439,682
922	15,329	958	128,593	994	454,628
923	16,682	959	134,030	995	470,242
924	18,088	960	139,606	996	486,471
925	19,558	961	145,326	997	503,227
926	21,094	962	151,197	998	520,455
927	22,696	963	157,227	999	538,139
928	24,388	964	163,410	1,000	556,340

Baseline conditions from Texas Water Development Board,
2016 Volumetric Survey

Table E-8 Lake Proctor Elevation-Capacity Values Year 2030 Estimated Sedimentation Conditions			
Elevation (Feet msl)	Capacity (Acre-Feet)	Elevation (Feet msl)	Capacity (Acre-Feet)
1,131	0	1,147	11,270
1,132	0	1,148	12,990
1,133	0	1,149	14,810
1,134	2	1,150	16,740
1,135	35	1,151	18,840
1,136	234	1,152	21,060
1,137	663	1,153	23,390
1,138	1,251	1,154	25,830
1,139	1,932	1,155	28,380
1,140	2,699	1,156	31,080
1,141	3,589	1,157	34,160
1,142	4,592	1,158	37,790
1,143	5,683	1,159	41,690
1,144	6,853	1,160	45,850
1,145	8,185	1,161	50,230
1,146	9,654	1,162	54,760

Baseline conditions from Texas Water Development Board,
2012 Volumetric Survey

Table E-9 Lake Somerville Elevation-Capacity Values Year 2030 Estimated Sedimentation Conditions	
Elevation (Feet msl)	Capacity (Acre-Feet)
208	0
209	0
210	1
211	33
212	318
213	994
214	1,990
215	3,350
216	5,119
217	7,341
218	10,034
219	13,159
220	16,686
221	20,537
222	24,731
223	29,300
224	34,248
225	39,669
226	45,633
227	52,064
228	58,909
229	66,216
230	73,888
231	81,878
232	90,306
233	99,212
234	108,593
235	118,424
236	128,670
237	139,275
238	150,293

Baseline conditions from Texas Water Development Board,
2012 Volumetric Survey

**Table E-10 Lake Stillhouse Hollow Elevation-Capacity Values
Year 2030 Estimated Sedimentation Conditions**

Elevation	Capacity	Elevation	Capacity	Elevation	Capacity
505	0	545	10,453	585	72,200
506	0	546	11,158	586	74,869
507	1	547	11,894	587	77,605
508	3	548	12,659	588	80,405
509	6	549	13,454	589	83,270
510	11	550	14,284	590	86,209
511	17	551	15,147	591	89,224
512	27	552	16,047	592	92,308
513	41	553	16,986	593	95,462
514	61	554	17,963	594	98,687
515	86	555	18,978	595	101,988
516	113	556	20,031	596	105,372
517	144	557	21,129	597	108,832
518	190	558	22,274	598	112,370
519	260	559	23,463	599	115,987
520	354	560	24,694	600	119,691
521	470	561	25,964	601	123,488
522	607	562	27,279	602	127,384
523	769	563	28,637	603	131,384
524	965	564	30,040	604	135,497
525	1,199	565	31,494	605	139,721
526	1,459	566	33,006	606	144,062
527	1,745	567	34,575	607	148,514
528	2,052	568	36,202	608	153,081
529	2,377	569	37,879	609	157,764
530	2,722	570	39,608	610	162,567
531	3,089	571	41,389	611	167,488
532	3,479	572	43,219	612	172,520
533	3,893	573	45,101	613	177,669
534	4,331	574	47,036	614	182,938
535	4,790	575	49,026	615	188,328
536	5,268	576	51,072	616	193,840
537	5,764	577	53,174	617	199,484
538	6,277	578	55,329	618	205,271
539	6,808	579	57,545	619	211,214
540	7,357	580	59,826	620	217,304
541	7,926	581	62,174	621	223,524
542	8,516	582	64,585	622	229,881
543	9,131	583	67,061		
544	9,777	584	69,600		

Baseline conditions from Texas Water Development Board,
2015 Volumetric Survey

Table E-12. Lake Whitney Elevation-Capacity Values

Brazos River Authority storage within Lake Whitney totals ~~571,252,987~~ af for capacity above 520 ft. elevation. Drought contingency plan trigger values for the collective BRA storage in the Lake Possum Kingdom-Lake Granbury-Lake Whitney system take into account only this ~~571,252,987~~ acre-foot capacity, and not the entire capacity of Lake Whitney. Specific elevation-capacity values for Lake Whitney as a whole therefore do not apply.

APPENDIX F
Brazos River Authority
Board Resolution Adopting the Drought Contingency Plan

APPENDIX F
Brazos River Authority
Board Resolution Adopting the Drought Contingency Plan
[PLACEHOLDER - TO BE UPDATE AFTER THE MAY 20 BOARD OF
DIRECTORS MEETING



Brazos River Authority


**RESOLUTION OF THE BOARD OF DIRECTORS OF
THE BRAZOS RIVER AUTHORITY
APRIL 29, 2019**

**Agenda Item No. 7
Drought Contingency Plan Update**

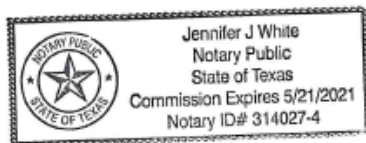
“BE IT RESOLVED that the Board of Directors of the Brazos River Authority that the Drought Contingency Plan, as presented at the April 29, 2019, Board of Directors' Meeting and prepared in conformance with the requirements of the Texas Commission on Environmental Quality, is hereby adopted and supersedes the Drought Contingency Plan dated October 29, 2012; and

BE IT FURTHER RESOLVED that the General Manager/CEO is directed to submit the adopted Brazos River Authority Drought Contingency Plan to the Texas Commission on Environmental Quality.”

The aforementioned resolution was approved by the Board of Directors of the Brazos River Authority on April 29, 2019, to certify which witness my hand and seal.


Cynthia A. Flores
Presiding Officer

SUBSCRIBED AND SWORN TO BEFORE ME on this the 29 day of April, 2019, to certify which witness my hand and official seal.




Notary Public in and for the
State of Texas

APPENDIX G

**Texas Water Code Section 11.039
Distribution of Water during Shortage**

APPENDIX G

Texas Water Code Section 11.039

§ 11.039. Distribution of Water During Shortage

(a) If a shortage of water in a water supply not covered by a water conservation plan prepared in compliance with Texas Natural Resource Conservation Commission or Texas Water Development Board rules results from drought, accident or other cause, the water to be distributed shall be divided among all customers pro-rata, according to the amount each may be entitled to, so that preference is given to no one and everyone suffers alike.

(b) If a shortage of water in a water supply covered by a water conservation plan prepared in compliance with Texas Natural Resource Conservation Commission or Texas Water Development Board rules results from drought, accident or other cause, the person, association of persons, or corporation owning or controlling the water shall divide the water to be distributed among all customers pro-rata, according to:

(1) the amount of water to which each customer may be entitled; or

(2) the amount of water to which each customer may be entitled, less the amount of water the customer would have saved if the customer had operated its water system in compliance with the water conservation plan.

(c) Nothing in Subsection (a) or (b) precludes the person, association of persons, or corporation owning or controlling the water from supplying water to a person who has a prior vested right to the water under the laws of this state.

Amended by Acts 1977, 65th Leg., p. 2207, ch. 870, § 1, eff. Sept. 1, 1977.

Amended by Acts 2001, 77th Leg., ch. 1126, § 1, eff. June 15, 2001.

APPENDIX H
LCRA Drought Contingency Plan for Firm Water Customers
& Rules for Water Sales Contracts

APPENDIX H
LCRA Drought Contingency Plan for Firm Water Customers
& Rules for Water Sales Contracts



**Drought Contingency Plan for
Firm Water Customers**

**Lower Colorado River Authority
March 2024**

TABLE OF CONTENTS

1. Declaration of Policy, Purpose, and Intent.....	3
2. Public Input and Coordination	3
3. User Education.....	3
4. Authorization	3
5. Application	3
6. Notice.....	4
7. Drought Response Stages	4
7.1 Drought Contingency Plan Stage 1	4
7.2 Drought Contingency Plan Stage 2	4
7.3 Drought Contingency Plan Stage 3.....	4
7.4 Drought Contingency Plan Stage 4.....	5
8. Firm Customer Drought Contingency Plans	5
9. Variances.....	5
10. Enforcement.....	6
11. Severability	6
12. Effective Date of Plan.....	6
13. Drought Contingency Plan Updates	6
14. Notification of Executive Director.....	6

LCRA Board Approved March 26, 2024

2

1. DECLARATION OF POLICY, PURPOSE, AND INTENT

The Board of Directors of the Lower Colorado River Authority (LCRA) deems it to be in the interest of LCRA to adopt a Drought Contingency Plan (DCP) for the supply of firm water. This DCP constitutes the LCRA's drought contingency plan required under Section 11.1272, Texas Water Code, and associated administrative rules of the Texas Commission on Environmental Quality (Title 30, Texas Administrative Code, Chapter 288).

2. PUBLIC INPUT AND COORDINATION

Firm water customers within LCRA's water service area were provided with information related to the preparation of this DCP and provided an opportunity to give input on its development through LCRA's regularly scheduled public meeting of the LCRA Board in March 2024. In addition, LCRA posted its draft proposed DCP on its website, www.lcra.org, provided an opportunity to submit written comments through its website, and held a customer meeting.

Further, LCRA has provided a copy of this Firm Customer DCP to the Region K Regional Water Planning Group to ensure consistency with the Region K water plan.

3. USER EDUCATION

LCRA will provide water users with information about this DCP, including information about the conditions under which drought response measures are to be initiated or terminated. This information will be provided by email to customers, by providing copies of the DCP to each customer, or by posting the DCP on LCRA's public website.

4. AUTHORIZATION

The LCRA General Manager or his designee is hereby authorized and directed to implement the applicable provisions of this DCP consistent with the criteria specified herein. LCRA Board action is not required for actions under this DCP other than those actions set forth below:

- Establishing surcharges or excess use rates applicable to firm water customers (Section 10).
- Declaration of a Drought Worse than Drought of Record (Section 7.4).
- Initiating, modifying and/or lifting of pro rata curtailment, or establishing criteria for such actions. (Section 7.4).
- Establishing the percentage curtailment required under continuing Stage 4 (Section 7.4).
- Updates to the Drought Contingency Plan (Section 13).

LCRA will carry out an appropriate public information campaign related to any item requiring Board action under this DCP as required by 30 Tex. Admin. Code Ch. 288.

5. APPLICATION

The provisions of this DCP shall apply to the use of water by all persons using firm water provided by LCRA. To the extent a person also is using groundwater, or surface water from sources outside the Colorado River Basin, the provisions of this DCP do not limit the use of that source of water. The term "person" as used in this DCP includes individuals, corporations, partnerships, associations, and all other legal entities.

LCRA Board Approved March 26, 2024

3

6. NOTICE

Notice of the initiation of drought response measures will be given by posting on the LCRA website and by U.S. Mail or email, where available, to each individual firm water customer.

7. DROUGHT RESPONSE STAGES

This DCP sets forth the procedures by which LCRA will implement drought response stages for firm water uses. LCRA will encourage its firm water customers to implement long-term water conservation measures year-round to meet the goals included in their water conservation plans. LCRA will, as needed, share information with the public on water supply conditions, water use and conservation. LCRA's Water Contract Rules, including its Drought Contingency Plan Rules and Pro Rata Curtailment Rules may include additional requirements and details applicable to the following stages.

7.1 Drought Contingency Plan Stage 1

If the total combined storage in lakes Buchanan and Travis drops below 1.1 million acre-feet, and interruptible stored water supplied to the Lakeside, Gulf Coast and Pierce Ranch agricultural operations is curtailed, LCRA will request its firm water customers implement mandatory drought response measures in their individual drought contingency plans with a target demand reduction goal of 10 percent. If the combined storage in lakes Buchanan and Travis subsequently increases to 1.2 million acre-feet, the stage will be exited.

7.2 Drought Contingency Plan Stage 2

LCRA will enter Stage 2 if interruptible stored water supplied to the Lakeside, Gulf Coast and Pierce Ranch agricultural operations is curtailed, and:

- a) the total combined storage in lakes Buchanan and Travis drops below 900,000 acre-feet; or
- b) on March 1 or July 1, the combined storage in lakes Buchanan and Travis is below 1.1 million acre-feet and the cumulative prior three months of inflows total to those lakes is less than the 25th percentile of historic inflows for the three-month periods.

In this stage, LCRA firm water customers must implement additional mandatory drought response measures in their individual drought contingency plans with a target demand reduction goal of 20 percent. In this stage, firm customers' water use reduction measures must include a no more than once-per-week watering schedule for ornamental landscaping.

If the combined storage in lakes Buchanan and Travis subsequently increases above 1.1 million acre-feet, the stage will be exited and replaced by Stage 1.

7.3 Drought Contingency Plan Stage 3

If the total combined storage in lakes Buchanan and Travis drops below 750,000 acre-feet and interruptible stored water supplied to the Lakeside, Gulf Coast and Pierce Ranch agricultural operations is curtailed, LCRA firm water customers must implement additional mandatory drought response measures in their individual drought contingency plans with a target demand reduction goal of 25 percent. In this stage, LCRA firm customers' water use reduction measures for ornamental landscaping must include a) a prohibition on the operation of automatic or manual sprinkler irrigation systems; or b) a maximum of no more than 6 hours per week for operating automatic or manual sprinkler irrigation systems. If the combined storage

LCRA Board Approved March 26, 2024

in lakes Buchanan and Travis subsequently increases to 825,000 acre-feet, the stage will be exited and replaced by Stage 2.

7.4 Drought Contingency Plan Stage 4

If the total combined storage in lakes Buchanan and Travis drops below 600,000 acre-feet, and the LCRA Board of Directors declares a Drought Worse than the Drought of Record consistent with the LCRA Water Management Plan (WMP), LCRA will curtail and distribute the available supply of firm water among its firm water customers and firm environmental flow commitments on a pro rata basis according to the amount of firm water to which they are legally entitled consistent with the Pro Rata Plan for Firm Water Demands approved by TCEQ. All uses of interruptible stored water will be cut off prior to and during any mandatory pro rata curtailment of firm water supplies. The initial curtailment of firm water supplies under pro rata will be 20 percent with a target demand reduction goal of 30 percent. In this stage, LCRA will require that firm customers implement mandatory water use reduction measures for ornamental landscaping that must include a prohibition on irrigation of ornamental turfgrass using automatic or manual irrigation systems, including drip irrigation and hose-end sprinklers. Upon entering Stage 4, the LCRA Board also shall determine the conditions under which additional mandatory actions shall be triggered, consistent with Appendix C of LCRA's Water Contract Rules, which include specific procedures and requirements related to a pro rata curtailment of firm water supplies. During Stage 4, LCRA will further encourage firm water customers to use alternative water supplies, if available.

The LCRA Board also may set additional criteria for ending or easing pro rata curtailment, such as combined storage increasing to a given level. If such criteria are subsequently met, the Board may increase or decrease the pro rata curtailment percentage. A declaration of a Drought Worse than Drought of Record will be canceled if combined storage in lakes Buchanan and Travis increases to 1.4 million acre-feet. In that event, mandatory pro rata curtailment would be lifted, and the stage would be exited.

8. FIRM CUSTOMER DROUGHT CONTINGENCY PLANS

As part of its contracts, LCRA requires its firm water customers to prepare and adopt a drought contingency plan that is legally enforceable by the firm water customer and specifies the actions to be taken to comply with this Drought Contingency Plan regarding the implementation of drought response measures, including a plan to reduce demand during curtailment of firm supplies consistent with LCRA's approved Pro Rata Plan and LCRA's Water Contract Rules, including its Drought Contingency Plan Rules and Pro Rata Curtailment Rules. Customers' DCPs should be developed pursuant to LCRA guidelines and submitted for LCRA review and acceptance within 60 days of the approval of this plan. LCRA will provide firm customers a template DCP outlining recommended drought response measures for each stage that may be voluntarily adopted. For temporary contracts, domestic use contracts and landscape irrigation contracts for up to 30 acre-feet per year, customers shall follow an LCRA-developed DCP that is specific to such uses unless customers develop a stand-alone DCP that meets LCRA requirements.

9. VARIANCES

The General Manager may, in writing, grant to a firm water customer a temporary variance from the pro rata curtailment required under this DCP and LCRA's Pro Rata Plan, consistent with Appendix C of LCRA's Water Contract Rules.

In addition, the General Manager may, in writing, grant a temporary variance to the pro rata curtailment of water supplied to meet environmental flow criteria under sections of the LCRA WMP if the Texas Parks and Wildlife Department submits a written variance request, and the General Manager determines a variance is justified to avoid severe adverse biological conditions and/or a variance would not result in an increase in the amount of water made available for environmental flows during the curtailment.

10. ENFORCEMENT

LCRA will monitor firm customers' compliance with its DCP requirements. Monitoring and enforcement of water-use restrictions at the end-user level is the customers' responsibility. All LCRA firm water contracts include a provision requiring that, in cases of a shortage of water resulting from drought, the water will be distributed in accordance with the LCRA's WMP and Texas Water Code section 11.039. Customers that exceed their allotted supply during a pro rata curtailment will be subject to excess use rates or surcharges, to be specified by the LCRA Board, in addition to LCRA's firm water rate. They also may be subject to civil action to enjoin them for breach of contract.

11. SEVERABILITY

It is hereby declared to be the intention of the LCRA Board that, if the sections, paragraphs, sentences, clauses, and phrases of this DCP 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 DCP.

12. EFFECTIVE DATE OF PLAN

The effective date of this DCP shall be the date of approval by the LCRA Board and shall supersede all other Firm Water DCPs and amendments thereto, previously adopted by LCRA through resolution or otherwise. Ignorance of the DCP is not a defense to a prosecution for enforcement of a violation of the DCP.

13. DROUGHT CONTINGENCY PLAN UPDATES

LCRA will make any necessary conforming changes to this DCP within 90 days of TCEQ's approval of changes to the LCRA WMP that affect the firm customer drought response measures contained in this DCP. Further, LCRA may make other updates or amendments to the DCP in accordance with other applicable law.

14. NOTIFICATION OF EXECUTIVE DIRECTOR

The LCRA General Manager will provide all required notices to the TCEQ Executive Director as required by applicable law, including but not limited to notifying the Executive Director within five business days of the implementation of any mandatory provisions under this DCP.

LCRA Board Approved March 26, 2024



APPENDIX B

Drought Contingency Plan Rules for Water Sale Contracts

Lower Colorado River Authority March 2024

CONTENTS

FOREWORD 1

CHAPTER 1: PURPOSE AND AUTHORITY 2

1.1. Purpose 2

1.2. Authority 2

CHAPTER 2: DEFINITIONS..... 2

2.1. LCRA Water Management Plan 2

2.2. Municipal Per Capita Water Use..... 2

2.3. Municipal Use in Gallons Per Capita Per Day 2

2.4. Ornamental Landscaping 2

2.5. Ornamental Turf Grass..... 2

2.6. Regional Water Planning Group 3

2.7. Retail Public Water Supplier 3

2.8. Wholesale Public Water Supplier 3

CHAPTER 3: MUNICIPAL WATER USE BY RETAIL PUBLIC WATER SUPPLIERS 3

3.1. Minimum Requirements..... 3

1) Public Involvement3

2) Public Education3

3) Regional Planning Group3

4) Specific Criteria3

5) Stages.....3

6) Specific Goals.4

7) Water Supply or Water Demand Management Measures.4

8) Notification Procedures.5

9) Variances5

10) Compliance with LCRA Drought Contingency Plan for Firm Water Customers.....5

3.2. Recommended Minimum Drought Contingency Measures Under Pro Rata
 Curtailment. 5

3.3. Notification to LCRA and TCEQ..... 5

3.4. Wholesale Customer Requirement..... 5

3.5. Implementation and Enforcement.....	5
3.6. Other Approved Drought Contingency Plans.....	6
CHAPTER 4: MUNICIPAL USE BY WHOLESALE PUBLIC WATER SUPPLIERS	6
4.1. Minimum Requirements.....	6
1) Public Involvement.....	6
2) Public Education	6
3) Regional Planning Group	6
4) Specific Criteria	6
5) Stages.....	6
6) Specific Goals.	6
7) Water Supply or Water Demand Management Measures.	7
8) Pro-rata curtailment.....	7
10) Minimum requirements.....	7
11) Notification Procedures.	7
12) Variances	7
13) Compliance with LCRA Drought Contingency Plan for Firm Water Customers.....	7
4.2. Recommended Minimum Drought Contingency Measures Under Pro Rata Curtailment.....	7
4.3. Notification to LCRA and TCEQ.....	7
4.4. Wholesale Customer Requirement.....	7
4.5. Implementation and Enforcement.....	8
4.6. Other Approved Drought Contingency Plans.....	8
CHAPTER 5: INDUSTRIAL OR MINING USE	8
5.1. Minimum Requirements.....	8
1) Education Program.....	8
2) Initiation and Termination of Drought Response Stages, with rationale.....	8
3) Specific and Quantified Targets.	8
4) Stages.....	9
5) Response Measures.	9
6) Compliance with LCRA Drought Contingency Plan for Firm Water Customers.	9
5.2. Notification to LCRA.	9
5.3. Implementation	9

5.4. Other Approved Drought Contingency Plans.....	9
CHAPTER 6: AGRICULTURAL USE.....	10
6.1. Agriculture Water Users other than Customers within Agricultural Irrigation Divisions.....	10
6.1.1. Minimum Requirements.....	10
1) Initiation and Termination of Drought Response Stages, with rationale.....	10
2) Specific and Quantified Targets.....	10
3) Stages.....	10
4) Response Measures.....	10
5) Compliance with LCRA Drought Contingency Plan for Firm Water Customers.	10
6.1.2. Notification to LCRA.....	10
6.1.3. Implementation.....	10
6.2. Agriculture Water Suppliers/Irrigation Divisions.....	11
6.2.1. Minimum Requirements.....	11
1) Public Involvement.....	11
2) Regional Planning Group.....	11
3) Specific Criteria.....	11
4) Specific and Quantified Targets.....	11
5) Allocation of Water Supplies.....	11
7) Accounting Procedures.....	11
8) Transfer of Water Allocations.....	11
9) Enforcement Procedures.....	11
10) Compliance with LCRA Drought Contingency Plan for Firm Water Customers.....	11
6.2.2. Wholesale Water Customers.....	12
6.2.3. Protection of Public Water Supplies.....	12
6.2.4. Notification to LCRA and TCEQ.....	12
6.2.5. Implementation and Enforcement.....	12
6.3. Other Approved Drought Contingency Plans.....	12
CHAPTER 7: IRRIGATION OR GOLF COURSE USE.....	13
7.1. Minimum Requirements.....	13
1) Public Education.....	13
2) Initiation and Termination of Drought Response Stages, with rationale.....	13

3) Specific and Qualified Targets.....	13
4) Stages.....	13
5) Response Measures.....	13
6) Compliance with LCRA Drought Contingency Plan for Firm Water Customers.	13
7.2. Recommended Minimum Drought Contingency Measures Under Pro Rata Curtailment.....	14
7.3. Notification to LCRA.....	14
7.4. Implementation.....	14
7.5. Other Approved Drought Contingency Plans.....	14
CHAPTER 8: RECREATIONAL WATER USE	14
8.1. Minimum Requirements.....	14
1) Initiation and Termination of Drought Response Stages, with rationale.....	14
2) Specific and Quantified Targets.....	14
3) Stages.....	15
4) Response Measures.....	15
5) Compliance with LCRA Drought Contingency Plan for Firm Water Customers.	15
8.2. Recommended Minimum Drought Contingency Measures Under Pro Rata Curtailment.....	15
8.3. Notification to LCRA.....	15
8.4. Implementation.....	15
8.5. Other Approved Drought Contingency Plans.....	16
CHAPTER 9: OTHER WATER USE	16
9.0. General.....	16
CHAPTER 10: PLAN UPDATES AND AMENDMENTS	16
10.1. Drought Contingency Plan Updates.....	16
10.2. Amendment to Rules.....	16
<i>Attachment A: Recommended Minimum Drought Response Measures for LCRA Municipal Firm Water Customers in Stage 4.....</i>	17
1) Supply Management Measures.....	17
2) Demand Management Measures.....	17
3) Variances.....	18

**Attachment B: Recommended Stage 4 Drought Response Measures for LCRA
Irrigation, Golf Course and Recreational Firm Water Customers 19**

FOREWORD

The Lower Colorado River Authority (LCRA) was created by the Texas Legislature in 1934 as a conservation and reclamation district. One of LCRA's primary responsibilities is to conserve and protect the soil and water resources of the Colorado River basin within LCRA's statutory district. The LCRA Board policy on Water Conservation directs LCRA staff and management to exercise leadership in promoting and, where appropriate, requiring the conservation of ground and surface waters within LCRA's water service area.

The drought contingency rules are promulgated pursuant to LCRA policy and in compliance with the requirements of Texas Administrative Code, Title 30, Environmental Quality, Chapter 288, Subchapter B: Drought Contingency Plans.

CHAPTER 1:

PURPOSE AND AUTHORITY

1.1. Purpose The purpose of these rules is to extend existing surface and groundwater supplies through conservation and beneficial reuse and to help assure an adequate supply of clean water within the LCRA water service area. These rules apply to all LCRA water sale contracts except those expressly excluded below. These rules do not apply to water sale contracts for uses other than municipal use that have a Maximum Annual Quantity (MAQ) of ten (10) acre-feet per year or less and a term of three (3) years or less, to domestic use contracts of ten (10) acre-feet per year or less, or to landscape, irrigation and recreation contracts with a MAQ of up to 30 acre-feet per year to the extent those customers are covered by a drought contingency plan.

1.2. Authority These rules are promulgated in accordance with Chapters 11 and 152 of the Texas Water Code; Chapter 8503 of the Texas Special District Local Laws Code; Title 30, Chapter 288 of the Texas Administrative Code; LCRA Board Policy 501 – Water Resources; and the LCRA Water Management Plan.

CHAPTER 2: DEFINITIONS

Terms used in these Drought Contingency Plan Rules shall have the same meaning as the terms defined in LCRA’s Water Contract Rules. Additional terms are defined as follows:

2.1. LCRA Water Management Plan A plan required in specific water rights held by LCRA and approved by the TCEQ that defines LCRA’s reservoir operations, water management program, and policies under those water rights.

2.2. Municipal Per Capita Water Use The sum total of water diverted into a water supply system for residential, commercial, public and institutional uses divided by actual population served.

2.3. Municipal Use in Gallons Per Capita Per Day The total average daily amount of water diverted or pumped for treatment for potable use by a public water supply system. The calculation is made by dividing the water diverted or pumped for treatment for potable use by population served. Direct reuse volumes shall be credited against total diversion volumes for the purpose of calculating gallons per capita per day for targets and goals.

2.4. Ornamental Landscaping Irrigated turfgrass and other landscaping that is not regularly used for active and programmed recreational purposes such as sports fields, golf course areas used directly for sport (greens, tees, fairways, and practice areas), areas used for food production, maintaining cemeteries, maintaining the integrity of foundations, and preserving trees.

2.5. Ornamental Turf Grass Irrigated turf grass that is not regularly used for active and

programmed recreational purposes such as sports fields, golf course areas used directly for sport (greens, tees, fairways, and practice areas), cemetery maintenance, and foundation maintenance.

2.6. Regional Water Planning Group Group created and supported by the Texas Water Development Board consisting of regional and local leaders of different backgrounds and various social, environmental and economic interests responsible for developing and adopting a regional water plan for its planning area.

2.7. Retail Public Water Supplier An individual or entity that supplies water to the public for human consumption.

2.8. Wholesale Public Water Supplier An individual or entity that for compensation supplies water to another for resale to the public for human consumption. The term does not include an individual or entity that supplies water to itself or its employees or tenants as an incident of that employee service or tenancy when that water is not resold to or used by others, or an individual or entity that conveys water to another individual or entity, but does not own the right to the water which is conveyed, whether or not for a delivery fee.

CHAPTER 3:

MUNICIPAL WATER USE BY RETAIL PUBLIC WATER SUPPLIERS

3.1. Minimum Requirements All LCRA customers with water sale contracts for this type of use shall develop, adopt and update in accordance with these rules a drought contingency plan that shall include at least the following minimum requirements:

- 1) Public Involvement** Provision shall be made to actively inform the public and affirmatively provide opportunity for public input into the preparation of the retail public water supplier's drought contingency plan. Such acts may include, but are not limited to, having a public meeting at a time and location convenient to the public and providing written notice to the public concerning the proposed drought contingency plan and meeting.
- 2) Public Education** Provision shall be made for a program of continuing public education and information. This information should include basic information about water conservation, effective conservation strategies, as well as information relating to drought, drought restrictions and other related issues.
- 3) Regional Planning Group.** The plan must document coordination with the regional planning groups for the service area of the customer to ensure consistency with the appropriate approved regional water plans.
- 4) Specific Criteria.** The drought contingency plan must include a description of the information to be monitored by the water supplier and the specific criteria, including supply-side and demand-side criteria, for the initiation and termination of drought response stages, accompanied by an explanation of the rationale for such triggering criteria.
- 5) Stages.** The drought contingency plan must include a minimum of four drought or

emergency response stages, providing for the implementation of measures in response to at least the following situations:

- 1) Drought response stages corresponding to LCRA's Drought Contingency Plan for Firm Water Customers.
- 2) Reduction in available water supply from LCRA after a declaration of a Drought Worse than Drought of Record by the LCRA Board of Directors or other shortage resulting from emergency;
- 3) Water production or distribution system limitations;
- 4) Supply source contamination; and
- 5) System outage due to the failure or damage of major water system components (e.g., pumps).
- 6) **Specific Goals.** The drought contingency plan must include specific, quantified targets for water use reductions to be achieved during periods of water shortage and drought. Until mandatory curtailment is implemented by LCRA, implementation of measures to achieve these targets will be encouraged so as to further extend the supply available during drought. The customer shall establish the targets, which must be consistent with those in the LCRA Drought Contingency Plan for Firm Water Customers (DCP).
- 7) **Water Supply or Water Demand Management Measures.** The drought contingency plan must include specific water supply or water demand management measures to be implemented during each stage of the drought contingency plan including, but not limited to, the following:
 - a) Curtailment of non-essential water uses. Non-essential uses can include ornamental landscape irrigation, filling of pools and fountains, or any other water uses determined by the customer to be non-essential. In accordance with Stage 4 of the LCRA DCP, prohibition on irrigation of ornamental turfgrass and prohibition on the use of automatic sprinkler irrigation systems and hose-end sprinklers must be included as measures to curtail non-essential water use.
 - b) Landscape watering schedules. The drought contingency plan must have a landscape watering schedule that restricts daytime outdoor water use and does not allow the irrigation of ornamental landscaping to occur more than twice a week on a permanent year-round basis. The plan must include a no more than once-per-week watering schedule for ornamental landscaping that is implemented at or before the initiation of Stage 2 of the LCRA DCP, a watering schedule limited to no more than 6 hours per week that is implemented at or before the initiation of Stage 3 of the LCRA DCP and eliminating operation of ornamental fountains in Stage 3. In Stage 4, the plan may allow irrigation of areas not defined as ornamental landscaping only with hand-held hoses with a working on/off nozzle, bucket, drip irrigation or soaker hoses for no more than 6 hours one day per week.
 - c) Use of alternative water sources and/or alternative delivery mechanisms with the prior approval of TCEQ or other appropriate governing body with jurisdiction (e.g., interconnection with another water system, temporary use of a non-municipal water supply, use of reclaimed water for non-potable water, etc.).
 - d) Additional measures. In preparing the plan, customer shall consider inclusion of LCRA-recommended measures for various stages, including those included in relevant template DCPs.

- 8) **Notification Procedures.** The drought contingency plan must include procedures to be followed for the initiation or termination of each drought response stage, including procedures for notification of the public.
- 9) **Variances.** The drought contingency plan must include procedures for granting variances to the plan.
- 10) **Compliance with LCRA Drought Contingency Plan for Firm Water Customers.** The customer's drought contingency plan will be used when the customer is asked to comply with LCRA's DCP. A statement shall be included in customers' plan that states they will comply with the LCRA DCP.

3.2. Recommended Minimum Drought Contingency Measures Under Pro Rata Curtailment. Recommended minimum drought contingency measures to implement under pro rata curtailment are found in Attachment A of these Rules.

3.3. Notification to LCRA and TCEQ. The customer shall notify the LCRA General Manager and the TCEQ Executive Director in writing within five (5) business days of the implementation of any mandatory provisions of its drought contingency plan.

3.4. Wholesale Customer Requirement. Customers shall include a provision in their drought contingency plans that every wholesale water supply contract entered into, extended or renewed after official adoption of the customer's drought contingency plan shall require each successive wholesale customer to develop and implement a drought contingency plan using the applicable elements in these Rules. If the customer's wholesale customer intends to resell the water, the contract between the initial supplier and wholesale customer must provide that the contract for the resale of the water must have drought contingency plan requirements so that each successive customer in the resale of the water will be required to implement measures in accordance with these Rules. Any retail public water supplier that receives all or a portion of its water supply from a customer shall consult with the customer and shall include in its drought contingency plan appropriate provisions for responding to reductions in that water supply. In the event the customer provides water to a retail public water supplier, if the retail public water supplier obtained less than 25 percent of its water supply in the prior calendar year from the Colorado River basin, demand measures in Section 3.1(g) that would restrict outdoor watering in Stages 2 and 3 are recommended, rather than required in the retail public water supplier's drought contingency plan.

3.5. Implementation and Enforcement. The drought contingency plan must include procedures for the enforcement of any mandatory water use restrictions, including specification of enforcement mechanisms (e.g., fines, water rate surcharges, discontinuation of service) for violations of such restrictions. A means of implementation and enforcement shall be evidenced by:

- 1) A copy of the ordinance, resolution or tariff, indicating official adoption of the drought contingency plan by the customer; and,
- 2) An employee or entity must be designated to oversee implementation of this plan.

In a shortage of water not covered by the LCRA Water Management Plan or other conservation plan approved by TCEQ applicable to LCRA’s firm water supply, a water sale contract customer who fails to implement its applicable drought contingency plan is subject to curtailment of firm water supply by LCRA based on the customer’s pro rata share less the amount of water the customer would have saved if the customer had operated its water system in compliance with the drought contingency plan.

3.6. Other Approved Drought Contingency Plans. A drought contingency plan prepared and approved in the last five (5) years by LCRA or TCEQ and substantially meeting the requirements of these rules may be substituted for development of a plan to meet the LCRA rules. A determination that other approved drought contingency plans substantially meet the requirements of these rules shall be at the sole discretion of LCRA. If a water customer fails to develop, adopt, or update its drought contingency plan, then the customer shall adopt and implement any template drought contingency plan for this type of water use that may be developed by LCRA.

CHAPTER 4:

MUNICIPAL USE BY WHOLESALE PUBLIC WATER SUPPLIERS

4.1. Minimum Requirements. All LCRA customers with water sale contracts for this type of use shall develop, adopt and update in accordance with these rules a drought contingency plan that shall include at least the following minimum requirements:

- 1) **Public Involvement.** Provision shall be made to actively inform the public and affirmatively provide opportunity for public input into the preparation of the drought contingency plan and for informing wholesale customers about the plan. Such acts may include, but are not limited to, having a public meeting at a time and location convenient to the public and providing written notice to the public concerning the proposed drought contingency plan and meeting.
- 2) **Public Education.** Provision shall be made for a program of continuing public education and information. This information should include basic information about water conservation, as well as information relating to drought, drought restrictions and other related issues.
- 3) **Regional Planning Group.** The plan must document coordination with the regional planning groups for the service area of the customer to ensure consistency with the appropriate approved regional water plans.
- 4) **Specific Criteria.** The plan must include a description of the information to be monitored by the wholesale public water supplier, and the specific criteria for the initiation and termination of drought response stages, accompanied by an explanation of the rationale for such triggering criteria.
- 5) **Stages.** The plan must include a minimum of four drought or emergency response stages, providing for the implementation of measures in response to at least the following situations: drought response stages corresponding to LCRA DCP, reduction in available water supply from LCRA after declaration of a Drought Worse than Drought of Record by the LCRA Board or other shortage resulting from emergency.
- 6) **Specific Goals.** The plan must include specific, quantified targets for water use

reductions to be achieved during periods of water shortage and drought. Until mandatory curtailment is implemented by LCRA, implementation of measures to achieve these targets will be encouraged, so as to further extend the supply available during drought. The customer shall include targets in the plan that are consistent with those in the LCRA DCP.

- 7) **Water Supply or Water Demand Management Measures.** The plan must include specific water supply or water demand management measures to be implemented during each stage of the drought contingency plan including, but not limited to:
- 8) **Pro-rata curtailment** of water deliveries to or diversions by wholesale water customers as provided in the Texas Water Code, section 11.039; and
- 9) Use of **alternative water sources** and/or alternative delivery mechanisms with the prior approval of the TCEQ or other appropriate governing body with jurisdiction (e.g., interconnection with another water system, temporary use of a non-municipal water supply, use of reclaimed water for non-potable water, etc.).
- 10) **Minimum requirements.** All measures listed in Section 3.1 (g).
- 11) **Notification Procedures.** The plan must include procedures to be followed for the initiation or termination of each drought response stage, including procedures for notification of wholesale customers.
- 12) **Variances.** The plan must include procedures for granting variances to the plan.
- 13) **Compliance with LCRA Drought Contingency Plan for Firm Water Customers.** A statement shall be included in the customer's plan that states they will comply with the LCRA DCP.

4.2. Recommended Minimum Drought Contingency Measures Under Pro Rata Curtailment. Recommended minimum drought contingency measures to implement under pro rata curtailment are found in Attachment A of these Rules.

4.3. Notification to LCRA and TCEQ. The customer shall notify the LCRA General Manager and the TCEQ Executive Director in writing within five (5) business days of the implementation of any mandatory provisions of its drought contingency plan.

4.4. Wholesale Customer Requirement. Customers shall include a requirement that, for every wholesale water supply contract entered into, extended, or renewed after official adoption of the customer's drought contingency plan, each successive wholesale customer shall be required to develop and implement a drought contingency plan using the applicable elements in these Rules. If the customer's wholesale customer intends to resell the water, then the contract between the initial supplier and wholesale customer must provide that the contract for the resale of the water must have drought contingency plan requirements so that each successive customer in the resale of the water will be required to implement measures in accordance with these Rules. Any retail or wholesale public water supplier that receives all or a portion of its water supply from another wholesale public water supplier shall consult with that supplier and shall include in the drought contingency plan appropriate provisions for responding to reductions in that water supply. In the event the customer provides water to a retail public water supplier, if the retail public water supplier obtained less than 25 percent of its water supply in the prior calendar year from the Colorado River basin, demand measures in Section 3.1(g) that would restrict outdoor watering in Stages 2 and 3 are recommended, rather than

required in the retail public water supplier's drought contingency plan.

4.5. Implementation and Enforcement. The drought contingency plan must include procedures for the enforcement of any mandatory water use restrictions, including specification of enforcement mechanisms (e.g., fines, water rate surcharges, discontinuation of service), for violations of such restrictions. A means of implementation and enforcement shall be evidenced by:

- 1) A copy of the ordinance, resolution or tariff, indicating official adoption of the drought contingency plan by the customer; and,
- 2) An employee or entity must be designated to oversee implementation of this plan.

In a shortage of water not covered by the LCRA Water Management Plan or other

conservation plan approved by TCEQ applicable to LCRA's firm water supply, a water sale contract customer who fails to implement its applicable drought contingency plan is subject to curtailment of firm water supply by LCRA based on the customer's pro rata share less the amount of water the customer would have saved if the customer had operated its water system in compliance with the drought contingency plan.

4.6. Other Approved Drought Contingency Plans. A drought contingency plan prepared and approved in the last five (5) years by LCRA or TCEQ and substantially meeting the requirements of these rules may be substituted for development of a plan to meet the LCRA rules. A determination that other approved drought contingency plans substantially meet the requirements of these rules shall be at the sole discretion of LCRA. If a water customer fails to develop, adopt, or update its drought contingency plan, then the customer shall adopt and implement any model drought contingency plan for this type of water use that may be developed by LCRA.

CHAPTER 5:

INDUSTRIAL OR MINING USE

5.1. Minimum Requirements. All LCRA customers with water contracts for this type of use shall develop, adopt and update in accordance with these rules a drought contingency plan that shall include at least the following minimum requirements:

- 1) **Education Program.** Provision shall be made for a continuous employee education and information program. Information should include the importance of the drought contingency plan, plan processes to reduce non-essential water use and impending or current drought conditions.
- 2) **Initiation and Termination of Drought Response Stages, with rationale.** The manager or official designated in the drought contingency plan will order the implementation and termination of drought response stages based on triggering criteria for the initiation and termination of drought response stages.
- 3) **Specific and Quantified Targets.** The plan must include specific, quantified targets for water use reductions to be achieved during periods of water shortage and drought. Until mandatory curtailment is implemented by LCRA, implementation of measures to achieve

these targets will be encouraged so as to further extend the supply available during drought. The customer shall include targets in the plan that are consistent with those in the LCRA DCP.

- 4) **Stages.** The plan must include a minimum of four drought response stages, providing for the implementation of measures in response to the reduction in response to at least the following situations: drought response stages corresponding to LCRA DCP, reduction in available water supply from LCRA after a declaration of a Drought Worse than Drought of Record or other shortage resulting from emergency.
- 5) **Response Measures.** Response measures should be those that reduce and/or eliminate non-essential water uses or water waste and reduce water demand. The measures employed for each response stage should be directly related to the severity of the supply conditions and to specific targets for each stage. These measures should reflect consideration of staff-recommended measures for drought contingency plans and must include reduction of water use for ornamental landscaping, if relevant, consistent with the municipal and irrigation sections of these rules.
- 6) **Compliance with LCRA Drought Contingency Plan for Firm Water Customers.** Customers drought contingency plans will be used when customers are asked to comply with LCRA's DCP. A statement shall be included in each customers' plan stating the customer will comply with the LCRA DCP, which is incorporated in LCRA's Water Management Plan.

5.2. Notification to LCRA. The customer shall notify the LCRA General Manager in writing within five (5) business days of the implementation of any mandatory provisions of its drought contingency plan.

5.3. Implementation. The drought contingency plan must include a means of implementation of the drought contingency plan which shall be evidenced by:

- 1) A copy of the drought contingency plan, signed by manager/official designee indicating acknowledgement and acceptance of the drought contingency plan; and
- 2) An employee or entity must be designated to oversee implementation of the plan.

In a shortage of water not covered by the LCRA Water Management Plan or other conservation plan approved by TCEQ applicable to LCRA's firm water supply, a water contract customer that fails to implement its applicable drought contingency plan is subject to curtailment of firm water supply by LCRA based on the customer's pro rata share less the amount of water the customer would have saved if the customer had operated its water system in compliance with the drought contingency plan.

5.4. Other Approved Drought Contingency Plans. A drought contingency plan prepared and approved in the last five (5) years by LCRA and substantially meeting the requirements of these rules may be substituted for development of a drought contingency plan to meet LCRA rules. A determination that other approved drought contingency plans substantially meet the requirements of these rules shall be at the sole discretion of LCRA. If a water customer fails to develop, adopt or update its drought contingency plan, the customer shall adopt and implement any model drought contingency plan for this type of water use that may be developed by LCRA.

CHAPTER 6:

AGRICULTURAL USE

6.1. Agriculture Water Users other than Customers within Agricultural Irrigation Divisions.

6.1.1. Minimum Requirements. All LCRA customers with water sale contracts for this type of use shall develop, adopt, and update in accordance with these rules a drought contingency plan that shall include, at least the following minimum requirements:

- 1) **Initiation and Termination of Drought Response Stages, with rationale.** The owner, manager, or official designee will order the implementation and termination of drought response stages based on triggering criteria for each of the drought response stages.
- 2) **Specific and Quantified Targets.** The plan must include specific, quantified targets for water use reductions to be achieved during periods of water shortage and drought. Until mandatory curtailment is implemented by LCRA, implementation of measures to achieve these targets will be encouraged so as to further extend the supply available during drought. The customer shall include targets in the plan that are consistent with those in the LCRA DCP.
- 3) **Stages.** The plan must include a minimum of four drought or emergency response stages, providing for the implementation of measures in response to at least the following situations: drought response stages corresponding to LCRA DCP, reduction in available water supply from LCRA after a declaration of a Drought Worse than Drought of Record or other shortage resulting from emergency.
- 4) **Response Measures.** Response measures should be those that reduce and/or eliminate non-essential water uses or water waste and will reduce water demand. The measures employed for each response stage should be directly related to the severity of the supply conditions and to specific targets for each stage.
- 5) **Compliance with LCRA Drought Contingency Plan for Firm Water Customers.** Customers drought contingency plans will be used when customers are asked to comply with LCRA's DCP. A statement shall be included in each customer's plan stating states it will comply with the LCRA DCP.

6.1.2. Notification to LCRA. The customer shall notify the LCRA General Manager within five (5) business days of the implementation of any mandatory provisions of its drought contingency plan.

6.1.3. Implementation. A means of implementation of the drought contingency plan which shall be evidenced by:

- 1) A copy of the drought contingency plan, signed by manager/official designee indicating acknowledgement and acceptance of the drought contingency plan; and,
- 2) An employee or entity must be designated to oversee implementation of this plan.

In a shortage of water not covered by the LCRA Water Management Plan or other conservation plan approved by TCEQ applicable to LCRA's firm water supply, a water contract

customer who fails to implement its applicable drought contingency plan is subject to curtailment of firm water supply by LCRA based on the customer's pro rata share less the amount of water the customer would have saved if the customer had operated its water system in compliance with the drought contingency plan.

6.2. Agriculture Water Suppliers/Irrigation Divisions.

6.2.1. Minimum Requirements. In addition to the requirements of section 6.1.1, all LCRA customers that supply agricultural water to end users use shall develop, adopt and update in accordance with these rules a drought contingency plan that shall include the following minimum requirements:

- 1) Public Involvement.** Preparation of the drought contingency plan shall include provisions to actively inform and to affirmatively provide opportunity for users of water from the irrigation system to provide input into the preparation of the drought contingency plan and to remain informed of the drought contingency plan. Such acts may include, but are not limited to, having a public meeting at a time and location convenient to the water users and providing written notice to the water users concerning the proposed drought contingency plan and meeting.
- 2) Regional Planning Group.** The plan must document coordination with the regional water planning groups to ensure consistency with the appropriate approved regional water plans.
- 3) Specific Criteria.** The plan must include water supply criteria and other considerations for determining when to initiate or terminate water allocation procedures, accompanied by an explanation of the rationale or basis for such triggering criteria.
- 4) Specific and Quantified Targets.** The plan must include specific, quantified targets for water use reductions to be achieved during periods of water shortage and drought. Until mandatory curtailment is implemented by LCRA, implementation of measures to achieve these targets will be encouraged so as to further extend the supply available during drought. The customer shall include targets in the plan that are consistent with those in the LCRA DCP.
- 5) Allocation of Water Supplies.** The plan must include methods for determining the allocation of agricultural water supplies to individual users in times of shortage in accordance with Texas Water Code §11.039.
- 6)** The drought contingency plan must include a description of the information to be monitored by the water supplier and the procedures to be followed for the initiation or termination of water allocation policies.
- 7) Accounting Procedures.** The plan must include procedures for use accounting during the implementation of water allocation policies.
- 8) Transfer of Water Allocations.** The plan must include policies and procedures, if any, for the transfer of water allocations among individual users within the water supply system or to users outside the water supply system.
- 9) Enforcement Procedures.** The drought contingency plan must include procedures for the enforcement of water allocation policies, including specification of penalties for violations of such policies and for wasteful or excessive use of water.
- 10) Compliance with LCRA Drought Contingency Plan for Firm Water Customers.** The

customer's drought contingency plan will be used when the customer is asked to comply with LCRA's DCP. A statement shall be included in the customer's plan that states they will comply with the LCRA DCP.

6.2.2. Wholesale Water Customers. Any water supplier that receives all or a portion of its water from the customer shall consult with that customer and shall include in the drought contingency plan appropriate provisions for responding to reductions in that water supply.

6.2.3. Protection of Public Water Supplies. Any agricultural water supplier that also provides or delivers water to a public water supplier(s) shall consult with that public water supplier(s) and shall include in the drought contingency plan mutually agreeable and appropriate provisions to ensure an uninterrupted supply of water necessary for essential uses relating to public health and safety. Nothing in this provision shall be construed as requiring the agricultural water supplier to transfer agricultural water supplies to non-agricultural use on a compulsory basis or without just compensation.

6.2.4. Notification to LCRA and TCEQ. The customer shall notify the LCRA General Manager and the TCEQ Executive Director in writing within five (5) business days of the implementation of any mandatory provisions of the drought contingency plan.

6.2.5. Implementation and Enforcement. The drought contingency plan must include a means of implementation and enforcement that shall be evidenced by:

- 1) A copy of the drought contingency plan, signed by manager/official designee indicating acknowledgement and acceptance of the drought contingency plan; and,
- 2) An employee or entity must be designated to oversee implementation of this plan.

In a shortage of water not covered by the LCRA Water Management Plan or other conservation plan approved by TCEQ applicable to LCRA's firm water supply, a water contract customer that fails to implement its applicable drought contingency plan is subject to curtailment of firm water supply by LCRA based on the customer's pro rata share less the amount of water the customer would have saved if the customer had operated its water system in compliance with the drought contingency plan.

6.3. Other Approved Drought Contingency Plans. A drought contingency plan prepared and approved in the last five (5) years by LCRA or TCEQ and substantially meeting the requirements of these rules may be substituted for development of a plan to meet LCRA rules. A determination that other approved drought contingency plans substantially meet the requirements of these rules shall be at the sole discretion of LCRA. If a water customer fails to develop, adopt, or update its drought contingency plan, then the customer shall adopt and implement any model drought contingency plan for this type of water use that may be developed by LCRA.

CHAPTER 7:

IRRIGATION OR GOLF COURSE USE

7.1. Minimum Requirements. The requirements of this section shall apply to any water contract from LCRA for water that irrigates a golf course regardless of whether such contract is based on municipal, irrigation or recreational use. All LCRA customers with water contracts for these types of uses shall develop, adopt, and update in accordance with these rules a drought contingency plan that shall include, at least the following minimum requirements:

- 1) Public Education.** Provision shall be made for a program of continuing education of employees, members of the facility and general public, where applicable. Information should include the importance of the drought contingency plan and plan processes to reduce non-essential water use and impending or current drought conditions.
- 2) Initiation and Termination of Drought Response Stages, with rationale.** The manager or official designated in the drought contingency plan will order the implementation and termination of Drought Response Stages based on triggering criteria for the initiation and termination of drought response stages.
- 3) Specific and Qualified Targets.** The drought contingency plan must include specific, quantified targets for water use reductions to be achieved during periods of water shortage and drought. Until mandatory curtailment is implemented by LCRA, implementation of these measures to achieve these targets will be encouraged so as to further extend the supply available during drought. The customer shall include targets in the plan that are consistent with those in the LCRA DCP.
- 4) Stages.** The drought contingency plan shall include a minimum of four drought response stages, providing for the implementation of measures in response to at least the following situations: drought response stages corresponding to LCRA DCP, reduction in available water supply from LCRA after a declaration of a Drought Worse than Drought of Record or other shortage resulting from emergency.
- 5) Response Measures.** Response measures for each stage should be those that reduce and/or eliminate non-essential water uses or water waste and will reduce water demand. The measures employed for each response stage should be directly related to the severity of the supply conditions and to specific targets for each stage. In accordance with Stage 2 of LCRA's DCP, response measures identified for non-essential uses must include the curtailment of irrigation to roughs, a no more than once per week watering schedule for ornamental landscaping, and may include limitation of any other water uses determined by the customer to be non-essential. In accordance with Stage 3 of LCRA's DCP, responses measures identified for non-essential uses must include limitation of irrigation to fairways and practice areas and eliminating operation of ornamental fountains. These measures should reflect consideration of staff recommended measures for drought contingency plans. In accordance with Stage 4 of LCRA's DCP, response measures identified for non-essential uses must include a prohibition on irrigation of ornamental turfgrass.
- 6) Compliance with LCRA Drought Contingency Plan for Firm Water Customers.** The customer's drought contingency plan will be used when the customer is asked to comply with LCRA's DCP. A statement shall be included in the customer's plan that states they will comply with the LCRA DCP.

7.2. Recommended Minimum Drought Contingency Measures Under Pro Rata

Curtailment. Recommended minimum drought contingency measures to implement under pro rata curtailment are found in Attachment B of these Rules.

7.3. Notification to LCRA. The customer shall notify the LCRA General Manager in writing within five (5) business days of the implementation of any mandatory provisions of its drought contingency plan.

7.4. Implementation. The drought contingency plan shall include a means of implementation of the drought contingency plan, which shall be evidenced by:

- 1) A copy of the drought contingency plan, signed by manager/official designee indicating acknowledgement and acceptance of the drought contingency plan; and,**
- 2) An employee or entity must be designated to oversee implementation of this plan.**

In a shortage of water not covered by the LCRA Water Management Plan or other conservation plan approved by TCEQ applicable to LCRA's firm water supply, a water contract customer who fails to implement its applicable drought contingency plan is subject to curtailment of firm water supply by LCRA based on the customer's pro rata share less the amount of water the customer would have saved if the customer had operated its water system in compliance with the drought contingency plan.

7.5. Other Approved Drought Contingency Plans. A drought contingency plan prepared and approved in the last five (5) years by LCRA and substantially meeting the requirements of these rules may be substituted for development of a plan to meet LCRA rules. A determination that other approved drought contingency plans substantially meet the requirements of these rules shall be at the sole discretion of LCRA. If a water sale customer fails to develop, adopt or update its drought contingency plan, then the customer shall adopt and implement any model drought contingency plan for these types of water use, as applicable, that may be developed by LCRA.

CHAPTER 8: RECREATIONAL WATER USE

8.1. Minimum Requirements. All LCRA customers with water sale contracts for this type of use shall develop, adopt and update in accordance with these rules a drought contingency plan that shall include, at least the following minimum requirements:

- 1) Initiation and Termination of Drought Response Stages, with rationale.** The manager or official designated in the drought contingency plan will order the implementation and termination of drought response stages based on triggering criteria for the initiation and termination of drought response stages.
- 2) Specific and Quantified Targets.** The plan must include specific, quantified targets for water use reductions to be achieved during periods of water shortage and drought. Until mandatory curtailment is implemented by LCRA, implementation of measures to achieve these targets will

| be encouraged so as to further extend the supply available during

drought. The customer shall establish the targets, which should be consistent with those in the LCRA DCP.

- 3) **Stages.** The plan must include a minimum of four drought response stages, providing for the implementation of measures in response to at least the following situations: drought response stages corresponding to LCRA DCP, the reduction in available water supply from LCRA after a declaration of a Drought Worse than Drought of Record or other shortage resulting from emergency. Other situations requiring response measures could include a reduction in available customer supply storage or a system outage due to failure of water system components.
- 4) **Response Measures.** Response measures for each stage should be those that reduce and/or eliminate non-essential water uses or water waste and will reduce water demand. The measures employed for each response stage should be directly related to the severity of the supply conditions and to specific targets for each stage. In accordance with Stage 2 of LCRA's DCP, response measures identified for non-essential uses must include a no more than once per week watering schedule for ornamental landscaping, and may include limitation of any other water uses determined by the customer to be non-essential. In accordance with Stage 3 of LCRA's DCP, responses measures identified for non-essential uses must include a watering schedule limited to no more than 6 hours per week for ornamental landscaping, eliminating operation of ornamental fountains, and should reflect consideration of staff recommended measures for drought contingency plans. In accordance with Stage 4 of LCRA's DCP, response measures identified for non-essential uses must include a prohibition on irrigation of ornamental turfgrass, and can include the curtailment or limitation of filling of pools and fountains or any other water uses determined by the customer to be non-essential.
- 5) **Compliance with LCRA Drought Contingency Plan for Firm Water Customers.** The customer's drought contingency plan will be used when the customer is asked to comply with LCRA's DCP. A statement shall be included in the customer's plan that states they will comply with the LCRA DCP.

8.2. Recommended Minimum Drought Contingency Measures Under Pro Rata Curtailment. Recommended minimum drought contingency measures to implement under pro rata curtailment are found in Attachment B of these Rules.

8.3. Notification to LCRA. The customer shall notify the LCRA General Manager in writing within five (5) business days of the implementation of any mandatory provisions of its drought contingency plan.

8.4. Implementation. The plan shall include a means of implementation of the drought contingency plan which shall be evidenced by:

- 1) A copy of the drought contingency plan, signed by manager/official designee indicating acknowledgement and acceptance of the drought contingency plan; and,
- 2) An employee or entity must be designated to oversee implementation of this plan.

In a shortage of water not covered by the LCRA Water Management Plan or other conservation plan approved by TCEQ applicable to LCRA's firm water supply, a water contract

customer who fails to implement its applicable drought contingency plan is subject to curtailment of firm water supply by LCRA based on the customer's pro rata share less the amount of water the customer would have saved if the customer had operated its water system in compliance with the drought contingency plan.

8.5. Other Approved Drought Contingency Plans. A drought contingency plan prepared and approved in the last five (5) years by LCRA and substantially meeting the requirements of these rules may be substituted for development of a plan to meet LCRA rules. A determination that other approved drought contingency plans substantially meet the requirements of these rules shall be at the sole discretion of LCRA. If a water sale customer fails to develop, adopt or update its drought contingency plan, then the customer shall adopt and implement any model drought contingency plan for this type of water use that may be developed by LCRA.

CHAPTER 9:

OTHER WATER USE

9.0. General. A water customer for types of water uses other than those specified in these rules shall adopt and implement a model drought contingency plan for its type of water use developed by LCRA. In a shortage of water not covered by the LCRA Water Management Plan or other conservation plan approved by TCEQ applicable to LCRA's firm water supply, a water contract customer that fails to implement its applicable drought contingency plan is subject to curtailment of firm water supply by LCRA based on the customer's pro rata share less the amount of water the customer would have saved if the customer had operated its water system in compliance with the drought contingency plan.

CHAPTER 10:

PLAN UPDATES AND AMENDMENTS

10.1. Drought Contingency Plan Updates. The customer shall review and update its drought contingency plan every five (5) years, based on new or updated information, such as the adoption or revision of the regional water plan or as necessary to comply with revisions and amendments to these rules or LCRA's Drought Contingency Plan for Firm Water Customers.

10.2. Amendment to Rules. LCRA may, from time to time, amend these rules. Any amendments to these rules that occurred after the customer's plan was adopted shall be included in the updated plan within 60 days. LCRA will provide advance notice, and customer input will be solicited, for any and all such proposed amendments to these rules.

Attachment A: Recommended Minimum Drought Response Measures for LCRA Municipal Firm Water Customers in Stage 4

1) Supply Management Measures.

- a) LCRA municipal firm water customers will work to reduce system water loss by measures such as fixing leaks, replacing old meters, and recycling line flush water, as appropriate for the utility system.
- b) LCRA municipal firm water customers will actively share drought-related information with their customers, including the current and projected water supply conditions, water supply restrictions and the need to conserve.

2) Demand Management Measures.

- a) Recommended measures for customers to implement and enforce prior to or during this stage include irrigation of ornamental landscaped areas is limited as follows:
 - i) Irrigation of turf landscaped areas with hose-end sprinklers and automatic spray and drip irrigation systems is prohibited.
 - ii) Outdoor watering hours for irrigation will be limited to six hours a day, between the hours of 7 a.m. and 10 a.m. or 7 p.m. and 10 p.m. one day a week
- b) Water waste, including failure to repair a controllable leak, and runoff from a property is prohibited. Additionally, the following outdoor water uses are prohibited except in instances where the firm water customer has issued a variance to the end-user based on public health and safety:
 - i) Ornamental fountains or ponds;
 - ii) Vehicle washing except facilities that recycle water;
 - iii) Use of water to clean outdoor impervious surfaces such as driveways, etc.;
 - iv) Use of water to wash buildings, houses or structures; and
 - v) Dust control.
- c) Only under a written request and approval by the municipal firm water customer or LCRA may water be used for wet water quality ponds to protect the liner and meet the LCRA Highland Lakes Watershed Ordinance or other applicable non- point source pollution regulations.
- d) Irrigation of athletic fields is allowed if the field is used for organized sports practice, competition, or exhibition events and the irrigation is necessary to protect the health and safety of the players, staff, or officials present for the athletic event.
 - i) The firm water customer must issue a variance specifying in-play areas actively used for a specific timeframe.
- e) The use of water to operate outside misting systems, ornamental fountains and splash pads is prohibited.
- f) The filling or replenishing of water to single-family residential swimming pools is only allowed if the pool is covered with a pool cover when not in use.
- g) Public/community swimming pools are allowed to fill or replenish water in order to maintain safe levels of water quality for human contact and should be covered

when not in use.

h) Use of water from fire hydrants shall be prohibited for ornamental landscape irrigation, filling pools, operating fountains or car washing. Water should be transported only for the purposes of firefighting, providing minimal water needed for indoor use where auxiliary sources are inadequate, for activities necessary to maintain public health, safety and welfare or for construction use. Transport of water other than for firefighting requires a variance and a meter.

3) Variances.

a) An LCRA municipal firm water customer may grant temporary variances in writing for existing water uses otherwise prohibited under this plan if it determines that failure to do so would cause an emergency adversely affecting public health, sanitation, or fire protection, and if one or more of the following conditions are met: 1) compliance with this plan cannot be accomplished during the time the plan is in effect; or 2) alternative methods can be implemented that will achieve the same level of reduction in water use.

b) Temporary watering variances are not allowed for new landscapes.

Attachment B: Recommended Stage 4 Drought Response Measures for LCRA Irrigation, Golf Course and Recreational Firm Water Customers

- 1) Irrigation of ornamental landscaped areas must comply with the following restrictions:
 - a) Irrigation of landscaped areas with hose-end sprinklers or automatic spray irrigation systems is prohibited, except for drip irrigation, tree bubblers, soaker hoses or hand-held hoses with a working on/off nozzle used to irrigate non-turf landscaping.
 - b) Variances will not be allowed except for public health and safety.
 - c) Outdoor watering hours will be limited to a maximum of 6 hours per week, between the hours of 7 p.m. and 7 a.m. as determined by the firm water customer.
- 2) The use of water for ornamental fountains and ponds is prohibited except for aeration or to sustain aquatic and animal life.
- 3) Only under a written request and approval by the municipal firm water customer or LCRA may water be used for wet water quality and amenity ponds to protect the liner and meet the LCRA Highland Lakes Watershed Ordinance or other applicable non-point source pollution regulation.
 - a) Additional measures for golf courses:
 - i) Water use on roughs and practice areas is prohibited.
 - ii) Fairways may be irrigated no more than once a week between midnight and 6 a.m. in defined Critical Areas. Critical Areas are defined as follows: for Par 3s, no irrigation except tees, greens and greens surrounds; for Par 4s, 180 yards and into the green; and for Par 5s, 200 to 325 yards from the tee and 100 yards into the green.
 - iii) Tees can be irrigated twice a week between midnight and 10 a.m. Hand watering is allowed.
 - iv) Greens can be irrigated before 10 a.m. or after 7 p.m. and hand watering is allowed.
 - v) Irrigation ponds that are part of the overall irrigation system can be maintained at a level for irrigation operational needs as well as to protect the liner.
 - vi) Washing equipment related to golf course maintenance is allowed with a working on/off nozzle.
 - vii) Washing/rinsing buildings, walls, structures, paved and other hard surfaces including sport courts is prohibited.
 - viii) Restaurants, bars and other commercial food or beverage establishments may not provide drinking water to customers unless specifically requested. Establishments also must post drought-related messaging.
 - ix) Golf courses and any other irrigation customer with staff must conduct an ongoing education program for employees regarding drought restrictions and ways to conserve. Signage will be available to the public regarding how water is used and conserved.

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