

Memorandum

Date: April 16, 2019

Project: 2021 Brazos G Regional Water Plan

To: Scope of Work Committee of the Brazos G Regional Water Planning Group

From: David D. Dunn, PE

Subject: **Requirements for Chapter 7 – Drought Response Information, Activities and Recommendations**

In accordance with TWDB guidance, Chapter 7 of the Brazos G 2021 Plan will summarize a considerable amount of information regarding droughts in the Brazos G Area and local and regional responses to drought. The TWDB has prepared a template for Chapter 7 (Attachment A), which outlines the information required. This memorandum identifies and discusses HDR's proposed approach to meeting those requirements, and identifies specific items requiring direction from the Brazos G Regional Water Planning Group (Brazos G). Some of the requirements are strictly technical in nature and do not require Brazos G direction. Others require some direction from Brazos G, as will be discussed below.

HDR will discuss this information during the April 24, 2019 Scope of Work Committee meeting and request specific guidance from the committee regarding sections 7.5, 7.6 and 7.7, and other guidance and direction the committee wishes to provide.

7.1 Drought(s) of Record in the Regional Water Planning Area

HDR will compile information for this section and present it at a future Brazos G meeting. This section will not require direction from the committee.

7.2 Current Drought Preparations and Response

HDR will compile information for this section and present it at a future Brazos G meeting. This section will not require direction from the committee.

7.3 Existing and Potential Emergency Interconnects

HDR will compile information for this section and present it at a future Brazos G meeting. This section will not require direction from the committee. After HDR has compiled this information, a confidential memorandum will be developed for submittal to the TWDB separate from the 2021 Brazos G Plan. This memorandum will contain confidential information concerning the locations of potential emergency interconnections.

Approval of the memorandum was to be done in a closed meeting, but recent guidance from the TWDB indicates that this may be in violation of the Texas Open Meetings Act and an approach other than a closed meeting may be required. HDR will coordinate with the TWDB and BRA regarding the proper venue for approval of the confidential memorandum.

Non-confidential summary information from this activity, such as numbers of connections and names of suppliers and recipients will be presented in Chapter 7.

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

HDR will compile information for this section and present it at a future Brazos G meeting. This section will not require direction from the committee.

7.5 Region-Specific Drought Response Recommendations and Model Drought Contingency Plans

Region-Specific Drought Response Recommendations

HDR's suggested process is to draw on information from Section 7.2 to select recommended triggers and actions for surface water sources and groundwater sources. In instances where drought contingency plans for specific sources appear inadequate or are not identified, HDR will suggest alternatives to what is contained in the available drought contingency plans.

Region-Specific Model Drought Contingency Plans

Brazos G is to develop a minimum of two model drought contingency plans. In past planning cycles, Brazos G has presented the plans developed by the City of Abilene (a utility relying on multiple sources) and the City of Waco (a utility relying on a single source) as model plans for others in the Brazos G Area to consider. HDR recommends this approach with the concurrence of Abilene and Waco.

HDR requests the committee's concurrence with the approach described above for Section 7.5.

7.6 Drought Management Water Management Strategies

In past planning cycles, Brazos G has not recommended drought management as a water management strategy because it does not create an additional supply of water nor does it utilize water more efficiently like conservation. It simply removes a portion of a demand during drought. Past Brazos G plans have included the following language to explain why Brazos G does not consider drought management to be a viable water management strategy to meet future water demands.

"The regional water plan is developed to meet projected water demands during a drought of severity equivalent to the drought of record. Brazos G sees the purpose of the planning as ensuring that sufficient supplies are available to meet future water demands. For this reason, drought management recommendations have not been made by Brazos G as a water management strategy for specific WUG needs. Reducing water demands during a drought as a defined water management strategy does not ensure that sufficient supplies will be available to meet the projected water demands; but simply eliminates the demands. While Brazos G encourages entities in the region to promote demand management during a drought, it should not be identified as a "new source" of supply. Recommending demand reductions as a water management strategy is antithetical to the concept of planning to

meet projected water demands. It does not make more efficient use of existing supplies as does conservation, but instead effectively turns the tap off when the water is needed most. It is planning to not meet future water demands.

While Drought Management WMS are not supported by the RGWPG, DCPs are encouraged for all entities and the region supports the implementation of the drought responses outlined in these DCPs when corresponding triggers occur. While the relief provided from these DCP responses can prolong supply and reduce impacts to communities, they are not considered to be reliable for all entities under all potential droughts.”

HDR suggests that Brazos G continue this approach for the 2021 Brazos G Plan.

7.7 Other Drought-Related Considerations and Recommendations

HDR offers no specific recommendations regarding this section, but recognizes that this section presents an opportunity for Brazos G to make general or specific recommendations regarding drought and drought preparedness in the 2021 Brazos G Plan. These recommendations may or may not be related to water policy recommendations offered in Chapter 8 of the 2021 Brazos G Plan.

HDR requests the committee to review this section from previous plans and offer suggestions regarding topics or recommendations you would like to incorporate into the 2021 Plan.

For your information the following is the text from this section of the 2016 Brazos G Plan.

“Model Updates

It is of utmost importance that regional water planning groups have the most up to date information available to make decisions. The Brazos G WAM is used to determine both the drought of record and the firm yield of reservoirs, but has not been updated in almost 20 years. The Brazos G Regional Water Planning Group recommends that the Texas legislature approve a budget for TCEQ to pursue updated WAMs before the next regional planning cycle. This will be especially important if the duration of the recent drought continues or the severity increases.

Monitoring and Assessment

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

- *Brazos River Authority Drought Information:* <http://www.brazos.org/DroughtStatus.asp>
- *Parmer Drought Severity Index:* <http://www.ncdc.noaa.gov/temp-and-precip/drought/historical-palmers/>

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

In addition, Brazos G supports the efforts of the Texas Drought Preparedness Council administered by the Texas Department of Public Safety, and recommends that entities review information developed by the council. The Drought Preparedness Council was established by the legislature in 1999 and is composed of 15 representatives from several state agencies. The council is responsible for assessment and public reporting of drought monitoring and water supply conditions, advising the governor on drought conditions, and ensuring effective coordination among agencies. The council currently is promoting outreach to inform entities of the assistance they can provide and looking for input as to how they can be more useful. Brazos G suggests that entities take advantage of the resources available to them through the Drought Preparedness Council such as the Drought Annex (2014), which describes the activities that help minimize potential impacts of drought and outlines an effective mechanism for proactive monitoring and assessment. More information on the Drought Preparedness Council can be found here:

<http://www.txdps.state.tx.us/dem/CouncilsCommittees/droughtCouncil/stateDroughtPrepCouncil.htm>

Attachment A

TWDB Template Suggested for Chapter 7

Template for Chapter 7 of the 2021 Regional Water Plans¹
Drought Response Information, Activities, and Recommendations

- 1. Drought(s) of Record in the Regional Water Planning Area (RWPA) - 31 TAC § 357.30(9); Exhibit C Section 7.1**
 - a. Summary of current drought(s) of record (DOR) for the region (figures optional but helpful). May include sub-regional, basin-specific, or sub-basin DORs impacting existing RWPA supplies.
 - b. Summary of potential new DORs for the region (figures optional but helpful). May include regional, sub-regional, and individual river basin or groundwater resource DORs impacting existing RWPA supplies.

- 2. Current Drought Preparations and Response - 31 TAC § 357.42(a),(b); Exhibit C Section 7.2**
 - a. Overall assessment of current drought preparations and planned responses to drought conditions in the RWPA, including consideration of information from local drought contingency plans (DCP).
 - b. Summary of existing drought triggers used for initiating drought responses in the region.
 - c. Description of how water suppliers in the region 1) identify the onset of drought, 2) respond to the onset of drought, including the role of DCPs, and 3) whether measure have been recently implanted in response to drought conditions.
 - d. Summary table of results (tabular format by entity)

- 3. Existing and Potential Emergency Interconnects - 31 TAC § 357.42(d),(e); Exhibit C Section 7.3**
 - a. Description of the regional water planning group methodology used to collect emergency interconnects information and the number of existing and potential emergency interconnects in the RWPA, including who is connected to whom.
 - b. A general description of local DCPs that involve making emergency connections.
 - c. Detailed emergency interconnect information may be collected by political subdivision staff, designated planning group members, and/or consultants in a tabular format and kept confidential in accordance with Texas Water Code 16.053(r). This information should be provided separately and confidentially to the Executive Administrator of the Texas Water Development Board. Any information regarding the location or descriptions of facilities should be excluded from the plan.

¹ Please review the Second Amended General Guidelines for Fifth Cycle Regional Water Plan Development (Exhibit C), [Section 7](#), 31 Texas Administrative Code [§ 357.30](#) and [§ 357.42](#), and the standard [Scope of Work Task 7](#) for full requirements regarding drought components in the regional water plans.

4. **Emergency Responses to Local Drought Conditions or Loss of Municipal Supply** - 31 TAC § 357.42(g); Exhibit C Section 7.4
 - a. Evaluation of municipal water user groups (WUG) with 2010 populations less than 7,500 and with a sole-source of water. The analysis must include WUGs served by a wholesale water provider that has only a single source of supply (figures optional but helpful).
 - b. Evaluation of all county-other WUGs (figures optional but helpful).
 - c. Summary table of results (example template in Table B of Appendix 1.0 of Exhibit C).

5. **Region-Specific Drought Response Recommendations and Model Drought Contingency Plans** - 31 TAC § 357.42(c),(j); Exhibit C Sections 7.5 and 7.6
 - a. Description of the process for selecting recommended triggers and actions.
 - b. Recommended drought triggers and actions for surface water sources.
 - c. Recommended drought triggers and actions for groundwater sources.
 - d. Summary table of recommendations (example template in Table A of Appendix 1.0 of Exhibit C).
 - e. Region-specific model DCPs (minimum of two model plans).

6. **Drought Management Water Management Strategies (WMS)** - 31 TAC § 357.42(f), Exhibit C Section 7.7
 - a. Potentially feasible drought management WMSs considered.
 - b. Recommended drought management WMSs and associated triggers, if applicable.
 - c. Alternative drought management WMSs and associated triggers, if applicable.
 - d. An explanation of the RWPG's basis for not recommended drought management WMSs for WUGs that had identified water needs, if applicable.

7. **Other Drought-Related Considerations and Recommendations** - 31 TAC § 357.42(f),(h),(i); Exhibit C Section 7.8
 - a. Consideration of relevant recommendations from the Drought Preparedness Council.
 - b. Any other drought management measures recommended by the RWPG (and associated triggers, if applicable) not related to a recommended WMS.
 - c. Recommendations regarding development, content, and implementation of DCPs in the region.
 - d. Recommendations regarding current drought management preparation in the region (including triggers and actions).
 - e. Recommendations regarding the Drought Preparedness Council and State Drought Preparedness Plan.
 - f. Other general recommendations regarding drought management in the region or state.