

Blanco-Pedernales Groundwater Conservation District

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Rule 7 Drought Management

7.1 Introduction

The District may designate the various drought conditions and implement the applicable provisions of this Rule upon determination that such implementation may be necessary for the conservation, preservation, protection, recharging and prevention of waste of the groundwater in Blanco County and/or to protect and preserve the public health, welfare, and safety during drought situations and/or periods of low rainfall.

Adopted to be effective 09/16/04 by Board Resolution 091604-01 on 09/16/04. Amended to be effective 8/15/06 by Board Resolution 081506-01 on 8/15/06.

7.2 Application

Provisions of this Rule shall apply to all Blanco County wells and all persons or organizations owning or operating any well(s) producing groundwater within Blanco County, regardless of the size, pumping capacity, date drilled, water usage, ownership, or the exempt or non-exempt status of the well(s).

Adopted to be effective 09/16/04 by Board Resolution 091604-01 on 09/16/04.

7.3 Drought Management by Watershed

For drought management purposes, the District has divided Blanco County into two watersheds, the Blanco River watershed and the Pedernales River watershed. This division is based on the hydrological, topographical, geological, and demographic differences of the groundwater and groundwater users of Blanco County. The two divisions will allow for more appropriate drought management and administrative actions and strategies. Furthermore, it is anticipated that District declarations of drought stages will be easier for the public to understand and relate to their specific property, well, and water usage. Such an approach during drought conditions will serve to coordinate and unify water conservation efforts between Blanco County residents who rely on private wells and the water conservation efforts of the municipal public water supply systems of the City of Blanco and the City of Johnson City.

Rather than adhere strictly to the topographical watershed divide between the two rivers, a more easily understood and identifiable watershed boundary will be used by the District. The two watersheds are defined as follows:

- A. Blanco River Watershed:
consists of (and is interchangeable with) Blanco County Precincts 1 and 4.**

The Trinity Aquifer lies primarily within the Blanco River watershed, which is one of the two most densely populated parts of Blanco County. With the exception of a small portion located in Kendall County, the headwaters of the Blanco River lie

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primarily in Blanco County. Thus, Blanco River flow is little influenced by rainfall outside of Blanco County. The Trinity Aquifer typically produces low to medium quantities of water, generally exhibits slow to moderate recharge rates, and often exhibits relatively rapid declines in water levels, particularly during periods of high usage and/or drought conditions. The City of Blanco owns several wells but currently relies exclusively on surface water for the needs of its water utility customers.

The City of Blanco has prepared a Water Conservation and Drought Management Plan which is applicable to all customers served by the City of Blanco Public Water System. The drought triggering conditions in the City of Blanco Plan are based primarily on water flow conditions in the Blanco River. Since much of the flow in the Blanco River is derived from Trinity Aquifer groundwater discharging from springs and seeps, changes in flow conditions in the Blanco River are expected to be related to changes in Trinity Aquifer water levels. The District will seek to correlate Blanco River flow conditions with Trinity Aquifer monitor well water levels.

The District incorporated into this Drought Management Rule as much of the City of Blanco's plan as appeared appropriate for rural well users. It is the intent of the District to closely unify drought management efforts in the City of Blanco and with well owners located in the Blanco River Watershed and Blanco County Precincts 1 and 4. However, initiation or termination of drought stages in the Blanco River Watershed and Precincts 1 and 4 is the sole responsibility of the District, which has the duty and authority to take independent drought management action as authorized by Chapter 36 and these Rules.

**B. Pedernales River Watershed:
consists of (and is interchangeable with) Blanco County Precincts 2 and 3.**

The Pedernales River watershed is less densely populated than the southern part of the county, except within the city limits of Johnson City. The residents in the Pedernales River watershed are served primarily by wells producing groundwater from the Ellenburger, Hickory, and, to a lesser extent, the Trinity Aquifer and a few other minor aquifers. The Ellenburger Aquifer and Hickory Aquifer produce small to large quantities of water, depending on location, and tend to recharge more rapidly than the Trinity Aquifer. The Pedernales River drains a large area west of Blanco County and is heavily impacted by rainfall events upstream in Gillespie County and areas to the west. Recharge in the Pedernales River watershed appears to be closely related to both the higher flow in the Pedernales River and eastward migration of groundwater from areas to the west.

The City of Johnson City has prepared a Water Conservation and Drought Contingency Plan (Ordinance No. 03-005) which is applicable to all customers served by the City of Johnson City Public Water System. The Ordinance is based

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primarily on quantified reductions in specific capacity and pumping times for their public water supply wells, which are located in the Ellenburger Aquifer. The District will seek to correlate Johnson City public well hydrological conditions with Ellenburger Aquifer monitor well water levels. Many rural residents in the Pedernales River Watershed also rely on wells producing from the Ellenburger Aquifer, and water level changes in their wells will likely be comparable to changes in the Johnson City wells.

The District incorporated into this Drought Management Rule as much of the City of Johnson City's Ordinance as appeared appropriate for rural well users. It is the intent of the District to closely unify drought management efforts in Johnson City and with well owners located in the Pedernales River Watershed and Blanco County Precincts 2 and 3. However, initiation or termination of drought stages in the Pedernales River Watershed and Precincts 2 and 3 is the sole responsibility of the District, which has the duty and authority to take independent drought management action as authorized by Chapter 36 and these Rules.

Adopted to be effective 09/16/04 by Board Resolution 091604-01 on 09/16/04. Amended to be effective 8/15/06 by Board Resolution 081506-01 on 8/15/06. Amended to be effective 5/20/08 by Board Resolution 052008-01 on 5/20/08.

7.4 Triggering Criteria for Initiation and Termination of Drought Stages

Drought Stages will be initiated and/or terminated by specific watershed. Drought Stages and the associated conservation and management practices shall apply only to the specific watershed designated and described in Rule 7.3. Declarations of initiation or termination of Drought Stages will be provided to Blanco County newspapers, posted at the District Office, or communicated to well owners in such a manner as may be deemed necessary by the District.

A. Initiation of Drought Stages

The District will maintain an ongoing aquifer water level monitoring program to provide the District with data to help identify the onset of drought conditions and stages of severity. The District will also monitor any declarations of drought stages by the City of Blanco and the City of Johnson City and take note of the triggering conditions which warranted such declarations. The District General Manager and District Staff shall review the water levels in the District Monitor Wells and determine if groundwater levels in either the Blanco River Watershed or the Pedernales River Watershed have been in a state of continuous decline. If such is the case, the General Manager may initiate an appropriate Drought Stage. If groundwater levels have not been in a state of continuous decline, or if aquifer, meteorological, Palmer Drought Index, or other conditions exist that need to be addressed by the Board of Directors, the General Manager may bring the matter to the attention of the Board of Directors prior to taking any official action. The Board may consider the matter, along with any recommendations provided by the

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District Staff, and may declare the initiation of any of the Drought Stages warranted by this Rule.

If the General Manager recommends initiation of Drought Stage 3 or 4 that does not coincide with initiation by the City of Blanco or the City of Johnson City, the General Manager shall refer the matter to the Board for a decision.

B. Termination or Reduction of Drought Stages

The General Manager and District Staff shall review the water levels in the District Monitor Wells and determine if groundwater levels in either the Blanco River Watershed or the Pedernales River Watershed are increasing or if significant recharge conditions are occurring. In either case, the District General Manager may terminate or reduce the Drought Stage to one that is appropriate. If groundwater levels have not increased, or if aquifer, meteorological, Palmer Drought Index, or other conditions exist that need to be addressed by the Board of Directors, the General Manager may bring the matter to the attention of the Board of Directors prior to taking any official action. The Board may consider the matter, along with any recommendations provided by the District Staff, and may declare the termination or reduction of any of the Drought Stages warranted by this Rule.

If the General Manager recommends termination or reduction of Drought Stages 3 or 4 that does not coincide with termination or reduction by the City of Blanco or the City of Johnson City, the General Manager shall refer the matter to the Board for a decision.

Adopted to be effective 09/16/04 by Board Resolution 091604-01 on 09/16/04. Amended to be effective 5/20/08 by Board Resolution 052008-01 on 5/20/08.

7.5 Drought Stages

District Drought Management consists of four Drought Stages, which are comparable to the Drought Stages and trigger conditions designated by the City of Blanco and the City of Johnson City as of September 2004.

- A. Stage One Mild Drought**
(comparable to City of Blanco Stage 1 and Johnson City Stage 1 or 2)
- B. Stage Two Moderate Drought**
(comparable to City of Blanco Stage 2 and Johnson City Stage 3)
- C. Stage Three Severe Drought**
(comparable to City of Blanco Stage 3 and Johnson City Stage 4)
- D. Stage Four Critical Drought or Groundwater Emergency**
(comparable to City of Blanco Stage 4 and Johnson City Stage 5 or 6)

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7.6 Groundwater Conservation Goals and Usage Reduction Measures and Restrictions

Water conservation goals and groundwater usage reduction measures and restrictions are defined in this Rule. They are comparable to the goals, reductions, and restrictions incorporated by the drought contingency plans of the City of Blanco and the City of Johnson City. However, this District Rule more closely addresses the uses, needs, concerns, and compliance capabilities of well owners and users, most of which are outside the service areas of retail water utilities and community water supply systems.

A. Stage One Mild Drought

Conservation Goal: 5-10% reduction in groundwater use

Usage Reduction Measures:

- Continue, or increase, voluntary reduction in various uses
- Check for and correct all plumbing leaks
- Providing groundwater to ponds, lakes, tanks, reservoirs, swimming pools, or other surface impoundments for holding water that have a total capacity of more than 50,000 gallons is prohibited except for those wells permitted for non-domestic irrigation.

B. Stage Two Moderate Drought

Conservation Goal: 20% reduction in groundwater use

Usage Reduction Measures:

- Continue, or increase, voluntary reduction in various uses
- Check for and correct all plumbing leaks
- Water outside lawns, trees, shrubs once every 5 to 7 days
- Water at night between hours of 8pm and 8am
- Keep swimming pools, landscape or decorative ponds, and fountains covered, use water recirculation, and refill only once every 5 to 7 days
- Wash vehicles at car wash only as needed
- No washing of buildings, driveways, streets, patios, or other outdoor surfaces except as required for human or animal health and safety needs, or for fire prevention
- Water livestock in leak-proof troughs as much as practical
- Providing groundwater to ponds, lakes, tanks, reservoirs, swimming pools, or other surface impoundments for holding water that have a total capacity of more than 50,000 gallons is prohibited except for those wells permitted for non-domestic irrigation.

C. Stage Three Severe Drought

Conservation Goal: 20-50% reduction in groundwater use

Usage Reduction Measures:

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- Continue, or increase voluntary reduction in various uses
- Check for and correct all plumbing leaks
- Water outside lawns, trees, shrubs once every 5 to 7 days
- Water at night between hours of 8pm and midnight using hand-held hose with automatic shut-off nozzle or automatic timer
- Hose end sprinkler systems prohibited
- No filling, refilling, or adding water to swimming pools, landscape or decorative ponds, or fountains except to support aquatic life
- Wash vehicles at car wash only as needed
- No washing of buildings, driveways, streets, patios, or other outdoor surfaces except as required for human or animal health and safety needs, or for fire prevention
- Watering for dust control only when required by law
- Livestock watered in leak-proof troughs strongly recommended
- Pumping groundwater into livestock ponds is discouraged
- Providing groundwater to ponds, lakes, tanks, reservoirs, swimming pools, or other surface impoundments for holding water that have a total capacity of 50,000 gallons or less is discouraged.
- Providing groundwater to ponds, lakes, tanks, reservoirs, swimming pools, or other surface impoundments for holding water that have a total capacity of more than 50,000 gallons is prohibited.

D. Stage Four Critical Drought or Groundwater Emergency

Conservation Goal: 50% + reduction in groundwater use

Usage Reduction Measures:

- Continue, or increase, voluntary reduction in various uses
- Check for and correct all plumbing leaks
- No outside watering of lawns, trees, shrubs, or gardens
- No vehicle washing
- No washing of buildings, driveways, streets, patios, or other outdoor surfaces except as required for human or animal health and safety needs, or for fire prevention
- Watering for dust control only when required by law
- Livestock watered in leak-proof troughs only
- Providing groundwater to ponds, lakes, tanks, reservoirs, swimming pools, or other surface impoundments for holding water, regardless of capacity, is prohibited.

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7.7 Municipal Compliance

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The BPGCD recognizes that, as of September 2004, the City of Blanco's current Water Conservation and Drought Management Plan and the City of Johnson City's current Water Conservation and Drought Contingency Plan serve in such a capacity as to accomplish the intent of this Drought Management Rule for drought management and groundwater conservation purposes within the municipal water service areas of the City of Blanco and the City of Johnson City. The District will work with the City of Blanco and the City of Johnson City during any declared Drought Stage to ensure that city-owned wells are in compliance with the provisions of this Rule.

Adopted to be effective 09/16/04 by Board Resolution 091604-01 on 09/16/04.

7.8 Enforcement

The District will rely primarily on voluntary compliance with this Rule. Persons who are found to be in non-compliance with District Drought Management Rules will be contacted by District Staff. District Staff will explain the drought conditions, District Rules, and the need for everyone to comply with a County-wide effort to conserve groundwater during times of drought in order to reduce the impacts of drought on all aquifer users. Past experience by other groundwater districts has proven that such informational-based enforcement efforts are an effective method of achieving compliance with District Rules while building local cooperation and consensus among well owners and well users. However, persons who repeatedly violate District Rules will be subject to additional requests for compliance and may be subject to other remedies authorized under Chapter 36 or other applicable laws or codes of the State of Texas.

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