

**HEADWATERS GROUNDWATER  
CONSERVATION DISTRICT**

**DROUGHT CONTINGENCY PLAN**

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# **Headwaters Groundwater Conservation District DROUGHT CONTINGENCY PLAN**

## **Section I. Declaration of Policy, Purpose and Intent**

The purpose of the Headwaters GCD is to provide for the conservation, preservation, protection, recharging and prevention of waste of the groundwater, and of the groundwater reservoirs in Kerr County. To accomplish this the Headwaters GCD has been mandated to address drought conditions and conservation as part of its Management Plan. This Drought Contingency Plan (Plan) is the tool that the Headwaters GCD has chosen to accomplish this mandate. The intent of this Plan is to conserve the available groundwater supply and protect the quality of groundwater supply in the district with particular regard for domestic water use. The intent of this plan is also to protect and preserve the public health, welfare, and safety and to minimize the adverse impacts of water supply shortages on other beneficial water uses during periods of drought conditions.

Groundwater uses regulated under this plan for Permitted Well owners are considered to be non-essential. Continuation of such uses during times of water restrictions as defined herein are deemed to constitute a waste of water which subjects the offender(s) to penalties as defined in Section XII of this plan.

The Headwaters GCD hereby adopts the following regulations and restrictions on the production and use of groundwater during designated periods of drought conditions.

## **Section II. Public Involvement**

Opportunity for the public to provide input into the preparation of the Plan was provided by the Headwaters GCD by means of public meetings and a public hearing.

### **Section III. Public Education**

The Headwaters GCD will periodically provide the public with information about the Plan. This information will include the conditions under which each stage of the Plan is to be initiated and the drought response measures to be implemented in each stage. This information may be provided by means of press releases, newspaper articles, public meetings, website postings, and mailings to owners/operators of Permitted Wells.

### **Section IV. Coordination with Local River Authority, Regional Planning Groups and Other District Governing Bodies**

The management area of the Headwaters GCD is a single county– (Kerr County) - an area it shares with a single county river authority, the Upper Guadalupe River Authority (UGRA). Kerr County is a Priority Groundwater Management Area, located within the Plateau Regional Planning Area (Region J) and Groundwater Management Area # 9. The District has provided review copies of this plan to UGRA, the Cities of Kerrville and Ingram, the Kerr County Commissioners, the Plateau Regional Planning Area, and GMA # 9. A final copy of this document has been provided to each entity for their records.

### **Section V. Authorization**

The President of the Headwaters GCD or his/her designee shall have the authority to initiate or terminate drought management measures as set forth in Section I of this Plan.

### **Section VI. Application**

Provisions of this Plan shall apply to all persons or organizations having or operating Permitted Wells utilizing groundwater within the District, regardless of size, capacity, date of drilling or ownership of the wells, and to Exempt wells as applicable.

## **Section VII. Definitions**

For the purposes of this Plan, the following definitions shall apply:

**Agricultural water use:** as defined under Section 36.001(19), (20), Texas Water Code as amended September 1, 2001.

**Aquifer Index Level:** The average water level in four selected Monitor Wells.

**Commercial and Institutional water use:** water use which is integral to the operations of commercial and non-profit establishments and governmental entities including but not limited to retail establishments, hotels and motels, restaurants, and office buildings.

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

**Domestic Use:** the use of water only for personal household use, including water for use inside the home, for irrigation of lawns, family garden/orchard, for watering domestic animals, and filling swimming pools.

**Drought:** a meteorological period of serious moisture (precipitation) deficiency, and a resultant reduction in spring flow and stream flow generally accompanied by an increase in demand.

**Drought Stage Initiation:** Drought Stages are initiated based on the average water level in selected monitor wells, added to the least restrictive of either the Palmer Drought Severity Index (PDSI), or the Guadalupe River Flow Rate at Kerrville.

**Exempt well:**

- A well used solely for domestic use or;
- For providing water for livestock or poultry on a tract of land larger than 10 acres, that is either drilled, completed, or equipped so that it is incapable of producing more than 25,000 gallons of groundwater a day.
- To include all other uses described by Water Code Ch. 36.117

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

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

**Non-essential water use:** water uses that are neither essential nor required for the protection of public health, safety, and welfare, including:

1. Pumping of groundwater into ponds, lakes or reservoirs for the purpose of enhancing the appearance of the landscape;
2. Irrigating of landscape areas, including parks, athletic fields, and golf courses, except as otherwise provide by this Plan;
3. Washing any motor vehicle, motorbike, boat, trailer, airplane or other vehicle;
4. Washing down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas except for the protection of public health, safety and welfare;
5. Washing down buildings or structures for purposes other than immediate fire protection or for the protection of public health, safety and welfare;
6. Filling swimming pools.

**Permitted Well:** a well equipped to produce greater than 25,000 gallons of groundwater per day, or used for any purpose other than Exemptions, Exceptions, Limitations described in Water Code Chapter 36.117

**Public Water System:** as defined under 30 TAC Subchapter D Paragraph 290.38(41) September 2000.

**Waste:** means any one or more of the following:

- a. Withdrawal of groundwater from a groundwater reservoir at a rate and in an amount that causes or threatens to cause intrusion into the reservoir of water unsuitable for agricultural, gardening, domestic, or stock raising purposes;
- b. The flowing or producing of wells from a groundwater reservoir if the water produced is not used for a beneficial purpose;

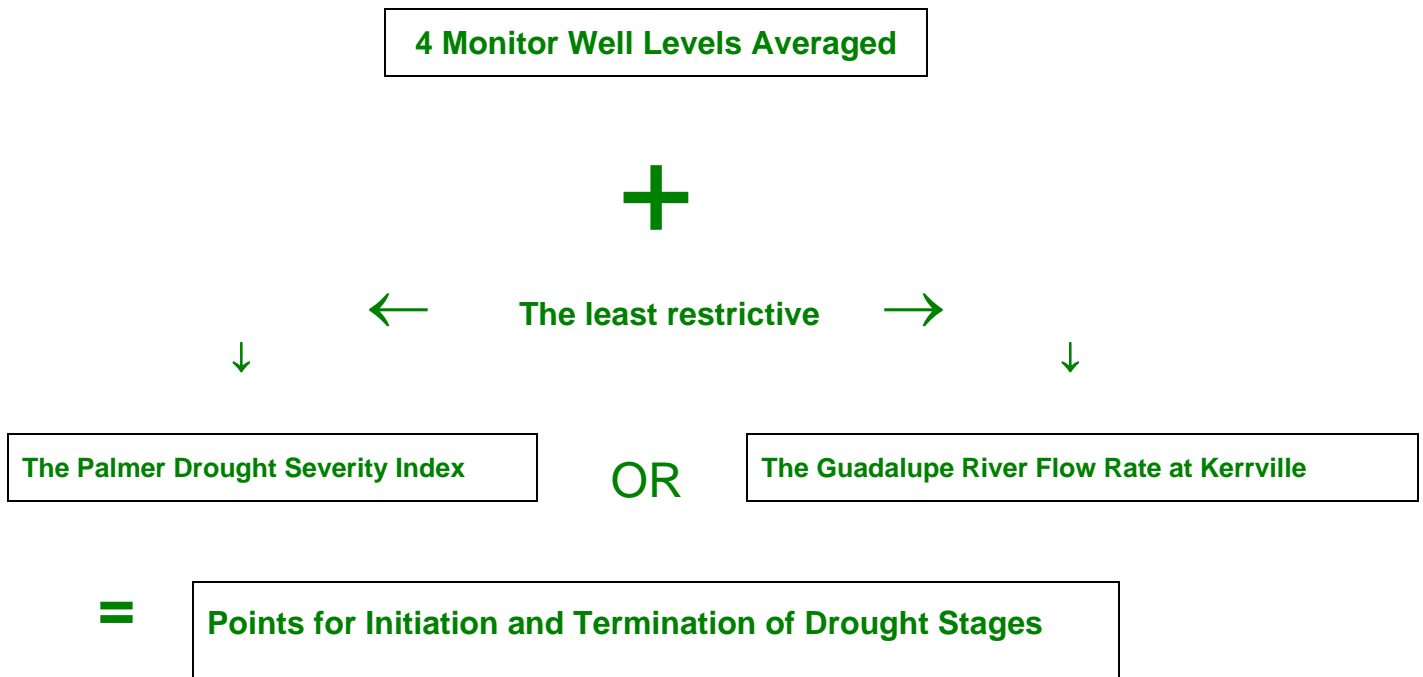
- c. Escape of groundwater from a groundwater reservoir to any other reservoir or geologic strata that does not contain groundwater;
- d. Pollution or harmful alteration of groundwater in a groundwater reservoir by saltwater or by other deleterious matter admitted from another stratum or from the surface of the ground;
- e. Wilfully or negligently causing, suffering, or allowing groundwater to escape into any river, creek, natural watercourse, depression, lake, reservoir, drain, sewer, street, highway, road, or road ditch, or onto any land other than that of the owner of the well unless such discharge is authorized by permit, rule, or order issued under Chapter 26;
- f. Groundwater pumped for irrigation that escapes as irrigation tailwater onto land other than that of the owner of the well unless permission has been granted by the occupant of the land receiving the discharge.

### **Section VIII. Criteria for Initiation and Termination of Drought Stages**

The President of Headwaters GCD or his/her designee shall monitor the defined drought trigger indices and shall determine when conditions warrant initiation or termination of each stage of the plan. The plan consist of four levels of Drought Stages with corresponding groundwater restrictions as defined herein.

**Drought Trigger Indices:**

Initiation of Drought Stages will be triggered based on the average water level in 4 selected monitor wells, (Stonehenge, HGCD MW #11 Middle Trinity, County Agriculture Barn, and HGCD MW # 7 Middle Trinity) added to the least restrictive of either the Palmer Drought Severity Index (PDSI), or the Guadalupe River Flow Rate at Kerrville.



*See Page 8 for Drought Triggering Points Schedule*

**The Four Drought Point Indices and Stages Are:**

<u>1 point</u>	=	<u>Stage 1</u>	<u>Mild Drought</u>
<u>2 points</u>	=	<u>Stage 2</u>	<u>Moderate Drought</u>
<u>3 points</u>	=	<u>Stage 3</u>	<u>Severe Drought</u>
<u>4 points</u>	=	<u>Stage 4</u>	<u>Extreme Drought</u>

### Drought Triggering Points Schedule

<b>AQUIFER INDEX LEVEL</b>	<b>POINTS</b>
<b>1410 feet</b>	<b>1/2</b>
<b>1380 feet</b>	<b>1</b>
<b>1360 feet</b>	<b>1 1/2</b>
<b>1340 feet</b>	<b>2</b>

<b>PDSI</b>	<b>POINTS</b>
<b>-0 to -2</b>	<b>1/2</b>
<b>-2 to -3</b>	<b>1</b>
<b>-3 to -4</b>	<b>1 1/2</b>
<b>-4 or less</b>	<b>2</b>

<b>RIVER FLOW CFS</b>	<b>POINTS</b>
<b>Below 50</b>	<b>1/2</b>
<b>Below 40</b>	<b>1</b>
<b>Below 30</b>	<b>1 1/2</b>
<b>Below 20</b>	<b>2</b>

## **Section IX. Initiation and Termination of Drought Stages**

All Permitted Well owners/operators and users of groundwater produced from a Permitted Well shall be required to comply with the requirements and restrictions of this Plan

### **Stage 1 – Mild Drought Conditions**

Requirements for initiation – the sum of the drought indicators equals 1 for a period of 7 consecutive days.

Requirements for termination – the sum of the drought indicators equals less than 1 for a period of 7 days.

### **Stage 2– Moderate Drought Conditions**

Requirements for initiation – the sum of the drought indicators equals 2 for a period of 7 consecutive days.

Requirements for termination – the sum of the drought indicators equals less than 2 for a period of 7 days.

### **Stage 3 -- Severe Drought Conditions**

Requirements for initiation – the sum of the drought indicators equals 3 for a period of 7 consecutive days.

Requirements for termination – the sum of the drought indicators equals less than 3 for a period of 7 days.

### **Stage 4 Extreme Drought Conditions**

Requirements for initiation – the sum of the drought indicators equals 4 for a period of 7 consecutive days.

Requirements for termination – the sum of the drought indicators equals less than 4 for a period of 7 days.

## Section X. Drought Stage Response

Headwaters GCD shall provide public notification of the initiation or termination of drought stages by the following:

- Posting box at the Headwaters GCD office
- In the newspapers of general circulation
- By direct mailing and/or e-mails to owners/operators of Permitted Wells
- Posting on the HGCD website [www.hgcd.org](http://www.hgcd.org)

## Section XI. Restrictions

### A. Restrictions on Permitted Wells

Headwaters GCD has the authority to monitor and manage the production from all Permitted Wells. Permitted Wells are those as Public Water Supply (PWS) wells which provide for domestic use and all other wells used to support agricultural, industrial, commercial, institutional and other non-domestic uses. This Plan places the following restrictions on Permitted Wells.

#### 1. Restrictions for Permitted Wells serving a Public Water System

The Plan requires a fractional reduction in water demand for the PWS under each stage. Headwaters authority is at the well and not at the individual connection. It will be the responsibility of the PWS owner as to implement drought restrictions.

Stage 1 Allowance	10% Reduction
Stage 2 Allowance	20% Reduction
Stage 3 Allowance	30% Reduction
Stage 4 Allowance	40% Reduction

2. Restrictions for Permitted Wells Being Used for Agricultural, Industrial or Other Purposes (non domestic).

The Plan requires the same percentage reduction as for Public Water Supply Systems.

Stage 1 Allowance	10% Reduction
Stage 2 Allowance	20% Reduction
Stage 3 Allowance	30% Reduction
Stage 4 Allowance	40% Reduction

3. Termination: when the conditions that triggered the stage have ceased to exist for 7 consecutive days. Upon termination of a stage the lesser stage is considered to be in effect until conditions can allow further relaxation of restrictions.

**B. Recommended Restrictions on All Well Users During Drought**

Exempt well owners are not restricted in terms of percentage reduction. The following four stages listed give recommended watering practices and list non-essential water uses. These recommended practices for Exempt and Permitted Well owners help achieve the water use reduction for each Drought Stage.

Drought Stages 1,2,3, and 4 are described below.

**STAGE 1: MILD DROUGHT**

- A. Water users are requested to limit the irrigation of landscaped areas including parks, athletic fields, and golf courses to the hours between 8:00 PM and 10 AM to reduce water losses due to evaporation.
- B. The following uses of water are defined as non-essential and should be prohibited:
  - 1. Washing down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas.
  - 2. Washing down buildings or structures for purposes other than immediate fire protection.

3. Failure to repair a controllable leak within a reasonable period after having been given notice directing the repair of such a leak.
4. Pumping of groundwater into ponds, lakes or reservoirs for the purpose of enhancing the appearance of the landscape.

## **STAGE 2: MODERATE DROUGHT**

- A.** Irrigation of landscaped areas including parks and golf courses should be limited to the previously designated watering hours between 8:00 PM and 10:00 AM. Watering should be by means of hand-held hoses, hand-held buckets, or drip irrigation only. The use of automatic sprinkler systems and hose-end sprinklers should be prohibited at all times. Athletic fields should abide by the same watering hours; however, they are allowed the use of irrigation systems for watering.
- B.** The following uses of water are defined as non-essential and should be prohibited:
  1. Washing down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas.
  2. Washing down buildings or structures for purposes other than immediate fire protection;
  3. Failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such a leak.
  4. Pumping of groundwater into ponds, lakes or reservoirs for the purpose of enhancing the appearance of the landscape.
  5. Washing any motor vehicle, motorbike, boat, trailer or other vehicle other than a public safety vehicle on a premise other than a commercial car wash or service station and not in the immediate interest of public health, safety, and welfare.

### **STAGE 3: SEVERE DROUGHT**

- A.** Irrigation of landscaped areas including parks and golf courses should be limited to the previously designated watering hours between 8:00 PM and 10:00 AM. Watering should be by means of hand-held hoses, hand-held buckets, or drip irrigation only. The use of automatic sprinkler systems and hose-end sprinklers should be prohibited at all times. Athletic fields should abide by the same watering hours; however, they are allowed the use of irrigation systems for watering.
- B.** The following use of water defined as non-essential should be prohibited:
1. Washing down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas.
  2. Washing down buildings or structures for purposes other than immediate fire protection.
  3. Failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such a leak.
  4. Pumping of groundwater into ponds, lakes or reservoirs for the purpose of enhancing the appearance of the landscape.
  5. Washing any motor vehicle, motorbike, boat, trailer or other vehicle other than a public safety vehicle on a premise other than a commercial car wash or service station and not in the immediate interest of public health, safety, and welfare.
  6. The filling of swimming pools.

## **STAGE 4: EXTREME DROUGHT**

- A.** Irrigation of landscaped areas including parks, and golf courses should be limited to designated watering days between the hours of 6:00 AM and 10:00 AM and between 8:00 PM and 12:00 midnight. Irrigation should be by means of hand-held hoses, hand-held buckets, or drip irrigation only. The use of permanently installed automatic sprinkler systems and hose-end sprinklers should be prohibited at all times. Athletic fields should abide by the same watering hours; however, they are allowed the use of irrigation systems to water.
- B.** The following use of water defined as non-essential should be prohibited:
1. Washing down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas.
  2. Washing down buildings or structures for purposes other than immediate fire protection.
  3. Failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such a leak(s).
  4. Pumping of groundwater into ponds, lakes or reservoirs for the purpose of enhancing the appearance of the landscape.
  5. Washing any motor vehicle, motorbike, boat, trailer or other vehicle not occurring on the premises of a commercial car wash or service station and not in the immediate interest of public health, safety, and welfare should be prohibited.
  6. The filling of swimming pools.
  7. No applications for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind will be approved.

## **Section XII Enforcement**

- A.** Headwaters GCD monitors Permitted Well production totals on an annual basis. In reviewing production totals submitted in drought years, the totals will be compared to prior historic usage. Historic averages will not be penalized for non-use of groundwater during above average rainfall years. Previous years with above average rainfall and the addition of connections to Public Water Supply systems will be considered in the assessment of compliance with drought restrictions for a given year. All these factors considered, Permitted Well owners would be expected to show a comparable reduction for drought years. Non-compliance could result in the voiding of a Permit, or a reduction of the allowed production listed on the Permit the following year or at renewal time.
- B.** This plan may be enforced in accordance with Headwaters Groundwater Conservation District Rule 12.
1. If any operator/owner willfully produces a well at a higher rate than authorized in the well operating permit, or is non-compliant with the provisions of this Drought Contingency Plan, such action shall be deemed a violation of District Rules and is subject to enforcement and penalties as provided in these rules or as allowed by law.
  2. All Rules duly adopted, promulgated and published by this District shall be enforced as provided for under Chapter 36, Texas Water Code and subsequent changes thereto.
  3. The District may enforce its rules by injunction, mandatory injunction, or other appropriate remedy in a court of competent jurisdiction.
  4. For breach of any Rule of the District, the Board shall set civil penalties that shall not exceed the jurisdiction of a justice court as provided by Section 27.031 Government Code.

5. A penalty under this section is in addition to any other penalty provided by the law of this state and may be enforced by complaints filed in a court of competent jurisdiction in Kerr County, Texas.
6. If the District prevails in any suit to enforce its Rules, the District may seek, and the court shall grant, in the same action, recovery for attorney's fees, costs for expert witnesses, and other costs incurred by the District before the court. The court shall fix the amount of the attorney's fees.
7. The Board, either on its own motion or upon receipt of sufficient written protest or complaint, may at any time, after due notice to all interested parties, cite any person operating within the District to appear before it and require him to show cause why his operating authority or Permit should not be suspended, canceled or otherwise restricted and limited for failure to comply with the Rules, orders or regulations of the Board or the relevant statutes of the state.
8. The matter of evidence and all other matters of procedure at any such hearing will be conducted in accordance with these Rules of procedure and practice.

### **Section XIII Exceptions**

- A.** Headwaters GCD recognizes the City of Kerrville's Conjunctive Water Use Policy and Water Conservation and Drought Management Plan as accomplishing the intent of this Plan for the City of Kerrville. Therefore the municipal wells including the City's Aquifer Storage and Recovery Wells within the city limits and operated by the City of Kerrville are exempt from the provisions of this Plan.
- B.** The General Manager may in writing, grant exceptions for existing water uses otherwise prohibited under this Plan, if it is determined that failure to grant such a variance would cause an emergency condition adversely affecting the public

health or sanitation, damage or great loss to the well owner, and if one or more of the following conditions are met:

1. Compliance with this Plan cannot be technically accomplished during the duration of the water shortage or other condition for which the Plan is in effect.
  2. Alternative methods can be implemented which will achieve the same level of reduction in water use.
- C.** Persons requesting an exception from the provisions of the Plan shall file a petition with the HGCD after the Plan or a particular drought response stage has been invoked. All petitions for exceptions shall be reviewed by the General Manager or his/her designee and shall include the following:
1. Petition Submission Date.
  2. Name and address of the petitioner(s).
  3. Well Number and Location.
  4. Purpose of water use.
  5. Specific provisions(s) of the Plan from which the petitioner(s) is requesting relief.
  6. Detailed statement as to how the specific provision of the Plan adversely affects the Petitioner(s) or what damage or harm will occur to the petitioner(s) or others if petitioner(s) complies with the Plan.
  7. Description of the relief requested.
  8. Period of time for which the exception is sought.
  9. Alternative water use restrictions or other measures the petitioner(s) is taking or proposes to take to meet the intent of this Plan.
  10. Other pertinent information the General Manager deems relevant and necessary in making a determination regarding the request.

- D.** Exceptions granted by the District shall be in writing subject to the following conditions, unless waived or modified by the General Manager.
  - 1. Exceptions granted shall include a timetable for compliance with the Plan's restrictions.
  - 2. Exceptions granted shall expire when the restrictions of the Plan are no longer in effect.
- E.** No Exception shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the exception.
- F.** At the next regular Board Meeting, the General Manager will inform the Board of all Rules exceptions granted.