

DROUGHT CONTINGENCY PLAN

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Stage 1- Mild when any of the following conditions occur;

- a. Average daily water consumption reaches ~~80%~~ **75%** of water treatment plant capacity for five consecutive days.- For example- 90 mgd x **75%** = 67.5 mgd for 5 days will trigger Stage 1
- b. Weather conditions are to be a factor in determining water availability. Drought conditions, lake level and history of consumption during periods of long dry spells will also be considered as to when emergency response measures will be implemented.

Under Stage 1, there is target reduction goal of five (5) percent of the use (as measured through metered flows) that would have occurred in the absence of drought contingency measures. Each customer is to prescribe the necessary reduction measures to reach the 5% goal.



2. Stage 2 – Moderate when any of the following conditions occur;

- a. Average daily water consumption reaches 85% of water treatment plant capacity for five consecutive days. Example is $90 \text{ mgd} \times 85\% = 76.5 \times 5$ days will trigger Stage 2
- b. Electrical or mechanical failure during Stage 1 conditions compromises production or delivery capacities. For example, Raw or High Service Pumps.
- c. Storage capacity (water level in District tanks) is not being maintained during Stage 1 conditions.
- d. Existence of any one listed condition for duration of 36 hours. Increased water demand causes significant water pressure and volume problems within the transmission lines.
- e. Water surface elevations in Lake Belton or Lake Stillhouse fall below a predetermined level [as determined and published in cooperation with the Brazos River Authority] such that there is no immediate expectation of restoring normal lake levels [i.e. extended periods of area-wide drought are forecast].

Under Stage 2, the goal for water use reduction is a ten (10) percent reduction of the use (as measured through metered flows) that would have occurred in the absence of drought contingency measures. Each customer is to prescribe the necessary reduction measures to reach the 10% goal.



Stage 3 - Severe- when any of the following conditions occur;

- a. Average daily water consumption reaches 90% of rated production capacity for 36 consecutive hours. At 90 mgd plant capacity, this would equate to 81 mgd for 36 hours.**
- b. Average daily water consumption will not allow storage levels to be maintained in District's clearwells and ground storage tanks.**
- c. System demand exceeds high service capacity.**
- d. Any two conditions, listed in Stage 2 occur at the same time for a 24-hour period;**
- e. Water surface elevations in Lake Belton or Lake Stillhouse fall below a predetermined level [as determined and published in cooperation with the Brazos River Authority] such that water supply to the intake structures is endangered.**

Under Stage 3, the goal for water use reduction is a total reduction of twenty (20) percent in the use that would have occurred in the absence of any drought contingency measures.



Stage 4 – Emergency – when any of the following conditions occur;

a. Water system is contaminated. Stage 4 is reached immediately upon detection.

b. Water system fails from acts of God or man. Stage 4 condition is reached immediately upon detection.



HOW WE CALCULATE FLOW DURING AN EMERGENCY EVENT

Rated Capacities for each entity per day

Killeen- 32.0 MGD

Harker Heights- 13.5 MGD

Copperas Cove- 13.5 MGD

WCID 3- 2 MGD

439 WSC- 3 MGD

Fort Cavazos- 16 MGD

Belton- 10 MGD

Rated Plant Capacity-90 MGD

Killeen- $32.0/90= 35.6\%$

Harker Heights- $13.5/90= 15\%$

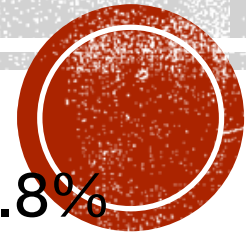
Copperas Cove- $13.5/90= 15\%$

WCID 3- $2/90= 2.2\%$

439 WSC- $3/90= 3.3\%$

Fort Cavazos- $16/90= 17.8\%$

Belton- $10/90= 11.1\%$



HOW WE CALCULATE FLOW DURING AN EMERGENCY EVENT CONT..

Example- If the Belton Plant can only distribute 40 MGD, we will use the capacity percentage for each entity. Example below;

Rated Plant Capacity-90 MGD

Killeen- $32.0/90= 35.6\%$

Harker Heights- $13.5/90= 15\%$

Copperas Cove- $13.5/90= 15\%$

WCID 3- $2/90= 2.2\%$

439 WSC- $3/90= 3.3\%$

Fort Cavazos- $16/90= 17.8\%$

Belton- $10/90= 11.1\%$

Killeen- $40*35.6%= 14.24$ MGD for the entity

Harker Heights- $40*15%= 6$ MGD for the entity

Copperas Cove- $40*15%= 6$ MGD for the entity

WCID 3- $40*2.2%= 0.88$ MGD for the entity

439 WSC- $40*3.3%= 1.32$ MGD for the entity

Fort Cavazos- $40*17.8%= 7.12$ MGD for the Base

Belton- $40*11.1%= 4.44$ MGD for the entity



CONSERVATION FACTS

- The average family can waste 180 gallons per week, or 9,400 gallons of water annually, from household leaks. That's equivalent to the amount of water needed to wash more than 300 loads of laundry.
- Household leaks can waste approximately nearly 900 billion gallons of water annually nationwide. That's equal to the annual household water use of nearly 11 million homes.
- Running the dishwasher only when it's full can eliminate one load of dishes per week and save the average family nearly 320 gallons of water annually.
- Turning off the tap while brushing your teeth can save 8 gallons of water per day and, while shaving, can save 10 gallons of water per shave. Assuming you brush your teeth twice daily and shave 5 times per week, you could save nearly 5,700 gallons per year.
- Letting your faucet run for five minutes while washing dishes can waste 10 gallons of water and uses enough energy to power a 60-watt light bulb for 18 hours.
- Outdoor water use accounts for more than 30 percent of total household water use, on average, but can be as much as 60 percent of total household water use in arid regions.
- If the average sized lawn in the United States is watered for 20 minutes every day for 7 days, it's like running the shower constantly for 4 days or taking more than 800 showers. That's equivalent to the amount of water needed for the average family to take 1 year's worth of showers.
- As much as 50 percent of the water we use outdoors is lost due to wind, evaporation, and runoff caused by inefficient irrigation methods and systems. A household with an automatic landscape irrigation system that isn't properly maintained and operated can waste up to 25,000 gallons of water annually

