



WATER CONSERVATION PLAN & DROUGHT CONTINGENCY PLAN - SUMMARY

April 29, 2009, as amended

V-4

September 1, 2009

GENERAL INFORMATION:

- Canyon Reservoir – 8,200 surface acres -- Impounds 378,852 acre feet
- Conservation Pool – Between 800' mean sea level (msl) and elevation of 909' msl.
- Corp. responsible for management within flood pool, between 909' and 943' msl.
- GBRA's TCEQ issued water rights authorizes GBRA to divert a five-year average of 90,000 acre feet/year of stored water from Canyon Reservoir to supply contractual water users.
- Drought of Record -- 1947-1956

GOALS

- Develop water conservation plans and drought contingency plans for each city in the district with a population of 5,000 or more and for each major customer (100 acre feet or more) of stored water from Canyon Reservoir.
- Achieve a per capita water use of 153 gpd for all municipal customers that use water from storage in Canyon Reservoir by the year 2010.
- Utilize the "averaging concept" in the commitment of water in order to stretch the supply of stored water.
- Work with systems to develop water supplies based on a firm yield.
- Develop criteria for use of reuse water for golf courses and residential purposes.
- Establish criteria for increased metering to track and manage water supplies.

STAGE 1 (895' msl or 274,800 ac/ft):

Water Conservation:

Voluntary water conservation measures will be implemented whenever:

There is a curtailment in interruptible water supplies; or

The total storage in Canyon Reservoir is less than elevation 895' or 274,800 acre feet.

At such time, the GBRA will implement an aggressive public information campaign to provide up-to-date information on water supply conditions and promote voluntary action to conserve water.

Drought Contingency:

Goal: achieve a voluntary 5% reduction in use based upon the previous six (6) months average use of contracted water from storage by:

1. Calibrate and review the operation of all available stream gauges.
2. Coordinate review of water use with the TCEQ's South Texas Watermaster (STWM).
3. Implement water delivery procedures to improve efficiency of the delivery of water from storage.
4. GM, or his/her designee(s) will contact wholesale water customers to discuss water supply and/or demand conditions and will request that wholesale water customers initiate voluntary measures to reduce water use.
5. GM or his /her designee will provide a weekly report to news media.

STAGE 2 (890' msl or 242,872 ac/ft):

Water Conservation:

GBRA will further encourage the firm water customers to reduce water use whenever the total storage in Canyon Reservoir is at or below elevation 890' or 242,872 acre feet. To implement end-user water demand reductions may require mandatory water use restrictions be imposed on end-users by firm water wholesale

customers themselves. GBRA will investigate alternative incentive policies, including use of special water pricing incentives to participating wholesale water customers.

Drought Contingency:

Goal: achieve a voluntary 10% reduction in use based upon the previous six (6) months average use of contracted water from storage by:

1. Calibrate and review the operation of all available stream gauges.
2. Coordinate review of water use with TCEQ's South Texas Watermaster (STWM).
3. Implement water delivery procedures to improve efficiency of the delivery of water from storage.
4. GM or his /her designee will initiate weekly contact with wholesale customers to discuss water supply and/or demand conditions and possibility of pro rata curtailment of water diversions and/or deliveries.
5. GM or his /her designee will request wholesale customers to initiate mandatory measures to reduce non-essential water use.
6. GM or his /her designee will initiate preparations for implementation of pro rata curtailment of water diversions and/or deliveries by preparing monthly water usage allocation baseline for each wholesale customer according to procedures in Section X of the Drought Contingency Plan.
7. GM or his /her designee will provide weekly report to news media.

STAGE 3 (885' msl or 213,386 ac/ft):

Water Conservation

GBRA will further encourage the firm water customers to reduce water use whenever the total storage in Canyon Reservoir is at or below elevation 885' msl or 213,386 ac/ft. Stage 2 efforts to reduce water demands will be pursued more aggressively by GBRA.

Drought Contingency

Goal: achieve a voluntary 15% reduction in use based upon the previous six (6) months average use of contracted water from storage by:

1. Calibrate and review the operation of all available stream gauges.
2. Coordinate review of water use with the TCEQ's South Texas Watermaster (STWM).
3. Implement water delivery procedures to improve efficiency of delivery of water from storage.
4. GM, or his/her designee(s) will contact wholesale water customers to discuss water supply and/or demand conditions and request they initiate additional mandatory measures to reduce non-essential water use.
5. GM or his /her designee will initiate pro rata curtailment of water diversions and/or deliveries for each wholesale customer according to procedures in Section X of the Drought Contingency Plan.
6. GM or his /her designee will provide weekly report to news media.

STAGE 4:

Water Conservation

Implementation of the mandatory curtailments of firm water demands will occur whenever the river system is experiencing a drought more severe than the Drought of Record. During a drought more severe than the Drought of Record, the GBRA will curtail and distribute the available supply of firm water among all of its firm water supply customers on a pro rata basis in accordance with its Drought Contingency Plan.

The GBRA Board of Directors will declare a drought worse than the drought of record when the following three conditions are simultaneously met: a) drought at least 36 consecutive months (36 months since Canyon Reservoir was last full); b) the cumulative inflow deficit since the beginning of the drought exceeds the envelope curve for cumulative inflow deficits by at least 5% for six consecutive months; c) the storage of Canyon Reservoir is less than elevation 885' msl or 213,386 acre-feet. The GBRA Board of Directors will cancel such a declaration if any of the following conditions are met; d) the cumulative inflow deficit since

the beginning of the drought is less than the envelope curve for cumulative inflow deficits by at least 5% for six consecutive months; or e) the storage in Canyon Reservoir is greater than elevation 890' msl or 242,872 acre-feet.

In addition to the above features, this curtailment policy for firm water demands requires each GBRA firm water customer to prepare and adopt a legally enforceable local drought contingency plan which specifies the actions to be taken to comply with GBRA's Drought Contingency Plan regarding the curtailment of firm supplies. Such plans have to be developed pursuant to GBRA guidelines and submitted for GBRA review and approval within a reasonable time. GBRA staff provides direct technical assistance with the preparation of required local plans.

Drought Contingency

Whenever the following emergency water shortage conditions exist as defined in Section VIII of the Drought Contingency Plan, (i) mechanical or system failures occur which cause unprecedented loss of capability to provide water service, (ii) natural or man-made contamination of water supply source(s) occur; or (iii) a drought of greater severity than the Drought of Record occurs, the GM shall:

1. Assess severity of problem and identify actions needed and time required to solve the problem.
2. Inform utility director or other responsible official of each wholesale water customer by telephone or in person and suggest actions, or appropriate to alleviate problems.
3. If appropriate, notify city, county, and/or state emergency response officials for assistance.
4. Undertake necessary actions, including repairs and/or clean-up as needed.
5. Prepare a post-event assessment report on the incident and critique of emergency response procedures and actions.

Pro Rata Water Allocation

1. In event that Stage 4 – Emergency Water Shortage Conditions have been met, the GM is hereby authorized to initiate allocation of water supplies on pro rata basis in accordance with Texas Water Code Section 11.039 and according to following water allocation policies and procedures:
2. Wholesale customer's allocation for water from storage shall be based on customer's previous one (1) years use. The percentage will be set by resolution of Board of Director's of GBRA based on GM's assessment of severity of water shortage condition and the need to curtail water diversions and/or deliveries and may be adjusted periodically by resolution of Board of Director's of GBRA as conditions warrant. Once pro rata allocation is in effect, water diversions by or deliveries to each wholesale customer shall be limited to the allocation established for each month.
3. GM shall provide notice, by certified mail, to each wholesale customer informing them of their water usage allocations and shall notify the news media and the executive director of the Texas Commission on Environmental Quality upon initiation of pro rata water allocation.
4. Upon request of customer or at initiation of the GM, the allocation may be reduced or increased if, a) the designated period does not accurately reflect wholesale customer's previous one (1) years use; b) the customer, with approval from GBRA, agrees to transfer part of its allocation to another wholesale customer; or c) other objective evidence demonstrates designated allocation is inaccurate under present conditions. A customer may appeal an allocation established hereunder to the Board of Directors of GBRA.