

# **Aqua Water Supply Corporation Drought Contingency Plan**

March 13, 2014

# DROUGHT CONTINGENCY PLAN FOR THE AQUA WATER SUPPLY CORPORATION

## March 13, 2014

# Section I: Declaration of Policy, Purpose, and Intent

In order to conserve the available water supply and protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, the Aqua Water Supply Corporation (Aqua WSC) hereby adopts the following regulations and restrictions on the delivery and consumption of water.

Water uses regulated or prohibited under this Drought Contingency Plan (the Plan) are considered to be non-essential and continuation of such uses during times of water shortage or other emergency water supply condition are deemed to constitute a waste of water which subjects the offender(s) to penalties as defined in Section X of this Plan.

## **Section II: Public Involvement**

Opportunity for the public to provide input into the preparation of the Plan was provided by Aqua WSC in the *Aqua News*, an insert included in Aqua WSC utility bills and the Aqua WSC website, <a href="https://www.aquawsc.com">www.aquawsc.com</a>. The insert as well as the website describes the reasons and methodology for the development of the drought contingency plan, directions to obtain a copy of the draft plan, the period for public comment and input on plan development, and contact information to deliver comments and request additional information.

## **Section III: Public Education**

Aqua WSC will periodically provide the public with information about the Plan. This will be included in the *Aqua News* (the Aqua WSC utility bill insert) as well as the website, <u>www.aquawsc.com</u>, which describes the conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage. Additional information concerning the Plan may be provided by press releases in the following newspapers:

- Bastrop Advertiser
- Elgin Courier
- Smithville Times
- The Giddings Times and News

# **Section 1V:** Coordination with Regional Water Planning Groups

The water service area for Aqua Water Supply Corporation is located within the Region K Water Planning area. A copy of this Plan has been provided to the Region K Planning Group.

### **Section V:** Authorization

The general manager of Aqua WSC or his/her designee is hereby authorized and directed to implement the application provisions of the Plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The general manager or his/her designee shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan.

#### **Section VI:** Application

The provisions of this Plan shall apply to all persons, customers, and property utilizing water provided by Aqua WSC. The terms "person" and "customer" as used in the Plan include individuals, corporations, partnerships, associations, and all other legal entities.

#### Section VII: Definitions

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

<u>Aesthetic water use</u>: water use for ornamental or decorative purposes such as fountains, reflecting pools, and water gardens.

<u>Commercial and institutional water use</u>: water use which is integral to the operations of commercial and non-profit establishments and governmental entities such as retail establishments, hotels and motels, restaurants, and office buildings.

<u>Conservation</u>: 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 or alternative uses.

<u>Customer</u>: any person, company, or organization using water supplied by Aqua WSC.

<u>Domestic water use</u>: water use for personal needs or for household or sanitary purposes such as drinking, bathing, heating, cooking, sanitation, or for cleaning a residence, business, industry, or institution.

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

<u>Landscape irrigation use</u>: water used for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including residential and commercial lawns, gardens, golf courses, parks, and rights-of-way and medians.

<u>Non-essential water use</u>: water uses that are not essential nor required for the protection of public, health, safety, and welfare, including:

- (a) irrigation of landscape areas, including parks, athletic fields, and golf courses, except otherwise provided under this Plan;
- (b) use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle;
- (c) use of water to wash down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas:
- (d) use of water to wash down buildings or structures for purposes other than immediate fire protection;
- (e) flushing gutters or permitting water to run or accumulate in any gutter or street;
- (f) use of water to fill, refill, or add to any indoor or outdoor swimming pools or jacuzzi-type pools;
- (g) use of water in a fountain or pond for aesthetic or scenic purposes except where necessary to support aquatic life;
- (h) failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s); and
- (i) use of water from hydrants for construction purposes or any purpose other than fire fighting.

# Section VIII: Triggering Criteria for Initiation and Termination of Drought Response Stages

Aqua Water Supply Corporation shall monitor water supply and/or demand conditions on a daily basis and shall determine when conditions warrant initiation or termination of each stage of the Plan.

Reasonable notice, including, by way of example and without limitation, notice published in local newspaper, radio and television announcements, and by posting notice in public buildings, of the proposed implementation of a drought response stage shall be provided 24 hours before Aqua WSC officially initiates the response stage. Published notice may be followed by a mailed notice included in the next regular bill. Any notice shall contain the following information:

- the date implementation of the drought stage shall begin;
- an explanation of the measures to be implemented during the response stage; and
- an explanation of penalties for violations.

The drought contingency plan is oriented toward alleviating stress on water storage and distribution facilities during peak demand periods. Provision is also made for response to emergency conditions resulting from the failure of key water system facilities and water supply contamination. Triggering criteria will be revisited and possibly revised as historical operational information from the SCADA system becomes available.

# (a) Stage 1 – Mild Water Rationing Conditions

<u>Requirements for initiation</u> – Customer shall be requested to voluntarily conserve water and adhere to the prescribed restrictions on certain water uses, defined in Section VII – Definitions, when any of the following triggering conditions are met.

<u>Requirements for termination</u> – Stage 1 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of seven (7) consecutive days.

Critical Tank	STAGE I -Triggering Conditions				
Blue Tank	1. Declining tank level is observed for 2 consecutive days.*	2. Tank water level is more than 15 feet less than the maximum level.*			
Rocky Hill Tank	1. Declining tank level is observed for 2 consecutive days.*	2. Tank water level is more than 10 feet less than the maximum level.*			
HT Tank	1. Declining tank level is observed for 2 consecutive days.*	2. Tank water level is more than 10 feet less than the maximum level.*			
Elgin East Tank	1. Declining tank level is observed for 2 consecutive days.*	2. Tank water level is more than 10 feet less than the maximum level.*			
Delhi Tank	1. Declining tank level is observed for 2 consecutive days.*	2. Tank water level is more than 15 feet less than the maximum level.*			
County Line Tank	1. Declining tank level is observed for 2 consecutive days.*	2. Tank water level is more than 10 feet less than the maximum level.*			
Bohls Tank	1. Declining tank level is observed for 2 consecutive days.*	2. Tank water level is more than 5 feet less than the maximum level.*			
Watts Tank	1. Declining tank level is observed for 2 consecutive days.*	2. Tank water level is more than 10 feet less than the maximum level.*			
Texas Hill Tank	1. Declining tank level is observed for 2 consecutive days.*	2. Tank water level is more than 10 feet less than the maximum level.*			
Hwy 71 Tank	1. Declining tank level is observed for 2 consecutive days.*	2. Tank water level is more than 10 feet less than the maximum level.*			
Red Rock Tank	1. Declining tank level is observed for 2 consecutive days.*	2. Tank water level is more than 10 feet less than the maximum level.*			
Nuse Tank	1. Declining tank level is observed for 2 consecutive days.*	2. Tank water level is more than 5 feet less than the maximum level.*			
Camp Swift Tank	1. Declining tank level is observed for 2 consecutive days.*	2. Tank water level is more than 15 feet less than the maximum level.*			
OH Tank	1. Declining tank level is observed for 2 consecutive days.*	2. Tank water level is more than 10 feet less than the maximum level.*			
Lotman Tank	1. Declining tank level is observed for 2 consecutive days.*	2. Tank water level is more than 10 feet less than the maximum level.*			
High View Tank	1. Declining tank level is observed for 2 consecutive days.*	2. Tank water level is more than 15 feet less than the maximum level.*			
2430 Tank Flag Hill Tank	<ul><li>1. Declining tank level is observed for 2 consecutive days.*</li><li>1. Declining tank level is observed</li></ul>	2. Tank water level is more than 15 feet less than the maximum level.*      2. Tank water level is more than 15 feet			
Tag IIII Talik	for 2 consecutive days.*	less than the maximum level.*			

<sup>\*</sup> Tank levels will be measured 2 hours after peak in order to represent tank recovery.

# (b) Stage II – Moderate Water Shortage Conditions

<u>Requirements for initiation</u> – Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses for Stage II of this Plan when any of the following triggering conditions are met.

<u>Requirements for termination</u> – Stage II of the Plan may be rescinded when all of the conditions listed as triggered events have ceased to exist for a period of seven (7) consecutive days. Upon termination of Stage II, Stage I becomes operative.

Critical Tank	STAGE II -Triggering Conditions			
Blue Tank	1. Declining tank level is observed	2. Tank water level is more than 30 feet		
	for 3 consecutive days.*	less than the maximum level.*		
Rocky Hill Tank	1. Declining tank level is observed	2. Tank water level is more than 15 fee		
	for 3 consecutive days.*	less than the maximum level.*		
HT Tank	1. Declining tank level is observed	2. Tank water level is more than 18 feet		
	for 3 consecutive days.*	less than the maximum level.*		
Elgin East Tank	1. Declining tank level is observed	2. Tank water level is more than 15 feet		
	for 3 consecutive days.*	less than the maximum level.*		
Delhi Tank	1. Declining tank level is observed	2. Tank water level is more than 12 feet		
	for 3 consecutive days.*	less than the maximum level.*		
County Line Tank	1. Declining tank level is observed	2. Tank water level is more than 20 feet		
	for 3 consecutive days.*	less than the maximum level.*		
Bohls Tank	1. Declining tank level is observed	2. Tank water level is more than 10 feet		
	for 3 consecutive days.*	less than the maximum level.*		
Watts Tank	1. Declining tank level is observed	2. Tank water level is more than 16 feet		
	for 3 consecutive days.*	less than the maximum level.*		
Texas Hill Tank	1. Declining tank level is observed	2. Tank water level is more than 20 feet		
	for 3 consecutive days.*	less than the maximum level.*		
Hwy 71 Tank	1. Declining tank level is observed	2. Tank water level is more than 20 feet		
	for 2 consecutive days.*	less than the maximum level.*		
Red Rock Tank	1. Declining tank level is observed	2. Tank water level is more than 15 feet		
	for 2 consecutive days.*	less than the maximum level.*		
Nuse Tank	1. Declining tank level is observed	2. Tank water level is more than 10 feet		
	for 3 consecutive days.*	less than the maximum level.*		
Camp Swift Tank	1. Declining tank level is observed	2. Tank water level is more than 18 feet		
	for 3 consecutive days.*	less than the maximum level.*		
OH Tank	1. Declining tank level is observed	2. Tank water level is more than 20 feet		
	for 2 consecutive days.*	less than the maximum level.*		
Lotman Tank	1. Declining tank level is observed	2. Tank water level is more than 20 feet		
	for 3 consecutive days.*	less than the maximum level.*		
TT: 1 TT: 77 1	1. Declining tank level is observed	2. Tank water level is more than 20 feet		
High View Tank	for 3 consecutive days.*	less than the maximum level.*		

2430 Tank	1. Declining tank level is observed	2. Tank water level is more than 18 feet	
	for 3 consecutive days.*	less than the maximum level.*	
Flag Hill Tank	1. Declining tank level is observed	2. Tank water level is more than 20 feet	
	for 2 consecutive days.*	less than the maximum level.*	

<sup>\*</sup> Tank levels will be measured 2 hours after peak in order to represent tank recovery.

# (c) Stage III – Emergency Water Shortage Conditions

<u>Requirements for initiation</u> – Customers shall be required to comply with the requirements and restrictions for Stage III of this Plan when the general manager, or his/her designee, determines that a water supply emergency exists based on:

- 1. Major water line breaks, or pump or system failures occur, which cause an unprecedented loss of capability to provide water service; **or**
- 2. Natural or man-made contamination of the water supply source(s).

<u>Requirements for termination</u> – Stage III of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of seven (7) consecutive days.

# Section IX: Drought Response Stages

Aqua Water Supply Corporation shall monitor water supply and/or demand conditions on a daily basis and, in accordance with the triggering criteria set forth in Section VIII of the Plan, shall determine that a mild, moderate, or emergency condition exists and shall implement the following actions upon the notice procedures described in Section VIII.

Because of large service area served by Aqua WSC and the large number of pressure zones within the water distribution system, Aqua Water Supply Corporation shall initiate drought response stages in designated sub-areas of the water service area. This is intended to allow for the targeted implementation of drought response measures in areas where such measures are necessary, thereby minimizing the number of Aqua WSC customers impacted.

## **Stage I – Mild Shortage Conditions**

Goal: Achieve a voluntary reduction of 10% in daily water demand sufficient to stabilize water levels in key water storage tanks at safe operating levels.

Supply Management Measures:

- (a) Aqua WSC will shut off all fire hydrant meters that are for non-essential use.
- (b) Aqua WSC will discontinue flushing of water mains.

#### Voluntary Water Use Restrictions:

(a) Water customers are requested to voluntarily limit the irrigation of landscaped areas to the Aqua watering schedule (Table IX-1). The order will remain consecutive as each new month begins. For customers having rural delivery numbers, the last numerical digit of the rural delivery number, whether route or box, shall be used to determine the watering days.

# Table IX-1 – Aqua WSC Landscape Watering Schedule

1) Monday and Thursday: Even last number of Address

Tuesday and Friday: Odd last number of Address

- 2) <u>Restricted Outdoor Watering Hours</u>: Outdoor watering should be done only before 10 a.m. and after 7 p.m. on your water day.
- 3) <u>Restricted Outdoor Watering Volume</u>: Water no more than 1 inch on your watering day.

## **Stage II - Moderate Water Shortage Conditions**

<u>Goal:</u> Achieve 15% reduction in daily water demand sufficient to stabilize water levels in key water storage tanks at safe operating levels.

Water Use Restrictions. Under threat of penalty for violation, the following water use restrictions shall apply to all persons:

- (a) Irrigation of landscape areas shall be limited to designated watering days between the hours of 12:00 midnight and 10:00 a.m. and between 8 p.m. and 12:00 midnight and shall be by means of hand-held hoses, hand-held buckets, drip irrigation, or permanently installed automatic sprinkler system only. The use of hose-end sprinklers is prohibited at all times. The water usage is restricted to weekday use only. No outside watering allowed on Saturdays, Sundays, or official Federal holidays.
- (b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is prohibited except on designated water days between the hours of 12:00 midnight and 10:00 a.m. and between 8:00 p.m. and midnight. Such washing, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shut-off nozzle for quick rinses. Vehicle washing may be done at any time on the immediate premises of a commercial car wash or commercial service station. Further, such washing may be exempted from these regulations if the health, safety, and welfare of the public are contingent upon frequent cleansing, such as garbage trucks and vehicles used to transport food and perishables.
- (c) Use of water to fill, refill, or add to any indoor or outdoor swimming pools, wading pools, or jacuzzi-type pools is prohibited except on designated watering days between the hours of 12:00 midnight and 10:00 a.m. and between 8 p.m. and 12:00 midnight.
- (d) Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited

- except where necessary to support aquatic life or when such fountains or ponds are equipped with a recirculation system.
- (e) Use of water from hydrants shall be limited to fire fighting, related activities, or other activities necessary to maintain public health, safety, and welfare, except that use of water from designated fire hydrants for construction purposes may be allowed under special permit from Aqua WSC.
- (f) The watering of golf course tees is prohibited unless the golf course utilizes a water source other than that provided by Aqua WSC.
- (g) All restaurants are prohibited from serving water to its patrons except when requested.
- (h) The following uses of water are defined as non-essential and are prohibited:
  - 1. wash down of any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
  - 2. use of water to wash down buildings or structures for purposes other than immediate fire protection;
  - 3. use of water for dust control;
  - 4. flushing gutters or permitting water to run or accumulate in any gutter or street; and
  - 5. failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s).

## **Stage III – Emergency Water Shortage Conditions**

<u>Goal</u>: Achieve a minimum of 20% reduction in daily water demand sufficient to meet basic water needs for public health and safety.

Water Use Restrictions. All requirements of Stage II shall remain in effect during Stage III except:

- (a) Irrigation of landscaped areas is absolutely prohibited.
- (b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane, or other vehicle is absolutely prohibited.
- (c) The filling, refilling, or adding of water to swimming pools, wading pools, and jacuzzi-type pools is absolutely prohibited.
- (d) Operation of any ornamental fountain or pond for aesthetic or scenic purposes is absolutely prohibited except where necessary to support aquatic life or where such fountains are equipped with a recirculation system.
- (e) 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 shall be allowed or approved.

## **Stage IV – Severe Rationing Conditions**

<u>Goal</u>: Achieve a minimum of 25% reduction in daily water demand sufficient to meet basic water needs for public health and safety.

All outdoor water usage is prohibited; usage for livestock is exempt. All consumption shall be limited to each member in one of the following ways:

- 1. A fixed percentage of each member's average use in the prior month, the percentage to be uniformly applied on a system wide basis, each member being notified of this percentage amount, OR
- 2. A maximum number of gallons per meter (member), per week, with notice to each member of this number.

All meters shall be read as often as necessary to insure compliance with this program for the benefit of all the members.

#### **Section X:** Enforcement

No person shall knowingly or intentionally allow the use of water from the Aqua WSC for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of the Plan, or in an amount in excess of that permitted by the drought response stage in effect at the time pursuant to action taken by the general manager, or his/her designee, in accordance with provision of this Plan. Violations to this plan will be treated as follows.

- (a) First violation Aqua WSC may install a flow restricter in the line to limit the amount of water which will pass through the meter in a 24-hour period. The cost to be charged to the member's account shall be the actual installation cost (\$100 for 5/8", 3/4", and 1" meters, larger meters will be determined on a case-by-case basis) to Aqua WSC.
- (b) Subsequent violations Aqua WSC may terminate service at the meter for a period of seven (7) days, or until the end of the calendar month, whichever is less. The normal reconnect fee (\$50.00), of Aqua WSC shall apply for restoration of service.

## **Section XI:** Adoption of Drought Contingency Plan

All contracts with Aqua WSC for resale of water require the acceptance and implementation of Aqua's Drought Contingency Plan. In case of a shortage of water resulting from drought, the water to be distributed shall be divided in accordance with Texas Water Code, §11.039.

## **Section XII: Variances**

The general manager, or his/her designee, may, in writing, grant temporary variance for existing water uses otherwise prohibited under this Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance and if one or more of the following conditions are met:

- (a) Compliance with this Plan cannot be technically accomplished during the duration of the water supply shortage or other condition for which the Plan is in effect.
- (b) Alternative methods can be implemented which will achieve the same level of reduction in water use.

Persons requesting an exemption from the provisions of this Ordinance shall file a petition for variance with the Aqua WSC within 5 days after the Plan or a particular drought response stage has been revoked. All petitions for variance shall be reviewed by the general manager, or his/her designee, and shall include the following:

- (a) Name and address of the petitioner(s).
- (b) Purpose of water use.
- (c) Specific provisions(s) of the Plan which the petitioner is requesting relief.
- (d) Detailed statement as to how the specific provision of the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Ordinance.
- (e) Description of the relief requested.
- (f) Period of time for which the variance is sought.
- (g) Alternative water use restrictions or other measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date.
- (h) Other pertinent information.

Variances granted by Aqua WSC shall be subjected to the following conditions, unless waived or modified by the general manager or his/her designee:

- (a) Variance granted shall include a timetable for compliance.
- (b) Variance granted shall expire when the Plan is no longer in effect, unless the petitioner has failed to meet specified requirements.

No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance.

#### **Section XII:** Severability

It is hereby declared to be the intention of the Board of Directors of the Aqua Water Supply Corporation that the sections, paragraphs, sentences, clauses, and phrases of this Ordinance are severable and, if any phrase, clause, sentence, paragraph, or section of this Plan shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Plan, since the same would not have been enacted by the Board of Directors of the Aqua Water Supply without the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph, or section.