

NORTH HARRIS COUNTY
REGIONAL WATER AUTHORITY

WATER SUPPLY MANAGEMENT AND
DROUGHT CONTINGENCY PLAN

Adopted: February 6, 2012

TABLE OF CONTENTS

RECITALS	1
ARTICLE I. DEFINITIONS	2
ARTICLE II. GENERAL	2
1. APPROVAL OF THE PLAN.....	2
2. PUBLIC INVOLVEMENT.	3
3. EDUCATION AND INFORMATION.	3
4. COORDINATION WITH REGIONAL WATER PLANNING GROUPS.....	3
5. AUTHORIZATION.....	3
6. APPLICATION.....	4
7. WATER SHORTAGE RESPONSE MEASURES CUMULATIVE.	4
8. SEVERABILITY.	4
9. UPDATE SCHEDULE.	4
ARTICLE III. TRIGGERS AND RESPONSE MEASURES	4
1. CRITERIA AND ACTIONS REQUIRED FOR RESPONSE STAGES.....	4
2. STAGE 1 WATER SHORTAGE.....	5
3. STAGE 2 WATER SHORTAGE.....	5
4. STAGE 3 WATER SHORTAGE.....	6
5. STAGE 4 WATER SHORTAGE.....	7
6. EMERGENCY WATER SHORTAGE.....	7
ARTICLE IV. ENFORCEMENT AND VARIANCES	8
1. ENFORCEMENT.	8
2. VARIANCES.	8

RECITALS

WHEREAS, the North Harris County Regional Water Authority (the "Authority") is a regional water authority created pursuant to House Bill 2695 of the 76th Legislature, as amended (the "Act"), and Article XVI, Section 59 of the Texas Constitution; and

WHEREAS, the Authority was created, among other purposes, to accomplish the purposes of Article XVI, Section 59 of the Texas Constitution, including the acquisition and provision of surface water and groundwater for residential, commercial, industrial, agricultural, and other uses, the reduction of groundwater withdrawals, the conservation, preservation, protection, recharge and prevention of waste of groundwater, and of groundwater reservoirs or their subdivisions, and the control of subsidence caused by withdrawal of water from those groundwater reservoirs or their subdivisions; and

WHEREAS, the Act provides that the Authority may: (1) provide for the conservation, preservation, protection, recharge, and prevention of waste of groundwater in a manner consistent with the purposes of Section 59, Article XVI, Texas Constitution; (2) provide for the reduction of groundwater withdrawals by the development, implementation, or enforcement of a groundwater reduction plan, which shall be binding on persons, districts, entities and wells within the Authority's boundaries; and (3) coordinate water services provided inside of, outside of, or into the Authority; and

WHEREAS, the Authority's Board of Directors (the "Board") desires to adopt this Water Supply Management and Drought Contingency Plan (the "Plan") to temper groundwater withdrawals within the Authority during periods of drought conditions, manage the supply of surface water available to the Authority, assist the Authority's efforts to manage its Groundwater Reduction Plan and further its purposes to provide for conservation and preservation of groundwater;

WHEREAS, this Plan requires that upon the Authority implementing any stage of water shortage, the response measures for such stage shall apply equally to all well owners with a well included within the Authority's Harris-Galveston Subsidence District aggregate water well permit (each being a "Participant"), without regard to whether each such Participant receives surface water from the Authority, the ability of any Participant to supply sufficient groundwater to meet its entire demand or any other factor;

WHEREAS, this Plan represents an initial step by the Authority in a larger process by which the Authority will develop and implement additional triggers and response measures related to water shortage, and adopt amendments to its Rate Order to encourage greater compliance with this Plan, the Rate Order and other Authority rules, as necessary, all of which the Authority expects to accomplish during the Spring of 2012.

ARTICLE I. DEFINITIONS

Unless the context requires otherwise, the following terms and phrases used in this Water Supply Management and Drought Contingency Plan shall have meanings assigned below and shall include the plural as well as the singular.

1. "**Authority**" shall mean the North Harris County Regional Water Authority, a governmental agency and body politic and corporate of the State of Texas organized and operating pursuant to the provisions of Chapter 1029 (H.B. 2965), Acts of the 76th Texas Legislature 1999, as amended, to accomplish the purposes provided by Section 59, Article XVI of the Texas Constitution.
2. "**Board**" shall mean the Board of Directors of the Authority.
3. "**City**" shall mean the City of Houston, Texas.
4. "**Customer**" shall mean any person receiving water from the Authority or a Participant, including the Participant itself.
5. "**DCP**" shall mean a drought contingency plan that contains the elements required under 30 TAC § 288.20–22, as appropriate.
6. "**General Manager**" shall mean the General Manager of the Authority or its designee.
7. "**Ordinances**" shall mean Chapter 47, Article VII, Division 2, entitled *Shortages and Emergencies*, of the City's Code of Ordinances.
8. "**Participant**" shall mean any well owner whose well is included under the Authority's Harris-Galveston Subsidence District aggregate water well permit.
9. "**Plan**" shall mean this Water Supply Management and Drought Contingency Plan.
10. "**Supply**" shall mean the water available to the Authority, as may be apportioned pursuant to Texas Water Code, Section 11.039, from the City pursuant to that certain Water Supply Contract between the City and the Authority, dated December 16, 2002, as may be amended from time to time.

ARTICLE II. GENERAL

1. **Approval of the Plan.**

The Board has approved and adopted this Plan and its provisions are effective immediately and will be implemented by the Authority in accordance with the terms stated herein.

2. Public Involvement.

The Authority has informed the public and wholesale water customers and affirmatively provided opportunity for input from the public and from wholesale water customers regarding the DCP. Such provision included notifying the public and wholesale water customers of the Authority's public meeting regarding the proposed DCP, notice of which was given pursuant to the Open Meetings Act prior to the Authority's public meeting.

3. Education and Information.

(A) The Authority will institute an educational program to promote the Plan. This program may include, but is not limited to any of the following:

(i) Publication of articles in a newspaper or newsletter of general circulation in the Authority's service area, providing information regarding the Plan; and

(ii) Direct distributions to all Participants explaining the Plan.

(B) Additional current public educational activities consist of (i) publishing an annual newsletter distributed to more than 150,000 homes in the Authority's service area that includes features about using water more efficiently and provides useful information on water saving techniques; (ii) holding annual workshops for elementary and intermediate science and social studies teachers in the school districts within the Authority; (iii) providing water conservation educational materials for use in grades 2-7; (iv) providing mobile teaching labs containing water conservation exhibits and displays that travel to elementary and intermediate schools within the Authority's boundaries, as well as to community events and festivals; (v) providing speakers for community, civic, and service organizations (e.g., AARP, garden clubs, YMCAs, etc.) as well as conducting public workshops on a variety of conservation topics, including coping with drought, native landscaping, and irrigation methods designed to use water more efficiently; and (vi) engaging in any community or public outreach program that will help further the Plan.

4. Coordination with Regional Water Planning Groups.

The Authority is located within the Region H Regional Water Planning Group and the Authority will provide a copy of the Plan to the Region H Regional Water Planning Group.

5. Authorization.

The General Manager is authorized to implement this Plan upon determining that implementation is necessary to protect public health, safety and welfare. The General Manager has the authority to initiate or terminate the water shortage response measures described in this Plan or any other measures that the General Manager, in its sole discretion, determines to be necessary to protect public health, safety and welfare.

6. Application.

The provisions of the Plan apply to all Participants and Customers. All Participants must adopt this Plan or a DCP with more stringent requirements than this Plan. Upon the Authority implementing any stage of this Plan, each Participant shall implement at least the same stage of its DCP, but a Participant may implement any higher stage of its DCP at its own discretion.

7. Water Shortage Response Measures Cumulative.

The water shortage response measures outlined in this Plan shall be cumulative of any other steps the Authority is otherwise authorized to implement under Texas law or other rules/orders of the Authority, specifically including its Rate Order, to accomplish the purposes for which the Authority was created.

8. Severability.

It is hereby declared to be the intention of the Board that the sections, paragraphs, sentences, clauses, and phrases of this Plan 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 without the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph or section.

9. Update Schedule.

In accordance with Texas Administrative Code § 288.30(6), the Authority will continue to review and update this Plan every five (5) years hereafter to coincide with the planning cycle of the State's Regional Water Planning Group.

**ARTICLE III.
TRIGGERS AND RESPONSE MEASURES**

1. Criteria and Actions Required for Response Stages.

(A) The General Manager will monitor water supply conditions on a monthly basis and, upon the Authority delivering to Participants more than 100% of the Supply together with the occurrence one of the triggers listed below, initiate or terminate each stage of the DCP. The Authority will notify Participants of the initiation or termination of each stage by mail, telephone, email, and/or the Authority's website. The news media may also be informed. The Authority will notify the Executive Director of the Texas Commission on Environmental Quality within five (5) business days of implementing any stage of this Plan requiring implementation of mandatory response measures by Participants or Customers.

(B) Upon implementation of any stage of water shortage, the Authority's operator and/or the Authority's Program Manager will monitor the Supply, the daily volume of water delivered by the City and any notices from the City regarding water delivery reductions or

limitations. The Authority's operator and/or the Authority's Program Manager will also monitor the daily volume of water delivered by the Authority to each Participant and the total volume delivered to all Participants.

2. **Stage 1 Water Shortage.**

(A) Requirement for Initiation. A Stage 1 Water Shortage exists when the Authority is delivering to Participants more than 100% of the Supply for five (5) consecutive days and the City has declared a Stage 1 water shortage in accordance with the Ordinances.

(B) Requirements for Termination. A Stage 1 Water Shortage terminates when either the Authority delivers to Participants no more than 100% of the Supply for five (5) consecutive days or the City ends its Stage 1 water shortage. The Authority will inform Participants of the termination of the Stage 1 Water Shortage in the same manner as in its initiation.

(C) Goal. Achieve a five percent (5%) reduction of average total daily usage of water within the Authority.

(D) Response Measures. During a Stage 1 Water Shortage, the General Manager shall institute a water information management program. The General Manager may use U.S. mail, electronic mail, media, and other sources to disseminate information to Participants regarding implementing voluntary response measures, including, but not limited to the following:

(i) Requesting that Customers insulate water pipes rather than running water to protect pipes from freezing;

(ii) Requesting that Customers check for and repair all leaks, dripping faucets, and running toilets, and that Customers utilize water conservation measures such as displacement bags, low-flow shower heads and leak detection tablets;

(iii) Requesting Customers to limit irrigation to the hours between 12:01 a.m. and 10:00 a.m. or between 8:00 p.m. and midnight on no more than two days per week, on Sundays and Thursdays for Customers with even-numbered street addresses and on Saturdays and Wednesdays for Customers with odd-numbered street addresses; and

(iv) Advising Customers that mandatory measures may be imposed if the water shortage period continues.

3. **Stage 2 Water Shortage.**

(A) Requirement for Initiation. A Stage 2 Water Shortage exists when the Authority is delivering to Participants more than 100% of the Supply for five (5) consecutive days and the City has declared a Stage 2 water shortage in accordance with the Ordinances.

(B) Requirements for Termination. A Stage 2 Water Shortage terminates when either the Authority delivers to Participants no more than 100% of the Supply for five (5) consecutive days or the City ends its Stage 2 water shortage. The Authority will inform Participants of the Stage 2 Water Shortage in the same manner as in its initiation.

(C) Goal. Achieve a 10 percent (10%) reduction of average total daily usage of water within the Authority.

(D) Response Measures.

(i) The measure(s) established for a Stage 1 Water Shortage shall continue to be implemented, except as modified below; and

(ii) During a Stage 2 water shortage, Customers are required to:

(a) Repair detectible water leaks within 72 hours of discovery;
and

(b) Limit outdoor irrigation to the hours between 12:01 a.m. and 10:00 a.m. or between 8:00 p.m. and midnight on no more than two (2) days per week, on Sundays and Thursdays for customers with even-numbered street addresses and Saturdays and Wednesdays for customers with odd-numbered street addresses.

4. **Stage 3 Water Shortage.**

(A) Requirement for Initiation. A Stage 3 Water Shortage exists when the Authority is delivering to Participants more than 100% of the Supply for five (5) consecutive days and the City has declared a Stage 3 water shortage in accordance with the Ordinances. The Authority's operator and/or the Authority's Program Manager will continue to monitor the daily volume of water delivered by the City and monitor any notices from the City regarding water delivery reductions or limitations. The Authority's operator and/or the Authority's Program Manager will also continue to monitor the daily volume of water delivered to each Participant and the total volume delivered to all Participants.

(B) Requirements for Termination. A Stage 3 Water Shortage terminates when either the Authority delivers to Participants no more than 100% of the Supply for five (5) consecutive days or the City ends its Stage 3 water shortage. The Authority will inform Participants of the Stage 3 Water Shortage in the same manner as in its initiation.

(C) Goal. Achieve a 15 percent (15%) reduction of average total daily usage of water within the Authority.

(D) Response Measures.

(i) The measure(s) established for a Stage 1 Water Shortage and a Stage 2 Water Shortage shall continue to be implemented, except that use of water for ornamental, decorative, or scenic purposes such as fountains, reflecting pools, and water gardens, shall be prohibited; and

(ii) The Authority's operator and/or the Authority's Program Manager will initiate weekly contact with Participants receiving water from the Authority to discuss water supply and/or demand conditions and the possibility of pro rata curtailment of water supplies if water shortage conditions worsen.

5. Stage 4 Water Shortage.

(A) Requirement for Initiation. A Stage 4 Water Shortage exists when the Authority is delivering to Participants more than 100% of the Supply for five (5) consecutive days and the City has declared a Stage 4 water shortage in accordance with the Ordinances.

(B) Requirements for Termination. A Stage 4 Water Shortage terminates when either the Authority delivers to Participants no more than 100% of the Supply for five (5) consecutive days or the City ends its Stage 4 water shortage. The Authority will inform Participants of the Stage 4 Water Shortage in the same manner as in its initiation.

(C) Goal. Achieve a 20 percent (20%) reduction of average total daily usage of water within the Authority.

(D) Response Measures.

(i) The measures established for a Stage 1 Water Shortage, a Stage 2 Water Shortage and a Stage 3 Water Shortage shall continue to be implemented; and

(ii) The Authority may initiate allocation of water supplies to its Participants contractually entitled to receive water from the Authority on a pro rata basis, in accordance with Texas Water Code, Section 11.039.

6. Emergency Water Shortage.

(A) Requirement for Initiation. An Emergency Water Shortage exists when the Authority is unable to provide 100% of the Supply to Participants because of a failure in or damage to the Authority's water distribution system.

(B) Requirements for Termination. An Emergency Water Shortage terminates when the condition giving rise to its initiation no longer exist. The Authority will inform Participants of the termination of the Emergency Water Shortage in the same manner as in its initiation.

(C) Goal. Reduce delivery of water as appropriate to address the emergency condition.

(D) Response Measures.

(i) When an Emergency Water Shortage exists, the Authority will issue situation reports to Participants as frequently as the emergency condition dictates. The General Manager may call emergency meetings to discuss with Participants major operational

changes if it finds such action necessary during the progress of the Emergency Water Shortage. The Authority will advise Participants of the emergency condition every business day on the Authority website; and

(ii) The Authority may implement any water shortage response measures contained within this Plan, including without limitation, prohibiting water use for ornamental, decorative, or scenic purposes and/or allocating water supplies to Participants contractually entitled to receive water from the Authority on a pro rata basis, in accordance with Texas Water Code, Section 11.039.

ARTICLE IV. ENFORCEMENT AND VARIANCES

1. Enforcement.

All of the terms, conditions and duties imposed under this Plan shall constitute rules of the Authority. As such, any failure to comply with this Plan shall be a violation of the Authority's rules and shall be subject to enforcement according to the terms provided in the Authority's Rate Order.

2. Variances.

(A) The General Manager may, in writing, grant a temporary variance to this Plan if the General Manager determines, in its sole discretion, that failure to grant a variance will cause an emergency condition adversely affecting the public health, welfare, or safety and one or more of the following conditions are met:

(i) Compliance with this Plan cannot be accomplished during the duration of the water supply shortage for which the Plan is in effect; or

(ii) Alternative methods can be implemented to achieve the same level of reduction in water use and such reduction can be demonstrated.

(B) An entity requesting an exemption from the provisions of this Plan shall file a petition for variance with the General Manager within 14 days after the applicable stage of this Plan has been invoked. All petitions for variances shall be reviewed by the General Manager, and shall include the following:

(i) Name and address of the petitioner(s);

(ii) Detailed statement with supporting data and information as to how the implementation of this Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Plan;

(iii) Description of the relief requested;

(iv) Period of time for which the variance is sought;

(v) Alternative measures the petitioner is taking or proposes to take to meet the intent of this DCP and the compliance date; and

(vi) Other pertinent information.

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