

**DROUGHT CONTINGENCY PLAN
FOR
MEMORIAL VILLAGES WATER AUTHORITY**

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, and 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 Memorial Villages Water Authority, (the Water Authority), 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 the Water Authority by means of a Public Hearing held on August 26, 2011 at 8955 Gaylord Drive, Houston, Texas.

Section III: Public Education

The Water Authority will periodically provide the public with information about the Plan, including information about 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. This information will be provided by means direct mailings to all water customers and/or by press releases.

Section IV: Coordination with Regional Water Planning Groups

The service area of the Water Authority is located within Regional Water Planning Group H and the Water Authority has provided a copy of this Plan to the Regional Water Planning Group H by filing an executed copy of such to the San Jacinto River Authority, P.O. Box 329, Conroe, Texas, 77305-0329.

Section V: Authorization

The, General Manager or his/her designee is hereby authorized and directed to implement the applicable provisions of this 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 the Water Authority. The terms "person" and "customer" as used in the Plan include, but are not limited to, individuals, corporations, institutions, partnerships, schools, churches, associations, municipalities and all other legal entities.

Section VII: Definitions

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

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

Commercial and institutional water use: 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.

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 or alternative uses.

Customer: any individual, corporation, partnership, association or other legal entity using water supplied by the Water Authority.

Domestic water use: 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.

Even number address: street addresses, box numbers, or rural postal route numbers ending in 0, 2, 4, 6, or 8 and locations without addresses or alphanumeric endings.

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

Landscape irrigation use: water used for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including residential and commercial lawns, flower beds, gardens, golf courses, athletic fields, 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:

- (a) irrigation of landscape areas, including parks, athletic fields, right-of-way and medians and, golf courses, except as 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 other purposes other than fire fighting.

Odd numbered address: street addresses, box numbers, or rural postal route numbers ending in 1, 3, 5, 7, or 9.

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

The General Manager, or his/her designee, 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. Public notification of the initiation or termination of drought response stages shall be by means of direct mail to each customer or publication in a newspaper of general circulation within the service area of the Water Authority.

The triggering criteria described below are based on a statistical analysis of the vulnerability of the water supply and distribution systems including but not limited to the capacity of all water supply sources, water storage availability and the capacity of the pumping equipment used for distribution of water.

(a) Stage 1 - Mild Water Shortage Conditions

Requirements for initiation - Customers shall be requested to voluntarily conserve water and adhere to the prescribed restrictions on certain water uses, defined in Section VII – Definitions, when any one of the following conditions exists:

1. **When, pursuant to requirements specified in the Water Supply Contract Between The City of Houston, Texas and The Memorial Villages Water Authority, notification is received from the City of Houston requesting initiation of Stage 1 of the Drought Contingency Plan.**
2. **When (a) the specific capacity of the Water Authority's available water well(s) is equal to or less than 80 percent of the well's original specific capacity or, (b) the specific capacity of the Water Authority's surface**

water supply is equal to or less than 80 percent of the normal and customary delivery rate or (c) any combination of (a) or (b) that is equal to or less than 80 percent of the supply demand.

3. When total daily water demand equals or exceeds seven million five hundred thousand gallons for five consecutive days or eight million five hundred thousand gallons for a single day.
4. When the Peak Demand of the system equals or exceeds 80 percent of the total available distribution system capacity for a period two (2) hours or more.

Requirements for termination - 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 five consecutive days.

(b) Stage 2 - Moderate Water Shortage Conditions

Requirements for initiation - Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses provided in Section VII of this Plan when any one of the following conditions exists:

1. When, pursuant to requirements specified in the Water Supply Contract Between The City of Houston, Texas and The Memorial Villages Water Authority, notification is received from the City of Houston requesting initiation of Stage 2 of the Drought Contingency Plan.
2. When (a) the specific capacity of the Water Authority's available water well(s) is equal to or less than 85 percent of the well's original specific capacity or, (b) the specific capacity of the Water Authority's surface water supply is equal to or less than 85 percent of the normal and customary delivery rate or (c) any combination of (a) or (b) that is equal to or less than 85 percent of the supply demand.
3. When total daily water demand equals or exceeds seven million eight hundred thousand gallons for five consecutive days or nine million gallons for a single day.
4. When the Peak Demand of the system equals or exceeds 85 percent of the total available distribution system capacity for a period two (2) hours or more.

Requirements for termination - Stage 2 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 5 consecutive days. Upon termination of Stage 2, Stage 1 becomes operative.

(c) Stage 3 - Severe Water Shortage Conditions

Requirements for initiation - Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses for Stage 3 of this Plan when any one of the following conditions exists:

1. **When, pursuant to requirements specified in the Water Supply Contract Between The City of Houston, Texas and The Memorial Villages Water Authority, notification is received from the City of Houston requesting initiation of Stage 3 of the Drought Contingency Plan.**
2. **When (a) the specific capacity of the Water Authority's available water well(s) is equal to or less than 90 percent of the well's original specific capacity or, (b) the specific capacity of the Water Authority's surface water supply is equal to or less than 90 percent of the normal and customary delivery rate or (c) any combination of (a) or (b) that is equal to or less than 90 percent of the supply demand.**
3. **When total daily water demand equals or exceeds eight million gallons for five consecutive days or nine million five hundred thousand gallons for a single day.**
4. **When the Peak Demand of the system equals or exceeds 85 percent of the total available distribution system capacity for a period two (2) hours or more.**

Requirements for termination - Stage 3 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 5 consecutive days. Upon termination of Stage 3, Stage 2 becomes operative.

(d) Stage 4 - Critical Water Shortage Conditions

Requirements for initiation - Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses for Stage 4 of this Plan when any one of the following conditions exists:

1. **When, pursuant to requirements specified in the Water Supply Contract Between The City of Houston, Texas and The Memorial Villages Water Authority, notification is received from the City of Houston requesting initiation of Stage 4 of the Drought Contingency Plan.**

2. When (a) the specific capacity of the Water Authority's available water well(s) is equal to or less than 95 percent of the well's original specific capacity or, (b) the specific capacity of the Water Authority's surface water supply is equal to or less than 95 percent of the normal and customary delivery rate or (c) any combination of (a) or (b) that is equal to or less than 95 percent of the supply demand.
3. When total daily water demand equals or exceeds eight million five hundred thousand gallons for five consecutive days or nine million eight hundred thousand gallons for a single day.
4. When the Peak Demand of the system equals or exceeds 85 percent of the total available distribution system capacity for a period two (2) hours or more.

Requirements for termination - Stage 4 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 5 consecutive days. Upon termination of Stage 4, Stage 3 becomes operative.

(e) Stage 5 - Emergency Water Shortage Conditions

Requirements for initiation - Customers shall be required to comply with the requirements and restrictions for Stage 5 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 unprecedented loss of capability to provide water service; or
2. Natural or man-made contamination of the water supply source(s).

Requirements for termination - Stage 5 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 3 consecutive days.

Section IX: Drought Response Stages

The General Manager, or his/her designee, 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, severe, critical, or emergency condition exists and shall implement the following actions upon direct mail notification or publication of notice in a newspaper of general circulation:

Stage 1 - Mild Water Shortage Conditions

Goal: Achieve a voluntary 15 percent reduction in total water use or 10% reduction in the Total Peak Demand.

Supply Management Measures:

To manage limited water supplies and/or reduce water demand, the following will be implemented directly by Water Authority.

- 1. Reduce or discontinue flushing of water mains.**
- 2. Reduce or discontinue flushing of fire hydrants**
- 3. Restrict use of water from fire hydrants by contractors**
- 4. Reduce or discontinue irrigation of public landscaped areas**
- 5. Reduce system pressure to a maximum of 55 psi**

Voluntary Water Use Restrictions:

- (a) Water customers are requested to voluntarily limit the irrigation of landscaped areas. Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems shall be limited as follows: For customers with a street address ending in an even number (0, 2, 4, 6 or 8), it is permissible to irrigate landscapes only between the hours of 8:00 p.m. and 12:00 midnight. For water customers with a street address ending in an odd number (1, 3, 5, 7 or 9), it is permissible to irrigate landscapes only between the hours of 4:00 a.m. and 8:00 a.m. However, irrigation of landscaped areas is permitted at anytime if it is by means of a hand-held hose, a faucet filled bucket or watering can of five (5) gallons or less, or drip irrigation system.
- (b) All operations of the Water Authority shall adhere to water use restrictions prescribed for Stage 2 of the Plan.
- (c) Water customers are requested to practice water conservation and to minimize or discontinue water use for non-essential purposes.

Stage 2 - Moderate Water Shortage Conditions

Goal: Achieve a 20 percent reduction in total water use or 15% reduction in the Total Peak Demand.

Supply Management Measures:

To manage limited water supplies and/or reduce water demand, the following will be implemented directly by Water Authority.

- 1. Reduce or discontinue flushing of water mains.**
- 2. Reduce or discontinue flushing of fire hydrants**
- 3. Restrict use of water from fire hydrants by contractors**
- 4. Reduce or discontinue irrigation of public landscaped areas**
- 5. Reduce system pressure to a maximum of 55 psi**

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

- (a) Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems shall be limited to Mondays, Wednesdays and Fridays for customers with a street address ending in an even number (0, 2, 4, 6 or 8), and Tuesdays, Thursdays and Saturdays for water customers with a street address ending in an odd number (1, 3, 5, 7 or 9), and irrigation of landscaped areas is further limited to the hours of 4:00 a.m. until 8:00 a.m. and between 8:00 p.m. and 12:00 midnight on designated watering days. However, irrigation of landscaped areas is permitted at anytime if it is by means of a hand-held hose, a faucet filled bucket or watering can of five (5) gallons or less, or drip irrigation system.
- (b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is prohibited except on designated watering days between the hours of 7:00 a.m. and 10:00 a.m. and between 7:00 p.m. and 10:00 p.m. Such washing, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff 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 vehicle 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 8:00 a.m. and 11:00 a.m. and between 6:00 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 where 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 only under special permit from the Water Authority.
- (f) All restaurants are prohibited from serving water to its patrons except when requested.
- (g) 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 3 - Severe Water Shortage Conditions

Goal: Achieve a 30 percent reduction in total water use or 20% reduction in the Total Peak Demand.

Supply Management Measures:

To manage limited water supplies and/or reduce water demand, the following will be implemented directly by Water Authority.

- 1. Discontinue flushing of water mains.**
- 2. Discontinue flushing of fire hydrants**
- 3. Prohibit use of water from fire hydrants**
- 4. Discontinue irrigation of public landscaped areas**
- 5. Begin use of alternative supply source(s)**
- 6. Reduce system pressure to a maximum of 50 psi**

Water Use Restrictions . All requirements of Stage 2 shall remain in effect during Stage 3 except:

- (a) Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems shall be limited to Mondays and Fridays for customers with a street address ending in an even number (0, 2, 4, 6 or 8), and Tuesdays and Saturdays for water customers with a street address ending in an odd number (1, 3, 5, 7 or 9), and irrigation of landscaped areas is further limited to the hours of 4:00 a.m. until 8:00 a.m. and between 8:00 p.m. and 12:00 midnight on designated watering days. However, irrigation of landscaped areas is permitted at anytime, on designated water days, if it is by means of a hand-held hose, a faucet filled bucket or watering can of five (5) gallons or less, or drip irrigation system.
- (b) The watering of golf course tees is prohibited unless the golf course utilizes a water source other than that provided by the Water Authority.
- (c) The use of water for construction purposes from designated fire hydrants under special permit is to be discontinued.

Stage 4 - Critical Water Shortage Conditions

Goal: Achieve a 50 percent reduction in total water use or 25% reduction in the Total Peak Demand.

Supply Management Measures:

To manage limited water supplies and/or reduce water demand, the following will be implemented directly by Water Authority.

1. **Discontinue flushing of water mains.**
2. **Discontinue flushing of fire hydrants**
3. **Prohibit use of water from fire hydrants**
4. **Discontinue irrigation of public landscaped areas**
5. **Begin use of alternative supply source(s)**
6. **Reduce system pressure to a maximum of 45 psi.**

Water Use Restrictions. All requirements of Stage 3 shall remain in effect during Stage 4 except:

- (a) Irrigation of landscaped areas shall be limited to designated watering days between the hours of 4:00 a.m. and 7:00 a.m. and between 9:00 p.m. and 12:00 midnight and shall be by means of hand-held hoses, hand-held buckets, or drip irrigation only. The use of hose-end sprinklers or permanently installed automatic sprinkler systems are prohibited at all times.
- (b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle not occurring on the premises of a commercial car wash and commercial service stations and not in the immediate interest of public health, safety, and welfare is prohibited. Further, such vehicle washing at commercial car washes and commercial service stations shall occur only between the hours of 8:00 a.m. and 10:00 a.m. and between 8:00 p.m. and 10:00 p.m.
- (c) The filling, refilling, or adding of water to swimming pools, wading pools, and jacuzzi-type pools is prohibited.
- (d) Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support aquatic life or where such fountains or ponds 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 5 – Emergency Water Shortage Conditions

Goal: A Achieve a 60 percent reduction in total water use or 30% reduction in the Total Peak Demand.

Supply Management Measures:

To manage limited water supplies and/or reduce water demand, the following will be implemented directly by Water Authority.

1. **Discontinue flushing of water mains.**
2. **Discontinue flushing of fire hydrants**
3. **Prohibit use of water from fire hydrants**
4. **Discontinue irrigation of public landscaped areas**
5. **Begin use of alternative supply source(s)**

6. Reduce system pressure to a maximum of 40 psi.

Water Use Restrictions. All requirements of Stage 4 shall remain in effect during Stage 5 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.

Section X: Enforcement

- (a) No person shall knowingly or intentionally use or allow the use of water from the Water Authority for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of the Plan. Use of water in a manner contrary to any provision of the Plan shall constitute an abuse of the Water Authority's water system.
- (b) If the General Manager determines that immediate corrective action is not necessary, he shall provide a written warning to a person in violation of the Plan by leaving a notice at the establishment at which the violation of the Plan occurred.
- (c) If it is determined that a violation of this Plan has occurred and the General Manager determines that immediate corrective action is necessary or the Water Authority has previously left a written warning at the same premises, the General Manager shall, after giving notice to the customer and an opportunity to dispute the determination that a violation has occurred or the existence of any extenuating circumstances, be authorized to discontinue water service to the premises where such violation occurred. Services discontinued under such circumstances shall be restored only upon payment of a re-connection charge, hereby established at \$25.00 if the customer is a residential customer or \$50.00 if the customer is a commercial customer, and any other costs incurred by the Water Authority in discontinuing service.
- (d) If a person is found to be in violation of this Plan for one or more additional times, the General Manager shall, after giving due notice to the customer and an opportunity to dispute the determination that a violation has occurred or the occurrence of any extenuating circumstances, be authorized to discontinue water service to the premises where such violation occurred and remove the meter. Water service shall be restored only after the Water Authority receives:
 - (1) payment of a reconnection charge of \$100 if the customer is a residential customer or \$150 if the customer is a commercial customer, which shall cover the cost to remove and reinstall the meter, and
 - (2) an affidavit of the customer or other proof provided by the customer and satisfactory to the General Manager that the customer has changed the customer's irrigation system or has taken other measures to assure further violations of the Plan do not occur.
- (e) If the Water Authority is required to pull a water meter due to violations of the Plan, water service will be restored only in the normal course of business and not on an emergency basis once the customer has satisfied the requirements for restoration of service.

- (f) Any person, including a person classified as a water customer of the Water Authority, in apparent control of the property where a violation of the Plan occurs or originates shall be presumed to be the violator, and proof that the violation occurred on the person's property shall constitute a rebuttable presumption that the person in apparent control of the property committed the violation, but any such person shall have the right to show that he/she did not commit the violation. Owners shall be presumed to be responsible for violations by their yard men or landscapers and shall be responsible for insuring that their irrigation systems are set in compliance with the Plan.
- (g) Parents shall be presumed to be responsible for violations of their minor children, and proof that a violation, committed by a child, occurred on property within the parents' control shall constitute a rebuttable presumption that the parent committed the violation, but any such parent may be excused if he/she proves that he/she had previously directed the child not to use the water as it was used in violation of this Plan and that the parent could not have reasonably known of the violation.
- (h) Compliance with the Plan may also be sought through injunctive relief in the appropriate court of jurisdiction in Harris County, Texas.

Section XI: 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 Order shall file a petition for variance with the Water Authority within 5 days after the Plan or a particular drought response stage has been invoked. All petitions for variances 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 provision(s) of the Plan from 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 the Water Authority shall be subject to the following conditions, unless waived or modified by the General Manager or his/her designee:

- (a) Variances granted shall include a timetable for compliance.
- (b) Variances 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 Supervisors of Memorial Villages Water Authority that the sections, paragraphs, sentences, clauses, and phrases of this Order 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 Supervisors without the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph, or section.