

# City of Mesquite 2019 Drought Contingency and Emergency Management Plan



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# 1. INTRODUCTION AND PURPOSE

Water supply has always been a key issue in the development of Texas. In recent years, the increasing population and economic development of North Central Texas have led to growing demands for water supplies. At the same time, local and less expensive sources of water supply are already largely developed. Additional supplies to meet future demands will be expensive and difficult to secure. It is therefore important to make efficient use of our existing supplies and make them last as long as possible. This will delay the need for new supplies, minimize the environmental impacts associated with developing new supplies, and delay the high cost of additional water supply development.

Recognizing the need for efficient use of existing water supplies, the Texas Commission on Environmental Quality (TCEQ) has developed guidelines and requirements governing the development of water conservation and drought contingency plans for public water suppliers. The City of Mesquite (City) has developed this Drought Contingency and Emergency Management Plan pursuant to TCEQ guidelines and requirements (see Appendix A, TAC Title 30, Chapter 288, Subchapter B, Rules 288.20 and 288.22. respectively).

The Drought Contingency and Emergency Management Plan (Plan) address strategies designed to temporarily reduce water use in response to specific conditions as follows:

- To conserve the available water supply in times of drought or emergency
- To maintain supplies for domestic water use, sanitation, and fire protection
- To protect and preserve public health, welfare, and safety
- To minimize the adverse impacts of water supply shortages
- To minimize the adverse impacts of emergency water supply conditions

The main objective of this Drought Contingency and Emergency Management Plan is to have mechanisms in place to preserve supplies for essential uses under drought, water supply shortage, water emergency conditions, or other supply interruptions. This Plan has been developed in concert with the model plans for the NTMWD Member Cities and Customers, as well as coordination with other regional water suppliers. It should be noted that the effectiveness of the Plan is impacted by the availability and allocation of the water supply during water supply shortages and the level of customer compliance with the strategies outlined in this Plan. These factors are dynamic and, if circumstances warrant, modifications to the strategies may be necessary. Therefore, this Plan, as approved by City Council, gives the City Manager the authority to modify the strategies in the Plan as conditions warrant.

Water uses regulated or prohibited under this Plan are considered to be non-essential and continuation of such uses during times of water shortage or other emergency water supply conditions is deemed to constitute a waste of water which subjects the violator(s) to penalties as provided in Section 16-13, Chapter 16 of the Code of the City of Mesquite, Texas. (See Appendix D)

The City of Mesquite is located on the eastern edge of Dallas County, and is bordered by the cities of Dallas, Garland, Sunnyvale, and Balch Springs. As of May 2019, the City's current population is 143,350

with 54,761 metered water utility connections. The City currently operates three pumping facilities at Barnes Bridge (North), Hailey (Central), and Southeast Mesquite (South). The ground storage capacity is 24.5 million gallons. The City also utilizes elevated storage tanks to meet peak-day water demands, replenishing the storage when the demand is lower. These towers, located at Town East, Big Town, McKenzie, and Peachtree, have a total storage capacity of 9.5 million gallons. The total combined system has a pumping capacity of approximately 64 million gallons.

The City purchases treated water from the North Texas Municipal Water District (NTMWD or the District). The NTMWD is a regional wholesale supplier for 13 Member Cities and numerous other customers in Collin, Dallas, Denton, Rockwall, Kaufman, Hunt, Hopkins, Fannin and Rains Counties in North Central Texas. The City provides wholesale water to Kaufman County MUD 9-12.

## 2. DEFINITIONS

1. AQUATIC LIFE means organisms dependent upon an aquatic environment to sustain its life.
2. ATHLETIC FIELD means a sports playing field, the essential feature of which is turf grass, used primarily for organized sports practice, competition or exhibition events for schools, professional sports, or sanctioned league play.
3. CITY MANAGER means the City Manager of the City of Mesquite, Texas, or designee.
4. COMMERCIAL FACILITY means business or industrial buildings and the associated landscaping, but does not include the fairways, greens, or tees of a golf course.
5. COOL SEASON GRASSES are varieties of turf grass that grow best in cool climates primarily in northern and central regions of the U.S. Cool season grasses include perennial and annual rye grass, Kentucky blue grass and fescues and others.
6. COSMETIC POWER WASHING means treatment or cleaning of a surface with specialized equipment that uses a spray of or directed water for the cosmetic cleaning of buildings, vehicles or other mobile equipment, or outdoor surfaces. It does not include industrial cleaning, cleaning associated with manufacturing activities, hazardous or toxic waste cleaning, or cleaning necessary to remove graffiti.
7. DESIGNATED OUTDOOR WATER USE DAY means a day prescribed by rule on which a person is permitted to water outdoors.
8. DRIP IRRIGATION sometimes known as trickle irrigation, or micro-irrigation, is a method of low volume, low pressure water application on the landscape from a series of valves, pipes, tubes and emitters delivering water at a rate of 0.16 up to 4 gallons per hour (GPH).
9. DROUGHT, for the purposes of this report, means an extended period of time when an area receives insufficient amounts of rainfall to replenish the water supply, causing water supply sources (in this case reservoirs) to be depleted.
10. EVAPOTRANSPIRATION abbreviated as ET represents the amount of water lost from plant material and soils through transpiration and evaporation. The amount of ET can be estimated based on the temperature, wind, and relative humidity.
11. ET/SMART CONTROLLERS are irrigation controllers that adjust their schedule and run times based on weather (ET) data. These controllers are designed to replace the amount of water lost to evapotranspiration.
12. EXECUTIVE DIRECTOR means the Executive Director of the North Texas Municipal Water District and includes a person the Director has designated to administer or perform any task, duty, function, role, or action related to this plan or on behalf of the Executive Director.

13. FOUNDATION WATERING means an application of water to the soils directly abutting the foundation of a building or structure.
14. GOVERNMENT PROPERTY means a property owned or operated by a federal, state, or local governmental unit, entity, agency, or subdivision for public purpose.
15. HOSE-END SPRINKLER means an above-ground water distribution device that may be attached to a garden hose<sup>3</sup>.
16. MULTI-FAMILY PROPERTY means a property containing five or more dwelling units.
17. NEW LANDSCAPING means living vegetation comprised of turf grasses, trees, shrubs, groundcovers, and annual or perennial herbaceous plants used ornamentally. Does not include fruits or vegetables.
18. ORNAMENTAL FOUNTAIN means an artificially created structure from which a jet, stream, or flow of water emanates and is not utilized for the preservation of aquatic life.
19. PERMANENTLY INSTALLED IRRIGATION SYSTEM means a custom-made, site-specific system of delivering water generally for landscape irrigation via a system of pipes or other conduits, valves, heads, or other equipment installed below ground.
20. POND is a still body of water with a surface area of 500 square feet or more.
21. RAIN/FREEZE SENSOR means a device designed to stop the flow of water to an automatic irrigation system when rainfall or freeze event has been detected.
22. RECLAIMED WATER means reclaimed municipal wastewater that has been treated to a quality that meets or exceeds the minimum standards of the 30 Texas Administrative Code, Chapter 210 and is used for lawn irrigation, industry, or other non-potable purposes.
23. RESIDENTIAL FACILITY means a site with four or fewer dwelling units.
24. RESIDENTIAL GALLONS PER CAPITA PER DAY (Residential gpcd) the total gallons sold for residential use by a public water supplier divided by the residential population served and then divided by the number of days in the year<sup>6</sup>.
25. SOAKER HOSE means a perforated or permeable garden-type hose or pipe that is laid above ground that provides irrigation at a slow and constant rate.
26. SWIMMING POOL means any structure, basin, chamber, or tank including hot tubs, containing an artificial body of water for swimming, diving, or recreational bathing, and having a depth of two (2) feet or more at any point.
27. TOTAL GALLONS PER CAPITA PER DAY (Total gpcd) the total amount of water diverted and/or pumped for potable use divided by the total permanent population divided by the days of the

year. Diversion volumes of reuse as defined in TCA Chapter 288.1 shall be credited against total diversion volumes for the purposes of calculating gpcd for targets and goals. (TAC Chapter 288.1)

28. VEGETABLE/COMMUNITY GARDEN means any non-commercial vegetable garden planted primarily for household use; "non-commercial" includes incidental direct selling of produce from such a vegetable garden to the public.
29. VEHICLE WASH FACILITY means a permanently-located business that washes vehicles or other mobile equipment with water or water-based products, including but not limited to self-service car washes, full service car washes, roll-over/in-bay style car washes, and facilities managing vehicle fleets or vehicle inventory.
30. WATER SHORTAGE means a condition in which existing or projected water supply or delivery available to City customers is not anticipated to meet, or cannot meet, the ordinary water requirements of these customers.
31. WHOLESALE WATER CUSTOMER means any water supplier that receives all or a portion of its treated water supply directly from the City of Mesquite.

## **3. DROUGHT CONTINGENCY AND EMERGENCY MANAGEMENT PLAN**

### **3.1 Introduction**

The Drought Contingency and Emergency Management Plan (Plan) is intended to provide short-term water savings during drought or emergency conditions. The purpose of this Plan is as follows:

- To conserve the available water supply in times of drought, water supply shortage, and emergency
- To maintain supplies for domestic water use, sanitation, and fire protection
- To protect and preserve public health, welfare, and safety
- To minimize the adverse impacts of water supply shortages
- To minimize the adverse impacts of emergency water supply conditions

In the absence of drought response measures, demand tends to increase during a drought due to increased demand for lawn irrigation. The severity of a drought depends on the degree of depletion of supplies and on the relationship of demand to available supplies. The City receives all treated water from NTMWD. The NTMWD considers a drought to end when all of its supply reservoirs refill to near conservation storage pool level.

It is important to note that a water supply shortage can be the result of drought or the result of conditions which may render all or some portion of the water supply unavailable. These conditions can include but are not limited to presence of invasive species, contamination of the water supply, or infrastructure failure.

The Drought Contingency and Emergency Management Plan applies to all metered water users utilizing the City of Mesquite's public water supply and consists of **three (3) stages** and will be initiated based on criteria set forth in the Plan. This 2019 Drought Contingency and Emergency Management Plan will replace the plan dated September 2015 titled "Drought Contingency and Emergency Management Plan".

### **3.2 Provisions to Inform the Public and Opportunity for Public Input**

Opportunity for the public and our wholesale water customer(s) to provide input in the development of this Plan was provided by the City of Mesquite by the following means:

- Providing written notice of the proposed plan and the opportunity to comment on the plan through the local newspaper, the City of Mesquite website, and posted notice
- Holding a public meeting for input on the Plan at Mesquite City Hall on June 17 and approval of the ordinance adopting the Plan on July 1, 2019
- Making the plan available to the public through the City website
- Notifying wholesale customer(s) of the proposed plan
- Providing a copy of the draft version of this Plan to any person requesting it

Any time the Plan is activated or the Plan changes, the City will notify local media of the issues, the management stage (if applicable), and the specific actions required of the public. The information will also be publicized on the City's web site and through other media outlets. Notices on water bills will also be used as appropriate.

### **3.3 Public Education**

The City will periodically provide the public and its wholesale water customer(s) 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 of, but not limited to, an appropriate combination of the following items:

- Public service announcements on cable television and radio
- Newspaper articles and announcements
- Press releases, media alerts, and social media
- Water Conservation/Drought Contingency Hotline
- Water Conservation/Drought Contingency website
- Messages in utility bills
- Distribution of fact sheets, brochures, and pamphlets
- Mass mailings of notification letters
- Public meetings and education seminars
- Commercial, industrial, and institutional education seminars

### **3.4 Initiation and Termination of Management Stages**

The City may initiate and terminate stages of this plan as requested by the NTMWD when criteria they have set forth is determined by their Board of Directors, provided however, that the City Manager may also initiate stages based on a citywide emergency as described in this plan. In addition, the City Manager may impose alternative provisions, mandatory requirements, and restrictions within each stage which may be more or less restrictive than specified herein based on existing or projected conditions including but not limited to, changes in the City's distribution system, water quality concerns to protect the public health and safety, supply interruptions, or the need for additional water use reduction. Below are the NTMWD's and the City's criteria for initiation and termination of the stages of the plan.

#### **Initiation of a Drought Contingency/Emergency Management Stage**

The Executive Director, with the consent of the NTMWD Board of Directors, may order the implementation of a drought or emergency management stage when one (or more) of the trigger conditions for that stage is met. The following actions will be taken when a drought or emergency management stage is initiated:

- The public and retail water customers will be notified through local media that provides details of the reasons for initiation of the management stage
- Wholesale water customer(s) will be notified by mail, email, or telephone, or certified mail

- If any mandatory provisions of the Plan are activated, the City will notify the Executive Director of the NTMWD and TCEQ within 5 business days
- The Executive Director or City Manager may decide not to order the implementation of a management stage even though one or more of the trigger criteria for the stage is met. Factors which could influence such a decision include, but are not limited to, the time of the year, weather conditions, the anticipation of replenished water supplies, or the anticipation that additional facilities will become available to meet needs
- In the event of a citywide emergency, the order shall be made by public announcement in the City within twenty-four hours of implementation. In the event of an emergency of limited geographical extent, door-to-door notification shall be made by door hangers and/or in person, at which time the City Manager authorized state of emergency shall become immediately effective. Once an emergency has been declared, the City Manager may utilize supplemental public notifications including notices posted at City Hall, libraries, fire stations, post offices, major supermarkets, schools, major corporate centers, Chamber of Commerce, direct mail, television, radio, internet website announcement, social media, local television news, newspaper, and other news media to notify the public

#### **Termination of a Management Stage**

The NTMWD may order the termination of a management stage when the conditions for termination of the respective stage are met. The following actions will be taken when a drought or emergency management stage is terminated:

- The public and retail water customers will be notified through local media
- Wholesale water customer(s) will be notified by mail, email, or telephone, or certified mail
- When any mandatory provisions of the Plan that have been activated are terminated, the City will notify the Executive Director of the NTMWD and TCEQ within 5 business days
- The Executive Director or City Manager may decide not to order the termination of a management stage even though the conditions for termination of the stage are met. Factors which could influence such a decision include, but are not limited to, the time of the year, weather conditions, or the anticipation of potential changed conditions that warrant the continuation of the management stage
- The City may order termination of a city-initiated management stage at their discretion when it is determined the emergency has ceased to exist

### **3.5 Initiation and Termination Conditions for Stage One (1)**

Stage 1 may be initiated by the NTMWD if one or more of the following conditions exist:

- Water demand is projected to approach the limit of the permitted supply
- The storage level, as published by the Texas Water Development Board, in Lavon Lake is less than 70 percent of the total conservation pool capacity during the months of April through October or less than 60 percent of the total conservation pool capacity during the months of November through March.

- NTMWD has concern that Lake Texoma, Jim Chapman Lake, the East Fork Water Reuse Project, Main Stem Pump Station, or some other NTMWD source may be limited in availability within the next six (6) months.
- The Sabine River Authority has indicated that its Upper Basin water supplies used by NTMWD (Lake Tawakoni and/or Lake Fork) are in Stage 1
- Water demand exceeds 95 percent of the amount that can be delivered to customers for (3) three consecutive days.
- Water demand for all or part of the delivery system approaches delivery capacity because delivery capacity is inadequate.
- Supply source is interrupted or unavailable due to contamination, invasive species, equipment failure or other causes.
- Part of the system has a shortage in supply or damage to the equipment. The District may implement measure for only that portion of the system impacted.
- Water supply system is unable to deliver water due to the failure or damage of major water system components

In addition to NTMWD triggers provided above, in the event of a citywide emergency, the City Manager may order implementation of Stage 1 restrictions. The order shall be initiated by public announcement in the manner provided in Section 3.4 within twenty-four hours of implementation. A citywide emergency may be triggered in any of the following ways:

- The City's water demand exceeds 90 percent of the amount that can be delivered to customers for three consecutive days
- The City's water demand for all or part of the delivery system equals delivery capacity because delivery capacity is inadequate
- The City's water supply source becomes contaminated
- The City's water supply system is unable to deliver water due to the failure or damage of major water system components
- The City's water system experiences overhead water storage levels incapable of filling above 80 percent for three consecutive days

Stage 1 may be terminated by the City Manager when the circumstances that caused the initiation of Stage 1 no longer prevail. NTMWD may terminate Stage 1 due to:

- The Executive Director, with concurrence of the NTMWD Board of Directors, finds that condition warrant the termination of Stage 1.
- The storage level, as published by the Texas Water Development Board<sup>3</sup>, in Lavon Lake is greater than 75 percent of the total conservation pool capacity during the months of April through October or greater than 65 percent of the total conservation pool capacity during the months of November through March.
- Other circumstances that caused NTMWD initiation of Stage 1 no longer prevail.

### **Goal for Use Reduction and Actions Available under Stage 1**

The goal for water use reduction under Stage 1 is a **two percent (2%) reduction** in the amount of water obtained from NTMWD from the previous corresponding annual payment period prior to institution of drought restrictions. If circumstances warrant or if required by NTMWD, the City Manager can set a goal for greater or lesser water use reduction under State 1 in the City. The City Manager may order the implementation of any/all of the actions listed below, as deemed necessary to achieve a two percent reduction. Stage 1 includes implementation of the following management measures:

- Continue all actions in the Water Conservation Plan
- Notify wholesale customers of actions being taken and implement similar procedures
- Further accelerate public education efforts on ways to reduce water use
- Halt non-essential city government water use (examples include street cleaning, vehicle washing, operation of ornamental fountains, etc.)
- Encourage the public to wait until the current drought or emergency situation has passed before establishing new landscaping

### **Stage One Mandatory Requirements and Prohibitions (requires notification to TCEQ):**

- Limit landscape watering with sprinklers or irrigation systems at each service address to no more than **two days per week** between April 1 through October 31, and to **one day per week**, between November 1 through March 31. The City Manager is authorized to determine the most effective manner of implementing this requirement, whether it be by area of the City, by address, or other designation to assure that no undue burden is placed on water supply on the same days of the week. The City Manager shall notify retail and wholesale water customers as provided in Section 3.4 of this Plan. The following are **exceptions** to the applicable day of week watering limitation:
  - New landscaping associated with new construction may be watered as necessary for 30 days from the date of installation provided that a variance is obtained as provided in this Plan
  - Additional watering of landscapes (excluding lawns), trees, or building foundations may be provided by hand-held hose with a positive shutoff nozzle, dedicated irrigation drip zones, and soaker hoses up to two hours on any day, provided no runoff occurs
  - Golf courses may water greens and tee boxes without restrictions
  - Public athletic fields used for competition may be watered twice per week
  - Locations using other sources of water supply only for irrigation may irrigate without day of the week restrictions provided proper signage is employed. However, irrigation using alternative sources of supply is subject to all other restrictions applicable to this stage
- Prohibit hosing of paved areas, buildings, windows, or structures. Pressure washing of impervious surfaces is allowed

## **3.6 Initiation and Termination Conditions for Stage Two (2)**

Stage 2 may be initiated by the NTMWD if one or more of the following conditions exist:

- Water demand is projected to approach the limit of the permitted supply
- The water storage in Lavon Lake is less than 55 percent of the total conservation pool capacity during the months of April through October or less than 45 percent of the total conservation pool capacity during the months of November through March.
- The Sabine River Authority has indicated that its Upper Basin water supplies used by NTMWD (Lake Tawakoni and/or Lake Fork) are in a Stage 2.
- NTMWD has concern that Lake Texoma, Jim Chapman Lake, the East Fork Water Reuse Project, the Main Stem Pump Station or some other NTMWD source may be limited in availability within the next three (3) months
- Water demand exceeds 98 percent of the amount that can be delivered to customers for three consecutive days
- Water demand for all or part of the delivery system equals delivery capacity because delivery capacity is inadequate
- Supply source is interrupted or unavailable due to contamination, invasive species, equipment failure or other cause
- Water supply system is unable to deliver water due to the failure or damage of major water system components
- Part of the system has a shortage in supply or damage to equipment. NTMWD may implement measures for only that portion of the system impacted.

In addition to NTMWD triggers provided above, in the event of a citywide emergency, the City Manager may order implementation of Stage 2 restrictions. The order shall be initiated by public announcement in the manner proved in Section 3.4 within twenty-four hours of implementation. A citywide emergency may be triggered in any of the following ways:

- The City's water demand exceeds 95 percent of the amount that can be delivered to customers for three consecutive days
- The City's water demand for all or part of the delivery system exceeds delivery capacity because delivery capacity is inadequate
- The City's water supply source becomes contaminated
- The City's water supply system is unable to deliver water due to the failure or damage of major water system components
- The City's water system experiences overhead water storage levels that do no refill above 65 percent for three consecutive days

Stage 2 may be terminated by the City Manager when NTMWD terminates its Stage 2 condition or when the City Manager determines that the circumstances causing the initiation of Stage 2 no longer exist. NTMWD may terminate Stage 2 due to:

- The Executive Director, with concurrence of the NTMWD Board of Directors, finds that condition warrant the termination of Stage 2.

- The storage level, as published by the Texas Water Development Board<sup>3</sup>, in Lavon Lake is greater than 70 percent of the total conservation pool capacity during the months of April through October or greater than 60 percent of the total conservation pool capacity during the months of November through March.
- Other circumstances that caused the NTMWD's initiation of Stage 2 no longer prevail.

### **Goal for Use Reduction and Actions Available under Stage 2**

The goal for water use reduction under Stage 2 is a reduction of **ten percent (10%)** in the amount of water obtained from NTMWD from the previous corresponding annual payment period prior to initiation of drought restrictions. If circumstances warrant or if required by NTMWD, the City Manager can set a goal for greater or lesser water use reduction in the City. The City Manager may order the implementation of any/all of the actions listed below, as deemed necessary to achieve a ten percent reduction. Stage 2 includes implementation of the following management measures:

- Continue or initiate any/all actions available under the Water Conservation Plan and Stage 1
- Notify wholesale customer(s) of actions being taken and implement similar procedures

### **Stage Two Mandatory Requirements and Prohibitions (requires TCEQ notification):**

- Limit landscape watering with sprinklers or irrigation systems at each service address to **one day per week** between April 1 – October 31 and to **one day every other week** between November 1 through March 31. The City Manager is authorized to determine the most effective manner of implementing this requirement, whether it be by area of the City, by address, or other designation to assure that no undue burden is placed on water supply on the same days of the week. The City Manager shall notify retail and wholesale water customers as provided in Section 3.4 of this Plan. The following are **exceptions** to the applicable day of week watering limitation:
  - New landscaping associated with new construction may be watered as necessary for 30 days from the date of installation provided that a variance is obtained as set forth in this Plan
  - Trees, within a 10-foot radius of its trunk; shrubs; and building foundations may be watered up to two hours on designated days, as determined by City Manager, by hand-held hose, a dedicated irrigation drip zone, and/or a soaker hose provided no runoff occurs
  - Public athletic fields used for competition may be watered twice per week, unless further reductions become necessary
  - Golf course greens and tee boxes may be watered as needed
  - Locations using other sources of water supply only for irrigation may irrigate without day of the week restrictions provided proper signage is employed. However, irrigation using alternative sources of supply is subject to all other restrictions applicable to this stage

- Prohibit new sod, hydro seeding, hydro mulching, and sprigging Exception is for new construction provided that a variance is obtained as set forth in this Plan
- Existing private and public pools may add water to replace normal water loss but may not be drained and refilled. In the event of structural damage that is causing significant water loss, a variance may be obtained as set forth in this plan to drain and refill in order to repair cracks, leaks, or equipment to prevent further water loss
- Prohibit hosing of paved areas, buildings, structures, or windows except for commercial pressure washing of impervious surfaces for human health and safety purposes
- Vehicle wash fundraisers may only be conducted at commercial car washing facilities using the facility's equipment, provided that the owner's permission is obtained. Excessive runoff is not allowed
- Prohibit the operation of all spray ground water parks or other water spray recreation activities that do not treat and recirculate water
- Initiate a rate surcharge as requested by NTMWD or as deemed necessary by the City Manager

### **3.7 Initiation and Termination Conditions for Stage Three (3)**

Stage 3 may be initiated by the NTMWD, with the concurrence of the NTMWD Board of Directors, if one or more of the following conditions exist:

- Water demand is projected to approach or exceed the limit of the permitted supply
- The storage level, as published by the Texas Water Development Board in Lavon Lake is less than 30 percent of the total conservation pool capacity during the months of April through October or less than 20 percent of the total conservation pool capacity during the months of November through March.
- The Sabine River Authority has indicated that its Upper Basin water supplies used by NTMWD (Lake Tawakoni and/or Lake Fork) are in Stage 3.
- The supply from Lake Texoma, Jim Chapman Lake, the East Fork Raw Water Reuse Project, the Main Stem Pump Station,, or some other NTMWD source has become limited in availability
- Water demand exceeds the amount that can be delivered to customers
- Water demand for all or part of the delivery system exceeds delivery capacity because delivery capacity is inadequate
- Supply source is interrupted or unavailable due to contamination, invasive species, equipment failure or other cause.
- Water supply system is unable to deliver water due to the failure or damage of major water system components
- Part of the system has a shortage in supply or damage to equipment. The District may implement measures for only that portion of the system impacted.

In addition to NTMWD triggers provided above, in the event of a citywide emergency, the City Manager may order implementation of Stage 3 restrictions. The order shall be initiated by public announcement in

the manner provided in Section 3.4 within twenty-four hours on implementation. A citywide emergency may be triggered in any of the following ways:

- The City's water demand exceeds the amount that can be delivered to customers
- The City's water demand for all or part of the delivery system seriously exceeds delivery capacity because the delivery capacity is inadequate
- The City's water supply source becomes contaminated
- The City's water supply system is unable to deliver water due to the failure or damage of major water system components
- The City's water system experiences water storage levels incapable of filling above 40 percent for three consecutive days

Stage 3 may be terminated by the City Manager when NTMWD terminates its Stage 3 condition or when the City Manager determines that the circumstances causing the initiation of Stage no longer exist. NTMWD may terminate Stage 3 due to:

- The Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the termination of Stage 3.
- The storage level, as published by the Texas Water Development Board<sup>3</sup>, in Lavon Lake is greater than 55 percent of the total conservation pool capacity during the months of April through October or greater than 45 percent of the total conservation pool capacity during the months of November through March.
- Other circumstances that caused the NTMWD's initiation of Stage 3 no longer prevail.

### **Goal for Use Reduction and Actions Available under Stage 3**

The goal for water use reduction under Stage 3 is a reduction of whatever amount is necessary in the amount of water obtained from NTMWD from the corresponding previous annual payment period prior to initiation of drought restrictions. **If circumstances warrant or if required by NTMWD, the City Manager can set a goal for greater or lesser water use reduction.** The City Manager may order the implementation of any/all of the actions listed below, as deemed necessary to achieve the necessary reduction. Stage 3 includes implementation of the following management measures:

- Continue or initiate any actions available under Conservation Plan, Stage 1 and Stage 2
- Notify wholesale customer(s) of actions being taken to implement similar procedures
- No new contract for a new wholesale customer shall be entertained unless there is an emergency situation

### **Stage 3 Mandatory Requirements and Prohibitions (requires TCEQ notification):**

- Prohibit all commercial and residential landscape/lawn watering. Trees, within a 10 foot radius of its trunk, and building foundations may be watered up to two hours on designated days, as

determined by City Manager, by a dedicated irrigation drip zone and/or a soaker hose provided no runoff occurs

- Prohibit installation of new landscaping, new sod, hydro seeding, hydro mulching, and sprigging
- Prohibit hosing of paved areas, buildings, windows, or structures, except for pressure washing of impervious surfaces for human health and safety
- Watering of golf courses and public athletic fields used for competition with potable water is prohibited unless a variance is obtained as set forth in this Plan
- Prohibit operation of all ornamental fountains or ponds that use potable water except where supporting aquatic life or where physical damage may occur
- Prohibit the filling, draining and refilling of existing swimming pools except to maintain structural integrity, proper operation and maintenance, or to alleviate a public safety risk. Existing pools may add water to replace losses from normal use and evaporation. Permitting of new swimming pools is prohibited
- Prohibit washing of vehicles except at commercial car wash facilities
- Prohibit the operation of interactive water features such as water sprays, dancing water jets, waterfalls, dumping buckets, shooting water cannons, or splash pads that are maintained for public recreation
- If necessary, require all commercial water users to reduce water use by a percentage established by the City Manager
- Initiate a rate surcharge as requested by NTMWD or as deemed necessary by the City Manager

### **3.8 Emergency Water Management**

In the event that initiation of Stage 3 measures do not provide sufficient conservation measures to maintain supplies for domestic water use, sanitation, and fire protection or protect and preserve health, welfare and safety, the City Manager may set forth additional measures necessary including, but not limited to, temporary prohibitions on certain aspects of new building and developments, water rationing, or locking irrigation systems to prevent use.

### **3.9 Procedure for Curtailment of Water Supplies**

Any mandatory reduction to deliveries from NTMWD to its Member Cities and Customers shall be distributed as required by Texas Water Code §11.039. In addition, every wholesale water supply contract entered into or renewed after adoption of this plan, including contract extensions, shall include a provision that water will be distributed on a pro rata basis in accordance with Texas Water Code §11.039 in case of a water shortage resulting from drought or water emergency. If a shortage of water results from drought, accident, or other cause, the water to be distributed shall be divided among all customers pro rata, including the City's wholesale customer(s), according to the amount each may be entitled to, so that preference is given to no one.

### **3.10 Wholesale Water Contracts**

Any wholesale water contract entered into or renewed after the adoption of this Plan, including any contract extensions, will contain language that in case of shortage of water resulting from a drought,

accident, loss of supply, or other cause, the water to be distributed shall be divided in accordance with Texas Water Code §11.039.

### **3.11 Procedure for Granting Variances to the Plan**

Procedures for granting variances to the Plan are outlined in Section 16-13, Chapter 16 of the Code of the City of Mesquite, Texas. (See Appendix D).

### **3.12 Enforcement of Mandatory Water Use Restrictions**

Procedures for the enforcement of mandatory water use restrictions, notice of violations, fines and penalties are outlined in Section 16-13, Chapter 16 of the Code of the City of Mesquite, Texas. (See Appendix D).

The City Manager is authorized to implement the applicable provisions of this Plan to protect public health, safety, and welfare. The City Manager shall have the authority to initiate or terminate drought or other emergency response measures as described in this Plan. The authority to implement and enforce this Plan is established in Chapter 16 of the Code of the City of Mesquite, Texas (see Appendix D).

### **3.13 Severability**

It is hereby declared to be the intention of the City 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.

### **3.14 Coordination with the Regional Water Planning Groups**

In cooperation with other NTMWD member cities and other regional water providers, this Plan includes a three-stage drought plan. Regional water providers, including the North Texas Municipal Water District, Tarrant Regional Water District, Upper Trinity River Water District, and the Dallas Water Utilities, have all adopted a three-stage drought plan. The City of Mesquite will provide a copy of this Plan to the Chairs of the Region C and Region D water planning groups (see transmittal letters in Appendix C) and will continue to work with the regional planning groups to improve efficient utilization of existing water resources and water conservation practices.

### **3.15 Review and Update of Drought Contingency and Emergency Management Plan**

As required by TCEQ rules, the City of Mesquite will review this Plan every five years. The plan will be updated as appropriate based on new or updated information.

### **3.16 Adoption of the Plan**

Appendix D contains a copy of the Ordinance adopting the 2019 Drought Contingency and Emergency Management Plan, approved on July 1, 2019 by Mesquite City Council.

## APPENDIX A

# Texas Administrative Code

<u>TITLE 30</u>	ENVIRONMENTAL QUALITY
<u>PART 1</u>	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
<u>CHAPTER 288</u>	WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS
<u>SUBCHAPTER B</u>	DROUGHT CONTINGENCY PLANS
<b>RULE §288.20</b>	<b>Drought Contingency Plans for Municipal Uses by Public Water Suppliers</b>

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(a) A drought contingency plan for a retail public water supplier, where applicable, must include the following minimum elements.

(1) Minimum requirements. Drought contingency plans must include the following minimum elements.

(A) Preparation of the plan shall include provisions to actively inform the public and affirmatively provide opportunity for public input. Such acts may include, but are not limited to, having a public meeting at a time and location convenient to the public and providing written notice to the public concerning the proposed plan and meeting.

(B) Provisions shall be made for a program of continuing public education and information regarding the drought contingency plan.

(C) The drought contingency plan must document coordination with the regional water planning groups for the service area of the retail public water supplier to ensure consistency with the appropriate approved regional water plans.

(D) The drought contingency plan must include a description of the information to be monitored by the water supplier, and specific criteria for the initiation and termination of drought response stages, accompanied by an explanation of the rationale or basis for such triggering criteria.

(E) The drought contingency plan must include drought or emergency response stages providing for the implementation of measures in response to at least the following situations:

(if) reduction in available water supply up to a repeat of the drought of record;

- (ii) water production or distribution system limitations;
  - (iii) supply source contamination; or
  - (iv) system outage due to the failure or damage of major water system components (e.g., pumps).
- (F) The drought contingency plan must include specific, quantified targets for water use reductions to be achieved during periods of water shortage and drought. The entity preparing the plan shall establish the targets. The goals established by the entity under this subparagraph are not enforceable.
- (G) The drought contingency plan must include the specific water supply or water demand management measures to be implemented during each stage of the plan including, but not limited to, the following:
- (i) curtailment of non-essential water uses; and
  - (ii) utilization of alternative water sources and/or alternative delivery mechanisms with the prior approval of the executive director as appropriate (e.g., interconnection with another water system, temporary use of a non-municipal water supply, use of reclaimed water for non-potable purposes, etc.).
- (H) The drought contingency plan must include the procedures to be followed for the initiation or termination of each drought response stage, including procedures for notification of the public.
- (I) The drought contingency plan must include procedures for granting variances to the plan.
- (J) The drought contingency plan must include procedures for the enforcement of mandatory water use restrictions, including specification of penalties (e.g., fines, water rate surcharges, discontinuation of service) for violations of such restrictions.
- (2) Privately-owned water utilities. Privately-owned water utilities shall prepare a drought contingency plan in accordance with this section and incorporate such plan into their tariff.
- (3) Wholesale water customers. Any water supplier that receives all or a portion of its water supply from another water supplier shall consult with that supplier and shall include in the drought contingency plan appropriate provisions for responding to reductions in that water supply.
- (b) A wholesale or retail water supplier shall notify the executive director within five business days of the implementation of any mandatory provisions of the drought contingency plan.
  - (c) The retail public water supplier shall review and update, as appropriate, the drought contingency plan, at least every five years, based on new or updated information, such as the adoption or revision of the regional water plan.

# Texas Administrative Code

## TITLE 30

ENVIRONMENTAL QUALITY

## PART 1

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

## CHAPTER 288

WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS

## SUBCHAPTER B

DROUGHT CONTINGENCY PLANS

## **RULE §288.22**

**Drought Contingency Plans for Wholesale Water Suppliers**

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(a) A drought contingency plan for a wholesale water supplier must include the following minimum elements.

(1) Preparation of the plan shall include provisions to actively inform the public and to affirmatively provide opportunity for user input in the preparation of the plan and for informing wholesale customers about the plan. Such acts may include, but are not limited to, having a public meeting at a time and location convenient to the public and providing written notice to the public concerning the proposed plan and meeting.

(2) The drought contingency plan must document coordination with the regional water planning groups for the service area of the wholesale public water supplier to ensure consistency with the appropriate approved regional water plans.

(3) The drought contingency plan must include a description of the information to be monitored by the water supplier and specific criteria for the initiation and termination of drought response stages, accompanied by an explanation of the rationale or basis for such triggering criteria.

(4) The drought contingency plan must include a minimum of three drought or emergency response stages providing for the implementation of measures in response to water supply conditions during a repeat of the drought-of-record.

(5) The drought contingency plan must include the procedures to be followed for the initiation or termination of drought response stages, including procedures for notification of wholesale customers regarding the initiation or termination of drought response stages.

(6) The drought contingency plan must include specific, quantified targets for water use reductions to be achieved during periods of water shortage and drought. The entity preparing the plan shall establish the targets. The goals established by the entity under this paragraph are not enforceable.

(7) The drought contingency plan must include the specific water supply or water demand management measures to be implemented during each stage of the plan including, but not limited to, the following:

(A) pro rata curtailment of water deliveries to or diversions by wholesale water customers as provided in Texas Water Code, §11.039; and

(B) utilization of alternative water sources with the prior approval of the executive director as appropriate (e.g., interconnection with another water system, temporary use of a non-municipal water supply, use of reclaimed water for non-potable purposes, etc.).

(8) The drought contingency plan must include a provision in every wholesale water contract entered into or renewed after adoption of the plan, including contract extensions, that 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.

(9) The drought contingency plan must include procedures for granting variances to the plan.

(10) The drought contingency plan must include procedures for the enforcement of any mandatory water use restrictions including specification of penalties (e.g., liquidated damages, water rate surcharges, discontinuation of service) for violations of such restrictions.

(b) The wholesale public water supplier shall notify the executive director within five business days of the implementation of any mandatory provisions of the drought contingency plan.

(c) The wholesale public water supplier shall review and update, as appropriate, the drought contingency plan, at least every five years, based on new or updated information, such as adoption or revision of the regional water plan.

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**Source Note:** The provisions of this §288.22 adopted to be effective February 21, 1999, 24 TexReg 949; amended to be effective April 27, 2000, 25 TexReg 3544; amended to be effective October 7, 2004, 29 TexReg 9384

## APPENDIX B

### WATER CODE

#### TITLE 2. WATER ADMINISTRATION

##### SUBTITLE B. WATER RIGHTS

##### CHAPTER 11. WATER RIGHTS

Sec. §11.039. DISTRIBUTION OF WATER DURING SHORTAGE. (a) If a shortage of water in a water supply not covered by a water conservation plan prepared in compliance with Texas Natural Resource Conservation Commission or Texas Water Development Board rules results from drought, accident, or other cause, the water to be distributed shall be divided among all customers pro rata, according to the amount each may be entitled to, so that preference is given to no one and everyone suffers alike.

(b) If a shortage of water in a water supply covered by a water conservation plan prepared in compliance with Texas Natural Resource Conservation Commission or Texas Water Development Board rules results from drought, accident, or other cause, the person, association of persons, or corporation owning or controlling the water shall divide the water to be distributed among all customers pro rata, according to:

(1) the amount of water to which each customer may be entitled; or

(2) the amount of water to which each customer may be entitled, less the amount of water the customer would have saved if the customer had operated its water system in compliance with the water conservation plan.

(c) Nothing in Subsection (a) or (b) precludes the person, association of persons, or corporation owning or controlling the water from supplying water to a person who has a prior vested right to the water under the laws of this state.

Amended by Acts 1977, 65th Leg., p. 2207, ch. 870, Sec. 1, eff. Sept. 1, 1977; Acts 2001, 77th Leg., ch. 1126, Sec. 1, eff. June 15, 2001.

## **APPENDIX C**

### **Letters to Region C and Region D Water Planning Groups**



July 2, 2019

Mr. Kevin Ward  
Chair, Region C Water Planning Group  
Trinity River Authority  
P.O. Box 60  
Arlington, Texas 76004

Re: **2019 Water Conservation Plan and 2019 Drought Contingency & Emergency Management Plan for the City of Mesquite, Texas**

Dear Mr. Ward:

Enclosed please find a copy of the recently adopted Water Conservation Plan and the Drought Contingency and Emergency Management Plan for the City of Mesquite, Texas.

This Plan is being submitted to the Region C Water Planning Group in accordance with the Texas Water Development Board and Texas Commission on Environmental Quality rules.

The City of Mesquite City Council adopted these plans through Ordinance 4694 on July 1, 2019. Should you have any questions, please direct them to Kathy Fonville, Sustainability Program Coordinator, at 972-329-8300.

Sincerely,

Tim Abbott, Manager  
Utilities Division

Enclosures

cc: Resource Protection Team, TCEQ  
Texas Water Development Board  
Region D Water Planning Group  
North Texas Municipal Water District



July 2, 2019

Mr. Richard LeTourneau  
Chair, Region D Water Planning Group  
P.O. Box 12071  
Longview, TX 75607 Linda Price, Chair

Re: **2019 Water Conservation Plan and 2019 Drought Contingency & Emergency Management Plan for the City of Mesquite, Texas**

Dear Ms. Price:

Enclosed please find a copy of the recently adopted Water Conservation Plan and the Drought Contingency & Emergency Management Plan for the City of Mesquite, Texas.

This Plan is being submitted to the Region D Water Planning Group in accordance with the Texas Water Development Board and Texas Commission on Environmental Quality rules.

The City of Mesquite City Council adopted these plans through Ordinance 4691 on July 1, 2019. Should you have any questions, please direct them to Kathy Fonville, Sustainability Program Coordinator, at 972-329-8300.

Sincerely,

Tim Abbott, Manager  
Utilities Division

Enclosures

cc: Resource Protection Team, TCEQ  
Texas Water Development Board  
Region C Water Planning Group  
North Texas Municipal Water District

**APPENDIX D**

Ordinance Adopting City of Mesquite 2019 Drought Contingency  
and Emergency Management Plan

ORDINANCE NO. 4691

AN ORDINANCE OF THE CITY OF MESQUITE, TEXAS, AMENDING CHAPTER 16 OF THE MESQUITE CITY CODE, AS AMENDED, THEREBY ADOPTING THE MAY 2019 WATER CONSERVATION PLAN AND THE MAY 2019 DROUGHT CONTINGENCY AND EMERGENCY MANAGEMENT PLAN; PROVIDING A REPEALER CLAUSE; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING FOR A PENALTY NOT TO EXCEED TWO THOUSAND (\$2,000.00) DOLLARS FOR EACH OFFENSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, on September 21, 2015, the City Council duly passed Ordinance No. 4383, adopting the September 2015 Water Conservation Plan and the September 2015 Drought Contingency and Emergency Management Plan; and

WHEREAS, the City Council has reviewed the May 2019 Water Conservation Plan and the May 2019 Drought Contingency and Emergency Management Plan, hereto respectively as Exhibits "A" and "B," and incorporated herein by reference, and finds it is in the best interest of the City to adopt the same.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MESQUITE, TEXAS:

SECTION 1. That the City Council hereby adopts the May 2019 Water Conservation Plan and the May 2019 Drought Contingency and Emergency Management Plan, attached hereto respectively as Exhibits "A" and "B," as the official policies of the City of Mesquite.

SECTION 2. That Chapter 16 of the Mesquite City Code, as amended, is hereby amended by deleting Sections 16-12 in its entirety and adding a new Section 16-12 to read as follows, in all other respects said Code and Chapter to remain in full force and effect:

**Sec. 16-12. Adoption of Water Conservation Plan and Drought Contingency and Emergency Management Plan.**

The City Council of the City of Mesquite hereby adopts the May 2019 City of Mesquite Water Conservation Plan and the May 2019 Drought Contingency and Emergency Management Plan, which are incorporated herein by reference as if set forth in full. A copy of each Plan shall be kept on file in the office of the City Secretary. The City Manager is authorized to order that the appropriate stage of emergency response, as detailed in the emergency water management plan, be implemented. To be effective, the order must be:

- (a) made by public announcement; and
- (b) published in a newspaper of general circulation in the City within 24 hours after the public announcement, which order becomes immediately effective upon publication.

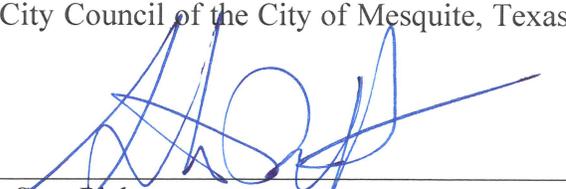
SECTION 3. That all ordinances or portions thereof in conflict with the provisions of this ordinance, to the extent of such conflict, are hereby repealed. To the extent that such ordinances or portions thereof are not in conflict herewith, the same shall remain in full force and effect.

SECTION 4. That should any word, sentence, clause, paragraph or provision of this ordinance be held to be invalid or unconstitutional, the remaining portions of this ordinance shall remain in full force and effect.

SECTION 5. That any person (as defined in Chapter 1, Section 1-2 of the Code of the City of Mesquite, Texas, as amended) violating any of the provisions or terms of this ordinance shall be deemed to be guilty of a Class C Misdemeanor and upon conviction thereof, shall be subject to a fine not to exceed Two Thousand (\$2,000.00) Dollars for each offense, provided, however, if the maximum penalty provided for by this ordinance for an offense is greater than the maximum penalty provided for the same offense under the laws of the State of Texas, the maximum penalty for violation of this ordinance for such offense shall be the maximum penalty provided by the laws of the State of Texas. Each day or portion of a day any violation of this ordinance continues shall constitute a separate offense.

SECTION 6. That this ordinance shall take effect and be in force from and after five days after publication.

DULY PASSED AND APPROVED by the City Council of the City of Mesquite, Texas, on the 1st day of July 2019.



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Stan Pickett  
Mayor

ATTEST:



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Sonja Land  
City Secretary

APPROVED:



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David L. Paschall  
City Attorney