MODEL WATER RESOURCE AND EMERGENCY MANAGEMENT PLAN
NORTH TEXAS MUNICIPAL WATER DISTRICT
MEMBER CITIES AND CUSTOMERS

APRIL 2014

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FORWARD

This Model Water Resource and Emergency Management Plan (which is an update to the previous Drought Contingency and Water Emergency Response Plan) was prepared by Freese and Nichols for the North Texas Municipal Water District (NTMWD). It is intended to be used by NTMWD Member Cities and Customers as a guide as they develop their own Water Resource and Emergency Management Plans. This plan was prepared pursuant to Texas Commission on Environmental Quality rules. Some material is based on the existing drought contingency plans listed in Appendix A.

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This Water Resource and Emergency Management plan is based on the Texas Administrative Code in effect on June 25, 2013.
WATER RESOURCE AND EMERGENCY MANAGEMENT PLAN
INSERT ENTITY NAME

APRIL 2014
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1. INTRODUCTION AND OBJECTIVES

This document has been prepared as a Model Water Resource and Emergency Management Plan, intended to be available for use by North Texas Municipal Water District (NTMWD) Member Cities and Customers as they develop their own plans. This model plan addresses all of the current TCEQ requirements for a drought contingency plan. This model plan will replace the plans dated August 2004, April 2006 and March 2008. The March 2008 model plan shall continue to apply until such time that the drought contingency or water emergency response stage currently in effect under the March 2008 model plan terminates and a less restrictive stage is applicable. At such time, this model plan shall take effect, replacing the March 2008 model plan, and the appropriate water resource management stage as provided in this model plan shall be initiated.

The measures included in this Model Water Resource and Emergency Management Plan are intended to provide short-term water savings during drought or emergency conditions. Water savings associated with ongoing, long-term strategies are discussed in the Model Water Conservation Plan for North Texas Municipal Water District Member Cities and Customers.

The purpose of this model Water Resource and Emergency Management plan is as follows:

- To conserve the available water supply in times of drought 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.

The NTMWD supplies treated potable water to its Member Cities and Customers. This model plan was developed by NTMWD in consultation with its Member Cities and Customers. In order to adopt this model plan, each NTMWD Member City and Customer will need to adopt ordinance(s) or regulation(s) implementing the plan, including the determination of fines and enforcement procedures. The model plan calls for Member Cities and Customers to adopt water resource management stages initiated by NTMWD during a drought or water supply emergency. Member Cities and Customers may also adopt more stringent water resource management stages than NTMWD if conditions warrant.
In the absence of drought response measures, water demands tend to increase during a drought due to increased outdoor irrigation. The severity of a drought depends on the degree of depletion of supplies and on the relationship of demand to available supplies. The NTMWD considers a drought to end when all of its supply reservoirs refill to the conservation storage pool.

1 Superscripted numbers match references listed in Appendix A.
2. DEFINITIONS

1. AQUATIC LIFE means a vertebrate organism dependent upon an aquatic environment to sustain its life.

2. ATHLETIC FIELD means a public sports competition 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. COMMERCIAL FACILITY business or industrial buildings and the associated landscaping, but does not include the fairways, greens, or tees of a golf course.

4. COMMERCIAL 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.

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.

6. CUSTOMERS include those entities to whom NTMWD provides water on a customer basis that are not members of NTMWD.

7. DESIGNATED OUTDOOR WATER USE DAY means a day prescribed by rule on which a person is permitted to irrigate outdoors.

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\[i\] Definitions from City of Austin Water Conservation and Drought Contingency Ordinance adopted August 16, 2012.


\[ii\] Definition from City of San Antonio Water Conservation Ordinance adopted 2005.

http://saws.org/conservation/ordinance/docs/Ch34_Ordinance_2009.pdf

\[iii\] Definition developed by Freese and Nichols, Inc.
8. DRIP IRRIGATION is a type of micro-irrigation system that operates at low pressure and delivers water in slow, small drips to individual plants or groups of plants through a network of plastic conduits and emitters; also called trickle irrigation. iv.

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 depletedv.

10. EVAPOTRANSPIRATION abbreviated as ET represents the amount of water lost from plant material to evaporation and transpiration. The amount of ET can be estimated based on the temperature, wind, and relative humidityiii.

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 evapotranspirationvii.

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 Directoriii.

13. FOUNDATION WATERING means an application of water to the soils directly abutting the foundation of a building structurei.

14. MEMBER CITIES include the cities of Allen, Farmersville, Forney, Frisco, Garland, McKinney, Mesquite, Plano, Princeton, Richardson, Rockwall, Royse City, and Wylie, Texas.

15. NEW LANDSCAPE means vegetation: installed at the time of the construction of a residential or commercial facility; installed as part of a governmental entity's capital improvement project; installed to stabilize an area disturbed by constructioni.

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iv Amy Vickers: Handbook of Water Use and Conservation, Amherst Massachusetts, June 2002

16. ORNAMENTAL FOUNTAIN means an artificially created structure (up to six feet in diameter) from which a jet, stream, valves and emission devices or flow of water emanates and is not typically utilized for the preservation of aquatic life.

17. PERMANANTLY 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 installed below ground.

18. 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.

19. 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.

20. 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.

21. SPRINKLER means an above-ground water distribution device that may be attached to a garden hose.

22. 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.

23. WATER RESOURCE MANAGEMENT PLAN means a strategy or combination of strategies for temporary supply management and demand management responses to temporary and potentially recurring water supply shortages and other water supply emergencies required by Texas Administrative Code Title 30, Chapter 288, Subchapter B. This is sometimes called a drought contingency plan.
3. **TEXAS COMMISSION ON ENVIRONMENTAL QUALITY RULES**

The TCEQ rules governing development of drought contingency plans for public water suppliers are contained in Title 30, Part 1, Chapter 288, Subchapter B, Rule 288.20 of the Texas Administrative Code, a current copy of which is included in Appendix B. For the purpose of these rules, a drought contingency plan is defined as “a strategy or combination of strategies for temporary supply and demand management responses to temporary and potentially recurring water supply shortages and other water supply emergencies.”¹

**Minimum Requirements**

TCEQ’s minimum requirements for drought contingency plans are addressed in the following subsections of this report:

- 288.20(a)(1)(A) – Provisions to Inform the Public and Provide Opportunity for Public Input – Section 4.1
- 288.20(a)(1)(B) – Provisions for Continuing Public Education and Information – Section 4.2
- 288.20(a)(1)(C) – Coordination with the Regional Water Planning Group – Section 4.6
- 288.20(a)(1)(F) – Specific, Quantified Targets for Water Use Reductions – Section 4.3
- 288.20(a)(1)(I) - Procedures for Granting Variances – Section 4.4
- 288.20(a)(1)(J) - Procedures for Enforcement of Mandatory Restrictions – Section 4.5
- 288.20(a)(3) – Consultation with Wholesale Supplier – Sections 1, 4.2, and 4.3
- 288.20(b) – Notification of Implementation of Mandatory Measures – Section 4.3
• 288.20(c) – Review and Update of Plan – Section 4.7
4. WATER RESOURCE AND EMERGENCY MANAGEMENT PLAN

4.1 PROVISIONS TO INFORM THE PUBLIC AND OPPORTUNITY FOR PUBLIC INPUT

Member Cities and Customers will provide opportunity for public input in the development of this Water Resource and Emergency Management Plan by the following means:

- Providing written notice of the proposed plan and the opportunity to comment on the plan by newspaper, posted notice, and notice on the supplier’s web site (if available).
- Making the draft plan available on the supplier’s web site (if available).
- Providing the draft plan to anyone requesting a copy.
- Holding a public meeting.

4.2 PROVISIONS FOR CONTINUING PUBLIC EDUCATION AND INFORMATION

Member Cities and Customers will inform and educate the public about the Water Resource and Emergency Management Plan by the following means:

- Preparing a bulletin describing the plan and making it available at city hall and other appropriate locations.
- Making the plan available to the public through the supplier’s web site (if available).
- Notifying local organizations, schools, and civic groups that staff are available to make presentations on the Water Resource and Emergency Management Plan (usually in conjunction with presentations on water conservation programs).
- At any time that the Water Resource and Emergency Management Plan is activated or the Water Resource and Emergency Management Plan changes, Member Cities and Customers will notify local media of the issues, the water resource management stage (if applicable), and the specific actions required of the public. The information will also be publicized on the supplier’s web site (if available). Billing inserts will also be used as appropriate.
4.3 INITIATION AND TERMINATION OF WATER RESOURCE AND EMERGENCY MANAGEMENT STAGES

Initiation of a Water Resource Management Stage

The City Manager, General Manager, Mayor, Chief Executive, or official designee may order the implementation of a water resource management stage when one or more of the trigger conditions for that stage is met. The following actions will be taken when a water resource management stage is initiated:

- The public will be notified through local media and the supplier’s web site (if available) as described in Section 4.2.
- Wholesale customers (if any) and the NTMWD will be notified by e-mail with a follow-up letter or fax that provides details of the reasons for initiation of the water resource management stage.
- If any mandatory provisions of the Water Resource and Emergency Management Plan are activated, Member Cities and Customers will notify the Executive Director of the TCEQ and the Executive Director of the NTMWD within 5 business days.
- Water Resource and Emergency Management Plan stages imposed by NTMWD action must be initiated by Member Cities and Customers.
- For other trigger conditions internal to a city or water supply entity, the City Manager, General Manager, Mayor, Chief Executive, or official designee may decide not to order the implementation of a water resource management stage or water emergency even though one or more of the trigger criteria for the stage are 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. The reason for this decision should be documented.

Termination of a Water Resource Management Stage

The City Manager, General Manager, Mayor, Chief Executive, or official designee may order the termination of a water resource management stage when the conditions for termination are met or at
their discretion. The following actions will be taken when a water resource management stage is terminated:

- The public will be notified through local media and the supplier’s web site (if available) as described in Section 4.2.
- Wholesale customers (if any) and the NTMWD will be notified by e-mail with a follow-up letter or fax.
- If any mandatory provisions of the Water Resource and Emergency Management plan that have been activated are terminated, Member Cities and Customers will notify the Executive Director of the TCEQ and the Executive Director of the NTMWD within 5 business days.

The City Manager, General Manager, Mayor, Chief Executive, or official designee may decide not to order the termination of a water resource 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 water resource management stage. The reason for this decision should be documented.
Water Resource and Emergency Management Plan Stages and Measures

Stage 1

Initiation and Termination Conditions for Stage 1

- The NTMWD has initiated Stage 1, which may be initiated due to one or more of the following:
  - The NTMWD Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the declaration of Stage 1.
  - Water demand is projected to approach the limit of the permitted supply.
  - The storage in Lavon Lake is less than 55 percent of the total conservation pool capacity.
  - NTMWD’s storage in Jim Chapman Lake is less than 55 percent of NTMWD’s total conservation pool capacity.
  - The Sabine River Authority has indicated that its Upper Basin water supplies used by NTMWD (Lake Tawakoni and/or Lake Fork) are in a Mild drought.
  - NTMWD has concern that Lake Texoma, the East Fork Raw Water Supply Project, or some other NTMWD source may be limited in availability in the next 6 months.
  - NTMWD water demand exceeds 95 percent of the amount that can be delivered to customers for three consecutive days.
  - NTMWD water demand for all or part of the delivery system equals delivery capacity because delivery capacity is inadequate.
  - NTMWD’s supply source becomes contaminated.
  - Supply source is interrupted or unavailable due to invasive species.
  - NTMWD’s water supply system is unable to deliver water due to the failure or damage of major water system components.
- Supplier’s water demand exceeds 95 percent of the amount that can be delivered to customers for three consecutive days.
- Supplier’s water demand for all or part of the delivery system equals delivery capacity because delivery capacity is inadequate.
• Supply source becomes contaminated.
• Supplier’s water supply system is unable to deliver water due to the failure or damage of major water system components.
• Supplier’s individual plan may be implemented if other criteria dictate.

Stage 1 may terminate when NTMWD terminates its Stage 1 condition or when the circumstances that caused the 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 five percent (5%) reduction in the amount of water produced by NTMWD from the previous annual payment period prior to drought restrictions. If circumstances warrant or if required by NTMWD, the City Manager, General Manager, Mayor, Chief Executive, or official designee can set a goal for greater or lesser water use reduction. The City Manager, General Manager, Mayor, Chief Executive, or official designee may order the implementation of any or all of the actions listed below, as deemed necessary to achieve a five percent reduction. Measures described as “requires notification to TCEQ” impose mandatory requirements on customers. The supplier must notify TCEQ and NTMWD within five business days if these measures are implemented:

• Continue actions in the water conservation plan.
• Notify wholesale customers of actions being taken and request them to implement similar procedures.
• Initiate engineering studies to evaluate alternatives should conditions worsen.
• 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.
• All users are encouraged to reduce the frequency of draining and refilling swimming pools.
• **Requires Notification to TCEQ** – Limit landscape watering with sprinklers or irrigation systems at each service address to no more than two days per week on designated days between April 1 – October 31. Limit landscape watering with sprinklers or irrigation systems at each service address to once every week on designated days between November 1 – March 31. Exceptions are as follows:
  
  o An exception is allowed for landscape associated with new construction that may be watered as necessary for 30 days from the installation of new landscape features.
  
  o An exemption is also allowed for registered and properly functioning ET/Smart irrigation systems and drip irrigation systems from the designated outdoor water use days limited to no more than two days per week. ET/Smart irrigation and drip irrigation systems are however subject to all other restrictions applicable under this stage.
  
  o An exception for additional watering of landscape may be provided by hand held hose with shutoff nozzle, use of dedicated irrigation drip zones, and/or soaker hose provided no runoff occurs.
  
  o Foundations, new landscaping, new plantings (first year) of shrubs, and trees (within a ten foot radius of its trunk) may be watered by a hand-held hose, a soaker hose, or a dedicated zone using a drip irrigation system provided no runoff occurs.

• **Requires Notification to TCEQ** - Initiate a rate surcharge for all water use over a certain level.

• **Requires Notification to TCEQ** – Landscape watering of parks, golf courses and athletic fields using potable water are required to meet the same reduction goals and measures outlined in this stage. Exception for golf course greens and tee boxes which may be hand watered as needed.
Stage 2

Initiation and Termination Conditions for Stage 2

- The NTMWD has initiated Stage 2, which may be initiated due to one or more of the following:
  - The NTMWD Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the declaration of Stage 2.
  - Water demand is projected to approach or exceed the limit of the permitted supply.
  - The storage in Lavon Lake is less than 45 percent of the total conservation pool capacity.
  - NTMWD’s storage in Jim Chapman Lake is less than 45 percent of NTMWD’s total conservation pool capacity.
  - The Sabine River Authority has indicated that its Upper Basin water supplies used by NTMWD (Lake Tawakoni and/or Lake Fork) are in a Moderate drought. (Measures required by SRA under a Moderate drought designation are similar to those under NTMWD’s Stage 2.)
  - The supply from Lake Texoma, the East Fork Raw Water Supply Project, or some other NTMWD source has become limited in availability within the next 3 months.
  - NTMWD water demand exceeds 98 percent of the amount that can be delivered to customers for three consecutive days.
  - NTMWD water demand for all or part of the delivery system exceeds delivery capacity because delivery capacity is inadequate.
  - NTMWD’s supply source becomes contaminated.
  - NTMWD’s water supply system is unable to deliver water due to the failure or damage of major water system components.
  - Supplier’s water demand exceeds 98 percent of the amount that can be delivered to customers for three consecutive days.
  - Supplier’s water demand for all or part of the delivery system exceeds delivery capacity because delivery capacity is inadequate.
• Supply source becomes contaminated.
• Supply source is interrupted or unavailable due to invasive species.
• Supplier’s water supply system is unable to deliver water due to the failure or damage of major water system components.
• Supplier’s individual plan may be implemented if other criteria dictate.
• Stage 2 may terminate when NTMWD terminates its Stage 2 condition or when the circumstances that caused the initiation of Stage 2 no longer prevail.

Goals 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 annual payment period prior to drought restrictions. If circumstances warrant or if required by NTMWD, the City Manager, General Manager, Mayor, Chief Executive, or official designee can set a goal for greater or lesser water use reduction. The City Manager, General Manager, Mayor, Chief Executive, or official designee may order the implementation of any or all of the actions listed below, as deemed necessary to achieve a ten percent reduction. Measures described as “requires notification to TCEQ” impose mandatory requirements on customers. The supplier must notify TCEQ and NTMWD within five business days if these measures are implemented:

• Continue or initiate any actions available under Stage 1.
• Notify wholesale customers of actions being taken and request them to implement similar procedures.
• Implement viable alternative water supply strategies.
• All users are encouraged to reduce the frequency of draining and refilling swimming pools.
• Requires Notification to TCEQ – Limit landscape watering with sprinklers or irrigation systems at each service address to once per week on designated days between April 1 – October 31. Limit landscape watering with sprinklers or irrigation systems at each service address to once every other week on designated days between November 1 – March 31. Exceptions are as follows:
- New construction may be watered as necessary for 30 days from the date of the installation of new landscape features.
- Foundations, new plantings (first year) of shrubs, and trees (within a ten foot radius of its trunk) may be watered for up to two hours on any day by a hand-held hose, a dedicated zone using a drip irrigation system and/or soaker hose provided no runoff occurs.
- Public athletic fields used for competition may be watered twice per week.
- Locations using alternative 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 all other restrictions applicable to this stage. If the alternative supply source is a well, proper proof of well registration with the North Texas Groundwater Conservation District or Red River Ground Water Conservation District is required. Other sources of water supply may not include imported treated water.
- An exemption is allowed for registered and properly functioning ET/Smart irrigation systems and drip irrigation systems from the designated outdoor water use day limited to no more than one day per week. ET/Smart irrigation and drip irrigation systems are however subject to all other restrictions applicable under this stage.
- Hand watering with shutoff nozzle, drip lines, and soaker hoses is allowed before 10 am and after 6 pm provided no runoff occurs.

- **Requires Notification to TCEQ** – Prohibit hydro seeding, hydro mulching, and sprigging.
- **Requires Notification to TCEQ** - Initiate a rate surcharge as requested by NTMWD.
- **Requires Notification to TCEQ** - Initiate a rate surcharge for all water use over a certain level.
- **Requires Notification to TCEQ** – If NTMWD has imposed a reduction in water available to Member Cities and Customers, impose the same percent reduction on wholesale customers.
- **Requires Notification to TCEQ** – Landscape watering of parks and golf courses using potable water are required to meet the same reduction goals and measures outlined in this stage. Exception for golf course greens and tee boxes which may be hand watered as needed.
Stage 3

Initiation and Termination Conditions for Stage 3

- The NTMWD has initiated Stage 3, which may be initiated due to one or more of the following:
  - The NTMWD Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the declaration of Stage 3.
  - Water demand is projected to approach or exceed the limit of the permitted supply.
  - The storage in Lavon Lake is less than 35 percent of the total conservation pool capacity.
  - NTMWD’s storage in Jim Chapman Lake is less than 35 percent of NTMWD’s total conservation pool capacity.
  - The Sabine River Authority has indicated that its Upper Basin water supplies used by NTMWD (Lake Tawakoni and/or Lake Fork) are in a Severe drought or Emergency.
  - The supply from Lake Texoma, the East Fork Raw Water Supply Project, or some other NTMWD source has become severely limited in availability.
  - NTMWD water demand exceeds the amount that can be delivered to customers.
  - NTMWD water demand for all or part of the delivery system seriously exceeds delivery capacity because the delivery capacity is inadequate.
  - NTMWD’s supply source becomes contaminated.
  - NTMWD’s water supply system is unable to deliver water due to the failure or damage of major water system components.

- Supplier’s water demand exceeds the amount that can be delivered to customers.
- Supplier’s water demand for all or part of the delivery system seriously exceeds delivery capacity because the delivery capacity is inadequate.
- Supply source becomes contaminated.
- Supplier’s water supply system is unable to deliver water due to the failure or damage of major water system components.
- Supplier’s individual plan may be implemented if other criteria dictate.
• Stage 3 may terminate when NTMWD terminates its Stage 3 condition or when the circumstances that caused the initiation of Stage 3 no longer prevail.

Goals 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 previous annual payment period prior to drought restrictions. **If circumstances warrant or if required by NTMWD, the City Manager, General Manager, Mayor, Chief Executive, or official designee can set a goal for greater or lesser water use reduction.**

The City Manager, General Manager, Mayor, Chief Executive, or official designee may order the implementation of any or all of the actions listed below, as deemed necessary. Measures described as “requires notification to TCEQ” impose mandatory requirements on member cities and customers. The supplier must notify TCEQ and NTMWD within five business days if these measures are implemented.

- Continue or initiate any actions available under Stages 1, and 2.
- Notify wholesale customers of actions being taken and request them to implement similar procedures.
- Implement viable alternative water supply strategies.
- **Requires Notification to TCEQ** – Initiate mandatory water use restrictions as follows:
  - Hosing and washing of paved areas, buildings, structures, windows or other surfaces is prohibited except by variance and performed by a professional service using high efficiency equipment.
  - Prohibit operation of ornamental fountains or ponds that use potable water except where supporting aquatic life or water quality.
- **Requires Notification to TCEQ** – Prohibit new sod, hydro seeding, hydro mulching, and sprigging.
- **Requires Notification to TCEQ** – Prohibit the use of potable water for the irrigation of new landscaping.
- **Requires Notification to TCEQ** – Prohibit all commercial and residential landscape watering, except that foundations and trees (within a ten foot radius of its trunk) may be watered for
two hours one day per week with a hand-held hose, a dedicated zone using a drip irrigation system and/or soaker hose provided no runoff occurs. ET/Smart irrigation systems and drip irrigation systems are not exempt from this requirement.

- **Requires Notification to TCEQ** – Prohibit washing of vehicles except at commercial vehicle wash facilities.

- **Requires Notification to TCEQ** – Landscape watering of parks, golf courses, and athletic fields with potable water is prohibited. Exception for golf course greens and tee boxes which may be hand watered as needed. Variances may be granted by the water provider under special circumstances.

- **Requires Notification to TCEQ** – Prohibit the filling, draining and refilling of existing swimming pools, wading pools, Jacuzzi and hot tubs 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, wading pools, Jacuzzi and hot tubs is prohibited.

- **Requires Notification to TCEQ** – 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.

- **Requires Notification to TCEQ** – Require all commercial water users to reduce water use by a percentage established by the City Manager, General Manager, Mayor, Chief Executive, or official designee.

- **Requires Notification to TCEQ** – If NTMWD has imposed a reduction in water available to Member Cities and Customers, impose the same percent reduction on wholesale customers.

- **Requires Notification to TCEQ** - Initiate a rate surcharge for all water use over normal rates for all water use.

### 4.4 PROCEDURES FOR GRANTING VARIANCES TO THE PLAN

The City Manager, General Manager, Mayor, Chief Executive, or official designee may grant temporary variances for existing water uses otherwise prohibited under this Water Resource and Emergency Management Plan if one or more of the following conditions are met:
• Failure to grant such a variance would cause an emergency condition adversely affecting health, sanitation, or fire safety for the public or the person or entity requesting the variance.

• Compliance with this plan cannot be accomplished due to technical or other limitations.

• Alternative methods that achieve the same level of reduction in water use can be implemented.

• Variances shall be granted or denied at the discretion of the City Manager, General Manager, Mayor, Chief Executive, or official designee. All petitions for variances should be in writing and should include the following information:
  o Name and address of the petitioners
  o Purpose of water use
  o Specific provisions from which relief is requested
  o Detailed statement of the adverse effect of the provision from which relief is requested
  o Description of the relief requested
  o Period of time for which the variance is sought
  o Alternative measures that will be taken to reduce water use
  o Other pertinent information.

4.5 PROCEDURES FOR ENFORCING MANDATORY WATER USE RESTRICTIONS

Mandatory water use restrictions may be imposed in Stage 1, Stage 2 and Stage 3 Water Resource and Emergency Management Plan stages. The penalties associated with the mandatory water use restrictions will be determined by each entity.

Appendix D contains potential ordinances, resolutions, and orders that may be adopted by the city council, board, or governing body approving the Water Resource and Emergency Management plan and water response plan, including enforcement of same.
4.6 COORDINATION WITH THE REGIONAL WATER PLANNING GROUP AND NTMWD

Appendix C includes a copy of a letter sent to the Chairs of the Region C Water Planning Group and the North East Texas Water Planning Group with this model Water Resource and Emergency Management plan.

The suppliers will send a draft of its ordinance(s) or other regulation(s) implementing this plan to NTMWD for their review and comment. The supplier will also send the final ordinance(s) or other regulation(s) to NTMWD.

4.7 REVIEW AND UPDATE OF WATER RESOURCE AND EMERGENCY MANAGEMENT PLAN

As required by TCEQ rules, Member Cities and Customers must review the Water Resource and Emergency Management plan every five years. The plan will be updated as appropriate based on new or updated information.