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Water Resource and Emergency Management Plan

Prepared for:

North Texas Municipal Water District

APRIL 2014

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FORWARD

This Water Resource and Emergency Management Plan (which is an update to the previous Drought Contingency and Emergency Response Plan) was prepared by Freese and Nichols for the North Texas Municipal Water District (NTMWD), pursuant to Texas Commission on Environmental Quality rules. Some material is based on the NTMWD's previous water conservation and drought contingency plan 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.

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APPENDIX A List of References

APPENDIX B Texas Commission on Environmental Quality Rules on Drought Contingency Plans

- Texas Administrative Code Title 30, Part 1, Chapter 288, Subchapter B, Rule §288.20 Drought Contingency Plans for Municipal Uses by Public Water Suppliers (Page B-1)
- Texas Administrative Code Title 30, Part 1, Chapter 288, Subchapter B, Rule §288.22 Drought Contingency Plans for Wholesale Water Suppliers (Page B-4)

APPENDIX C Letters to Region C and Region D Water Planning Groups

APPENDIX D North Texas Municipal Water District Board Minutes Showing Adoption of the Water Conservation and Water Resource and Emergency Management Plan

APPENDIX E Texas Water Code Section 11.039

1. INTRODUCTION AND OBJECTIVES

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 that we 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 wholesale water suppliers[1]. The TCEQ drought contingency plan guidelines and requirements for public water suppliers and wholesale water suppliers are included in Appendix B. The North Texas Municipal Water District (NTMWD) has developed this Water Resource and Emergency Management Plan pursuant to TCEQ guidelines and requirements. NTMWD is a regional wholesale supplier for 13 Member Cities and numerous other Customers in Collin, Dallas, Denton, Fannin, Grayson, Hopkins, Hunt, Kaufman, Rains, Rockwall, and Van Zandt Counties in North Central Texas. The NTMWD currently provides water for over 1.6 million people. This plan has been developed in concert with the Model Water Resource and Emergency Management Plan for the NTMWD Member Cities and Customers[2]. This plan will replace the NTMWD Drought Contingency and Water Emergency Response Plan dated March 2008. The March 2008 plan shall continue to apply until such time that the drought contingency or water emergency response stage currently in effect under the March 2008 plan terminates and a less restrictive stage is applicable. At such time, this plan shall take effect, replacing the March 2008 plan, and the appropriate water resource management stage as provided in this plan shall be initiated.

The main objective of this water resource 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.

[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[1].

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[2].

3. COMMERCIAL FACILITY business or industrial buildings and the associated landscaping, but does not include the fairways, greens, or tees of a golf course[1].

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[1].

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[3].

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[1].

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. [4].

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[1] Definitions from City of Austin Water Conservation and Drought Contingency Ordinance adopted August 16, 2012. http://www.austintexas.gov/sites/default/files/files/Water/Conservation/Planning_and_Policy/ProposedCodeRevision_DRAFT_with_watering_schedule-8-15-2012.pdf

[2] Definition from City of San Antonio Water Conservation Ordinance adopted 2005. http://saws.org/conservation/ordinance/docs/Ch34_Ordinance_2009.pdf

[3] Definition developed by Freese and Nichols, Inc.

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[5].

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 humidity[3].

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[3].

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[3].

13. FOUNDATION WATERING means an application of water to the soils directly abutting the foundation of a building, structure[1].

14. MEMBER CITIES include the cities of Allen, Farmersville, Forney, Frisco, Garland, McKinney, Mesquite, Plano, Princeton, Richardson, Rockwall, Royce 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 construction[1].

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[1].

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[4] Amy Vickers: Handbook of Water Use and Conservation, Amherst Massachusetts, June 2002

[5] Freese and Nichols, Inc.: Water Conservation and Drought Contingency and Water Emergency Response Plan, prepared for North Texas Municipal Water District, Fort Worth, March 2008.

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[1].

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[2].

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[1].

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[1].

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

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[2].

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[1].

3. WATER RESOURCE AND EMERGENCY MANAGEMENT PLAN

3.1 INTRODUCTION

The purpose of this water resource and emergency management 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 NTMWD considers a drought to end when all of its supply reservoirs refill to the conservation storage pool.

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 the presence of invasive species, contamination of the water supply, or infrastructure failure.

In the Fall of 2005, the NTMWD began preparing a public education campaign. In June 2006, NTMWD initiated a major educational campaign using the "Water IQ – Know your water" message originally developed for the state's Water Conservation Implementation Task Force in 2004. This was the first major local campaign based on this message. NTMWD hired Enviromedia Social Marketing of Austin, Texas to assist in program implementation. NTMWD has invested $11.2 million since 2006 in this public education campaign. Since 2006, Water IQ has been used for on-going water conservation education and to encourage demands reduction in response to drought and water supply challenges. The Water IQ campaign includes multiple methods to reach and educate the public:

- Television ads
- Radio ads
- Billboards
- Yard signs

- Newspaper and magazine ads
- Messages on gasoline pumps
- Movie theatre ads
- Mall ads
- Fact sheets
- Web site
- An on-going media relations campaign with print and electronic media
- Outreach programs (including a traveling exhibit for community events and breakfasts with irrigators, nurseries, and other industries with influence on water use).

The specifics of the public outreach and education campaign will vary depending on the circumstances of future droughts. The Water IQ program shows NTMWD's commitment to an appropriate drought and water emergency response in addition to the ongoing effort to educate the public in the wise and efficient use of water supplies regardless of weather conditions.

3.2 STATE REQUIREMENTS FOR DROUGHT CONTINGENCY PLANS FOR WHOLESALE WATER SUPPLIERS

The NTMWD acts primarily as a wholesale water provider, but has 34 retail Customers. This section of the report deals with the state requirements for wholesale water providers. Section 4.0 of this report discusses the requirements that apply to NTMWD as a retail public water supplier.

This Water Resource and Emergency Management Plan is consistent with Texas Commission on Environmental Quality (TCEQ) guidelines and requirements for the development of drought contingency plans by wholesale water suppliers, contained in Title 30, Part 1, Chapter 288, Subchapter B, Rule 288.22 of the Texas Administrative Code. This rule is included in Appendix B.

<u>Minimum Requirements</u>

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

- 288.22(a)(1) – Provisions to Inform the Public and Provide Opportunity for Public Input – Section 3.3
- 288.22(a)(2) – Coordination with the Regional Water Planning Group – Section 3.9

- 288.22(a)(3) – Criteria for Initiation and Termination of Drought Stages – Section 3.4
- 288.22(a)(4) – Drought and Emergency Response Stages – Section 3.5
- 288.22(a)(5) – Procedures for Initiation and Termination of Drought Stages – Section 3.5
- 288.22(a)(6) – Specific, Quantifiable Targets for Water Use Reduction – Section 3.5
- 288.22(a)(7) – Specific Measures to be Implemented during Each Drought Stage – Section 3.5
- 288.22(a)(8) – Provision for Wholesale Contracts to Require Water Distribution According to Texas Water Code §11.039 – Sections 3.5 and 3.6
- 288.22(a)(9) – Provision for Granting Variances to the Plan - Section 3.7
- 288.22(a)(10) - Procedures for Enforcement of Mandatory Restrictions – Section 3.8
- 288.22(b) – Notification of Implementation of Mandatory Measures – Section 3.4
- 288.22(c) – Review and Update of Plan – Section 3.10

3.3 PROVISIONS TO INFORM THE PUBLIC AND OPPORTUNITY FOR PUBLIC INPUT

NTMWD provided 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 and posted notice.
- Posting the draft plan on the NTMWD website.
- Meeting with representatives to Member Cities and Customers to discuss the draft plan.
- Providing the draft plan to anyone requesting a copy.
- Holding a public meeting regarding the Water Resource and Emergency Management Plan at the NTMWD offices in Wylie, February 19, 2014.

3.4 INITIATION AND TERMINATION OF WATER RESOURCE MANAGEMENT STAGES

Initiation of a Water Resource Management Stage

The Executive Director with the consent of the NTMWD Board of Directors 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 drought stage is initiated:

- The public will be notified through local media.

- NTMWD Member Cities and Customers 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, NTMWD will notify the Executive Director of the TCEQ within 5 business days.
- The Executive Director may decide not to order the implementation of a water resource 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.

Termination of a Water Resource Management Stage

The Executive Director may order the termination of a water resource management stage when the conditions for termination are met or at his/her discretion. The following actions will be taken when a drought contingency and water emergency stage is terminated:

- The public will be notified through local media.
- Member Cities and Customers will be notified by e-mail with a follow-up letter or fax.
- When any mandatory provisions of the water resource and emergency management plan that have been activated are terminated, NTMWD will notify the Executive Director of the TCEQ within 5 business days.
- The Executive Director 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.

3.5 WATER RESOURCE MANAGEMENT STAGES AND MEASURES

3.5.1 Stage 1

Initiation and Termination Conditions for Stage 1

Stage 1 may be implemented when one or more of the following conditions is met:

- The 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 level 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 the 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 within the next 6 months.
- Water demand exceeds 95 percent of the amount that can be delivered to Customers for 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 cause.
- Water supply system is unable to deliver water due to the failure or damage of major water system components.

Stage 1 may terminate 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 reduction of five percent (5%) in the use that would have occurred in the absence of water resource management measures. **If circumstances warrant, the Executive Director can set a goal for greater or lesser water use reduction.** The actions listed below are provided as potential strategies to reduce water demand. Member Cities and Customers are encouraged to adopt any or all of these measures necessary to achieve the designated reduction in use. Measures described as "requires notification to TCEQ" impose mandatory requirements which must be implemented by Member Cities and Customers. NTMWD must notify TCEQ within five business days if these measures are implemented.

- Continue actions in the water conservation plan.

- Require Member Cities and Customers (including indirect Customers) to initiate Stage 1 in their water resource management (drought) plans.
- Initiate engineering studies to evaluate alternative actions that can be implemented if conditions worsen.
- Accelerate public education efforts on ways to reduce water use.
- Halt non-essential NTMWD water use not supplied from treated wastewater effluent.
- Encourage the public to wait until the current drought or water 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:
    - 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.
    - 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.
    - 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.
    - 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.

3.5.2 Stage 2

Initiation and Termination Conditions for Stage 2

Stage 2 may be implemented when one or more of the following conditions is met:

- The 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 the limit of the permitted supply.
- The water 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 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.
- NTMWD has concern that Lake Texoma, the East Fork Raw Water Supply Project, or some other NTMWD source may be limited in availability within the next 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.

Stage 2 may terminate when the circumstances that caused the 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 use that would have occurred in the absence of water resource management measures. **If circumstances warrant, the Executive Director can set a goal for greater or lesser water use reduction.** Member Cities and Customers are encouraged to adopt any or all measures necessary to achieve the designated reduction

in use. Measures described as "requires notification to TCEQ" impose mandatory requirements which must be implemented by Member Cities and Customers. NTMWD must notify TCEQ within five business days if these measures are implemented.

- Continue or initiate any actions available under Stage 1.
- Require Member Cities and Customers (including indirect Customers) to initiate Stage 2 in their water resource management (drought) plans.
- 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 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 soaker hose, or a dedicated zone using a drip irrigation system 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 days 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 your local water supplier (i.e. city, Water Supply Corporation) 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.
- **Requires Notification to TCEQ** – Prohibit hydro seeding, hydro mulching, and sprigging.

- **Requires Notification to TCEQ** – Institute a mandated reduction in deliveries to all Member Cities and Customers. Such a reduction will be distributed as required by Texas Water Code §11.039 (Appendix E).
- **Requires Notification to TCEQ** – Initiate a rate surcharge for all water use over a certain level.
- **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 2 may terminate when the circumstances that caused the initiation of Stage 2 no longer prevail.

3.5.3 Stage 3

Initiation and Termination Conditions for Stage 3

Stage 3 may be implemented when one or more of the following conditions is met:

- The 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. (Measures required by SRA under a Severe drought designation are similar to those under NTMWD's Stage 3.)
- The supply from Lake Texoma, the East Fork Raw Water Supply Project, 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.

Stage 3 may terminate when the circumstances that caused the 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 thirty-three (33%) percent in the use that would have occurred in the absence of water resource management measures or whatever reduction is necessary. **If circumstances warrant, the Executive Director can set a goal for greater or lesser water use reduction.** Member Cities and Customers are encouraged to adopt any or all measures necessary to achieve the designated reduction in use. Measures described as "requires notification to TCEQ" impose mandatory requirements which must be implemented by Member Cities and Customers. NTMWD must notify TCEQ within five business days if these measures are implemented.

- Continue or initiate any actions available under Stages 1 and 2.
- Require Member Cities and Customers (including indirect Customers) to initiate Stage 3 in their water resource management (drought) plans.
- 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 soaker hose, or a dedicated zone using a drip irrigation system 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 set percentage.
- **Requires Notification to TCEQ** – Institute a mandated reduction in deliveries to all Member Cities and Customers. Such a reduction will be distributed as required by Texas Water Code §11.039.
- **Requires Notification to TCEQ** – Initiate a rate surcharge over normal rates for all water use.

  Stage 3 may terminate when the circumstances that caused the initiation of Stage 3 no longer prevail.

3.6 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, which is attached as Appendix E. 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 in accordance with Texas Water Code §11.039 in case of a water shortage resulting from drought or water emergency.

3.7 PROCEDURE FOR GRANTING VARIANCES TO THE PLAN

The Executive Director may grant temporary variances for existing water uses otherwise prohibited under this water resource and emergency management plan to a Member City or Customer 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 Executive Director. All petitions for variances should be in writing and should include the following information:
    - Name and address of the petitioner(s)
    - Purpose of water use
    - Specific provisions from which relief is requested
    - Detailed statement of the adverse effect of the provision from which relief is requested
    - Description of the relief requested
    - Period of time for which the variance is sought
    - Alternative measures that will be taken to reduce water use
    - Other pertinent information.

3.8 PROCEDURES FOR ENFORCING MANDATORY WATER USE RESTRICTIONS

Mandatory water use restrictions may be imposed in all stages of the water resource and emergency management plan. These mandatory water use restrictions will be enforced by warnings and penalties as follows:

- On the first violation, the Member City or Customer will be given a written warning that they have violated the mandatory water use restriction.
- After a second violation, NTMWD may install a flow restrictor in the line or other device to limit the amount of water delivered to the Member City or Customer.
- NTMWD may charge up to twice the established rate for any water used in violation of mandatory water use restrictions.

Each Member City and Customer will determine and enforce its own set of penalties associated with the mandatory water use restrictions for its retail and wholesale Customers.

3.9 COORDINATION WITH THE REGIONAL WATER PLANNING GROUPS

Appendix C includes copies of letters sent to the Chairs of the Region C and Region D water planning group with this water resource and emergency management plan.

3.10 REVIEW AND UPDATE OF WATER RESOURCE AND EMERGENCY MANAGEMENT PLAN

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

4. REQUIREMENTS FOR A PUBLIC WATER SUPPLIER

4.1 INTRODUCTION

In addition to serving as a wholesale water supplier, the NTMWD is also a public water supplier of potable water, providing direct retail service to 34 Customers who do not have access to retail service from other sources. The TCEQ has established rules for the development of drought contingency plans for public water suppliers that provide retail service. The rules for 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. This rule is included in Appendix B.

Section 3.2 of this report (which addresses rules for wholesale water providers) also addresses most of the requirements covered in the rules for public water suppliers. This section covers any additional information needed to meet TCEQ requirements for public water supplier.

4.2 STATE REQUIREMENTS FOR DROUGHT CONTINGENCY PLANS FOR PUBLIC WATER SUPPLIERS

Title 30, Part 1, Chapter 288, Subchapter B, Rule 288.20 of the Texas Administrative Code gives the requirements for drought contingency plans for public water suppliers. This rule is included in Appendix B.

- 288.20(a)(1)(A) – Provisions to Inform Public and Provide Opportunity for Public Input – Addressed in Section 3.3.
- 288.20(a)(1)(B) – Provisions for Continuing Public Education and Information – NTMWD shall provide for continuing public education and information by the following measures:
    - Discussing the water conservation and drought contingency and water emergency response plan when staff speaks to the public on water conservation issues.
    - Including information on the water conservation and drought contingency and water emergency response plan in bills for its retail Customers.
    - Notification of the public and the media as drought contingency stages are implemented.
- 288.20(a)(1)(C) – Document Coordination with Regional Water Planning Groups – Addressed in Section 3.9.

- 288.20(a)(1)(D) – Description of Information to Be Monitored and Criteria for the Initiation and Termination of Drought Contingency and Water Emergency Response Stages – Addressed in Sections 3.4 and 3.5.
- 288.20(a)(1)(E) – Stages for Implementation of Measures in Response to Situations – Addressed in Section 3.5.
- 288.20(a)(1)(F) – Specific, Quantifiable Targets for Water Use Reduction – Addressed in Section 3.5.
- 288.20(a)(1)(G) – Specific Water Supply or Water Demand Measures to Be Implemented at Each Stage of the Plan – Addressed in Section 3.5.
- 288.20(a)(1)(H) – Description of Procedures to Be Followed for the Initiation and Termination of Drought Contingency and Water Emergency Response Stages – Addressed in Section 3.4.
- 288.20(a)(1)(I) – Description of Procedures to Be Followed for Granting Variances to the Plan – Addressed in Section 3.7. Retail Customers may request variances under the same terms as Member Cities and Customers.
- 288.20(a)(1)(J) – Procedures for Enforcement of Mandatory Water Use Restrictions – Addressed in Section 3.8.
- 288.20(b) – Notification of TCEQ for Implementation of Mandatory Provisions – Addressed in Section 3.4.
- 288.20(c) – Review Drought Contingency and Water Emergency Response Plan Every 5 Years – Addressed in Section 3.10.

APPENDIX A

LIST OF REFERENCES

APPENDIX A

LIST OF REFERENCES

1. Title 30 of the Texas Administrative Code, Part 1, Chapter 288, Subchapter B, Rules 288.20 and 288.22, downloaded from http://info.sos.state.tx.us/pls/pub/readtac$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=288, June 2013

2. Freese and Nichols, Inc.: Model Water Resource Management Plan for NTMWD Members Cities and Customers, prepared for the North Texas Municipal Water District, Fort Worth, February 2014.

3. Definitions from City of Austin Water Conservation and Drought Contingency Ordinance adopted August 16, 2012.http://www.austintexas.gov/sites/default/files/files/Water/Conservation/Planning_and_Policy/ProposedCodeRevision_DRAFT_with_watering_schedule-8-15-2012.pdf

4. Definition from City of San Antonio Water Conservation Ordinance adopted 2005.

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

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

6. Definition developed by Freese and Nichols, Inc.

7. Freese and Nichols, Inc.: Water Conservation and Drought Contingency and Water Emergency Response Plan, prepared for North Texas Municipal Water District, Fort Worth, March 2008.

8. Texas Water Development Board, Texas Commission on Environmental Quality, Water Conservation Advisory Council. "DRAFT Guidance and Methodology for Water Conservation Reporting."

9. Freese and Nichols, Inc., Alan Plummer and Associates, CP & Y Inc., and Cooksey Communications, "2011 Region C Water Plan".

APPENDIX B

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

RULES ON DROUGHT CONTINGENCY PLANS

APPENDIX B

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY RULES ON DROUGHT CONTINGENCY PLANS

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 §288.20	**Drought Contingency Plans for Municipal Uses by Public Water Suppliers**

(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:

(i) 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.

Source Note: The provisions of this §288.20 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

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**

(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.

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 C

LETTERS TO REGION C AND REGION D WATER PLANNING GROUPS

APPENDIX C

LETTERS TO REGION C AND REGION D WATER PLANNING GROUPS

April 30, 2014

Region C Water Planning Group
c/o North Texas Municipal Water District
P.O. Box 2408
Wylie, TX 75098

Dear Sir:

Enclosed please find a copy of the following documents:

- Model Water Resource Management Plan for the Member Cities and Customers of the North Texas Municipal Water District
- Water Resource Management Plan for the North Texas Municipal Water District

We are submitting a copy of these plans to the Region C Water Planning Group in accordance with the Texas Water Development Board and Texas Commission on Environmental Quality rules. The Board of the North Texas Municipal Water District adopted the attached plans on February 27, 2014.

Sincerely,

Jim Parks
North Texas Municipal Water District

April 30, 2014

Mr. Brett McCoy
Chair, Region D Water Planning Group
700 CR3347
Omaha, TX 75571

Dear Mr. McCoy,

Enclosed please find a copy of the following documents:

- Model Water Resource Management Plan for the Member Cities and Customers of the North Texas Municipal Water District
- Water Resource Management Plan for the North Texas Municipal Water District

We are submitting a copy of these plans to the Region D Water Planning Group in accordance with the Texas Water Development Board and Texas Commission on Environmental Quality rules. The Board of the North Texas Municipal Water District adopted the attached plans on February 27, 2014.

Sincerely,

Jim Parks
Executive Director
North Texas Municipal Water District

APPENDIX D

NTMWD BOARD MINUTES SHOWING ADOPTION OF THE WATER CONSERVATION AND WATER RESOURCE AND EMERGENCY MANGEMENT PLAN

NORTH TEXAS MUNICIPAL WATER DISTRICT

505 E. Brown Street • Wylie, Texas 75098
(972) 442-5405 – Phone • (972) 295-6440 – Fax

MINUTES OF A REGULAR MEETING OF THE BOARD OF DIRECTORS
HELD ON THURSDAY, FEBRUARY 27, 2014
IN THE NTMWD ADMINISTRATIVE OFFICES, WYLIE, TEXAS

The North Texas Municipal Water District Board of Directors met in Regular Session on Thursday, February 27, 2014, at 4:00 p.m. in the Administrative Offices, 505 East Brown Street, Wylie, Texas. Notice of the meeting was legally posted in accordance with Government Code, Title 551, Open Meetings.

President Bill Lofland called the meeting to order. President Bill Lofland advised that Director Larry Parks will be abstaining from voting on Agenda Item Nos. V. B., and VI. E., J., N., R., X., and Z.

I. INVOCATION

Director Jerry Yancey offered the invocation.

II. ROLL CALL

Secretary Joe Joplin conducted a roll call. No Directors were absent. The following Directors were present for the February 27, 2014, Board meeting:

Terry Anderson	Jim Mellody
Don Cates	John Murphy
Gary Downey	Patrick Nicklen
Joe Farmer	Larry Parks
Marvin Fuller	Bobby Robinson
Don Gordon	Richard Sheehan
Darrell Grooms	Lynn Shuyler
Bill Harrison	Shep Stahel
Joe Joplin	John Sweeden
James Kerr	Bob Thurmond
Bill Lofland	Darwin Whiteside
Jack May	Jerry Yancey
Charles McKissick	

The following NTMWD consultants attended the meeting:

Shannon Kackley – Gay McCall Isaacks Gordon & Roberts
David Medanich – First Southwest Company

III. RECOGNITION OF GUESTS

A. Registered Guests

There were no registered guests recognized.

IV. PUBLIC COMMENTS

There were no public comments.

V. CONSENT AGENDA ITEMS

Upon a motion by Director John Murphy and a second by Director James Kerr, the Board of Directors voted unanimously to approve the consent agenda items as follows:

A. Consider Approval of Board of Directors Meeting Minutes – January 23, 2014
(Please refer to Consent Agenda Item No. 14-02-01)

B. Consider Approval of Board of Directors Special Meeting Minutes – February 1, 2014
(Please refer to Consent Agenda Item No. 14-02-02)

C. Consider Approval of Board of Directors Planning Retreat Minutes – February 1, 2014
(Please refer to Consent Agenda Item No. 14-02-03)

D. Consider Authorization to Make Final Payment on Project No. 280, Floyd Branch Regional Wastewater Treatment Plant, 2012 Odor Control Improvements
(Please refer to Consent Agenda Item No. 14-02-04)

E. Consider Authorization to Make Final Payment on Project No. 313, Union Pacific Railroad Crossing Protection of the Existing 72-Inch Texoma Pipeline
(Please refer to Consent Agenda Item No. 14-02-05)

F. Consider Authorizing Change Order No. 2 and Authorization to Make Final Payment on Project No. 229, Wylie Water Treatment Plant Security Enhancements, Phase 2
(Please refer to Consent Agenda Item No. 14-02-06)

G. Consider Authorizing Additional Engineering Services on Project No. 233, 121 Regional Disposal Facility Fleet Maintenance Weld Services Building
(Please refer to Consent Agenda Item No. 14-02-07)

H. Consider Authorizing Funding for Retirement Dinner in Honor of NTMWD's Executive Director
(Please refer to Consent Agenda Item No. 14-02-08

VI. AGENDA ITEMS FOR INDIVIDUAL CONSIDERATION

A. Consider Authorizing Funding for the Texas Water Smart Coalition Awareness Campaign
(Please refer to Administrative Memorandum No. 4126)

Upon a motion by Director Terry Anderson and a second by Director Jim Mellody the Board of Directors voted unanimously to continue to partner with the Texas Water Smart Coalition by funding the Texas Water Smart Coalition Awareness Campaign in a not-to-exceed amount of $100,000 on behalf of the NTMWD, Member Cities, and Customers.

B. Consider Authorizing Additional Engineering Services for Project No. 301, NTMWD Administration Building Structural Repairs, Building Renovations, and Building Additions
(Please refer to Administrative Memorandum No. 4127)

Upon a motion by Director Darrell Grooms and a second by Director Jerry Yancey, the Board of Directors voted unanimously to authorize a change in the scope of services for the NTMWD administration building additions to include design and construction of a standalone building west of the existing administration building and authorize an increase to the engineering services agreement with Huitt-Zollars, Inc., for Project No. 301, NTMWD Administration Building Structural Repairs, Building Renovations, and Building Additions in the not-to-exceed amount of $45,125, for a revised total engineering services fee of $588,390.

C. Consider Authorizing Change Order No. 1 on Project No. 301, NTMWD Administration Building Structural Improvements, Task No. 1
(Please refer to Administrative Memorandum No. 4128)

Upon a motion by Director Lynn Shuyler and a second by Director Joe Farmer, the Board of Directors voted unanimously to authorize Change Order No. 1 for an increase of $20,634 resulting in a revised contract amount of $67,634 and a 21-day contract time extension, resulting in a revised final completion date of April 27, 2014, for the NTMWD Administration Building Structural Improvements, Task No. 1, Project No. 301.

D. Consider Authorizing Amending and Renaming NTMWD's Water Conservation and Drought Contingency/Water Emergency Response Plans, March 2008, and Amendment to District Policy No. 24, Water Conservation and Drought Contingency/Water Emergency Response Plans
(Please refer to Administrative Memorandum No. 4129)

Upon the recommendation of the Water Committee, a motion by Director Terry Anderson, and a second by Director Larry Parks, the Board of Directors voted unanimously to amend and rename the NTMWD's Water Conservation and Drought Contingency/Water Emergency Response

Plans, March 2008, and amend District Policy No. 24, Water Conservation and Drought Contingency/Water Emergency Response Plans.

E. Consider Authorizing Engineering and Legal Assistance for Project No. 351, Lower Bois d'Arc Creek Reservoir, Phase IIIB
(Please refer to Administrative Memorandum No. 4130)

Upon a motion by Director Darrell Grooms and a second by Director Patrick Nicklen, the Board of Directors voted unanimously to authorize funding for Freese and Nichols, Inc., and Lloyd, Gosselink, Rochelle & Townsend, PC, to perform engineering and legal services for Lower Bois d'Arc Creek Reservoir Phase IIIB, Project No. 351, in the not-to-exceed total amount of $1,000,000 (funding of $500,000 for Freese and Nichols, Inc., and funding of $500,000 for Lloyd, Gosselink, Rochelle & Townsend, PC).

F. Consider Authorizing Award of Construction Contract on Project No. 335, 121 Site Facility Water Transmission Pipeline Relocation at State Highway 121
(Please refer to Administrative Memorandum No. 4131)

Upon a motion by Director Darrell Grooms and a second by Director John Murphy, the Board of Directors voted unanimously to authorize award of a construction contract to Vessels Construction, A Division of Vescor, Inc., for 121 Site Facility Water Transmission Pipeline Relocation at State Highway 121, Project No. 335, in the amount of $90,878.

G. Consider Authorizing Change Order No. 4 on Project No. 277, Water Treatment Plant III, Filter Underdrain Improvements and Conversion to Biologically Active Filters
(Please refer to Administrative Memorandum No. 4132)

Upon a motion by Director James Kerr and a second by Director Joe Farmer, the Board of Directors voted unanimously to authorize Change Order No. 4 for the Water Treatment Plant III Filter Underdrain Improvements and Conversion to Biologically Active Filters, Project No. 277, for an increase in the amount of $135,947.24, resulting in a revised contract amount of $6,815,140.95. The final completion date for this project remains January 9, 2016.

H. Consider Authorizing Additional Engineering Services on Project No. 308, Upper Rowlett and Cottonwood Creek Parallel Force Main Design
(Please refer to Administrative Memorandum No. 4133)

Upon a motion by Director Joe Farmer and a second by Director Lynn Shuyler, the Board of Directors voted unanimously to authorize additional engineering services to Cobb, Fendley & Associates, Inc., for professional services associated with design of the Upper Rowlett and Cottonwood Creek Parallel Force Main, Project No. 308, in the not-to-exceed amount of $97,785, resulting in a not-to-exceed engineering services fee of $619,517.

I. Consider Authorizing Change Order No. 1 on Project No. 278, Wilson Creek Gravity Interceptor Improvements, Phase 1
(Please refer to Administrative Memorandum No. 4134)

Upon a motion by Director Marvin Fuller and a second by Director Patrick Nicklen, the Board of Directors voted unanimously to authorize Change Order No. 1 for an increase of $61,124.08, resulting in a revised contract amount of $3,105,029.18 and an additional 150 calendar days of contract time, resulting in a revised final completion date of November 5, 2014, for the Wilson Creek Gravity Interceptor Improvements, Phase 1, Project No. 278.

J. Consider Authorizing Additional Engineering Services for Fiscal Year 2014 Water Supply Planning Assistance
(Please refer to Administrative Memorandum No. 4135)

Upon a motion by Director Bobby Robinson and a second by Director Lynn Shuyler, the Board of Directors voted unanimously to authorize an increase to the engineering services agreement with Freese and Nichols, Inc., for Fiscal Year 2014 Water Supply Planning Assistance in the not-to-exceed amount of $150,000 for a revised total engineering services fee of $350,000.

K. Consider Authorizing Change Order No. 1 and Authorization to Make Final Payment on Project No. 310, Wylie-McKinney 20-Inch Waterline Relocation at Stinson Road
(Please refer to Administrative Memorandum No. 4136)

Upon a motion by Director Lynn Shuyler and a second by Director Don Gordon, the Board of Directors voted unanimously to authorize Change Order No. 1 for an increase of $26,566, resulting in a revised contract amount of $153,828, and authorize final payment to Dowager Utility Construction, Ltd., in the final contract amount of $153,828 for the Wylie-McKinney 20-Inch Waterline Relocation at Stinson Road, Project No. 310.

L. Consider Authorizing Award of Construction Contract on Project No. 314, Farmersville Pump Station Pump No. 2
(Please refer to Administrative Memorandum No. 4137)

Upon a motion by Director Patrick Nicklen and a second by Director Joe Farmer, the Board of Directors voted unanimously to authorize award of a construction contract to Crescent Constructors, Inc., for the Farmersville Pump Station Pump No. 2, Project No. 314, in the amount of $143,700.

M. Consider Authorizing Additional Engineering Services for Project No. 285, Cooper Pipeline Embankment Improvement Near FM 3218 in Commerce, Texas
(Please refer to Administrative Memorandum No. 4138)

Upon a motion by Director John Murphy and a second by Director Patrick Nicklen, the Board of Directors voted unanimously to authorize additional engineering services to Lockwood, Andrews & Newnam, Inc., for the Cooper Pipeline Embankment Improvement Near FM 3218 in Commerce, Texas, Project No. 285, in the not-to-exceed amount of $22,733 for a not-to-exceed total of $141,733.

N. Consider Authorizing Change Order No. 3 and Authorization to Make Final Payment on Project No. 207, Expand Frisco/McKinney Pump Station to 130 MGD
(Please refer to Administrative Memorandum No. 4139)

Upon a motion by Director Shep Stahel and a second by Director Bobby Robinson, the Board of Directors voted unanimously to authorize Change Order No. 3 for a decrease of $72,624.12, resulting in a revised contract amount of $6,520,067.42 and an additional 131 days for final completion resulting in a final completion date of January 15, 2014, and authorize final payment to Archer Western Contractors, Ltd., in the final contract amount of $6,520,067.52, for Project No. 207, Expand Frisco/McKinney Pump Station to 130 MGD.

O. Consider Authorizing Change Order No. 2 on Project No. 227, Contract A, Upper White Rock Creek Parallel Force Main
(Please refer to Administrative Memorandum No. 4140)

Upon a motion by Director Shep Stahel and a second by Director Patrick Nicklen, the Board of Directors voted unanimously to authorize Change Order No. 2 for a net decrease of $41,368.09, resulting in a revised contract amount of $3,200,390.13 and an additional 30 calendar days resulting in a revised final completion date of April 20, 2014, for the Upper White Rock Creek Parallel Force Main, Project No. 227 (Contract A).

P. Consider Authorizing Execution of Engineering Services Agreement on Project No. 352, Water System Operations Center
(Please refer to Administrative Memorandum No. 4141)

Upon a motion by Director Don Gordon and a second by Director Charles McKissick, the Board of Directors voted unanimously to table this item.

Q. Consider Authorizing Change Order No. 24 on Project No. 153, Water Treatment Plants I, II, III, and IV Ozonation
(Please refer to Administrative Memorandum No. 4142)

Upon a motion by Director Darrell Grooms and a second by Director Marvin Fuller, the Board of Directors voted unanimously to authorize Change Order No. 24 for Project No. 153, Water Treatment Plants I, II, III, and IV Ozonation, an increase in the amount of $38,373.02, resulting in a revised contract amount of $110,945,965.57.

R. Consider Authorizing Change Order No. 3 on Project No. 128, Lake Texoma Pump Station Modifications
(Please refer to Administrative Memorandum No. 4143)

Upon a motion by Director Jerry Yancey and second by Director Shep Stahel, the Board of Directors voted unanimously to authorize Change Order No. 3 to the Lake Texoma Pump Station Modifications, Project No. 128, for an increase of $51,095.65 resulting in revised contract amount of $6,649,959.78.

S. Consider Authorizing Additional Engineering Services on Project No. 312, Lake Tawakoni Water Treatment Plant Sludge Lagoon Improvements
(Please refer to Administrative Memorandum No. 4144)

Upon a motion by Director Shep Stahel and a second by Director John Murphy, the Board of Directors voted unanimously to authorize additional engineering services for Black & Veatch Corporation for professional services associated with design for the Lake Tawakoni Water Treatment Plant Sludge Lagoon Improvements, Project No. 312, in the not-to-exceed amount of $23,958, resulting in a revised engineering services fee amount of $451,168.

T. Consider Authorizing Execution of Inspection Services Agreement on Project No. 312, Lake Tawakoni Water Treatment Plant Sludge Lagoon Improvements
(Please refer to Administrative Memorandum No. 4145)

Upon a motion by Director Lynn Shuyler and a second by Director Shep Stahel, the Board of Directors voted unanimously to authorize the Executive Director to execute an inspection services agreement with Dietz Engineering in the not-to-exceed amount of $105,000 for the Lake Tawakoni Water Treatment Plant Sludge Lagoon Improvements, Project No. 312.

U. Consider Authorizing Reimbursement to Grayson County for Road Damage, Project No. 268, Lake Texoma Outfall to Wylie Water Treatment Plant Raw Water Pipeline
(Please refer to Administrative Memorandum No. 4146)

Upon the recommendation of the Water Committee, a motion by Director Shep Stahel, and a second by Director James Kerr, the Board of Directors voted unanimously to authorize reimbursement to Grayson County in the amount of $793,700 for damage to county roads as a result of construction

material delivery for the Lake Texoma Outfall to Wylie Water Treatment Plant Raw Water Pipeline, Project No. 268, per the "Interlocal Agreement between Grayson County and the NTMWD for Road Repairs" dated October 16, 2012.

V. Consider Authorizing Execution of Engineering Services Agreement on Project No. 330, Wylie Water Treatment Plant II Clearwell and Disinfection Modifications
(Please refer to Administrative Memorandum No. 4147)

Upon the recommendation of the Water Committee, a motion by Director Terry Anderson, and a second by Director John Murphy, the Board of Directors voted unanimously to authorize the Executive Director to execute an engineering services agreement with CH2M HILL Engineers, Inc., for professional services associated with design and construction for the Wylie Water Treatment Plant II Clearwell and Disinfection Modifications, Project No. 330, in the not-to-exceed amount of $1,350,000.

W. Consider Authorizing Additional Engineering Services for Project No. 286, Rockwall No. 2 Flow Meter Improvements
(Please refer to Administrative Memorandum No. 4148)

Upon a motion by Director Larry Parks and a second by Director Jerry Yancey, the Board of Directors voted unanimously to authorize an increase to the engineering services agreement with KSA Engineers, Inc., for Rockwall No. 2 Flow Meter Improvements, Project No. 286, in the not-to-exceed amount of $37,000, for a revised total engineering services fee of $64,336.

X. Consider Authorizing Change Order No. 1 on Project No. 188, Expand High Service Pump Station 3-1 to 350 MGD
(Please refer to Administrative Memorandum No. 4149)

Upon a motion by Director James Kerr and a second by Director Darrell Grooms, the Board of Directors voted unanimously to authorize Change Order No. 1 for an increase of $136,720.94, resulting in a revised contract amount of $7,857,298.94, and approve an additional 75 calendar days of contract time for Project No. 188, Expand High Service Pump Station 3-1 to 350 MGD.

Y. Consider Authorizing Additional Engineering Services for Project No. 320, Wylie Water Treatment Plant II, Improvements for Basin Nos. 3 and 4
(Please refer to Administrative Memorandum No. 4150)

Upon a motion by Director Shep Stahel and a second by Director Darrell Grooms, the Board of Directors voted unanimously to authorize additional engineering services for Black & Veatch Corporation for professional services associated with design for the Wylie Water Treatment Plant II Improvements for Basin Nos. 3 and 4, Project No. 320, in the not-to-exceed

amount of $26,250, resulting in a revised engineering services fee of $277,150.

Z. Consider Authorizing Change Order No. 1 on Project No. 275, Chapman Lake Water Access, Task B (Dredging)
(Please refer to Administrative Memorandum No. 4151)

Upon a motion by Director Shep Stahel and a second by Director Don Gordon, the Board of Directors voted unanimously to authorize Change Order No. 1 for an increase of $56,033.75, resulting in a revised contract amount of $1,818,239.75 and an additional 20 calendar days of contract time, resulting in a revised final completion date of June 25, 2014, for the Chapman Lake Water Access, Task B (Dredging), Project No. 275.

AA. Consider Authorizing Change Order No. 5 on Project No. 259, Water Treatment Plant I Conversion to Biologically Active Filtration and Improvement of Existing Underdrains
(Please refer to Administrative Memorandum No. 4152)

Upon a motion by Director Shep Stahel and a second by Director Joe Farmer, the Board of Directors voted unanimously to authorize Change Order No. 5 for the Water Treatment Plant I Conversion to Biologically Active Filtration and Improvement of Existing Underdrains, Project No. 259, for an increase in the amount of $104,627, resulting in a revised contract amount of $8,144,796.75.

VII. ADJOURNMENT

There being no further business, the meeting adjourned at approximately 5:22 p.m. The next regular meeting of the NTMWD Board of Directors will be held Thursday, March 27, 2014, at 4:00 p.m. in the NTMWD Administrative Offices, 505 E. Brown Street, Wylie, Texas.

APPROVED:

BILL LOFLAND, President

ATTEST:

JOE JOPLIN, Secretary

(Seal)

APPENDIX E

TEXAS WATER CODE 11.039

APPENDIX E

TEXAS WATER CODE SECTION 11.039

§ 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, § 1, eff. Sept. 1, 1977; Acts 2001, 77th Leg., ch. 1126, § 1, eff. June 15, 2001.