WATER CONSERVATION AND WATER RESOURCE MANAGEMENT PLAN FOR THE CITY OF ALLEN, TEXAS

May 2019

CITY OF ALLEN

COMMUNITY SERVICES

305 CENTURY PARKWAY

ALLEN, TEXAS 75013

FORWARD

This Water Conservation and Water Resource Management Plan (Plan) was prepared by Gail Donaldson, Water Conservation Manager for the City of Allen, pursuant to Texas Commission on Environmental Quality rules. Some material is based on the City of Allen (City) May 2014 plan. For the purposes of regional coordination, the drought contingency plans for the North Texas Municipal Water District, Tarrant Regional Water District and the City of Dallas were consulted.

Questions regarding this water conservation plan should be addressed to the following:

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This Plan is based on the Texas Administrative Code in effect on November 15, 2018 and considers water conservation best management practices from Texas Water Development Board Report 362, *Water Conservation Best Management Practices Guide.* The Plan is also based on the Water Resource and Emergency Management plan on the Texas Administrative Code in effect on July 24, 2018.

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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. Severe drought conditions in recent years have highlighted the importance of efficient use of our existing supplies to 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 City of Allen (City) has developed this Water Conservation and Water Resource Management Plan (Plan) pursuant to TCEQ guidelines and requirements.

The City is located in Collin County, and is bordered by the cities of McKinney and Fairview to the north, Lucas to the east, and Parker to the south, and Plano to the west and south. The land area of the City is 27.11 square miles. As of December 31, 2018, the City's population is 103,272, with 38,634 metered water utility connections. Of these connections, the percentage makeup is in the following categories: 75.41% Single-Family Residential, 19.41% Multi-Family Residential, and 5.17% Industrial/Commercial/Institutional. The City has no Agricultural metered connections. The average daily water use is 15.22 million gallons with a peak day use of 32.24 million gallons. This data is found in the Utility Profile in appendix G.

The City purchases treated water from the North Texas Municipal Water District (NTMWD). NTMWD is a regional wholesale supplier for 13 Member Cities and numerous other customers in Collin, Dallas, Denton, Rockwall, Kaufman, Hunt, Hopkins, Fannin, and Rains Counties in North Central Texas. The NTMWD currently provides water for over 1.7 million people. The City does not wholesale any of this purchased water from NTMWD to other customers. All of the City's wastewater is treated by NTMWD at the Wilson Creek Wastewater Treatment Plant, which has permits for effluent direct back to Lavon Lake.

The main objective of this Plan is for a strategy or combination of strategies for reducing the consumption of water; for reducing the loss or waste of water; for maintaining or improving the efficiency in the use of water; and to have mechanisms in place to preserve supplies for essential uses under drought, water supply shortage, water emergency conditions, or other supply interruptions in the water resource management portion of this plan. This plan has been developed in concert with the Model Water Conservation and Model Water Resource and Emergency Management Plan for the NTMWD Member Cities and Customers[2].

In order to target programs towards the Industrial, Commercial, and Institutional (ICI) customer base, NTMWD hired Alan Plummer Associates to conduct the "North Texas Municipal Water District Industrial, Commercial, and Institutional Water Use Efficiency Study." The primary scope items in the study are as follows:

- Develop ICI Customer Database
- Calculate per Capita Consumptions
- Identify, Define and Categorize
- Establish Base Use Estimates
- Identify Trends
- Select sectors for detailed analysis
- Benchmarking
- Identify Potential for Reduction
- Estimate Potential Demand Reduction by Strategy
- Program Development

The project is currently in the process of data collection. Once the results are published, the City will investigate if any new ICI conservation measures will be implemented.

[1] Superscripted numbers match references listed in Appendix A.

2. DEFINITIONS

1. AQUATIC LIFE means organisms dependent upon an aquatic environment to sustain its life[3].

2. ATHLETIC FIELD *See Public Athletic Field definition*

3. CITY MANAGER means the City Manager of the City of Allen, Texas, or designee.

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

5. COOL SEASON GRASSES are varieties of turf grass that grow best in cool climates primarily in northern and central regions of the U.S. Cool season grasses include perennial and annual rye grass, Kentucky blue grass and fescues and others[5].

6. COSMETIC POWER WASHING means treatment or cleaning of a surface with specialized equipment that uses a spray of or directed water for the cosmetic cleaning of buildings, vehicles or other mobile equipment, or outdoor surfaces. It does not include industrial cleaning, cleaning associated with manufacturing activities, hazardous or toxic waste cleaning, or cleaning necessary to remove graffiti[3].

7. DIRECTOR OF COMMUNITY SERVICES* means the Director of Community Services of the City of Allen, Texas, or designee.

8. DIRECTOR OF COMMUNITY DEVELOPMENT* means the Director of Community Development of the City of Allen, Texas, or designee.

9. DESIGNATED OUTDOOR WATER USE DAY means a day prescribed by rule on which a person is permitted to irrigate outdoors with sprinkler systems[3].

10. DRIP IRRIGATION sometimes known as trickle irrigation, or micro-irrigation, is a method of low volume, low pressure water application on the landscape from a series of valves, pipes, tubes and emitters delivering water at a rate of 0.16 up to 4 gallons per hour (GPH)[5].

11. 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].

12. EVAPOTRANSPIRATION abbreviated as ET represents the amount of water lost from plant material and soils through transpiration and evaporation. The amount of ET can be estimated based on the temperature, wind, and relative humidity[5].

13. 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[5].

14. 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[5].

15. FOUNDATION WATERING means an application of water to the soils directly abutting the foundation of a building or structure[3].

16. GOVERNMENT PROPERTY means a property owned or operated by a federal, state, or local governmental unit, entity, agency, or subdivision for public purpose[3].

17. HOSE-END SPRINKLER means an above-ground water distribution device that may be attached to a garden hose[3].

18. MULTI-FAMILY PROPERTY means a property containing five or more dwelling units[3].

19. NEW LANDSCAPE means living vegetation comprised of turfgrasses, trees, shrubs, groundcovers, and annual or perennial herbaceous plants used ornamentally. Does not include fruits or vegetables[5].

20. ORNAMENTAL FOUNTAIN means an artificially created structure from which a jet, stream, or flow of water emanates and is not generally utilized for the preservation of aquatic life[3].

21. PERMANANTLY INSTALLED IRRIGATION SYSTEM (sometimes called sprinkler system) means a custom-made, site-specific system of delivering water generally for landscape irrigation via a system of pipes or other conduits, valves, heads, or other equipment installed below ground[5].

22. POND is a still body of water with a surface area of 500 square feet or more[5].

23. PUBLIC ATHLETIC FIELD means a sports playing field, the essential feature of which is turf grass, used primarily for organized sports competition or exhibition events for schools, professional

sports, or City sanctioned league play[4]. These include City and Allen Independent School District sports fields; Allen Sports Association fields; and professional sports fields as developed in the city.

24. 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[4].

25. 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[3].

26. RESIDENTIAL FACILITY means a site with four or fewer dwelling units[3].

27. RESIDENTIAL GALLONS PER CAPITA PER DAY (Residential gpcd) the total gallons sold for residential use by a public water supplier divided by the residential population served and then divided by the number of days in the year[6].

28. 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[3].

29. 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[4].

30. TCEQ means Texas Commission on Environmental Quality.

31. TOTAL GALLONS PER CAPITA PER DAY (Total gpcd) the total amount of water diverted and/or pumped for potable use divided by the total permanent population divided by the days of the year. Diversion volumes of reuse as defined in TAC Chapter 288.1 shall be credited against total diversion volumes for the purposes of calculating gpcd for targets and goals[6]. (TAC Chapter 288.1)

32. TWDB means Texas Water Development Board.

33. VEGETABLE/COMMUNITY GARDEN means any non-commercial vegetable garden planted primarily for household use; "non-commercial" includes incidental direct selling of produce from such a vegetable garden to the public[4].

34. 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[3].

35. 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 and emergency response plan[3].

36. WATER SHORTAGE means a condition in which existing or projected water supply or delivery available to City customers is not anticipated to meet, or cannot meet, the ordinary water requirements of these customers.

***RESPONSIBILITIES:**

- **The Director of Community Services is responsible for**:
  - Advising the City Manager in issues related to water conservation and drought and water emergency issues.
  - Developing and maintaining the City Plan in consonance with the most current NTMWD Model Plan and TCEQ guidelines and policies.
  - Implementing programs to reduce and control water loss, calculating and reporting unaccounted for water, and keeping water loss under 12 percent. When water loss exceeds 12 percent, the City will intensify water loss control programs.
  - Supervision of developing and presenting water conservation educational and informational programs.
  - Supervision of developing water conservation promotional activities including a water conservation incentive (rebate) program.
  - Assuring that City ordinances and educational materials are maintained to continue to support future revisions to the City Plan, TCEQ guidelines, and legislative mandate.

- Supervision of preparing and submitting all the required reports, water utility profiles, and tabular materials related to water conservation in the formats and media as required by the City Plan and/or NTMWD, Region C Water Planning group, TCEQ, and/or TWDB.

- Continuing the City's Water and Sewer Fund financial programming to support a 15-year residential meter replacement cycle and conducting a regular large meter-testing program on no less than a 5-year cycle.

- Supporting the City's goal of reducing gallons per capita per day (gpcd).

- Assuring the City continues its program of universal metering and billing.

- Assuring that the City water billing/records management system includes water usage classes and capabilities to sort/separate differing classes and categories of water usage as required by the NTMWD Model Plan and Texas Administrative Code (TAC) Title 30, Part I, Chapter 288, Subchapter A, Rule 288.2(a)(2)(b).

- Providing NTMWD and the Chair of the Region C water planning group the City's adopted ordinance.

- Supervision of tracking the submission and appropriateness of the periodic commercial irrigation audits required by the Allen Land Development Code (ALDC).

- Managing the administrative processing and follow-up associated with the requesting of variances from City customers.

- In coordination with the Director of Community Development, the administrative processing and follow-up associated with the enforcement of all of the provisions of this Ordinance, beginning upon declaration of Stage 2 of the Water Resource Management Plan.

- Managing the program that allows the pursuit of administrative remedies for violations of water conservation and drought water use restrictions.

- **The Director of Community Development is responsible for**:

  - Enforcing the provisions of this Water Conservation and Resource Management Plan through the Code Compliance Staff. Upon declaration of Stage 2 of the Resource Management Plan, shall advise the Director of Community Services on proper code compliance procedures for enforcement.

  - Enforcing the requirements of the International Plumbing Code (IPC) in residential and commercial facilities.

  - Enforcing the provisions of this Water Conservation and Resource Management Plan that are associated with environmental health as part of the regular inspection program.

  - As part of the building permit and building inspection programs, enforcing requirements of the ALDC that requires landscape irrigation system design in accordance with state design and installation requirements, and requirements of commercial irrigation system inspection and audit at installation. This requires irrigation system design submission by builders or licensed irrigators for review by the building official staff and inspection of the irrigation systems as part of the building inspection program, and gathering inspection reports from those commercial installations.

3. WATER CONSERVATION PLAN

3.1 INTRODUCTION

The Water Conservation Plan (Plan) must be updated every 5 years and should include a Utility Profile (Appendix G). The purpose of a water conservation plan is to identify water conservation opportunities and set goals to be accomplished by water conservation measures. This Plan meets the requirements set forth by Texas Water Development Board (TWDB) and the Texas Commission on Environmental Quality (TCEQ) rules governing development of water conservation plans for public water suppliers that are contained in TAC Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.2, which is included in Appendix B. For the purpose of these rules, a water conservation plan is defined as "A strategy or combination of strategies for reducing the consumption of water, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, or for increasing the recycling and reuse of water." In addition to TCEQ rules regarding water conservation, this plan also incorporates elements of the Guidance and Methodology for Reporting on Water Conservation and Water Use developed by TWDB and TCEQ, in consultation with the Water Conservation Advisory Council (the "Guidance"). The Guidance was developed in response to a charge by the 82nd Texas Legislature to develop water use and calculation methodology and guidance for preparation of water use reports and water conservation plans in accordance with TCEQ rules. This Water Conservation and Water Resource Management Plan will replace the plan dated May 2014 titled "Water Conservation and Resource Management Plan for the City of Allen, Texas".

3.2 SPECIFICATION OF WATER CONSERVATION GOALS

TCEQ rules require the adoption of specific water conservation goals for a water conservation plan. As part of plan adoption, the City must develop 5-year and 10-year goals for per capita municipal use. The goals for this City Plan include the following:

- Maintain the per capita municipal water use below the specified amount in gallons per capita per day in a normal climate year, as shown in the completed Table 3.1.
- Maintain the level of unaccounted water in the system below 12 percent annually in 2019 and subsequent years, as discussed in Section 3.7.

- Implement and maintain a program of universal metering and meter replacement and repair, as discussed in Section 3.5.
- Increase efficient water usage through water conservation measures with ordinance for enforcement, as discussed in Section 5 and 6.
- Decrease waste in lawn irrigation by implementation and enforcement of landscape water management regulations, as discussed in Section 5 and 6.
- Raise public awareness of water conservation and encourage responsible public behavior by a public education and information program, as discussed in Section 4.
- Develop a system specific strategy to conserve water during peak demands, thereby reducing the peak use.

Table 3.1

Five-Year and Ten-Year Municipal Per Capita Water Use Goals (gpcd)

Description	Historic 5yr Average (gpcd)	5-Year Goal for year 2024	10-Year Goal for year 2029
Total GPCD	150*	149	148
Residential GPCD	97*	96	95
Water Loss (GPCD)	17*	16	16
Water Loss (percentage)	10%	9%	8%

** Based on 2013, 2015-2018 consumption figures (2014 numbers were omitted due to extreme drought restrictions in place during the non-normal climate conditions)*

3.3 METERING, WATER USE RECORDS, CONTROL OF UNACCOUNTED WATER, AND LEAK DETECTION AND REPAIR

One of the key elements of water conservation is tracking water use and controlling losses through illegal diversions and leaks. It is important to carefully meter water use, detect and repair leaks in the distribution system and provide regular monitoring of unaccounted water.

3.4 ACCURATE METERING OF TREATED WATER DELIVERIES FROM NTMWD

Water deliveries from NTMWD are metered by NTMWD using meters with accuracy of ±2 percent. These meters are calibrated on a monthly basis by NTMWD to maintain the required accuracy.

3.5 METERING OF CUSTOMER AND PUBLIC USES AND METER TESTING, REPAIR, AND REPLACEMENT

The provision of water to all customers, including private, public and governmental users, will continue to be metered in the City of Allen. The City of Allen will test and replace their residential customer meters on a regular basis. All residential customer meters will be budgeted to be replaced on a minimum of a 15-year cycle. Additionally, large meters will be regularly tested and either maintained or replaced when their test flow is more than a 3 percent difference from actual flow.

3.6 RECORD MANAGEMENT SYSTEM

As required by TAC Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.2(a)(2)(B), the City of Allen will maintain a customer billing and record management system that allows for the separation of water sales and uses into residential, commercial, public/institutional, and industrial categories. This information will be included in an annual water conservation report, as described in Section 3.9. Should TCEQ, TWDB, or NTMWD require the inclusion of additional customer classes, the City will add the required classes to its billing and records management system.

3.7 DETERMINATION AND CONTROL OF UNACCOUNTED WATER

Unaccounted water is the difference between water delivered to the City of Allen from NTMWD and metered water sales to customers and authorized but unmetered uses. (Authorized but unmetered uses would include use for firefighting, releases for flushing of lines, uses associated with new construction, etc.). Unaccounted water can include several categories:

- Inaccuracies in customer meters. (Customer meters tend to run more slowly as they age and under-report actual use.)
- Accounts, which are being used but have not yet been added to the billing system.
- Losses due to water main breaks and leaks in the water distribution system.
- Losses due to fire fighting.
- Losses due to illegal connections and theft. (Included in Appendix G.)
- Other.

Measures to control unaccounted water will be part of the routine operations of the City of Allen. Maintenance crews and personnel will test for, observe for, and report evidence of leaks in the water distribution system. A leak detection and repair program is described in Section 3.8 below. Meter services technicians, building inspection staff, and all City crews will watch for and report signs of water loss and illegal connections, so they can be quickly addressed.

Unaccounted water should be calculated in accordance with the provisions of Appendix G. With the measures described in this City Plan, the City of Allen should maintain unaccounted water below 12 percent in 2019 and subsequent years. If unaccounted water exceeds this goal, the City of Allen will implement a more intensive audit to determine the source(s) of and reduce the unaccounted water. The annual conservation report described in section 3.9 (below) is the primary tool that should be used to monitor unaccounted water.

3.8 LEAK DETECTION AND REPAIR

As described above, City crews, building inspectors, and personnel should look for and report evidence of leaks in the water distribution system. Additionally, crews will survey the distribution system using acoustic leak detection equipment to locate main line leaks. Areas of the water distribution system, in which numerous leaks and line breaks occur, should be targeted for replacement, as funds are available.

3.9 MONITORING OF EFFECTIVENESS AND EFFICIENCY - ANNUAL WATER CONSERVATION REPORT TO NTMWD

Appendix D is the NTMWD form that is used in the development of an annual water conservation report by the City of Allen and is a copy of the 2018 report. This form is completed by March 31 each year, and used to monitor the effectiveness and efficiency of the water conservation program to plan conservation-related activities for the next year. The form records the water use by category, per capita municipal use, and unaccounted water for the current year and compares them to historical values. The annual water conservation report is sent to NTMWD, which will monitor NTMWD Member Cities and Customers' water conservation trends.

3.10 WATER CONSERVATION ANNUAL REPORT

Appendix I includes the TWDB-required water conservation annual report for 2019. The report is due to the TWDB by May 1 of every year. This report lists annual water use along with the various water conservation strategies that have been implemented. The report also shows the estimated gallons of water saved by using the new developed conservation tool from TWDB. The report calls for the five-year and ten-year per capita water use goals from the previous water conservation plan. The City may determine if new strategies are necessary to achieve conservation goals.

4. PUBLIC INFORMATION AND EDUCATION CAMPAIGN

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 has invested $11.2 million since 2006 in this public education campaign. The 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 City of Allen resides within the media area where this campaign is focused from NTMWD. In addition to NTMWD campaign, the City of Allen employs the following public information strategies:

- Dedicated webpage to water conservation. (CityofAllen.org/water-conservation)
- Periodic e-newsletter dedicated to water conservation.
- The City of Allen is an EPA WaterSense Partner and participates in their campaigns of "Fix a Leak Week", "Build a Better Bathroom", and "Sprinkler Spruce-Up".

- The City promotes "July is Smart Irrigation Month", an initiative by the Irrigation Association to promote efficient irrigation systems through both new design and retrofitting of inefficient systems.

- The City promotes *Texas Smartscape* website (txsmartscape.com) on conservation webpage.

- The City provides a "Sustainable Landscape Series"-A winter/spring educational series on best management practices for lawns, landscapes, and irrigation systems to conserve resources.

- Public outreach of K-12 grade level "H2O Youth Education Program" to Allen Independent School District, home school groups, boys and girl scouts and environmental clubs.

- Public outreach to HOA's, Kiwanis, Rotary, and Lion's Club, area Garden Clubs and other speaking opportunities within the City and region.

- The City provides monthly water conservation messages on the utility bill.

- The City promotes water conservation messaging on their outreach display Water Conservation Tent at public events, garden shows, City events, and more.

- The City has a volunteer neighborhood program called Block Leaders who help to distribute educational materials within their HOA and/or neighbors.

- The City promotes residents to enroll in the weekly watering advice websites that provide recommendations for sprinkler use by email or text based on ET and forecast weather conditions, such as Texas A&M ET Network, City of Frisco, Water is Awesome, or Water my Yard.

5. ENHANCED WATER CONSERVATION STRATEGIES

5.1 WATER RATE STRUCTURE

The City of Allen will continue to bill customers using an increasing block rate water structure that is intended to encourage water conservation and discourage excessive use and waste of water. An example water rate structure suggested by the NTMWD Model Plan is provided below. The current City of Allen rate structure, by customer classification, surpasses the minimum requirements suggested by the NTMWD. (Appendix H-2019 rates). The City's current rate structure guidelines are:

Residential Rates

1. Monthly minimum charge. This can (but does not have to) include up to 2,000 gallons water use with no additional charge.
2. Base charge per 1,000 gallons up to the approximate average residential use.
3. 2nd tier (from the average to 2 times the approximate average) at 1.25 to 2.0 times the base charge.
4. 3rd tier (above 2 times the approximate average) at 1.25 to 2.0 times the 2nd tier.
5. The residential rate can also include a lower tier for basic household use up to 4,000 gallons per month or a determined basic use.

Commercial/Industrial Rates

Commercial/industrial rates should include at least 2 tiers, with rates for the 2nd tier at 1.25 to 2.0 times the first tier. Higher water rates for commercial irrigation use are encouraged, but not required.

5.2 ORDINANCES, PLUMBING CODES, OR RULES ON WATER-CONSERVING FIXTURES.

The state has required water-conserving fixtures in new construction and renovations since 1992. The state standards call for flows of no more than 2.2 gallons per minute (gpm) for faucets and 2.5 gpm for showerheads, and 1.28 gallons per flush for toilets. Similar standards are now required nationally under federal law. These state and federal standards assure that all new construction and renovations will use water-conserving fixtures. Rebate programs to encourage replacement of older fixtures with water conserving fixtures are discussed in section 5.4.

5.3 REUSE AND RECYCLING OF WASTEWATER

The City does not own and operate a wastewater treatment plant. All wastewater for the City is treated by NTMWD at the Wilson Creek Wastewater Treatment Plant. All effluent water from this treatment plant is released into Lavon Lake for reuse that is permitted for reuse for NTMWD by the state. In essence, all wastewater is reused through this process, and, therefore the City does not consider gray water initiatives or implementation of direct use of effluent on parks.

5.4 REBATES AND OTHER CONSERVATION INCENTIVES

The City of Allen has a comprehensive residential rebate program, the H_2OME IMPROVEMENT REBATE PROGRAM, with a separate webpage dedicated to advertise to the public. (CityofAllen.org/Rebates) Separate rebates for the following items:

- Whole house Pressure Reducing Valve installation.
- Low-flow Toilet Replacement. (linked to EPA WaterSense)
- Water-efficient Washing Machine purchase.
- Rain Barrel purchase/installation.
- Rain and Freeze Sensor retrofit and installation.
- SMART irrigation technology retrofit and installation*****. (linked to EPA WaterSense)

The City of Allen has reviewed the makes and models of our one commercial coin operated laundry facility and determined the facility is already using low water use equipment. At this time, there is no need to add a rebate incentive for this facility. Should any new facility seek permit, the City shall insure they install water efficient equipment.

The City of Allen offers the following incentive to residential homes that have an installed lawn and landscape irrigation (sprinkler) system:

- Irrigation (sprinkler) system evaluation at no cost. This is outsourced by a licensed irrigation contractor to evaluate and make recommendations for water conserving improvements to the system. This evaluation is linked to the SMART irrigation technology rebate.

*** The SMART irrigation technology rebate includes retrofit of irrigation systems to more conserving devices such as drip irrigation, flow sensors, soil moisture sensors, high efficiency nozzles and controllers such as SMART/ET controllers for their water efficiency. However, having any of these devices will not exempt anyone from daytime watering or allowed water day restrictions in the conservation and water resource management plan**.

5.5 COMPULSORY LANDSCAPE WATER MANAGEMENT MEASURES

Landscape water management measures are strategies for reducing the consumption of water, reducing the loss or waste of water, or improving or maintaining the efficiency in the use of water. The measures include best management practices developed by the Board and the Commission in coordination with the Water Conservation Implementation Task Force and the Water Conservation Advisory Council.

The following landscape water management measures are required or recommended by the NTMWD for this plan. These measures represent minimum measures to be implemented and enforced in order to irrigate the landscape appropriately, and are to remain in effect on a permanent basis unless water resource management stages are declared. Most of these measures were developed specifically to address efficient use of water in the City of Allen:

- Prohibit water waste at all times. *Water runoff to streets, alleys, or storm drains OR failing to repair a controllable leak is considered water waste.*
- Limit landscape watering with sprinklers or irrigation systems at each service address to no more than two days per week on designated days year round, with education that less than twice per week is usually adequate. Exceptions:
    - Additional watering of lawn, landscape, or building foundations may be provided by hand-held hose, use of dedicated irrigation drip zones, and/or soaker hoses, on any day, provided no runoff occur.
    - New landscape associated with new construction or renovation of existing landscapes may be watered as necessary for 30 days from the installation, with approved variance. Variance must be requested through CityofAllen.org/waterconservation website.
    - Golf courses may water greens and tee boxes without restrictions.
    - Public athletic fields used for competition may be watered without restrictions.
    - Locations using other sources of water supply only for irrigation may irrigate without day of the week restrictions provided proper signage is employed. However, irrigation using alternative sources of supply is subject all other restrictions applicable to these measures. If the alternative supply source is a well, proper proof of well registration with the North Texas Groundwater Conservation District is required. Other sources of water supply may not include imported water, whether treated (potable) or untreated.

- Prohibit lawn irrigation watering from 10 AM to 6 PM April 1-October 31 each year.
- Prohibit the use of irrigation systems that intentionally water impervious surfaces. (Wind driven water drift will be taken into consideration.)
- Prohibit of use of poorly maintained irrigation systems that waste water.
- Prohibit outdoor watering during precipitation or freeze events.
- Prohibit the use of potable water to fill or refill residential, amenity, and any other natural or manmade ponds. A pond is considered to be a still body of water with a surface area of 500 square feet or more.
- Require all new irrigation systems to be in compliance with state design and installation regulations (TAC Title 30, Part 1, Chapter 344). Require that these irrigation systems be inspected at installation by Building Inspections to insure systems are installed as regulated.
- Require rain and freeze sensors and/or ET or Smart controllers on all new irrigation systems. Rain and freeze sensors and/or ET or Smart controllers must be maintained to function properly. ET or Smart controllers **ARE NOT** exempt from water restrictions in this plan.
- Require the playing surface on all new athletic fields be irrigated by a separate irrigation system from surrounding areas.
- Require all commercial irrigation accounts to be inspected with audit once every three years by guidelines set forth in the Allen Land Development Code.

ADDITIONAL REQUIRED WATER CONSERVATION MEASURES:

- Non-commercial car washing can be done only when using a water hose with a shut-off nozzle. This includes car washing performed as part of non-profit fundraising activities.
- Water should only be served in all restaurants and food service establishments upon customer request.
- Positive shut-off nozzles must be used in all restaurants and food service establishment kitchens to prevent wash and rinse water running continuously.
- Hotels and motels shall offer a linen reuse water conservation option to customers.

6. WATER RESOURCE MANAGEMENT PLAN

6.1 INTRODUCTION

The Water Resource Management Plan is often called Drought Contingency and Emergency Response Plan. The purpose of this Water Resource 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 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 city receives all treated water from NTMWD. 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 that may render all or some portion of the water supply unavailable. These conditions can include but are not limited to presence of invasive species, contamination of the water supply, or infrastructure failure.

6.2 PROVISIONS TO INFORM THE PUBLIC AND OPPORTUNITY FOR PUBLIC INPUT

The City of Allen provided opportunity for public input in the development of this water resource management plan by the following means:

- Providing written notice of the proposed plan and the opportunity to comment on the plan by city website and utility billing notice.

- Holding a public meeting regarding the water resource management plan at City Hall on March 29, 2019

6.3 INITIATION AND TERMINATION OF WATER RESOURCE MANAGEMENT STAGES

The City of Allen will initiate and terminate stages of this plan on the basis of North Texas Municipal Water District (NTMWD) request when criteria they have set forth is determined by their Board of Directors, but may also initiate and terminate stages based on City-wide emergencies as outlined in the 5th bullet below. The first through fourth bullets are NTMWD criteria for initiation and termination of stages of the plan:

Initiation of a Water Resource Management Stages

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 email from the district that provides details of the reasons for initiation of the water resource management stage.
- If any mandatory provisions of the Water Resource 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 that could influence such a decision include, but are not limited to: the time of the year, weather conditions, the anticipation of replenished water supplies, or the anticipation that additional facilities will become available to meet needs.
- In the event of a Citywide emergency, the order shall be made by public announcement in the City within twenty-four hours on implementation. In the event of an emergency of limited geographical extent, door-to-door notification shall be made by door hangers and/or in person, at which time the City Manager authorized state of emergency shall become immediately

effective. Once an emergency has been declared, the City Manager may utilize supplemental public notifications including: notices posted on signage in the city medians and right of ways, written notices at City Hall, Civic Centers, libraries, fire stations, post offices, major supermarkets, schools, major corporate centers, Chamber of Commerce. Notices sent by direct mail, television and radio PSA, internet website announcements, ACTV news, newspaper, and other news media to notify the public.

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 water resource management 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 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 that 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.
- For water resource management stages that the City declares, the City will order termination of the stage at their discretion when it is determined the emergency has ceased to exist.

6.4 WATER RESOURCE MANAGEMENT MEASURES STAGE ONE (1)

Initiation and Termination Conditions for Stage 1 as determined by NTMWD:

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, as published by the Texas Water Development Board[3], in Lavon Lake is less than 70 percent of the total conservation pool capacity during the months of April through October or less than 60 percent of the total conservation pool capacity during the months of November through March.
- The Sabine River Authority (SRA) has indicated that its Upper Basin water supplies used by NTMWD (Lake Tawakoni and/or Lake Fork) are in Stage 1 drought.
- NTMWD has concern that Lake Texoma, Jim Chapman Lake, the East Fork Water Reuse Project, Main Stem Pump Station, or some other NTMWD source may be limited in availability within the next six (6) months.
- Water demand exceeds 95 percent of the amount that can be delivered to customers for three (3) consecutive days.
- Water demand for all or part of the delivery system approaches delivery capacity because delivery capacity is inadequate.
- Supply source is interrupted or unavailable due to contamination, invasive species, equipment failure or other causes.
- Part of the system has a shortage in supply or damage to the equipment. The District may implement measure for only that portion of the system impacted.
- Water supply system is unable to deliver water due to the failure or damage of major water system components.

In addition to NTMWD triggers, in the event of a Citywide emergency, the order shall be made by public announcement in the City within twenty-four hours on implementation. These triggers below are internal triggers that may cause the City to implement Stage 1 restrictions:

- The City's water demand exceeds 95 percent of the amount that can be delivered to customers for three consecutive days.
- The City's water demand for all or part of the delivery system equals delivery capacity because delivery capacity is inadequate.

- The City's water supply source becomes contaminated.
- The City's water supply system is unable to deliver water due to the failure or damage of major water system components.
- The City is unable to recover water storage of 90 percent in all storage facilities within a twenty-four hour period.

Same City Authority may terminate stage 1 when the circumstances that caused the initiation of Stage 1 no longer prevail. NTMWD may terminate due to:

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

Goal for Use Reduction and Actions Available under Stage 1

The goal for water use reduction under Stage 1 is a two percent (2%) reduction in the amount of water obtained from NTMWD from the previous annual payment period prior to drought restrictions. **If circumstances warrant or if required by NTMWD, the City Manager, Mayor, or official designee can set a goal for greater or lesser water use reduction in the City of Allen.** The City Manager, Mayor, or official designee may order the implementation of any/all of the actions listed below, as deemed necessary to achieve a two percent reduction. **The City must notify TCEQ and NTMWD within five business days if these measures are implemented:**

- Continue all actions in the water conservation plan.
- 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.

- Prohibit over-seeding, sodding, sprigging, broadcasting or plugging with cool season grasses or watering these, with exception of public athletic fields and golf courses.

- 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, and to one day per week on designated days between November 1 – March 31 each year. Exceptions are as follows:

    - New landscape associated with new construction may be watered as necessary for 30 days from the installation, with approved variance. Variance must be requested through CityofAllen.org/waterconservation website.
    - Additional watering of the lawn, landscape, or building foundations may be provided by hand-held hose, use of dedicated irrigation drip zones, and/or soaker hoses, on any day, provided no runoff occur.
    - Golf courses may water greens and tee boxes without restrictions.
    - Public athletic fields used for competition may be watered twice per week year round.
    - Locations using other sources of water supply only for irrigation may irrigate without day of the week restrictions provided proper signage is employed. However, irrigation using alternative sources of supply is subject all other restrictions applicable to this stage with exception of cool season grass planting. If the alternative supply source is a well, proper proof of well registration with the North Texas Groundwater Conservation District is required. Other sources of water supply may not include imported water, whether treated (potable) or untreated.

- Initiate a rate surcharge as requested by NTMWD, or as deemed necessary by the Mayor, City Manager, or designated representative.

6.5 WATER RESOURCE MANAGEMENT MEASURES STAGE TWO (2)

Initiation and Termination Conditions for Stage 2 as Determined by NTMWD:

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

In addition to NTMWD triggers, in the event of a Citywide emergency, the order shall be made by public announcement in the City within twenty-four hours on implementation. These triggers below are internal triggers that may cause the City to implement Stage 2 restrictions:

- The City's water demand exceeds 98 percent of the amount that can be delivered to customers for three (3) consecutive days.
- The City's water demand for all or part of the delivery system exceeds delivery capacity because delivery capacity is inadequate.

- The City's water supply source becomes contaminated.
- The City's water supply system is unable to deliver water due to the failure or damage of major water system components.
- The City is unable to recover water storage of 75 percent in all storage facilities within a twenty-four hour period.

Same City Authority may terminate stage 2 when the circumstances that caused the initiation of Stage 2 no longer prevail. NTMWD may terminate due to:

- The Executive Director, with concurrence of the NTMWD Board of Directors, finds that condition warrant the termination of Stage 2.
- The storage level, as published by the Texas Water Development Board[3], in Lavon Lake is greater than 70 percent of the total conservation pool capacity during the months of April through October or greater than 60 percent of the total conservation pool capacity during the months of November through March.
- Other circumstances that caused the NTMWD's initiation of Stage 2 no longer prevail.

Goal for Use Reduction and Actions Available under Stage 2

The goal for water use reduction under Stage 2 is a reduction of ten percent (10%) in the amount of water obtained from NTMWD from the previous annual payment period prior to drought restrictions. **If circumstances warrant or if required by NTMWD, the City Manager, Mayor, or official designee can set a goal for greater or lesser water use reduction in the City of Allen.** The City Manager, Mayor, or official designee may order the implementation of any/all of the actions listed below, as deemed necessary to achieve a ten percent reduction. **The City must notify TCEQ and NTMWD within five business days if these measures are implemented**:

- Continue or initiate any/all actions available under Conservation Plan and Stage 1.
- Limit landscape watering with sprinklers or irrigation systems at each service address to one day per week on designated days between April 1 – October 31, and to one day every two weeks on a designated day between November 1 – March 31 each year. Exceptions are as follows:

- New landscape associated with **new construction** may be watered as necessary for 30 days from the date of the installation, with approved variance. Variance must be requested through CityofAllen.org/waterconservation website.
- Trees, within a 10-foot radius of its trunk; shrubs; and/or building foundations may be watered up to two hours any day by hand-held hose, a dedicated irrigation drip zone, and/or a soaker hose provided no runoff occur. *(Does not include lawn watering)*
- Golf courses may water greens and tee boxes without restrictions.
- Public athletic fields may be watered twice per week year round.
- Locations using other sources of water supply only for irrigation may irrigate without day of the week restrictions provided proper signage be employed. However, irrigation using alternative sources of supply is subject all other restrictions applicable to this stage with exception of cool season grass planting. If the alternative supply source is a well, proper proof of well registration with the North Texas Groundwater Conservation District is required. Other sources of water supply may not include imported water, whether treated (potable) or untreated.

- Prohibit new sod, hydro seeding, hydro mulching, and sprigging. Exception for **new** building construction: may use sod only to stabilize soil and may be watered as necessary for 30 days from the date of the installation, with approved variance. Variance must be requested through CityofAllen.org/waterconservation.

- Prohibit the procurement of construction water (i.e. through fire hydrant meters) from the City of Allen water supply that will be used outside the corporate city limits of the City of Allen.

- Initiate a rate surcharge as requested by NTMWD, or as deemed necessary by the Mayor, City Manager, or designated representative.

6.6 WATER RESOURCE MANAGEMENT MEASURES STAGE THREE (3)

Initiation and Termination Conditions for Stage 3 as Determined by NTMWD:

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 NTMWD permitted supply.

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

In addition to NTMWD triggers, in the event of a Citywide emergency, the order shall be made by public announcement in the City within twenty-four hours on implementation. These triggers below are internal triggers that may cause the City to implement Stage 3 restrictions:

- The City's water demand exceeds the amount that can be delivered to customers.
- The City's water demand for all or part of the delivery system seriously exceeds delivery capacity because the delivery capacity is inadequate.
- The City's water supply source becomes contaminated.
- The City's water supply system is unable to deliver water due to the failure or damage of major water system components.

- The City is unable to recover water storage of 50 percent in all storage facilities within a twenty-four hour period.

Same City Authority may terminate stage 3 when the circumstances that caused the initiation of Stage 3 no longer prevail. NTMWD may terminate due to:

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

Goal for Use Reduction and Actions Available under Stage 3

The goal for water use reduction under Stage 3 is a reduction of whatever amount is designated by NTMWD 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, Mayor, or official designee can set a goal for greater or lesser water use reduction in the city of Allen.** The City Manager, Mayor, or official designee may order the implementation of any/all of the actions listed below, as deemed necessary to achieve the required reduction. **The City must notify TCEQ and NTMWD within five business days if these measures are implemented**:

- Continue or initiate any actions available under Conservation Plan, Stages 1, and 2.
- Initiate mandatory water use restrictions as follows:
    - Prohibit hosing of paved areas, buildings, or windows. (Except for cosmetic pressure washing of impervious surfaces for human health and safety purposes.)
    - Prohibit operation of all ornamental fountains if they use potable water.
- Prohibit the installation of any new landscape plants.
- Prohibit all commercial and residential landscape/lawn watering, except:

- Trees, within a 10-foot radius of its trunk; and/or building foundations may be watered up to two hours on a designated day by hand-held hose, a dedicated irrigation drip zone, and/or a soaker hose provided no runoff occur.

- Golf courses may water greens and tee boxes without restrictions, unless further water reductions become necessary.

- Public athletic fields may be watered up to twice per week, unless further water reductions become necessary to attain the assigned use reduction goal.

- Locations using other sources of water supply only for irrigation may irrigate without day of the week restrictions provided proper signage be employed. However, irrigation using alternative sources of supply is subject all other restrictions applicable to this stage, with exception of cool season grass planting. If the alternative supply source is a well, proper proof of well registration with the North Texas Groundwater Conservation District is required. Other sources of water supply may not include imported water, whether treated (potable) or untreated.

- Prohibit washing of vehicles except at commercial "car wash" facilities whose wastewater goes into a sanitary sewer system.

- Prohibit the permitting of private pools. Pools already permitted may be completed and filled with water.

- Existing swimming pools may not be drained and refilled. (Existing private and public pools may add water to maintain pool levels but may not be drained and refilled.)

- Prohibit the operation of all public and private spray ground water parks or other water consuming recreation activities that do not treat and recirculate water. Public spray grounds that recirculate water are not restricted unless further reductions become necessary.

- 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.

- Initiate a rate surcharge as requested by NTMWD, or as deemed necessary by the Mayor, City Manager, or designated representative.

6.7 EMERGENCY WATER MANAGEMENT

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

6.8 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 F. 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.

6.9 PROCEDURE FOR GRANTING VARIANCES TO THE PLAN

For variance request for watering while observing the Conservation plan, and Stage 1 of the Water Resource Management Plan restrictions, a variance may be granted using the form on the webpage CityofAllen.org/WaterConservation.

For any other Stage of the Water Resource Management Plan, the City Manager, Mayor, or official designee may grant temporary variances for existing water uses otherwise prohibited under this Water Conservation and Water Resource Management Plan if 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.
- Variances shall be granted or denied at the discretion of the City Manager, Mayor, or official designee. All petitions for variances should be in writing and should include the following information:
    - Name and address of the petitioners

- 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
- Other pertinent information.

Variance requests may be delivered to the first floor customer service area of City Hall or mailed, addressed to the Attention of the Director of Community Services, 305 Century Parkway, Allen Texas 75013. Variances are considered temporary and must be submitted for reconsideration should the water resource management plan stage elevate from the stage in which the temporary variance was approved to any higher stage of response.

6.10 PROCEDURES FOR ENFORCING MANDATORY WATER USE RESTRICTIONS

Mandatory water use restrictions may be imposed in the Water Conservation Plan, Stage 1, Stage 2 and/or Stage 3 of the Water Resource Management Plan. The penalties associated with the mandatory water use restrictions are as follows:

Criminal Penalties: Any person, or customer, defined pursuant to 30 Tex. Admin. Code Chapter 291, failing to comply with the provisions of the Plan shall be subject to a fine of up to two thousand dollars ($2,000). Each day a person or customer fails to comply with the Plan or is in violation of this Plan shall constitute an offense. The City's authority to seek injunctive or other civil relief available under the law is not limited by this section.

Beginning at Stage 2, the Director of Community Services, in coordination with the Director of Planning and Development, may enforce all of the water conservation and water resource management plan mandatory water restrictions. Prior to initiation of enforcement, the Community Services Director will designate City Staff to do enforcement and ensure their training in proper court procedures and evidence requirements by the Allen Municipal Court. City Staff designated by the Director of Community Services will be restricted to enforce only the provisions of this Plan. Since most violations may occur during the night or when no one is available at the violation site, the staff will provide suspected violators instructions on appearing to sign their citation for any violation that may occur.

Once a citation has been issued for violation and signed, the violator must make contact with the Allen Municipal Court to pay the fine or request a court date at the Clerk's office located at 301 Century Parkway, Allen, Texas 75013. Failure to appear may result in an increase of fine, filing of additional charges or issuance of warrants. In lieu of pursuing criminal penalties, the City may elect to exercise administrative remedies as discussed in the next paragraph.

Administrative Remedies. The City may elect to exercise the following administrative remedies in lieu of pursuing criminal penalties against all water account holders. However, it will be the typical method used to deal with commercial properties and/or homeowners associations. Once City Staff have witnessed a violation of this Plan at any address, a Notice of Violation may be left on the door, and followed by written notice. This written notice will be mailed to the billing address of the utility account that is listed in the utility billing system. The notice will be mailed via United States Postal Service. The fees associated with administrative resolution of violations are listed in section (1) below.

(1) Administrative Fees. For violations of this Plan the following administrative fees may be assessed and added to the customer's regular monthly City utility bill:

First Offense	$200
Second Offense	$400
Third Offense	$600
Fourth and Subsequent Offenses	$2,000

(2) Contesting Administrative Fees. A water customer may appeal the assessment of an administrative fee by requesting in writing a hearing before a hearing officer(s) appointed by the Director of Community Services within fifteen business days after the date on the Notice. The hearing officer(s) shall evaluate all information offered by the customer at the hearing. The customer shall bear the burden of proof to show why, by preponderance of the evidence, the administrative fee should not be assessed. The hearing officer(s) will render a decision in writing within three business days after the conclusion of the hearing and send written notice of the decision to the customer. A customer may appeal the decision of the hearing officer(s) to the Director of Community Services by written request submitted within three business days after receipt of the decision of the hearing officer. The decision of the Director of Community Services is final and binding.

(3) Paying Assessed Fees. If, after the expiration of the fifteen business days from the date on the Notice, the customer has not requested an administrative hearing to contest the assessment of an administrative fee or paid the administrative fee, the City shall apply and charge the assessed administrative fee to the customer's next City Utility Bill.

Unpaid assessed administrative fees related to violations of water use restrictions under the City Plan shall incur late payment penalties and may result in termination of water service.

6.11 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 conservation and water resource management plan.

6.12 REVIEW AND UPDATE OF WATER CONSERVATION AND WATER RESOURCE MANAGEMENT PLAN

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

6.13 ADOPTION OF THE WATER CONSERVATION AND WATER RESOURCE MANAGEMENT PLAN

Appendix E contains a copy of the formal adoption of the Water Conservation and Water Resource Management Plan through Ordinance No. 3219-4-14, approved on April 22, 2014 by Allen City Council to be effective at a time specified therein.

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, July 2012

2. Freese and Nichols, Inc.: Model Water Conservation and 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. Definition developed by Freese and Nichols, Inc. and/or Gail Donaldson.

6. 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.

7. Texas Water Development Board, Texas Commission on Environmental Quality, Water Conservation Advisory Council. “DRAFT Guidance and Methodology for Water Conservation Reporting.”

8. Freese and Nichols, Inc. “2011 Region C Water Plan”.

APPENDIX B

Texas Administrative Code

Next Rule>>

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

APPENDIX C- Letter to Region C and D-via email and electronic submission

April 25, 2019

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

Re: Water Conservation and Water Resource Management Plan for the City of Allen, Texas

Dear Mr. Ward:

Enclosed please find a copy of the Water Conservation and Water Resource Management Plan for the City of Allen, Texas (the "Plan").

I am submitting a copy of this Plan to the Region C Water Planning Group in accordance with the Texas Water Development Board and Texas Commission on Environmental Quality rules. Also enclosed are letters of notification to the Texas Commission on Environmental Quality, the Texas Water Development Board, and Region D Water Planning Group.

The City of Allen Council adopted this updated Plan through Ordinance XXXX-XX-XX on April 23, 2019. Should you have any questions, please direct them to Gail Donaldson, Water Conservation Manager, 214-509-4559.

Sincerely,

Gail Donaldson
Water Conservation Manager

Enclosures
cc: Resource Protection Team, Texas Commission on Environmental Quality
Texas Water Development Board, wcpteam@twdb.texas.gov
Richard LeTourneau, Chair, Region D Water Planning Group

APPENDIX D- Copy of NTMWD Member City and Customer Water Conservation Report

APPENDIX E- Copy of adopted ordinance.

Ordinance No. XXXX-XX-XX

APPENDIX F

WATER CODE
TITLE 2. WATER ADMINISTRATION
SUBTITLE B. WATER RIGHTS
CHAPTER 11. WATER RIGHTS

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

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

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

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

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

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

APPENDIX G Texas Water Development Board Utility Profile

APPENDIX H 2019 Water Utility Rates

APPENDIX I Texas Water Development Board Annual Report-2019