

City of Allen

2024 Water Conservation and Water Resource and Emergency Management Plan

Adopted on 4.9.2024

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DEFINITIONS

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

BEST MANAGEMENT PRACTICES (BMPs) are voluntary efficiency measures that have the potential to save a quantifiable amount of water, either directly or indirectly, and that can be implemented within a specific time frame.

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

COMMERCIAL IRRIGATION means an irrigation system that is not used for residential service and included, but is not limited to, irrigation services for commercial facilities and subdivision entrance landscaping.

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.

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

CONSERVATION includes those practices, techniques, and technologies that have potential to reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water, or increase the recycling and reuse of water so that a water supply is made available for future or alternative uses.

COOL SEASON GRASSES are varieties of turf grass that grow best in cool climates primarily in northern and central regions of the U.S. and may grow during the winter months in Allen. Cool season grasses include but are not limited to perennial and annual rye grass, Kentucky blue grass, fescues and others.

CUSTOMER an entity to whom NTMWD provides wholesale water that are not member cities of NTMWD.

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

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 delivering water at a rate of 0.16 up to 4 gallons per hour (GPH); also called trickle irrigation.

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.

ET/SMART CONTROLLERS are irrigation controllers that adjust their schedule and run times based on evapotranspiration (ET) data. These controllers are designed to replace the amount of water lost to evapotranspiration.

EVAPOTRANSPIRATION (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.

EXECUTIVE DIRECTOR means the Executive Director of NTMWD and includes a person the Executive 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.

FOUNDATION WATERING means an application of water to the soils directly abutting (within 2 feet of) the foundation of a building or structure.

INTERACTIVE WATER FEATURES means water sprays, dancing water jets, ornamental fountains, or splash pads that are maintained for recreation.

IRRIGATION SYSTEM means a permanently or temporarily installed, custom-made, site-specific system of delivering water generally for landscape irrigation via a system of pipes or other conduits.

LANDSCAPE means any plant material on a property, including any tree, shrub, vine, herb, flower, succulent, ground cover, grass or turf species, that is growing or has been planted out of doors. Does not include fruits or vegetables or installations defined as new landscape.

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

MUNICIPAL USE means the use of potable water provided by a public water supplier as well as the use of treated wastewater effluent for residential, commercial, industrial, agricultural, institutional, and wholesale uses.

NEW LANDSCAPE means: (a) vegetation installed at the time of the construction of a residential or commercial facility; (b) installed as part of a governmental entity's capital improvement project; or (c) installed to stabilize an area disturbed by construction; or (d) installing living vegetation comprised of turfgrasses, trees, shrubs, groundcovers, and annual or perennial herbaceous plants used ornamentally. Does not include fruits or vegetables.

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

PLAN refers to the Water Conservation and Water Resource Emergency Management Plan.

POND is considered to be a still and retained body of water with a surface area of 500 square feet or more. This does not include recreational swimming pools.

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 use. These include City and Allen Independent School District sports fields; Allen Sports Association fields; and professional sports fields as developed in the city.

PUBLIC WATER SUPPLIER is an individual or entity that supplies water to the public for consumption.

RAIN AND 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.

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.

REGIONAL WATER PLANNING GROUP is a group established by the Texas Water Development Board to prepare a regional water plan under Texas Water Code, §16.053.

RESIDENTIAL GALLONS PER CAPITA PER DAY (RESIDENTIAL GPCD) means the total gallons sold for retail residential use by a public water supplier divided by the residential population served and then divided by the number of days in the year.

RETAIL CUSTOMERS include those customers to whom the utility provides retail water from a water meter.

REUSE is the authorized use for one or more beneficial purposes of use of water that remains unconsumed after the water is used for the original purpose of use and before that water is either disposed of or discharged or otherwise allowed to flow into a watercourse, lake, or other body of state-owned water.

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.

SPRINKLER/SPRAY IRRIGATION is the method of applying water in a controlled manner that is similar to rainfall. The water is distributed through a network that may consist of pumps, valves, pipes, and sprinklers.

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

SWIMMING/RECREATIONAL POOL means any structure, basin, chamber, or tank including hot tubs, containing an artificial body of water that involves contact recreation. This includes activities that are presumed to involve a significant risk of ingestion of water (e.g. wading by children, swimming, water skiing, diving, tubing, surfing, etc.)

TOTAL GALLONS PER CAPITA PER DAY (TOTAL GPCD) means the total amount of water diverted and/or pumped for potable use less wholesale sales divided by the total permanent population divided by the days of the year. Diversion volumes of reuse as defined in TAC 288.1 shall be credited against total diversion volumes for the purposes of calculating GPCD for targets and goals.

WATER CONSERVATION COORDINATOR is the person designated by a retail public water supplier that is responsible for implementing a water conservation plan.

WATER CONSERVATION PLAN means the Member City or Customer water conservation plan approved and adopted by the entity.

WATER RESOURCE AND EMERGENCY MANAGEMENT PLAN means a plan 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.

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

ABBREVIATIONS

Ac-Ft/Yr.....	Acre-Feet per Year
BMP.....	Best Management Practices
DWU.....	Dallas Water Utilities
E&O.....	Education and Outreach
ED.....	Executive Director
EPA.....	Environmental Protection Agency
ET.....	Evapotranspiration
FNI.....	Freese and Nichols, Inc.
gpf.....	Gallons per Flush
gpm.....	Gallons per Minute
LAMP.....	Linear Asset Management Plan
LRWSP.....	Long Range Water Supply Plan
FWSD.....	Fresh Water Supply District
GPCD.....	Gallons per Capita per Day
ICIM.....	Industrial, Commercial, Institutional and Multifamily
MGD.....	Million Gallons per Day
MUD.....	Municipal Utility District
NCTCOG.....	North Central Texas Council of Governments
NTMWD.....	North Texas Municipal Water District
SUD.....	Special Utility District
TCEQ.....	Texas Commission on Environmental Quality
TRWD.....	Tarrant Regional Water District
TWDB.....	Texas Water Development Board
UTRWD.....	Upper Trinity Regional Water District
UD.....	Utility District
WCAC.....	Water Conservation Advisory Council
WCP.....	Water Conservation Plan
WREMP.....	Water Resource and Emergency Management Plan
WSC.....	Water Supply Corporation
WENNT.....	Water Efficiency Network of North Texas
WTP.....	Water Treatment Plant
WWTP.....	Wastewater Treatment Plant

2024 Water Conservation Plan

This Water Conservation Plan has been developed in accordance with the requirements of 30 Texas Administrative Code (TAC) Chapter 288. A copy of the version of 30 TAC Chapter 288 in place at the time of this Plan preparation is included in Appendix B.

1.00 INTRODUCTION

City of Allen is a Member City of the North Texas Municipal Water District (NTMWD). This Plan was developed following TCEQ guidelines and requirements governing the development of water conservation plans.

The goal of the Water Conservation Plan is to serve as good stewards of water resources by preserving water supplies for essential uses and the protection of public health. The objectives to achieve this goal are as follows:

- To reduce the loss and waste of water.
- To improve efficiency in both indoor and outdoor water use.
- To maximize the level of recycling and reuse.
- To protect and preserve environmental resources.
- To extend the life of current water supplies.
- To raise public awareness of water conservation and encourage responsible personal behavior through public education programs.

1.01 MINIMUM REGULATORY REQUIREMENTS CHECKLIST

A water conservation plan is defined as “[a] strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water. A water conservation plan may be a separate document identified as such or may be contained within another water management document”. Recognizing the need for efficient use of existing water supplies, the TCEQ has developed guidelines and requirements governing the development of water conservation and drought contingency plans. The minimum TCEQ requirements and where they are addressed within this document are included in **Appendix B**.

1.02 ADDITIONAL REQUIREMENTS AND GUIDANCE

In addition to TCEQ rules regarding water conservation, this Plan also incorporates both minimum requirements as required from NTMWD and elements from several conservation initiatives.

- **2024 NTMWD Water Conservation Plan** – Member Cities and Customers of the NTMWD are required to implement water conservation strategies as designated in the NTMWD Water Conservation Plan. These strategies represent minimum measures to be implemented and enforced to promote water conservation and are to remain in effect on a permanent basis.

- **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.
- **North Texas Regional Landscape Initiative** – The North Texas regional water providers (NTMWD, DWU and TRWD) collaborated to create the Regional Landscape Initiatives. This document was developed as a resource of best management practices for municipal staff to help reduce water waste and encourage long-term water conservation in the North Texas region. Information consists of the background, importance, and benefits of each BMP and key talking points to consider when implementing the strategy. Several of the optional water management measures included in this Plan are from this collaborative initiative.

2.00 WATER UTILITY PROFILE

This section contains a description of City of Allen’s service area and water system. This information can also be reviewed in **Appendix C**, which contains a completed TCEQ Water Utility Profile.

2.01 DESCRIPTION OF THE SERVICE AREA

The City of Allen 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 date, the City’s population is 111,218, with 44,984 metered water utility connections. Of these connections, the percentage makeup is in the following categories: 70% Single-Family Residential, 24% Multi-Family Residential, and 6% Industrial/Commercial/Institutional. The City has no Agricultural metered connections. The average daily water use is 15.56 million gallons with a peak day use of 32 million gallons. This data is found in the Utility Profile in appendix C.

2.02 WATER UTILITY PROFILE

City of Allen’s existing water supply is composed of the following sources.

- Purchased Treated Water from NTMWD

3.00 WATER CONSERVATION GOALS

TCEQ rules require the adoption of specific 5-year and 10-year water conservation goals for a water conservation plan.

3.01 5 AND 10-YEAR GOALS

Per capita water use varies from year to year based on several factors including weather conditions, changing demographics and other variables. The TWDB requires specific 5- and 10-year goals which are summarized in **Table 1**.

Table 1: Five- and 10-Year Per Capita Water Use Goals

	Historic 5- Year Average	Baseline*	5-Year Goal 2029	10-Year Goal 2034
Total (GPCD) ¹	150	159	149	148
Residential (GPCD) ²	96	100	95	94
Water Loss (GPCD) ⁴	13	16	12	11
Water Loss (Percentage) ⁵	9	10	10	9

¹Total GPCD = (Total Gallons in System / Permanent Population) / 365

²Residential GPCD = (Gallons Used for Residential Use / Residential Population) / 365

³Water Loss GPCD = (Total Water Loss / Permanent Population) / 365

⁴Water Loss Percentage = (Total Water Loss / Total Gallons in System) x 100; or (Water Loss GPCD / Total GPCD) x 100

*Baseline year used: 2022

3.02 METHOD FOR TRACKING

NTMWD requires Member Cities and Customers to complete annual conservation reports by March 31 of the following year and submit them to NTMWD. A copy of the form is included as **Appendix D**.

The completion of this Annual Water Conservation Report allows City of Allen to track the effectiveness of its water conservation programs over time and reassess those programs that are not providing water savings, ensuring maximum water use efficiency and greater levels of conservation.

4.00 METERING, RECORDS AND WATER LOSS CONTROL

4.01 METERING PROGRAM

One of the key elements in water conservation is careful tracking of water use and control of losses. Careful metering of water deliveries and water use, detection and repair of leaks in the distribution system, and regular monitoring of unaccounted water are important in controlling losses.

ACCURATE METERING OF TREATED WATER DELIVERIES FROM NTMWD

Accurate metering of water diversions and deliveries, detection, and repair of leaks in the raw water transmission and potable water distribution systems and regular monitoring of nonrevenue water are important elements of NTMWD's program to control losses. Water deliveries from NTMWD are metered by NTMWD using meters with accuracy of $\pm 2\%$. These meters are calibrated on an annual basis by NTMWD to maintain the required accuracy.

METERING OF CUSTOMER AND PUBLIC USES

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 has initiated a citywide transition to AMI smart water meters. These meters provide real-time data collection and enhance the accuracy of water consumption tracking.

METER TESTING, REPAIR AND REPLACEMENT

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 (2-inches and larger in size) will be periodically tested and either maintained or replaced when their test flow is not consistent with the accuracy limits established in the American Waterworks Association Manual M6- Water Meters- Selection, Installation, and Maintenance. Large meters and their accompanying meter transmission units will only be replaced when they demonstrate battery failure or upon receipt of a system diagnosed operability issue.

4.02 MONITORING AND RECORD MANAGEMENT PROGRAM

As required by TAC Title 30, Chapter 288, a record management system should allow for the separation of water sales and uses into residential, commercial, public/institutional, and industrial categories. This information is included in the NTMWD annual water conservation report that is included in **Appendix D**.

4.03 WATER LOSS CONTROL PROGRAM

DETERMINATION AND CONTROL OF WATER LOSS

Total water loss is the difference between treated water pumped and authorized consumption or metered deliveries to customers. Authorized consumption includes billed metered uses, unbilled metered uses, and unbilled unmetered uses such as firefighting and releases for flushing of lines.

Water losses include two categories:

- Apparent losses such as inaccuracies in customer meters. (Customer meters tend to run more slowly as they age and under-report actual use). Unauthorized consumption due to illegal connections and theft.
- Real losses due to water main breaks and leaks in the water distribution system and unreported losses.

LEAK DETECTION AND REPAIR

The City of Allen has SmartMeters/Advanced Meter Infrastructure. This system detects leaks past the meter based on algorithms analysis of usage patterns. The system alerts both residents and the city staff for follow-up to address leaks past the meter that are detected.

City crews, building inspectors, and personnel should look for and report evidence of leaks in the water distribution system. Additionally, water and sewer crews will survey the distribution system using acoustic leak detection equipment to locate main line leaks. As they are repaired, distribution system leaks will be recorded in our CityWorks work order system. Reports from City Works will help determine areas of a high incidence of main line leaks. Problem areas will be ranked for replacement as part of the Water Capital Improvement Program (CIP) development process.

5.00 CONTRACT REQUIREMENTS FOR WHOLESALE CUSTOMERS

Every water supply contract entered into or renewed after official adoption of this water conservation plan, including any contract extension, will include a requirement that each wholesale customer of City of Allen must develop and implement a water conservation plan and water conservation measures. If the customer intends to resell the water, then the contract between the initial supplier and customer must specify that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with the provisions of Title 30 TAC Chapter 388.

6.00 RESERVOIR SYSTEM OPERATIONS PLAN

The City of Allen purchases treated water from NTMWD and does not have surface water supplies for which to implement a reservoir system operations plan. NTMWD operates multiple sources of water supply as a system. The operation of the reservoir system is intended to optimize the use of the District's sources (within the constraints of existing water rights) while minimizing energy use cost for pumping, maintaining water quality, minimizing potential impacts on recreational users of the reservoirs and fish and wildlife.

7.00 CONSERVATION PLAN ADOPTION AND ENFORCEMENT

7.01 MEANS OF IMPLEMENTATION AND ENFORCEMENT

Staff will implement the Plan in accordance with adoption of the Plan. The document designates responsible officials to implement and enforce the Plan.

7.02 REVIEW AND UPDATE OF WATER CONSERVATION PLAN

TCEQ requires that the water conservation plan be updated every five years. This Plan will be updated as required and as appropriate based on new or updated information.

7.03 REGIONAL WATER PLANNING GROUP AND NTMWD NOTIFICATION

In accordance with TCEQ regulations, a copy of this water conservation plan was provided to the Region C Water Planning Group. In accordance with NTMWD contractual requirements, a copy of this water conservation plan was also sent to NTMWD. **Appendix E** includes a copy of the letter sent.

8.00 WATER CONSERVATION PROGRAM

8.01 PUBLIC EDUCATION PROGRAM

A. NTMWD PUBLIC EDUCATION PROGRAM AND TECHNICAL ASSISTANCE

City of Allen obtains water conservation support from the NTMWD. This includes several public education and outreach efforts such as:

- Beginning in 2006 and continuing through 2018, NTMWD invested in the development and implementation of the “Water IQ: Know Your Water” campaign, including newspaper ads, radio spots, billboards, a website, and other forms of communication all intended to educate the public regarding water use and water conservation. During the 2017 campaign, over a quarter of a million people were reached by the program through media relations, outreach, and interactive media. The total audience reached through the campaign in 2017 was over 88 million impressions.
- In 2013, NTMWD participated in the “Water My Yard” program to install weather stations throughout its service area to provide consumers with a weekly email or text message and information through the Water My Yard website recommending the adequate amount of supplemental water that is needed to maintain healthy grass in specific locations. This service represents the largest network of weather stations providing ET-based irrigation recommendations in the state of Texas and provides the public with advanced information regarding outdoor irrigation needs, thereby reducing

water use. Through a series of selections on the type of irrigation system a consumer has, a weekly email or text message is provided that will recommend how long (in minutes) that an irrigation system needs to run based on the past seven days of weather. This recommendation provides the actual amount of supplemental water that is required for a healthy lawn based on research of the Texas A&M Agrilife Extension Service and proven technologies.

- “Water4Otter” is a water conservation campaign for kids launched by NTMWD in 2014. It is based on the insight that most parents agree they would listen if their kids asked them to conserve water. The TWDB awarded the NTMWD a conservation grant to develop Water4Otter as a model program that could be used throughout the state. The 2023 program included 22 performances at 11 schools in eight different ISDs including stops at elementary schools in Wylie, Garland, Mesquite, Plano, Princeton, Richardson, and Royse City.
- “Love Lavon Lake” is a water conservation campaign designed to help North Texans know their primary water source. The campaign launched in 2018 with a call to action to, “Conserve your water source. Love Lavon Lake”. The campaign was based on market research showing the more people know the source of their drinking water, the more likely they are to use it wisely and efficiently.
- NTMWD implemented the “#PledgetoPlantSmart” initiative that seeks to inspire positive change in water conservation by encouraging North Texas residents to do their part and plant smart by selecting native or adapted plants for their garden and landscaping.

NTMWD also participates in a regional outreach campaign called “Water is Awesome” partnering with the City of Dallas and Tarrant Regional Water District. NTMWD Member Cities and Customers have access to the campaign materials which include:

- In 2019, an additional tagline, “Keep Texas Water on Tap”, was incorporated to promote the Water is Awesome brand and direct traffic to waterisawesome.com.
- In 2020, a “customer city toolkit” provided customizable resources allowing cities to incorporate their logos with the campaign brand for their website, social media, and print. Cities are encouraged to use campaign resources to advance conservation efforts.
- In 2021, the regional water providers collaborated to create the Regional Landscape Initiatives. This document was developed as a resource of best management practices for municipal staff to help reduce water waste and encourage long-term water conservation in the North Texas region. Information consists of the background, importance, and benefits of each BMP and key talking points to consider when

implementing the strategy. Several of the optional water management measures included in this Plan are from this collaborative initiative.

- The 2023 campaign will include a focus on short HGTV-style web series about converting yards into drought-resistant, water-conservative yardscapes.

Conservation materials and more are made available to Member Cities and Customers through an online portal that is hosted by NTMWD. In addition to the portal the NTMWD actively provides technical assistance through the following:

- NTMWD holds **Regularly Scheduled Meetings** with Member Cities and Customers for water supply updates, public campaign strategies, and legislative activities related to water and water conservation.
- NTMWD purchases **American Water Works Association Research Foundation Publications** for use by Member Cities and Customers to further enhance resources for water efficiency, water rate structures, etc. Additionally, NTMWD pays for Member City and Customer membership to the **Alliance for Water Efficiency**.
- To assist its Member Cities and Customers in the development of their own water conservation plans, NTMWD has developed a **Model Water Conservation Plan for NTMWD Member Cities and Customers**. The Model Water Conservation Plan addresses the TCEQ requirements for water conservation plans for municipal use by public water suppliers and includes advanced water conservation strategies beyond TCEQ requirements that mirror the NTMWD plan. This is available online at <https://www.ntmwd.com/login/portal/>.
- Since 2003, NTMWD has held **Water Conservation Workshops** for staff of its Member Cities and Customers. These workshops have covered several conservation-related topics, including TCEQ requirements for water conservation and drought contingency plans, advanced water conservation strategies, current NTMWD water conservation efforts, water conservation programs of the cities, current drought status, progress on future water supplies, and related topics. These workshops also provide training and education regarding water use accounting, irrigation evaluations, industrial, commercial, and institutional audits, and other procedures. Additional examples include workshops on Water Loss Audit Training as well as on the TWDB Water Conservation Planning Tool.
- Based on the annual reporting data collected from Member Cities and Customers from 2022, approximately 24% of the District's treated water sales went to supply ICIM users within their service area. To target programs for this customer base, the District hired Plummer Associates, Inc. to create the **Industrial, Commercial, Institutional and Multifamily Program**. The ICIM program provides NTMWD Member City and Customer

staff with the knowledge and tools necessary to identify ICIM customers with high water usage. This program was created to categorize water use data to find outliers and identify areas to concentrate water conservation efforts. This program can help Member Cities and Customers' ICIM water customers develop targeted methods for increasing water efficiency as an alternative to a traditional voluntary approach for water consumption improvement.

- As part of the ICIM program, the District is currently engaging with the Member and Customer Cities to encourage their ICIM customers to participate in **Water Efficiency Opportunity Surveys**. These surveys encompass a building audit that recommends various water conservation measures that can be implemented to save both money and water. Items addressed include toilet retrofits, urinal retrofits, showerhead retrofits, lavatory retrofits, non-lavatory faucet retrofits, leak repair, water cooled ice machine retrofit, commercial disposer, food steam, cooling tower efficiency and irrigation system efficiency. As of June 2023, NTMWD has utilized the ICIM program to audit four buildings resulting in an estimated annual water savings of 87.4 million gallons.
- As part of its wastewater system, NTMWD has developed **Industrial Pretreatment Programs** for the cities of Allen, Forney, Frisco, McKinney, Mesquite, Murphy, Plano, Richardson, Rockwall, Terrell, and Wylie. The pretreatment programs developed by NTMWD are adopted and implemented by the cities, which are also responsible for enforcement of the programs. By reducing allowable volumes of specific pollutants and encouraging pretreatment of industrial wastes, this joint effort by NTMWD and the cities has improved water quality in the region's streams and reservoirs. NTMWD industrial pretreatment personnel are also available to assist cities on request in the review or design of systems to allow industrial recycling and reuse of wastewater. Such systems have reduced water use by some industries, while also reducing wastewater volumes and saving money for the industries.
- NTMWD encourages its Member Cities and Customers to develop and implement **Rebate and Bulk Purchasing Programs** that help the Member Cities and Customers achieve overall water savings. Further, NTMWD provides technical assistance to those Member Cities and Customers who wish to implement rebate and bulk purchasing programs.

B. PUBLIC EDUCATION PROGRAM

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 the NTMWD campaign, the City of Allen employs the following public information strategies:

- Dedicated webpage to water conservation. (www.cityofallen.org/waterconservation)
- Periodic e-newsletter dedicated to water conservation.
- The City promotes efficient irrigation systems through both new design and retrofitting of SMART irrigation controllers.
- The City promotes Texas Smartscape website (www.txsmartscape.com) on conservation webpage.
- The City provides a “Sustainable Landscape Series” video library - 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 various community organizations.
- The City provides periodic 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 as needed.
- 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. (Refer to section 8.03.(A))
- The City of Allen promotes “50 Ways to Save on Water” for residents on the conservation webpage (<https://www.cityofallen.org/977/Ways-to-Save>).

8.02 REQUIRED CONSERVATION STRATEGIES

The following water conservation strategies are required. These strategies represent minimum measures to be implemented and enforced to promote water conservation and are to remain in effect on a permanent basis.

A. TCEQ CONSERVATION PLAN REQUIREMENTS

The preceding sections cover the regulatory requirements identified in TAC Title 30, Part 1, Chapter 288, Subchapter B, Rule 288. These rules are included in **Appendix B**.

B. CONSERVATION COORDINATOR

The designation of a Conservation Coordinator is required by House Bill 1648, effective September 1, 2017 for all retail public water utilities with 3,300 service connections or more. The NTMWD requires that all Member Cities and Customers, regardless of number of connections, appoint a Conservation Coordinator who will serve as the primary point of contact between the entity and the District on conservation matters.

The duties of the Conservation Coordinator are as follows:

- Submit an annual conservation report to NTMWD by March 31. This is referred to as the 'Appendix D Report'. NTMWD will provide a blank workbook for each Member City and Customer to fill out prior to the deadline.
- Submit an adopted Water Conservation and Water Resource Emergency Management Plan by May 1, 2024 (and every five years afterwards). These plans must be submitted to NTMWD, the applicable Regional Water Planning Group, TCEQ and TWDB. The conservation coordinator is also responsible for submitting a copy of the Plan if it is updated after initial adoption and submission.

The Conservation Coordinator for the City of Allen is identified below and the NTMWD will be notified if this changes at any point before the water conservation plan is updated.

William Nahas, CFM
Environmental Manager
City of Allen
214-509-4585
wnahas@cityofallen.org

C. WATER CONSERVATION PRICING

Each Member City and Customer must adopt an increasing block rate water structure that is intended to encourage water conservation and to discourage excessive use and waste of water.

City of Allen's water rate structure is as follows:

Residential Rates

- Monthly minimum charge. This can (but does not have to) include up to 2,000 gallons water use with no additional charge.
- Base charge per 1,000 gallons up to the approximate average residential use.
- 2nd tier (from the average to 2 times the approximate average) at 1.25 to 2.0 times the base charge.

- 3rd tier (above 2 times the approximate average) at 1.25 to 2.0 times the 2nd tier.
- 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.

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

City of Allen's plumbing code standards encourages water conservation and meets the minimum statutory requirements. The state has required water-conserving fixtures in new construction and renovations since 1992. The state standards call for flows of no more than 2.5 gallons per minute (gpm) for faucets, 2.5 gpm for showerheads. As of January 1, 2014, the state requires maximum average flow rates of 1.28 gallons per flush (gpf) for toilets and 0.5 gpf for urinals. Similar standards are now required under federal law. These state and federal standards assure that all new construction and renovations will use water-conserving fixtures.

E. REUSE AND RECYCLING OF WASTEWATER

NTMWD currently has the largest wastewater reuse program in the state. NTMWD has water rights allowing reuse of up to 71,882 acre-feet per year (64 MGD) of treated wastewater discharges from the Wilson Creek Wastewater Treatment Plant for municipal purposes. Additionally, NTMWD has permitted and is currently constructing the Sister Grove Regional Water Resource Recovery Facility in the Lavon Lake watershed. This facility will have an initial capacity of 16 MGD and an ultimate capacity of 64 MGD.

NTMWD has also developed the East Fork Water Reuse Project which can divert treated wastewater discharges by NTMWD and purchased wastewater return flows from TRA via Main Stem Pump Station. NTMWD also provides treated effluent from its wastewater treatment plants available for direct reuse for landscape irrigation and industrial use.

Currently, the City of Allen 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.

F. YEAR-ROUND OUTDOOR WATERING SCHEDULES

A mandatory weekly watering schedule has been gradually gaining acceptance in the region and the state. NTMWD requires all Member Cities and Customers to adhere to a permanent outdoor watering schedule.

- **Summer (April 1 – October 31)** – Spray irrigation with sprinklers or irrigation systems at each service address must be limited to no more than **two days per week**. Additionally, prohibit lawn irrigation watering from **10 a.m. to 6 p.m.** Education should be provided that irrigation **should only be used when needed**.
- **Winter (November 1 – March 31)** – Spray irrigation with sprinklers or irrigation systems at each service address must be limited to no more than **one day per week** with education that less than once per week (or not at all) is usually adequate.

Additional irrigation may be provided by hand-held hose with shutoff nozzle, use of dedicated irrigation drip zones, and/or soaker hose, provided no runoff occurs.

G. TIME OF DAY WATERING SCHEDULE

City of Allen requires that during the summer months (April 1 – October 31) under normal conditions, spray irrigation with an irrigation system or sprinkler is only permitted on authorized watering days, before 10 a.m. or after 6 p.m. The primary purpose of this measure is to reduce wind drift and evaporation losses during the active growing season. The time-of-day watering schedule requirement increases watering efficiency by eliminating outdoor irrigation use when climatic factors negatively impact irrigation system efficiencies. Midday irrigation is not an optimal time to irrigate because evapotranspiration rates are higher, and plants are more susceptible to stress associated with factors such as higher temperatures and lower relative humidity.

H. IRRIGATION SYSTEM REQUIREMENTS FOR NEW AND COMMERCIAL SYSTEMS

In 2007, the 80th Texas Legislature passed House Bill 1656, Senate Bill 3, and House Bill 4 related to regulating irrigation systems and irrigators by adopting minimum standards and specifications for designing, installing, and operating irrigation systems. The Texas legislation required cities with a population over 20,000 to develop a landscape irrigation program that includes permitting, inspection, and enforcement of water conservation for new irrigation systems.

NTMWD **requires** all Member Cities and Customers adhere to a minimum set of irrigation standards:

- 1) Require that all new irrigation systems be in compliance with state design and installation regulations (Texas Administrative Code Title 30, Chapter 344).

- 2) Require that these irrigation systems be inspected at installation by Building Inspections to ensure systems are installed as regulated.
- 3) Require operational 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 properly maintained to function properly.
- 4) ET or Smart controllers **ARE NOT** exempt from water restrictions in this plan.
- 5) Require that irrigation systems be inspected at the same time as initial backflow preventer inspection.
- 6) Require the owner of a commercial irrigation account to obtain an evaluation of any permanently installed irrigation system on a once every three years by guidelines set forth in the Allen Land Development Code. The irrigation evaluation shall be conducted by a licensed Irrigation Auditor in the state of Texas and be submitted to City of Allen.

I. WATER WASTE PROVISIONS

NTMWD requires all Member Cities and Customers prohibit activities that waste water. The main purpose of a water waste ordinance is to provide for a means to enforce that water waste is prevented during lawn and landscape irrigation, that water resources are conserved for their most beneficial and vital uses, and that public health is protected. It provides a defined enforcement mechanism for exceptional neglect related to the proper maintenance and efficient use of water fixtures, pipes, and irrigation systems. The ordinance can provide additional assistance or enforcement actions if no corrective action has been taken after a certain number of correspondences.

NTMWD **recommends** that the following water waste ordinance offenses include:

- 1) The use of irrigation systems that water impervious surfaces. (Wind-driven water drift will be taken into consideration.)
- 2) Outdoor watering during precipitation or freeze events.
- 3) The use of poorly maintained sprinkler systems that waste water.
- 4) Excess water runoff or other obvious waste.
- 5) The use of potable water to fill or refill residential, amenity, and any other natural or manmade ponds. A pond considered to be a still and retained body of water with a surface area of 500 square feet or more. This does not include recreational swimming pools.

- 6) Non-commercial car washing that does not use a water hose with an automatic shut-off valve. This includes car washing performed as part of non-profit fundraising activities.

Additional City of Allen water waste provisions include:

- 1) 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. Failure to repair a controllable leak, including but not limited to a broken sprinkler head, a leaking valve, leaking or broken pipes, or a leaking faucet.
- 2) Limit landscape watering with sprinklers or irrigation systems at each service address to no more than two days per week from April 1 – October 31, on designated days (with education that less than twice per week is usually adequate), and once per week November 1 – March 31, on a designated day. Exceptions:
 - a. 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 occurs.
 - b. 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 www.cityoffallen.org/waterconservation.
 - c. Golf courses may water greens and tee boxes without restrictions.
 - d. Public athletic fields used for competition may be watered without restrictions.
 - e. 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.
- 3) Require the playing surface on all new athletic fields be irrigated by a separate irrigation system from surrounding areas.
- 4) Positive shut-off nozzles must be used in all restaurants and food service establishment kitchens to prevent wash and rinse water running continuously.
- 5) Hotels and motels should offer a linen reuse water conservation option to customers.

- 6) Restaurants, bars, and other commercial food or beverage establishments that provide drinking water to customers unless a specific request is made by the customer for drinking water.

8.03 ADDITIONAL CONSERVATION STRATEGIES

A. USE OF ET-BASED WEEKLY WATERING ADVICE/RECOMMENDATIONS

Use of a year-round outdoor watering schedule can be improved with the use of ET-based weekly watering advice and recommendations. The City of Allen promotes residents to enroll in one of the following ET-based weekly watering advice websites.

- **Water My Yard** – An online platform where homeowners can sign up to receive weekly watering recommendations based on their location and a few specifications about their sprinkler system. Users can then choose to accept the recommendations by email, text, or both. Recommendations are available for select cities in Collin, Dallas, Denton, Fannin, Hunt, Kaufman, and Rockwall Counties. Sponsored by NTMWD and Texas A&M AgriLife Extension Service. (WaterMyYard.org).
- **Water Is Awesome Weekly Watering Advice** – Weekly watering recommendations for most of North Texas based on data from weather stations scattered throughout the DFW area. The recommendations are distributed by email and text every week and are provided in inches of water needed and the number of minutes necessary to apply that amount of water for spray, rotor, and multi-stream sprinklers. Advice service is available for all of North Central Texas and sponsored by DWU and TRWD. (<https://waterisawesome.com/weekly-watering-advice>).

B. WATER EFFICIENT LANDSCAPE INITIATIVES

A water efficient landscape is a landscape that is designed and maintained according to basic good horticultural principles that allow for a beautiful healthy landscape with minimal or no supplemental irrigation and no adverse runoff from the landscape property. Water efficient landscapes limit or exclude non-functional turf where possible. Examples of nonfunctional turf include streetscape turf and turf that is purely ornamental. As an alternative to non-functional turf grasses, water efficient landscapes use appropriate plants or other landscaping materials that require little or no supplemental irrigation. Appropriate plants are those selected based on their adaptability to the region's soil and climate. NTMWD's #PledgeToPlantSmart initiative seeks to inspire positive change in water conservation by encouraging North Texas residents to do their part and plant smart by selecting native or adaptive plants for their garden and landscaping.

There are several programs available that offer a wealth of information on designing and implementing water efficient landscape.

- Water Wise (<http://urbanlandscapeguide.tamu.edu/waterwise.html>)
- Texas SmartScape™ (<http://www.txsmartscape.com/>)
- EARTH-KIND™ (<https://aggie-horticulture.tamu.edu/earthkind/publications/#water>)

C. OFFER FREE OR DISCOUNTED IRRIGATION SYSTEM CHECK-UPS FOR RESIDENTIAL CUSTOMERS

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.
- This program is first come-first served with approximately 50 audits available each month.

D. REBATES

The City of Allen has a comprehensive residential rebate program, the H2Ome Improvement Rebate Program, with a separate webpage (www.cityofallen.org/rebates) dedicated to advertise the public about rebate availability and program updates. Currently, the City of Allen offers rebates for the following items:

- Whole house pressure reducing valve installation.
- Low-flow toilet replacement. (linked to EPA WaterSense)
- Water-efficient washing machine purchase. (linked to EPA and DOE EnergyStar)
- Rain barrel purchase/installation.
- Rain and freeze sensor retrofit and installation.
- SMART irrigation technology retrofit and installation. (linked to EPA WaterSense)

E. ICIM RECOMMENDATIONS

NTMWD has partnered with Plummer Associates, Inc. to develop the ICIM program to identify where additional ICIM water savings can be achieved. Member Cities and Customers can adopt a similar approach by implementing the following conservation practices:

- **Providing Water Efficiency Opportunity Surveys for ICIM Customers** - A detailed water efficiency survey can enable end users to understand how they use water, develop a complete inventory of water using equipment and processes, identify

potential leaks and losses, set realistic reduction goals, identify and implement useful policies, identify low cost/no cost projects and assess potential investments in significant projects aimed at reducing long-term water demand. Members can reach out to NTMWD to participate in the ongoing Water Efficiency Opportunity Surveys.

- The City of Allen will advertise the ICIM survey program on the City website. Program availability will depend on NTMWD funding for ICIM surveys.

2024 Water Resource and Emergency Management Plan

Under Texas Water Code Chapter 11 and Title 30 Texas Administrative Code Chapter 288, Retail, Irrigation and Wholesale Public Water Suppliers are required to develop, implement and submit updated Drought Contingency Plans to the TCEQ every five years.

1.00 INTRODUCTION

City of Allen is a Member City of the North Texas Municipal Water District (NTMWD). This Plan was developed following TCEQ guidelines and requirements governing the development of drought contingency plans.

The goal of the Water Resources and Emergency Management Plan is to prepare for potential water shortages and to preserve water for essential uses and the protection of public health. The objectives to achieve this goal are as follows:

- To save water during droughts, water shortages, and emergencies.
- To save water for domestic use, sanitation, and fire protection.
- To protect and preserve public health, welfare, and safety.
- To reduce the adverse impacts of shortages.
- To reduce the adverse impacts of emergency water supply conditions.

Note: City of Allen refers to their drought contingency plan (DCP) as the Water Resources Emergency Management Plan WREMP and should be considered synonymous with a DCP.

1.01 MINIMUM REGULATORY REQUIREMENTS

A drought contingency plan is defined as “a strategy or combination of strategies for temporary supply and demand management responses to temporary and potentially recurring water supply shortages and other water supply emergencies”. Recognizing the need for efficient use of existing water supplies, the TCEQ has developed guidelines and requirements governing the development of water conservation and drought contingency plans.

The minimum TCEQ requirements and where they are addressed within this document are described in **Appendix B**.

2.00 IMPLEMENTATION AND ENFORCEMENT

2.01 PROVISIONS TO INFORM THE PUBLIC AND OPPORTUNITY FOR INPUT

City of Allen provided opportunity for public input in the development of this Plan by the following means:

- Providing written notice of the proposed Plan and the opportunity to comment on the Plan by newspaper.
- Posting the draft Plan on the community website and/or social media.
- Providing the draft Plan to anyone requesting a copy.

- Holding a public meeting regarding the Plan at a regularly scheduled City Council meeting on 3.26.2024. Public notice of this meeting was provided on the community website and/or in local newspapers.
- Approving the Plan at a regularly scheduled City Council meeting on 4.9.2024. Public notices of this meeting were provided on the community website.

2.02 PROGRAM FOR CONTINUING PUBLIC EDUCATION AND INFORMATION

City of Allen informs and educates the public about the Plan by the following means:

- Preparing a bulletin describing the Plan and making it available at City Hall and/or other appropriate locations.
- Including information and making the Plan available to the public through the community website and/or social media.
- City of Allen staff will be available for local organizations, schools, and civic groups interested in presentations on the Plan (usually in conjunction with presentations on water conservation programs).
- At any time that the Plan is activated or changes, City of Allen will publicize appropriate changes on the community website and/or social media. Billing inserts may be used as appropriate.

2.03 COORDINATION WITH THE REGIONAL WATER PLANNING GROUPS AND NTMWD

Appendix E of this Plan includes copies of letters sent to the Chairs of the appropriate regional water planning groups as well as NTMWD.

2.04 INITIATION AND TERMINATION OF WATER RESOURCE MANAGEMENT STAGES

A. INITIATION OF A WATER RESOURCE MANAGEMENT STAGE

The Official Designee may order the implementation of a water resource management stage when one or more of the trigger conditions for that stage is met.

- NTMWD has initiated a water resource management stage. (Stages imposed by NTMWD action **must** be initiated by Member Cities and Customers.)
- The Official Designee 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. 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 may also be sent by direct mail, television and radio PSA, internet website announcements, ACTV news, newspaper, and other news media to notify the public.

The following actions will be taken when a water resource management stage is initiated:

- The public will be notified through local media and the supplier's website.
- Wholesale customers and NTMWD will be notified by email that provides details of the reasons for initiation of the water resource management stage.
- If any mandatory provisions of the Plan are activated, City of Allen will notify the TCEQ and the NTMWD Executive Director within five business days. Instructions to report drought contingency plan water use restrictions to TCEQ is available online at https://www.tceq.texas.gov/drinkingwater/homeland_security/security_pws.

B. TERMINATION OF A WATER RESOURCE MANAGEMENT STAGE

Water resource management stages initiated by NTMWD may be terminated after NTMWD has terminated the stage. For stages initiated by the Official Designee, they may order the termination of a water resource management stage when the conditions for termination are met or at their discretion.

The following actions will be taken when a water resource management stage is terminated:

- The public will be notified through local media and/or the supplier's website.
- Wholesale customers and NTMWD will be notified by email.
- If any mandatory provisions of the Plan that have been activated are terminated, City of Allen will notify the TCEQ Executive Director and the NTMWD Executive Director within five business days. Instructions to report drought contingency plan water use restrictions to TCEQ is available online at https://www.tceq.texas.gov/drinkingwater/homeland_security/security_pws.

The Official Designee may decide not to order the termination of a water resource management stage even though the conditions for termination of the stage are met. Factors

which could influence such a decision include, but are not limited to, the time of the year, weather conditions, or the anticipation of potentially changed conditions that warrant the continuation of the water resource management stage. The reason for this decision should be documented.

2.05 PROCEDURE FOR GRANTING VARIANCES TO THE PLAN

The Official Designee may grant temporary variances for existing water uses otherwise prohibited under this Plan if one or more of the following conditions are met:

- Failure to grant such a variance would cause an emergency condition adversely affecting health, sanitation, or fire safety for the public or the person or entity requesting the variance.
- Compliance with this Plan cannot be accomplished due to technical or other limitations.
- Alternative methods that achieve the same level of reduction in water use can be implemented.

Variances shall be granted or denied at the discretion of the 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.
- Alternative measures that will be taken to reduce water use and the level of water use reduction.
- Other pertinent information.

Variance requests can be submitted and a variance may be granted using the form on the City of Allen water conservation webpage (www.cityofallen.org/waterconservation). 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.

2.06 PROCEDURES FOR ENFORCING MANDATORY WATER USE RESTRICTIONS

Mandatory water use restrictions may be imposed in Stage 1, Stage 2, and Stage 3.

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 Community Enhancement, 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.

2.07 REVIEW AND UPDATE OF WATER RESOURCE AND EMERGENCY MANAGEMENT PLAN

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

3.00 WATER RESOURCE AND EMERGENCY MANAGEMENT PLAN

Initiation and termination criteria for water management stages include general, demand, supply, and emergency criteria. One of the major indicators of approaching or ongoing drought conditions is NTMWD's combined reservoir storage, defined as storage at Lavon Lake plus storage in Bois d'Arc Lake. Percent storage is determined by dividing the current storage by the total conservation storage when the lakes are full. **Table 2** summarizes the water management stages by triggers based on percent combined storage and associated demand reduction goals and outdoor watering restrictions. The following sections go into more detail on the three water management stages.

TCEQ requires notification when mandatory restrictions are placed on a customer. NTMWD must notify TCEQ when they impose mandatory restrictions on Member Cities and Customers. Member Cities and Customers must likewise notify TCEQ when they impose mandatory

restrictions on their customers (wholesale or retail). Measures that impose mandatory requirements on customers are denoted with “**requires notification to TCEQ**”. NTMWD and the utilities must notify TCEQ within five business days if these measures are implemented (<https://www.tceq.texas.gov/response/drought/drought-and-public-water-systems>).

Table 2: Water Management Plan Stages Summary

Drought Stage		April to October	November to March	Demand Reduction Goal	Outdoor Watering Restrictions
		Percent Combined Storage			
Stage 1	Initiation	70%	60%	2%	2X per week (Apr-Oct)
	Termination	75%	65%		1X per week (Nov-Mar)
Stage 2	Initiation	55%	45%	5%	1X per week (Apr-Oct)
	Termination	70%	60%		1X every other week (Nov-Mar)
Stage 3	Initiation	30%	20%	30%	No outdoor watering
	Termination	55%	45%		

3.01 WATER RESOURCE MANAGEMENT – STAGE 1

A. INITIATION AND TERMINATION CRITERIA FOR STAGE 1

NTMWD has initiated Stage 1, which may be initiated when one or more of the following criteria is met:

- **General Criteria**
 - The Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the declaration of Stage 1.
 - One or more source(s) is interrupted, unavailable, or limited due to contamination, invasive species, equipment failure or other cause.
 - The water supply system is unable to deliver needed supplies due to the failure or damage of major water system components.
 - Part of the system has a shortage of supply or damage to equipment. (NTMWD may implement measures for only that portion of the system impacted.)
 - A portion of the service area is experiencing an extreme weather event or power grid/supply disruptions.

- **Demand Criteria**

- Water demand has exceeded or is expected to exceed 90% of maximum sustainable production or delivery capacity for an extended period.

- **Supply Criteria**

- The combined storage in Lavon and Bois d'Arc Lake, as published by the TWDB, is less than:
 - 70% of the combined conservation pool capacity during any of the months of April through October
 - 60% of the combined conservation pool capacity during any of 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 1 drought.
- NTMWD is concerned that Lake Texoma, Jim Chapman Lake, the East Fork Water Reuse Project, Main Stem Pump Station, and/or some other NTMWD water source may be limited in availability within the next six months.

- **Additional Criteria**

- 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 has exceeded or is expected to exceed 90 percent of maximum sustainable delivery capacity for an extended period.
 - 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.
 - A portion of the City's service area is experiencing an extreme weather event or power grid/supply disruptions.

Stage 1 may terminate when one or more of the following criteria is met:

- **General Criteria**
 - The Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the termination of Stage 1.
 - The circumstances that caused the initiation of Stage 1 no longer prevail.
- **Supply Criteria**
 - The combined storage in Lavon and Bois d'Arc Lakes, as published by the TWDB, is greater than:
 - 75% of the combined conservation pool capacity during any of the months of April through October
 - 65% of the combined conservation pool capacity during any of the months of November through March
- **Additional Criteria**
 - Same City Authority may terminate stage 1 when the circumstances that caused the initiation of Stage 1 no longer prevail.

B. GOAL FOR USE REDUCTION UNDER STAGE 1

The goal for water use reduction under Stage 1 is an annual reduction of 2% in the use that would have occurred in the absence of water management measures. Because discretionary water use is highly concentrated in the summer months, savings should be higher than 5% in summer to achieve an annual savings goal of 2%. **If circumstances warrant, the Official Designee can set a goal for greater or less water use reduction.**

C. WATER MANAGEMENT MEASURES AVAILABLE UNDER STAGE 1

The actions listed below are provided as potential measures to reduce water demand. NTMWD and the City of Allen may choose to implement any or all of the available restrictions in Stage 1.

- **Requires notification to TCEQ by NTMWD.** Require Member Cities and Customers (including indirect Customers) to initiate Stage 1 restrictions in their respective, independently adopted water resource management plans.
- Continue actions described in the water conservation plan.
- Increase enforcement of landscape watering restrictions from the water conservation plan.
- Accelerate public education efforts on ways to reduce water use.

- Encourage the public to wait until the current drought or water emergency situation has passed before establishing new landscaping.
- Encourage all users to reduce the frequency of draining and refilling swimming pools.
- **Requires notification to TCEQ by Member Cities and Customers and/or NTMWD.**
Initiate a rate surcharge for all water use over a certain level.
- Prohibit over-seeding, sodding, sprigging, broadcasting or plugging with cool season grasses or watering these, with exception of public athletic fields and golf courses.
- Continue to 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 www.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.

3.02 WATER RESOURCE MANAGEMENT – STAGE 2

A. INITIATION AND TERMINATION CRITERIA FOR STAGE 2

NTMWD has initiated Stage 2, which may be initiated due to one or more of the following criteria is met:

- **General Criteria**
 - The Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the declaration of Stage 2.
 - One or more supply source(s) is interrupted, unavailable, or limited due to contamination, invasive species, equipment failure or other cause.
 - The water supply system is unable to deliver needed supplies due to the failure or damage of major water system components.
 - Part of the system has a shortage of supply or damage to equipment. (NTMWD may implement measures for only that portion of the system impacted.)
 - A portion of the service area is experiencing an extreme weather event or power grid/supply disruptions.
- **Demand Criteria**
 - Water demand has exceeded or is expected to exceed 95% of maximum sustainable production or delivery capacity for an extended period.
- **Supply Criteria**
 - The combined storage in Lavon and Bois d’Arc Lake, as published by the TWDB, is less than
 - 55% of the combined conservation pool capacity during any of the months of April through October
 - 45% of the combined conservation pool capacity during any of the months of November through March
 - SRA has indicated that its Upper Basin water supplies used by NTMWD (Lake Tawakoni and/or Lake Fork) are in a Stage 2 drought.
 - NTMWD is concerned that Lake Texoma, Jim Chapman Lake, the East Fork Water Reuse Project, the Main Stem Pump Station, and/or some other NTMWD water source may be limited in availability within the next three months.
- **Additional Criteria**
 - 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 has exceeded or is expected to exceed 95 percent of delivery capacity for an extended period:
- 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.
- A portion of the City's service area is experiencing an extreme weather event or power grid/supply disruptions.

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

Stage 2 may terminate when one or more of the following criteria is met:

- **General Criteria**
 - The Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the termination of Stage 2.
 - The circumstances that caused the initiation of Stage 2 no longer prevail.
- **Supply Criteria**
 - The combined storage in Lavon and Bois d'Arc Lake, as published by the TWDB, is greater than
 - 70% of the combined conservation pool capacity during any of the months of April through October
 - 60% of the combined conservation pool capacity during any of the months of November through March
- **Additional Criteria**
 - Same City Authority may terminate stage 2 when the circumstances that caused the initiation of Stage 2 no longer prevail.

B. GOAL FOR USE REDUCTION UNDER STAGE 2

The goal for water use reduction under Stage 2 is an annual reduction of 5% in the use that would have occurred in the absence of water resource management measures. Because discretionary water use is highly concentrated in the summer months, savings should be higher than 5% in summer to achieve an annual savings goal of 5%. **If circumstances warrant, the Official Designee can set a goal for greater or less water use reduction.**

C. WATER MANAGEMENT MEASURES AVAILABLE UNDER STAGE 2

The actions listed below are provided as potential measures to reduce water demand. NTMWD and the City of Allen may choose to implement any or all of the available restrictions in Stage 2.

- Continue or initiate any actions available under the water conservation plan and Stage 1.
- **Requires notification to TCEQ by NTMWD.** Require Member Cities and Customers (including indirect Customers) to initiate Stage 2 restrictions in their respective, independently adopted water resource management plans.
- **Requires notification to TCEQ by NTMWD.** Institute a mandated reduction in water deliveries to all Member Cities and Customers. Such a reduction will be distributed as required by Texas Water Code Section 11.039.
- **Requires notification to TCEQ by Member Cities and Customers and/or NTMWD.** Initiate a rate surcharge for all water use over a certain level.
- **Requires notification to TCEQ by NTMWD and/or Member Cities and Customers.** 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 www.cityofallen.org/waterconservation.
 - 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.
- **Requires notification to TCEQ by Member Cities and Customers** 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 www.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.

3.03 WATER RESOURCE MANAGEMENT – STAGE 3

A. INITIATION AND TERMINATION CRITERIA FOR STAGE 3

NTMWD has initiated Stage 3, which may be initiated due to one or more of the following criteria is met:

- **General Criteria**
 - The Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the declaration of Stage 3.
 - One or more supply source(s) is interrupted, unavailable, or limited due to contamination, invasive species, equipment failure, or other cause.
 - The water supply system is unable to deliver needed supplies due to the failure or damage of major water system components.
 - Part of the system has a shortage of supply or damage to equipment. (NTMWD may implement measures for only that portion of the system impacted.)
 - A portion of the service area is experiencing an extreme weather event or power grid/supply disruptions.
- **Demand Criteria**
 - Water demand has exceeded or is expected to exceed maximum sustainable production or delivery capacity for an extended period.
- **Supply Criteria**
 - The combined storage in Lavon and Bois d’Arc Lake, as published by the TWDB, is less than
 - 30% of the combined conservation pool capacity during any of the months of April through October
 - 20% of the combined conservation pool capacity during any of the months of November through March
 - SRA has indicated that its Upper Basin water supplies used by NTMWD (Lake Tawakoni and/or Lake Fork) are in a drought and have significantly reduced supplies available to NTMWD.
 - The supply from Lake Texoma, Jim Chapman Lake, the East Fork Water Reuse Project, the Main Stem Pump Station, and/or some other NTMWD water source has become limited in availability.

- **Additional Criteria**

- 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.
 - A portion of the City's service area is experiencing an extreme weather event or power grid/supply disruptions.

Stage 3 may terminate when one or more of the following criteria is met:

- **General Criteria**

- The Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the termination of Stage 3.
- Other circumstances that caused the initiation of Stage 3 no longer prevail.

- **Supply Criteria**

- The combined storage in Lavon and Bois d'Arc Lake, as published by the TWDB, is greater than:
 - 55% of the combined conservation pool capacity during any of the months of April through October
 - 45% of the combined conservation pool capacity during any of the months of November through March

- **Additional Criteria**

- Same City Authority may terminate stage 3 when the circumstances that caused the initiation of Stage 3 no longer prevail.

B. GOAL FOR USE REDUCTION UNDER STAGE 3

The goal for water use reduction under Stage 3 is an annual reduction of 30% in the use that would have occurred in the absence of water resource management measures, or the goal for water use reduction is whatever reduction is necessary. Because discretionary water use is highly concentrated in the summer months, savings should be higher than 30% in summer to achieve an annual savings goal of 30%. **If circumstances warrant, the Official Designee can set a goal for greater or less water use reduction.**

C. WATER MANAGEMENT MEASURES AVAILABLE UNDER STAGE 3

The actions listed below are provided as potential measures to reduce water demand. NTMWD and the City of Allen may choose to implement any or all of the available restrictions in Stage 3.

- Continue or initiate any actions available under the water conservation plan and Stages 1 and 2.
- **Requires notification to TCEQ by NTMWD.** Require Member Cities and Customers (including indirect Customers) to initiate Stage 3 restrictions in their respective, independently adopted water resource management plans.
- **Requires notification to TCEQ by Member Cities and Customers.** 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.
- **Requires notification to TCEQ by Member Cities and Customers.** Prohibit the use of potable water for the irrigation of new landscape
- **Requires notification to TCEQ by NTMWD and/or Member Cities and Customers.** Prohibit all commercial and residential landscape watering, except:
 - Foundations (within 2 feet) and trees (within a 10-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 (Drip irrigation systems are not exempt from this requirement).
 - 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.
- **Requires notification to TCEQ by Member Cities and Customers.** Prohibit washing of vehicles except at commercial vehicle wash facilities whose wastewater goes into the sanitary sewer system
- **Requires notification to TCEQ by Member Cities and Customers.** Prohibit the filling, draining, and/or 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. Pools already permitted may be completed and filled with water.
- **Requires notification to TCEQ by Member Cities and Customers.** Prohibit the operation of interactive water features such as water sprays, dancing water jets, ornamental fountains, or splash pads that are maintained for recreation.
- **Requires notification to TCEQ by Member Cities and Customers.** Require all commercial facilities to reduce water use by a set percentage as established by the Official Designee.
- **Requires notification to TCEQ by NTMWD.** Institute a mandated reduction in deliveries to all Member Cities and Customers. Such a reduction will be distributed as required by Texas Water Code Section 11.039.
- **Requires notification to TCEQ by NTMWD and/or Member Cities and Customers.** Initiate a rate surcharge as requested by NTMWD, or as deemed necessary by the Official designee.

Appendix A

List of References

The following appendix contains a list of references used throughout the plans.

APPENDIX A

LIST OF REFERENCES

1. Texas Commission on Environmental Quality Water Conservation Implementation Report. <https://www.tceq.texas.gov/assets/public/permitting/forms/20645.pdf>
 2. Title 30 of the Texas Administrative Code, Part 1, Chapter 288, Subchapter A, Rules 288.1 and 288.5, and Subchapter B, Rule 288.22, downloaded from [http://texreg.sos.state.tx.us/public/readtac\\$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=288](http://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=288), November 2019.
 3. Water Conservation Implementation Task Force: “Texas Water Development Board Report 362, Water Conservation Best Management Practices Guide,” prepared for the Texas Water Development Board, Austin, November 2004.
 4. Freese and Nichols, Inc.: Model Water Conservation Plan for NTMWD Members Cities and Customers, prepared for the North Texas Municipal Water District, Fort Worth, March 2014.
 5. Texas Water Development Board, Texas Commission on Environmental Quality, Water Conservation Advisory Council: Guidance and Methodology for Reporting on Water Conservation and Water Use, December 2012
 6. Freese and Nichols Inc., Alan Plummer and Associates, CP & Y Inc. and Cooksey Communications. “2016 Region C Regional Water Plan”
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Appendix B

Texas Administrative Code Title 30

Chapter 288

The following appendix contains the Texas Administrative Code that regulates both water conservation and drought contingency plans. Prior to the code, a summary is given that outlines where each requirement is fulfilled within the plans.

APPENDIX B

TEXAS ADMINISTRATIVE CODE TITLE 30 CHAPTER 288

The TCEQ rules governing development of water conservation plans are contained in Title 30, Chapter 288, Subchapter A of the Texas Administrative Code, which is included in this Appendix for reference.

The water conservation plan elements required by the TCEQ water conservation rules that are covered in this water conservation plan are listed below.

Minimum Conservation Plan Requirements for Public Water Suppliers

- 288.2(a)(1)(A) – Utility Profile – Section 2
- 288.2(a)(1)(B) – Record Management System – Section 4
- 288.2(a)(1)(C) – Specific, Quantified Goals – Section 3
- 288.2(a)(1)(D) – Accurate Metering – Section 4
- 288.2(a)(1)(E) – Universal Metering – Section 4
- 288.2(a)(1)(F) – Determination and Control of Water Loss – Section 4
- 288.2(a)(1)(G) – Public Education and Information Program – Section 8
- 288.2(a)(1)(H) – Non-Promotional Water Rate Structure – Section 8
- 288.2(a)(1)(I) – Reservoir System Operation Plan – Section 6
- 288.2(a)(1)(J) – Means of Implementation and Enforcement – Section 7
- 288.2(a)(1)(K) – Coordination with Regional Water Planning Group – Section 7
- 288.2(c) – Review and Update of Plan – Section 7

Additional Requirements for Public Water Suppliers (Population over 5,000)

- 288.2(a)(2)(A) – *Leak Detection, Repair, and Water Loss Accounting* – Section 4
 - 288.2(a)(2)(B) – *Requirement for Water Conservation Plans by Wholesale Customers* – Section 5
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<u>TITLE 30</u>	ENVIRONMENTAL QUALITY
<u>PART 1</u>	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
<u>CHAPTER 288</u>	WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS
<u>SUBCHAPTER A</u>	WATER CONSERVATION PLANS
RULE §288.1	Definitions

The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise.

(1) Agricultural or Agriculture--Any of the following activities:

(A) cultivating the soil to produce crops for human food, animal feed, or planting seed or for the production of fibers;

(B) the practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or non-soil media by a nursery grower;

(C) raising, feeding, or keeping animals for breeding purposes or for the production of food or fiber, leather, pelts, or other tangible products having a commercial value;

(D) raising or keeping equine animals;

(E) wildlife management; and

(F) planting cover crops, including cover crops cultivated for transplantation, or leaving land idle for the purpose of participating in any governmental program or normal crop or livestock rotation procedure.

(2) Agricultural use--Any use or activity involving agriculture, including irrigation.

(3) Best management practices--Voluntary efficiency measures that save a quantifiable amount of water, either directly or indirectly, and that can be implemented within a specific time frame.

(4) Conservation--Those practices, techniques, and technologies that reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water, or increase the recycling and reuse of water so that a water supply is made available for future or alternative uses.

(5) Commercial use--The use of water by a place of business, such as a hotel, restaurant, or office building. This does not include multi-family residences or agricultural, industrial, or institutional users.

(6) Drought contingency plan--A strategy or combination of strategies for temporary supply and demand management responses to temporary and potentially recurring water supply shortages and other water supply emergencies. A drought contingency plan may be a separate document identified as such or may be contained within another water management document(s).

(7) Industrial use--The use of water in processes designed to convert materials of a lower order of value into forms having greater usability and commercial value, and the development of power by means other than hydroelectric, but does not include agricultural use.

(8) Institutional use--The use of water by an establishment dedicated to public service, such as a school, university, church, hospital, nursing home, prison or government facility. All facilities dedicated to public service are considered institutional regardless of ownership.

(9) Irrigation--The agricultural use of water for the irrigation of crops, trees, and pastureland, including, but not limited to, golf courses and parks which do not receive water from a public water supplier.

(10) Irrigation water use efficiency--The percentage of that amount of irrigation water which is beneficially used by agriculture crops or other vegetation relative to the amount of water diverted from the source(s) of supply. Beneficial uses of water for irrigation purposes include, but are not limited to, evapotranspiration needs for vegetative maintenance and growth, salinity management, and leaching requirements associated with irrigation.

(11) Mining use--The use of water for mining processes including hydraulic use, drilling, washing sand and gravel, and oil field re-pressuring.

(12) Municipal use--The use of potable water provided by a public water supplier as well as the use of sewage effluent for residential, commercial, industrial, agricultural, institutional, and wholesale uses.

(13) Nursery grower--A person engaged in the practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or nonsoil media, who grows more than 50% of the products that the person either sells or leases, regardless of the variety sold, leased, or grown. For the purpose of this definition, grow means the actual cultivation or propagation of the product beyond the mere holding or maintaining of the item prior to sale or lease, and typically includes activities associated with the production or multiplying of stock such as the development of new plants from cuttings, grafts, plugs, or seedlings.

(14) Pollution--The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any water in the state that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property, or to the public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

(15) Public water supplier--An individual or entity that supplies water to the public for human consumption.

(16) Regional water planning group--A group established by the Texas Water Development Board to prepare a regional water plan under Texas Water Code, §16.053.

(17) Residential gallons per capita per day--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.

(18) Residential use--The use of water that is billed to single and multi-family residences, which applies to indoor and outdoor uses.

(19) Retail public water supplier--An individual or entity that for compensation supplies water to the public for human consumption. The term does not include an individual or entity that supplies water to itself or its employees or tenants when that water is not resold to or used by others.

(20) Reuse--The authorized use for one or more beneficial purposes of use of water that remains unconsumed after the water is used for the original purpose of use and before that water is either disposed of or discharged or otherwise allowed to flow into a watercourse, lake, or other body of state-owned water.

(21) Total use--The volume of raw or potable water provided by a public water supplier to billed customer sectors or nonrevenue uses and the volume lost during conveyance, treatment, or transmission of that water.

(22) Total gallons per capita per day (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 this chapter shall be credited against total diversion volumes for the purposes of calculating GPCD for targets and goals.

(23) Water conservation coordinator--The person designated by a retail public water supplier that is responsible for implementing a water conservation plan.

(24) Water conservation plan--A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the

recycling and reuse of water, and for preventing the pollution of water. A water conservation plan may be a separate document identified as such or may be contained within another water management document(s).

(25) Wholesale public water supplier--An individual or entity that for compensation supplies water to another for resale to the public for human consumption. The term does not include an individual or entity that supplies water to itself or its employees or tenants as an incident of that employee service or tenancy when that water is not resold to or used by others, or an individual or entity that conveys water to another individual or entity, but does not own the right to the water which is conveyed, whether or not for a delivery fee.

(26) Wholesale use--Water sold from one entity or public water supplier to other retail water purveyors for resale to individual customers.

Source Note: The provisions of this §288.1 adopted to be effective May 3, 1993, 18 TexReg 2558; amended to be effective February 21, 1999, 24 TexReg 949; amended to be effective April 27, 2000, 25 TexReg 3544; amended to be effective August 15, 2002, 27 TexReg 7146; amended to be effective October 7, 2004, 29 TexReg 9384; amended to be effective January 10, 2008, 33 TexReg 193; amended to be effective December 6, 2012, 37 TexReg 9515; amended to be effective August 16, 2018, 43 TexReg 5218

<u>TITLE 30</u>	ENVIRONMENTAL QUALITY
<u>PART 1</u>	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
<u>CHAPTER 288</u>	WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS
<u>SUBCHAPTER A</u>	WATER CONSERVATION PLANS
RULE §288.2	Water Conservation Plans for Municipal Uses by Public Water Suppliers

(a) A water conservation plan for municipal water use by public water suppliers must provide information in response to the following. If the plan does not provide information for each requirement, the public water supplier shall include in the plan an explanation of why the requirement is not applicable.

(1) Minimum requirements. All water conservation plans for municipal uses by public water suppliers must include the following elements:

(A) a utility profile in accordance with the Texas Water Use Methodology, including, but not limited to, information regarding population and customer data, water use data (including total gallons per capita per day (GPCD) and residential GPCD), water supply system data, and wastewater system data;

(B) a record management system which allows for the classification of water sales and uses into the most detailed level of water use data currently available to it, including, if possible, the sectors listed in clauses (i) - (vi) of this subparagraph. Any new billing system purchased by a public water supplier must be capable of reporting detailed water use data as described in clauses (i) - (vi) of this subparagraph:

- (i) residential;
 - (I) single family;
 - (II) multi-family;
 - (ii) commercial;
-

- (iii) institutional;
- (iv) industrial;
- (v) agricultural; and,
- (vi) wholesale.

(C) specific, quantified five-year and ten-year targets for water savings to include goals for water loss programs and goals for municipal use in total GPCD and residential GPCD. The goals established by a public water supplier under this subparagraph are not enforceable;

(D) metering device(s), within an accuracy of plus or minus 5.0% in order to measure and account for the amount of water diverted from the source of supply;

(E) a program for universal metering of both customer and public uses of water, for meter testing and repair, and for periodic meter replacement;

(F) measures to determine and control water loss (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections; abandoned services; etc.);

(G) a program of continuing public education and information regarding water conservation;

(H) a water rate structure which is not "promotional," i.e., a rate structure which is cost-based and which does not encourage the excessive use of water;

(I) a reservoir systems operations plan, if applicable, providing for the coordinated operation of reservoirs owned by the applicant within a common watershed or river basin in order to optimize available water supplies; and

(J) a means of implementation and enforcement which shall be evidenced by:

(i) a copy of the ordinance, resolution, or tariff indicating official adoption of the water conservation plan by the water supplier; and

(ii) a description of the authority by which the water supplier will implement and enforce the conservation plan; and

(K) documentation of coordination with the regional water planning groups for the service area of the public water supplier in order to ensure consistency with the appropriate approved regional water plans.

(2) Additional content requirements. Water conservation plans for municipal uses by public drinking water suppliers serving a current population of 5,000 or more and/or a projected population of 5,000 or more within the next ten years subsequent to the effective date of the plan must include the following elements:

(A) a program of leak detection, repair, and water loss accounting for the water transmission, delivery, and distribution system;

(B) a requirement in every wholesale water supply contract entered into or renewed after official adoption of the plan (by either ordinance, resolution, or tariff), and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements in this chapter. If the customer intends to resell the water, the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with the provisions of this chapter.

(3) Additional conservation strategies. Any combination of the following strategies shall be selected by the water supplier, in addition to the minimum requirements in paragraphs (1) and (2) of this subsection, if they are necessary to achieve the stated water conservation goals of the plan. The commission may require that any of the following strategies be implemented by the water supplier if the commission determines that the strategy is necessary to achieve the goals of the water conservation plan:

(A) conservation-oriented water rates and water rate structures such as uniform or increasing block rate schedules, and/or seasonal rates, but not flat rate or decreasing block rates;

(B) adoption of ordinances, plumbing codes, and/or rules requiring water-conserving plumbing fixtures to be installed in new structures and existing structures undergoing substantial modification or addition;

(C) a program for the replacement or retrofit of water-conserving plumbing fixtures in existing structures;

(D) reuse and/or recycling of wastewater and/or graywater;

(E) a program for pressure control and/or reduction in the distribution system and/or for customer connections;

(F) a program and/or ordinance(s) for landscape water management;

(G) a method for monitoring the effectiveness and efficiency of the water conservation plan; and

(H) any other water conservation practice, method, or technique which the water supplier shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

(b) A water conservation plan prepared in accordance with 31 TAC §363.15 (relating to Required Water Conservation Plan) of the Texas Water Development Board and substantially meeting the requirements of this section and other applicable commission rules may be submitted to meet application requirements in accordance with a memorandum of understanding between the commission and the Texas Water Development Board.

(c) A public water supplier for municipal use shall review and update its water conservation plan, as appropriate, based on an assessment of previous five-year and ten-year targets and any other new or updated information. The public water supplier for municipal use shall review and update the next revision of its water conservation plan every five years to coincide with the regional water planning group.

APPENDIX B

TEXAS ADMINISTRATIVE CODE TITLE 30 CHAPTER 288

The TCEQ rules governing development of water conservation plans are contained in Title 30, Chapter 288, Subchapter A of the Texas Administrative Code, which is included in this Appendix for reference.

The water conservation plan elements required by the TCEQ water conservation rules that are covered in this drought contingency plan are listed below.

Minimum Drought Contingency Plan Requirements for Public Water Suppliers

- **288.20(a)(1)(A)** – Provisions to Inform Public and Provide Opportunity for Public Input - Section 2
 - **288.20(a)(1)(B)** – Program for Continuing Public Education and Information – Section 2
 - **288.20(a)(1)(C)** –Coordination with Regional Water Planning Groups – Section 2
 - **288.20(a)(1)(D)** – Description of Information to Be Monitored and Criteria for the Initiation and Termination of Water Resource Management Stages – Sections 2
 - **288.20(a)(1)(E)** – Stages for Implementation of Measures in Response to Situations – Section 3
 - **288.20(a)(1)(F)** – Specific, Quantified Targets for Water Use Reductions During Water Shortages – Section 3
 - **288.20(a)(1)(G)** – Specific Water Supply or Water Demand Measures to Be Implemented at Each Stage of the Plan – Section 3
 - **288.20(a)(1)(H)** – Procedures for Initiation and Termination of Drought Contingency and Water Emergency Response Stages – Section 2
 - **288.20(a)(1)(I)** – Description of Procedures to Be Followed for Granting Variances to the Plan – Section 2
 - **288.20(a)(1)(J)** – Procedures for Enforcement of Mandatory Water Use Restrictions – Section 2
 - **288.20(b)** – TCEQ Notification of Implementation of Mandatory Provisions – Sections 2 and 3
 - **288.20(c)** – Review of Drought Contingency and Water Emergency Response Plan Every Five (5) Years – Section 2
-

<u>TITLE 30</u>	ENVIRONMENTAL QUALITY
<u>PART 1</u>	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
<u>CHAPTER 288</u>	WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS
<u>SUBCHAPTER B</u>	DROUGHT CONTINGENCY PLANS
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

TCEQ Water Utility Profile

The following appendix contains the form TCEQ-10218 and/or TCEQ-20162.



Texas Commission on Environmental Quality

D. Water Availability Division

MC-160, P.O. Box 13087 Austin, Texas 78711-3087

Telephone (512) 239-4600, FAX (512) 239-2214

Utility Profile and Water Conservation Plan Requirements for Municipal Water Use by Retail Public Water Suppliers

This form is provided to assist retail public water suppliers in water conservation plan assistance in completing this form or in developing your plan, please contact the Conservation staff of the Resource Protection Team in the Water Availability Division at (512) 239-4600.

Water users can find best management practices (BMPs) at the Texas Water Development Board's website <http://www.twdb.texas.gov/conservation/BMPs/index.asp>. The practices are broken out into sectors such as Agriculture, Commercial and Institutional, Industrial, Municipal and Wholesale. BMPs are voluntary measures that water users use to develop the required components of Title 30, Texas Administrative Code, Chapter 288. BMPs can also be implemented in addition to the rule requirements to achieve water conservation goals.

Contact Information

Name of Water Supplier:	<u>North Texas Municipal Water District</u>		
Address:	<u>305 Century Parkway</u>		
Telephone Number:	<u>(214) 509-4100</u>	Fax:	<u></u>
Water Right No.(s):	<u></u>		
Regional Water Planning Group:	<u>C</u>		
Water Conservation Coordinator (or person responsible for implementing conservation program):	<u>William Nahas</u>	Phone:	<u>(214) -509-4585</u>
Form Completed by:	<u>Tim Holland</u>		
Title:	<u>W/S Superintendent</u>		
Signature:	<u></u>	Date:	<u>/ /</u>

A water conservation plan for municipal use by retail public water suppliers must include the following requirements (as detailed in 30 TAC Section 288.2). If the plan does not provide information for each requirement, you must include in the plan an explanation of why the requirement is not applicable.

Utility Profile

I. POPULATION AND CUSTOMER DATA

- *Population and Service Area Data*
- Attach a copy of your service-area map and, if applicable, a copy of your Certificate of Convenience and Necessity (CCN).
- Service area size (in square miles): 27
(Please attach a copy of service-area map)
- Current population of service area: 111,218
- Current population served for:
 - Water 111,218
 - Wastewater 111,218

- Population served for previous five years:

<i>Year</i>	<i>Population</i>
2023	111,218
2022	110,380
2021	109,039
2020	108,734
2019	106,879

- Projected population for service area in the following decades:

<i>Year</i>	<i>Population</i>
2020	104,000
2030	122,000
2040	140,000
2050	143,000
2060	147,000

- List source or method for the calculation of current and projected population size.
Provided by permitting office and based on US Census data.

- Customer Data*

Senate Bill 181 requires that uniform consistent methodologies for calculating water use and conservation be developed and available to retail water providers and certain other water use sectors as a guide for preparation of water use reports, water conservation plans, and reports on water conservation efforts. A water system must provide the most detailed level of customer and water use data available to it, however, any new billing system purchased must be capable of reporting data for each of the sectors listed below. More guidance can be found at: <http://www.twdb.texas.gov/conservation/doc/SB181Guidance.pdf>

- Quantified 5-year and 10-year goals for water savings:

	<i>Historic 5- year Average</i>	<i>Baseline</i>	<i>5-year goal for year 2029</i>	<i>10-year goal for year 2034</i>
Total GPCD	150	159	149	148
Residential GPCD	96	100	95	94
Water Loss GPCD	13	16	12	11
Water Loss Percentage	9	10	10	9

Notes:

Total GPCD = (Total Gallons in System ÷ Permanent Population) ÷ 365

Residential GPCD = (Gallons Used for Residential Use ÷ Residential Population) ÷ 365

Water Loss GPCD = (Total Water Loss ÷ Permanent Population) ÷ 365

Water Loss Percentage = (Total Water Loss ÷ Total Gallons in System) x 100; or (Water Loss GPCD ÷ Total GPCD) x 100

- Current number of active connections. Check whether multi-family service is counted as
☒ Residential or ☐ Commercial?

<i>Treated Water Users</i>	<i>Metered</i>	<i>Non-Metered</i>	<i>Totals</i>
Residential	42,458	0	42,458
Single-Family	31,715	0	31,715
Multi-Family	10,743	0	10,743
Commercial	2,128	0	2,128
Industrial/Mining	9	0	9
Institutional	398	0	398
Agriculture	0	0	0
Other/Wholesale	0	0	0

- List the number of new connections per year for most recent three years.

<i>Year</i>	<i>2023</i>	<i>2022</i>	<i>2021</i>
<i>Treated Water Users</i>			
Residential	1,381	681	1640
Single-Family	694	372	175
Multi-Family	687	309	1465
Commercial	36	35	26
Industrial/Mining	0	0	0
Institutional	49	0	0
Agriculture	0	0	0
Other/Wholesale	0	0	0

- List of annual water use for the five highest volume customers.

<i>Customer</i>	<i>Use (1,000 gal/year)</i>	<i>Treated or Raw Water</i>
Reaction Technologies EPI	36,228	Treated
ATT	30,065	Treated
Llc Dawn US Holdings	15,970	Treated
Pm Management-Allen Nc Llc	9,380	Treated
Kayla McLain	9,618	Treated

II. WATER USE DATA FOR SERVICE AREA

- Water Accounting Data*
- List the amount of water use for the previous five years (in 1,000 gallons).

Indicate whether this is ☐ diverted or ☒ treated water.

<i>Year</i>	2023	2022	2021	2020	2019
<i>Month</i>					
January	353,398	331,354	258,030	339,150	275,340
February	266,028	295,319	320,410	272,220	259,010
March	389,663	366,699	357,690	308,360	322,700
April	419,182	489,130	453,730	448,110	357,210
May	549,949	542,142	365,770	440,910	413,500
June	642,244	610,258	481,940	645,500	416,550
July	660,703	915,810	588,000	721,870	659,020
August	927,013	799,170	759,370	813,960	845,910
September	868,033	659,007	695,990	558,320	713,270
October	566,619	654,311	543,340	550,120	543,090
November	409,458	384,496	411,270	422,630	351,170
December	398,795	394,464	402,800	370,980	292,200
Totals	6,451,085	6,424,160	5,638,340	5,892,130	5,448,970

- Describe how the above figures were determined (e.g, from a master meter located at the point of a diversion from the source or located at a point where raw water enters the treatment plant, or from water sales).

Master meters located at distribution entry points (Stacy Road Pump Station, Custer Road Pump Station) controlled by NTMWD. Totals are provided to member cities monthly.

- Amount of water (in 1,000 gallons) delivered/sold as recorded by the following account types for the past five years.

<i>Year</i>	2023	2022	2021	2020	2019
<i>Account Types</i>					
Residential	<u>4,086,62</u>	<u>4,099,959</u>	<u>3,746,078</u>	<u>3,748,097</u>	<u>3,526,247</u>
Single-Family	<u>3,715,453</u>	<u>3,731,694</u>	<u>3,393,521</u>	<u>3,430,568</u>	<u>3,226,586</u>
Multi-Family	<u>371,174</u>	<u>368,265</u>	<u>352,557</u>	<u>317,529</u>	<u>299,661</u>
Commercial	<u>1,142,831</u>	<u>1,016,919</u>	<u>909,295</u>	<u>960,994</u>	<u>957,493</u>
Industrial/Mining	<u>90,465</u>	<u>87,243</u>	<u>74,852</u>	<u>64,031</u>	<u>72,836</u>
Institutional	<u>357,908</u>	<u>337,852</u>	<u>278,594</u>	<u>350,359</u>	<u>324,869</u>
Agriculture	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Other/Wholesale	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

- List the previous records for water loss for the past five years (the difference between water diverted or treated and water delivered or sold).

<i>Year</i>	<i>Amount (gallons)</i>	<i>Percent %</i>
<u>2023</u>	<u>551 MG</u>	<u>8</u>
<u>2022</u>	<u>627 MG</u>	<u>10</u>
<u>2021</u>	<u>388 MG</u>	<u>7</u>
<u>2020</u>	<u>567 MG</u>	<u>9</u>
<u>2019</u>	<u>462 MG</u>	<u>8</u>

- *Projected Water Demands*
- If applicable, attach or cite projected water supply demands from the applicable Regional Water Planning Group for the next ten years using information such as population trends, historical water use, and economic growth in the service area over the next ten years and any additional water supply requirements from such growth.

III. WATER SUPPLY SYSTEM DATA

- *Water Supply Sources*
- List all current water supply sources and the amounts authorized (in acre feet) with each.

<i>Water Type</i>	<i>Source</i>	<i>Amount Authorized</i>
Surface Water		
Groundwater		
Other	NTMWD	Not limited

- *Treatment and Distribution System (if providing treated water)*
- Design daily capacity of system (MGD): 76
- Storage capacity (MGD):
 - Elevated 9
 - Ground 24
- If surface water, do you recycle filter backwash to the head of the plant?
☐ Yes ☒ No If yes, approximate amount (MGD):

IV. WASTEWATER SYSTEM DATA

- *Wastewater System Data (if applicable)*
- Design capacity of wastewater treatment plant(s) (MGD):
- Treated effluent is used for ☐ on-site irrigation, ☐ off-site irrigation, for ☐ plant wash-down, and/or for ☐ chlorination/dechlorination.

If yes, approximate amount (in gallons per month):

- Briefly describe the wastewater system(s) of the area serviced by the water utility. Describe how treated wastewater is disposed. Where applicable, identify treatment plant(s) with the TCEQ name and number, the operator, owner, and the receiving stream if wastewater is discharged.

City of Allen operates a wastewater conveyance system that transports flow to NTMWD. NTMWD treats all wastewater for the City of Allen.

- *Wastewater Data for Service Area (if applicable)*
- Percent of water service area served by wastewater system: 100%
- Monthly volume treated for previous five years (in 1,000 gallons):

<i>Year</i>	2023	2022	2021	2020	2019
<i>Month</i>					
January	220,832	197,101	262,726	285,152	313,496
February	284,768	205,025	246,112	288,803	235,679
March	241,548	223,430	263,587	362,294	269,839
April	189,601	243,507	248,028	230,333	318,054
May	193,535	264,313	357,347	246,878	357,373
June	185,761	222,480	319,535	239,432	280,069
July	192,097	196,273	240,726	228,651	230,368
August	176,625	225,570	243,005	223,815	223,327
September	165,260	200,330	199,240	277,420	209,055
October	212,958	217,681	178,147	226,967	237,859
November	179,075	280,387	221,719	217,875	244,273
December	211,839	288,544	200,769	238,744	241,616
Totals	2,453,899	2,764,641	2,980,941	3,066,364	3,161,008

• **Water Conservation Plan**

In addition to the utility profile, please attach the following as required by Title 30, Texas Administrative Code, §288.2. Note: If the water conservation plan does not provide information for each requirement, an explanation must be included as to why the requirement is not applicable.

- *Record Management System*

The water conservation plan must include a record management system which allows for the classification of water sales and uses in to the most detailed level of water use data currently available to it, including if possible, the following sectors: residential (single and multi-family), commercial.

- *Specific, Quantified 5 & 10-Year Targets*

The water conservation plan must include specific, quantified five-year and ten-year targets for water savings to include goals for water loss programs and goals for municipal use in gallons per capita per day. Note that the goals established by a public water supplier under this subparagraph are not enforceable. These goals must be updated during the five-year review and submittal.

- *Measuring and Accounting for Diversions*

The water conservation plan must include a statement about the water suppliers metering device(s), within an accuracy of plus or minus 5.0% in order to measure and account for the amount of water diverted from the source of supply.

- *Universal Metering*

The water conservation plan must include and a program for universal metering of both customer and public uses of water, for meter testing and repair, and for periodic meter replacement.

- *Measures to Determine and Control Water Loss*

The water conservation plan must include measures to determine and control water loss (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections; abandoned services; etc.).

- *Continuing Public Education & Information*

The water conservation plan must include a description of the program of continuing public education and information regarding water conservation by the water supplier.

- *Non-Promotional Water Rate Structure*

The water supplier must have a water rate structure which is not “promotional,” i.e., a rate structure which is cost-based and which does not encourage the excessive use of water. This rate structure must be listed in the water conservation plan.

- *Reservoir Systems Operations Plan*

The water conservation plan must include a reservoir systems operations plan, if applicable, providing for the coordinated operation of reservoirs owned by the applicant within a common watershed or river basin in order to optimize available water supplies.

- *Enforcement Procedure and Plan Adoption*

The water conservation plan must include a means for implementation and enforcement, which shall be evidenced by a copy of the ordinance, rule, resolution, or tariff, indicating official adoption of the water conservation plan by the water supplier; and a description of the authority by which the water supplier will implement and enforce the conservation plan.

- *Coordination with the Regional Water Planning Group(s)*

The water conservation plan must include documentation of coordination with the regional water planning groups for the service area of the public water supplier in order to ensure consistency with the appropriate approved regional water plans.

- *Plan Review and Update*

A public water supplier for municipal use shall review and update its water conservation plan, as appropriate, based on an assessment of previous five-year and ten-year targets and any other new or updated information. The public water supplier for municipal use shall review and update the next revision of its water conservation plan not later than May 1, 2009, and every five years after that date to coincide with the regional water planning group. The revised plan must also include an implementation report.

ADDITIONAL REQUIREMENTS FOR LARGE SUPPLIERS

Required of suppliers serving population of 5,000 or more or a projected population of 5,000 or more within the next ten years:

- *Leak Detection and Repair*

The plan must include a description of the program of leak detection, repair, and water loss accounting for the water transmission, delivery, and distribution system in order to control unaccounted for uses of water.

- *Contract Requirements*

A requirement in every wholesale water supply contract entered into or renewed after official adoption of the plan (by either ordinance, resolution, or tariff), and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements in this chapter. If the customer intends to resell the water, the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with the provisions of this chapter.

ADDITIONAL CONSERVATION STRATEGIES

Any combination of the following strategies shall be selected by the water supplier, in addition to the minimum requirements of 30 TAC §288.2(1), if they are necessary in order to achieve the stated water conservation goals of the plan. The commission may require by commission order that any of the following strategies be implemented by the water supplier if the commission determines that the strategies are necessary in order for the conservation plan to be achieved:

- Conservation-oriented water rates and water rate structures such as uniform or increasing block rate schedules, and/or seasonal rates, but not flat rate or decreasing block rates;
- Adoption of ordinances, plumbing codes, and/or rules requiring water conserving plumbing fixtures to be installed in new structures and existing structures undergoing substantial modification or addition;
- A program for the replacement or retrofit of water-conserving plumbing fixtures in existing structures;
- A program for reuse and/or recycling of wastewater and/or graywater;
- A program for pressure control and/or reduction in the distribution system and/or for customer connections;
- A program and/or ordinance(s) for landscape water management;
- A method for monitoring the effectiveness and efficiency of the water conservation plan; and
- Any other water conservation practice, method, or technique which the water supplier shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

WATER CONSERVATION PLANS SUBMITTED WITH A WATER RIGHT APPLICATION FOR NEW OR ADDITIONAL STATE WATER

Water Conservation Plans submitted with a water right application for New or Additional State Water must include data and information which:

- support the applicant's proposed use of water with consideration of the water conservation goals of the water conservation plan;
- evaluates conservation as an alternative to the proposed appropriation; and
- evaluates any other feasible alternative to new water development including, but not limited to, waste prevention, recycling and reuse, water transfer and marketing, regionalization, and optimum water management practices and procedures.

Additionally, it shall be the burden of proof of the applicant to demonstrate that no feasible alternative to the proposed appropriation exists and that the requested amount of appropriation is necessary and reasonable for the proposed use.

Appendix D

NTMWD Member City and Customer Annual Water Conservation Report

The following appendix contains a blank copy of the NTMWD Member City and Customer Annual Water Conservation Report. This is updated and reviewed by NTMWD and the City of Allen on an annual basis

APPENDIX D

NTMWD MEMBER CITY AND CUSTOMER WATER CONSERVATION REPORT

Due: March 31 of every year

Contact Information

TWDB Survey Number:

Name of System:

PWS ID:

Contact Name:

Title:

Email Address:

Telephone Number:

Year Covered:

Days in Year

Water System Information

Estimated Water Service Area Population:

of Backflow Preventers:

Source:

Peak Day Usage

Delivery Point

Peak Day (MG)

Average Day (MG)

Peak/Average Day Ratio

Firm Pumping Capacity (MGD)

Storage Volume (MG)

Total System

Authorized Consumption and Water Loss

Total System Input Volume:

Billed Metered:

Billed Unmetered (MG):

Unbilled Metered (MG):

Unbilled Unmetered (MG):

Total Authorized Consumption:

Water Loss (MG):

Water Loss (gpcd):

Water Loss (percent):

Description:

Description:

Description:

Per Capita Use (Gallons per person per day)

Total Use (MG)

Residential Use (MG)

Municipal Use (MG)

ICIM Use (MG)

Total Per Capita Use (gpcd)

Residential Per Capita Use (gpcd)

Municipal Per Capita Use (gpcd)

ICIM Per Capita Use (gpcd)

Water Conservation Plan 5- and 10-Year Goals for Water Savings

	5-Year Goal	10-Year Goal
Total GPCD		
Residential GPCD		
Water Loss (GPCD)		
Water Loss (Percentage)		

Total GPCD = (Total Gallons in System + Permanent Population) / 365

Residential GPCD = (Gallons Used for Residential Use / Residential Population) / 365

Water Loss GPCD = (Total Water Loss / Permanent Population) / 365

Water Loss Percentage = (Total Water Loss / Total Gallons in System) x 100; or (Water Loss GPCD / Total GPCD) x 100

Retail Water Metered by Month (in Million Gallons):

Month	Sales by Category						
	Residential Single Family	Residential Multi-Family	Public/ Institutional	Commercial	Industrial	Agriculture	Metered Irrigation
January							
February							
March							
April							
May							
June							
July							
August							
September							
October							
November							
December							
TOTAL							
# of Connections (or Units)							

Recorded Supplies from Sources by Month (in Million Gallons):

Month	Deliveries from						
	NTMWD	Other Sources					Total Supplies
January							
February							
March							
April							
May							
June							
July							
August							
September							
October							
November							
December							
TOTAL							

Recorded Supplies by Delivery Point from NTMWD by Month (in Million Gallons):

Month									
January									
February									
March									
April									
May									
June									
July									
August									
September									
October									
November									
December									
TOTAL									

Wholesale Water Sales to Other Water Systems (in Million Gallons):

	Sale 1	Sale 2	Sale 3	Sale 4	Sale 5	Sale 6	Sale 7	Sale 8	Total Wholesale Sales
Buyer Name									
Type of Water									
Name of Source									
Estimated Water Service Area Population									
January									
February									
March									
April									
May									
June									
July									
August									
September									
October									
November									
December									
TOTAL									

Water Sales to Industrial Production Facilities (in Million Gallons):

	Sale 1	Sale 2	Sale 3	Sale 4	Sale 5	Sale 6	Sale 7	Sale 8	Total Industrial Production Facilities Sales
Buyer Name									
Type of Water									
Name of Source									
January									
February									
March									
April									
May									
June									
July									
August									
September									
October									
November									
December									
TOTAL									

Additional Information

Describe Any ICM (Industrial, Commercial, Institutional & Multi-Family) Practices being Implemented to Improve Water Efficiency

--

Describe any Unusual Circumstances

--

Provide an Update on Progress in Implementation of Conservation Plan

--

What Conservation Measures are Planned for Next Year?

--

Do City Limits Differ Significantly from Water Service Area? If so, explain.

--

Is there any Assistance Requested from the North Texas Municipal Water District?

--

Other?

--

Historical Water Use Data for

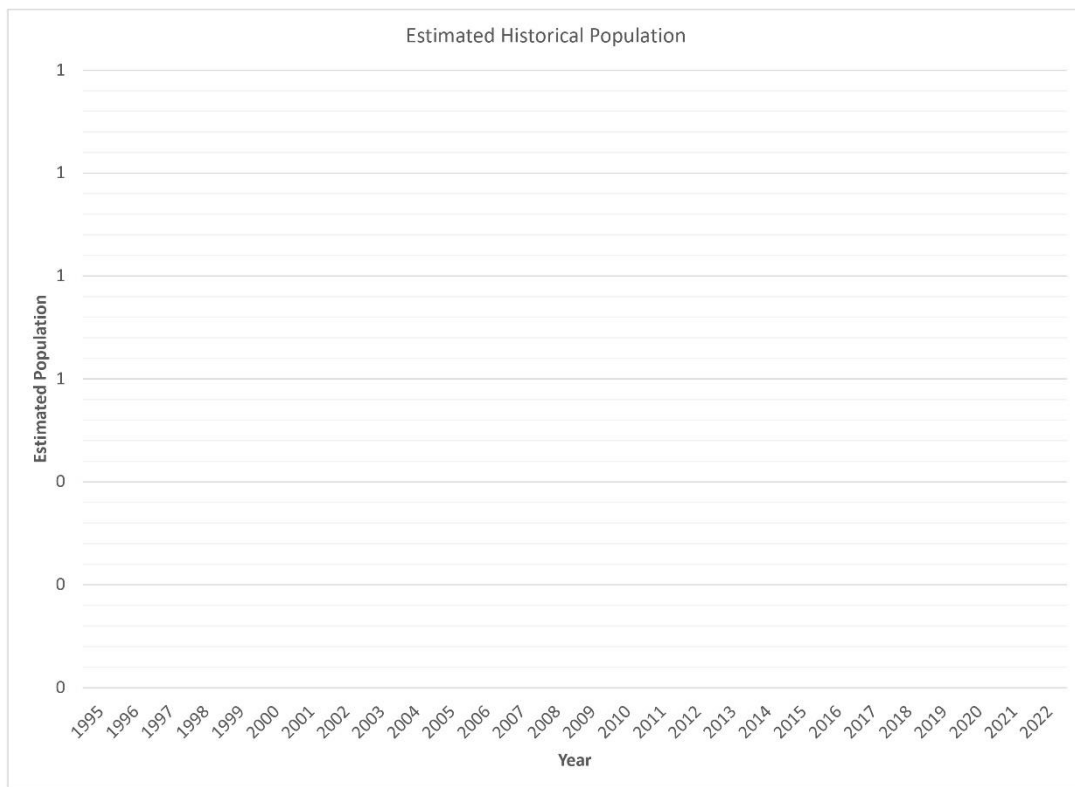
Year	Days in Year	Connections	Estimated Population	Deliveries from NTMWD (MG)	Other Supplies (MG)	Metered Sales by Category (Million Gallons)									Direct Reuse	Total
						Residential Single Family	Residential Multi-Family	Public/ Institutional	Commercial	Industrial	Agriculture	Metered Irrigation	Wholesale			
1995																
1996																
1997																
1998																
1999																
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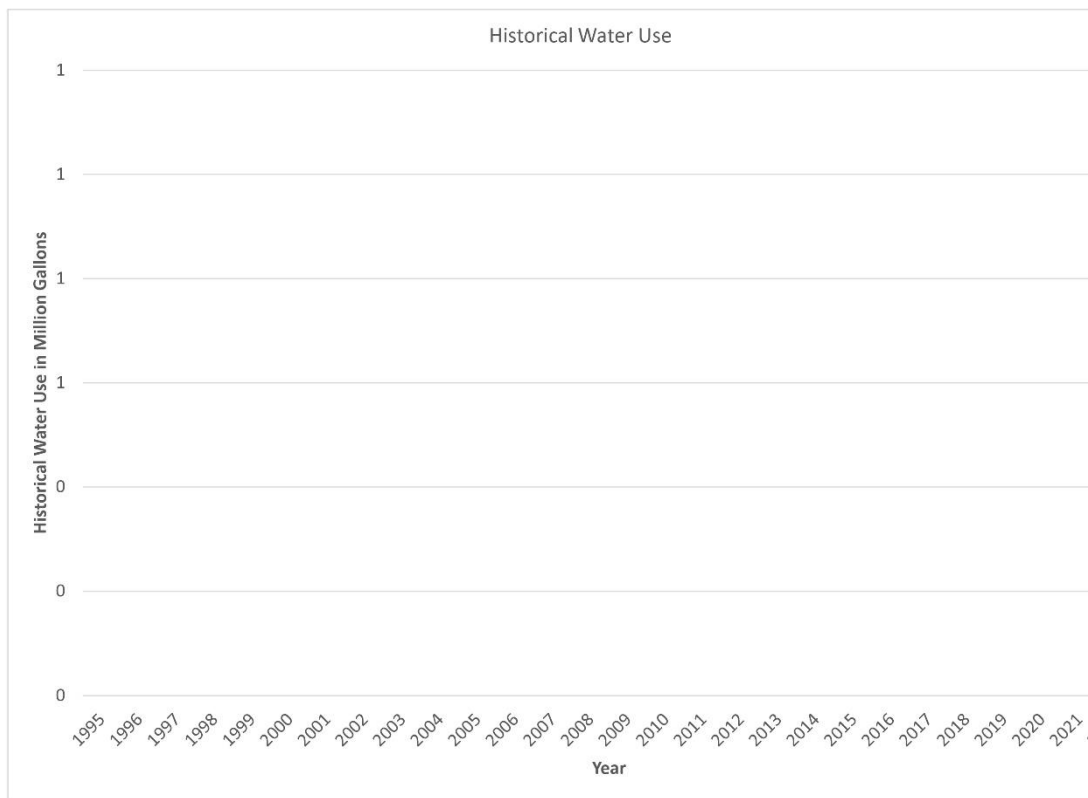
Note: After 2020, Residential sales were divided into single and multi-family classifications. Historical information from the TWDB Water Use Surveys were incorporated where available. The category of 'Other' was removed and replaced with 'Reuse'. Historical volumes for 'Other' were redistributed into the appropriate category when appropriate. These changes were made to be consistent with TWDB terminology.

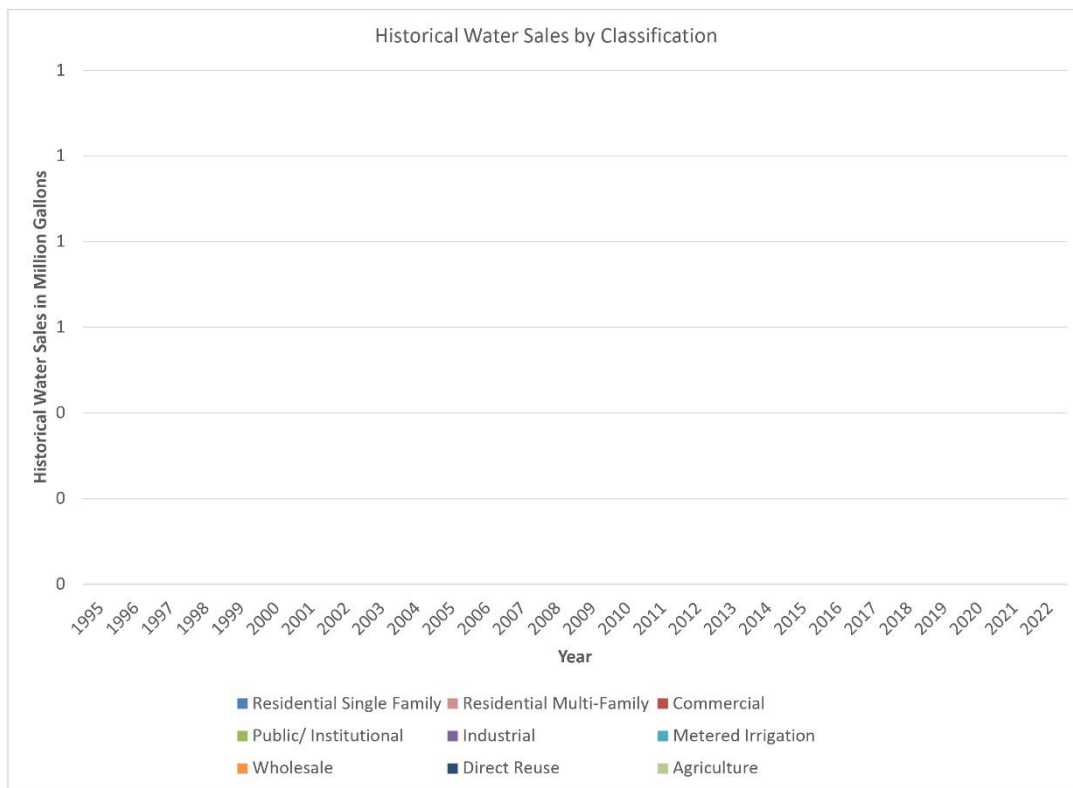
Historical Per Capita Use Data and Water Loss for

Year	Estimated Population	Total Use			Residential Use			Municipal Per Capita Use (gpcd)	ICIM Per Capita Use (gpcd)	Authorized Consumption				Water Loss (MG)	Water Loss (gpcd)	Water Loss				
		Total Per Capita Use (gpcd)	Total 5-Year Per Capita Goal	Total 10-Year Per Capita Goal	Residential Per Capita Use (gpcd)	Residential 5-Year Per Capita Goal	Residential 10-Year Per Capita Goal			Billed Metered (MG)	Billed Unmetered (MG)	Unbilled Metered (MG)	Unbilled Unmetered (MG)			Water Loss 5-Year Per Capita Goal	Water Loss 10-Year Per Capita Goal	Water Loss (percentage)	Water Loss (percentage) 5-Year Goal	Water Loss (percentage) 10-Year Goal
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1997																				
1998																				
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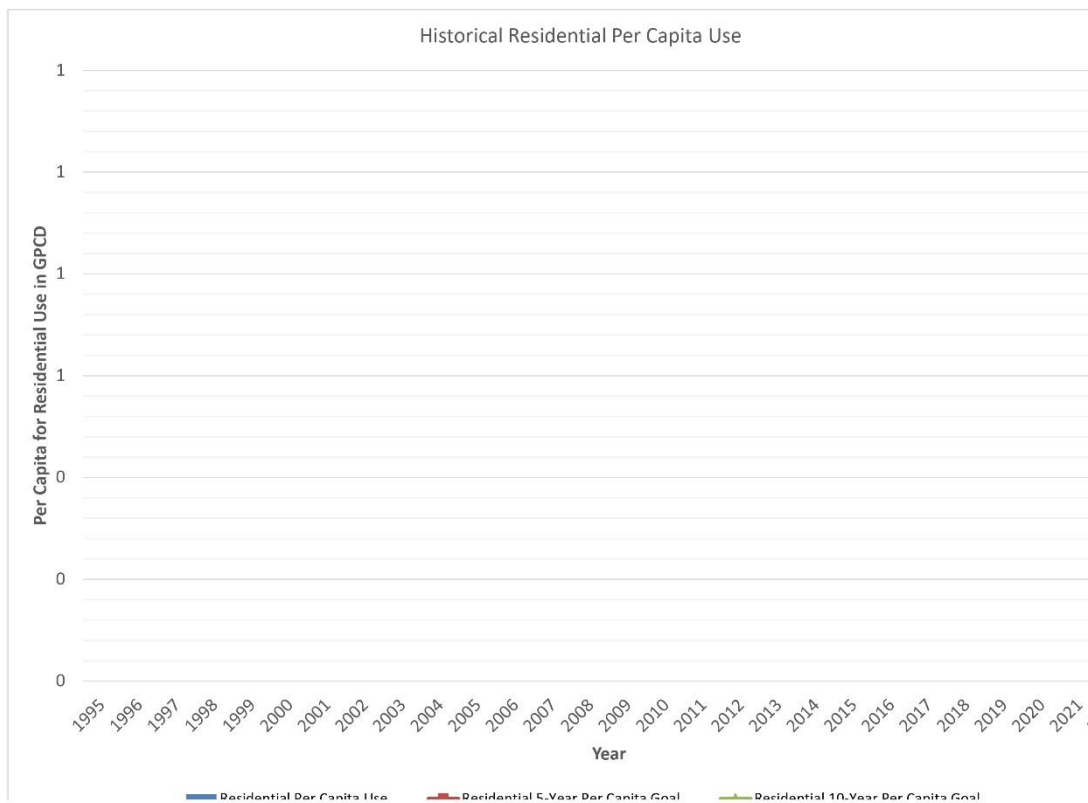
Note:
 In-city municipal use = total water supplied less sales to industry, wholesale sales and other sales.
 After 2017 - Unaccounted Water has been removed and replaced with Water Losses (per TWDB definition). This category is inclusive of real and apparent losses. Categories for authorized consumption were also added; Unbilled metered replaced estimated fire use, unbilled unmetered replaced estimated line flushing, and a new category for billed unmetered sales was added.



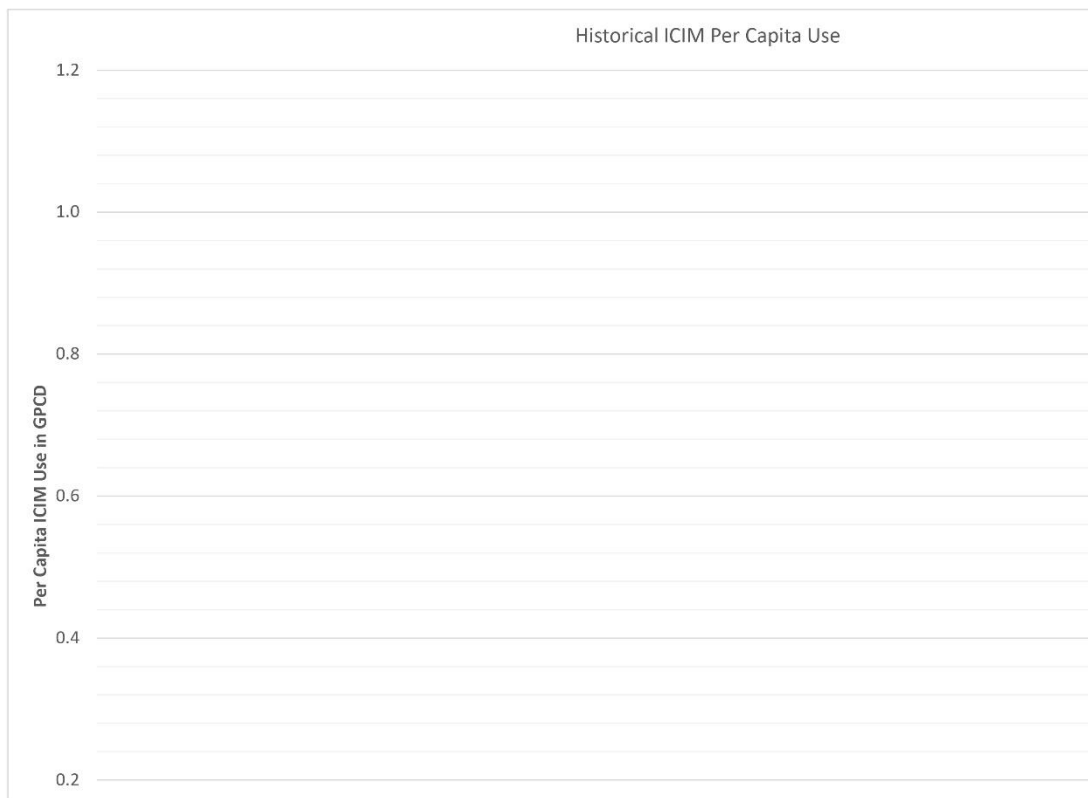


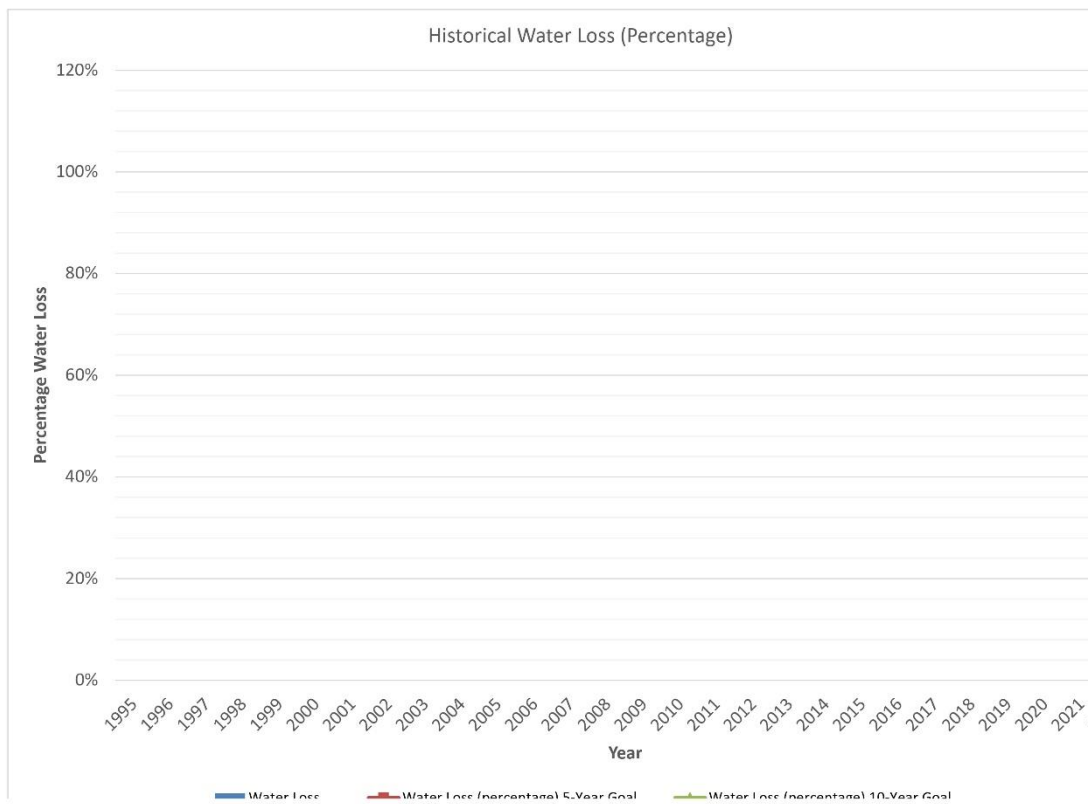


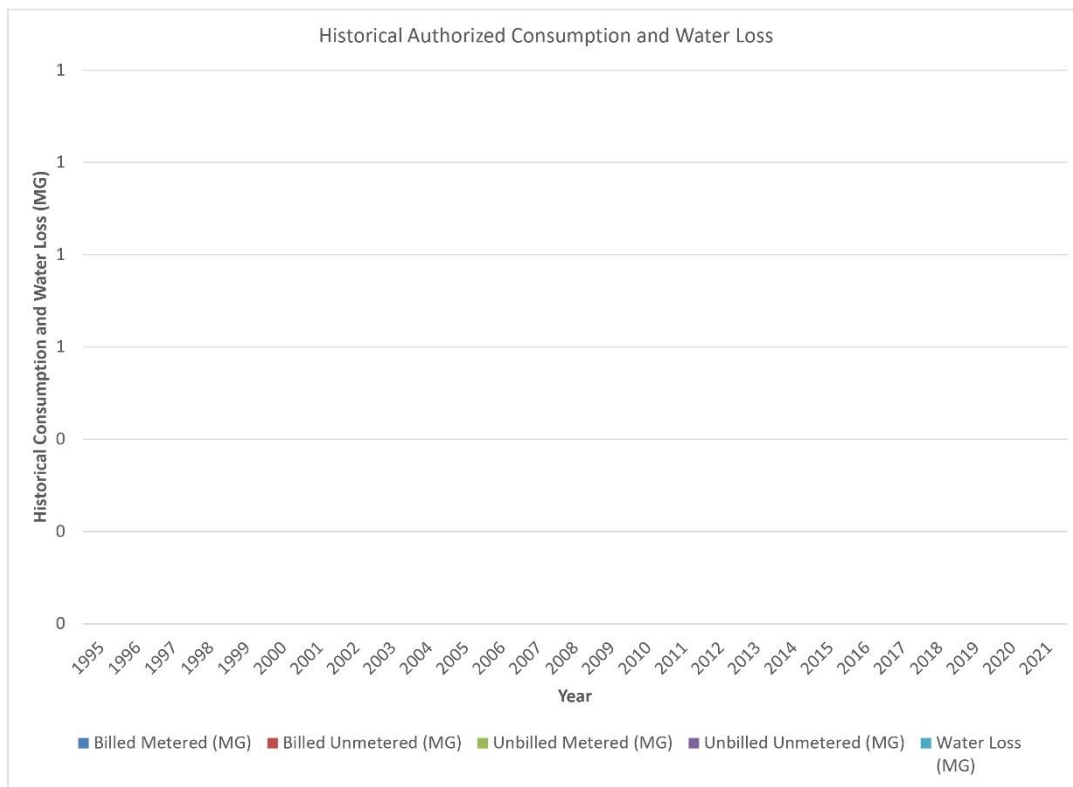












Appendix E

Letters to Regional Water Planning Group and NTMWD

4.23.2024

Region C Water Planning Group
c/o Trinity River Authority
P.O. Box 60
Arlington, TX 76004

Dear Chair:

Enclosed please find a copy of the Water Conservation and Water Resource and Emergency Management Plan for the City of Allen. 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. The plans were adopted on 4.9.2024

Sincerely,

A handwritten signature in blue ink, appearing to read 'wnahas', is positioned above the typed name.

William Nahas, CFM
Environmental Manager
City of Allen

Appendix F

Adoption of Plans

ORDINANCE NO. 4072-4-24

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ALLEN, COLLIN COUNTY, TEXAS, AMENDING THE CODE OF ORDINANCES BY AMENDING CHAPTER 14, SECTION 14-14.1. OF THE CODE OF ORDINANCES BY ADOPTING THE 2024 WATER CONSERVATION AND WATER RESOURCE AND EMERGENCY MANAGEMENT PLAN; PROVIDING A REPEALING CLAUSE; PROVIDING A SEVERABILITY CLAUSE, PROVIDING A SAVINGS CLAUSE; PROVIDING FOR A PENALTY OF FINE NOT TO EXCEED THE SUM OF TWO THOUSAND DOLLARS (\$2,000); AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, recognizing the need for efficient use of existing water supplies, the Texas Commission on Environmental Quality (TCEQ) and Texas Water Development Board (TWDB) has developed guidelines and requirements governing the development of a Water Conservation and Water Resource Management Plan for water suppliers; and,

WHEREAS, the City of Allen has been an active participant in the regional planning process of compatible messaging of its Water Conservation and Water Resource Management Plan; and,

WHEREAS, the City Council has reviewed the proposed 2024 Water Conservation and Water Resource and Emergency Management Plan and finds it is in the best interest of the city to adopt the same.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ALLEN, COLLIN COUNTY, TEXAS, THAT:

SECTION 1. The 2024 Water Conservation and Water Resource and Emergency Management Plan, attached as Exhibit "A" and incorporated herein by reference as if fully set forth in full, a copy of which is on file in the office of the City Secretary, is hereby adopted.

SECTION 2. The Code of Ordinances of the City of Allen, Texas, is amended by amending Section 14-14.1. to adopt the 2024 Water Conservation and Water Resource and Emergency Management Plan to read as follows:

"Sec. 14-14.1. Adoption of the 2024 Water Conservation and Water Resource and Emergency Management Plan.

That the 2024 Water Conservation and Water Resource and Emergency Management Plan, a copy of which is on file in the office of the City Secretary, incorporated by reference, is hereby adopted."

SECTION 3. All ordinances of the City of Allen, Collin County, Texas, in conflict with the provisions of this ordinance, be, and the same is hereby, repealed; provided, however, that all other provisions of said ordinances not in conflict with the provisions of this ordinance shall remain in full force and effect.

SECTION 4. Should any word, sentence, paragraph, subdivision, clause, phrase or section of this ordinance, as amended hereby, be adjudged or held to be void or unconstitutional, the same shall not affect the validity of the remaining portions of said ordinance, or the Code of Ordinances, as amended hereby, which shall remain in full force and effect.

SECTION 5. An offense committed before the effective date of this ordinance is governed by prior law and the provisions of the Code of Ordinances, as amended, in effect when the offense was committed, and the former law is continued in effect for this purpose.

SECTION 6. Any person, firm or corporation violating any of the provisions or terms of this ordinance shall be subject to the same penalty as provided for in the Code of Ordinances of the City of Allen, as previously amended, and upon conviction, shall be punished by a fine not to exceed the sum of Two Thousand Dollars (\$2,000) for each offense.

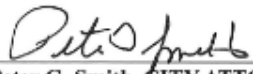
SECTION 7. This ordinance shall take effect immediately from and after its passage and publication in accordance with its provisions of the Charter of the City of Allen, and it is, accordingly, so ordained.

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF ALLEN, COLLIN COUNTY, TEXAS, ON THIS THE 9TH DAY OF APRIL 2024.

APPROVED:


Baine L. Brooks, MAYOR

APPROVED AS TO FORM:


Peter G. Smith, CITY ATTORNEY

ATTEST:


Shelley B. George, TRMC, CITY SECRETARY