Town of Prosper

2024 Water Conservation Plan and Water Resource and Emergency Management 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.

Adopted on

DEFINITIONS

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

ATHLETIC FIELD means a public sports competition field, the essential feature of which is turf grass, used primarily for organized sports practice, competition or exhibition events for schools, professional sports and league play sanctioned by the utility providing retail water supply.

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

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 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. Cool season grasses include but are not limited to perennial and annual rye grass, Kentucky blue grass and fescues.

CUSTOMERS include those entities 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; 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 weather (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, waterfalls, dumping buckets, shooting water cannons, inflatable pools, temporary splash toys or pools, slip-n-slides, or splash pads that are maintained for recreation.

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

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.

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.

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.

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

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

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.

REGULATED IRRIGATION PROPERTY means any property of a designated customer class (i.e., commercial) that uses one million gallons of water or more for irrigation purposes in a single calendar year or is greater than one acre in size.

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.

RECREATIONAL/SWIMMING POOL is defined as a 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 utility.

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.

ABBREVIATIONS

Ac-Ft/Yr	Acre-Feet per Year
BMP	Best Management Practices
CDC	Centers for Disease Control and Prevention
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

APPENDICES

Town of Prosper

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.

Table of Contents

1.00 INTRODUCTION

Town of Prosper is a Customer 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, 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 Town of Prosper'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

Town of Prosper serves a 25.6 sq mi area with a population of 38,840. The Town of Prosper is a fast-growing community with a projected buildout population of 72,000.

2.02 WATER UTILITY PROFILE

The Town of Prosper'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]	222	231	223	218
Residential (GPCD)[2]	138	148	138	134
ICIM (GPCD)[3]	21	22	22	23*
Water Loss (GPCD)[4]	5	12	10	11*
Water Loss (Percentage)[5]	2%	5%	4.8%	5.3%*

[1]Total GPCD = (Total Gallons in System/Permanent Population/365
[2] Residential GPCD = (Gallons Used for Residential Use / Residential Population) / 365
[3] ICIM GPCD = (Gallons Used for Industrial, Commercial, Institutional and Multi-family Use / Permanent Population) / 365
[4] Water Loss GPCD = (Total Water Loss / Permanent Population) / 365
[5] Water Loss Percentage = (Total Water Loss / Total Gallons in System) x 100; or (Water Loss GPCD / Total GPCD) x 100
**10-Years goals reflect Prosper's fast-growing community with anticipated new businesses and a projected buildout population of 72,000.*

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 Town of Prosper 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 ±2%. These meters are calibrated on an annual basis by NTMWD to maintain the required accuracy.

METERING OF CUSTOMER AND PUBLIC USES

Town of Proser uses Neptune meters that are electronically metered through AclaraONE.

METER TESTING, REPAIR AND REPLACEMENT

The Town of Prosper plans to test 1% of meters that are older than 10 years and replace as needed. Meters are also tested and replaced as needed by request or when issues arise.

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

Water utility crews, building inspectors, and personnel will look for and report evidence of leaks in the water distribution system. Water usage is tracked using advanced metering infrastructure to collect data and is monitored closely by our Utility Billing Department. Areas of the water distribution system, in which numerous leaks and line breaks occur, will be targeted for replacement, as funds are available.

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 Town of Prosper 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 288.

6.00 RESERVOIR SYSTEM OPERATIONS PLAN

The Town of Prosper 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. **Appendix F** contains a copy of the ordinance adopted regarding this Plan. The document designates responsible officials to implement and enforce the Plan.

Administrative fees for violations to the Town's Water Conservation and Water Resource and Emergency Management Plan shall be added to the water account holder's regular monthly Town utility bill for city expenses incurred due to the account holder's violation as follows:

First Offense:	Courtesy Door Tag Warning
Second Offense:	Certified Letter notifying of violation.
Third Offense:	$100
Fourth and Subsequent Offenses:	$300

Repeated offenses may result in water service shut off.

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

- The Town of Prosper partners with Rooted In® to offer water smart workshops to residents, showcasing them prominently on the town's website. These workshops educate residents on sprinkler systems, rain barrels, and water smart plants, empowering them to reduce water waste effectively.

- The Town of Prosper promotes WaterMyYard® app, available on the town's website, providing weekly updates on water recommendations via the 'Water Conservation' page.

- The Town of Prosper educates residents on water conservation through online resources such as videos and research articles, disseminated via social media channels, the town's website, and weekly e-newsletters.

- The Town of Prosper sends out mailing inserts quarterly with the utility bill to every resident which contains information regarding water education along with seasonal watering guidelines.

- The Town of Prosper promotes the Texas SmartScape website (www.txsmartscape.com) and provides water conservation tools which are available to the public at Town Hall.

- The Town of Prosper partners with EPA WaterSense programs and supports initiatives such as 'Fix A Leak Week' through various promotional materials.

- The Town of Prosper participates in various outreach events such as The Garden Show, organized by the Texas Master Gardener, setting up booths with educational materials aimed at raising public awareness about water consumption reduction strategies.

- The Town of Prosper partnered with Texas A&M AgriLife® to develop a Demonstration & Research Garden in 2015 using Earth Kind® practices with

native and adaptive plants. These gardens, maintained by the Texas Master Gardeners®, have tours available to interested individuals.

- Town of Prosper Public Works offers free sprinkler evaluations, providing residents with one-on-one education to demonstrate their water usage before and after evaluation.

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 and 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.

Town of Prosper's Conservation Coordinator is identified below. The Town of Prosper will notify NTMWD if this changes at any point before the water conservation plan is updated.

Laila Lopez
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llopez@prospertx.gov

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.

Town of Prosper's water rate structure is as follows:

Residential Rates

Residential rates can be found on the Town of Prosper's website.

- Monthly minimum charge based on meter size.
    - 0-10,000 gallons with a base charge per 1,000 gallons.
    - 10,001-40,000 gallons with an increased base charge per 1,000 gallons.
    - 40,001-80,000 gallons with an increased base charge per 1,000 gallons.
    - 80,001 and above gallons with an increase base charge per 1,000 gallons.

Commercial/Industrial Rates

- Monthly minimum charge based on meter size.
    - 0-10,000 gallons with a base charge per 1,000 gallons.
    - 10,001-40,000 gallons with an increased base charge per 1,000 gallons.
    - 40,001-80,000 gallons with an increased base charge per 1,000 gallons.
    - 80,001 and above gallons with an increase base charge per 1,000 gallons.

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

Town of Prosper'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 RECYLING 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 (WRRF) 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.

F. YEAR-ROUND OUTDOOR WATERING SCHEDULES

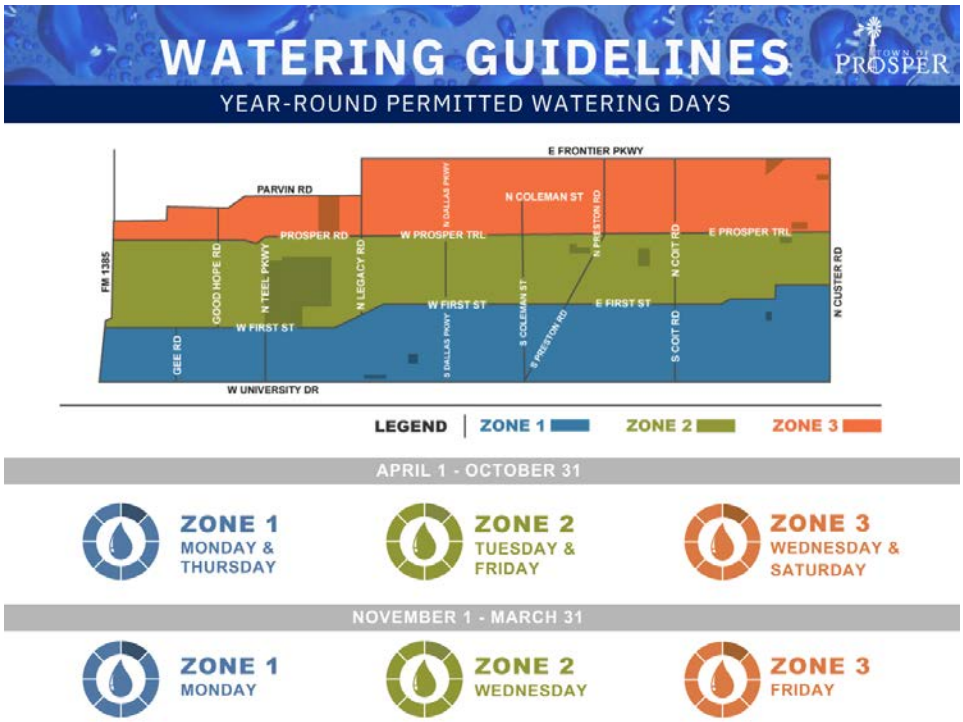
A mandatory weekly watering schedule has been gradually gaining acceptance in the region and the state. NTMWD requires all Member Cities and Customers to adhere to a permanent outdoor watering schedule.

- **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**, which is often less than twice per week, even in the heat of summer.

- **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. Many North Texas horticulturists have endorsed twice-weekly watering as more than sufficient for landscapes in the region, even in the heat of summer.

The Town of Prosper has a year-round permitted watering day schedule based on location zones.



G. TIME OF DAY WATERING SCHEDULE

NTMWD 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 COMMERICAL 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 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.

3) Require that irrigation systems be inspected at the same time as initial backflow preventer inspection.

4) Require the owner of a regulated irrigation property to obtain an evaluation of any permanently installed irrigation system on a 3-year basis. The irrigation evaluation shall be conducted by a licensed irrigator in the state of Texas and be submitted to the local water provider (i.e., city, water supply corporation).

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 ***requires*** 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) Overseeding, sodding, sprigging, broadcasting or plugging with cool season grasses or watering cool season grasses, except for golf courses and athletic fields.

6) The use of potable water to fill or refill residential, amenity, and any other natural or manmade ponds. A pond is considered to be a still body of water with a surface area of 500 square feet or more. This does not include recreational swimming pools.

7) Non-commercial car washing that does not use a water hose with an automatic shut-off valve.

8) Hotels and motels that do not offer a linen reuse water conservation option to customers.

9) 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.

As per Town of Prosper ordinance, ORD # enforcement of the offenses stated in the Water Conservation Plan will be through administrative fees.

8.03 ADDITIONAL CONSERVATION STRATEGIES

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

NTMWD requires that Member Cities and Customers adhere to a year-round outdoor watering schedule. However, this conservation practice can be improved with the use of ET-based weekly watering advice and recommendations. Landscapes frequently require less watering than the year-round water schedule allows. This measure can be particularly useful for entities with a significant percentage of customers using automated landscape irrigation systems.

Water providers in the Dallas-Fort Worth (DFW) area (including NTMWD) sponsor weather stations to collect daily weather data and provide the most accurate watering recommendations. Many cities in the DFW area can already take advantage of these ET-based recommendations and incorporate them into their water conservation programs, at no cost to the city. Examples of such a service are shown below.

- 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).

- WaterWise Newsletter and Hotline – The City of Frisco (Frisco) provides weekly lawn watering advice on the city's website and through the WaterWise Newsletter distributed to subscribers every Monday. Frisco also has a "Weekly Watering Advice Hotline" you can into weekly to get this

information. Frisco has a weather station that is used to determine how much water is needed each particular week.

Providing evapotranspiration (ET)-based weekly watering recommendations can reduce the amount of water applied for outdoor watering if customers follow the guidance. A drawback with this BMP is the adoption rate. Since these recommendations may change every week, it requires customers to adjust their controllers more often.

B. ADDITIONAL WATER WASTE PROVISIONS

As discussed previously, the main purpose of a water waste ordinance is to provide a means for enforcement 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.

1) Sprinkler runoff from a property greater than 50 feet.

2) Operating an irrigation system or other lawn watering device during any form of precipitation or when temperatures are below 32 degrees Fahrenheit.

3) 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.

4) Operating a permanently installed irrigation system with a broken head or a head that is out of adjustment where the arc of the spray head is over a street or parking lot.

5) Washing of driveways, sidewalks, parking lots or other impervious surface areas with an open hose or spray nozzle attached to an open hose, except when required to eliminate conditions that threaten public health, safety or welfare.

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

The Town of Prosper offers free sprinkler inspections through the Sprinkler Evaluation Program. Residents can submit requests through the MyProsper App for a free sprinkler checkup provided by a licensed irrigator with the Town of Prosper. The licensed irrigator will evaluate the irrigation system components and controller settings during the checkup to see if the irrigation system can operate more efficiently and identify needed repairs or adjustments. They will run the irrigation system to see if the sprinkler heads function correctly and apply water only to the intended areas. The licensed irrigator will check and discuss the controller settings with the homeowner to advise them on the most efficient watering methods. Through this one-on-one assistance, the licensed irrigator will educate the resident

on efficient watering practices and promote seasonal adjustment settings and the “Cycle and Soak’ method. Educational informational handouts are also provided to residents during the visit. After the evaluation, the licensed irrigator will provide a report to the residential customer detailing equipment problems and offer recommendations to change watering habits. The report will also include an estimated water savings amount based on recommended adjustments to the controller’s run times.

Town of Prosper

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 TCEQ every five years.

Table of Contents

1.0 INTRODUCTION

The Town of Prosper is a Customer 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 resource 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: NTMWD refers to their drought contingency plan (DCP) as the water resource and 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, 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

Town of Prosper provided opportunity for public input in the development of this Plan by the following means:

- Posting the draft Plan on the community website and/or social media.
- Providing the draft Plan to anyone requesting a copy.

2.02 PROGRAM FOR CONTINUING PUBLIC EDUCATION AND INFORMATION

Town of Prosper informs and educates the public about the Plan by the following means:

- Having copies of the plan 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.
- Notifying local organizations, schools, and civic groups that utility staff are available to make presentations on the Plan (usually in conjunction with presentations on water conservation programs).
- At any time that the Plan is activated or changes, Town of Prosper will notify local media of the issues, the water resource management stage (if applicable), and the specific actions required of the public. The information will also be publicized on the community website and/or social media. Billing inserts will also be used as appropriate.

2.03 COORDINATION WITH THE REGIONAL WATER PLANNING GROUPS AND NTMWD

Appendix E of this Plan includes copies of the 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 Town Manager 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.)
- Water demand is approaching a level that will cause a reduced delivery capacity for all or part of the distribution system.
- Texas State Governor has declared a drought disaster declaration for Collin and/or Denton County.

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, Town of Prosper will notify 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 Town Manager, 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 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, Town of Prosper will notify 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 Town Manager 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 director or 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 director or 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.

2.06 PROCEDURES FOR ENFORCING MANDATORY WATER USE RESTRICTIONS

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

Staff will implement the Plan in accordance with adoption of the Plan. Appendix F contains a copy of the ordinance adopted regarding this Plan. The document designates responsible officials to implement and enforce the Plan.

Administrative fees for violations to the Town's Water Conservation and Water Resource and Emergency Management Plan shall be added to the water account holder's regular monthly Town utility bill for city expenses incurred due to the account holder's violation as follows:

First Offense:	Courtesy Door Tag Warning
Second Offense:	Certified Letter notifying of violation.
Third Offense:	$100
Fourth and Subsequent Offenses:	$300

Repeated offenses may result in water service shut off.

2.07 REVIEW AND UPDATE OF WATER RESOURCE AND EMERGENCY MANAGEMENT PLAN

As required by TCEQ rules, the Town of Prosper 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 1** 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 notifyTCEQ within five business days if these measures are implemented (http://www.tceq.texas.gov/response/drought-and-public-water-systems).

Table 1: Water Management Plan Stage 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 (Apri-Oct) 1X per week (Nov-Mar)
	Termination	75%	65%		
Stage 2	Initiation	55%	45%	5%	1X per week (Apr-Oct) 1X every other week (Nov-Mar)
	Termination	70%	60%		
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.

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

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 Executive Director 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 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.

- Initiate engineering studies to evaluate alternative actions that can be implemented if conditions worsen.

- Accelerate public education efforts on ways to reduce water use.

- Halt non-essential NTMWD water use.

- 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.

- **Requires notification to TCEQ by Member Cities and Customers**. Parks, golf courses, and athletic fields using potable water for landscape watering are required to meet the same reduction goals and measures outlined in this stage. As an exception, golf course greens and tee boxes may be hand watered as needed.

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.

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

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 Executive Director can set a goal for greater or less water use reduction.**

C. WATER MANAGEMENT MEASURE AVAILABLE UNDER STAGE 2

The actions listed below are provided as potential measures to reduce water demand. NTMWD 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.
- Implement viable alternative water supply strategies.
- **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 and/or Member Cities and Customers.** Limit landscape watering with sprinklers or irrigation systems at each service address to once per week on designated days between April 1 and October 31. Limit landscape watering with sprinklers or irrigation systems at each service address to once every other week on designated days between November 1 and March 31. Exceptions are as follows:
    - New construction may be watered as necessary for 30 days from the installation of new landscape features.
    - Foundation watering (within 2 feet), watering of new plantings (first year) of shrubs, and watering of trees (within a 10-foot radius of its trunk) for up to two hours on any day by a hand-held hose, a soaker hose, or a dedicated zone using a drip irrigation system, provided no runoff occurs.
    - Athletic fields may be watered twice per week.
    - Locations using alternative sources of water supply only for irrigation may irrigate without day-of-the-week restrictions provided proper signage is employed to notify the public of the alternative water source(s) being used. However, irrigation using alternative sources of supply is subject to all other restrictions applicable to this stage. If the alternative supply source is a well, proper proof of well registration with your local water supplier (e.g., city, water supply corporation) is

required. Other sources of water supply may not include imported treated water.

- An exemption is for drip irrigation systems from the designated outdoor water use day limited to no more than one day per week. Drip irrigation systems are, however, subject to all other restrictions applicable under this stage.

- **Requires notification to TCEQ by Member Cities and Customers.** Prohibit overseeding, sodding, sprigging, broadcasting or plugging with or watering, except for golf courses and athletic fields.

- **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 Member Cities and Customers.** Parks and golf courses using potable water for landscape watering are required to meet the same reduction goals and measures outlined in this stage. As an exception, golf course greens and tee boxes may be hand watered as needed.

3.03 WATER RESOURCE MANAGEMENT – STAGE 3

A. INTITATION AND TERMINATION CREITERIA 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.

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

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 Executive Director 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 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.
- Implement viable alternative water supply strategies.
- **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:
    - Hosing and washing of paved areas, buildings, structures, windows or other surfaces is prohibited except by variance and performed by a professional service using high efficiency equipment.
    - Prohibit operation of ornamental fountains or ponds that use potable water except where supporting aquatic life.
- **Requires notification to TCEQ by Member Cities and Customers.** Prohibit new sod, overseeding, sodding, sprigging, broadcasting or plugging with or watering.
- **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 <u>not</u> exempt from this requirement.

- **Requires notification to TCEQ by Member Cities and Customers.** Prohibit washing of vehicles except at a commercial vehicle wash facility.

- **Requires notification to TCEQ by Member Cities and Customers.** Landscape watering of parks, golf courses, and athletic fields with potable water is prohibited. As an exception, golf course greens and tee boxes may be hand watered as needed. Variances may be granted by the water provider under special circumstances.

- **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.

- **Requires notification to TCEQ by Member Cities and Customers.** Prohibit the operation of interactive water features such as water sprays, dancing water jets, waterfalls, dumping buckets, shooting water cannons, inflatable pools, temporary splash toys or pools, slip-n-slides, or splash pads that are maintained for recreation.

- **Requires notification to TCEQ by Member Cities and Customers.** Require all commercial water users to reduce water use by a set percentage.

- **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 over normal rates for all water use or for water use over a certain level.

Appendix A

List of References

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.

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, April 2023.

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. 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

5. Freese and Nichols, Inc.: Model Water Conservation Plan for NTMWD Members Cities and Customers, prepared for the North Texas Municipal Water District, Fort Worth, January 2019.

6. Freese and Nichols, Inc.: Model Water Resource and Emergency Management Plan for NTMWD Members Cities and Customers, prepared for the North Texas Municipal Water District, Fort Worth, January 2019.

7. Freese and Nichols Inc, Alan Plummer Associates, Inc., CP & Y Inc., Cooksey Communications. “2021 Region C Water Plan”

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

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 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

TITLE 30 ENVIRONMENTAL QUALITY

PART 1 TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CHAPTER 288 WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS

SUBCHAPTER A 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

TITLE 30 ENVIRONMENTAL QUALITY

PART 1 TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CHAPTER 288 WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS

SUBCHAPTER A 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.

Source Note: The provisions of this §288.2 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 October 7, 2004, 29 TexReg 9384; amended to be effective December 6, 2012, 37 TexReg 9515

APPENDIX B

TEXAS ADMINISTRATIVE CODE TITLE 30 CHAPTER 288

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 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

TITLE 30 ENVIRONMENTAL QUALITY

PART 1 TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CHAPTER 288 WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS

SUBCHAPTER B DROUGHT CONTINGENCY PLANS

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

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

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

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

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

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

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

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

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

(ii) water production or distribution system limitations;

(iii) supply source contamination; or

(iv) system outage due to the failure or damage of major water system components (e.g., pumps).

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

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

(i) curtailment of non-essential water uses; and

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

(H) The drought contingency plan must include the procedures to be followed for the initiation or termination of each drought response stage, including procedures for notification of the public.

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

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

(2) Privately-owned water utilities. Privately-owned water utilities shall prepare a drought contingency plan in accordance with this section and incorporate such plan into their tariff.

(3) Wholesale water customers. Any water supplier that receives all or a portion of its water supply from another water supplier shall consult with that supplier and shall include in the drought contingency plan appropriate provisions for responding to reductions in that water supply.

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

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

Source Note: The provisions of this §288.20 adopted to be effective February 21, 1999, 24 TexReg 949; amended to be effective April 27, 2000, 25 TexReg 3544; amended to be effective October 7, 2004, 29 TexReg 9384

Appendix C

TCEQ Water Utility Profile

The following appendix contains the form TCEQ-10218.

Texas Commission on Environmental Quality

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:	Town of Prosper
Address:	250 W First Street Prosper, TX 75078
Telephone Number:	(972) 569-1047 Fax: ( )
Water Right No.(s):	PWS ID# 0430009
Regional Water Planning Group:	C
Water Conservation Coordinator (or person responsible for implementing conservation program):	Laila Lopez Phone: (972) 567-1047
Form Completed by:	Laila Lopez
Title:	Environmental Coordinator/Asst. to the Director
Signature:	Date: / /

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

A. Population and Service Area Data

1. Attach a copy of your service-area map and, if applicable, a copy of your Certificate of Convenience and Necessity (CCN).

2. Service area size (in square miles): 25.6

   (Please attach a copy of service-area map)

3. Current population of service area: 38,840

4. Current population served for:

   a. Water 38,840

   b. Wastewater 38,840

5. Population served for previous five years:

Year	*Population*
2019	25,630
2020	28,380
2021	31,090
2022	35,430
2023	38,840

6. Projected population for service area in the following decades:

Year	*Population*
2020	30,124
2030	55,275
2040	65,096
2050	77,748
2060	80,875

7. List source or method for the calculation of current and projected population size.

   Previous 5-years from NCTCOG estimates. Projected population based on the 2026 Regional Water Plan Board-Adopted Population and Municipal Demand Projections.

B. 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

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

	Historic 5-year Average	*Baseline*	*5-year goal for year*	*10-year goal for year*
Total GPCD	228	140	223	218
Residential GPCD	139	140	138	134
Water Loss GPCD	6.8	7	10	11
Water Loss Percentage	3%	4%	4.8%	5.3%

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

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

Treated Water Users	*Metered*	*Non-Metered*	*Totals*
Residential	13,077		13,077
Single-Family	12,982		12,982
*Multi-Family	95		95
Commercial	889		889
Industrial/Mining	65		65
Institutional			
Agriculture			
Other/Wholesale			

*Multi-Family is number of meters, not units.

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

Year	2021	2022	2023
Treated Water Users			
Residential	1,197	939	935
Single-Family	1,197	933	929
Multi-Family	0	6	6
Commercial	55	58	85
*Industrial/Mining	23	11	0
Institutional			
Agriculture			
Other/Wholesale			

*Industrial/Mining is construction fire hydrant meters.

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

Customer	*Use (1,000 gal/year)*	*Treated or Raw Water*
Super Splash LLC	11,395	Treated
Lattimore Concrete	9,601	Treated
Zips Carwash LLC	7,848	Treated
Gate of Prosper #3, LLC	7,376	Treated
SiteOne Landscape Supply	6,719	Treated

II. WATER USE DATA FOR SERVICE AREA

A. Water Accounting Data

1. List the amount of water use for the previous five years (in 1,000 gallons).

   Indicate whether this is ☐ diverted or ☒ treated water.

Year	2019	2020	2021	2022	2023
Month					
January	79,993	89,230	91,004	122,197	139,714
February	66,802	74,314	107,382	103,810	111,295
March	108,003	114,696	135,553	161,696	181,268
April	124,099	169,334	189,915	217,681	234,006
May	145,241	180,408	105,061	243,833	257,937
June	149,839	255,692	220,927	307,719	317,819
July	255,468	308,946	300,802	485,754	405,862
August	333,945	373,952	415,083	395,895	517,914
September	294,619	258,413	375,482	323,114	447,101
October	220,091	278,410	289,019	341,897	371,458
November	97,842	164,062	196,460	154,489	236,951
December	87,806	128,883	122,197	133,346	176,566
Totals	1,963,748	2,396,340	2,589,885	2,991,431	3,397,891

2. 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).

   Determined from NTMWD Monthly Water Consumption Reports.

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

Year	2019	2020	2021	2022	2023
Account Types					
Residential	1,245,796	1,413,365	1,475,045	1,898,304	2,083,746
Single-Family	1,212,743	1,377,522	1,438,228	1,860,676	2,045,563
Multi-Family	33,053	35,843	36,817	37,628	38,183
Commercial	349,168	408,476	370,262	501,130	542,540
Industrial/Mining	*3,942	57,876	63,948	61,312	78,006
Institutional					
Agriculture					
Other/Wholesale					

*started tracking construction fire hydrant use separately in October 2019.

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

Year	*Amount (in 1,000 gallons)*	*Percent %*
2023	224,678	6.61%
2022	154,128	5.15%
2021	19,661	.76%
2020	12,827	.54%
2019	25,033	1.27%

B. Projected Water Demands

1. 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.

https://www.twdb.texas.gov/waterplanning/data/projections/2022/demandproj.asp

2021 Regional Water Plan - Water Demand Projections for 2020-2070
Municipal Water User Group Summary in Acre-Feet

EntityID	WUG Name	Region	County	Basin	2020	2030	2040	2050	2060	2070
2239	Prosper	C	Collin	Trinity	4,872	5,600	6,353	7,109	8,896	8,895
2239	Prosper	C	Denton	Trinity	297	1,428	2,556	3,816	4,046	4,046
Prosper Total Water Demand					**5,169**	**7,028**	**8,909**	**10,925**	**12,942**	**12,941**

Texas Water Development Board

March 28, 2019

III. WATER SUPPLY SYSTEM DATA

A. Water Supply Sources

1. List all current water supply sources and the amounts authorized (in acre feet) with each.

Water Type	*Source*	*Amount Authorized*
Surface Water	NTMWD	8,132.55
Groundwater		
Other		

**Per contract with NTMWD, annual rate is 2,650,000,000 gallons per year.*

B. Treatment and Distribution System (if providing treated water)

1. Design daily capacity of system (MGD): 26.96 Firm Pumping Capacity (as defined by TWDB, not including largest pump)

2. Storage capacity (MGD):

   a. Elevated 6.5

   b. Ground 8

3. 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

A. Wastewater System Data (if applicable)

1. Design capacity of wastewater treatment plant(s) (MGD):

2. 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):

3. 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.

B. Wastewater Data for Service Area (if applicable)

1. Percent of water service area served by wastewater system: %

2. Monthly volume treated for previous five years (in 1,000 gallons):

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

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.

A. *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.

B. *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.

C. *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.

D. *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.

E. *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.).

F. *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.

G. *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.

H. *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.

I. 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.

J. 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.

K. 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.

VI. 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:

A. 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.

B. 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.

VII. 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:

1. 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;

2. 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;

3. A program for the replacement or retrofit of water-conserving plumbing fixtures in existing structures;

4. A program for reuse and/or recycling of wastewater and/or graywater;

5. A program for pressure control and/or reduction in the distribution system and/or for customer connections;

6. A program and/or ordinance(s) for landscape water management;

7. A method for monitoring the effectiveness and efficiency of the water conservation plan; and

8. 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.

VIII. 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:

1. support the applicant's proposed use of water with consideration of the water conservation goals of the water conservation plan;

2. evaluates conservation as an alternative to the proposed appropriation; and

3. 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

This is updated and reviewed by NTMWD 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:	703000
Name of System:	Town of Prosper
PWS ID:	TX
Contact Name:	James Schaftenaar
Title:	Utility Maintenance Supervisor
Email Address:	jschaftenaar@prospertx.gov
Telephone Number:	469-584-2942
Year Covered:	2023

Water System Information

Estimated Water Service Area Population:	38,840	***Source:***	*NCTCOG*
# of Irrigation Systems:	8,856		
Billed Unmetered (MG):	0.00	***Description:***	*N/A*
Unbilled Metered (MG):	0.00	***Description:***	*N/A*
Unbilled Unmetered (MG):	468.92	***Description:***	*Unmetered flushing & Fire Department Use*

Water System Information by Delivery Point

Delivery Point	**Total System**
Peak Day (MG)	19.27
Firm Pumping Capacity (MGD)	26.96
Storage Volume (MG)	14.50

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

	5-Year Goal	**10-Year Goal**	
Total GPCD	200	190	*Total GPCD = (Total Gallons in System / Permanent Population) / 365*
Residential GPCD	138	134	*Residential GPCD = (Gallons Used for Residential Use / Residential Population) / 365*
Water Loss (GPCD)	10	11	*Water Loss GPCD = (Total Water Loss / Permanent Population) / 365*
Water Loss (Percentage)	4.8%	5.3%	*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	Direct Reuse
January	96.958	3.572		13.608	3.047		5.939	
February	71.585	3.061		10.465	2.518		5.086	
March	71.022	2.877		12.671	1.275		5.183	
April	123.469	3.000		14.466	4.079		13.621	
May	175.224	2.923		15.234	5.205		28.168	
June	178.004	2.969		12.933	7.385		29.454	
July	212.806	2.862		15.782	12.750		41.157	
August	290.904	3.321		19.628	14.817		54.797	
September	340.412	3.623		19.431	14.480		71.903	
October	243.604	3.726		19.103	6.960		62.759	
November	135.406	3.277		15.154	3.185		29.333	
December	103.141	2.971		14.094	2.305		15.595	
# of Connections (or Units)	*12,888*	*89*		*459*	*66*		*430*	

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

	Source 1	Source 2	Source 3	Source 4	Source 5	Source 6	Source 7	Source 8
Name of Water Provider								
Type of Water								
Name of Source								
January								
February								
March								
April								
May								
June								
July								
August								
September								
October								
November								
December								

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
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								

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
Buyer Name								
Type of Water								
Name of Source								
January								
February								
March								
April								
May								
June								
July								
August								
September								
October								
November								
December								

Additional Information

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

A mandatory reassessment of permanently installed irrigation systems will be conducted on a three year basis.

Describe any Unusual Circumstances

NA

Provide an Update on Progress in Implementation of Conservation Plan

We consistently develop educational resources for online sharing on our website and social media platforms. We also engage with local events sponsored by towns to distribute educational materials. Throughout the year, we actively promote our free Sprinkler Evaluation service.

What Conservation Measures are Planned for Next Year?

Staff will monitor water usage using Advanced Metering Infrastructure (AMI) to ensure adherence to designated watering days. Staff will proactively address and investigate instances of sustained water consumption to mitigate water wastage resulting from leaks. To enhance resident education, informational videos will be developed and distributed via social media platforms. Outreach materials will also be made available at key community locations such as the Library, Utility Billing, and Town Hall. Weekly updates, facilitated by the WaterMyYard program, will be published on the town's official website to provide information regarding optimal lawn watering practices. Initiatives aimed at fostering community engagement include the development of a volunteer program and the establishment of a community garden. These efforts will serve to educate individuals on water-conscious plant selections and the installation and utilization of rain barrels, ultimately reducing reliance on outdoor watering. Furthermore, plans are underway to launch a monthly conservation electronic newsletter to provide ongoing education and updates to residents. The town remains committed to collaborating with the North Texas Municipal Water District (NTMWD), leveraging their educational tools and resources to raise awareness. Additionally, we plan to add meters to our autoflushers to provide a more accurate account of water usage.

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

NA

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

NA

Other?

NA

APPENDIX D
NTMWD MEMBER CITY AND CUSTOMER WATER CONSERVATION REPORT
Due: March 31 of every year

Contact Information

TWDB Survey Number:	**703000**
Name of System:	**Town of Prosper**
PWS ID:	**TX**
Contact Name:	**James Schaftenaar**
Title:	**Utility Maintenance Supervisor**
Email Address:	**jschaftenaar@prospertx.gov**
Telephone Number:	**469-584-2942**
Year Covered:	**2023**
Days in Year	**365**

Water System Information

Estimated Water Service Area Population:	38,840	***Source:***	*NCTCOG*
# of Irrigation Systems:	8,856		

Peak Day Usage

Delivery Point	**Total System**
Peak Day (MG)	19.27
Average Day (MG)	9.31
Peak/Average Day Ratio	2.07
Firm Pumping Capacity (MGD)	26.96
Storage Volume (MG)	14.50

Authorized Consumption and Water Loss

Total System Input Volume:	3,398		
Billed Metered:	2,704		
Billed Unmetered (MG):		***Description:***	*N/A*
Unbilled Metered (MG):		***Description:***	*N/A*
Unbilled Unmetered (MG):	469	***Description:***	*Unmetered flushing & Fire Department Use*
Total Authorized Consumption:	3,173		
Water Loss (MG):	225		
Water Loss (gpcd):	16		
Water Loss (percent):	7%		

Per Capita Use (Gallons per person per day)

Total Use (MG)	3,398
Residential Use (MG)	2,081
Municipal Use (MG)	3,320
ICIM Use (MG)	299
Total Per Capita Use (gpcd)	240
Residential Per Capita Use (gpcd)	147
Municipal Per Capita Use (gpcd)	234
ICIM Per Capita Use (gpcd)	21

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

	5-Year Goal	10-Year Goal	
Total GPCD	200	190	*Total GPCD = (Total Gallons in System / Permanent Population) / 365*
Residential GPCD	138	134	*Residential GPCD = (Gallons Used for Residential Use / Residential Population) / 365*
Water Loss (GPCD)	10	11	*Water Loss GPCD = (Total Water Loss / Permanent Population) / 365*
Water Loss (Percentage)	5%	5%	*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	Wholesale	Direct Reuse
January	96.96	3.57	-	13.61	3.05	-	5.94	-	-
February	71.59	3.06	-	10.47	2.52	-	5.09	-	-
March	71.02	2.88	-	12.67	1.28	-	5.18	-	-
April	123.47	3.00	-	14.47	4.08	-	13.62	-	-
May	175.22	2.92	-	15.23	5.21	-	28.17	-	-
June	178.00	2.97	-	12.93	7.38	-	29.45	-	-
July	212.81	2.86	-	15.78	12.75	-	41.16	-	-
August	290.90	3.32	-	19.63	14.82	-	54.80	-	-
September	340.41	3.62	-	19.43	14.48	-	71.90	-	-
October	243.60	3.73	-	19.10	6.96	-	62.76	-	-
November	135.41	3.28	-	15.15	3.19	-	29.33	-	-
December	103.14	2.97	-	14.09	2.30	-	15.60	-	-
TOTAL	**2,042.54**	**38.18**	**-**	**182.57**	**78.01**	**-**	**363.00**	**-**	**-**
# of Connections (or Units)	***12,888.00***	***89.00***	**-**	***459.00***	***66.00***	**-**	***430.00***		**-**

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

Month	Deliveries from NTMWD	Other Sources							Total Supplies
January	139.71								139.71
February	111.30								111.30
March	181.27								181.27
April	234.01								234.01
May	257.94								257.94
June	317.82								317.82
July	405.86								405.86
August	517.91								517.91
September	447.10								447.10
October	371.46								371.46
November	236.95								236.95
December	176.57								176.57
TOTAL	**3,397.89**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3,397.89**

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

Month	NTMWD Delivery Point								Total System
	Prosper								

January	139.71								139.71
February	111.30								111.30
March	181.27								181.27
April	234.01								234.01
May	257.94								257.94
June	317.82								317.82
July	405.86								405.86
August	517.91								517.91
September	447.10								447.10
October	371.46								371.46
November	236.95								236.95
December	176.57								176.57
TOTAL	**3,397.89**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3,397.89**

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

A mandatory reassessment of permanently installed irrigation systems will be conducted on a three year basis.

Describe any Unusual Circumstances

NA

Provide an Update on Progress in Implementation of Conservation Plan

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What Conservation Measures are Planned for Next Year?

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

NA

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

NA

Other?

NA

Historical Water Use Data for Town of Prosper

Year	Days in Year	Connections	Estimated Population	Deliveries from NTMWD (MG)	Other Supplies (MG)	Metered Sales by Category (Million Gallons)									
						Residential Single Family	Residential Multi-Family	Public/ Institutional	Commercial	Industrial	Agriculture	Metered Irrigation	Wholesale	Direct Reuse	Total
2006	365	2,000	3,500	207	229	381	0	0	41	0	0	0	0	0	423
2007	365	2,380	6,000	234	88	315	0	0	41	0	0	0	0	0	356
2008	366	2,775	6,350	572	35	465	0	0	79	0	0	0	0	0	544
2009	365	2,905	7,100	572	31	414	0	0	96	0	0	0	0	0	511
2010	365	3,130	9,350	693	6	515	0	0	84	0	0	0	0	0	600
2011	365	3,478	10,560	851	0	643	0	0	123	0	0	0	0	0	765
2012	366	3,921	12,190	890	0	670	0	0	140	0	0	0	0	0	810
2013	365	4,372	13,380	901	0	667	0	0	172	0	0	0	0	0	839
2014	365	4,880	14,710	897	0	656	0	0	144	0	0	0	0	0	800
2015	365	5,595	15,970	1,094	0	806	0	0	170	56	0	0	0	0	1,032
2016	366	6,671	17,990	1,374	0	897	0	0	110	63	0	105	0	0	1,176
2017	365	7,659	20,160	1,536	0	1,031	0	0	123	61	0	161	0	0	1,376
2018	365	8,296	22,650	1,750	0	1,172	0	0	136	48	0	199	0	0	1,555
2019	365	9,120	25,630	1,964	0	1,244	0	0	162	28	0	189	0	0	1,622
2020	366	10,542	28,380	2,396	0	1,411	0	0	160	58	0	242	0	0	1,871
2021	365	12,022	31,090	2,593	0	1,454	37	0	148	64	0	229	0	0	1,932
2022	365	13,030	35,430	2,991	0	1,878	38	0	184	61	0	323	0	0	2,484
2023	365	13,932	38,840	3,398	0	2,043	38	0	183	78	0	363	0	0	2,704

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.

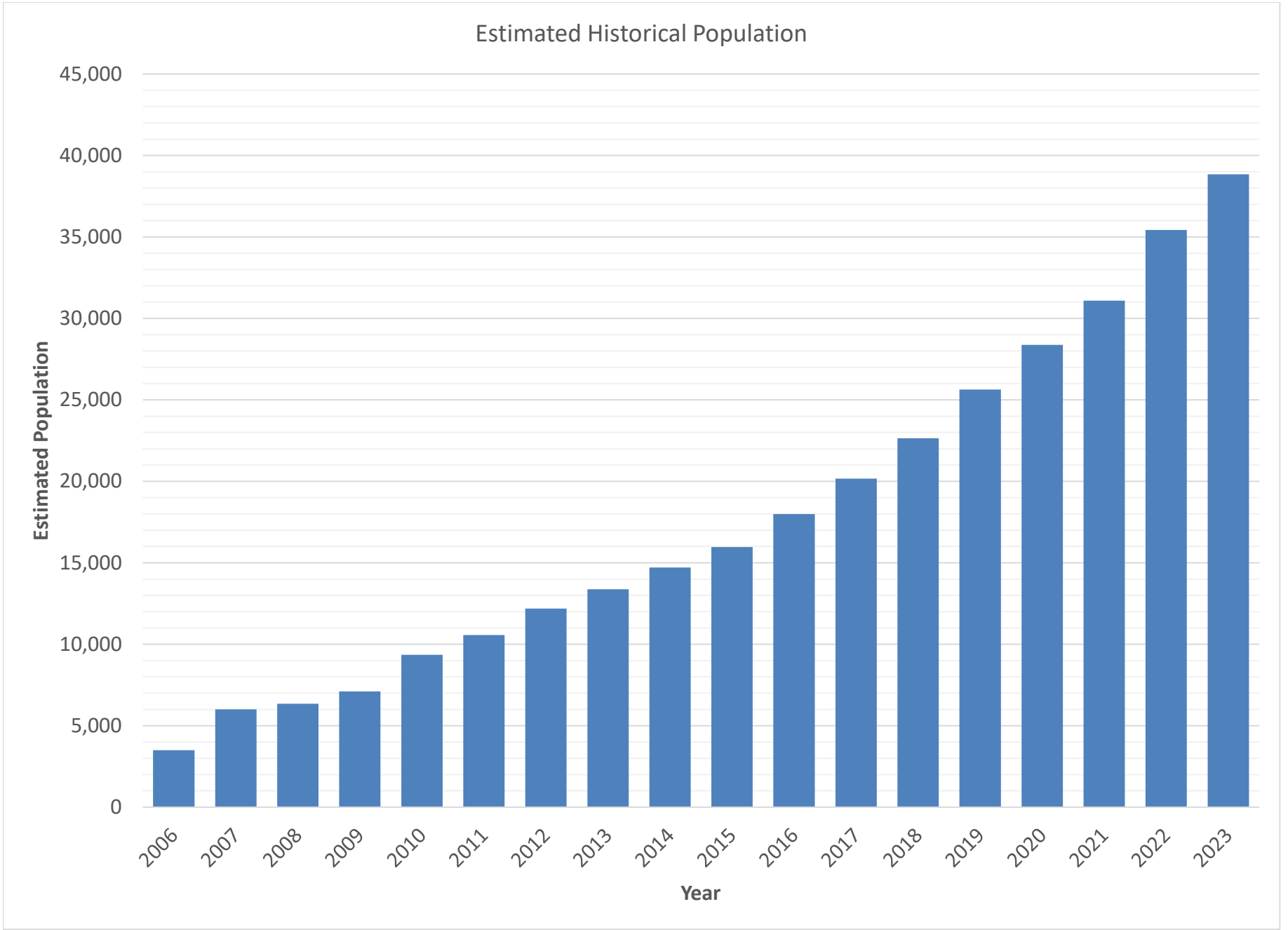
Historical Per Capita Use Data and Water Loss for Town of Prosper

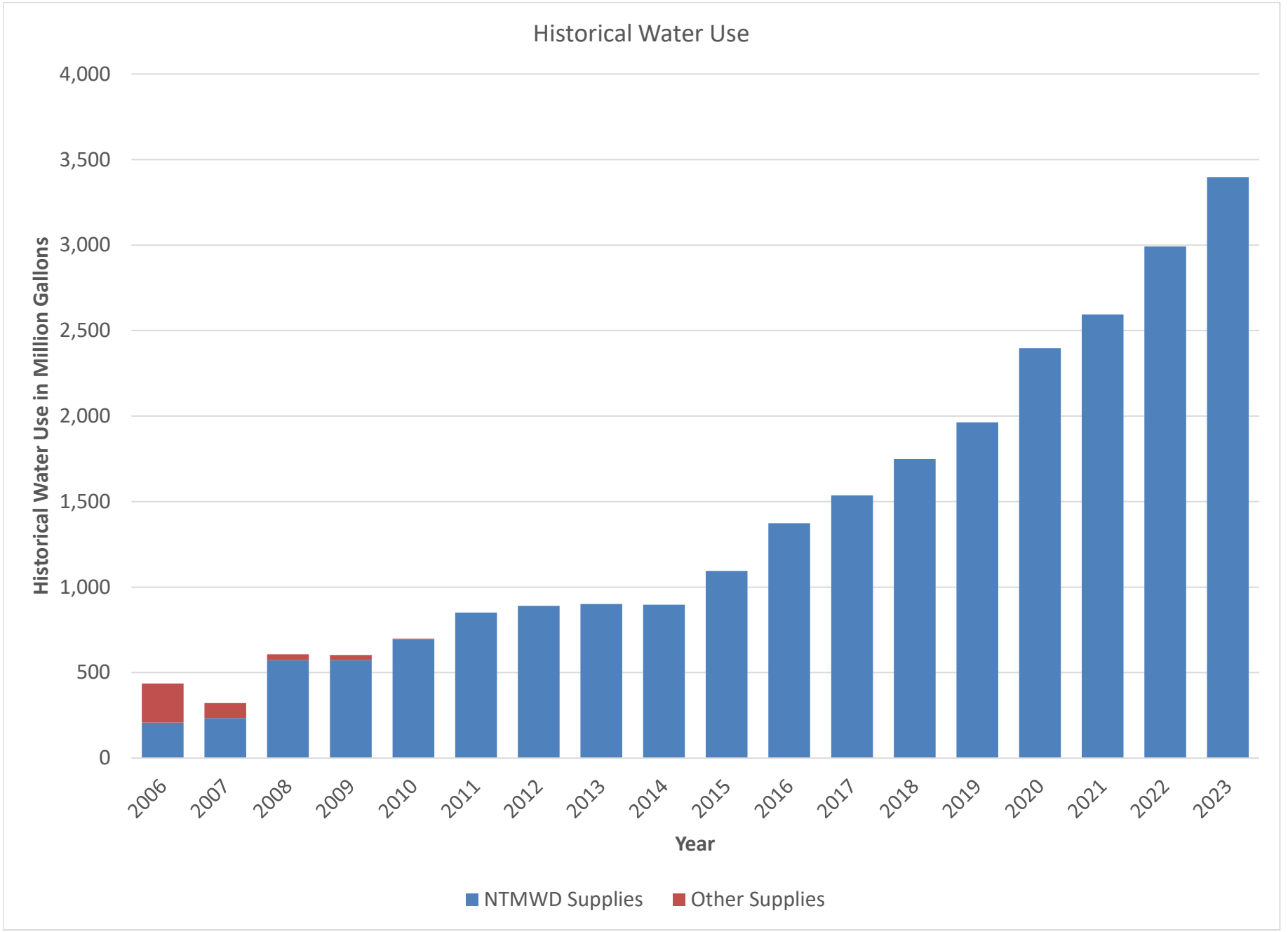
Year	Estimated Population	Total Use			Residential Use			Municipal Per Capita Use (gpcd)	ICIM Per Capita Use (gpcd)	Authorized Consumption				Water Loss						
		Total Per Capita Use (gpcd)	Total 5-Year Per Capita Goal	Total 10-Year Per Capita Goal	Residential Per Capita Use (gpcd)	Residential 5-Year Per Capita Goal	Residential 10-Year Per Capita Goal			Billed Metered (MG)	Billed Unmetered (MG)	Unbilled Metered (MG)	Unbilled Unmetered (MG)	Water Loss (MG)	Water Loss (gpcd)	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
2006	3,500	342			298			342	32	423	0	2	5	7	5			2%		
2007	6,000	147			144			147	19	356	0	3	5	-42	-19			-13%		
2008	6,350	261			200			261	34	544	0	1	7	56	24			9%		
2009	7,100	233			160			233	37	511	0	1	27	65	25			11%		
2010	9,350	205			151			205	25	600	0	0	22	77	22			11%		
2011	10,560	221			167			221	32	765	0	0	38	48	12			6%		
2012	12,190	199			150			199	31	810	0	3	36	41	9			5%		
2013	13,380	184			137			184	35	839	0	2	55	5	1			1%		
2014	14,710	167			122			167	27	800	0	3	55	39	7			4%		
2015	15,970	188			138			178	39	1,032	0	4	49	9	2			1%		
2016	17,990	209			136			199	26	1,176	0	5	87	106	16			8%		
2017	20,160	209			140			200	25	1,376	0	5	162	-8	-1			0%		
2018	22,650	212			142			206	22	1,555	0	7	105	82	10			5%		
2019	25,630	210	200	190	133	138	134	207	20	1,622	0	8	308	25	3	10	11	1%	4.8%	5.3%
2020	28,380	231	200	190	136	138	134	225	21	1,871	0	7	506	13	1	10	11	1%	4.8%	5.3%
2021	31,090	229	200	190	131	138	134	223	22	1,932	0	368	274	20	2	10	11	1%	4.8%	5.3%
2022	35,430	231	200	190	148	138	134	227	22	2,484	0	0	353	154	12	10	11	5%	4.8%	5.3%
2023	38,840	240	200	190	147	138	134	234	21	2,704	0	0	469	225	16	10	11	7%	4.8%	5.3%

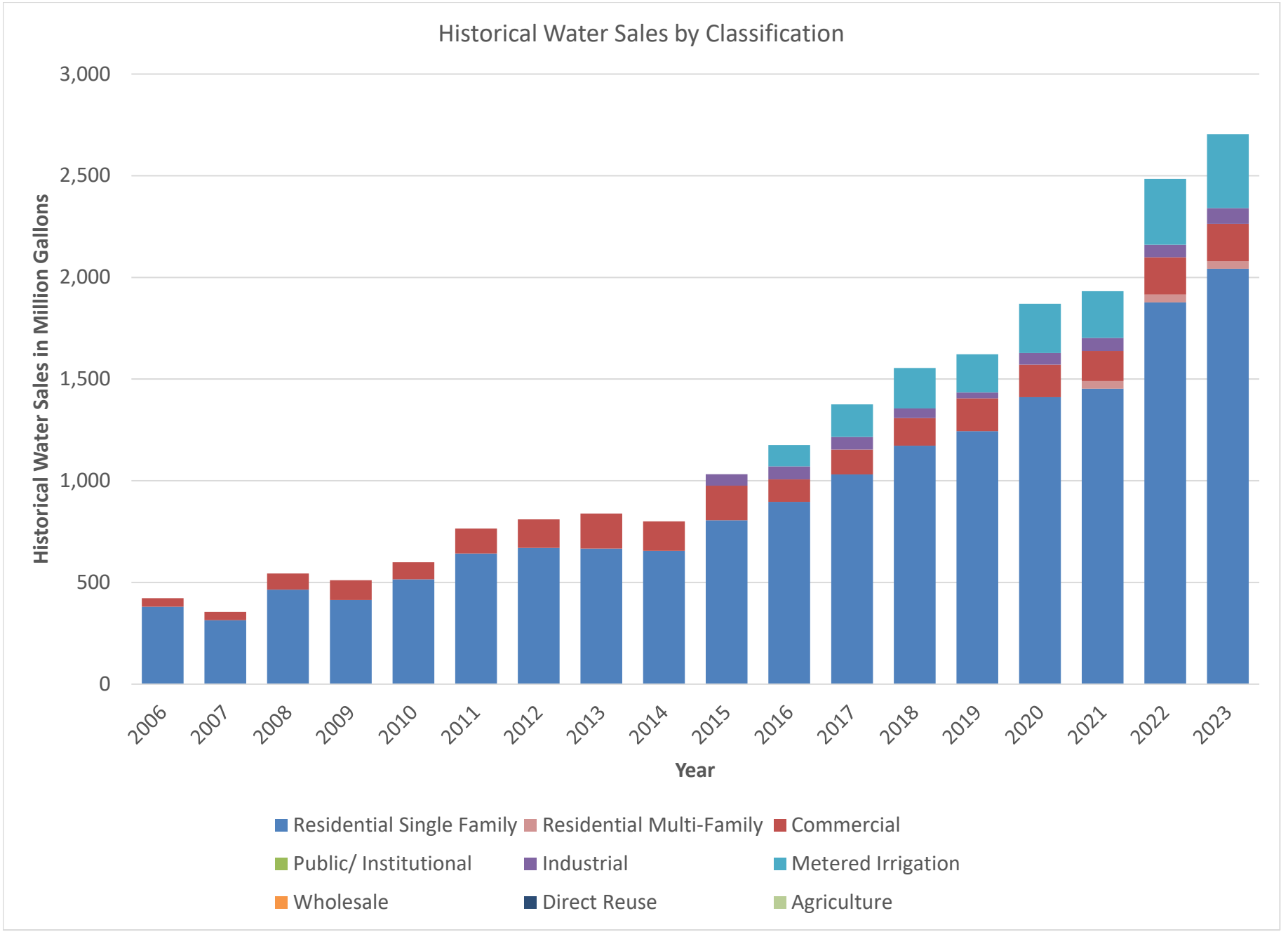
Note:

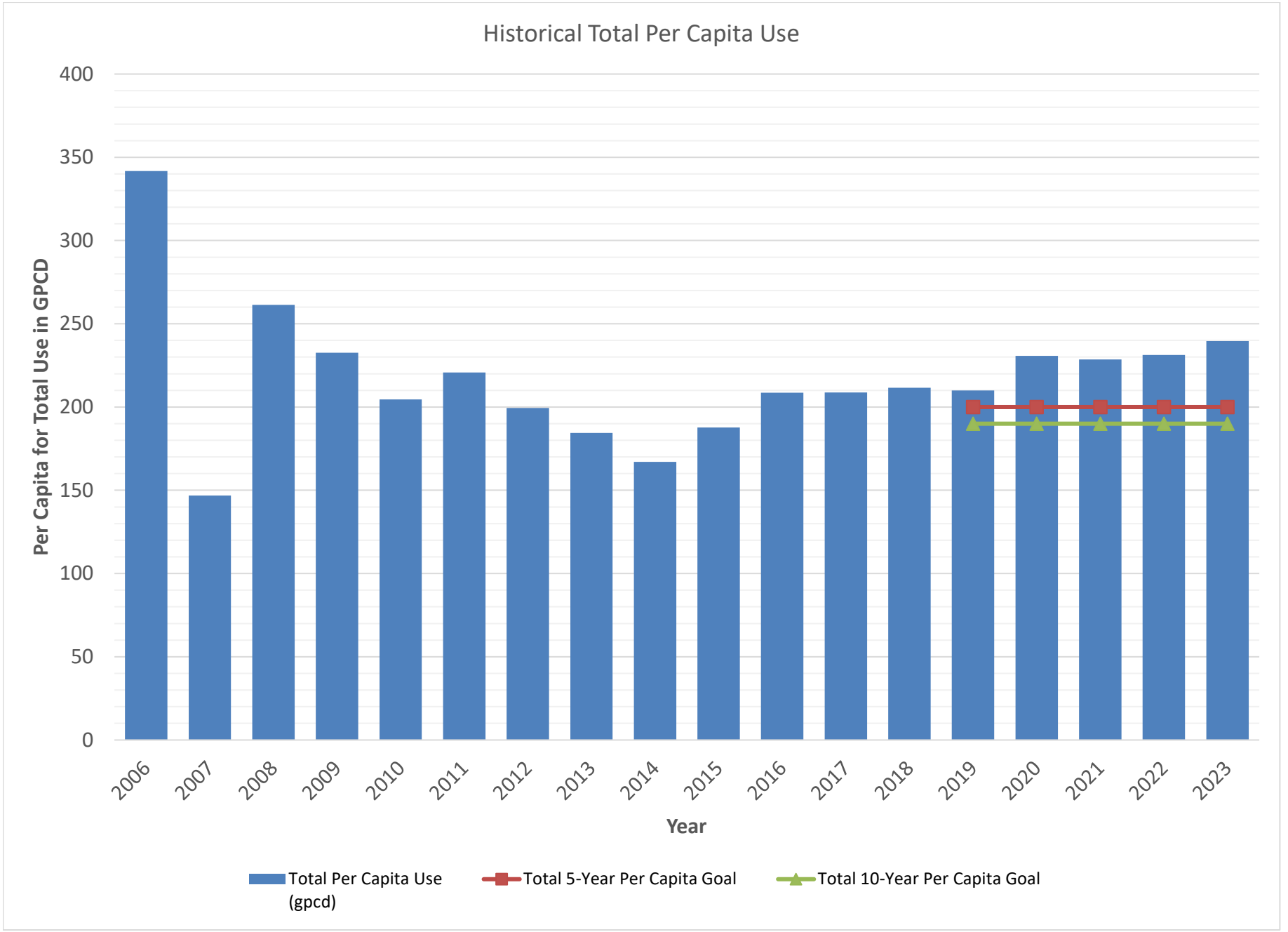
In-city municipal use = total water supplied less sales to industry, wholesale sales and other sales.

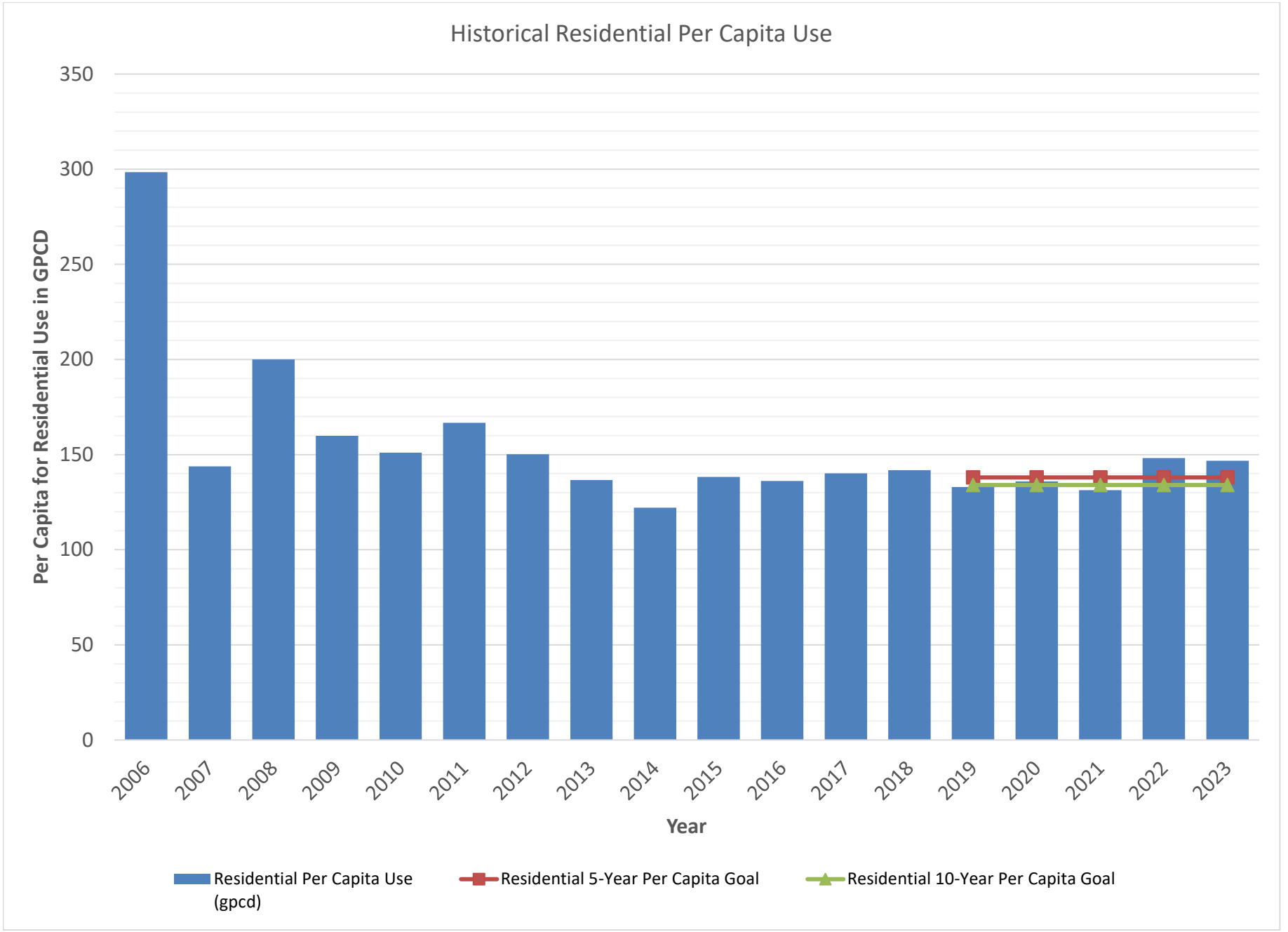
After 2017 - Unaccounted Water has been removed and replaced with Water Losses (per TWDB definition). This category is inclusive of real and apparent losses. Categories for authorized consumption were also added; Unbilled metered replaced estimated fire use, unbilled unmetered replaced estimated line flushing, and a new category for billed unmetered sales was added.

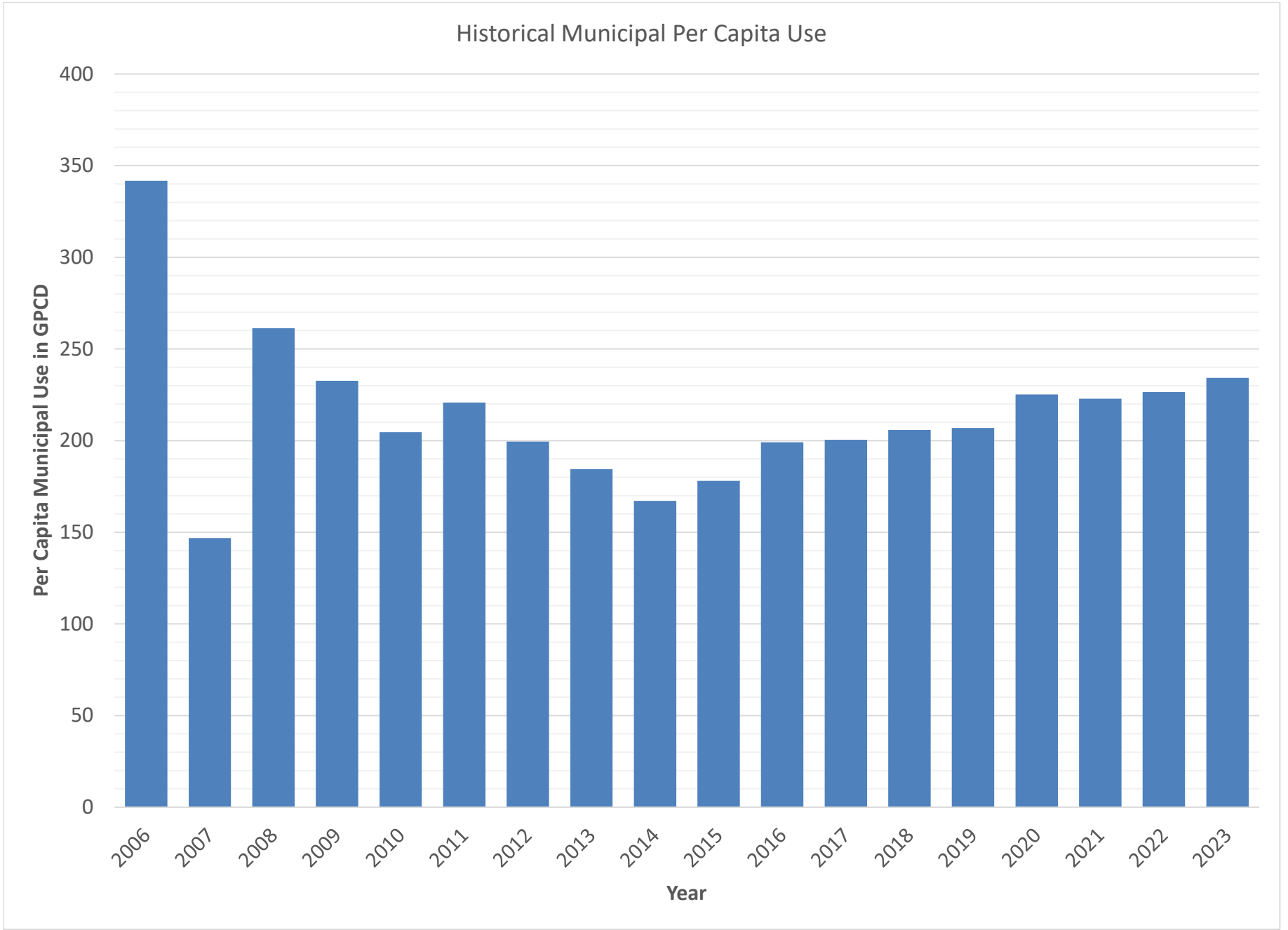

Estimated Historical Population
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
Estimated Population
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Year

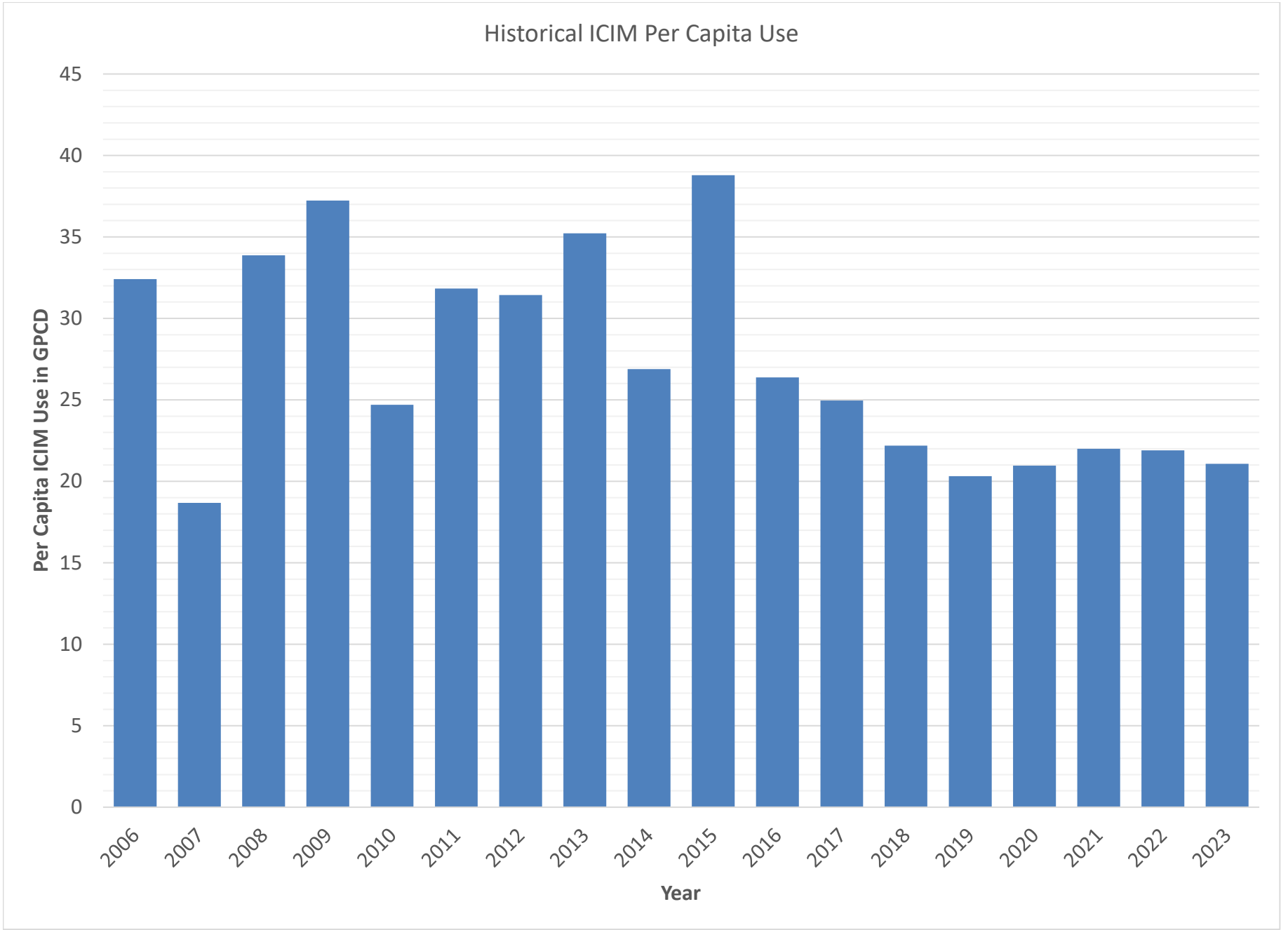

Historical Water Use
Historical Water Use in Million Gallons
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Year
NTMWD Supplies
Other Supplies

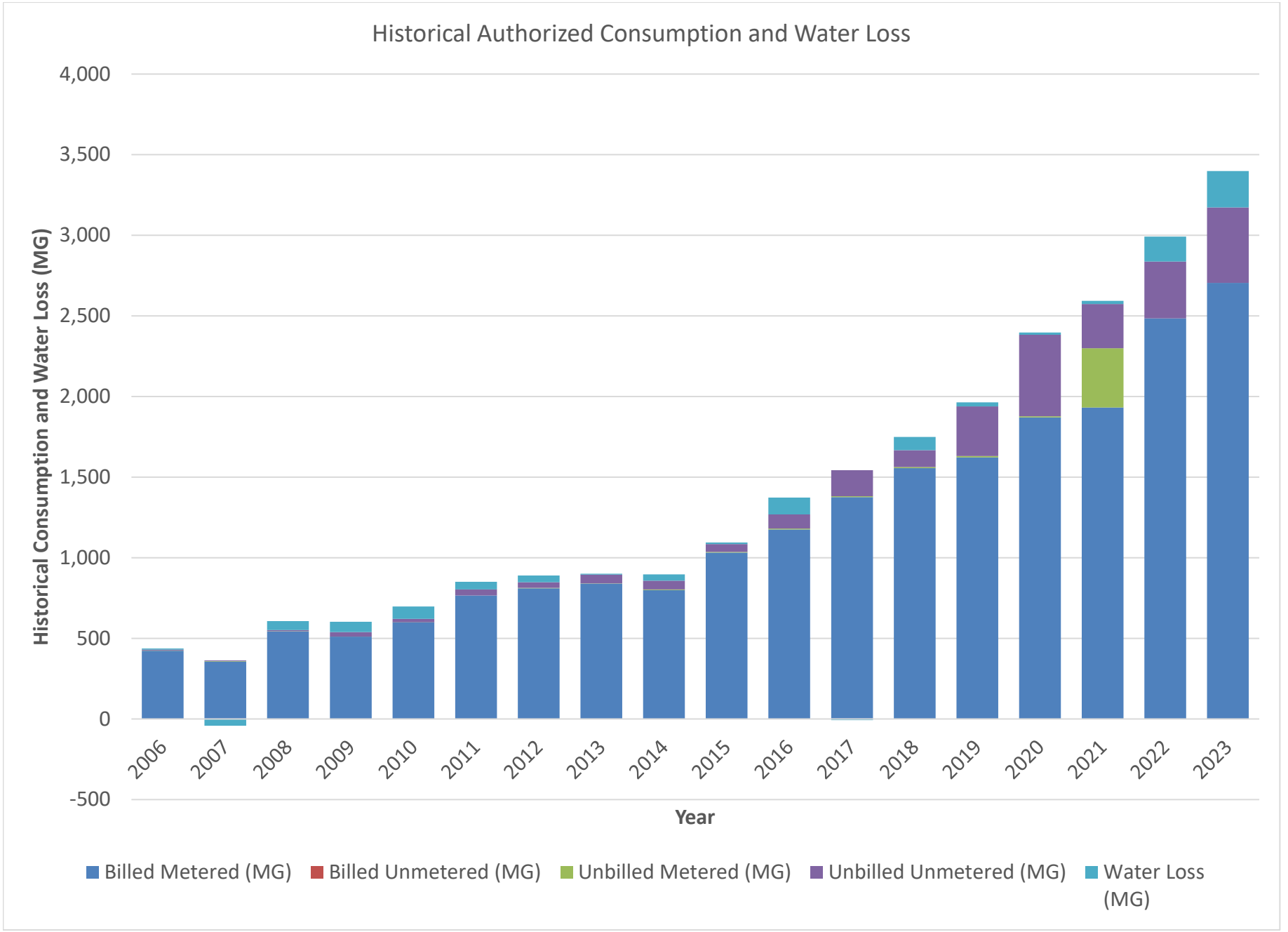

Historical Water Sales by Classification
Historical Water Sales in Million Gallons
3,000
2,500
2,000
1,500
1,000
500
0
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Year
Residential Single Family
Residential Multi-Family
Commercial
Public/ Institutional
Industrial
Metered Irrigation
Wholesale
Direct Reuse
Agriculture

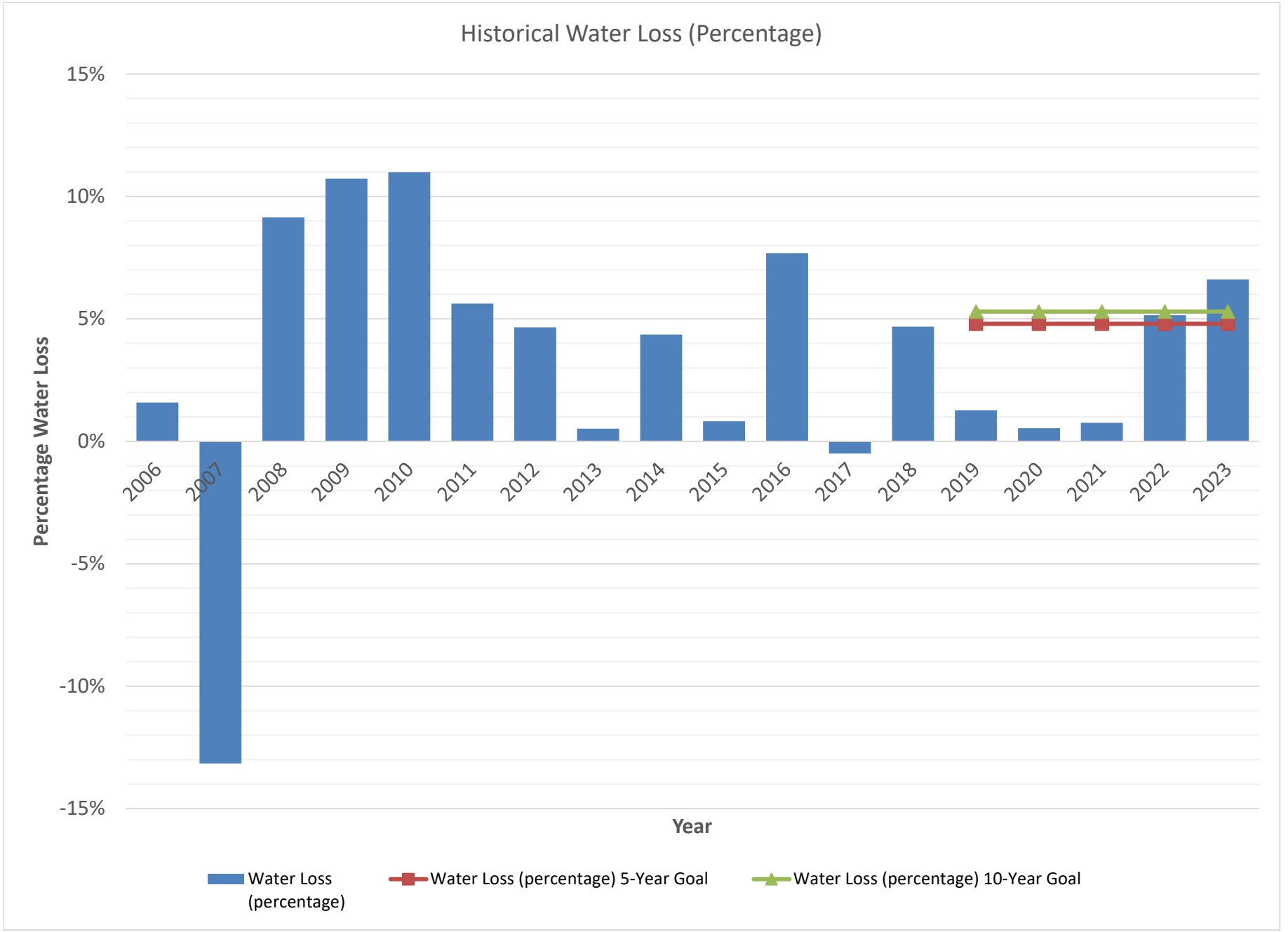

Historical Total Per Capita Use
Per Capita for Total Use in GPCD
400
350
300
250
200
150
100
50
0
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Year
Total Per Capita Use (gpcd)
Total 5-Year Per Capita Goal
Total 10-Year Per Capita Goal


Historical Residential Per Capita Use
Per Capita for Residential Use in GPCD
350
300
250
200
150
100
50
0
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Year
Residential Per Capita Use (gpcd)
Residential 5-Year Per Capita Goal
Residential 10-Year Per Capita Goal


Historical Municipal Per Capita Use
Per Capita Municipal Use in GPCD
400
350
300
250
200
150
100
50
0
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Year


Historical ICIM Per Capita Use
Per Capita ICIM Use in GPCD
45
40
35
30
25
20
15
10
5
0
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Year


Historical Authorized Consumption and Water Loss
Historical Consumption and Water Loss (MG)
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
-500
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Year
Billed Metered (MG)
Billed Unmetered (MG)
Unbilled Metered (MG)
Unbilled Unmetered (MG)
Water Loss (MG)


Historical Water Loss (Percentage)
15%
10%
5%
0%
-5%
-10%
-15%
Percentage Water Loss
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Year
Water Loss (percentage)
Water Loss (percentage) 5-Year Goal
Water Loss (percentage) 10-Year Goal

Appendix E

Letter to Regional Water Planning Group

DATE

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 Town of Prosper. 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 DATE.

Sincerely,

Laila Lopez

Town of Prosper

Appendix F

Adoption of Plans