

**WATER CONSERVATION PLAN  
FOR TOWN OF PROSPER**

APRIL 2019



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## 1. INTRODUCTION AND OBJECTIVES

Water supply has always been a key issue in the development of Texas. In recent years, the increasing population and economic development of North Central Texas have led to growing demands for water supplies. At the same time, local and less expensive sources of water supply are largely already developed. Additional supplies to meet future demands will be expensive and difficult to secure. Severe drought conditions in recent years have highlighted the importance of efficient use of our existing supplies to make them last as long as possible. This will delay the need for new supplies, minimize the environmental impacts associated with developing new supplies, and delay the high cost of additional water supply development.

Recognizing the need for efficient use of existing water supplies, the TCEQ has developed guidelines and requirements governing the development of water conservation and drought contingency plans for municipal uses by public water suppliers.<sup>2</sup> The TCEQ guidelines and requirements for wholesale suppliers are included in Appendix B. The North Texas Municipal Water District (“NTMWD or District”) has developed this Water Conservation Plan to be consistent with TCEQ guidelines and requirements. The best management practices established by the Water Conservation Implementation Task Force<sup>3</sup> were also considered in the development of the water conservation measures.

This Water Conservation Plan includes measures that are intended to result in ongoing, long-term water savings. This plan replaces the previous plan dated May 2015.

The objectives of this water conservation plan are as follows:

- To reduce water consumption from the levels that would prevail without conservation efforts.
- To reduce the loss and waste of water.
- To improve efficiency in the use of water.
- Encourage efficient outdoor water use.
- To maximize the level of recycling and reuse in the water supply.
- To extend the life of current water supplies by reducing the rate of growth in demand.

The water conservation plan presented in this document is a Water Conservation Plan intended for adoption by the NTMWD Member Cities and Customers. In order to adopt this plan, each Member City and Customer will need to do the following:



- Complete the water utility profile (provided in Appendix C).
- Set five-year and ten-year goals for per capita water use.
- Adopt ordinance(s) or regulation(s) approving the plan.
- Complete the annual water conservation implementation report (in Appendix J).

The water utility profile, goals, and ordinance(s) or regulations should be provided to NTMWD in draft form for review and comments. Final adopted versions should also be provided to NTMWD, as well as TCEQ and should be attached to the adopted water conservation plan as Appendix G. This Water Conservation Plan includes all the elements of such plans required by TCEQ. Some elements of this plan go beyond TCEQ requirements. Any water supplier wishing to adjust elements of the Water Conservation Plan should coordinate with NTMWD.

\*Superscripted numbers match references listed in Appendix A.

## 2. DEFINITIONS AND ABBREVIATIONS

1. **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.
2. **COOL SEASON GRASSES** are varieties of turf grass that grow best in cool climates primarily in northern and central regions of the U.S. Cool season grasses include perennial and annual rye grass, Kentucky blue grass and fescues.
3. **CUSTOMERS** include those entities to whom NTMWD provides wholesale water that are not members of NTMWD.
4. **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.
5. **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.
6. **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.
7. **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.
8. **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.
9. **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.



- 10. 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.
- 11. REGULATED IRRIGATION PROPERTY means any property that uses 1 million gallons of water or more in a single calendar year.
- 12. RESIDENTIAL GALLONS PER CAPITA PER DAY means (Residential GPCD) the total gallons sold for residential use by a public water supplier divided by the residential population served and then divided by the number of days in the year.
- 13. RETAIL CUSTOMERS include those customers to whom the utility provides retail water from a water meter.
- 14. TOTAL GALLONS PER CAPITA PER DAY (Total GPCD) means the total amount of water diverted and/or pumped for potable use divided by the total permanent population divided by the days of the year. Diversion volumes of reuse as defined in TAC 288.1 shall be credited against total diversion volumes for the purposes of calculating GPCD for targets and goals.
- 15. WATER CONSERVATION PLAN means the Member City or Customer water conservation plan approved and adopted by the utility.

**Abbreviations**

| <b>Abbreviation</b> | <b>Full Nomenclature</b>                  |
|---------------------|---|
| BMP                 | Best Management Practices                 |
| NTMWD or District   | North Texas Municipal Water District      |
| TCEQ                | Texas Commission on Environmental Quality |
| TWDB                | Texas Water Development Board             |
| WCAC                | Water Conservation Advisory Council       |
| WCP                 | Water Conservation Plan                   |

### **3. REGULATORY BASIS FOR WATER CONSERVATION PLAN**

#### **3.1 TCEQ Rules Governing Conservation Plans**

The TCEQ rules governing development of water conservation plans for municipal uses by public water suppliers are contained in Title 30, Chapter 288, Subchapter A, Section 288.2 of the Texas Administrative Code, which is included in Appendix B. For the purpose of these rules, a water conservation plan is defined as “[a] strategy or combination of strategies for reducing the 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.”<sup>2</sup> The water conservation plan elements required by the TCEQ water conservation rules that are covered in this water conservation plan are listed below.

#### Minimum Conservation Plan Requirements

The minimum requirements in the Texas Administrative Code for Water Conservation Plans for Municipal Uses by Public Water Suppliers are covered in this water conservation plan as follows:

- 288.2(a)(1)(A) – Utility Profile – Section 4 and Appendix C
- 288.2(a)(1)(B) – Record Management System – Section 6.1.5
- 288.2(a)(1)(C) – Specific, Quantified Goals – Section 5
- 288.2(a)(1)(D) – Accurate Metering – Section 6.1.1
- 288.2(a)(1)(E) – Universal Metering – Section 6.1.2
- 288.2(a)(1)(F) – Determination and Control of Water Loss – Sections 6.1.3 and 6.1.4
- 288.2(a)(1)(G) – Public Education and Information Program – Section 6.2
- 288.2(a)(1)(H) – Non-Promotional Water Rate Structure – Section 6.6
- 288.2(a)(1)(I) – Reservoir System Operation Plan – Section 6.3
- 288.2(a)(1)(J) – Means of Implementation and Enforcement – Section 8
- 288.2(a)(1)(K) – Coordination with Regional Water Planning Group – Section 6.4 and Appendix F
- 288.2(c) – Review and Update of Plan – Section 9

Conservation Additional Requirements (Population over 5,000)

- The Texas Administrative Code includes additional requirements for water conservation plans for drinking water supplies serving a population over 5,000
- 288.2(a)(2)(A) – Leak Detection, Repair, and Water Loss Accounting – Sections 6.1.4
- 288.2(a)(2)(B) – Requirement for Water Conservation Plans by Wholesale Customers – Section 6.5

Additional Conservation Strategies

The TCEQ requires that a water conservation implementation report be completed and submitted on an annual basis. The template for this report is included in Appendix J.

In addition to the TCEQ required elements of a water conservation plan, NTMWD also requires the following water conservation strategies to be included in the Member City and Customer water conservation plans:

- 288.2(a)(3)(A) – Conservation Oriented Water Rates – Section 6.6
- 288.2(a)(3)(F) – Considerations for Landscape Water Management Regulations – Section 7.4 and Appendix E

TCEQ rules also include options of, conservation measures that may be adopted by public water suppliers but are not required. NTMWD recommends that the following strategies be included in Member City and Customer water conservation plans:

- 288.2(a)(3)(B) – Ordinances, Plumbing Codes or Rules on Water-Conserving Fixtures – Section 7.1
- 288.2(a)(3)(C) – Replacement or Retrofit of Water-Conserving Plumbing Fixtures – Section 7.5
- 288.2(a)(3)(D) – Reuse and Recycling of Wastewater – Section 7.2
- 288.2(a)(3)(F) – Considerations for Landscape Water Management Regulations – Section 7.3, 7.4
- 288.2(a)(3)(G) – Monitoring Method – Section 7.6
- 288.2(a)(3)(H) – Additional Conservation Practices – Section 7.5



### **3.2 Guidance and Methodology for Reporting on Water Conservation and Water Use**

In addition to TCEQ rules regarding water conservation, this plan also incorporates elements of the Guidance and Methodology for Reporting on Water Conservation and Water Use developed by TWDB and TCEQ<sup>5</sup>, in consultation with the WCAC (the "Guidance"). The Guidance was developed in response to a charge by the 82<sup>nd</sup> 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.

#### **4. WATER UTILITY PROFILE**

Appendix C to this Water Conservation Plan is a template water utility profile based on the format recommended by the TCEQ. In adopting this Water Conservation Plan, each Member City and Customer will provide a draft water utility profile to NTMWD for review and comment. A final water utility profile will be provided to NTMWD as well as to TCEQ.

## 5. SPECIFICATION OF WATER CONSERVATION GOALS

TCEQ rules require the adoption of specific water conservation goals for a water conservation plan. As part of plan adoption, each Member City and Customer must develop 5-year and 10-year goals for water savings, including goals for per capita municipal use and for water loss programs. These goals should be submitted to NTMWD in draft form for review. The goals for this water conservation plan include the following:

- Maintain the total and residential per capita water use below the specified amount in gallons per capita per day in a dry year, as shown in the completed Table 5-1. NTMWD will publish the amount of reuse to be is calculating the credit for reuse.
- Maintain the water loss percentage in the system below 12 percent annually in 2018 and subsequent years, as discussed in Section 6.1.3. (The 12 percent goal for water loss is recommended but is not required. Systems with long distances between customers, such as rural systems, may adopt a higher percent nonrevenue water goal.)
- Implement and maintain a program of universal metering and meter replacement and repair, as discussed in Section 6.1.2.
- Increase efficient water usage through a water conservation ordinance, order or resolution as discussed in Section 7.4 and Appendix E. (This ordinance is required by NTMWD.)
- Decrease waste in lawn irrigation by implementation and enforcement of landscape water management regulations, as discussed in Section 7.5. (These landscape water management regulations are recommended but are not required.)
- Raise public awareness of water conservation and encourage responsible public behavior by a public education and information program, as discussed in Section 6.2.
- Develop a system specific strategy to conserve water during peak demands, thereby reducing the peak use.



**Table 5-1 Five-Year and Ten-Year Per Capita Water Use Goals (GPCD)**

| Description   | Current Average (GPCD) | 5-Year Goal (GPCD) | 10-Year Goal (GPCD) |
|---|------------------------|--------------------|---------------------|
| Current 5-Year Average Total Per Capita Use with Credit for Reuse | 212                    | 200                | 190                 |
| Current 5-Year Average Residential Per Capita Use                 | 142                    | 138                | 134                 |
| Water Loss (GPCD) <sup>1</sup>                                    | 9.92                   | 10                 | 11                  |
| Water Loss (Percentage) <sup>2</sup>                              | 4.68%                  | 4.8%               | 5.3%                |
| Expected Reduction due to Low-Flow Plumbing Fixtures              | 0                      | 0                  | 0                   |
| Projected Reduction Due to Elements in this Plan                  | 12                     | 10                 | 8                   |
| <b>Water Conservation Goals (with credit for reuse)</b>           | <b>212</b>             | <b>200</b>         | <b>190</b>          |

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

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

## **6. BASIC WATER CONSERVATION STRATEGIES**

### **6.1 Metering, Water Use Records, Control of Water Loss, and Leak Detection and Repair**

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

#### **6.1.1 Accurate Metering of Treated Water Deliveries from NTMWD**

Water deliveries from NTMWD are metered by NTMWD using meters with accuracy of  $\pm 2\%$ . These meters are calibrated on an annual basis by NTMWD to maintain the required accuracy.

#### **6.1.2 Metering of Customer and Public Uses and Meter Testing, Repair, and Replacement**

The provision of water to all customers, including public and governmental users, should be metered. In many cases, Member Cities and Customers already meter retail and wholesale water users. For those Member Cities and Customers who do not currently meter all internal water uses, as well as all subsequent users.

Most Member Cities and Customers test and replace their customer meters on a regular basis. All customer meters should be replaced on a minimum of a 15-year cycle. Those who do not currently have a meter testing and replacement program should implement such a program.

#### **6.1.3 Determination and Control of Water Loss**

Total water loss is the difference between the water delivered to a Member City or Customer from NTMWD (and other supplies, if applicable) and the metered water sales to customers plus water authorized for use but not sold. (Authorized for use but not sold would include use for fire fighting, releases for flushing of lines, uses associated with new construction, etc.) Total water loss includes two categories:

- **Apparent Losses** – Includes inaccuracies in customer meters (customer meters tend to run more slowly as they age and under-report actual use); Losses due to illegal connections and theft. (included in Appendix H); accounts that are being used but have not yet been added to the billing system.

- Real Losses – Includes physical losses from the system or mains, reported breaks and leaks, storage overflow and unreported losses.

Measures to control water loss should be part of the routine operations of Member Cities and Customers. Maintenance crews and personnel should look for and report evidence of leaks in the water distribution system. A leak detection and repair program is described in Section 6.1.4 below. Meter readers should watch for and report signs of illegal connections so that they can be quickly addressed.

Total water loss should be calculated in accordance with the provisions of Appendix J. With the measures described in this plan, Member Cities and Customers should maintain a water loss percentage below 12 percent in 2018 each year. If total water loss exceeds this goal, the Member City or Customer should implement a more intensive audit to determine the source(s) of loss and to reduce the water loss. The annual conservation report described below is the primary tool that should be used to monitor water loss.

As advance metering technology advances utilities that have these systems should consider as a BMP utilizing the capabilities of these system to provide leak alerts. Retail customers whose accounts demonstrate leaks can be notified by their water provider of potential leak situations for account holder remediation.

#### **6.1.4 Leak Detection and Repair**

As described above, water utility crews and personnel should look for and report evidence of leaks in the water distribution system. Areas of the water distribution system in which numerous leaks and line breaks occur should be targeted for replacement as funds are available.

#### **6.1.5 Record Management System**

As required by TAC Title 30, Chapter 288, Section 288.2(a)(1)(B), a record management system should allow for the separation of water sales and uses into residential, commercial, public/institutional, and industrial categories. This information should be included in an annual water conservation report, as described in Section 7.6 below. Those entities whose record management systems do not currently comply with this requirement should move to implement such a system within the next five years.



## 6.2 Continuing Public Education and Information Campaign

The continuing public education and information campaign on water conservation includes the following elements:

- Utilize the “Water IQ: Know Your Water” and other public education materials produced by NTMWD.
- Utilize the “Water4Otter” campaign for students.
- Insert water conservation information with water bills. Inserts will include material developed by Member Cities’ and Customers’ staff and material obtained from the TWDB, TCEQ, and other sources.
- Encourage local media coverage of water conservation issues and the importance of water conservation.
- Notify local organizations, schools, and civic groups that Member City or Customer staff and staff of NTMWD are available to make presentations on the importance of water conservation and ways to save water.
- Promote the *Texas Smartscape* website ([www.txsmartscape.com](http://www.txsmartscape.com)) and provide water conservation brochures and other water conservation materials available to the public at Town Hall and other public places.
- Make information on water conservation available on the Member City’s or Customer’s website (if applicable) and include links to the “Water IQ: Know Your Water” website, *Texas Smartscape* website and to information on water conservation on the TWDB and TCEQ web sites and other resources.
- NTMWD is an EPA Water Sense Partner and participates in the EPA Water Sense sponsored “Fix a Leak Week.” NTMWD encourages all member cities and customers to become EPA Water Sense Partners.
- Utilize the Water My Yard website and encourage customers to sign-up to receive weekly watering advice.

## 6.3 NTMWD Reservoir System Operation Plan

Member Cities and Customers of NTMWD purchase treated water from NTMWD and do 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.

#### **6.4 Coordination with Regional Water Planning Group and NTMWD**

Appendix F includes a letter sent to the Chairs of the water planning group accompanied by this Water Conservation Plan. The adopted ordinance(s) or regulation(s) and the adopted water utility profile will be sent to the Chair of the appropriate Water Planning Group and to NTMWD.

#### **6.5 Requirement for Water Conservation Plans by Wholesale Customers**

Every contract for the wholesale sale of water by a Member City and/or Customer that is entered into, renewed, or extended after the adoption of this water conservation plan will include a requirement that the wholesale customer and any wholesale customers of that wholesale customer develop and implement a water conservation plan meeting the requirements of Title 30, Chapter 288, of the Texas Administrative Code. This requirement extends to each successive wholesale customer in the resale of the water.

#### **6.6 Increasing Block Water Rate Structure**

Each Member City and Customer must adopt, if it has not already done so, an increasing block rate water structure that is intended to encourage water conservation and to discourage excessive use and waste of water upon completion its next rate study or within five years. An example water rate structure is as follows:

##### Residential Rates

1. Monthly minimum charge. This can (but does not have to) include up to 2,000 gallons water use with no additional charge.
2. Base charge per 1,000 gallons up to the approximate average residential use.
3. 2<sup>nd</sup> tier (from the average to 2 times the approximate average) at 1.25 to 2.0 times the base charge.
4. 3<sup>rd</sup> tier (above 2 times the approximate average) at 1.25 to 2.0 times the 2<sup>nd</sup> tier.
5. Additional tiers with further increases if desired.



6. The residential rate can also include a lower tier for basic household use up to 4,000 gallons per month or a determined basic use.

Commercial/Industrial Rates

Commercial/Industrial rates should include at least 2 tiers, with rates for the 2<sup>nd</sup> tier set at 1.25 to 2.0 times that of the first tier. Higher water rates for commercial irrigation use are encouraged, but not required.

## **7. ENHANCED WATER CONSERVATION STRATEGIES**

### **7.1 Ordinances, Plumbing Codes, or Rules on Water-Conserving Fixtures**

The state has required water-conserving fixtures in new construction and renovations since 1992. The state standards call for flows of no more than 2.5 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. Rebate programs to encourage replacement of older fixtures with water conservation programs are discussed in Section 7.5.

### **7.2 Reuse and Recycling of Wastewater**

Most Member Cities and Customers do not own and operate their own wastewater treatment plants. Their wastewater is treated by NTMWD. 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 of treated wastewater discharges from the Wilson Creek Wastewater Treatment Plant for municipal purposes. In addition, NTMWD has also developed the East Fork Reuse Project which can divert up to 157,393 acre-feet per year based on treated wastewater discharges by NTMWD. With the addition of the Main Stem Pump station the District will be able to increase flows through the East Fork Reuse Project up to an additional 56,100 acre-feet per year. When fully developed, these three reuse projects will provide up to 42 percent of the NTMWD's currently permitted water supplies. NTMWD also provides treated effluent from its wastewater treatment plants available for direct reuse for landscape irrigation and industrial use.

Those Member Cities and Customers who own and operate their own wastewater treatment plants should move toward reusing treated effluent for irrigation purposes at their plant site over the next three years. These entities should also seek other alternatives for reuse of recycled wastewater effluent.

### **7.3 Interactive Weather Stations / "Water My Yard" Program**

NTMWD has developed the Water My Yard program to install weather stations throughout its service area in order to provide consumers with a weekly e-mail and information through the "Water My Yard" website to assist consumers in determining an adequate amount of



supplemental water to maintain healthy grass in a specific location. This service represents the largest network of weather stations providing ET-based irrigation recommendations in the State of Texas, and provides the public advanced information regarding outdoor irrigation needs, thereby reducing water use. Through a series of selections on the type of irrigation system a consumer has, a weekly email is provided that will determine how long (in minutes) an irrigation system needs to run based on the past seven days of weather. This recommendation provides the actual amount of supplemental water that is required for a healthy lawn based on research of the Texas A&M Agrilife Extension Service and proven technologies. This innovative program has been available to those within the NTMWD service area since May 2013. The town/utility will encourage customers to subscribe to weekly watering updates through Water My Yard or other similar program in an effort to reduce outdoor water consumption.

#### **7.4 Compulsory Landscape and Water Management Measures**

The following landscape water management measures are required by NTMWD for this plan. These measures represent minimum measures to be implemented and enforced in order to irrigate the landscape appropriately and are to remain in effect on a permanent basis unless water resource management stages are declared.

##### **1. Landscape Water Management Measures**

- Limit landscape watering with sprinklers or irrigation systems at each service address to no more than two days per week (April 1 – October 31), with education that less than twice per week is usually adequate. Designated watering days are as outlined in Figure 1 on the next page. Additional watering of landscape may be provided by hand-held hose with shutoff nozzle, use of dedicated irrigation drip zones. An exception is allowed for landscape associated with new construction that may be watered as necessary for 30 days from the installation of new landscape features.
- Limit landscape watering with sprinklers or irrigation systems at each service address to no more than one day per week beginning November 1 and ending March 31 of each year, with education that less than once per week is usually adequate.
- Estimated savings from the year-round watering restrictions, mentioned above, since the District terminated drought stages in 2015 is approximately 2.5 to 3.5 percent on an average annualized basis.



## **2. Additional Water Management Measures**

- Prohibit the use of potable water to fill or refill residential, amenity, and any other natural or manmade ponds. A pond is considered to be a still body of water with a surface area of 500 square feet or more.
- Non-commercial car washing can be done only when using a water hose with a shut-off nozzle.
- Hotels and motels shall offer a linen reuse water conservation option to customers.
- Restaurants, bars, and other commercial food or beverage establishments may not provide drinking water to customers unless a specific request is made by the customer for drinking water.

Member Cities and Customers are responsible for developing regulations, ordinances, policies, or procedures for enforcement of water conservation guidelines.

Appendix E is a summary of landscape water management regulations adopted as part of the development of this water conservation plan. These regulations are intended to minimize waste in landscape irrigation. Appendix E includes the required landscape water measures laid out in this section.

### **7.5 Additional Water Conservation Measures (Not Required)**

Not Applicable.

### **7.6 Monitoring of Effectiveness and Efficiency - NTMWD Annual Water Conservation Report**

Appendix D is a form that should be used in the development of an annual water conservation report by Member Cities and Customers. This form should be completed by March 31 of the following year and used to monitor the effectiveness and efficiency of the water conservation program and to plan conservation-related activities for the next year. The form records the water use by category, per capita municipal use, and total water loss for the current year and compares them to historical values. As part of the development of Appendix D, Member Cities and Customers will complete the tracking tool by March 31 of the following year and submit them to



NTWMD. The annual water conservation report should be sent to NTMWD, which will monitor NTMWD Member Cities' and Customers' water conservation trends.

### **7.7 Water Conservation Implementation Report**

Appendix J includes the TCEQ-required water conservation implementation report. The report is due to the TCEQ by May 1 of every year. This report lists the various water conservation strategies that have been implemented, including the date the strategy was implemented. The report also calls for the five-year and ten-year per capita water use goals from the previous water conservation plan. The reporting entity must answer whether or not these goals have been met and if not, why not. The amount of water saved is also requested.



## **8. IMPLEMENTATION AND ENFORCEMENT OF THE WATER CONSERVATION PLAN**

Appendix G contains a draft ordinance to be adopted by the Town Council or governing board regarding the Water Conservation Plan. The ordinance, order, or resolution designates responsible officials to implement and enforce the water conservation plan. Appendix E, the landscape water management regulations, also includes information about enforcement. Appendix H includes a copy of the ordinance adopted related to illegal connections and water theft.



**9. REVIEW AND UPDATE OF WATER CONSERVATION PLAN**

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

**APPENDIX A**  
**LIST OF REFERENCES**

## APPENDIX A

### LIST OF REFERENCES

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

**APPENDIX B**

**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY RULES ON  
MUNICIPAL WATER CONSERVATION PLANS**

## APPENDIX B

### TEXAS COMMISSION ON ENVIRONMENTAL QUALITY RULESON MUNICIPAL WATER CONSERVATION PLANS

#### Texas Administrative Code

|                     |  |
|---------------------|--|
| <u>TITLE 30</u>     | ENVIRONMENTAL QUALITY  |
| <u>PART 1</u>       | TEXAS COMMISSION ON ENVIRONMENTAL<br>QUALITY   |
| <u>CHAPTER 288</u>  | WATER CONSERVATION PLANS, DROUGHT<br>CONTINGENCY PLANS, GUIDELINES AND<br>REQUIREMENTS |
| <u>SUBCHAPTER A</u> | WATER CONSERVATION PLANS   |
| <u>RULE §288.1</u>  | <b>Definitions</b>   |

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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.

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**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

## Texas Administrative Code

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

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(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.

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**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 C**  
**TCEQ WATER UTILITY PROFILE**



**Texas Commission on Environmental Quality**  
**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 development. If you need 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) 239-4691.

Name: Town of Prosper

Address: 200 S Main Street Prosper, TX 75078

Telephone Number: (972) 347-9969 Fax: ( )

Water Right No.(s): PWS ID # 0430009

Regional Water Planning Group: Group C

Form Completed by: Tristan Cisco

Title: Water Education Coordinator

Person responsible for implementing conservation program: Frank Jaromin Phone: (972) 347-9969

Signature: \_\_\_\_\_ Date: 04/12/2019

**NOTE: If the plan does not provide information for each requirement, include 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): 27  
(Please attach a copy of service-area map)
3. Current population of service area: 22,650 (2018 population)
4. Current population served for:
  - a. Water 22,650
  - b. Wastewater 22,650

5. Population served for previous five years:

| <i>Year</i> | <i>Population</i> |
|-------------|-------------------|
| 2014        | 14,710            |
| 2015        | 15,970            |
| 2016        | 17,790            |
| 2017        | 20,160            |
| 2018        | 22,650            |

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

| <i>Year</i> | <i>Population</i> |
|-------------|-------------------|
| 2020        | 27,980            |
| 2030        | 54,499            |
| 2040        | 72,414            |
| 2050        | 72,414            |
| 2060        | 72,414            |

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

NTCOG was used to determine 2014-2018. The Prosper Comprehensive Plan was used in determining the projected population.

*B. Customers 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. [http://www.tceq.texas.gov/assets/public/permitting/watersupply/water\\_rights/sb181\\_guidance.pdf](http://www.tceq.texas.gov/assets/public/permitting/watersupply/water_rights/sb181_guidance.pdf)



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

| <i>Treated Water Users</i> | <i>Metered</i> | <i>Non-Metered</i> | <i>Totals</i> |
|----------------------------|----------------|--------------------|---------------|
| Residential                | 7864           |                    | 7864          |
| Single-Family              |                |                    |               |
| Multi-Family               | 83             |                    | 83            |
| Commercial                 | 581            |                    | 581           |
| Industrial/Mining          |                |                    |               |
| Institutional              |                |                    |               |
| Agriculture                |                |                    |               |
| Other/Wholesale            |                |                    |               |

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

| <i>Year</i>                | <i>2016</i> | <i>2017</i> | <i>2018</i> |
|----------------------------|-------------|-------------|-------------|
| <i>Treated Water Users</i> |             |             |             |
| Residential                | 1032        | 760         | 919         |
| Single-Family              |             |             |             |
| Multi-Family               | 30          | 0           | 0           |
| Commercial                 | 31          | 58          | 33          |
| Industrial/Mining          |             |             |             |
| Institutional              |             |             |             |
| Agriculture                |             |             |             |
| Other/Wholesale            |             |             |             |

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

|    | <i>Customer</i>                      | <i>Use (1,000 gal/year)</i> | <i>Treated or Raw Water</i> |
|----|--------------------------------------|-----------------------------|-----------------------------|
| 1. | FCS Construction                     | 7,767,100                   | Treated                     |
| 2. | Argos Ready Mix South Central        | 6,945,150                   | Treated                     |
| 3. | 4" Lattimore Concrete                | 6,520,500                   | Treated                     |
| 4. | St. Martin de Porres Catholic School | 4,581,500                   | Treated                     |
| 5. | PISD                                 | 4,339,500                   | 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.

| <i>Year</i>   | 2014           | 2015             | 2016             | 2017             | 2018             |
|---------------|----------------|------------------|------------------|------------------|------------------|
| <i>Month</i>  |                |                  |                  |                  |                  |
| January       | 52,778         | 50,953           | 62,318           | 64,628           | 76,676           |
| February      | 49,112         | 43,746           | 68,671           | 66,799           | 69,651           |
| March         | 58,081         | 46,060           | 79,425           | 91,409           | 89,742           |
| April         | 67,938         | 52,150           | 89,279           | 107,400          | 111,204          |
| May           | 96,455         | 48,796           | 86,974           | 155,759          | 176,295          |
| June          | 88,932         | 94,653           | 134,189          | 145,440          | 169,748          |
| July          | 72,239         | 138,553          | 177,878          | 177,955          | 292,683          |
| August        | 108,332        | 209,496          | 199,515          | 178,199          | 257,542          |
| September     | 108,025        | 162,303          | 146,625          | 195,536          | 173,322          |
| October       | 82,483         | 132,185          | 147,985          | 158,881          | 142,394          |
| November      | 66,027         | 57,779           | 100,831          | 115,689          | 115,293          |
| December      | 46,810         | 57,330           | 80,132           | 78,277           | 75,033           |
| <b>Totals</b> | <b>897,212</b> | <b>1,094,004</b> | <b>1,373,822</b> | <b>1,535,972</b> | <b>1,749,583</b> |

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).

The above figures were determined by the NTMWD deliveries in the Appendix D Report.

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

| <i>Year</i>          | 2014    | 2015    | 2016    | 2017      | 2018      |
|----------------------|---------|---------|---------|-----------|-----------|
| <i>Account Types</i> |         |         |         |           |           |
| Residential          | 655,533 | 806,167 | 899,161 | 1,034,192 | 1,174,183 |
| Single-Family        |         |         |         |           |           |
| Multi-Family         | 27,315  | 27,390  | 28,248  | 29,916    | 35,359    |
| Commercial           | 115,877 | 169,924 | 213,415 | 279,878   | 332,654   |
| Industrial/Mining    |         |         |         |           |           |
| Institutional        |         |         |         |           |           |
| Agriculture          |         |         |         |           |           |
| Other/Wholesale      |         |         |         |           |           |



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

| <i>Year</i> | <i>Amount (gallons)</i> | <i>Percent %</i> |
|-------------|-------------------------|------------------|
| 2014        | 39,084                  | 4.36%            |
| 2015        | 8,955                   | 0.82%            |
| 2016        | 105,544                 | 7.68%            |
| 2017        | -7,643                  | -0.50%           |
| 2018        | 81,931                  | 4.68%            |

**B. Projected Water Demands**

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

**III. WATER SUPPLY SYSTEM DATA**

**A. Water Supply Sources**

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

| <i>Water Type</i> | <i>Source</i> | <i>Amount Authorized</i> |
|-------------------|---------------|--------------------------|
| Surface Water     |               |                          |
| Groundwater       |               |                          |
| Contracts         | NTMWD         | 5,600 acre ft.           |
| Other             |               |                          |

**B. Treatment and Distribution System**

1. Design daily capacity of system (MGD): 12 MGD
2. Storage capacity (MGD):
  - a. Elevated 4 MGD
  - b. Ground 8 MGD
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):

| <i>Year</i>   | _____ | _____ | _____ | _____ | _____ |
|---------------|-------|-------|-------|-------|-------|
| <i>Month</i>  | _____ | _____ | _____ | _____ | _____ |
| January       | _____ | _____ | _____ | _____ | _____ |
| February      | _____ | _____ | _____ | _____ | _____ |
| March         | _____ | _____ | _____ | _____ | _____ |
| April         | _____ | _____ | _____ | _____ | _____ |
| May           | _____ | _____ | _____ | _____ | _____ |
| June          | _____ | _____ | _____ | _____ | _____ |
| July          | _____ | _____ | _____ | _____ | _____ |
| August        | _____ | _____ | _____ | _____ | _____ |
| September     | _____ | _____ | _____ | _____ | _____ |
| October       | _____ | _____ | _____ | _____ | _____ |
| November      | _____ | _____ | _____ | _____ | _____ |
| December      | _____ | _____ | _____ | _____ | _____ |
| <b>Totals</b> | _____ | _____ | _____ | _____ | _____ |

## V. ADDITIONAL REQUIRED INFORMATION

*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. 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

### B. Metering Devices

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.

### C. 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.

### D. Unaccounted- For Water Use

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

### E. 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.

### F. 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.

### G. 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. The reservoir systems operations plan shall include optimization of water supplies as one of the significant goals of the plan.

### H. 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.

*I. 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 wholesale water supplier in order to ensure consistency with the appropriate approved regional water plans.

*J. 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 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**

*A. Conservation Strategies*

Any combination of the following strategies shall be selected by the water supplier, in addition to the minimum requirements of this chapter, 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.

### **Best Management Practices**

*The Texas Water Developmental Board's (TWDB) Report 362 is the Water Conservation Best Management Practices (BMP) guide. The BMP Guide is a voluntary list of management practices that water users may implement in addition to the required components of Title 30, Texas Administrative Code, Chapter 288. The Best Management Practices Guide broken out by sector, including Agriculture, Commercial, and Institutional, Industrial, Municipal and Wholesale along with any new or revised BMP's can be found at the following link on the Texas Water Developments Board's website: <http://www.twdb.state.tx.us/conservation/bmps/index.asp>*

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact 512-239-3282.

**APPENDIX D**  
**NTMWD MEMBER CITY AND CUSTOMER ANNUAL WATER**  
**CONSERVATION REPORT**

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

**Water Utility Reporting:** Prosper  
**Filled Out By:** Jake Sonnevelt  
**Phone Number:** (972)347-6696  
**Email:** jacob\_sonnevelt@prospertx.gov  
**Date Completed:** 2/12/2019  
**Year Covered:** 2018  
**# of Connections:** 8,296  
**Estimated Population:** 22,650  
**Source:** MCTCOG  
**# of Irrigation Systems:** 4,952

**Recorded Deliveries and Sales by Month (in Million Gallons):**

| Month        | Deliveries from NTMWD | Other Supplies | Sales by Category |                |                       |            |                    |           | Total         |                  |
|--------------|-----------------------|----------------|-------------------|----------------|-----------------------|------------|--------------------|-----------|---------------|------------------|
|              |                       |                | Residential       | Commercial     | Public/ Institutional | Industrial | Metered Irrigation | Wholesale |               | Other            |
| January      | 76,676                |                | 55,339            | 8,440          |                       |            | 4,678              |           | 3,482         | 71,939           |
| February     | 69,651                |                | 48,680            | 7,898          |                       |            | 3,423              |           | 2,745         | 62,746           |
| March        | 89,742                |                | 43,731            | 4,958          |                       |            | 5,482              |           | 0,629         | 54,800           |
| April        | 111,204               |                | 79,047            | 10,692         |                       |            | 8,609              |           | 3,715         | 102,063          |
| May          | 176,295               |                | 93,519            | 11,992         |                       |            | 11,785             |           | 5,816         | 123,112          |
| June         | 169,748               |                | 124,104           | 12,743         |                       |            | 19,831             |           | 4,461         | 161,139          |
| July         | 292,683               |                | 182,885           | 13,390         |                       |            | 39,283             |           | 3,712         | 239,270          |
| August       | 257,542               |                | 199,490           | 21,694         |                       |            | 42,436             |           | 7,033         | 270,653          |
| September    | 173,322               |                | 145,043           | 14,675         |                       |            | 36,002             |           | 6,835         | 202,555          |
| October      | 142,394               |                | 79,509            | 10,302         |                       |            | 15,769             |           | 3,774         | 109,354          |
| November     | 115,293               |                | 55,671            | 7,540          |                       |            | 6,439              |           | 1,355         | 71,005           |
| December     | 75,033                |                | 65,232            | 11,415         |                       |            | 5,566              |           | 4,154         | 86,367           |
| <b>TOTAL</b> | <b>1,749,583</b>      |                | <b>1,172,250</b>  | <b>135,739</b> |                       |            | <b>199,303</b>     |           | <b>47,711</b> | <b>1,555,003</b> |

**Peak Day Usage**  
 Peak Day (MG) 11,599  
 Average Day (MG) 4,793  
 Peak/Average Day Ratio 2.420

**Authorized Consumption and Water Loss**

Total System Input Volume: 1,749,583  
 Billed Metered: 1,555,003  
 Billed Unmetered: 7,450  
 Unbilled Metered: 105,199  
 Total Authorized Consumption: 1,667,652  
 Water Losses: 81,931  
 Total Loss Percent: 4.68%  
 Goal for Total Loss Percent: 10.00%

**Per Capita Use (Gallons per person per day)**

Municipal Use (MG) 1,702  
 Residential Use (MG) 1,172,250  
 Total Per Capita Use (gpcd) 212  
 Municipal Per Capita Use (gpcd) 206  
 Residential Per Capita Use (gpcd) 142  
 5-year Per Capita Goal 200  
 10-year Per Capita Goal 190

**Recorded Wholesale Sales by Month (in Million Gallons):**

| Month     | Sales to... | Total Wholesale Sales |
|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------|
| January   |             |             |             |             |             |             |             |             |             |                       |
| February  |             |             |             |             |             |             |             |             |             |                       |
| March     |             |             |             |             |             |             |             |             |             |                       |
| April     |             |             |             |             |             |             |             |             |             |                       |
| May       |             |             |             |             |             |             |             |             |             |                       |
| June      |             |             |             |             |             |             |             |             |             |                       |
| July      |             |             |             |             |             |             |             |             |             |                       |
| August    |             |             |             |             |             |             |             |             |             |                       |
| September |             |             |             |             |             |             |             |             |             |                       |
| October   |             |             |             |             |             |             |             |             |             |                       |
| November  |             |             |             |             |             |             |             |             |             |                       |
| December  |             |             |             |             |             |             |             |             |             |                       |
| TOTAL     |             |             |             |             |             |             |             |             |             |                       |



**Conservation measures planned for next year (use additional sheets if necessary):**

The Town of Prosper will continue to utilize the Earth-Kind Gardens at the water tower and Rucker Elementary School as research and demonstration tools to provide hands on training and examples for residents. Staff will continue to give water tower tours to small groups that request such tours. Staff will host free water conservation courses provided by Texas A&M AgriLife Extension and Collin County Master Gardeners. Staff will also continue to provide library staff with water conservation kits that may be checked-out biweekly. The kit contains informational books for all ages, as well as free "keepsakes" including a shut-off spray nozzle, a catch can, a moisture meter, and a toilet kit containing leak detection tablets and a water saver pouch. The kit also contains informational material about local watering guidelines and easy ways to conserve water. Staff also has a contract with M&M Irrigation and Illumination to provide 200 free sprinkler evaluations in 2019. The contract began on January 1, 2019, and will conclude on June 30, 2019. The sprinkler evaluations will be scheduled in a first come, first serve manner. Staff will also be promoting the newest of our projects titled Release, Renew, Recycle. The project brings awareness to water bottles that contain water that is lost or wasted and thrown into the garbage. The goal of this project is to promote utilizing the unwanted water to water nearby plant life before recycling the bottle. In addition to the measures conservation staff have planned, the water department will continue their preventative measures.

**Assistance requested from North Texas Municipal Water District (use additional sheets if necessary):**

**Other (use additional sheets if necessary):**

Historical Water Use Data for Prosper

| Year | Connections | Estimated Population | Deliveries from NTMWD (MG) | Other Supplies (MG) | Metered Sales by Category (Million Gallons) |            |                       |            |                    |           |       | Total |       |
|------|-------------|----------------------|----------------------------|---------------------|---|------------|-----------------------|------------|--------------------|-----------|-------|-------|-------|
|      |             |                      |                            |                     | Residential                                 | Commercial | Public/ Institutional | Industrial | Metered Irrigation | Wholesale | Other |       |       |
| 2006 | 2,000       | 3,500                | 207                        | 229                 | 381   | 41         | 0                     | 0          | 0                  | 0         | 0     | 0     | 423   |
| 2007 | 2,380       | 6,000                | 234                        | 88                  | 315   | 41         | 0                     | 0          | 0                  | 0         | 0     | 0     | 356   |
| 2008 | 2,775       | 6,350                | 572                        | 35                  | 465   | 79         | 0                     | 0          | 0                  | 0         | 0     | 0     | 544   |
| 2009 | 2,905       | 7,100                | 572                        | 31                  | 414   | 96         | 0                     | 0          | 0                  | 0         | 0     | 0     | 511   |
| 2010 | 3,130       | 9,350                | 693                        | 6                   | 515   | 84         | 0                     | 0          | 0                  | 0         | 0     | 0     | 600   |
| 2011 | 3,478       | 10,560               | 851                        | 0                   | 643   | 123        | 0                     | 0          | 0                  | 0         | 0     | 0     | 765   |
| 2012 | 3,921       | 12,190               | 890                        | 0                   | 670   | 140        | 0                     | 0          | 0                  | 0         | 0     | 0     | 810   |
| 2013 | 4,372       | 13,380               | 901                        | 0                   | 667   | 172        | 0                     | 0          | 0                  | 0         | 0     | 0     | 839   |
| 2014 | 4,880       | 14,710               | 897                        | 0                   | 656   | 144        | 0                     | 0          | 0                  | 0         | 0     | 0     | 800   |
| 2015 | 5,595       | 15,970               | 1,094                      | 0                   | 806   | 170        | 0                     | 0          | 0                  | 0         | 0     | 56    | 1,032 |
| 2016 | 6,671       | 17,990               | 1,374                      | 0                   | 897   | 110        | 0                     | 0          | 105                | 0         | 63    | 61    | 1,376 |
| 2017 | 7,659       | 20,160               | 1,536                      | 0                   | 1,031                                       | 123        | 0                     | 0          | 161                | 0         | 61    | 61    | 1,376 |
| 2018 | 8,296       | 22,650               | 1,750                      | 0                   | 1,172                                       | 136        | 0                     | 0          | 199                | 0         | 48    | 48    | 1,555 |

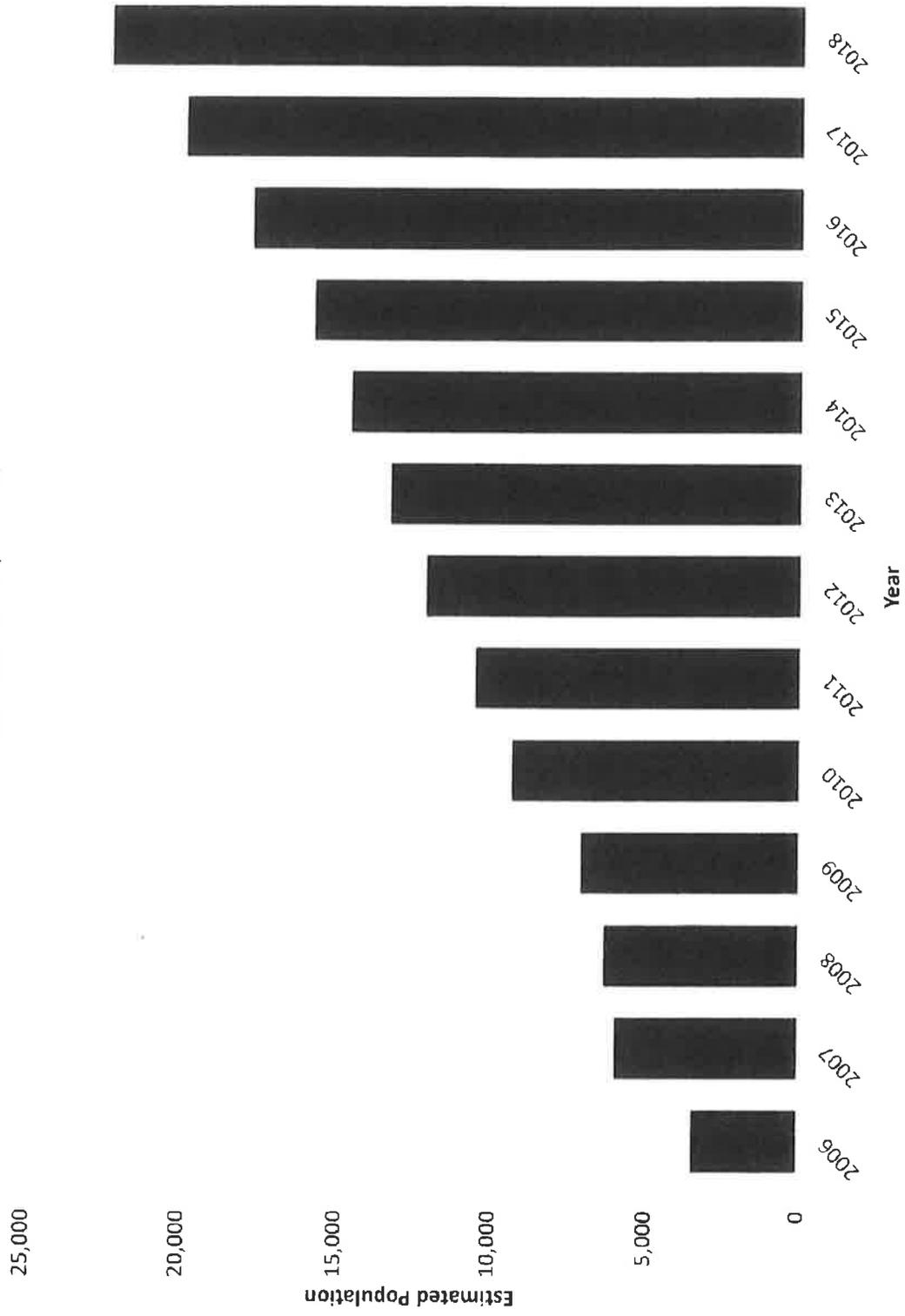
**Historical Per Capita Use Data and Water Loss for Prosper**

| Year | Estimated Population | In-City Municipal Use (MG) | Per Capita Municipal Use (gpcd) | Per Capita Residential Use (gpcd) | Deliveries from NTMWD (MG) | Other Supplies (MG) | Wholesale Sales (MG) | Billed Metered (MG) | Billed Unmetered (MG) | Unbilled Metered (MG) | Unbilled Unmetered (MG) | Water Losses (MG) | % Water Loss |
|------|----------------------|----------------------------|---------------------------------|-----------------------------------|----------------------------|---------------------|----------------------|---------------------|-----------------------|-----------------------|-------------------------|-------------------|--------------|
| 2006 | 3,500                | 436                        | 342                             | 298                               | 207                        | 229                 | 0                    | 423                 | 0                     | 2                     | 5                       | 7                 | 1.58%        |
| 2007 | 6,000                | 322                        | 147                             | 143                               | 234                        | 88                  | 0                    | 356                 | 0                     | 3                     | 5                       | -42               | -13.16%      |
| 2008 | 6,350                | 607                        | 262                             | 200                               | 572                        | 35                  | 0                    | 544                 | 0                     | 1                     | 7                       | 56                | 9.15%        |
| 2009 | 7,100                | 603                        | 233                             | 159                               | 572                        | 31                  | 0                    | 511                 | 0                     | 1                     | 27                      | 65                | 10.73%       |
| 2010 | 9,350                | 698                        | 205                             | 151                               | 693                        | 6                   | 0                    | 600                 | 0                     | 0                     | 22                      | 77                | 10.99%       |
| 2011 | 10,560               | 851                        | 221                             | 166                               | 851                        | 0                   | 0                    | 765                 | 0                     | 0                     | 38                      | 48                | 5.63%        |
| 2012 | 12,190               | 890                        | 200                             | 150                               | 890                        | 0                   | 0                    | 810                 | 0                     | 3                     | 36                      | 41                | 4.66%        |
| 2013 | 13,380               | 901                        | 184                             | 136                               | 901                        | 0                   | 0                    | 839                 | 0                     | 2                     | 55                      | 5                 | 0.52%        |
| 2014 | 14,710               | 897                        | 167                             | 122                               | 897                        | 0                   | 0                    | 800                 | 0                     | 3                     | 55                      | 39                | 4.36%        |
| 2015 | 15,970               | 1,038                      | 178                             | 138                               | 1,094                      | 0                   | 0                    | 1,032               | 0                     | 4                     | 49                      | 9                 | 0.82%        |
| 2016 | 17,990               | 1,205                      | 184                             | 136                               | 1,374                      | 0                   | 0                    | 1,176               | 0                     | 5                     | 87                      | 106               | 7.68%        |
| 2017 | 20,160               | 1,314                      | 179                             | 140                               | 1,536                      | 0                   | 0                    | 1,376               | 0                     | 5                     | 162                     | -8                | -0.50%       |
| 2018 | 22,650               | 1,702                      | 206                             | 142                               | 1,750                      | 0                   | 0                    | 1,555               | 0                     | 7                     | 105                     | 82                | 4.68%        |

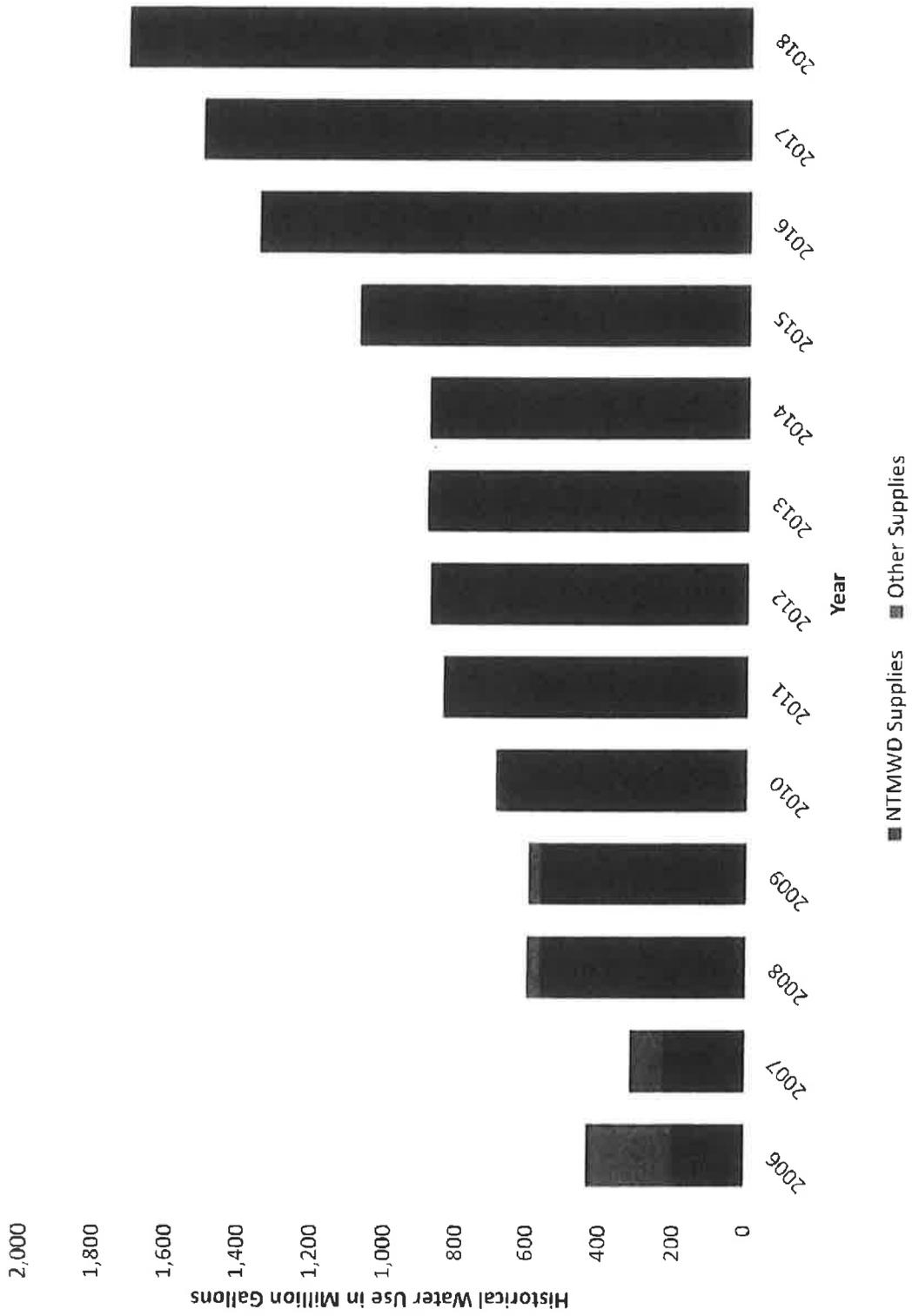
**Note:**

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.

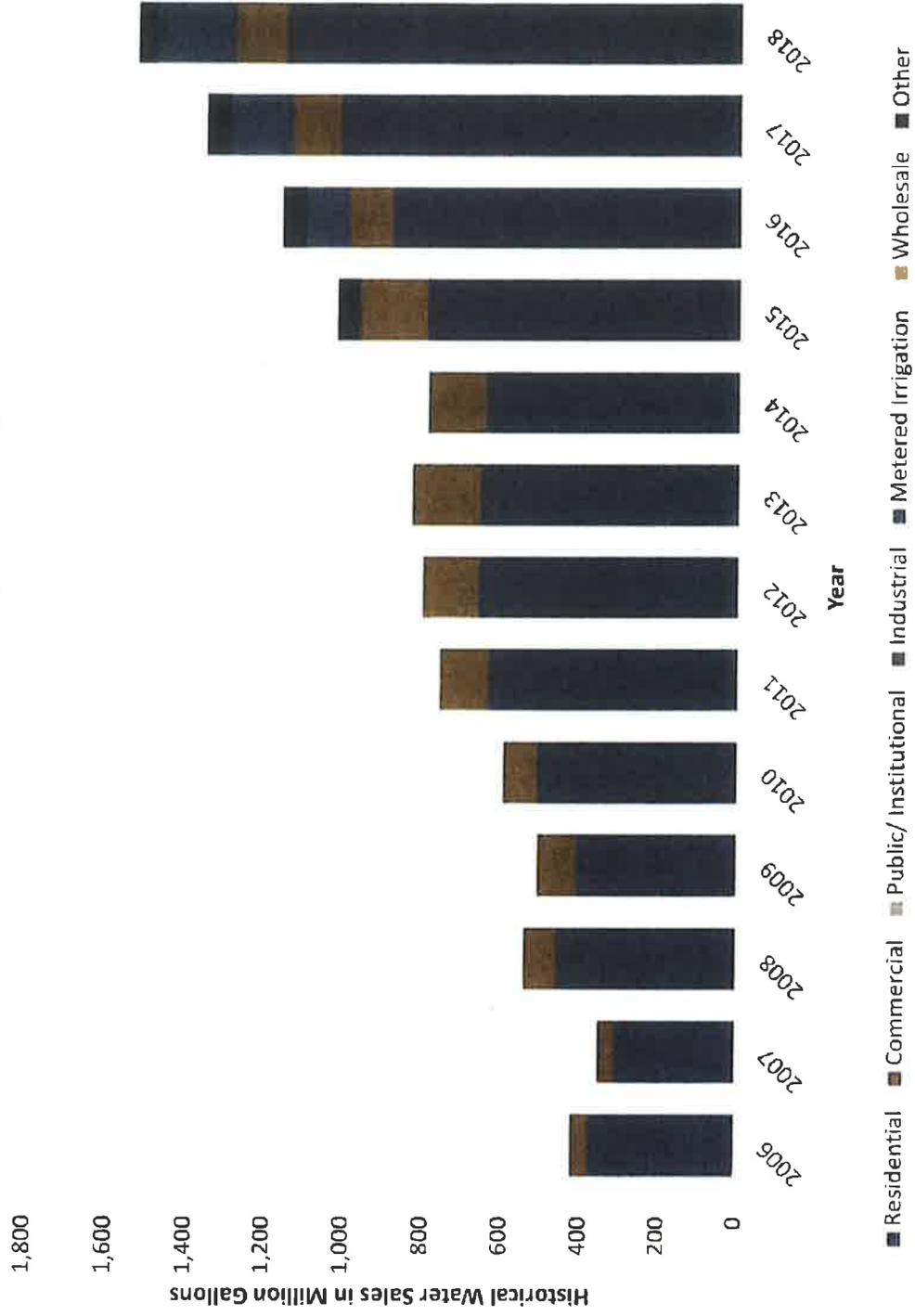
Estimated Historical Population



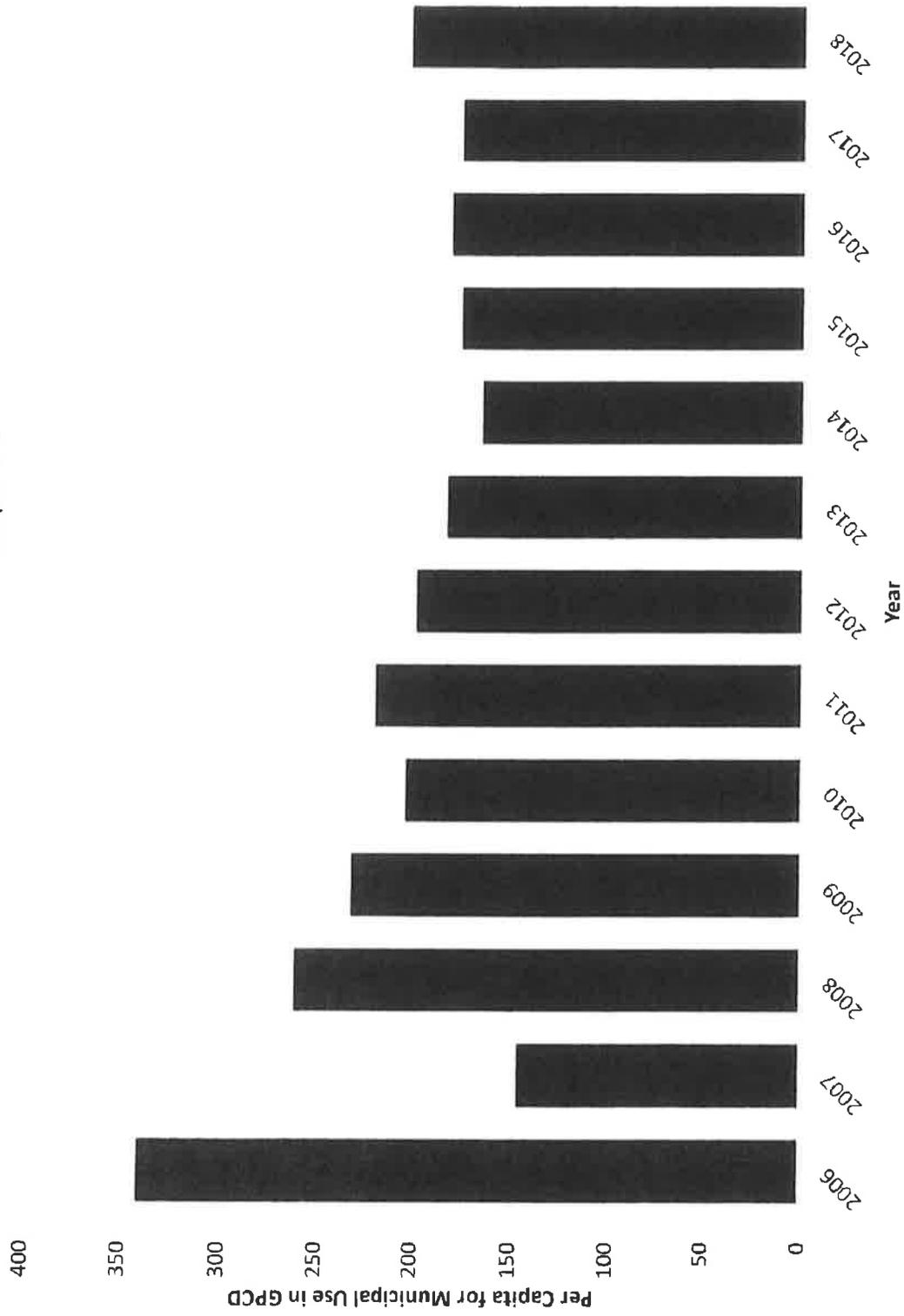
# Historical Water Use



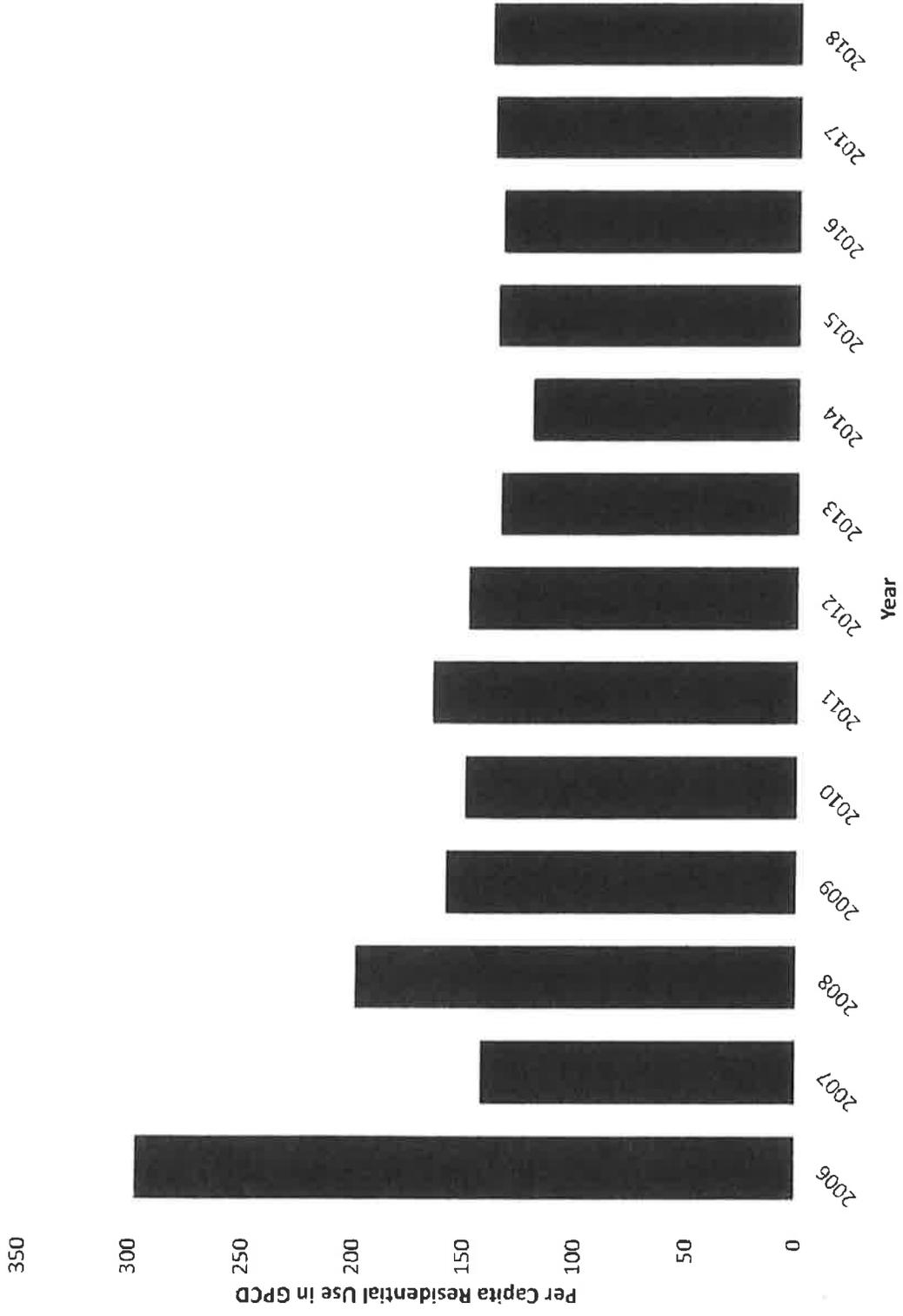
Historical Water Sales by Classification



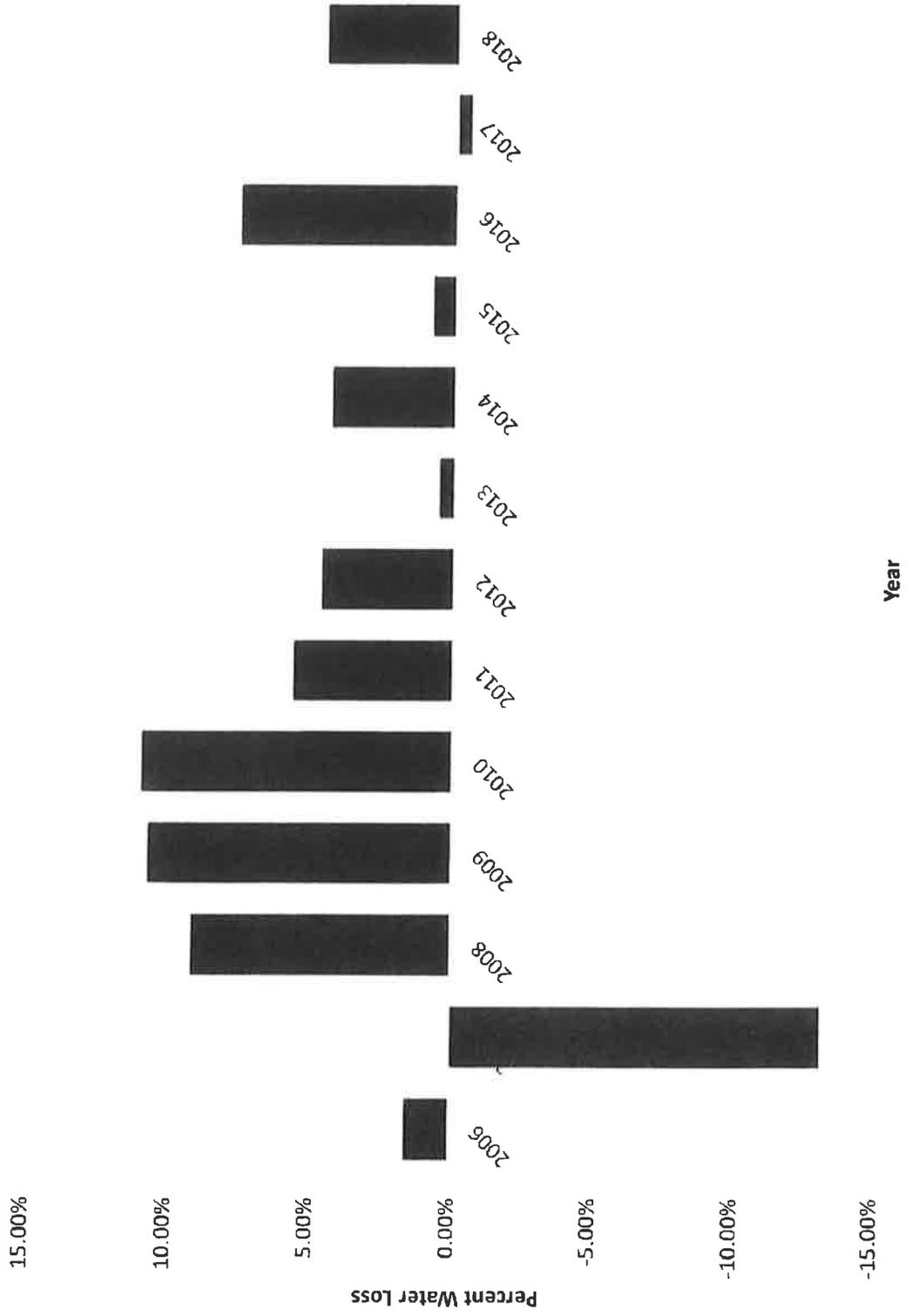
Historical Per Capita for Municipal Use



### Historical Per Capita for Residential Use



# Historical Percent Water Loss



**APPENDIX E**  
**LANDSCAPE WATER MANAGEMENT REGULATIONS**

## **APPENDIX E**

### **LANDSCAPE WATER MANAGEMENT REGULATIONS**

#### **A. Purpose**

The purpose of these proposed landscape water management regulations is to provide a consistent mechanism for preventing the waste of water resources. To enact these provisions, entities must verify legal authority to adopt such provisions, and must promulgate valid rules, orders, or ordinances.

#### **B. Required Measures**

The following landscape water conservation measures are required to be included in the landscape management regulations adopted and enforced in this plan.

##### **1. Lawn and Landscape Irrigation Restrictions**

- a. A person commits an offense if the person irrigates, waters, or knowingly or recklessly causes or allows the irrigation or watering of any lawn or landscape located on any property owned, leased, or managed by the person between the hours of 10:00 a.m. and 6:00 p.m. from April 1 through October 31 of any year.
- b. A person commits an offense if the person knowingly or recklessly irrigates, waters, or causes or allows the irrigation or watering of lawn or landscape located on any property owned, leased, or managed by that person in such a manner that causes:
  - 1) over-watering lawn or landscape, such that a constant stream of water overflows from the lawn or landscape onto a street or other drainage area; or
  - 2) irrigating lawn or landscape during any form of precipitation or freezing conditions. This restriction applies to all forms of irrigation, including automatic sprinkler systems; or
  - 3) the irrigation of impervious surfaces or other non-irrigated areas, wind driven water drift taken into consideration.
- c. A person commits an offense if the person knowingly or recklessly allows the irrigation or watering of any lawn or landscape located on any property owned, leased, or managed by the person more than two days per week.

##### **2. Rain and Freeze Sensors and/or ET or Smart Controllers**

Any new irrigation system installed on or after November 4, 2004, must be equipped with rain and freeze sensing devices and/or ET or Smart controllers in compliance with state design and installation regulations.

- a. A person commits an offense on property owned, leased or managed if the person:
  - 1) knowingly or recklessly installs or allows the installation of new irrigation systems in violation of Subsection B.2.a; or
  - 2) knowingly or recklessly operates or allows the operation of an irrigation system that does not comply with Subsection B.2.a.

3. Filling or Refilling of Ponds

A person commits an offense if the person knowingly or recklessly fills or refills any natural or manmade pond located on any property owned, leased, or managed by the person by introducing any treated water to fill or refill the pond. This does not restrict the filling or maintenance of pond levels by the effect of natural water runoff or the introduction of well water into the pond. A pond is considered to be a still body of water with a surface area of 500 square feet or more.

4. Washing of Vehicles

A person commits an offense if the person knowingly or recklessly washes a vehicle without using a water hose with a shut-off nozzle on any property owned, leased, or managed by the person.

5. Enforcement

Violations of the ordinance, order, or resolution will result in fees outlined below.

|                                |   |
|--------------------------------|---|
| First Offense                  | Courtesy Tag Warning                    |
| Second Offense                 | Certified Letter notifying of violation |
| Third Offense                  | \$100                                   |
| Fourth and Subsequent Offenses | \$300                                   |

C. Recommended Measures

1. Lawn and Landscape Irrigation Restrictions

- a. A person commits an offense if the person knowingly or recklessly operates a lawn or irrigation system or device on property that the person owns, leases, or manages that:
  - 1) has broken or missing sprinkler head(s); or
  - 2) has not been properly maintained to prevent the waste of water.



- b. A person commits an offense if the person knowingly or recklessly overseeds a lawn with rye or winter grass on property that the person owns, leases, or manages. Golf courses and public athletic fields are exempt from this restriction.
- c. All new athletic fields must have separate irrigation systems that are capable of irrigating the playing fields separately from other open spaces.

2. Rain and Freeze Sensors

- a. Existing irrigation systems must be retrofitted with similar rain and freeze sensors and be capable of multiprogramming within 5 years.

D. Variances

- 1. In special cases, variances may be granted to persons demonstrating extreme hardship or need. Variances may be granted under the following circumstances:
  - a. the applicant must sign a compliance agreement agreeing to irrigate or water the lawn and/or landscape only in the amount and manner permitted by the variance; and
  - b. the variance must not cause an immediate significant reduction to the water supply; and
  - c. the extreme hardship or need requiring the variance must relate to the health, safety, or welfare of the person making the request; and
  - d. the health, safety, and welfare of the public and the person making the request must not be adversely affected by the requested variance.
- 2. A variance will be revoked upon a finding that:
  - a. the applicant can no longer demonstrate extreme hardship or need; or
  - b. the terms of the compliance agreement are violated; or
  - c. the health, safety, or welfare of the public or other persons requires revocation.



**APPENDIX F**

**LETTERS TO REGION C AND REGION D WATER PLANNING GROUPS**

May 1, 2019

Mr. Richard LeTourneau  
Chair, Region D Water Planning Group  
P.O. Box 12071  
Longview, TX 75607

Dear Sir:

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 Town Council of the Town of Prosper adopted the updated plan on April 23, 2019.

Sincerely,

A handwritten signature in blue ink, appearing to read 'FE Jaromin', with a stylized flourish at the end.

Frank E. Jaromin, P.E.  
Town of Prosper

May 1, 2019

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

Dear Sir:

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 D Water Planning Group in accordance with the Texas Water Development Board and Texas Commission on Environmental Quality rules. The Town Council of the Town of Prosper adopted the updated plan on April 23, 2019.

Sincerely,

A handwritten signature in blue ink, appearing to read 'F. Jaromin', with a long horizontal flourish extending to the right.

Frank E. Jaromin, P.E.  
Town of Prosper

**APPENDIX G**  
**ADOPTION OF WATER CONSERVATION PLAN**

AN ORDINANCE OF THE TOWN OF PROSPER, TEXAS, AMENDING SECTION 13.05.001, "PLAN ADOPTED," OF ARTICLE 13.05, "WATER CONSERVATION AND WATER RESOURCE AND EMERGENCY MANAGEMENT PLAN," OF CHAPTER 13, "UTILITIES," OF THE TOWN'S CODE OF ORDINANCES; AMENDING SECTION XVII, "WATER CONSERVATION AND ENFORCEMENT FEES," OF APPENDIX A, "FEE SCHEDULE," OF THE TOWN'S CODE OF ORDINANCES; ADOPTING A WATER CONSERVATION AND WATER RESOURCE AND EMERGENCY MANAGEMENT PLAN; PROVIDING FOR REPEALING, SAVINGS AND SEVERABILITY CLAUSES; PROVIDING FOR AN EFFECTIVE DATE OF THIS ORDINANCE; AND PROVIDING FOR THE PUBLICATION OF THE CAPTION HEREOF.

**WHEREAS**, the Town of Prosper, Texas (the "Town"), recognizes that the amount of water available to its water customers is limited; and

**WHEREAS**, the Town recognizes that due to natural limitations, drought conditions, system failures and other acts of God which may occur, the Town cannot guarantee an uninterrupted water supply for all purposes at all times; and

**WHEREAS**, the Texas Water Code and the regulations of the Texas Commission on Environmental Quality (the "Commission") require that the Town adopt a Water Resource and Emergency Management Plan; and

**WHEREAS**, the Town has determined an urgent need in the best interests of the public to adopt a Water Resource and Emergency Management Plan; and

**WHEREAS**, pursuant to Chapters 51 and 54 of the Texas Local Government Code, the Town is authorized to adopt any such ordinances necessary to preserve and conserve its water resources; and

**WHEREAS**, the Town Council of the Town of Prosper, Texas ("Town Council"), desires to adopt an updated Water Conservation and Water Resource and Emergency Management Plan for the Town of Prosper as official Town policy for water conservation; and

**WHEREAS**, the Town Council has investigated and determined that it will be advantageous and beneficial to the citizens of Prosper and will protect the public health, safety and welfare to adopt a Water Resource and Emergency Management Plan.

**NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF PROSPER, TEXAS, THAT:**

**SECTION 1**

The findings set forth above are incorporated into the body of this Ordinance as if fully set forth herein.

**SECTION 2**

From and after the effective date of this Ordinance, Section 13.05.01, "Plan Adopted," of Article 13.05, "Water Conservation and Water Resource and Emergency Management Plan" of Chapter 13, "Utilities," of the Town's Code of Ordinances is amended to read as follows:

**"Sec. 13.05.001      Plan Adopted**

The Town Council hereby approves and adopts for the town, its citizens and water customers the new Water Conservation and Water Resource and Emergency Management Plan (the "Plan"), attached to this Ordinance as Exhibit A and incorporated herein for all purposes. A copy of this Ordinance and the Plan are available in the Town Secretary's Office."

**SECTION 3**

The Town Council hereby approves and adopts the Plan, as referenced in Section 2 of this Ordinance, as if recited verbatim herein. The Town commits to implement the requirements and procedures set forth in the adopted Plan.

**SECTION 4**

From and after the effective date of this Ordinance, Section XVII, "Water Conservation and Enforcement Fees," of Appendix A, "Fee Schedule," to the Town's Code of Ordinances is amended to read as follows:

**"Sec. XVII      Water Conservation and Enforcement Fees**

**Administrative Fees.** Administrative fees for violations to the Town's Water Conservation and Water Resource and Emergency Management Plan shall be added to water account holder's regular monthly Town utility bill as follows:

|  |   |
|--|---|
| First Offense                          | Courtesy Tag Warning                    |
| Second Offense                         | Certified Letter notifying of violation |
| Third Offense and Subsequent offenses  | \$100                                   |
| Fourth Offense and Subsequent offenses | \$300                                   |

**Contesting Violations:** A water customer may request a hearing before a hearing officer(s) appointed by the Executive Director of Infrastructure Services within fifteen (15) business days after the date on the Notice. The hearing officer(s) shall evaluate all information offered by the petitioner at the hearing. The customer shall bear the burden of proof to show why, by preponderance of the evidence, the administrative fee should not be assessed. The hearing officer(s) shall render a decision in writing within three (3) business days of the conclusion of the hearing. A customer may appeal the decision from the hearing officer(s) in writing to the Executive Director of Infrastructure Services within three (3) business days from the receipt of the written appeal. The decision by the Executive Director of Infrastructure Services is final and binding.

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

**SECTION 5**

All provisions of any ordinance in conflict with this Ordinance are hereby repealed to the extent they are in conflict; but such repeal shall not abate any pending prosecution for violation of the repealed ordinance, nor shall the repeal prevent a prosecution from being commenced for any violation if occurring prior to the repeal of the ordinance. Any remaining portions of said ordinances shall remain in full force and effect.

**SECTION 6**

If any section, subsection, sentence, clause or phrase of this Ordinance is for any reason held to be unconstitutional or invalid by a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance. The Town of Prosper hereby declares that it would have passed this Ordinance, and each section, subsection, clause or phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, and phrases be declared unconstitutional.

**SECTION 7**

The Town Manager or his designee is hereby directed to file a copy of the Plan and this Ordinance with the Commission in accordance with Title 30, Chapter 288 of the Texas Administrative Code, as amended.

**SECTION 8**

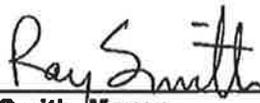
Any person, firm, corporation or business entity violating this Ordinance shall be deemed guilty of a misdemeanor, and upon conviction therefore, shall be fined a sum not exceeding Two Thousand Dollars (\$2,000.00), and each and every day that such violation continues shall be considered a separate offense; provided, however, that such penal provision shall not preclude a suit to enjoin such violation. The Town of Prosper retains all legal rights and remedies available to it pursuant to local, state and federal law.

**SECTION 9**

This Ordinance shall take effect and be in full force from and after its passage and publication, as provided by the Revised Civil Statutes of the State of Texas and the Home Rule Charter of the Town of Prosper, Texas.

**DULY PASSED AND APPROVED BY THE TOWN COUNCIL OF THE TOWN OF PROSPER, TEXAS, ON THIS 23RD DAY OF APRIL, 2019.**

**APPROVED:**

  
\_\_\_\_\_  
Ray Smith, Mayor

**ATTEST:**

  
\_\_\_\_\_  
**Robyn Battle, Town Secretary**



**APPROVED AS TO FORM AND LEGALITY:**

  
\_\_\_\_\_  
**Terrence S. Welch, Town Attorney**

**APPENDIX H**  
**ILLEGAL WATER CONNECTIONS AND THEFT OF WATER**

AN ORDINANCE OF THE TOWN OF PROSPER, TEXAS, CREATING OFFENSES PERTAINING TO ILLEGAL WATER CONNECTIONS AND/OR THE THEFT OF WATER AND METER OR EQUIPMENT TAMPERING FOR THE TOWN OF PROSPER; PROVIDING FOR A PENALTY FOR THE VIOLATION OF THIS ORDINANCE; PROVIDING FOR REPEALING, SAVINGS AND SEVERABILITY CLAUSES; PROVIDING FOR AN EFFECTIVE DATE OF THIS ORDINANCE; AND PROVIDING FOR THE PUBLICATION OF THE CAPTION HEREOF.

WHEREAS, the Town of Prosper, Texas (the "Town") recognizes that the amount of water available to its water customers is limited; and

WHEREAS, pursuant to Chapter 54 of the Local Government Code, the Town is authorized to adopt such policies necessary to preserve and conserve available water supplies; and

WHEREAS, the Town seeks to adopt an ordinance pertaining to illegal water connections and theft of water; and

WHEREAS, the Town Council of the Town ("Town Council") has further investigated and determined that it will be advantageous and beneficial to the citizens of Prosper and will promote the public health, safety and welfare to regulate and prevent water theft.

NOW THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF PROSPER, TEXAS:

**Section 1. Findings Incorporated.** The findings set forth above are incorporated into the body of this Ordinance as if fully set forth herein.

**Section 2. Offense Established.** A person commits an offense of theft of water by any of the following actions:

(a) A person may not tamper, connect to, or alter any component of the Town's water system including valves, meters, meter boxes, lids, hydrants, lines, pump stations, ground storage tanks, and elevated storage tanks. This shall include direct or indirect efforts to initiate or restore water service without the approval of the Town.

(b) If, without the written consent of the Town Administrator or Manager or the Town Administrator or Manager's designee, the person causes, suffers or allows the initiation or restoration of water service to the property after termination of service(s). For purposes of this Section 2(b), it shall be assumed that the owner, occupant, or person in control of the property caused, suffered, or allowed the unlawful initiation or restoration of service(s).

(c) A person may not make or cause a false report to be made to the Town of a reading of a water meter installed for metered billing.

(d) A person commits a separate offense each day that the person performs an act prohibited by this Section 2 or fails to perform an act required by this section.

**Section 3. Disconnections of Water Service an Reconnection Fee.** Any violation of this Ordinance, including the first offense, will result in forfeiture of any and all deposits, removal of meters, and/or discontinuance of

water service by the Town. A five hundred (\$500.00) reconnection fee will be required before the Town will restore water service.

**Section 4. Penalty.** Any person violating the provisions of Section 2 of this Ordinance shall be deemed guilty of the offense of criminal mischief, their offense shall be classified, whether a misdemeanor or a felony, in accordance with Section 28.03 of the Texas Penal Code, as it exists or may be amended and, upon conviction thereof, shall be punished in accordance with Section 28.03 of the Texas Penal Code, as it exists or may be amended. For purposes of determining whether an offense has occurred, the presumption in Section 28.03(c) the Texas Penal Code, as it exists or may be amended, shall apply.

**Section 5. Savings/Repealing.** All provisions of any ordinance in conflict with this Ordinance are hereby repealed to the extent they are in conflict; but such repeal shall not abate any pending prosecution for violation of the repealed ordinance, nor shall the repeal prevent a prosecution from being commenced for any violation if occurring prior to the repeal of the ordinance. Any remaining portions of said ordinances shall remain in full force and effect.

**Section 6. Severability.** Should any section, subsection, sentence, clause or phrase of this Ordinance be declared unconstitutional or invalid by a court of competent jurisdiction, it is expressly provided that any and all remaining portions of this Ordinance shall remain in full force and effect. Prosper hereby declares that it would have passed this Ordinance, and each section, subsection, sentence, clause or phrase thereof regardless of the fact that any one or more sections, subsections, sentences, clauses and phrases be declared unconstitutional or invalid.

**Section 7. Effective Date.** This Ordinance shall become effective from and after its adoption and publication as required by law.

DULY PASSED AND APPROVED BY THE TOWN COUNCIL OF THE TOWN OF PROSPER, TEXAS, on this 10<sup>th</sup> day of January, 2006.

  
CHARLES NISWANGER, Mayor

ATTESTED AND CORRECTLY  
RECORDED:

  
SHANAE JENNINGS, Town Secretary

Date(s) of Publication: 1/20/06 + 1/21/06, The Dallas Morning News – Collin County Edition

**APPENDIX J**  
**TCEQ WATER CONSERVATION IMPLEMENTATION REPORT**



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
Water Availability Division - MC-160, P.O. Box 13087 Austin, Texas 78711-3087  
Telephone (512) 239-4691, FAX (512) 239-2214

## WATER CONSERVATION IMPLEMENTATION REPORT FORM AND SUMMARY OF UPDATES/REVISIONS TO WATER CONSERVATION PLAN

(Texas Water Code §11.1271(b) and Title 30 Texas Administrative Code §288.30(1) to (4))

Please note, this form replaces the following forms: TCEQ-20645 (Non-Public Water Suppliers) and TCEQ-20646 (Public Water Suppliers)

### This Form is applicable to the following entities:

1. Water Right Holders of 1,000 acre-feet or more for municipal, industrial, and other non-irrigation uses.
2. Water Right Holders of 10,000 acre-feet or more for irrigation uses.

The above noted entities are required by rule to submit updates to their water conservation plan(s) and water conservation implementation report(s) every five years. The most current five-year submittal deadline is May 1<sup>st</sup>, 2019. See 30 Texas Administrative Code (TAC) §288.30(1) to (4). Entities must also submit any revisions to their water conservation plan within 90 days of adoption when the plans are revised in between the five-year submittal deadlines. This form may be used for the five-year submittal or when revisions are made to the water conservation plans in the interim periods between five-year submittals. Please complete the form as directed below.

1. Water Right Holder Name: Town of Prosper
2. Water Right Permit or Certificate Nos. PWS ID # 0430009

3. Please Indicate by placing an 'X' next to all that Apply to your Entity:

Water Right Holder of 1,000 acre-feet or more for non-irrigation uses

- Municipal Water Use by Public Water Supplier  
 Wholesale Public Water Supplier  
 Industrial Use  
 Mining Use  
 Agriculture Non-Irrigation

Water Right Holder of 10,000 acre-feet or more for irrigation uses

- Individually-Operated Irrigation System  
 Agricultural Water Suppliers Providing Water to More Than One User

### Water Conservation Implementation Reports/Annual Reports

4. Water Conservation Annual Reports for the previous five years were submitted to the Texas Water Development Board (TWDB) for each of the uses indicated above as required by 30 TAC §288.30(10)(C)? Yes  No

TCEQ no longer requires submittal of the information contained in the detailed implementation report previously required in Forms TCEQ-20645 (Non-Public Water Suppliers) and TCEQ-20646 (Public Water Suppliers). However, the Entity must be up-to-date on its Annual Report Submittals to the TWDB.

**Water Conservation Plans**

5. For the five-year submittal (or for revisions between the five-year submittals), attach your updated or revised Water Conservation Plan for each of the uses indicated in Section 3, above. Every updated or revised water conservation plan submitted must contain each of the minimum requirements found in the TCEQ rules and must be duly adopted by the entity submitting the water conservation plan. Please include evidence that each water conservation plan submitted has been adopted.
- Rules on minimum requirements for Water Conservation Plans can be found in 30 TAC 288.  
[http://texreg.sos.state.tx.us/public/readtac%24ext.ViewTAC?tac\\_view=4&ti=30&pt=1&ch=288](http://texreg.sos.state.tx.us/public/readtac%24ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=288)
  - Forms which include the minimum requirements and other useful information are also available to assist you. Visit the TCEQ webpage for Water Conservation Plans and Reports. [https://www.tceq.texas.gov/permitting/water\\_rights/wr\\_technical-resources/conserv.html](https://www.tceq.texas.gov/permitting/water_rights/wr_technical-resources/conserv.html)

*Call 512-239-4691 or email to [wcp@tceq.texas.gov](mailto:wcp@tceq.texas.gov) for assistance with the requirements for your water conservation plan(s) and report(s).*

6. For each Water Conservation Plan submitted, state whether the five and ten-year targets for water savings and water loss were met in your *previous* water conservation plan.  
Yes \_\_\_\_\_ No  X

If the targets were not met, please provide an explanation.

The Town of Prosper exceeded the growth rate anticipated at the time the goals were established. Many or all new homes were built with irrigation systems installed.

7. For each five-year submittal, does each water conservation plan submitted contain *updated* five and ten-year targets for water savings and water loss?  
Yes  X  No \_\_\_\_\_

If yes, please identify where in the water conservation plan the updated targets are located (page, section).

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8. In the box below (or in an attachment titled "Summary of Updates or Revisions to Water Conservation Plans), please identify any other revisions/updates made to each water conservation plan that is being updated or revised. Please specify the water conservation plan being updated and the location within the plan of the newly adopted updates or revisions.

The previous plan defines "Regulated Irrigation Property" as any property that uses 1 million gallons of water or more for irrigation in a single calendar year, or is greater than 1 acre in size. The new plan defines it as any property that uses 1 million gallons of water or more for irrigation purposes in a single calendar year.

Stage 1 Initiation

Previous - Storage in Lavon Lake is less than 55% of NTMWD's total conservation pool capacity

New - Storage in Lavon Lake is less than 70% of NTMWD's total conservation pool capacity April – October or less than 60% during November – March

Stage 2 Initiation

Previous - Storage in Lavon Lake is less than 45% of NTMWD's total conservation pool capacity

New - Storage in Lavon Lake is less than 55% of NTMWD's total conservation pool capacity April – October or less than 45% during November – March

Stage 3 Initiation

Previous - Storage in Lavon Lake is less than 35% of NTMWD's total conservation pool capacity

New - Storage in Lavon Lake is less than 30% of NTMWD's total conservation pool capacity April – October or less than 20% during November – March

9. Form Completed by (Point of Contact): Frank E. Jaromin, P.E.  
*(If different than name listed above, owner and contact may be different individual(s)/entities)*

Contact Person Title/Position: Director of Public Works

Contact Address: PO BOX 307 Prosper, TX 75078

Contact Phone Number: 972-347-9969 Contact Email Address: frank\_jaromin@prospe

Signature: 

Date: 4/12/2019