



Water Conservation Plan

Adopted April 21, 2014

Town Manager: Mike Slye

Town of Trophy Club

100 Municipal Drive

Trophy Club, TX 76262

(682) 831-4610

Town of Trophy Club Public Improvement District –

Public Water System ID No. 0160273

TABLE OF CONTENTS

1. Introduction	3
2. Authorization	3
3. Public Involvement	4
4. Water Conservation Plan Goals	4
5. Background Information	4
6. Water and Wastewater Utility System Profile	5
7. Public Education	5
8. Plumbing Codes	6
9. Rebate and Retrofit Programs	6
10. Universal Metering	6
11. Water Conserving Landscape	6
12. Rate Structures for Water and Wastewater	7
13. Unaccounted for Water Use, Leak Detection, and Water Audits	7
14. Recycling and Reuse	8
15. Implementation and Enforcement	8
16. Monitoring and Reporting	8
17. Coordination with the Regional Water Planning Group	9
APPENDIX A	9
APPENDIX B	17
APPENDIX C	18
EXHIBIT 1	19
EXHIBIT 2	20

1. INTRODUCTION

The Town of Trophy Club, Texas (the “Town”), holding Public Water System ID No. 0160273 for the Town of Trophy Club Public Improvement District , has adopted this Water Conservation Plan (“Plan”) for the following purposes: (i) to establish certain rules and policies for the orderly and efficient management of limited water supplies during drought and other water supply emergencies; and (ii) to establish certain practices, techniques, and technologies that reduce the consumption of water in the Town , and to improve the efficiency of use of water in the Town . The Town has also adopted a Drought Contingency and Emergency Water Management Plan that sets forth the specific requirements that will be initiated should a drought or other water emergency occur. The Town ’s Drought Contingency and Emergency Water Plan is attached hereto and incorporated herein as **EXHIBIT 1**.

The Town has adopted the drought contingency aspects of this Plan pursuant to, and in accordance with, 30 TAC §288.20 and §288.30(5)(B), which require certain retail public water suppliers to adopt a drought contingency plan by May 1, 2005, and to update the plan before May 1, 2009 and every five years after that date, as well as to update the Plan to reflect changes to rules and procedures. The Town has adopted the water conservation provisions of this Plan pursuant to its contract to purchase treated surface water from the Trophy Club Municipal Utility District No. 1 (hereinafter “District”), a wholesale provider to Town, with the District also having adopted a water conservation plan in accordance with its contractual obligations with the City of Fort Worth (the “Fort Worth”), both District and Town having agreed to adopt and enforce water conservation measures and goals similar to Fort Worth.

A violation of the mandatory provisions of this Plan shall constitute a violation of the Town’s and the District’s rules, and shall subject the offender(s) to penalties as defined in Section 15 of this Plan.

2. AUTHORIZATION

The Town Manager, or his designee is hereby authorized and directed to implement and enforce the provisions of this Plan.

The provisions of this Plan shall apply to all persons, customers, and property within the Town and to all persons, customers, and property served directly by the District and classified as “out of District ” customers. This Plan also applies to all persons or entities that are directly served by the Town of Trophy Club (the “Town”) pursuant to an agreement between the Town and District to provide wholesale water supply and operational services to designated areas of the Town, that are subject to the payment of Town rates for retail water service and known as Trophy Club Public Improvement District No. 1 (hereinafter the “PID”). All such persons and entities are subject to the water conservation and drought

contingency requirements promulgated by the Town. The Town of Trophy Club is required through its contract with the District to adopt its own Water Conservation and Drought Contingency Plans and to provide a copy of its adopted or amended plans to the District.

For purposes of this Plan, it shall be presumed that a person, corporation, or association in whose name service was last billed and who is receiving the use or economic benefit of water provided by the Town has knowingly made, caused, used, or permitted the use of water received from the Town .

3. PUBLIC INVOLVEMENT

Opportunity for the public to provide input into the preparation of this Plan was provided by the Town Council of the Town by means of a public meeting regarding the adoption of this Plan. At the meeting, interested members of the public were given the opportunity to provide input regarding the contents and requirements of this Plan. Additionally, the Plan is posted on the Town website and public comments are accepted via email or through written submittals.

4. WATER CONSERVATION PLAN GOALS

The Town strives to achieve significant conservation savings without burdening its customers with extra costs. By generating water savings now, the Town recognizes long-term benefits to its customers through extended life of the water supplies and extended life of water system infrastructure. Under this Plan the Town seeks to achieve a 5% reduction in water consumption per person in the next five (5) years and a 10% reduction in water consumption per person over the next ten (10) years.

2013 Gallons Per Capita Per Day Usage	Reduction Goal by 2018 5%	Reduction Goal by 2023 10%
211 gpcd	201 gpcd	190 gpcd

5. BACKGROUND INFORMATION

District provides retail water and wastewater services to approximately 3,020 single family residences, townhouses, and condominium units, and to Trophy Club Country Club and certain other commercial establishments. The District's boundaries encompass an area within the Town of Trophy Club and an area within the Town of Westlake. In addition to providing retail water and wastewater services to customers within its boundaries and a few out-of-district customers, the District also provides wholesale water and wastewater services to the Town of Trophy Club pursuant to an agreement between the Town and District to provide wholesale water supply and operational services to the Town. The Town provides retail service to the PID, comprised of approximately 1,100 single family residences. The source of potable water supply from the District to the Town is a wholesale water service agreement previously entered into by the District and the City of Fort Worth and is supplemented by groundwater from four District wells. Three of these wells are from the Paluxy aquifer and one is from the Trinity aquifer.

The water consumption data from the District's master meter identifies water use patterns within the District combined with those from the Town. Peak water demand occurs in the summer months, reflecting increased water utilized for landscape irrigation. This demand occurs in different months and varies by as much as 30% from one year to the next, indicating demand is sensitive to rainfall variations (i.e., customers vary their demand for irrigation water based upon landscape needs).

6. WATER AND WASTEWATER UTILITY SYSTEM PROFILE

A complete Water Conservation Utility Profile, TWDB Form WRD-264 for the Town is provided in **Appendix A**, a copy of which is attached hereto and incorporated herein.

7. PUBLIC EDUCATION

The Town and District periodically provide information to the public regarding water conservation generally, and regarding this Plan specifically. Information furnished includes information about the conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage.

The Town and District will continue to promote water conservation and assist residents in practicing water conservation techniques by informing the public in a variety of ways including:

- Water conservation literature will be distributed at the Town's offices
- Direct mail notification when the Plan is approved or amended
- New customers will receive conservation information
- Bill inserts and listing of previous 12 month's usage on bills

- Website information and links
- Articles in the Town and neighborhood newsletters
- Signs posted at entrances to the Town

8. PLUMBING CODES

The Town has adopted the International Plumbing Code, 2003 Edition, which requires the use of water saving fixtures to be installed in new construction and in the replacement of plumbing in existing structures.

9. REBATE AND RETROFIT PROGRAMS

The Town through its agreement with the District will educate the residents, plumbers, and contractors on the benefits of retrofitting existing facilities with water saving devices. This program will be encompassed in the educational and informational programs utilized by the Town and District.

10. UNIVERSAL METERING

The supply line from the City of Fort Worth, wells, customer locations, and District water use facilities are metered. All water supply meters are calibrated annually to ensure accuracy within plus or minus 5%. All customer accounts are metered and read monthly. The District has converted 95% of all customer meters to smart meters that can be data logged to assist customers in identifying the presence of leaks. Additionally, the District's meter reading software allows for downloading a list of customers whose meters have not stopped consuming water for a full hour over a twenty four hour period. The list is used to generate a postcard to the customer letting them know there could possibly be a leak in their private plumbing.

The Town through its agreement with the District will continue to provide a water meter preventive maintenance program, wherein testing, repairs, and replacement are performed in accordance with American Water Works Association (AWWA) standards.

11. WATER CONSERVING LANDSCAPE

The Town through its agreement with the District will provide information through the public education program to homeowners, business owners, landscape architects, and irrigation contractors about the methods and benefits of water conserving landscaping practices and devices. The following methods will be encouraged.

- The use of low water consuming plants and grasses for landscaping.
- The use of drip irrigation systems when possible or other water conserving irrigation systems that utilize efficient sprinklers
- The use of ornamental fountains that recycle water and use a minimum amount of water.

12. RATE STRUCTURES FOR WATER AND WASTEWATER

Water conservation is promoted by the Town and District using an inverted block rate structure. This structure allows for higher usage customers to pay increasing rates based on usage tiers. Conservation water rates have been in place for many years and will continue to be utilized to promote the water conservation efforts. The District's rate structure applies to all customers of the Town and is identified in **Appendix B, a copy of which is attached hereto and incorporated herein..**

13. UNACCOUNTED FOR WATER USE, LEAK DETECTION, AND WATER AUDITS

Town through its agreement with the District has aggressively implemented a leak detection and repair program and has in inventory all necessary repair materials needed to ensure prompt repairs of all leaks detected or reported. Visual inspections of the system on routinely performed and documented in operator's logs. Additionally, reported leaks are tracked through the utility automated work order system and are addressed within twenty-four hours of receiving a report. Town and District customers can submit service requests online through the District's website or contact the District office 24 hours daily.

A monthly water loss report provides an effective tracking system of metered production, metered consumption, accounted water losses, and unaccountable water loss. The Town through its agreement with the District District maintains records of unmetered water usage including water used for fire fighting, water line flushing and repairs, and water use in infrastructure construction. The District maintains an annual unaccountable rate of 8% which meets the American Water Works Association's recommended rate of less than 10%.

14. RECYCLING AND REUSE

The District provides 100% of treated effluent during the summer months and approximately 75% of treated effluent during the winter months to the Trophy Club Country Club for irrigation of its golf course.

15. IMPLEMENTATION AND ENFORCEMENT

The Town Manager will administer and enforce this Plan, and will oversee and be responsible for the execution and implementation of all elements of this Plan. The District Manager through its agreement with the Town shall keep adequate records for Plan verification and shall report to the Board of Directors of the District and the Town Council regarding actions taken and which need to be taken under this Plan. Without limiting the foregoing, the District Manager shall advise the Town Manager and the Mayor of Trophy Club (or if the Mayor is unavailable to receive notification, another member of the Town Council) as soon as reasonably practicable when a particular Trigger Condition has been reached under the Drought Plan and when a particular drought condition no longer exists. The District's Resolution adopting its plan is included in **Exhibit 2**, a copy of which is attached hereto and incorporated hereing. The Town shall also adopt this Plan by approved of a Resolution of the Town Council.

16. MONITORING AND REPORTING

The District Manager through its agreement with the District shall submit monthly reports to the Town Manager and Town Council showing water pumped and water sold by month for the previous 12 months. Additionally, the Town Manager will conduct an annual audit to determine unaccounted water losses for the previous calendar year and shall report annually to the Town Council and the Texas Commission on Environmental Quality (TCEQ) and/or the Texas Water development Board (TWDB) if required by regulations.

17. COORDINATION WITH THE REGIONAL WATER PLANNING GROUP

The Town 's service area is located within the Region C water planning area, and the Town has provided a copy of this Plan to the Region C water planning group. A copy of the transmittal letter to Region C is attached and incorporated herein as **Appendix C**.

APPENDIX A

Utility Profile

Name: The Town of Trophy Club Public Improvement District – Public Water System ID No. 0160273

Address: 100 Municipal Drive, Trophy Club, TX 76262

Telephone Number: (682) 831-4600 Fax: (817) 491-9312

Water Right No.(s): N/A

Regional Water Planning Group: Region C

Form Completed by: Mike Slye

Title: Town Manager

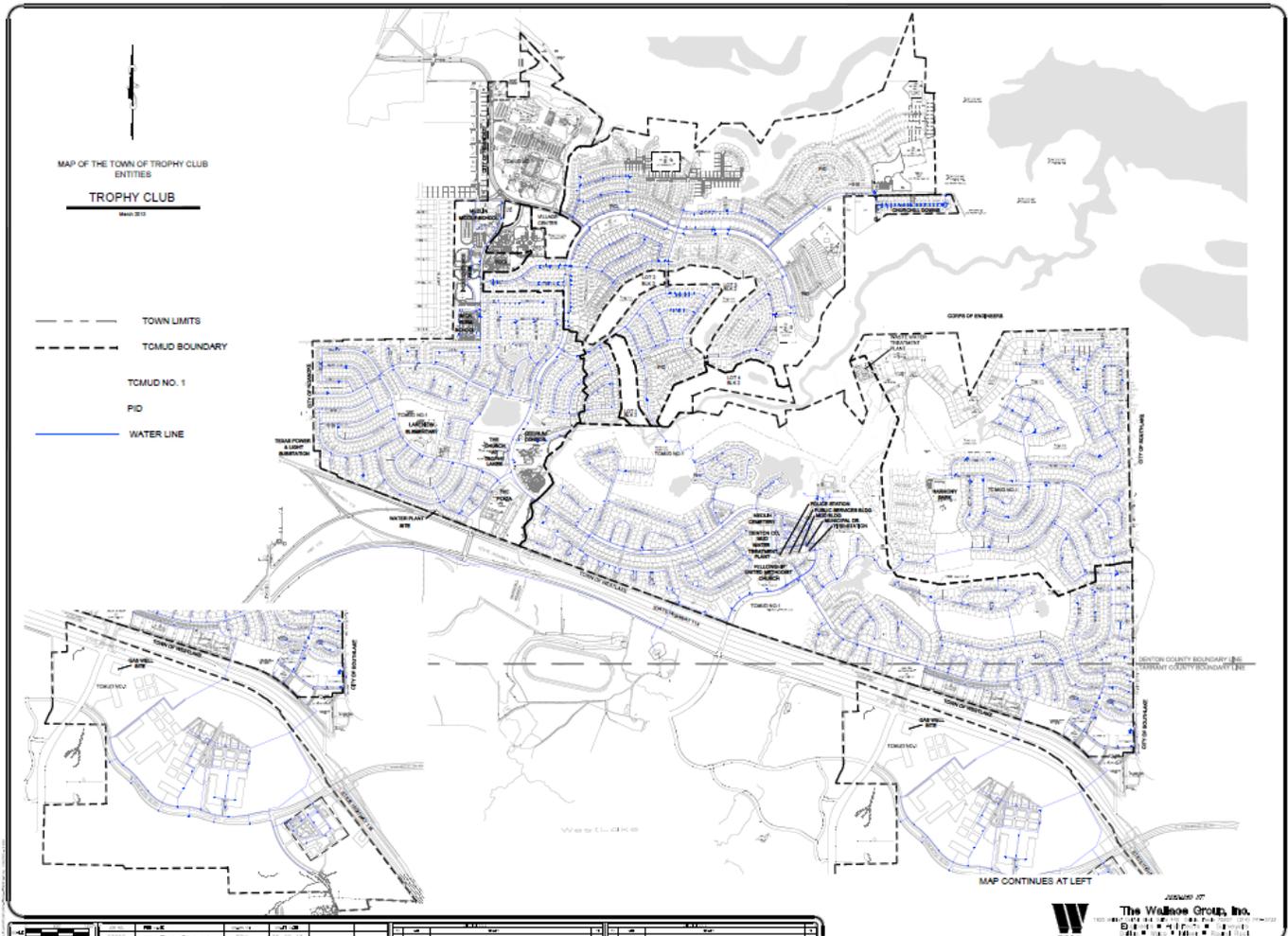
Person responsible for implementing conservation program: Mike Slye Phone: (682) 831-4600

Signature: _____ Date: 04/22/2014

I. POPULATION AND CUSTOMER DATA

A. Population and Service Area Data

1. The Town does not hold a CCN with the TCEQ and a service area map is below:



2. Service area size (in square miles): **1.08 SQUARE MILES**

3. Current population of service area: **3304**

4. Current population served for:

a. Water **3304**

b. Wastewater **3304**

5. Population served for previous five years:

<u>Year</u>	<u>Population</u>
<u>2009</u>	<u>0</u>
<u>2010</u>	<u>0</u>
<u>2011</u>	<u>0</u>
<u>2012</u>	<u>0</u>
<u>2013</u>	<u>3304</u>

**Town of Trophy Club became separate public water system during 2013*

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

<u>Year</u>	<u>Population</u>
<u>2020</u>	<u>3,940</u>
<u>2030</u>	<u>3,940</u>
<u>2040</u>	<u>3,940</u>
<u>2050</u>	<u>3,940</u>
<u>2060</u>	<u>3,940</u>

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

Town population is calculated by multiplying 2.8 times the number of connections on December 31st each year. Total build-out is expected by 2017.

B. Customer Data

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

Residential or Commercial

Treated Water Users	Metered	Non-Metered	Totals
Treated Water Users			
Residential			
Single Family	1181	0	1181
Multi-Family	0	0	0
Commercial	0	0	0
Industrial/Mining	0	0	0
Institutional	0	0	0
Agricultural	0	0	0
Other/Wholesale	0	0	0

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

Year	2011	2012	2013
Treated Water Users	N/A	N/A	
Residential			
Single Family	0	0	239
Multi-Family	0	0	0
Commercial	0	0	0
Industrial/Mining	0	0	0
Institutional	0	0	0
Agricultural	0	0	0
Other/Wholesale	0	0	0

***Public Water System ID obtained in 2013**

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

	Customer	Use (1,000 gal/year)	Treated or Raw Water
1.	Town of Trophy Club	6,753,000	Treated
2.	Lennar Homes	5,770,000	Treated
3.	Turnberry HOA	3,902,000	Treated
4.	Highlands of TC HOA	2,219,000	Treated
5.	First Texas Homes	2,030,000	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>	2009	2010	2011	2012	2013
<i>Month</i>					
January	N/A	N/A	N/A	N/A	7,925,000
February					7,208,000
March					10,214,000
April					13,534,000
May					18,885,000
June					19,993,000
July					24,701,000
August					29,954,000
September					25,949,000
October					21,034,000
November					11,548,000
December					7,093,000
<i>TOTALS</i>					198,038,000

Years 2009-2012 include Town of Trophy Club Improvement Town . In 2013 they obtained a PWS ID and became a wholesale customer of the Town .

Above numbers are determined from Water Sales.

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

Year	2009	2010	2011	2012	2013
<i>Account Types</i>					
Residential					
<i>Single Family</i>					190,177,000
<i>Multi-Family</i>					
Commercial					
Industrial/Mining					
Institutional					7,861,000
Agricultural					
Other/Wholesale					

*Town of Trophy Club previously included as retail customers. They obtained a PWS ID in 2013 and are a wholesale customer.

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>
2009		
2010		
2011		
2012		
2013		

B. Projected Water Demands

III. WATER SUPPLY SYSTEM DATA

A. *Water Supply Sources*

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

Water Type	Source	Amount Authorized
Purchased Treated Surface Water	Trophy Club MUD #1	N/A

B. *Treatment and Distribution System*

1. Design daily capacity of system (MGD): N/A
2. Storage capacity (MGD):
 - a. Elevated 0.5 MGD
 - b. Ground 0
3. If surface water, do you recycle filter backwash to the head of the plant? **N/A**
 Yes No If yes, approximate amount (MGD): **N/A**

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.

Wastewater Service is provided through a Wholesale Service Agreement with Trophy Club MUD #1. The District owns and operates the system and the wastewater is treated at their wastewater plant with a permitted flow of 1.75 MGD. The plant operates under TPDES number WQ0011593001 and discharges to Marshall Branch, thence to Grapevine Lake of the Trinity River Basin.

B. Wastewater Data for Service Area (if applicable)

1. Percent of water service area served by wastewater system: 100 %
2. Monthly volume treated for previous five years (in 1,000 gallons):

<i>Year:</i>	2009	2010	2011	2012	2013
Month					
<i>January</i>					
<i>February</i>					
<i>March</i>					
<i>April</i>					
<i>May</i>					
<i>June</i>					
<i>July</i>					
<i>August</i>					
<i>September</i>					
<i>October</i>					
<i>November</i>					
<i>December</i>					
TOTALS					

***Wholesale Wastewater Service provided by Trophy Club MUD #1 and wastewater is not metered.**

APPENDIX B

Rate Structure

Water Rates

Residential and Commercial:

Monthly Basic Fee: \$12.71

Volumetric Rates (per 1000 gallons):

0-6,000 gallons	\$2.50
6,001 to 17,000 gallons	\$3.05
17,001 to 25,000 gallons	\$3.30
25,001 to 50,000 gallons	\$3.40
50,001 or greater gallons	\$3.50

Sewer Rates

Residential:

Monthly Basic Fee: \$12.71

Volumetric Rates (per 1000 gallons): Residential sewer usage charges are capped at 12,000 gallons per month and billed at \$2.50 per 1,000 gallons used (up to maximum of 12,000 gallons)

Commercial:

Monthly Basic Fee: \$12.71

Volumetric Rates (per 1000 gallons): Commercial sewer usage is billed per 1000 gallons of water consumed (no maximum amount) at the following rates:

0-6,000 gallons	\$2.50
6,001 to 17,000 gallons	\$3.05
17,001 to 25,000 gallons	\$3.30
25,001 to 50,000 gallons	\$3.40
50,001 or greater gallons	\$3.50

APPENDIX C

Transmittal Letter of Plan to Region C

EXHIBIT 1

Drought Contingency Plan

EXHIBIT 2

Resolution Approving Water Conservation Plan