PARK CITIES WATER

DCPCMUD

DALLAS COUNTY PARK CITIES MUNICIPAL UTILITY DISTRICT

WATER CONSERVATION PLAN

May 1, 2024

ADOPTED: MAY 21, 2024

PREPARED BY:
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Water Conservation Plan for

Dallas County Park Cities Municipal Utility District

April 2024

1. INTRODUCTION AND OBJECTIVES

Water supply has always been a key issue in the development of Texas. Additional supplies to meet increased demand will be difficult and expensive to develop. The Dallas County Park Cities Municipal Utility District (the District) is a wholesale water supplier who maintains senior water rights in Grapevine Lake. The District serves two wholesale treated water customers, the City of University Park (the City) and the Town of Highland Park (the Town). The District also sells raw water wholesale to the City of Grapevine and Brook Hollow Golf Club.

Recognizing the need for efficient use of existing water supplies, the Texas Commission on Environmental Quality (TCEQ) has developed guidelines and requirements governing the development of water conservation plans for public water suppliers. TCEQ guidelines and requirements are included in Appendix B. The objectives of this water conservation plan are as follows:

- Reduce seasonal peak demands.
- Reduce the loss and waste of water.
- Improve the efficient use of water.
- Decrease unaccounted for water.
- Maintain quality of life.

2. TEXAS COMMISSION ON ENVIRONMENTAL QUALITY RULES

The Texas Commission on Environmental Quality (TCEQ) rules governing the development of water conservation plans for municipal uses by public water suppliers are contained in Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.5 of the Texas Administrative Code (30 TAC §288.5), effective December 6, 2012. Required submittals for wholesale public water suppliers are found in Code 30 TAC §288.30, effective August 16, 2018. A complete copy of these rules is included in Appendix B. The TCEQ defines a water conservation plan as:

> *"A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water. A water conservation plan may be a separate document identified as such or may be contained within another water management document(s)."* 30 TAC§288.1(24)

Minimum Conservation Plan Requirements

The minimum requirements in the Texas Administrative Code for Water Conservation Plans are covered in this report as follows:

TCEQ Rule	Location in Plan	Description
288.5(1)(A)	**Section 4.1**	**Utility Profile**
288.5(1)(B)	**Section 3**	**Specification of Goals**
288.5(1)(C)	**Section 4.2**	**Accurate Metering**
288.5(1)(D)	**Section 4.3**	**Record Management Program**
288.5(1)(E)	**Section 4.4**	**Metering, Leak Detection and Repair**
288.5(1)(F)	**Section 4.5**	**Provisions for New or Amended Wholesale Water Contract(s)**
288.5(1)(G)	**Section 4.6**	**Reservoir System Operation Plan**
288.5(1)(H)	**Section 4.7**	**Means of Implementation and Enforcement**
288.5(1)(I)	**Section 4.8**	**Coordination with Regional Water Planning Group**
288.5(3)	**Section 4.9**	**Review and Update of Plan**
288.30(1)	**Section 4.9**	**Submittal of Plan**
288.30(2) & 288.30(10)(C)	**Section 4.9**	**Implementation Reports***

*The TCEQ requires an Implementation Report be submitted every five years with the Water Conservation Plan Update. The TWDB requires Implementation Reports be submitted annually.

3. SPECIFICATION OF WATER CONSERVATION GOALS

Rule 288.5(1)(B) requires the adoption of specific water conservation goals for a water conservation plan. The District has developed 5-year and 10-year goals for the reduction of per capita municipal use, following TCEQ procedures described in the water utility profile (Appendix C). The TCEQ defines municipal use in gallons per capita per day as "the total average daily amount of water diverted or pumped for treatment for potable use by a public water supply system. The calculation is made by dividing the water diverted or pumped for treatment for potable use by the population served."

The District has no retail customers, therefore its ability to influence conservation practices are limited to educational and public information programs and its influence over its wholesale customers to use conservation practices with their retail customers. Water conservation within the District is primarily governed by the Water Conservation Programs of its largest wholesale customers, The City of University Park (City) and the Town of Highland Park (Town). The City and Town are the Districts only treated wholesale water customers. The goals set forth in this Plan reflect those that are established in the 2024 updates to the City's and Town's Water Conservation Plans.

The 2002 5-year average (includes 1998-2002 water usage) is District's highest 5-year average water use for the period analyzed (1993 to present) and is now referred to as the average of record. Percent reduction goals as stated below are from the 2023 5-year District average and are summarized below as the Baseline Average. All baseline data and new 5-year and 10-year goals are summarized below.

- Average of Record (2002 5-year rolling average)
    - Total GPCD: 298.4

- Baseline Average (2023 5-year rolling average)
    - Total GPCD: 241.9

- 5-year goals
    - Target Date: December 31, 2028
    - Total water use of 232.2 GPCD (4.0% reduction over the next 5 years)
    - Maintain water loss at 10% or less (< 23.2 GPCD).

- 10-year goals
    - Target Date: December 31, 2028
    - Total water use of 217.7 GPCD (10.0% reduction over the next 10 years)
    - Maintain water loss at 10% or less (< 21.8 GPCD).
    - The 10-year goals will be reviewed and revised during the next Plan update, based on the District's and customer's implementation progress.

4. MINIMUM CONSERVATION PLAN REQUIREMENTS

4.1 Water Utility Profile

Rule 288.5(1)(A) requires the District to submit a Water Utility Profile to the TCEQ. The completed profile is included in Appendix C, which includes data on existing and projected service populations, number of connections, historical metered water sales and water production, and general utility system information.

4.2 Accurate Metering of Diverted Water

Raw water is released based on daily requests by the District to the Corps of Engineers. The District's request in combined with the City of Dallas' request and the City of Grapevine's request. A gate setting is used by the Corps and an approximate acre-foot volume is recorded. A weekly report of daily releases for all three entities is generated by Dallas and circulated to the District.

In addition, the Corps of Engineers provides a daily reservoir report to the District. The District accounts for the daily release of Grapevine Reservoir, plus inflows on a hydrologic computer model. This allows the District to estimate the evaporation loss from transporting of the release from the reservoir to the plant intake.

As the water enters the plant it is metered in two different ways. First the raw water volume is metered by multiplying pump capacity times run time. Secondly, the raw water is metered using a main raw water meter.

Throughout the plant, major uses of water are metered and recorded, such as sludge pumped, filter backwash water, and surface wash water. The water from all of these processes is recycled and reclaimed.

As the treated water leaves the plant, it is pumped into a 36-inch transmission line a metered using a 36-inch sonic meter. The sonic meter was calibrated at the factory to within an accuracy of ±1.0%. It is metered again by venturi meters as it enters the respective Town/City at their point of entry. The venturi meters are calibrated biannually to within an accuracy of ±1.0.

4.3 Record Management System

The District currently records the release amount from the dam below Grapevine Lake, the raw water pumped into the treatment plant, the total volume treated at the water plant, the total volume pumped out of the treatment plant and the amount of water sold to both the City and the Town. Monitoring each of these water volumes allows the District to obtain water loss information for each transmission stage.

4.4 Metering, Leak Detection and Repair

As previously stated in Section 4.2, the District meters water into, through and out of the plant as well as at the entrance to the Town and the City. By comparing the total metered raw water to the total metered treated water, in-plant losses are calculated.

Comparing total treated water leaving the plant to the treated water sold, it can be determined if there are losses during transmission. This audit is preformed daily and trend graphs are updated daily to alert the District to potential leaks or other problems. If problem is thought to exist, maintenance personnel quickly ensure that the problem is quickly contained.

4.5 Wholesale Customer's Water Conservation Plan

The District requires that its wholesale customers develop and implement a water conservation plan. The District also requires that any potential new wholesale customer(s) develop and implement a water conservation plan.

4.6 Reservoir System Operation Plan

The District receives daily releases from Grapevine Lake. These releases are the only source of raw water for the District therefore a Reservoir System Operation Plan is not needed. However, the District currently implements a Reservoir Accounting Plan in conjunction with the City of Dallas and the City of Grapevine, who also have permitted storage and water rights in Grapevine Lake.

4.7 Implementation and Enforcement

Appendix G contains a resolution adopted by the District regarding this water conservation plan. The resolution designates responsible officials to implement and enforce the water conservation plan.

4.8 Coordination with Region C Water Planning Group

The District is located within the Region C Water-Planning Group. The District has provided a copy of this Water Conservation Plan to the Region C Water Planning Group. Documentation on coordination with Region C may be found in Appendix F.

4.9 Review, Update and Submittal of the Plan

<u>Review and Update of the Water Conservation Plan</u>

The District will continue to review and develop recognized Best Management Practices (BMPs) that are suitable for its customer water use over the duration of this Plan and assist the City and Town in implementation of their practices. This developmental process will include an annual evaluation of BMPs and recommend which measures should be increased, maintained, or eliminated. The table provided below is a summary of existing and future District, as well as customer, BMP strategies. Refer to this Plan and Appendix D for a description of these practices.

Dallas County Park Cities MUD Best Management Practices Implementation Schedule

BMP	Description	Currently Implemented by the District[1]
1	System Water Audit & Water Loss	✓ (1950)
7	School Education	✓ (2006)
14	Wholesale Agency Assistance Programs	✓ (1990)
16	Water Reuse[2]	✓ (1950)
17	Public Information	✓ (1990)

1. Please refer to revised Water Conservation Plans by the City and Town for current and future BMP implementation.
2. Decant from the water treatment plant sludge lagoons is recycled and returned to the head of the treatment process.

Annual Implementation Report

- Annual evaluation of the implementation of this water conservation plan will be performed and submitted to the TWDB on May 1, 2024, and on an annual basis thereafter. The annual implementation report will follow the most recent annual reporting form supplied by the TWDB for each submittal.

Submittal of the Plan

As required by Rule 288.30(1) & 288.30(10), the water conservation plan will be revised and resubmitted to the TCEQ & TWDB every five years, beginning May 1, 2009. Appendix D includes the TCEQ implementation report and Appendix E contains the annual reports submitted to the TWDB for the previous planning period as required by Rule 288.30(1) & (2).

5. OTHER WATER CONSERVATION MEASURES

The District serves only two wholesale treated water customers, the Town and the City. Few means are available to the District to lower its municipal gpcd. The first available means of lowering the District's municipal gpcd is by lowering its unaccounted for water which include transmission losses, evaporation and treatment plant losses. The second means is by its customer cities lowering their municipal gpcd.

The District has multiple meters throughout the transmission line and the treatment plant. The transmission line is approximately 50-years old and is due to be replaced in the future. This should help lower the unaccounted for water. All water used in individual processes throughout the treatment plant is recycled to the extent available to minimize unaccounted for water losses.

The District has provided funding to the Town and City for elementary and high school science education through the Major Rivers program and for public information on water conservation as well as requiring both the Town and the City to write individual water conservation plans upon contract renewal. This will help lower the overall municipal gpcd of the District. Water Conservation information is also provided on the District's web site at: www.parkcitieswater.com.

In addition, the District provided the Town and City $3M to implement their new smart meter purchase and installation in order to more efficiently track customer water use.

APPENDIX A

LIST OF REFERENCES

APPENDIX A

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(1) Title 30 of the Texas Administrative Code, Part 1, Chapter 288, Subchapter A, Rule 288.1, downloaded from: https://www.tceq.texas.gov/rules/indxpdf.html#288, Effective August 16, 2018

(2) Title 30 of the Texas Administrative Code, Part 1, Chapter 288, Subchapter A, Rule 288.5, downloaded from: https://www.tceq.texas.gov/rules/indxpdf.html#288, Effective December 6, 2012

(3) Title 30 of the Texas Administrative Code, Part 1, Chapter 288, Subchapter B, Rule 288.22, downloaded from: https://www.tceq.texas.gov/rules/indxpdf.html#288, Effective October 7, 2004

(4) Title 30 of the Texas Administrative Code, Part 1, Chapter 288, Subchapter C, Rule 288.30, downloaded from: https://www.tceq.texas.gov/rules/indxpdf.html#288, Effective August 16, 2018

(5) Nathan D. Maier Consulting Engineers, Inc.: *Dallas County Park Cities Municipal Utility District Water Conservation Plan, April 2009,* prepared for the Dallas County Park Cities Municipal Utility District

(6) Alan Plummer Associates, Inc.: *Dallas County Park Cities Municipal Utility District Water Conservation Plan, April 2005,* prepared for the Dallas County Park Cities Municipal Utility District

(7) City of Dallas Water Utilities Conservation Division: *Water Conservation and Drought Contingency Plan Updates, Briefing Materials for February 19, 2014 City Council Meeting*

(8) City of Fort Worth: *City of Fort Worth 2005 Water Conservation Plan,* downloaded from: http://www.fortworthgov.org/water/

(9) Texas Water Development Board: Report 362: *Water Conservation Best Management Practices Guide, November 2004,* developed by GDS Associates, Inc, et. al.

(10) Texas Water Development Board: *Guidance and Methodology for Reporting on Water Conservation and Water Use, December 2012,* developed by the TWDB, TCEQ and the Water Conservation Advisory Council

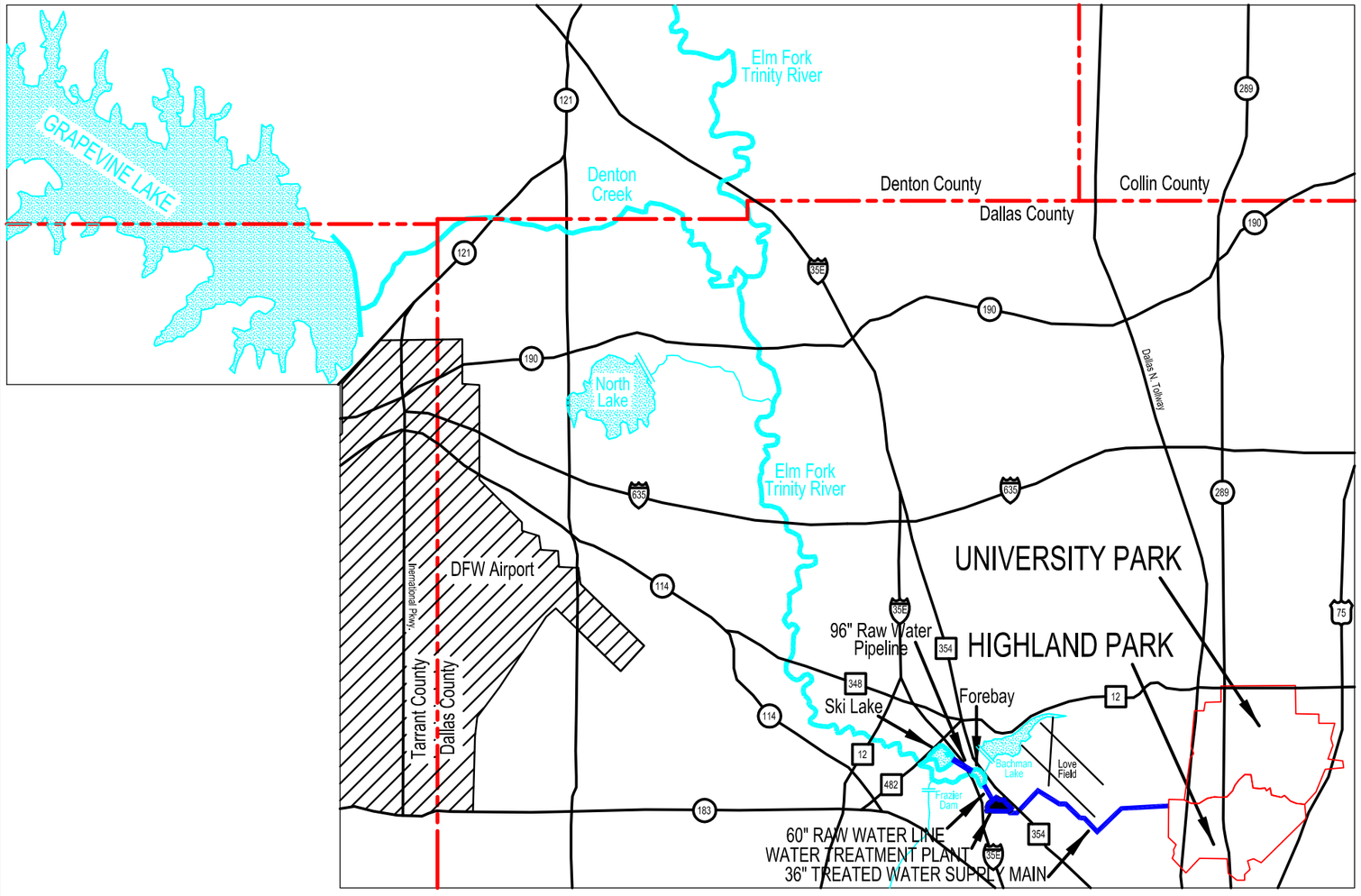
(11) Nathan D. Maier Consulting Engineers, Inc.: *City of University Park Water Conservation Plan, Draft March 2019,* prepared for the City of University Park

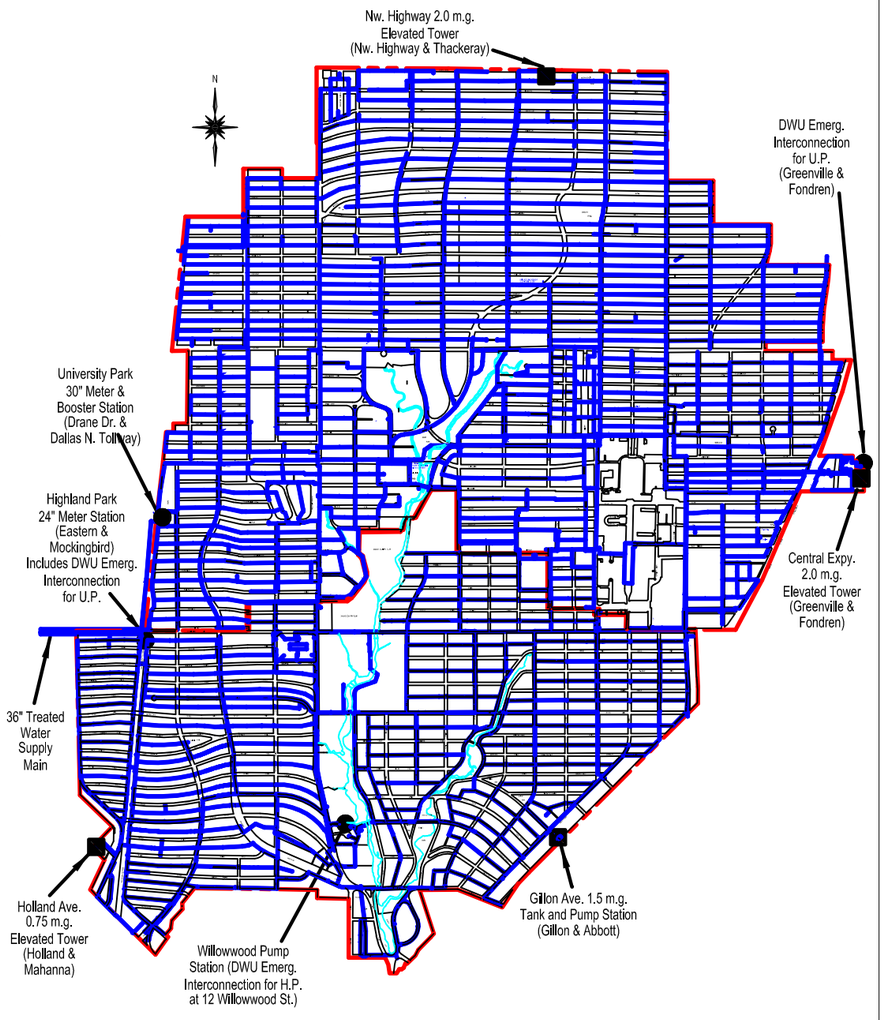
(12) Nathan D. Maier Consulting Engineers, Inc.: *Town of Highland Park Water Conservation Plan, Draft March 2019,* prepared for the Town of Highland Park.

APPENDIX B

TCEQ RULES ON WHOLESALE WATER CONSERVATION PLANS

Attachment A: Dallas County Park Cities Municipal Utility District
Composite Map of Water Supply & Distribution System





Maps Not Precisely to Scale

PARK CITIES WATER
DCPCMUD

DALLAS COUNTY PARK CITIES MUNICIPAL UTILITY DISTRICT
1811 Regal Row, Dallas, Texas 75235
(214) 652-8639, Fax (214) 652-8643

Composite Map of Water Supply & Distribution System

REVISIONS

A		G	
B		H	
C		I	
D		J	
E		K	
F		L	

DESIGNED BY

DRAWN BY: Brent Jordan

SCALE: Varies (0.0" 0.5" 1.0")

DRAWING NUMBER: n/a

FILE NAME: Water Supply Composite Map.dwg

DATE: March, 2009

PAGE: 01 of 01

Table 1.2 Major Reservoirs in Region C (Over 5,000 Acre-Feet of Conservation Storage)

Reservoir	Basin	Stream	County(ies)	Permitted Conservation Storage [a] (Acre-Feet)	Owner	Water Right Holder(s)
Moss	Red	Fish Creek	Cooke	23,210	Gainesville	Gainesville
Texoma	Red	Red River	Grayson, Cooke	2,915,365	Corps of Engineers	Red River Authority, Greater Texoma UA, Denison, NTMWD, Luminant
Randell	Red	Unnamed Trib. Shawnee Creek	Grayson	5,400	Denison	Denison
Valley	Red	Sand Creek	Fannin, Grayson	15,000	Luminant	Luminant
Bonham	Red	Timber Creek	Fannin	13,000	Bonham MWA	Bonham
Coffee Mill	Red	Coffee Mill Creek	Fannin	8,000	USDA	U.S. Department of Agriculture
Kiowa	Trinity	Indian Creek	Cooke	7,000	Lake Kiowa POA Inc.	Lake Kiowa Property Owners Association, Inc.
Ray Roberts	Trinity	Elm Fork Trinity River	Denton, Cooke, Grayson	799,600	Corps of Engineers	Dallas and Denton
Lost Creek	Trinity	Lost Creek	Jack	11,961	Jacksboro	Jacksboro
Bridgeport	Trinity	West Fork Trinity River	Wise, Jack	387,000	TRWD	Tarrant Regional Water District
Lewisville	Trinity	Elm Fork Trinity River	Denton	618,400	Corps of Engineers	Dallas and Denton
Lavon	Trinity	East Fork Trinity River	Collin	443,800	Corps of Engineers	NTMWD
Weatherford	Trinity	Clear Fork Trinity River	Parker	19,470	Weatherford	Weatherford
Grapevine	Trinity	Denton Creek	Tarrant, Denton	161,250	Corps of Engineers	Dallas County Park Cities MUD, Dallas, Grapevine
Eagle Mountain	Trinity	West Fork Trinity River	Tarrant, Wise	210,000	TRWD	Tarrant Regional Water District
Worth	Trinity	West Fork Trinity River	Tarrant	38,124	Fort Worth	Fort Worth
Benbrook	Trinity	Clear Fork Trinity River	Tarrant	72,500	Corps of Engineers	Tarrant Regional Water District
Arlington	Trinity	Village Creek	Tarrant	45,710	Arlington	Arlington and Luminant
Joe Pool	Trinity	Mountain Creek	Dallas, Tarrant	176,900	Corps of Engineers	Trinity River Authority
Mountain Creek	Trinity	Mountain Creek	Dallas	22 ,840	Exelon	Exelon
North	Trinity	South Fork Grapevine Creek	Dallas	17,100	Coppell	Coppell
White Rock	Trinity	White Rock Creek	Dallas	21,345	Dallas	Dallas

[a]Data are from TCEQ water rights list [(6)] and other sources

2.3.8 Water Provider Projections

Table 2.10 shows the projected dry-year demand in Region C by major, regional and wholesale water provider. **Appendix D** also contains DB22 reports for all wholesale water providers. **Attachment 5** shows the population served by each major water provider and the demand for each major water provider by demand category.

Table 2.10 Projected Dry-Year Water Demand by Wholesale Water Provider

Wholesale Water Provider	2020	2030	2040	2050	2060	2070
Major Water Providers						
North Texas Municipal Water District	408,705	467,843	540,864	618,977	696,551	769,233
Tarrant Regional Water District	495,119	582,072	662,746	747,498	827,523	926,855
Dallas Water Utilities	528,510	553,336	608,020	671,724	738,730	781,975
Upper Trinity Regional Water District	50,334	75,852	97,651	121,641	141,150	162,360
Trinity River Authority	173,016	232,520	251,393	266,928	283,677	308,701
Fort Worth	289,575	347,010	408,324	453,667	493,064	533,882
Regional Wholesale Water Providers						
Corsicana	11,314	12,474	13,510	14,856	16,431	18,798
Greater Texoma Utility Authority	17,745	43,356	59,623	67,798	80,672	96,832
Other Region C Wholesale Water Providers						
Arlington	70,793	75,076	75,561	76,753	76,933	77,260
Athens Municipal Water Authority	5,271	5,649	5,877	6,211	8,878	11,972
Dallas County Park Cities MUD	14,962	15,304	15,221	15,143	15,128	15,127
Denison	8,696	9,491	9,631	10,616	12,690	16,290
Denton	26,889	33,776	41,635	56,978	81,307	99,893
Ennis	5,492	6,273	6,983	9,400	14,408	23,742
Forney	16,851	18,081	19,736	22,529	27,775	33,688
Gainesville	4,277	4,015	4,121	4,604	5,912	9,971
Garland	53,312	56,245	57,723	57,821	58,021	58,021
Grand Prairie	37,813	44,562	47,910	47,657	47,598	47,593
Mansfield	24,828	37,140	43,301	53,296	59,860	66,379
Midlothian	13,958	19,027	21,241	20,660	21,299	22,301
Mustang SUD	8,211	14,120	18,365	22,211	26,064	29,920
North Richland Hills	15,656	16,197	15,909	15,748	15,716	15,714
Princeton	1,781	4,560	8,852	10,414	10,540	10,844
Rockett SUD	6,590	8,156	9,070	11,591	15,521	22,101
Rockwall	16,045	22,702	31,129	32,424	35,236	38,275
Seagoville	2,416	2,824	3,253	3,732	4,247	4,361
Sherman	18,672	38,284	46,780	48,226	53,574	64,793
Terrell	5,469	9,239	12,120	14,233	16,920	20,756
Walnut Creek SUD	2,827	3,321	3,800	5,215	7,279	9,635
Waxahachie	10,366	11,712	13,594	16,837	22,321	28,903
Weatherford	6,849	8,336	8,759	14,421	22,662	30,906
Wise County WSD	2,364	3,199	4,110	5,290	6,207	7,206
Wholesale Water Providers based in Other Regions [a]						
Sabine River Authority	275,401	234,855	234,765	234,675	234,595	234,493
Upper Neches River MWA	0	105,370	104,564	103,704	102,791	101,555
Sulphur River Municipal Water District	11,795	11,729	11,662	11,594	11,528	11,460
Sulphur River Basin Authority	0	0	0	361,200	361,200	361,200
Red River Authority of Texas	358	392	421	454	487	467

[a] *Only the demand from Region C customers*

Dallas County Park Cities Municipal Utility District

Dallas County Park Cities MUD is a wholesale water provider that supplies treated water to Highland Park and University Park and plans to continue doing so through the planning period. The MUD also sells reuse water from Lake Grapevine to the City of Grapevine for municipal and irrigation purposes. The only strategy proposed for the MUD is the implementation of water conservation measures by its wholesale customers. **Table 5E.69** shows the projected demand, the current supplies, and the water management strategies for Dallas County Park Cities MUD.

Table 5E.69 Summary of Wholesale Water Provider and Customers – Dallas County Park Cities MUD

(Values in Ac-Ft/Yr)	2020	2030	2040	2050	2060	2070
Projected Demands						
Grapevine	2,174	2,538	2,577	2,562	2,559	2,558
Irrigation, Tarrant	1,121	1,121	1,121	1,121	1,121	1,121
Highland Park	4,055	4,139	4,105	4,090	4,087	4,087
University Park	7,612	7,506	7,418	7,370	7,361	7,361
Total Projected Demands	***14,962***	***15,304***	***15,221***	***15,143***	***15,128***	***15,127***
Currently Available Supplies						
Lake Grapevine (Potable)	16,900	16,900	16,808	16,639	16,469	16,300
Reuse	3,295	3,659	3,698	3,683	3,680	3,679
Total Currently Available Supplies	***20,195***	***20,559***	***20,506***	***20,322***	***20,149***	***19,979***
Need (Demand - Supply)	***0***	***0***	***0***	***0***	***0***	***0***
Water Management Strategies						
Conservation (Wholesale)	564	612	584	619	657	695
Total Supplies from Strategies	***564***	***612***	***584***	***619***	***657***	***695***
Reserve (Shortage)	**5,797**	**5,867**	**5,869**	**5,798**	**5,678**	**5,547**

Highland Park

Highland Park is located in central Dallas County and receives its water supply from Grapevine Lake through Dallas County Park Cities MUD. The only water management strategy for Highland Park is conservation. **Table 5E.76** shows the projected population and demand, the current supplies, and the water management strategies for Highland Park.

Table 5E.76 Summary of Water User Group – City of Highland Park

(Values in Ac-Ft/Yr)	2020	2030	2040	2050	2060	2070
Projected Population	**9,023**	**9,311**	**9,311**	**9,311**	**9,311**	**9,311**
Projected Demands						
Municipal Demand	4,055	4,139	4,105	4,090	4,087	4,087
Total Projected Demands	***4,055***	***4,139***	***4,105***	***4,090***	***4,087***	***4,087***
Currently Available Supplies						
Grapevine Lake through Dallas County Park Cities MUD	4,055	4,139	4,105	4,090	4,087	4,087
Total Currently Available Supplies	***4,055***	***4,139***	***4,105***	***4,090***	***4,087***	***4,087***
Need (Demand - Supply)	***0***	***0***	***0***	***0***	***0***	***0***
Water Management Strategies						
Water Conservation	202	219	210	224	237	251
Total Supplies from Strategies	***202***	***219***	***210***	***224***	***237***	***251***
Reserve (Shortage)	**202**	**219**	**210**	**224**	**237**	**251**

University Park

University Park is located in central Dallas County and receives its water supply from Grapevine Lake through Dallas County Park Cities MUD. The only water management strategy for the city is conservation. **Table 5E.86** shows the projected population and demand, the current supplies, and the water management strategy for University Park.

Table 5E.86 Summary of Water User Group – City of University Park

(Values in Ac-Ft/Yr)	2020	2030	2040	2050	2060	2070
Projected Population	**25,656**	**25,656**	**25,656**	**25,656**	**25,656**	**25,656**
Projected Demands						
Municipal Demand	7,612	7,506	7,418	7,370	7,361	7,361
Total Projected Demands	***7,612***	***7,506***	***7,418***	***7,370***	***7,361***	***7,361***
Currently Available Supplies						
Grapevine Lake through Dallas County Park Cities MUD	7,612	7,506	7,418	7,370	7,361	7,361
Total Currently Available Supplies	***7,612***	***7,506***	***7,418***	***7,370***	***7,361***	***7,361***
Need (Demand - Supply)	***0***	***0***	***0***	***0***	***0***	***0***
Water Management Strategies						
Water Conservation	362	393	374	395	420	444
Total Supplies from Strategies	***362***	***393***	***374***	***395***	***420***	***444***
Reserve (Shortage)	**362**	**393**	**374**	**395**	**420**	**444**

Table 5E.89 Costs for Recommended Water Management Strategies for Dallas County

WUG or WWP	Strategy	Online by:	Quantity (Ac-Ft/Yr)[b]	Capital Costs[c]	Unit Cost ($/1000 gal) With Debt Service	Unit Cost ($/1000 gal) After Debt Service	Table
WWPs							
Dallas County Park Cities MUD	Conservation	2020	Included with WUGs				
Garland	Conservation (retail)	2020	3,252	$6,779,585	$0.61	$0.00	H.11
	Conservation (wholesale)	2030	Included with WUGs.				
	NTMWD	2020	17,003	$0	$2.78	$2.78	None
Grand Prairie	Conservation (retail)	2020	2,698	$1,521,652	$0.26	$0.00	H.11
	Conservation (wholesale)	2020	Included with WUGs.				
	DWU	2020	11,202	$0	$4.05	$4.05	None
	Additional Delivery Infrastructure	*2020*	*11,202*	*$72,782,000*	*$1.73*	*$0.33*	*H.93*
	TRWD through Midlothian	2020	2,208	$0	$3.95	$3.95	None
	TRWD through Mansfield	2020	1,711	$0	$3.00	$3.00	None
	TRWD through Arlington	2030	2,242	$0	$3.38	$3.38	None
	Connect to Arlington (TRWD)	*2030*	*2,242*	*$5,679,000*	*$0.70*	*$0.15*	*H.92*
Seagoville	Conservation (retail)	2020	170	$311,822	$0.94	$0.00	H.11
	Conservation (wholesale)	2020	Included with WUGs				
	DWU	2020	1,933	$0	$4.05	$4.05	None
WUGs							
Addison	Conservation	2020	598	$1,315,440	$1.03	$0.11	H.11
	DWU	2030	1,837	$0	$4.05	$4.05	None
Balch Springs	Conservation	2020	181	$229,772	$0.52	$0.00	H.11
	DWU	2020	971	$0	$4.05	$4.05	None
Carrollton[a]	Conservation	See Denton County.					
	DWU						
Cedar Hill[a]	Conservation	2020	1,465	$673,056	$0.49	$0.22	H.11
	DWU	2030	3,439	$0	$4.05	$4.05	None
Cockrell Hill	Conservation	2020	24	$13,114	$0.10	$0.04	H.11
	DWU	2020	319	$0	$4.05	$4.05	None

Grapevine

Grapevine is located in northeastern Tarrant County and is expected to reach buildout by 2030. The city gets its water supply from multiple sources – Dallas Water Utility (DWU), indirect reuse from Lake Grapevine purchased from Dallas County Park Cities MUD (DCPCMUD), treated water from Trinity River Authority (TRA), and raw water from Lake Grapevine (based on the city's portion of the firm yield). Water management strategies for Grapevine include conservation, water from TRA, and water from DWU. An alternative water management strategy for Grapevine would be to purchase a portion of Dallas County Park Cities MUD's unused supply from Lake Grapevine yield. Grapevine does not require any additional infrastructure to take delivery or to treat their supplies in the future (beyond maintenance of existing facilities). **Table 5E.362** shows the projected population and demand, the current supplies, and the water management strategies for Grapevine.

Table 5E.362 Summary of Water User Group – City of Grapevine

(Values in Ac-Ft/Yr)	2020	2030	2040	2050	2060	2070
Projected Population	**52,243**	**54,037**	**54,037**	**54,037**	**54,037**	**54,037**
Projected Demands						
Municipal Demand	18,406	18,806	18,665	18,589	18,574	18,573
Irrigation, Tarrant	*1,121*	*1,121*	*1,121*	*1,121*	*1,121*	*1,121*
Total Projected Demand	***19,527***	***19,927***	***19,786***	***19,710***	***19,695***	***19,694***
Currently Available Supplies						
DWU	2,666	2,601	2,235	2,042	1,960	1,907
Indirect Reuse (Lake Grapevine) from DCPCMUD	3,295	3,659	3,698	3,683	3,680	3,679
TRWD through TRA	10,584	9,156	8,222	7,560	7,138	6,905
Lake Grapevine[a]	1,919	1,886	1,852	1,818	1,784	1,750
Total Currently Available Supplies	***18,464***	***17,302***	***16,007***	***15,103***	***14,562***	***14,241***
Need (Demand – Supply)	***1,063***	***2,625***	***3,779***	***4,607***	***5,133***	***5,453***
Water Management Strategies						
Water Conservation	1,054	1,182	1,129	1,181	1,242	1,303
TRWD through TRA	102	1,431	2,398	3,016	3,390	3,576
DWU	0	12	252	410	501	574
Total Supplies from Strategies	***1,156***	***2,625***	***3,779***	***4,607***	***5,133***	***5,453***
Reserve (Shortage)	**93**	**0**	**0**	**0**	**0**	**0**
Alternative Strategy						
Purchase water from Dallas County Park Cities MUD	*5,000*	*5,000*	*5,000*	*5,000*	*5,000*	*4,852*

[a]Lake Grapevine supply is based on Grapevine's portion of the firm yield as calculated by TCEQ WAM. It is significantly less then Grapevine's water right amount.

Texas Commission on Environmental Quality
Water Availability Division
MC-160, P.O. Box 13087 Austin, Texas 78711-3087
Telephone (512) 239-4600, FAX (512) 239-2214

Utility Profile and Water Conservation Plan Requirements for Wholesale Public Water Suppliers

This form is provided to assist wholesale 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) 239-4600.

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

Contact Information

Name:	Dallas County Park Cities Municipal Utility District	
Address:	1811 Regal Row, Dallas, TX 75235	
Telephone Number:	(214)652-8639	Fax: (214) 652-8643
Water Right No.(s):	2363	
Regional Water Planning Group:	C	
Person responsible for implementing conservation program:	Hector Ortiz	Phone: (214) 652-8639
Form Completed By:	Hector Ortiz	
Title:	General Manager	
Signature:		Date: / /

A water conservation plan for wholesale public water suppliers must include the following requirements (as detailed in 30 TAC Section 288.5). If the plan does not provide information for each requirement, you must include in the plan an explanation of why the requirement is not applicable.

Utility Profile

I. WHOLESALE SERVICE AREA POPULATION AND CUSTOMER DATA

A. Population and Service Area Data:

1. Service area size (in square miles):

   (Please attach a copy of service-area map)

   5.93

2. Current population of service area:

   3

3. Current population served for:

   a. Water 34,292

   b. Wastewater 34,292

4. Population served for previous five years:

Year	*Population*
2019	32,776
2020	34,142
2021	34,146
2022	34,163
2023	34,292

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

Year	*Population*
2020	34,967
2030	34,967
2040	34,967
2050	34,967
2060	34,967

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

   Past Population: 2014-2018 are NCTCOG population estimates for the Town of Highland Park and the City of University Park.Projected Population: 2020-2060 population projections are from the 2016 Region C Water Plan, Tables 5D.69 (Highland Park) and 5D.78 (University Park). Note: Populations listed above are for treated water customers only. The data provided in Part II.B.2 below includes all municipal diversions and population, including the City of Grapevine. The District also provides wholesale raw water for the City of Grapevine. The annual amount is equivalent to approximately 17% of the City of Grapevine's annual water demands per the 2016 Region C Water Plan. 2016 Region C projected populations, supplies and demands are included at the end of this Appendix for the District, City of University Park, Town of Highland Park and the City of Grapevine.

B. Customer Data

List (or attach) the names of all wholesale customers, amount of annual contract, and amount of annual use for each customer for the previous year:

Wholesale Customer	*Contracted Amount (Acre-feet)*	*Previous Year Amount of Water Delivered (acre-feet)*
Town of Highland Park	17,921	3,517
City of University Park	13,441	6,457
City of Grapevine	4,480	3,720
Brook Hollow Golf Club	368	223

II. WATER USE DATA FOR SERVICE AREA

A. Water Delivery

Indicate if the water provided under wholesale contracts is treated or raw water and the annual amounts for the previous five years (in acre feet):

Year	*Treated Water*	*Raw Water*
2019	8,716	3,601
2020	8,792	3,443
2021	8,622	3,559
2022	9,834	3,797
2023	9,974	3,943
Totals	45,938	18,343

B. *Water Accounting Data*

1. Total amount of water diverted at the point of diversion(s) for the previous five years (in acre-feet) for all water uses:

Year	*2019*	*2020*	*2021*	*2022*	*2023*
Month					
January	818	756	284	795	894
February	689	694	253	709	701
March	440	781	258	864	819
April	637	809	620	966	971
May	974	1040	880	1127	1022
June	1048	1275	1081	1424	1168
July	1470	1474	1256	1855	1649
August	1584	1563	1352	1688	2031

September	1505	1138	1371	1371	1593
October	1021	1188	1182	918	1295
November	618	998	945	871	974
December	814	840	935	853	336
Totals	11,618	12,556	10,417	13,441	13,453

2. Wholesale population served and total amount of water diverted for **municipal use** for the previous five years (in acre-feet):

Year	*Total Population Served*	*Total Annual Water Diverted for Municipal Use*
2019	32,776	
2020	34,142	
2021	34,146	
2022	34,163	
2023	34,292	

C. Projected Water Demands

If applicable, project and attach water supply demands 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. Projected Water Demands

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

Water Type	*Source*	*Amount Authorized*
Surface Water	Lake Grapevine	50,000
Groundwater		
Other	DWU Wholesale Treated	414

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

1. Design daily capacity of system (MGD):

   24

2. Storage capacity (MGD):

a. Elevated

b. Ground 10

3. Please attach a description of the water system. Include the number of treatment plants, wells, and storage tanks

IV. WASTEWATER SYSTEM DATA

A. Wastewater System Data (if applicable)

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

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

B. Wastewater Data for Service Area (if applicable)

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

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

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

Water Conservation Plan

In addition to the description of the wholesaler's service area (profile from above), a water conservation plan for a wholesale public water supplier must include, at a minimum, additional information as required by Title 30, Texas Administrative Code, Chapter 288.5. 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 5-year and 10-year targets for water savings including, where appropriate, target goals for municipal use in gallons per capita per day for the wholesaler's service area, maximum acceptable water loss, and the basis for the development of these goals. Note that the goals established by a wholesale water supplier under this subparagraph are not enforceable. These goals must be updated during the 5-year review and submittal.

B. Measuring and Accounting for Diversions

The water conservation plan must include a description as to which practice(s) and/or device(s) will be utilized to measure and account for the amount of water diverted from the source(s) of supply.

C. Record Management Program

The water conservation plan must include a monitoring and record management program for determining water deliveries, sales, and losses.

D. Metering/Leak-Detection and Repair Program

The water conservation plan must include a program of metering and leak detection and repair for the wholesaler's water storage, delivery, and distribution system.

E. Contract Requirements for Successive Customer Conservation

The water conservation plan must include a requirement in every water supply contract entered into or renewed after official adoption of the water conservation plan, 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 of Title 30 TAC Chapter 288. If the customer intends to resell the water, then 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.

F. 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.

G. Enforcement Procedure and Official 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.

H. 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.

Example statement to be included within the water conservation plan:

The service area of the _____ (name of water supplier) is located within the _____ (name of regional water planning area or areas) and _____ (name of water supplier) has provided a copy of this water conservation plan to the _____ (name of regional water planning group or groups).

I. Plan Review and Update

A wholesale water supplier shall review and update its water conservation plan, as appropriate based on an assessment of previous 5-year and 10-year targets and any other new or updated information. A wholesale water supplier shall review and update the next revision of its water conservation plan no 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.

V. ADDITIONAL CONSERVATION STRATEGIES

Any combination of the following strategies shall be selected by the water wholesaler, in addition to the minimum requirements of 30 TAC §288.5(1), if they are necessary in order to achieve the stated water conservation goals of the plan. The commission may require by commission order that any of the following strategies be implemented by the water supplier if the commission determines that the strategies are necessary in order for the conservation plan to be achieved:

1. Conservation-oriented water rates and water rate structures such as uniform or increasing block rate schedules, and/or seasonal rates, but not flat rate or decreasing block rates;

2. A program to assist agricultural customers in the development of conservation, pollution prevention and abatement plans;

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

4. Any other water conservation practice, method, or technique which the wholesaler shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

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

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

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

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

3. evaluates any other feasible alternative to new water development including, but not limited to, waste prevention, recycling and reuse, water transfer and marketing, regionalization, and optimum water management practices and procedures.

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

APPENDIX C

TCEQ & TWDB WATER UTILITY PROFILES

Texas Water Development Board

UTILITY PROFILE FOR WHOLESALE WATER SUPPLIER

CONTACT INFORMATION

Name of Utility: DALLAS COUNTY PARK CITIES MUD

Public Water Supply Identification Number (PWS ID): TX0570078

Certificate of Convenience and Necessity (CCN) Number:

Surface Water Right ID Number: 2363-A

Wastewater ID Number:

Contact: First Name: Hector Last Name: Ortiz

Title: GM

Address: 1811 Regal Row City: Dallas State: TX

Zip Code: 75235 Zip+4: Email: ortiz@parkcitieswater.com

Telephone Number: 2146528639 Date:

Is this person the designated Conservation Coordinator? (•) Yes ( ) No

Regional Water Planning Group: C

Groundwater Conservation District:

Our records indicate that you:

☐ Received financial assistance of $500,000 or more from TWDB

☑ Have a surface water right with TCEQ

A. Population and Service Area Data

1. Current service area size in square miles: 6

Attached file(s):

File Name	File Description
App C-3 - System Map.pdf	

UTILITY PROFILE FOR WHOLESALE WATER SUPPLIER

2. Historical service area population for the previous five years, starting with the most current year.

Year	Historical Population Served By Wholesale Water Service
2023	34,292
2022	84,773
2021	87,521
2020	82,780
2019	82,780

3. Projected service area population for the following decades.

Year	Projected Population Served By Wholesale Water Service
2030	34,967
2040	34,967
2050	34,967
2060	34,967
2070	34,967

UTILITY PROFILE FOR WHOLESALE WATER SUPPLIER

4. Described source(s)/method(s) for estimating current and projected populations.

Past Population: 2019, 2021-2023 are NCTCOG population estimates for the Town of Highland Park and the City of University Park only (the District's sole treated water customers). 2020 population estimates are from the 2020 US Census.

Projected Population: 2030-2070 population projections are from the 2021 Region C Water Plan, Tables 5D.69 (Highland Park) and 5D.78 (University Park).

2021 Region C Population and Demand Projection Tables are included.

DCPCMUD also sells wholesale raw water to the City of Grapevine which accounts for approximately 17% of the City of Grapevine's yearly water use per Region C (Dry Year Demands). However, City of Grapevine conservation is governed by the City of Grapevine and TRWD water conservation goals.

Attached file(s):

File Name	File Description
TWDB_MWCPT_v1.pdf	
TWDB - statewide_population.xlsx	
04 - 2023_NCTCOG_Population_Estimates_City.xlsx	

B. System Input

System input data for the previous five years.

Total System Input = Self-supplied + Imported

Year	Water Produced in Gallons	Purchased/Imported Water in Gallons	Total System Input	Total GPD
2023	4,554,257,000	49,998,000	4,604,255,000	12,614,397
2022	4,300,874,161	125,343,000	4,426,217,161	12,126,622
2021	3,354,743,120	607,802,000	3,962,545,120	10,856,288
2020	4,035,262,427	0	4,035,262,427	11,055,513
2019	3,760,369,741	328,098,000	4,088,467,741	11,201,281
Historic Average	4,001,101,290	222,248,200	4,223,349,490	11,570,821

Texas Water Development Board

UTILITY PROFILE FOR WHOLESALE WATER SUPPLIER

C. Water Supply System

1. Designed daily capacity of system in gallons: 24,000,000

2. Storage Capacity

2a. Elevated storage in gallons: 0

2b. Ground storage in gallons: 10,000,000

D. Projected Demands

1. The estimated water supply requirements for the next ten years using population trends, historical water use, economic growth, etc.

Year	Population	Water Demand (gallons)
2025	34,967	3,798,119,256
2026	34,967	3,797,402,384
2027	34,967	3,796,685,512
2028	34,967	3,795,968,639
2029	34,967	3,795,251,767
2030	34,967	3,794,534,895
2031	34,967	3,790,559,513
2032	34,967	3,786,584,131
2033	34,967	3,782,608,748
2034	34,967	3,778,633,366

2. Description of source data and how projected water demands were determined.

Population Data: 2021 Region C Water Plan estimates for DCPCMUD, Highland Park, University Park.

Water Demands: Based on Region C demand projections. THESE ARE DRY YEAR DEMANDS. These dry year demands also include raw water sold to the City of Grapevine, but the City of Grapevine's population is not taken into consideration.

NOTE: 2021 Region C Water Plan projections are attached.

Attached file(s):

File Name	File Description
demand_MunWUG_Search-1.pdf	
demand_MunWUG_Search.pdf	

UTILITY PROFILE FOR WHOLESALE WATER SUPPLIER

E. High Volume Customers

1. The annual water use for the five highest volume **RETAIL customers.**

Customer	Water Use Category	Annual Water Use	Treated or Raw

2. The annual water use for the five highest volume **WHOLESALE customers.**

Customer	Water Use Category	Annual Water Use	Treated or Raw
City of University Park	Municipal	2,104,087,000	Treated
City of Grapevine	Municipal	1,212,132,000	Raw
Town of Highland Park	Municipal	1,146,022,000	Treated
Brook Hollow Golf Club	Agricultural	72,859,281	Raw

F. Utility Data Comment Section

Additional comments about utility data.

Part B. Self-Supplied Water. This total includes all water diverted from DCPCMUD's water rights in Lake Grapevine (Diverted to Treatment Plant + Diverted to Brook Hollow Golf Club + Diverted to City of Grapevine). It does not include reuse/reclaim water recycled back to the head of the plant during treatment process.

Part C. Item No. 3. Dallas Water Utilities Supply. The volume listed is the average yearly volume purchased from Dallas in calendar years 2019-2023. These supplies are provided during annual system maintenance activities and/or emergency shutdowns.

Section II: System Data

A. Wholesale Water Supplier Connections

1. List of active wholesale connections by major water use category.

Water Use Category Type	Total Wholesale Connections (Active + Inactive)	Percent of Total Connections
Municipal	3	75.00 %
Industrial	0	0.00 %
Commercial	0	0.00 %
Institutional	0	0.00 %
Agricultural	1	25.00 %
Total	4	100.00 %

UTILITY PROFILE FOR WHOLESALE WATER SUPPLIER

2. Net number of new wholesale connections by water use category for the previous five years.

	Net Number of New Wholesale Connections					
Year	**Municipal**	**Industrial**	**Commercial**	**Institutional**	**Agricultural**	**Total**
2023	0	0	0	0	0	0
2022	0	0	0	0	0	0
2021	0	0	0	0	0	0
2020	0	0	0	0	0	0
2019	0	0	0	0	0	0

B. Accounting Data

For the previous five years, the number of gallons of WHOLESALE water exported (sold or transferred) to each major water use category.

Year	Municipal	Industrial	Commercial	Institutional	Agricultural	Total
2023	4,462,241,000	0	0	0	72,859,000	4,535,100,000
2022	4,352,798,880	0	0	0	73,418,281	4,426,217,161
2021	3,928,311,839	0	0	0	34,233,281	3,962,545,120
2020	3,984,921,146	0	0	0	50,341,281	4,035,262,427
2019	4,068,744,460	0	0	0	19,723,281	4,088,467,741

UTILITY PROFILE FOR WHOLESALE WATER SUPPLIER

C. Annual and Seasonal Water Use

1. The previous five years' gallons of treated water provided to WHOLESALE customers.

Month	Total Gallons of Treated Water				
	2023	2022	2021	2020	2019
January	189,572,000	170,304,000	153,022,000	148,113,000	150,060,000
February	138,685,000	144,837,000	186,497,000	132,674,000	133,362,000
March	171,187,000	186,136,000	185,227,000	142,802,000	161,985,000
April	217,115,000	218,424,000	210,754,000	171,349,000	182,740,000
May	235,890,000	257,877,000	177,555,000	243,622,000	189,245,000
June	270,920,000	329,267,000	234,232,000	317,451,000	212,092,000
July	403,995,000	471,885,000	306,508,000	354,458,000	356,468,000
August	527,944,000	428,934,000	333,261,000	393,359,000	409,107,000
September	404,476,000	334,366,000	338,049,000	270,813,000	392,058,000
October	298,071,000	311,406,000	277,406,000	282,890,000	298,112,000
November	212,737,000	183,005,000	208,289,000	230,379,000	183,066,000
December	179,517,000	168,030,000	198,663,000	176,999,000	171,980,000
Total	3,250,109,000	3,204,471,000	2,809,463,000	2,864,909,000	2,840,275,000

UTILITY PROFILE FOR WHOLESALE WATER SUPPLIER

2. The previous five years' gallons of raw water provided to WHOLESALE customers.

Month	Total Gallons of Raw Water				
	2023	2022	2021	2020	2019
January	95,842,000	85,903,000	81,146,000	88,673,000	101,896,000
February	97,040,000	81,982,000	84,364,000	88,581,000	81,906,000
March	101,790,000	91,426,000	85,951,000	107,209,000	95,086,000
April	94,750,000	93,627,000	86,216,000	84,760,000	97,502,000
May	100,060,000	99,254,000	104,778,000	89,307,000	121,124,000
June	102,243,000	121,155,000	109,542,000	91,903,000	117,250,000
July	126,618,000	127,116,000	105,174,000	111,582,000	106,356,000
August	128,510,000	119,921,000	113,961,000	103,491,000	100,594,000
September	110,173,000	109,000,000	102,881,000	88,825,000	90,916,000
October	115,518,000	105,266,000	96,893,000	92,855,000	91,435,000
November	103,074,000	97,560,000	89,558,000	84,459,000	81,476,000
December	109,373,000	105,250,000	99,167,000	90,303,000	87,930,000
Total	1,284,991,000	1,237,460,000	1,159,631,000	1,121,948,000	1,173,471,000

3. Summary of seasonal and annual water use.

	Summer WHOLESALE (Treated + Raw)	Total WHOLESALE (Treated + Raw)
2023	1,560,230,000	4,535,100,000
2022	1,598,278,000	4,441,931,000
2021	1,202,678,000	3,969,094,000
2020	1,372,244,000	3,986,857,000
2019	1,301,867,000	4,013,746,000
Average in Gallons	1,407,059,400.00	4,189,345,600.00

UTILITY PROFILE FOR WHOLESALE WATER SUPPLIER

D. Water Loss

Water Loss data for the previous five years.

Year	Total Water Loss in Gallons	Water Loss in GPCD	Water Loss as a Percentage
2023	69,155,000	5	1.50 %
2022	0	0	0.00 %
2021	0	0	0.00 %
2020	0	0	0.00 %
2019	0	0	0.00 %
Average	13,831,000	1	0.30 %

E. Peak Day Use

Average Daily Water Use and Peak Day Water Use for the previous five years.

Year	Average Daily Use (gal)	Peak Day Use (gal)	Ratio (peak/avg)
2023	12,424,931	16959021	1.3649
2022	12,169,673	17372586	1.4275
2021	10,874,230	13072586	1.2022
2020	10,922,895	14915695	1.3655
2019	10,996,564	14150728	1.2868

F. Summary of Historic Water Use

Water Use Category	Historic Average	Percent of Connections	Percent of Water Use
Municipal	4,159,403,465	75.00 %	98.81 %
Industrial	0	0.00 %	0.00 %
Commercial	0	0.00 %	0.00 %
Institutional	0	0.00 %	0.00 %
Agricultural	50,115,024	25.00 %	1.19 %

UTILITY PROFILE FOR WHOLESALE WATER SUPPLIER

G. System Data Comment Section

Part A. Item 1. Municipal Meters - 1 treated water meter each for University Park and Highland Park. The other municipal "meter" is raw water directly diverted by the City of Grapevine from Grapevine Lake out of DCPCMUD's reservoir supply. This water is metered by the City of Grapevine. Agricultural raw water meter is to supply Brook Hollow Golf Club and is metered prior to going through the DCPCMUD's Water Treatment Plant raw water meters.

Part B. Includes treated and raw water sales.

Part D. Water losses included are total raw water flow to treatment plant ONLY (Treatment System Input) PLUS water purchased from DWU MINUS water sold to Highland Park and University Park. This water loss is plant water loss PLUS water lost from the 36" transmission line to the Highland Park/University Park meters.

Part E. Averages listed are for total raw water flows to treatment plant ONLY (same as part D).

Section III: Wastewater System Data

A. Wastewater System Data

1. Design capacity of wastewater treatment plant(s) in gallons per day: _____

2. List of active wastewater connections by major water use category.

Water Use Category	Metered	Unmetered	Total Connections	Percent of Total Connections
Municipal			0	0.00 %
Industrial			0	0.00 %
Commercial			0	0.00 %
Institutional			0	0.00 %
Agricultural			0	0.00 %
Total			0	100.00 %

3. Percentage of water serviced by the wastewater system: _____ %

UTILITY PROFILE FOR WHOLESALE WATER SUPPLIER

4. Number of gallons of wastewater that was treated by the utility for the previous five years.

Month	Total Gallons of Treated Water				
	2023	2022	2021	2020	2019
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
Total					

5. Could treated wastewater be substituted for potable water?

○ Yes ○ No

B. Reuse Data

1. Data by type of recycling and reuse activities implemented during the current reporting period.

Type of Reuse	Total Annual Volume (in gallons)
On-site Irrigation	298,093,000
Plant wash down	
Chlorination/de-chlorination	
Industrial	
Landscape irrigation (park,golf courses)	
Agricultural	
Discharge to surface water	0
Evaporation Pond	0
Other	
Total	298,093,000

UTILITY PROFILE FOR WHOLESALE WATER SUPPLIER

APPENDIX D

TCEQ IMPLEMENTATION REPORT

Texas Commission on Environmental Quality

Water Availability Division
MC-160, P.O. Box 13087 Austin, Texas 78711-3087
Telephone (512) 239-4600, FAX (512) 239-2214

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 beginning May 1, 2009. 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: Dallas County Park Cities Municipal Utility District
2. Water Right Permit or Certificate Nos. 2363

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

__X__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__x__ 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 Chapter 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/conserve.html

*Call **512-239-4600** or email to **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, list dates and descriptions of the conservation measures implemented, and the actual amount of water saved.

7. 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 __X__ No _____
   If the targets were not met, please provide an explanation as to why any of the targets were not met, including any progress on that particular target.

8. 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).

Refer to Section 3 of the 2024 Water Conservation Plan.

9. 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.

Only revised 5- and 10-year targets have been revised for the District's Water Conservation Plan. All other supporting documentation has been updated to reflect 2019-2023 calendar year data in support of this District's Water Conservation Plan.

10. *Form Completed by (Point of Contact):* Hector Ortiz
(If different than name listed above, owner and contact may be different individual(s)/entities)

Contact Person Title/Position: General Manager

Contact Address: 1811 Regal Row, Dallas, Texas 75235

Contact Phone Number: 214-652-8639 Contact Email Address: ortiz@parkcitieswater.com

Signature: _____ Date: 04/30/2024

Texas Water Development Board

Water Conservation Plan Annual Report
Wholesale Water Supplier

CONTACT INFORMATION

Name of Utility: DALLAS COUNTY PARK CITIES MUD

Public Water Supply Identification Number (PWS ID): TX0570078

Certification of Convenience and Necessity (CCN) Number:

Surface Water Right ID Number: 2363-A

Wastewater ID Number:

Check all that apply:

- ☐ Retail Water Supplier
- ☑ Wholesale Water Supplier
- ☐ Wastewater Treatment Utility

Address: 1811 Regal Row City: Dallas Zip Code: 75235

Email: Ortiz@parkcitieswater.com Telephone Number: 2146528639

Regional Water Planning Group: C

Groundwater Conservation District:

Contact: First Name: Ortiz Last Name: Hector

Title: General Manager

Is this person the designated Conservation Coordinator? ◉ Yes ○ No

Regional Water Planning Group: C

Groundwater Conservation District:

Reporting Period (Calendar year):

Period Begin (mm/yyyy): 01/2023 Period End (mm/yyyy): 12/2023

Check all that apply:

- ☐ Received financial assistance of $500,000 or more from TWDB
- ☑ Have a surface water right with TCEQ

SYSTEM DATA

1. For this reporting period, provide the total volume of wholesale water exported (transfered or sold): 4,535,100,281

2. For this reporting period, does your billing/accounting system have the capability to classify customer into the Wholesale Customer Categories?

   ○ Yes ◉ No

3. For this reporting period, select the category(s) used to calculate wholesale customer water usage:

   - [x] Municipal
   - [ ] Industrial
   - [ ] Commercial
   - [ ] Institutional
   - [x] Agricultural

Wholesale Customers Categories*

- Municipal
- Industrial
- Commercial
- Institutional
- Agricultural

**Recommended Customer Categories for classifying customer water use. For definitions, refer to Guidance and Methodology on Water Conservation and Water Use.*

4. For this reporting period, enter the gallons of **WHOLESALE water exported** (transfered or sold). Enter zero if a Customer Category does not apply.

Wholesale Customer Category	Gallons Exported[1] (transfered or sold)	Number of Customers
Municipal	4,462,241,000	3
Industrial	0	0
Commercial	0	0
Institutional	0	0
Agricultural	72,859,281	1
Total Gallons[1]	**4535100281**	**4**

[1]Municipal + Industrial + Commercial + Institutional + Agricultural = Wholesale Water Exported

Water Use Accounting

	Total Gallons During the Reporting Period
Water Produced: Water from permitted sources such as rivers, lakes, streams, and wells	**4,554,256,898**
Wholesale Water Imported: Purchased wholesale water transferred into the system.	**49,998,000**
System Input: Total water supplied to system and available for use. Produced + Imported = System Input	**4,604,254,898**
Wholesale Water Exported: Wholesale water sold or transferred out of the system.	**4,535,100,281**
Gallons Per Day: Wholesale Water Exported / 365 = Gallons Per Day	**12,424,932**
Population: Estimated total population for municipal customers.	**34,292**
Gallons Per Capita Per Day: Wholesale Exported / Population / 365 = Gallons Per Capita Per Day	**362**

Provide the breakdown of Wholesale Water Exported into Raw and Treated water volumes.

	Gallons
Raw Wholesale Water Exported	**1,284,991,281**
Treated Wholesale Water Exported	**3,250,109,000**

Provide the specific and quantified five and ten-year targets as listed in your most current Water Conservation Plan.

	Date to Achieve Target	Specified and Quantified Targets
Five-year target	**2024**	**247.4 GPCD**
Ten-year target	**2029**	**234.5 GPCD**

Texas Water Development Board

Water Conservation Programs and Activities

1. Water Conservation Plan.
What year did your entity adopt or revise their most recent Water Conservation Plan? **2019**

Does The Plan incorporate **Best Management Practices**? (•) Yes ( ) No

2. Water Conservation Programs
Has your entity implemented any type of water conservation activity or program?

(•) Yes ( ) No

If yes, select the type(s) of Best Management Practices or water conservation strategies implemented during this reporting period. Estimate the gallons saved from wholesale supplier conservation strategies implemented. Do not include volume reused. Please include reuse in 3 below.

	Wholesale Supplier Best Management Practices
	Conservation Planning
☐	Customer Contract Requirements to Develop and Implement Water Conservation and Drought Contingency Plans
☑	Technical Assistance and Outreach
	Resource Sharing
☐	Cost Share Program
☐	Wholesale Supplier Collective Purchase and Direct Distribution of Water Conservation Equipment

Wholesale Supplier Activities and Practices	**Check if Implemented**	**Estimated Gallons Saved**
Agricultural Conservation Programs	☐	
Conservation Analysis & Planning	☐	
Conservation Rate Structures	☐	
Conservation Technology	☑	
Education & Public Awareness	☐	
Industrial Conservation Programs	☐	
Leak Detection/Water Loss Program	☐	
Rebate, Retrofit, and Incentive Programs	☐	
Regulatory & Enforcement	☐	

System Operations	☑	
Water Efficient Landscape Programs	☐	
Water Use Audits	☐	
Other	☐	
Totals		

3. Recycle/Reuse (Water or Wastewater Effluent)
For this reporting period, provide direct and indirect reuse activities.

Reuse Activity	Estimated Volume (in gallons)
On-site irrigation	298,093,000
Plant wash down	
Chlorination/de-chlorination	
Industrial	
Landscape irrigation (parks, golf courses)	
Agricultural	
Other	
Estimated Volume of Reuse	298,093,000

4. Water Savings
For this reporting period, estimate the savings that resulted from water conversation activities and programs.

Estimated Gallons Saved/Conserved	Estimated Gallons Recycled/Reused	Total Volume of Water Saved[1]	Dollar Value of Water Saved[2]
0	298,093,000	298,093,000	887,602

[1]Estimated Gallons Saved + Estimated Gallons Recycled/Reused = Total Volume Saved

[2]Estimated this value by taking into account water savings, the cost of treatment or purchase of water, and deferred capital cost due to conservation.

5. Program Effectiveness
In your opinion, how would you rank the overall effectiveness of your conservation programs and activities?

Less Than Effective	Somewhat Effective	Hightly Effective	Does Not Apply
○	◉	○	○

6. What might your entity do to improve the effectiveness of your water conservation program?

Texas Water Development Board

Improve coordination with retail customers.

7. Select the areas for which you would like to receive more technical assistance.

	Technical Assitance Areas
☐	Agricultural Best Management Practices
☑	Wholesale Best Management Practices
☐	Industrial Best Management Practices
☐	Drought Contingency Plans
☐	Landscape Efficient Systems
☐	Leak Detection and Equipment
☑	Educational Resources
☐	Water Conservation Plans
☐	Water IQ: Know Your Water
☐	Water Loss Audits
☐	Rainwater Harvesting
☐	Recycling and Reuse

Texas Water Development Board

Water Conservation Plan Annual Report
Wholesale Water Supplier

CONTACT INFORMATION

Name of Utility: DALLAS COUNTY PARK CITIES MUD

Public Water Supply Identification Number (PWS ID): TX0570078

Certification of Convenience and Necessity (CCN) Number:

Surface Water Right ID Number: 2363-A

Wastewater ID Number:

Check all that apply:

- ☐ Retail Water Supplier
- ☑ Wholesale Water Supplier
- ☐ Wastewater Treatment Utility

Address: 1811 Regal Row City: Dallas Zip Code: 75235

Email: mcdaniel@parkcitieswater.com Telephone Number: 2146528639

Regional Water Planning Group: C

Groundwater Conservation District:

Contact: First Name: Larry Last Name: McDaniel

Title: General Manager

Is this person the designated Conservation Coordinator? ◉ Yes ○ No

Regional Water Planning Group: C

Groundwater Conservation District:

Reporting Period (Calendar year):

Period Begin (mm/yyyy): 01/2020 Period End (mm/yyyy): 12/2020

Check all that apply:

- ☐ Received financial assistance of $500,000 or more from TWDB
- ☑ Have a surface water right with TCEQ

SYSTEM DATA

1. For this reporting period, provide the total volume of wholesale water exported (transfered or sold): 4,035,262,427

2. For this reporting period, does your billing/accounting system have the capability to classify customer into the Wholesale Customer Categories?

(●) Yes ( ) No

Wholesale Customers Categories*

- Municipal
- Industrial
- Commercial
- Institutional
- Agricultural

**Recommended Customer Categories for classifying customer water use. For definitions, refer to Guidance and Methodology on Water Conservation and Water Use.*

3. For this reporting period, select the category(s) used to calculate wholesale customer water usage:

- [x] Municipal
- [ ] Industrial
- [ ] Commercial
- [ ] Institutional
- [x] Agricultural

4. For this reporting period, enter the gallons of **WHOLESALE water exported** (transfered or sold). Enter zero if a Customer Category does not apply.

Wholesale Customer Category	Gallons Exported[1] (transfered or sold)	Number of Customers
Municipal	3,984,921,146	3
Industrial	0	0
Commercial	0	0
Institutional	0	0
Agricultural	50,341,281	1
Total Gallons[1]	**4035262427**	**4**

[1]Municipal + Industrial + Commercial + Institutional + Agricultural = Wholesale Water Exported

Water Use Accounting

	Total Gallons During the Reporting Period
Water Produced: Water from permitted sources such as rivers, lakes, streams, and wells	**4,035,262,427**
Wholesale Water Imported: Purchased wholesale water transferred into the system.	**0**
System Input: Total water supplied to system and available for use. Produced + Imported = System Input	**4,035,262,427**
Wholesale Water Exported: Wholesale water sold or transferred out of the system.	**4,035,262,427**
Gallons Per Day: Wholesale Water Exported / 365 = Gallons Per Day	**11,055,513**
Population: Estimated total population for municipal customers.	**82,780**
Gallons Per Capita Per Day: Wholesale Exported / Population / 365 = Gallons Per Capita Per Day	**134**

Provide the breakdown of Wholesale Water Exported into Raw and Treated water volumes.

	Gallons
Raw Wholesale Water Exported	**1,121,948,281**
Treated Wholesale Water Exported	**2,913,314,146**

Provide the specific and quantified five and ten-year targets as listed in your most current Water Conservation Plan.

	Date to Achieve Target	Specified and Quantified Targets
Five-year target	**2024**	**247.4 GPCD**
Ten-year target	**2029**	**234.5 GPCD**

Texas Water Development Board

Water Conservation Programs and Activities

1. Water Conservation Plan.
What year did your entity adopt or revise their most recent Water Conservation Plan? **2019**

Does The Plan incorporate **Best Management Practices**? (•) Yes ( ) No

2. Water Conservation Programs
Has your entity implemented any type of water conservation activity or program?

(•) Yes ( ) No

If yes, select the type(s) of Best Management Practices or water conservation strategies implemented during this reporting period. Estimate the gallons saved from wholesale supplier conservation strategies implemented. Do not include volume reused. Please include reuse in 3 below.

	Wholesale Supplier Best Management Practices
	Conservation Planning
☑	Customer Contract Requirements to Develop and Implement Water Conservation and Drought Contingency Plans
☐	Technical Assistance and Outreach
	Resource Sharing
☐	Cost Share Program
☑	Wholesale Supplier Collective Purchase and Direct Distribution of Water Conservation Equipment

Wholesale Supplier Activities and Practices	**Check if Implemented**	**Estimated Gallons Saved**
Agricultural Conservation Programs	☐	
Conservation Analysis & Planning	☐	
Conservation Rate Structures	☐	
Conservation Technology	☑	0
Education & Public Awareness	☑	0
Industrial Conservation Programs	☐	
Leak Detection/Water Loss Program	☐	
Rebate, Retrofit, and Incentive Programs	☐	
Regulatory & Enforcement	☐	

System Operations	☑	0
Water Efficient Landscape Programs	☑	0
Water Use Audits	☐	
Other	☐	
Totals		0

3. Recycle/Reuse (Water or Wastewater Effluent)
For this reporting period, provide direct and indirect reuse activities.

Reuse Activity	Estimated Volume (in gallons)
On-site irrigation	
Plant wash down	216,164,573
Chlorination/de-chlorination	
Industrial	
Landscape irrigation (parks, golf courses)	
Agricultural	
Other	
Estimated Volume of Reuse	216,164,573

4. Water Savings
For this reporting period, estimate the savings that resulted from water conversation activities and programs.

Estimated Gallons Saved/Conserved	Estimated Gallons Recycled/Reused	Total Volume of Water Saved[1]	Dollar Value of Water Saved[2]
0	216,164,573	216,164,573	55,225,725

[1]Estimated Gallons Saved + Estimated Gallons Recycled/Reused = Total Volume Saved
[2]Estimated this value by taking into account water savings, the cost of treatment or purchase of water, and deferred capital cost due to conservation.

5. Program Effectiveness
In your opinion, how would you rank the overall effectiveness of your conservation programs and activities?

Less Than Effective	Somewhat Effective	Hightly Effective	Does Not Apply
○	○	◉	○

6. What might your entity do to improve the effectiveness of your water conservation program?

Funded purchase and installation of Smart Meters for the Town of Highland Park and the City of University Park. Allows them to track and detect water usage and leakage. Also, funded WaterMyYard (installation of a weather station and soil monitoring station) program through Texas A&M. This program alerts citizens in our District when they need to water and how much water is needed.

7. Select the areas for which you would like to receive more technical assistance.

	Technical Assitance Areas
☐	Agricultural Best Management Practices
☑	Wholesale Best Management Practices
☐	Industrial Best Management Practices
☐	Drought Contingency Plans
☐	Landscape Efficient Systems
☐	Leak Detection and Equipment
☑	Educational Resources
☐	Water Conservation Plans
☑	Water IQ: Know Your Water
☐	Water Loss Audits
☐	Rainwater Harvesting
☐	Recycling and Reuse

APPENDIX E

TWDB ANNUAL REPORTS
2019-2023 CALENDAR YEAR

Texas Water Development Board

Water Conservation Plan Annual Report
Wholesale Water Supplier

CONTACT INFORMATION

Name of Utility: DALLAS COUNTY PARK CITIES MUD

Public Water Supply Identification Number (PWS ID): TX0570078

Certification of Convenience and Necessity (CCN) Number:

Surface Water Right ID Number: 2363-A

Wastewater ID Number:

Check all that apply:

- ☐ Retail Water Supplier
- ☑ Wholesale Water Supplier
- ☐ Wastewater Treatment Utility

Address: 1811 Regal Row City: Dallas Zip Code: 75235

Email: wagner@parkcitieswater.com Telephone Number: 2146528639

Regional Water Planning Group: C

Groundwater Conservation District:

Contact: First Name: Richard Last Name: Wagner

Title: General Manager

Is this person the designated Conservation Coordinator? ◉ Yes ○ No

Regional Water Planning Group: C

Groundwater Conservation District:

Reporting Period (Calendar year):

Period Begin (mm/yyyy): 01/2021 Period End (mm/yyyy): 12/2021

Check all that apply:

- ☐ Received financial assistance of $500,000 or more from TWDB
- ☑ Have a surface water right with TCEQ

SYSTEM DATA

1. For this reporting period, provide the total volume of wholesale water exported (transfered or sold): 3,962,545,120

2. For this reporting period, does your billing/accounting system have the capability to classify customer into the Wholesale Customer Categories?

(●) Yes ( ) No

Wholesale Customers Categories*

- Municipal
- Industrial
- Commercial
- Institutional
- Agricultural

**Recommended Customer Categories for classifying customer water use. For definitions, refer to Guidance and Methodology on Water Conservation and Water Use.*

3. For this reporting period, select the category(s) used to calculate wholesale customer water usage:

- [x] Municipal
- [ ] Industrial
- [ ] Commercial
- [ ] Institutional
- [x] Agricultural

4. For this reporting period, enter the gallons of **WHOLESALE water exported** (transfered or sold). Enter zero if a Customer Category does not apply.

Wholesale Customer Category	Gallons Exported[1] (transfered or sold)	Number of Customers
Municipal	3,928,311,839	3
Industrial	0	0
Commercial	0	0
Institutional	0	0
Agricultural	34,233,281	1
Total Gallons[1]	**3962545120**	**4**

[1]Municipal + Industrial + Commercial + Institutional + Agricultural = Wholesale Water Exported

Water Use Accounting

	Total Gallons During the Reporting Period
Water Produced: Water from permitted sources such as rivers, lakes, streams, and wells	**3,354,743,120**
Wholesale Water Imported: Purchased wholesale water transferred into the system.	**607,802,000**
System Input: Total water supplied to system and available for use. Produced + Imported = System Input	**3,962,545,120**
Wholesale Water Exported: Wholesale water sold or transferred out of the system.	**3,962,545,120**
Gallons Per Day: Wholesale Water Exported / 365 = Gallons Per Day	**10,856,288**
Population: Estimated total population for municipal customers.	**87,521**
Gallons Per Capita Per Day: Wholesale Exported / Population / 365 = Gallons Per Capita Per Day	**124**

Provide the breakdown of Wholesale Water Exported into Raw and Treated water volumes.

	Gallons
Raw Wholesale Water Exported	**1,159,631,281**
Treated Wholesale Water Exported	**2,802,913,839**

Provide the specific and quantified five and ten-year targets as listed in your most current Water Conservation Plan.

	Date to Achieve Target	Specified and Quantified Targets
Five-year target	**2024**	**247.4 GPCD**
Ten-year target	**2029**	**234.5 GPCD**

Texas Water Development Board

Water Conservation Programs and Activities

1. Water Conservation Plan.
What year did your entity adopt or revise their most recent Water Conservation Plan? **2019**

Does The Plan incorporate **Best Management Practices**? (•) Yes ( ) No

2. Water Conservation Programs
Has your entity implemented any type of water conservation activity or program?

(•) Yes ( ) No

If yes, select the type(s) of Best Management Practices or water conservation strategies implemented during this reporting period. Estimate the gallons saved from wholesale supplier conservation strategies implemented. Do not include volume reused. Please include reuse in 3 below.

	Wholesale Supplier Best Management Practices
	Conservation Planning
☐	Customer Contract Requirements to Develop and Implement Water Conservation and Drought Contingency Plans
☑	Technical Assistance and Outreach
	Resource Sharing
☐	Cost Share Program
☐	Wholesale Supplier Collective Purchase and Direct Distribution of Water Conservation Equipment

Wholesale Supplier Activities and Practices	**Check if Implemented**	**Estimated Gallons Saved**
Agricultural Conservation Programs	☐	
Conservation Analysis & Planning	☐	
Conservation Rate Structures	☐	
Conservation Technology	☑	
Education & Public Awareness	☑	
Industrial Conservation Programs	☐	
Leak Detection/Water Loss Program	☐	
Rebate, Retrofit, and Incentive Programs	☐	
Regulatory & Enforcement	☐	

System Operations	☑	
Water Efficient Landscape Programs	☐	
Water Use Audits	☐	
Other	☐	
Totals		

3. Recycle/Reuse (Water or Wastewater Effluent)
For this reporting period, provide direct and indirect reuse activities.

Reuse Activity	Estimated Volume (in gallons)
On-site irrigation	
Plant wash down	193,654,880
Chlorination/de-chlorination	
Industrial	
Landscape irrigation (parks, golf courses)	
Agricultural	
Other	
Estimated Volume of Reuse	193,654,880

4. Water Savings
For this reporting period, estimate the savings that resulted from water conversation activities and programs.

Estimated Gallons Saved/Conserved	Estimated Gallons Recycled/Reused	Total Volume of Water Saved[1]	Dollar Value of Water Saved[2]
0	193,654,880	193,654,880	480,089

[1]Estimated Gallons Saved + Estimated Gallons Recycled/Reused = Total Volume Saved
[2]Estimated this value by taking into account water savings, the cost of treatment or purchase of water, and deferred capital cost due to conservation.

5. Program Effectiveness
In your opinion, how would you rank the overall effectiveness of your conservation programs and activities?

Less Than Effective	Somewhat Effective	Hightly Effective	Does Not Apply
○	◉	○	○

6. What might your entity do to improve the effectiveness of your water conservation program?

DCPCMUD could improve water conservation efforts by improving outreach and assistance with our retail customers and their associated water management strategies.

7. Select the areas for which you would like to receive more technical assistance.

	Technical Assitance Areas
☐	Agricultural Best Management Practices
☑	Wholesale Best Management Practices
☐	Industrial Best Management Practices
☐	Drought Contingency Plans
☑	Landscape Efficient Systems
☐	Leak Detection and Equipment
☑	Educational Resources
☐	Water Conservation Plans
☐	Water IQ: Know Your Water
☐	Water Loss Audits
☐	Rainwater Harvesting
☑	Recycling and Reuse

APPENDIX F

SUBMITTAL LETTERS TO TCEQ, TWDB, AND REGION C WATER PLANNING GROUP

Texas Water Development Board

Water Conservation Plan Annual Report
Wholesale Water Supplier

CONTACT INFORMATION

Name of Utility: DALLAS COUNTY PARK CITIES MUD

Public Water Supply Identification Number (PWS ID): TX0570078

Certification of Convenience and Necessity (CCN) Number:

Surface Water Right ID Number: 2363-A

Wastewater ID Number:

Check all that apply:

- ☐ Retail Water Supplier
- ☐ Wholesale Water Supplier
- ☐ Wastewater Treatment Utility

Address: 1811 Regal Row City: Dallas Zip Code: 75235

Email: Ortiz@parkcitieswater.com Telephone Number: 2146528639

Regional Water Planning Group: C

Groundwater Conservation District:

Contact: First Name: Ortiz Last Name: Hector

Title: General Manager

Is this person the designated Conservation Coordinator? ◉ Yes ○ No

Regional Water Planning Group: C

Groundwater Conservation District:

Reporting Period (Calendar year):

Period Begin (mm/yyyy): 01/2022 Period End (mm/yyyy): 12/2022

Check all that apply:

- ☐ Received financial assistance of $500,000 or more from TWDB
- ☑ Have a surface water right with TCEQ

SYSTEM DATA

1. For this reporting period, provide the total volume of wholesale water exported (transfered or sold): 4,426,217,161

2. For this reporting period, does your billing/accounting system have the capability to classify customer into the Wholesale Customer Categories?

   ○ Yes ◉ No

Wholesale Customers Categories*

- Municipal
- Industrial
- Commercial
- Institutional
- Agricultural

**Recommended Customer Categories for classifying customer water use. For definitions, refer to Guidance and Methodology on Water Conservation and Water Use.*

3. For this reporting period, select the category(s) used to calculate wholesale customer water usage:

- ☑ Municipal
- ☐ Industrial
- ☐ Commercial
- ☐ Institutional
- ☑ Agricultural

4. For this reporting period, enter the gallons of **WHOLESALE water exported** (transfered or sold). Enter zero if a Customer Category does not apply.

Wholesale Customer Category	Gallons Exported[1] (transfered or sold)	Number of Customers
Municipal	4,352,798,880	3
Industrial	0	0
Commercial	0	0
Institutional	0	0
Agricultural	73,418,281	1
Total Gallons[1]	**4426217161**	**4**

[1]Municipal + Industrial + Commercial + Institutional + Agricultural = Wholesale Water Exported

Water Use Accounting

	Total Gallons During the Reporting Period
Water Produced: Water from permitted sources such as rivers, lakes, streams, and wells	**4,300,874,161**
Wholesale Water Imported: Purchased wholesale water transferred into the system.	**125,343,000**
System Input: Total water supplied to system and available for use. Produced + Imported = System Input	**4,426,217,161**
Wholesale Water Exported: Wholesale water sold or transferred out of the system.	**4,426,217,161**
Gallons Per Day: Wholesale Water Exported / 365 = Gallons Per Day	**12,126,622**
Population: Estimated total population for municipal customers.	**84,773**
Gallons Per Capita Per Day: Wholesale Exported / Population / 365 = Gallons Per Capita Per Day	**143**

Provide the breakdown of Wholesale Water Exported into Raw and Treated water volumes.

	Gallons
Raw Wholesale Water Exported	**1,237,460,281**
Treated Wholesale Water Exported	**3,188,756,880**

Provide the specific and quantified five and ten-year targets as listed in your most current Water Conservation Plan.

	Date to Achieve Target	Specified and Quantified Targets
Five-year target	**2024**	**247.4 GPCD**
Ten-year target	**2029**	**234.5 GPCD**

Texas Water Development Board

Water Conservation Programs and Activities

1. Water Conservation Plan.
What year did your entity adopt or revise their most recent Water Conservation Plan? **2019**

Does The Plan incorporate **Best Management Practices**? (•) Yes ( ) No

2. Water Conservation Programs
Has your entity implemented any type of water conservation activity or program?

(•) Yes ( ) No

If yes, select the type(s) of Best Management Practices or water conservation strategies implemented during this reporting period. Estimate the gallons saved from wholesale supplier conservation strategies implemented. Do not include volume reused. Please include reuse in 3 below.

	Wholesale Supplier Best Management Practices
	Conservation Planning
☐	Customer Contract Requirements to Develop and Implement Water Conservation and Drought Contingency Plans
☑	Technical Assistance and Outreach
	Resource Sharing
☐	Cost Share Program
☐	Wholesale Supplier Collective Purchase and Direct Distribution of Water Conservation Equipment

Wholesale Supplier Activities and Practices	**Check if Implemented**	**Estimated Gallons Saved**
Agricultural Conservation Programs	☐	
Conservation Analysis & Planning	☐	
Conservation Rate Structures	☐	
Conservation Technology	☑	
Education & Public Awareness	☐	
Industrial Conservation Programs	☐	
Leak Detection/Water Loss Program	☐	
Rebate, Retrofit, and Incentive Programs	☐	
Regulatory & Enforcement	☐	

System Operations	☑	
Water Efficient Landscape Programs	☐	
Water Use Audits	☐	
Other	☐	
Totals		

3. Recycle/Reuse (Water or Wastewater Effluent)
For this reporting period, provide direct and indirect reuse activities.

Reuse Activity	Estimated Volume (in gallons)
On-site irrigation	298,567,839
Plant wash down	
Chlorination/de-chlorination	
Industrial	
Landscape irrigation (parks, golf courses)	
Agricultural	
Other	
Estimated Volume of Reuse	298,567,839

4. Water Savings
For this reporting period, estimate the savings that resulted from water conversation activities and programs.

Estimated Gallons Saved/Conserved	Estimated Gallons Recycled/Reused	Total Volume of Water Saved[1]	Dollar Value of Water Saved[2]
0	298,567,839	298,567,839	889,016

[1]Estimated Gallons Saved + Estimated Gallons Recycled/Reused = Total Volume Saved
[2]Estimated this value by taking into account water savings, the cost of treatment or purchase of water, and deferred capital cost due to conservation.

5. Program Effectiveness
In your opinion, how would you rank the overall effectiveness of your conservation programs and activities?

Less Than Effective	Somewhat Effective	Hightly Effective	Does Not Apply
○	◉	○	○

6. What might your entity do to improve the effectiveness of your water conservation program?

Texas Water Development Board

Improve coordination with retail customers.

7. Select the areas for which you would like to receive more technical assistance.

	Technical Assitance Areas
☐	Agricultural Best Management Practices
☑	Wholesale Best Management Practices
☐	Industrial Best Management Practices
☐	Drought Contingency Plans
☐	Landscape Efficient Systems
☐	Leak Detection and Equipment
☑	Educational Resources
☐	Water Conservation Plans
☐	Water IQ: Know Your Water
☐	Water Loss Audits
☐	Rainwater Harvesting
☐	Recycling and Reuse

Texas Water Development Board

Water Conservation Plan Annual Report
Wholesale Water Supplier

CONTACT INFORMATION

Name of Utility: DALLAS COUNTY PARK CITIES MUD

Public Water Supply Identification Number (PWS ID): TX0570078

Certification of Convenience and Necessity (CCN) Number:

Surface Water Right ID Number: 2363-A

Wastewater ID Number:

Check all that apply:

- ☐ Retail Water Supplier
- ☑ Wholesale Water Supplier
- ☐ Wastewater Treatment Utility

Address: 1811 Regal Row City: Dallas Zip Code: 75235

Email: Ortiz@parkcitieswater.com Telephone Number: 2146528639

Regional Water Planning Group: C

Groundwater Conservation District:

Contact: First Name: Ortiz Last Name: Hector

Title: General Manager

Is this person the designated Conservation Coordinator? ◉ Yes ○ No

Regional Water Planning Group: C

Groundwater Conservation District:

Reporting Period (Calendar year):

Period Begin (mm/yyyy): 01/2023 Period End (mm/yyyy): 12/2023

Check all that apply:

- ☐ Received financial assistance of $500,000 or more from TWDB
- ☑ Have a surface water right with TCEQ

SYSTEM DATA

1. For this reporting period, provide the total volume of wholesale water exported (transfered or sold): 4,535,100,281

2. For this reporting period, does your billing/accounting system have the capability to classify customer into the Wholesale Customer Categories?

   ○ Yes ◉ No

3. For this reporting period, select the category(s) used to calculate wholesale customer water usage:

   - [x] Municipal
   - [ ] Industrial
   - [ ] Commercial
   - [ ] Institutional
   - [x] Agricultural

Wholesale Customers Categories*

- Municipal
- Industrial
- Commercial
- Institutional
- Agricultural

**Recommended Customer Categories for classifying customer water use. For definitions, refer to Guidance and Methodology on Water Conservation and Water Use.*

4. For this reporting period, enter the gallons of **WHOLESALE water exported** (transfered or sold). Enter zero if a Customer Category does not apply.

Wholesale Customer Category	Gallons Exported[1] (transfered or sold)	Number of Customers
Municipal	4,462,241,000	3
Industrial	0	0
Commercial	0	0
Institutional	0	0
Agricultural	72,859,281	1
Total Gallons[1]	**4535100281**	**4**

[1]Municipal + Industrial + Commercial + Institutional + Agricultural = Wholesale Water Exported

Water Use Accounting

	Total Gallons During the Reporting Period
Water Produced: Water from permitted sources such as rivers, lakes, streams, and wells	**4,554,256,898**
Wholesale Water Imported: Purchased wholesale water transferred into the system.	**49,998,000**
System Input: Total water supplied to system and available for use. Produced + Imported = System Input	**4,604,254,898**
Wholesale Water Exported: Wholesale water sold or transferred out of the system.	**4,535,100,281**
Gallons Per Day: Wholesale Water Exported / 365 = Gallons Per Day	**12,424,932**
Population: Estimated total population for municipal customers.	**34,292**
Gallons Per Capita Per Day: Wholesale Exported / Population / 365 = Gallons Per Capita Per Day	**362**

Provide the breakdown of Wholesale Water Exported into Raw and Treated water volumes.

	Gallons
Raw Wholesale Water Exported	**1,284,991,281**
Treated Wholesale Water Exported	**3,250,109,000**

Provide the specific and quantified five and ten-year targets as listed in your most current Water Conservation Plan.

	Date to Achieve Target	Specified and Quantified Targets
Five-year target	**2024**	**247.4 GPCD**
Ten-year target	**2029**	**234.5 GPCD**

Texas Water Development Board

Water Conservation Programs and Activities

1. Water Conservation Plan.
What year did your entity adopt or revise their most recent Water Conservation Plan? **2019**

Does The Plan incorporate **Best Management Practices**? (•) Yes ( ) No

2. Water Conservation Programs
Has your entity implemented any type of water conservation activity or program?

(•) Yes ( ) No

If yes, select the type(s) of Best Management Practices or water conservation strategies implemented during this reporting period. Estimate the gallons saved from wholesale supplier conservation strategies implemented. Do not include volume reused. Please include reuse in 3 below.

	Wholesale Supplier Best Management Practices
	Conservation Planning
☐	Customer Contract Requirements to Develop and Implement Water Conservation and Drought Contingency Plans
☑	Technical Assistance and Outreach
	Resource Sharing
☐	Cost Share Program
☐	Wholesale Supplier Collective Purchase and Direct Distribution of Water Conservation Equipment

Wholesale Supplier Activities and Practices	**Check if Implemented**	**Estimated Gallons Saved**
Agricultural Conservation Programs	☐	
Conservation Analysis & Planning	☐	
Conservation Rate Structures	☐	
Conservation Technology	☑	
Education & Public Awareness	☐	
Industrial Conservation Programs	☐	
Leak Detection/Water Loss Program	☐	
Rebate, Retrofit, and Incentive Programs	☐	
Regulatory & Enforcement	☐	

System Operations	☑	
Water Efficient Landscape Programs	☐	
Water Use Audits	☐	
Other	☐	
Totals		

3. Recycle/Reuse (Water or Wastewater Effluent)
For this reporting period, provide direct and indirect reuse activities.

Reuse Activity	Estimated Volume (in gallons)
On-site irrigation	298,093,000
Plant wash down	
Chlorination/de-chlorination	
Industrial	
Landscape irrigation (parks, golf courses)	
Agricultural	
Other	
Estimated Volume of Reuse	298,093,000

4. Water Savings
For this reporting period, estimate the savings that resulted from water conversation activities and programs.

Estimated Gallons Saved/Conserved	Estimated Gallons Recycled/Reused	Total Volume of Water Saved[1]	Dollar Value of Water Saved[2]
0	298,093,000	298,093,000	887,602

[1]Estimated Gallons Saved + Estimated Gallons Recycled/Reused = Total Volume Saved

[2]Estimated this value by taking into account water savings, the cost of treatment or purchase of water, and deferred capital cost due to conservation.

5. Program Effectiveness
In your opinion, how would you rank the overall effectiveness of your conservation programs and activities?

Less Than Effective	Somewhat Effective	Hightly Effective	Does Not Apply
○	◉	○	○

6. What might your entity do to improve the effectiveness of your water conservation program?

Texas Water Development Board

Improve coordination with retail customers.

7. Select the areas for which you would like to receive more technical assistance.

	Technical Assitance Areas
☐	Agricultural Best Management Practices
☑	Wholesale Best Management Practices
☐	Industrial Best Management Practices
☐	Drought Contingency Plans
☐	Landscape Efficient Systems
☐	Leak Detection and Equipment
☑	Educational Resources
☐	Water Conservation Plans
☐	Water IQ: Know Your Water
☐	Water Loss Audits
☐	Rainwater Harvesting
☐	Recycling and Reuse

Texas Commission on Environmental Quality
Resource Protection Team, MC-160
P.O. Box 13087
Austin, Texas, 78711-3087

April 10, 2019

Re: Dallas County Park Cities Municipal Utility District
Water Conservation and Drought Contingency Plans

Dear Sir/Madam,

Pursuant to Texas Administrative Code, Title 30, Chapter 288, the Dallas County Park Cities Municipal Utility District respectfully submits the attached updated Water Conservation Plan and Drought Contingency Plan for the City. Both plans were approved by the District's Board on April 9, 2019.

Copies of the approved plans have also been submitted to the Texas Water Development Board and the Chair of the Region C Water Planning Group.

Sincerely,

Larry McDaniel, PE, RS
General Manager
Dallas County Park Cities
Municipal Utility District

Attachments

Texas Water Development Board
ATTN: Conservation Plan
1700 North Congress Avenue
P.O. Box 13231
Austin, Texas 78711-3231.

April 10, 2019

Re: Dallas County Park Cities Municipal Utility District
Water Conservation and Drought Contingency Plans

Dear Sir/Madam,

Pursuant to Texas Administrative Code, Title 30, Chapter 288, the Dallas County Park Cities Municipal Utility District respectfully submits the attached updated Water Conservation Plan and Drought Contingency Plan for the City. Both plans were approved by the District's Board on April 9, 2019.

Copies of the approved plans have also been submitted to the Texas Commission on Environmental Quality and the Chair of the Region C Water Planning Group.

Sincerely,

Larry McDaniel, PE, RS
General Manager
Dallas County Park Cities
Municipal Utility District

Attachments

Kevin Ward, Chair
Region C Planning Group
c/o TRA
P.O. Box 60
Arlington, TX 76004

April 10, 2019

Re: Dallas County Park Cities Municipal Utility District
Water Conservation and Drought Contingency Plans

Dear Mr. Ward,

Pursuant to Texas Administrative Code, Title 30, Chapter 288, the Town of Highland Park respectfully submits the attached updated Water Conservation Plan and Drought Contingency Plan for the City. Both plans were approved by the Town on April 9, 2019.

Copies of the approved plans have also been submitted to the Texas Commission on Environmental Quality and the Texas Water Development Board.

Sincerely,

Kathleen Stewart
Director of Town Services
Town of Highland Park

CC: Sarah Backhouse

Attachments

APPENDIX G

ADOPTION OF WATER CONSERVATION PLAN

RESOLUTION ADOPTING
A WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN

RESOLUTION NO. 24-05-265

WHEREAS, the Board recognizes that the amount of water available to Dallas County Park Cities Municipal Utility District and its utility water customers is limited; and,

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

WHEREAS, the Water Code and the regulations of the Texas Commission on Environmental Quality (TCEQ) require that the District adopt a Water Conservation and Drought Contingency Plan; and,

WHEREAS, the Board has determined an urgent need in the best interest of the public to adopt a Water Conservation and Drought Contingency Plan; and,

WHEREAS, pursuant to Chapter 54 of the Local Government Code, the Board is authorized to adopt such Ordinances necessary to preserve and conserve its water resources; and,

WHEREAS, the Board of the Dallas County Park Cities Municipal Utility District desires to adopt the Dallas County Park Cities Municipal Utility District's 2024 Water Conservation and Drought Contingency Plan as official policy for the conservation of water.

NOW, THEREFORE, BE IT RESOLVED:

1. That the District's 2024 Water Conservation and Drought Contingency Plan is hereby adopted as the official policy of the Dallas County Park Cities Municipal Utility District.

2. That the General Manager is hereby directed to implement, administer, and enforce the Water Conservation Plan.

3. That this resolution shall take effect immediately upon its passage.

WITNESS WHEREOF, WE HEREUNTO SET OUR HANDS THIS 21st DAY OF MAY, A.D. 2024.

BOARD OF DIRECTORS
DALLAS COUNTY PARK CITIES
MUNICIPAL UTILITY DISTRICT

DALLAS COUNTY PARK CITIES MUNICIPAL UTILITY DISTRICT COUNTY TEXAS

James S. Cornelius
President

B. Neil Harris
Vice President

Michael D. McKenzie
Secretary

John L. Denman
Director

John L. Wagner
Director