

**Windermere Oaks Water Supply Corporation
Water Conservation Plan**

Prepared by: George Burriss

AUGUST 2021



1. Introduction

The Windermere Oaks WSC water conservation plan has been developed to meet the LCRA Water conservation rules in accordance with the LCRA Firm Water contract administrative rules. This Plan recognizes that conservation is a valuable tool in managing water utility systems. Benefits of water conservation include: extending available water supplies; reducing the risk of shortage during periods of extreme drought; reducing water utility operating cost; improving the reliability and quality of water utility service; reducing customer cost for water service; and enhancing water quality and the environment.

This Plan applies to all of Windermere Oaks WSC’s retail water customers located within its water service area, as defined in its Water Supply Contract with LCRA.

2. Utility Profile Information

As of 12/2020, there were approximately 281 connections in the Windermere Oaks WSC’s water service area. Based on 2010 census data, there were 1.5 persons per household in this service area, so the estimated population is 440. The projected population at full build out is estimated to be approximately 525 persons, or 350 additional connections. Full build out is expected to grow at 2% per year with a projected completion year of 2035.

Table 1 in Appendix A provides tables on water use data for the past five years. The 5 year average daily water use was 53,975 gallons. The five year average water loss was 1,628,812 gallons. The five year peak to average day water use was 2.54. Current per capita water use is 127 total gallons per person per day (GPCD) and 122 residential GPCD.

3. Water Conservation Goals

Water conservation five and ten year goals are required for overall water use, residential water use and water loss. The goals proposed by the Windermere Oaks WSC are as follows:

	5-year goals	10-year goals
Gallons per person per day (GPCD)	125	125
Residential gallons per person per day (rGPCD)	120	120
Water loss	10%	5%

4. Water Conservation Strategies

4.1 Water Loss

4.1.1 Universal Metering and Meter Replacement and Repair- Required

Windermere Oaks WSC requires all water meters to be accurate within plus or minus 5 percent of the indicated flow over the possible flow range. All utility customers will be metered. Water will be metered in and out of all water treatment plants. A regularly scheduled maintenance program of meter repair, replacement and calibration will be performed in accordance with recommended meter manufacturer guidelines following the minimum schedule by meter size:

Production (master) meters:	Test once a year
Meters larger than 1”:	Test once a year
Meters 1” or smaller:	Test per manufacturer’s recommendations

Zero consumption accounts will be checked to see if water is actually being used or not recorded. In addition, the meters will be checked for proper sizing.

4.1.2 Distribution System Leak Detection and Repair- Required

Windermere Oaks WSC will conduct leak detection and water audits, making appropriate repairs, in order to meet the utility water loss goal. Water loss audits will be performed in accordance with Texas Water Development Board rules.

Measures to proactively reduce water loss will be considered as feasible, including measures to reduce water lost within the water treatment process as well as strategies to reduce line flushing and identify/repair water line leaks quickly.

4.1.3 Additional Water Loss Best Management Practices

(Note: not required by LCRA but highly encouraged. Please check all that apply.)

NA Automated meter reading (AMR) or Automated meter infrastructure (AMI). All meters will be compatible with automatic reading capabilities AMR or AMI technology will be considered for new meters as meters are replaced and it becomes feasible to implement this technology.

NA Customer portal which allows end users to check their water use online

NA Dedicated irrigation meters will be required for all new commercial and industrial customers.

X Strategies to minimize water loss on long dead-end main lines will be considered. Examples include adding meters along various line routes to collect more accurate data on water flowing through those routes and creating loops in the water distribution lines.

NA As feasible, chlorine injection stations will be placed strategically throughout the development to avoid the need for excessive flushing to keep chlorine residuals in compliance.

X As feasible, a protective leak detection program will be developed to decrease water loss in the water distribution system.

X As feasible, recycle backwash water used to keep sedimentation out of water treatment plant filters.

X WOWSC recently completed recycle projects at both the water and wastewater plants in participation with LCRA's Firm Water Conservation Cost Share Program. Water loss reduction since completion of the projects has shown a net savings to be better than the estimated 10 acre feet per year.

4.2 Water Rates and Records Management - required

Increasing Block Rates

Windermere Oaks WSC currently utilizes an increasing block rate structure to reflect the cost drivers for the water systems and send a conservation price signal to customers. Windermere Oaks WSC will periodically evaluate its rate structure to promote conservation to the maximum extent possible. Updated rates schedules for these systems shall be submitted to LCRA within 30 days of approval. The current rate structure will be submitted with this plan to the LCRA and will be located on the utility web site..

Water Monitoring and Records Management

Windermere Oaks WSC's staff maintain records of water distribution and sales through a common monitoring and billing system to provide a central location for water billing information and a way to compile, present, and view water-use and billing information.

The billing system is capable of separating water-use per customer type into the following categories: single-family residential, multi-family residential, commercial, institutional, industrial, agricultural and wholesale. Any new billing system purchased will be capable of reporting detailed water use data by sectors just listed.

4.3 Water Reuse – required if relevant.

Windermere Oaks WSC does operate a wastewater treatment plant.

For utilities operating a wastewater treatment plant: Wastewater is reused to supplement water supply needs for the following:

- right-of-ways and medians
 - athletic fields (list names and acreage _____)
 - parks (list names and acreage _____)
 - golf courses (list names and acreage _____)
 - x other (Because WOWSC is such a small system, the funds are not available to create a beneficial water reuse program)
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4.3.1 Additional Water Reuse Best Management Practices

4.4 Education and Outreach

4.4.1 Required measures

Throughout the year, water conservation literature will be made available to users regarding water conservation, native landscaping, and other related topics to garden clubs, homeowner associations, and various others interested groups. Windermere Oaks WSC staff may attend such events or request a presentation from LCRA staff to promote water conservation.

4.4.2 Additional Best Management Practices

(note: not required by LCRA but highly encouraged. Please check all that apply.)

 X Irrigation system evaluations will be offered to customers with large landscape irrigation needs (20,000 gal/month or over) in the utility service area. Irrigation evaluations consist of evaluating the irrigation system, checking for leaks and other performance problems, and customizing an irrigation schedule.

 X Financial rebates. Customers will be offered irrigation technology and other rebates from the LCRA. Windermere Oaks WSC will assist LCRA with promoting water conservation programs to its customers.

 NA Hotels will be strongly encouraged to adopt a hotel linen reuse option policy where linens are only changed out upon request during multi-night short stays.

4.5 Other Best Management Practices (note: not required by LCRA but highly encouraged. Please check all that apply.)

 X Permanent landscape watering schedule for spray irrigation. This schedule limits outdoor spray irrigation for landscapes to the following days and times:

Residential addresses ending in odd numbers: Mondays and Thursdays

Residential addresses ending with even numbers: Tuesday and Fridays

Commercial customers: Tuesdays and Thursdays

Watering times: Midnight to 7 a.m. and 10 p.m. to midnight

 X Temporary landscape watering schedule variance for new landscapes. New landscapes can be watered according to the following schedule for the first 30 days after installation.

Days 1 through 10: spray irrigation allowed every day.

Days 11 through 20: spray irrigation allowed every other day.

Days 21 through 30: spray irrigation allowed every three days.

Watering times: Midnight to 7 a.m. and 10 p.m. to midnight.

5. Wholesale Water Conservation Plans - required

Wholesale treated water customers must develop a drought contingency and a water conservation plan in accordance with LCRA Water Contract Rules. The plans must include a governing board resolution, ordinance, or other official document noting that the plan has been formally adopted by the utility. Wholesale treated water customers must include in their wholesale water supply contracts the requirement that each successive wholesale customer develop and implement a water conservation and drought contingency plan.

6. Coordination with Regional Water Planning Group - required

The service area of Windermere Oaks WSC is located within the Lower Colorado River Water Planning Area (Region K) of the State of Texas and the District has provided or will provide a copy of this water conservation plan to the regional water planning group. The plan can be sent to the LCRA, c/o Water Contracts and Conservation, P.O. Box 220, Austin, Texas 78703.

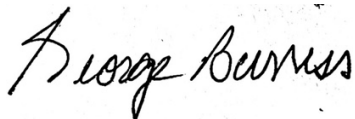
7. Authorization and Implementation

The General Manager, or his/her designee, of Windermere Oaks WSC is hereby authorized and directed to implement the applicable provisions of the Plan. The General Manager, or his/her designee, will act as Administrator of the Water Conservation Program. He/she will oversee the execution and implementation of the program and will be responsible for keeping adequate records for program verification. A signed and dated copy of this plan by the General Manager or his/her designee will be sufficient to meet this requirement.

7.1 Plan Implementation

The Windermere Oaks WSC has designated a water conservation coordinator, who will be responsible for the implementation of this water conservation plan. The current water conservation coordinator is George Burriss. The General Manager, or his/her designee may re-appoint this position. At that time, the Windermere Oaks WSC will inform LCRA about this personnel change.

Approved by: George Burriss



Date: 10.1.2021

(Customer representative with enforcement authority)

Appendix A – Historical Water Use Data – Table 1

Table 1: Monthly Water Use

Month	2016 (AcFt)	2017 (AcFt)	2018 (AcFt)	2019 (AcFt)	2020 (AcFt)	Average
January	3.74	4.19	4.71	3.86	4.54	4.21
February	3.34	4.32	3.32	3.73	4.26	3.79
March	2.71	4.29	4.04	3.22	4.61	3.77
April	2.56	4.88	5.41	4.28	4.28	4.28
May	2.91	5.72	5.25	3.93	5.02	4.57
June	3.76	5.77	6.60	4.39	5.30	5.16
July	4.54	6.37	5.89	4.87	6.42	5.62
August	4.82	5.32	6.57	5.85	9.01	6.31
September	3.62	5.31	4.92	7.14	8.03	5.80
October	3.96	4.40	3.82	6.53	6.68	5.08
November	4.19	4.65	3.42	5.53	5.80	4.72
December	3.13	3.71	3.84	4.47	4.35	3.90
Total	43.28	58.94	57.79	57.81	66.31	56.83