



**GDS Associates, Inc.**

Engineers and Consultants

**FINAL**  
**WATER CONSERVATION PLAN**

**CREEDMOOR-MAHA WATER SUPPLY  
CORPORATION  
CCN# 11029  
PWS# 2270008**

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**Prepared for:**

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## ATTACHMENTS

<b>NUMBER</b>	<b>DESCRIPTION</b>
A	WATER CONSERVATION UTILITY PROFILE (TWDB-1965)

## **1.0 INTRODUCTION**

This Water Conservation Plan has been prepared by GDS Associates, Inc. (GDS) on behalf of our client, Creedmoor-Maha Water Supply Corporation (CMWSC). The Water Conservation Plan was prepared in accordance with 31 TAC §363.15. Finally, a completed Water Conservation Utility Profile (TWDB-1965) is provided as Attachment A to this WCP. A Drought Contingency Plan has been prepared under separate cover.

## **2.0 WATER CONSERVATION PLAN**

The goal of the Water Conservation Plan is to cause a reduction in water use in response to emergency conditions so that the water availability can be preserved. Since emergency conditions can occur rapidly, responses must also be enacted quickly. This plan has been prepared in advance considering conditions that will initiate and terminate the rationing program.

A Conservation Committee consisting of two Board Members and the System Manager will monitor usage patterns, public education efforts and make recommendations to CMWSC's Board on future conservation efforts. The Conservation Committee will review and evaluate any needed amendments or major changes due to changes in CMWSC's service area population, distribution system or supply. This review and evaluation will be done on a regular basis of five years unless conditions necessitate more frequent amendments.

CMWSC has adopted the following priorities in the distribution of available water resources:

- 1) Domestic indoor water usage only for drinking, bathing, cooking, hygiene, etc.
- 2) The above (domestic indoor water usage) plus livestock, domesticated animals, and irrigated agricultural fields/tree farms.
- 3) The above plus a reasonable amount of outdoor usage, such as car washing, water house foundations, and drip or leaky pipe irrigation systems.
- 4) The above plus spray irrigation of lawns and residential yards not to exceed one-third acre.
- 5) The above plus spray irrigation of commercial properties, ball fields, parks, and residential yards exceeding one-third acre.

CMWSC has established 5 and 10 year goals for water conservation in accordance with 31 TAC §363.15(B):

**CMWSC WATER CONSERVATION PLAN  
5 AND 10 YEAR GOALS FOR WATER SAVINGS**

	<b>Historic 5 Year Average</b>	<b>Baseline</b>	<b>5 Year Goal for Year 2023</b>	<b>10 Year Goal for Year 2028</b>
Total GPCD	126	126	124	122
Residential GPCD	88	88	87	86
Water Loss (GPCD)	27	27	24	22
Water Loss (%)	21%	21%	19%	17%

Notes: GPCD = Gallons per capita per day

Historic 5 Year Average based on calendar years 2012-2016

## 2.1 METHODS FOR WATER SAVINGS GOAL IMPLEMENTATION

CMWSC has implemented the following procedures to achieve the 5 and 10 year goals listed above:

- 1) Monitor operational flushing.
- 2) Control of unaccounted for water, including:
  - a. Monitoring the distribution system through CMWSC’s SCADA system.
  - b. Annual accuracy tests of each water well meter (each of CMWSC’s production wells is metered).
- 3) Implementation of a Leak Detection System, including:
  - a. Regular visual inspections along distribution lines.
  - b. Regularly monitoring the SCADA system for changes in tank levels.
  - c. Prioritizing leak response work orders.
  - d. Incentivizing leak reports.
  - e. Notifying customers when leaks discovered by CMWSC are on the customer supply line.
- 4) Universal metering:
  - a. Production meters measure water supply.
  - b. CMWSC meters 100% of the connections to the distribution system.
  - c. CMWSC regularly replaces and/or tests meters to ensure they are accurate.

- d. CMWSC's goal is to maintain all meters within an accuracy of plus or minus 5%.
  - e. Residential meters are generally replaced after 5 years of use.
  - f. Large and compound meters are tested regularly and replaced on an as needed basis.
- 5) The record management system will track annual water use and provide information used to evaluate the implementation of conservation measures. Water sales are grouped into user classes: Single-family residential, commercial, institutional, and industrial. Monthly and annual data of water pumped, water deliveries, and water losses are used to develop an annual water audit for the distribution system.
- a. Electronic meter system software is integrated with the utility customer information and billing system.
  - b. Monthly electronic meter reports are generated and used to detect illegal connections, abandoned services, inaccuracies in billing, and meters in need of replacement.
  - c. The utility customer information and billing system provides functions such as customer support, account management, billing, and collections.
  - d. Account usage adjustments are tracked and reflected in unaccounted water loss.

## 2.2 MEASUREMENT OF PROGRESS

CMWSC will use the Alliance for Water Efficiency Conservation Tracking Tool to track and document conservation activities. The Alliance for Water Efficiency Conservation Tracking Tool provides a standardized methodology for water savings and benefit-cost accounting. It also provides a library of pre-defined conservation activities. The Tool will be used to assist CMWSC with the following:

- 1) Develop long range conservation plans and goals.
- 2) Track over time water savings, costs, and benefits of specific conservation measures.
- 3) Compare conservation measures for water savings, impact on costs, and potential benefits to the membership.

### **3.0 COMMUNITY OUTREACH/PUBLIC EDUCATION**

CMWSC will implement Community Outreach and Public Education programs. These programs will raise awareness of water supply resources, water supply availability, treatment, and distribution issues. Information will be provided on efficient use of the water supply, methods to reduce wasteful water use, and how conservation is important for managing the water for everyone's future.

CMWSC may use the following methods to communicate and educate the public:

- 1) Presentations to community and civic organizations, businesses, and HOAs.
- 2) Water efficiency classes at CMWSC.
- 3) Public information program utilizing social media.
- 4) Billing inserts for specific water conservation events.
- 5) A Quarterly Newsletter highlighting seasonal water conservation, new technology, and water industry issues and current events.
- 6) Messaging through CMWSC's website, including drought status; present level of water restrictions; seasonal messaging; EPA Water Sense program materials promoting water efficiency; and Best Management Practices for indoor and outdoor water usage.

### **4.0 LANDSCAPE CONSERVATION**

CMWSC will provide literature for members on how to operate and maintain an efficient irrigation system in order to conserve water. CMWSC will also provide information on client-appropriate landscape design.

In addition, in the future CMWSC may offer landscape irrigation audits. All audits will be performed by a Texas licensed irrigator. Site conditions, system improvements, and a seasonal irrigation schedule will be provided to audited members. The schedule shows the water savings utilizing the new water efficient schedule.

CMWSC will track progress in landscape conservations by measuring the difference between seasonal water uses from year to year. Effectiveness will take into consideration weather conditions.

## **5.0 CMWSC RATE STRUCTURE**

CMWSC has and will maintain non-promotional cost-based water rates which do not encourage excessive use of water. Also, as discussed in their Tariff, CMWSC can assess penalties for violations of water conservation practices.

ATTACHMENT A  
WATER CONSERVATION UTILITY PROFILE (TWDB-1965)