



**MUNICIPAL WATER
CONSERVATION PLAN
FOR
DOUGLAS Co.
RWD No. 6**



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INTRODUCTION

The primary objectives of the Water Conservation Plan for Douglas Co. RWD #6 are to develop long-term water conservation plans (Long-Term Water Use Efficiency Section) and short-term water emergency plans (Drought Response Section) to assure the District customers of an adequate water supply to meet their needs. The efficient use of water also has the beneficial effect of limiting or postponing water distribution system expansion and thus limiting or postponing the resultant increases in costs, in addition to conserving the limited water resources of the State of Kansas.

Douglas Co. RWD #6 has undertaken a number of steps to ensure a dependable water supply for our customers during the past 42 years. The water supply for our District is supplied through a Consecutive Connection (CC) from the City of Lawrence. Douglas Co. RWD #6 believes that our Municipal Water Conservation Plan represents an additional major step in ensuring our customers of a dependable water supply in future years.

LONG-TERM WATER USE EFFICIENCY

Water Use Conservation Goals

Douglas Co. RWD #6 used 81 gallons per person per day (GPCD) in 2017. This GPCD figure included:

Water sold to residential/commercial customers;
Water distributed for free public services (volunteer fire department, township etc.); and
Water lost by leaks in the water distribution system.

However, the GPCD figure does not include municipally supplied water for industries that use over 200,000 gallons per year. According to the publication Municipal Water Use in Kansas, 2017, our District is located in Region 8M. From this publication it was determined that our District GPCD water use was 81, which was 2 percent below the regional average of 83 GPCD among public water suppliers in Region 8M during 2017. The District desires to set a water use conservation goal for usage not to exceed 85.8 GPCD based on the regional average from 2013-2017. Our District anticipates not exceeding this goal by carrying out the specific actions that are outlined in our plan.

Water Conservation Practices

This subsection of the plan summarizes the current education, management and regulation efforts that relate to the long-term conservation of water in the District. Specific practices that will be undertaken to conserve water are listed and a target date to begin each practice is also shown.

Education

The District water bills show the total gallons of water used during the billing period and the amount of the bill. Water conservation tips are normally provided on the district website.

The District has chosen the following conservation practices and target dates for the Education Component of the Long-Term Water Use Efficiency Section of our Water Conservation Plan.

Education Conservation Practices to be Taken	Target Date
1. Water bills will show the amount of water used in gallons and the cost of the water.	January 2023

Management

Douglas Co. RWD #6 has water meters on all water supplies and water pumped to the distribution system. Any new supply will have an individual meter on each source of supply. These meters read in 5-minute intervals over the existing Verizon Cellular Network directly to the Microsoft Cloud Azure and are available for analysis daily.

Water meters were installed for all residential/commercial customers by December 13, 1979; however, the amount of water provided free of charge to the Lecompton Volunteer Fire Department, Douglas County Fire District 1 and Lecompton Township, Douglas County, Kansas is not metered. Customer meters are monitored daily and monthly from an Exceptional Usage Report for an accuracy check and possible repair or replacement is made.

Douglas Co. RWD #6 reads each customer's water meter and mails a monthly water bill to each customer. Customer water meters are generally read approximately the 4th week of the month; however, the reading sometimes deviates from the scheduled time period if read manually.

Water leaks from the District public water distribution system are repaired when located by District Personnel or when customers report significant leaks from the water mains. Water pressure is not checked unless customers complain that their water pressure is too low.

The water rate structure for the District was passed on 7/15/2021. Water is charged at a rate of \$4.63 per 1,000 gallons. The monthly base charge for residential and agricultural patrons is \$26.00. Commercial and Industrial base rate varies based on their volume.

Douglas Co. RWD #6 realizes that much greater emphasis must be placed on obtaining accurate measurement of water use at our source and at customer meters and that a water use records system must be developed that can be used to more effectively and efficiently manage the District public water distribution system. For that reason, Douglas Co. RWD #6 has chosen the following conservation practices and target dates for the Management component of the Long-Term Water Use Efficiency Section of our Water Conservation Plan.

Management Conservation Practices to be Taken	Target Date
1. A water utility will implement a water management review, which will result in a specified change in water management practices or implementation of a leak detection and repair program or plan, whenever the amount of unsold water (amount of water provided free for public service, used for treatment purposes, water loss, etc.) exceeds 20 percent of the total source water for a four month time period.	January 2023
2. Water sales will be based on the amount of water used.	January 2023

3. A water rate structure designed to curb excessive use of water will be evaluated.	January 2023
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Regulation

Douglas Co. RWD #6 has an Emergency Water Supply Plan pursuant to the requirements of K.A.R. 28-15-18 published 3/31/2020. The Emergency Water Supply Plan is available for patrons to review on our website.

DROUGHT RESPONSE

Douglas Co. RWD #6 addresses its short-term water shortage problems through a series of stages based on conditions of supply and demand with accompanying triggers, goals and actions. Each stage is more stringent in water use than the previous stage since water supply conditions are more deteriorated. The Board of Directors of the District, or, if authorized by the Board, the District Manager shall implement the appropriate conservation measures.

Stage 1: Water Watch

Goals

The goals of Stage 1: Water Watch are to heighten awareness of the public on water conditions and to maintain the integrity of the water supply system.

Triggers

This stage is triggered by any one of the following conditions:

1. A component of the water system becomes contaminated;
2. Our supply system is experiencing difficulty in delivering water through a major water system component, such as the water tower, pumping system, transmission pipeline, or water treatment facility to meet the water supply demands;
3. Our supplier's storage falls below 85 percent capacity or has difficulty recovering overnight due to demands;
4. The Kansas Water Office has issued a Stage 1 Water Watch based on the remaining water marketing storage in Clinton Lake Reservoir;

Education Actions

1. Water-saving tips are included on the Districts website rwd6.org.
2. Water saving tips will be posted in the annual newsletter.
3. Notice will be posted on monthly statement.

Management Actions

1. Leaks will be repaired when detected.
2. The District will monitor its use of water and will curtail activities such as hydrant flushing.
3. High use patrons will be requested a voluntary decrease in usage.

Regulation Actions

The public will be asked to curtail some outdoor water use and to make efficient use of indoor water, i.e. wash full loads, take short showers, don't let faucets run, etc.

Stage 2: Water Warning

Goals

The goals of Stage 2: Water Warning are to reduce peak demands by 70 percent and to reduce overall weekly consumption by 10 percent as warranted or if required by the Kansas Water Office

Triggers

This stage is triggered by any one of the following conditions:

1. Our supplier's storage falls below 70 percent capacity or has difficulty recovering overnight due to demands;
2. Lake or reservoir elevation is 5 feet below normal seasonal level;
3. Water is 1 foot below the dam;
4. Demand for all or part of the delivery system equals or exceeds delivery capacity because delivery capacity is inadequate;
5. The Kansas Water Office has issued a Stage 2 Water Warning based on the remaining water marketing storage in a water marketing lake

Education Actions

1. Water conservation articles will be provided on the website.
2. Water-saving tips will be on billing statements to water utility customers.

Management Actions

1. The District water supplies will be monitored daily.
2. Leaks will be repaired when detected.
3. The District will curtail its water usage
4. Intakes will be adapted to operate with low flows.

Regulation Actions

1. Excess water use charges for usage of water over the amount used in the winter will be considered.
2. Waste of water will be prohibited.

Stage 3: Water Emergency

Goals

The goals of Stage 3: Water Emergency are to reduce overall weekly consumption by 20% reduction per week. If circumstances warrant or if required by the Kansas Water Office can suggest a goal of greater water use reduction.

Triggers:

This stage is triggered by any one of the following conditions:

1. The District's storage has fallen below 50 percent capacity;
2. Our supplier's storage falls below 50 percent capacity or has difficulty recovering overnight due to demands;
3. Lake or reservoir elevation is 7 feet below normal seasonal level;
4. Water is 2 feet below the dam;
5. Demand for all or part of the delivery system exceeds delivery capacity because delivery capacity is inadequate.
6. The Kansas Water Office has issued a Stage 3 Water Emergency based on the remaining water marketing storage in a water marketing lake;
7. Emergency conditions related to repairs or water quality.

Education Actions

1. The District water supplies are monitored daily on the WaterScope App <https://www.waterscope.us/>.
2. The District will distribute the annual Consumer Confidence Report by July 1 of each year as required by Kansas Department of Health and Environment.
3. Leaks will be repaired when detected.
4. The District will curtail its water usage
5. Governors order proclaiming drought executive order will be posted on the website
6. The District will hold public annual meetings and discuss the status of the District water supplies.

Management Actions

1. Leaks will be repaired within 24 hours of detection depending on the availability of a private contractor.
2. The District will seek additional emergency supplies from other users, the state or the federal government as needed.

Regulation Actions

1. Waste of water will be discouraged.

PLAN REVISION, MONITORING & EVALUATION

Douglas Co. RWD #6 will establish a management practice of reviewing monthly totals for water production, residential/commercial sales, water provided free-of-charge, and "unaccounted for water". Problems noted during the monthly review will be solved as soon as possible.

Douglas Co. RWD #6 Municipal Water Conservation Plan will be reviewed during the month of April each year and on a more frequent basis during drought or other water shortage conditions. If the water conservation GPCD goals for the previous year are not met, then the District will review the data collected from the previous year in relationship to the status and effectiveness of the conservation practices that are outlined in our plan and will provide a status report to the Kansas Department of Agriculture, Division of Water Resources, which will also include any additional water conservation practices that may need to be taken in order for the District to achieve and maintain its water use conservation GPCD goals.

Ed Doniet

District Manager-Print

Ed Doniet

District Manager-Signature

Jnette Funk

District Clerk-Signature

12/21/2021

Date