

# **Municipal Water Conservation Plan**



**Rural Water District No. 2, Sedgwick County**

**July 18, 2024**

**Municipal Water Conservation Plan  
For Rural Water District No. 2, Sedgwick County**

**TABLE OF CONTENTS**

**INTRODUCTION ..... 3**

**LONG TERM WATER USE EFFICIENCY .....3-6**

    Water Use Conservation Goals ..... 3

    Water Conservation Practices ..... 4

        Education ..... 4

        Management ..... 4

        Regulation ..... 6

**DROUGHT RESPONSE .....7-9**

    Stage 1: Water Watch..... 7

    Stage 2: Water Warning..... 8

    Stage 3: Water Emergency..... 9

**PLAN REVISION, MONITORING AND EVALUATION ..... 10**

## INTRODUCTION

The primary objectives of the Water Conservation Plan for Rural Water District No. 2, Sedgwick County (Sedgwick RWD 2) 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.

Sedgwick RWD 2 has undertaken a number of steps to ensure a dependable water supply for its customers during the past 51 years. The water supply for the District is obtained from the City of Valley Center. A booster pump station delivers water into the system that is stored in a 150,000-gallon elevated storage tank. In 2024, the District applied for funding to install a 6-inch pipeline with a length of 5 miles. This is being done to improve water pressure and to serve more customers in the northeast part of the District. The District has a stable water supply and the distribution and water storage system have ample capacity to meet current customer demands and future projected demands for several years, except possibly during extreme drought periods. Sedgwick RWD 2 believes that this latest version of the Municipal Water Conservation Plan represents a significant continuing effort to ensure its customers of a dependable water supply in future years.

## LONG-TERM WATER USE EFFICIENCY

### Water Use Conservation Goals

Sedgwick Co. RWD No. 2 used 69 gallons per person per day (GPCD) in 2017. This GPCD figure included:

- Water sold to residential/commercial customers
- Water distributed for free services (i.e., parks, cemeteries, swimming pools, etc.)
- 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, the District is located in Region 7M. From this publication it was determined that the District GPCD water use was 69, which was 25 percent below the regional average of 92 GPCD among public water suppliers in Region 7M during 2017. The District desires to set a water use conservation goal for usage not to exceed 80 GPCD based on their significantly lower-than average of 76 GPCD for the five year period of 2013 to 2017. The District anticipates not exceeding this goal by carrying out the specific actions that are outlined in this 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 not normally provided with the water bills. The District has not provided information on water conservation to the local news media on a regular basis and has not encouraged the Board of Education and teachers to become involved in water conservation presentations in schools.

The District has chosen the following conservation practices and target dates for the Education Component of the Long-Term Water Use Efficiency Section of the 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.	Implemented.
2. The Water Conservation Plan will be posted to the District web site at <a href="https://www.sedgwickrwd2.com/water-conservation">https://www.sedgwickrwd2.com/water-conservation</a> .	December, 2024.
3. The Kansas map of the U.S. Drought Monitor will be added to the web site and the latest weekly map will be displayed in the office when drought conditions exist in Sedgwick County.	December, 2024.
4. Customers will be encouraged to participate in the Community Collaborative Rainfall, Hail and Snow Network with information on the web site and with a poster displayed in the office.	December, 2024.

**Management**

Sedgwick RWD 2 has water meters on all the water supply connections to the distribution system. Any new supply will have an individual meter installed to measure water the water purchased. This meter for the Valley Center connection is read monthly by the supplier.

Water meters were installed for all customers when the water system was constructed. Water (metered) is provided free of charge to Park Cemetery in Sunnysdale Township. Customer meters are scheduled for an accuracy check and possible repair or replacement upon receiving a request to do so from the customer.

Since 2013, Sedgwick RWD 2 has used remote-read customer water meters. These meters are read on or near the 15<sup>th</sup> of the month. The District mails a water bill to each customer on or near the 30<sup>th</sup> of the month, with payment due by the following 15<sup>th</sup>.

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

The latest water rate structure for the District became effective on two dates: April 1, 2023, and April 1, 2024. In 2023, the Minimum monthly Base charge was set at \$25.00 for original benefit units and \$41.00 for non-original benefit units. The Unit Charge in 2023 was \$13.50 per 1,000 gallons for (Tier 1) customers and \$20.01 per 1,000 gallons for (Tier 2) customers. The Unit Charge was updated in 2024 to \$16.33 per 1,000 gallons for (Tier 1) customers and \$24.21 per 1,000 gallons for (Tier 2) customers.

Sedgwick RWD 2 realizes that great emphasis must remain in place on obtaining accurate measurement of water use at the wholesale connection and at customer meters and that the water use records system must be maintained to effectively and efficiently manage the District public water supply system. For that reason, Sedgwick RWD 2 has chosen the following conservation practices and target dates for the Management component of the Long-Term Water Use Efficiency Section of the Water Conservation Plan.

Management Conservation Practices to be Taken	Target Date
1. All wholesale water connections will have meters installed and the meters will be repaired or replaced within two weeks when malfunctions occur.	Implemented.
2. Meters for wholesale water connections will be tested for accuracy at least once every three years. Each meter will be repaired or replaced if its test measurements are not within industry standards (such as AWWA standards).	Implemented.
3. Meters will be installed at all service connections	Implemented.
4. All wholesale supply meters will be read at least monthly and meters at individual service connections will be read at least monthly.	Implemented.
5. A reading will be taken at each wholesale water meter at the same time that meters for individual service connections are read.	Implemented.
6. The 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 unaccounted for water (UFW) (amount of unmetered 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.	Implemented.
7. Water sales will be based on the amount of water used.	Implemented.
8. A water rate structure designed to curb excessive use of water will be evaluated.	Implemented.

## **Regulation**

Sedgwick RWD 2 does not have any water conservation regulations in effect at the present time. Because of the ability to supply water during normal periods, regulatory controls on water use are included only in the Drought Response section of this plan and water drought/emergency resolution where they constitute the primary means for conserving water during a supply shortage.

Sedgwick County has a residential building code and a plumbing code that require the use of efficient water fixtures in new construction and remodeling projects. These codes also authorize and encourage the use of (extra) high efficiency water fixtures in these applications.

## **DROUGHT RESPONSE**

Rural Water District No. 2, Sedgwick County 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 this stage 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. The District's storage has fallen below 85 percent capacity, and will not recover.
2. Demand for one day is in excess of 309,000 gallons per day.
3. The provider of purchased water has issued a Stage 1 Water Watch.

#### **Education Actions**

1. The District will make occasional news releases to the local media describing present conditions and indicating the water supply outlook for the upcoming season.
2. Previous months summaries of precipitation, temperature, water levels and storage will be made public at the beginning of each month.
3. Water-saving tips will be included in billings to water utility customers.

#### **Management Actions**

1. Leaks will be repaired within 48 hours of detection.
2. The District will monitor its use of water and will curtail activities such as hydrant flushing.

#### **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, do not let faucets run, etc.

## **Stage 2: Water Warning**

### **Goals**

The goals of this stage are to reduce peak demands by 20 percent and to reduce overall weekly consumption by 10 percent.

### **Triggers**

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

1. The District's storage has fallen below 70 percent capacity, and will not recover.
2. Demand for one day is in excess of 336,000 gallons per day.
3. Provider of purchased water has issued a Stage 2 Water Warning.

### **Education Actions**

1. The District will make weekly news releases to the local media describing present conditions and indicating the water supply outlook for the upcoming week.
2. Previous week summaries of precipitation, temperature, water levels and storage will be made public each week.
3. Water conservation articles will be provided to the local newspaper.
4. Water-saving tips will be included in billings to water utility customers.

### **Management Actions**

1. The District water supplies will be monitored daily.
2. Leaks will be repaired within 24 hours of detection.
3. The District will curtail its water usage, including hydrant flushing and washing of vehicles.

### **Regulation Actions**

1. An odd/even lawn watering system will be imposed on District customers. Customers with odd-numbered addresses will water on odd days; even addresses will water on even days.
2. Outdoor water use, including lawn watering and car washing will be restricted to before 10:00 am and after 9:00 pm.
3. Golf courses will restrict watering to tees and greens after sunset.
4. Replenishing of swimming pools will be allowed one day a week after sunset.
5. Outdoor watering will be restricted to use of a hand-held hose or bucket only.
6. Excess water use charges for usage of water over the amount used in the winter will be considered.
7. Waste of water will be prohibited.



## **Stage 3: Water Emergency**

### **Goals**

The goals of this stage are to reduce peak demands by 50 percent and to reduce overall weekly consumption by 25 percent.

### **Triggers:**

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

1. The District's storage has fallen below 50 percent capacity.
2. Demand for one day is in excess of 362,000 gallons per day.
3. Provider of purchased water has issued a Stage 3 Water Emergency.
4. Emergency conditions related to repairs or water quality.

### **Education Actions**

1. The District will make daily news releases to the local media describing present conditions and indicating the water supply outlook for the next day.
2. Previous days summaries of precipitation, temperature, water levels and storage will be made public each day.
3. The District will hold public meetings to discuss the emergency, the status of the District water supply and further actions, which need to be taken.

### **Management Actions**

1. The District water supplies will be monitored daily.
2. Leaks will be repaired within 24 hours of detection.
3. The District will seek additional emergency supplies from other users, the state or the federal government.

### **Regulation Actions**

1. Outdoor water use will be banned.
2. Waste of water will be prohibited.

## PLAN REVISION, MONITORING & EVALUATION

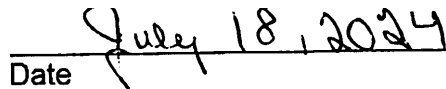
Rural Water District No. 2, Sedgwick County will establish a management practice of reviewing monthly totals for water production, residential/commercial sales, water provided free-of-charge, and "unaccounted for water". Problems noted during the monthly review will be solved as soon as possible.

Sedgwick RWD 2's 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 the 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.

David N. Studebaker

  
District Chairman - Signature

  
District Secretary - Signature

  
Date