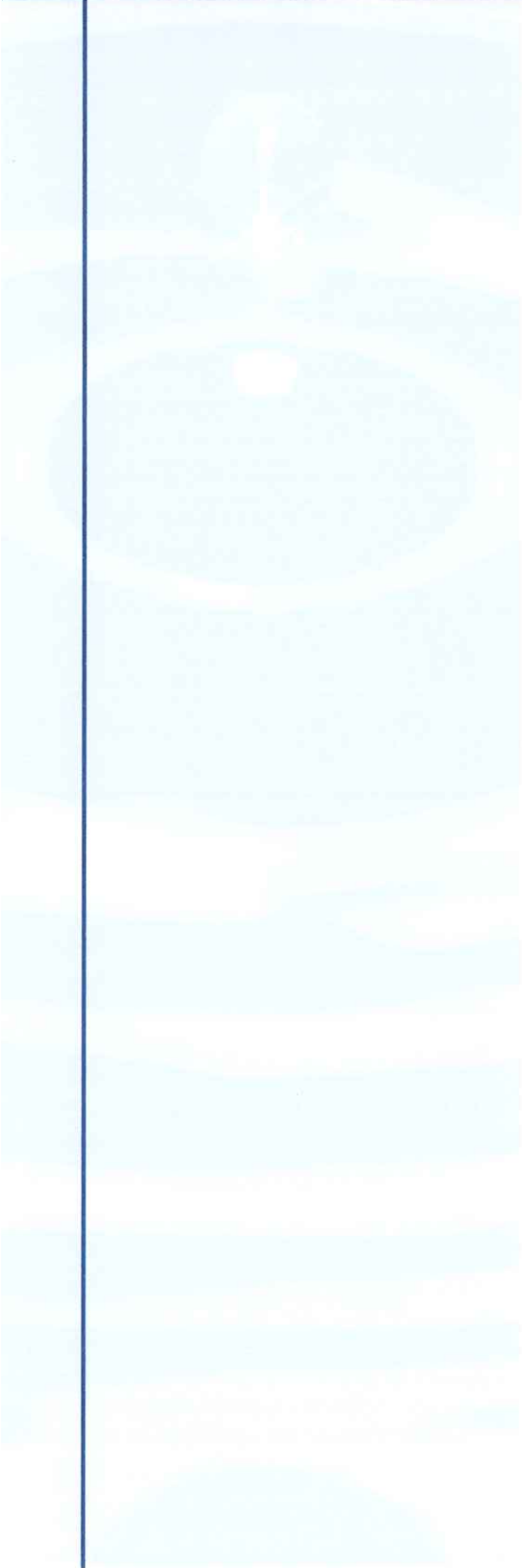




**MUNICIPAL WATER
CONSERVATION PLAN
FOR THE
CITY OF
HERINGTON**



Municipal Water Conservation Plan For the City of Herington

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INTRODUCTION

The primary objectives of the Water Conservation Plan for the City of Herington 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 City 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.

The City of Herington has undertaken a number of steps to ensure a dependable water supply for our customers during the past 25 years. The original water supply for our City was obtained a lake built in 1923 along with a treatment plant. Construction of a new water treatment plant was completed in 1971 and a 546-acre water supply reservoir was constructed in 1981. The original lake can still be used as a backup source. In 1992 the city of Hope was added as a wholesale customer and the city of Woodbine was added in 1996. In 2006 the city extended a water line to serve Latimer and the Tri-County Airport; A new 75,000 gallons elevated tank was also constructed at the Airport. Treated water storage facilities consist of one 500,000 gallon underground reservoir, one 300,000 gallon elevated tank and one 75,000 elevated tank. Our City water supply and distribution system have ample capacity to meet current customer demands and future projected demands for several years, except during drought periods. The City of Herington 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

The City of Herington used 129 gallons per person per day (GPCD) in 2010. This GPCD figure included:

Water sold to residential/commercial customers;
Water distributed for free public services (parks, cemeteries, swimming pools 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 Figure 1, shown in the 2010 Kansas Municipal Water Use Publication, our City is located in Region 7. From this publication it was determined that our City GPCD water use was 129, which was 32 percent above the regional average of 98 GPCD among cities in Region 7 during 2010. The City desires to set a water use conservation goal for usage not to exceed 99 GPCD based on the regional average of the last five years (2006-2010). Our City 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 City. Specific practices that will be undertaken to conserve water are listed and a target date to begin each practice is also shown.

Education

The City water bills show the total number of 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 City 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 City 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.

<i>Education Conservation Practices to be Taken</i>	<i>Target Date</i>
1. Water bills will show the amount of water used in hundreds of gallons and the cost of the water.	Implemented
2. The Board of Education and teachers will be encouraged to become involved in water conservation through classroom lectures and incentives for children to conduct home checks.	August 2014
3. Make available information on water conserving landscape practices through publications, local news media, seminars or other appropriate means.	April 2014

Management

The City of Herington 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 are read daily.

Water meters were installed for all residential/commercial customers. All schools are metered and billed monthly. All city buildings are metered but this water is provided free of charge. In 1992 all meters have been replaced with touch read meters with a guaranteed accuracy for ten years. Meters are checked upon receiving a request to do so from the customer or are replaced when they quit operating.

The City of Herington reads each customer's water meter and mails a monthly water bill to each customer every month. Customer water meters are generally read the third and fourth week of the month; however, the meter reader sometimes deviates from the scheduled time period.

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

The water rate structure for the City was passed on January 1, 2013. The minimum monthly water bill is \$18.75 for residential customers, which allows each customer to use up to 2,000 gallons of water each month. Water use in excess of 2,000 gallons is charged \$4.21 per 1,000 gallons. Outside bulk water sales is charged a minimum of \$10.00 for the first 1,000 gallons and \$10.00 for each additional 1,000 gallons.

The City of Herington 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 City public water distribution system. For that reason, the City of Herington 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. All source water will have meters installed and the meters will be repaired or replaced within two weeks when malfunctions occur.	Implemented
2. Meters for source water 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 residential service connections and at all other service connections whose annual water use may exceed 300,000 gallons, including separate meters for municipally operated irrigation systems which irrigate more than one acre of turf.	Implemented
4. Meters at each individual service connection will be replaced or tested for accuracy on a regular basis, per industry standards (such as AWWA standards), if they are one inch or less. Meters between one inch and six inches will be tested for accuracy at least once every five years and meters six inches and above will be tested on at least an annual basis. Each meter will be repaired or replaced if its test measurements are not within industry standards (such as AWWA standards).	August 2013
5. All meters for source water will be read at least on a monthly basis and meters at individual service connections will be read at least once every two months.	Implemented
6. A reading will be taken at each source water meter at the same time that meters for individual service connections are read.	Implemented
7. 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.	Implemented
8. Water sales will be based on the amount of water used.	Implemented
9. A water rate structure designed to curb excessive use of water will be evaluated.	Implemented

Regulation

The City of Herington does not have any water conservation regulations in effect at the present time. Because of our 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 ordinance where they constitute the primary means for conserving water during a supply shortage.

Herington has adopted the National Plumbing Code. New homes and/or remodeling projects are required to include the use of water conservation toilets and faucets.

Regulation Actions to be Taken	Target Date
1. All new or renovated construction will install toilets that use 1.6 gallons per flush or less and low flow showerheads that use 2.5 gallons per minute or less.	Implemented

DROUGHT RESPONSE

The City of Herington 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 City Manager is authorized by ordinance to 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 City's storage has fallen below 85 percent capacity, and will not recover;
2. Demand for one day is in excess of 670,000 gallons per day;
3. The first intake screen is showing.

Education Actions

1. The City 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. The City water supplies will be monitored daily.
2. Leaks will be repaired within 48 hours of detection.
3. The City 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, don't let faucets run, etc.

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 City's storage has fallen below 50 percent capacity;
2. Treatment plant operations are at 90 percent capacity or more for three consecutive days;
3. Demand for one day is in excess of 810,000 gallons per day;
4. The second intake screen is out of the water.
5. Emergency conditions related to repairs or water quality.

Education Actions

1. The City 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 City will hold public meetings to discuss the emergency, the status of the City water supply and further actions, which need to be taken.

Management Actions

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

Regulation Actions

These regulation actions apply to City residents.

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

PLAN REVISION, MONITORING & EVALUATION

The City of Herington will establish a monthly 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.

The City of Herington 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 City 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 DWR which will also include any additional water conservation practices that may need to be taken in order for the city to achieve and maintain its water use conservation GPCD goals.