

# **WATER CONSERVATION PLAN FOR MIDWAY CITY, UTAH**

December 9, 2015

Prepared by

**HORROCKS**  
  
E N G I N E E R S

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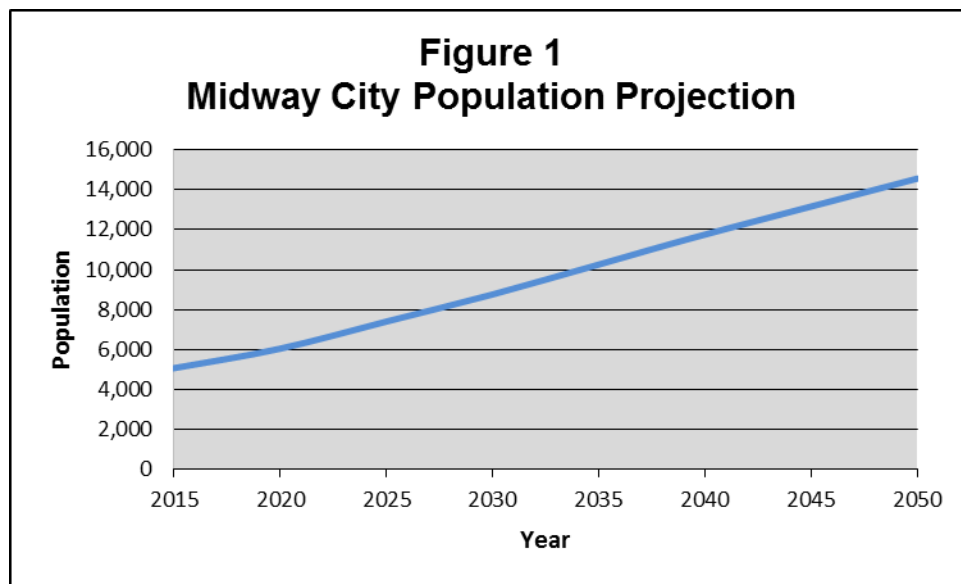
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## INTRODUCTION

Midway City is rapidly growing and the leaders and citizens of Midway City are concerned about the effects this growth may have on their agricultural community. One effect from growth is the increased need for culinary water. Midway City citizens and leaders are planning for future water conservation measures in response to state legislative Water Conservation Plan Act (73-10-32, UCA). This water conservation plan is written to help our citizens and leaders of both Midway City and the state of Utah reduce water consumption.

## DESCRIPTION OF MIDWAY CITY

Midway is a rural community nestled on the eastern side of the Wasatch Mountains in Wasatch County. The beautiful location and resort atmosphere of Midway make it a desirable location to live. With a current population of approximately 5,063, by the year 2050 the population of Midway is projected to be approximately 14,571. Figure 1 is a graphical representation of the population growth.



With the rural atmosphere of Midway, much of the city is open space with large grass areas and water intensive landscapes are typical of the community. The combination of a growing population in a rural based community consequently increases expected demands on the water distribution system. Providing water to meet these needs is a priority of city leaders and planners. Currently the culinary water system provides water to 1,943 residential, 43 commercial, 8 institutional, and 5 agriculture connections.

Secondary irrigation water is also used throughout Midway City. This water is currently provided to users by pressurized irrigation and open ditches. Midway City currently requires new developments to connect to the pressurized irrigation. This secondary

irrigation system provides irrigation quality water to the public and private landscaped areas. This water is not currently metered.

**Inventory of Water Resources**

Table 1 shows the City’s current approved water supply sources. The current water supply system consists of three springs and one well. The indoor base flow is currently provided by the springs.

<b>Table 1: Midway City's Water Source</b>			
<b>Water Supply Source</b>	<b>Irrigation Flow Rate Capacity (gpm)</b>	<b>Culinary Flow Rate Capacity (gpm)</b>	<b>Total Flow Rate Capacity (gpm)</b>
Mahogany Spring	750	897	1,647
Gerber Spring	700	500	1,200
Alphenof Well	0	150	150
Indian Spring	0	50	50
<b>Total</b>	<b>1,450</b>	<b>1,597</b>	<b>3,047</b>

Note: Numbers are subject to change based on agreements between Midway Irrigation Company and Midway City

**Water Budgets**

Table 2 shows the amount of culinary water delivered to the culinary water system. The metered outflow to end-users from 2009 through 2014 is also shown. Data for previous years is not currently available.

<b>Table 2: Midway City's Water Budget</b>			
<b>Year</b>	<b>Inflow (kgal) Total</b>	<b>Outflow (kgal) Total</b>	<b>% Diff.</b>
2014	295,029	293,961	-0.36%
2013	1,632,892	276,122	-83.09%
2012	326,579	300,161	-8.09%
2011	321,692	251,893	-21.70%
2010	395,789	233,868	-40.91%
2009	417,997	328,606	-21.39%

Average losses from the culinary water system in the several years are ranging from 83.09% for 2013 to 0.36% in 2014. The inflow numbers are not understood, with such a wide range of water losses from year to year. There appears to be a problem with reading/recording of accurate meter inflow readings. Part of this conservation plan’s goals will be to analyze and implement an improved system for reading/recording water inflow readings to provide a more accurate record of water inflow.

Typical water losses for a municipality are between 15% and 25%. We will therefore assume a loss of 20%, over the metered outflow use, for our system to base our goals upon. For 2014 the total inflow is assumed to be  $293,961 \times 1.2 = 352,753$  kgal (loss of 20%).

### **Culinary Water Use**

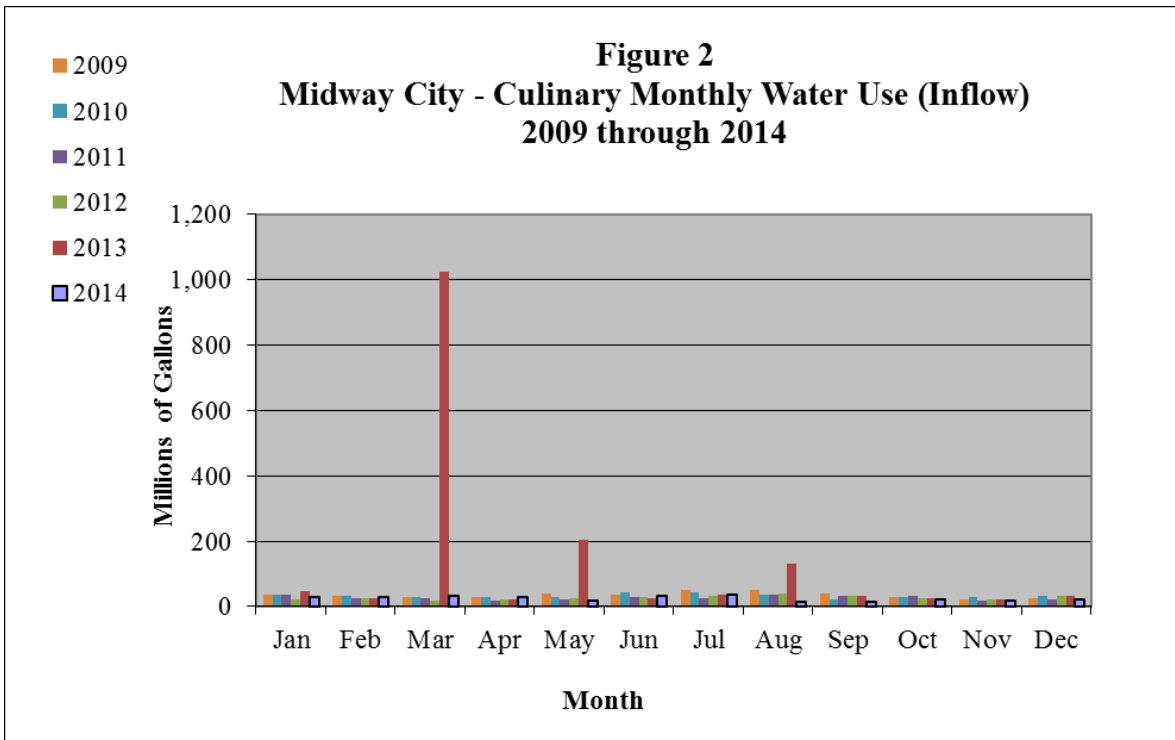
Midway City is located in a semi-arid region. In the hot summer months, a large demand is placed on the culinary water system.

Monthly culinary water inflow in 2014 is depicted by Figure 2 below. This water use is derived from the total amount of metered water entering the culinary system from Midway City's three springs and one well. Two explanations account for a portion of Midway City's water loss.

First, in the winter months, heavy snow and/or wind intermittently interferes with the power for the City's scada system at the Alpenhof tank. The tank level reading is affected when the power goes out. Water will overflow the tank and bypass the culinary waterlines. The water is metered as it enters the tanks prior to the tank overflow. Thereby, some water is being accounted for which is actually flowing out of the tank's overflow.

Second, a large portion of the older waterlines which were installed in the "old part of town" were installed at a shallow depth of two to three feet. The shallow depth leaves many lines susceptible to freezing. To eliminate the lines from freezing selected flush valves at the end of lines are left partially open. In select areas of Midway City, residents are also encouraged to leave water running in homes to reduce water line freezes. There again, water is being metered at the source which is actually flowing through flush valves, and water is being metered at the point of delivery which is being used to reduce water freezes.

Figure 2 shows a slight increase in January which could be due to the combination of the tank overflow, and the partially opened flush valves, and residents leaving water running. This water amount is used to calculate the total per capita culinary water use for Midway City which includes use from residential, commercial, institutional, and industrial categories. The residential per capita culinary water use is calculated from the outflow water use data, and does not include losses. All losses are categorized under commercial use.



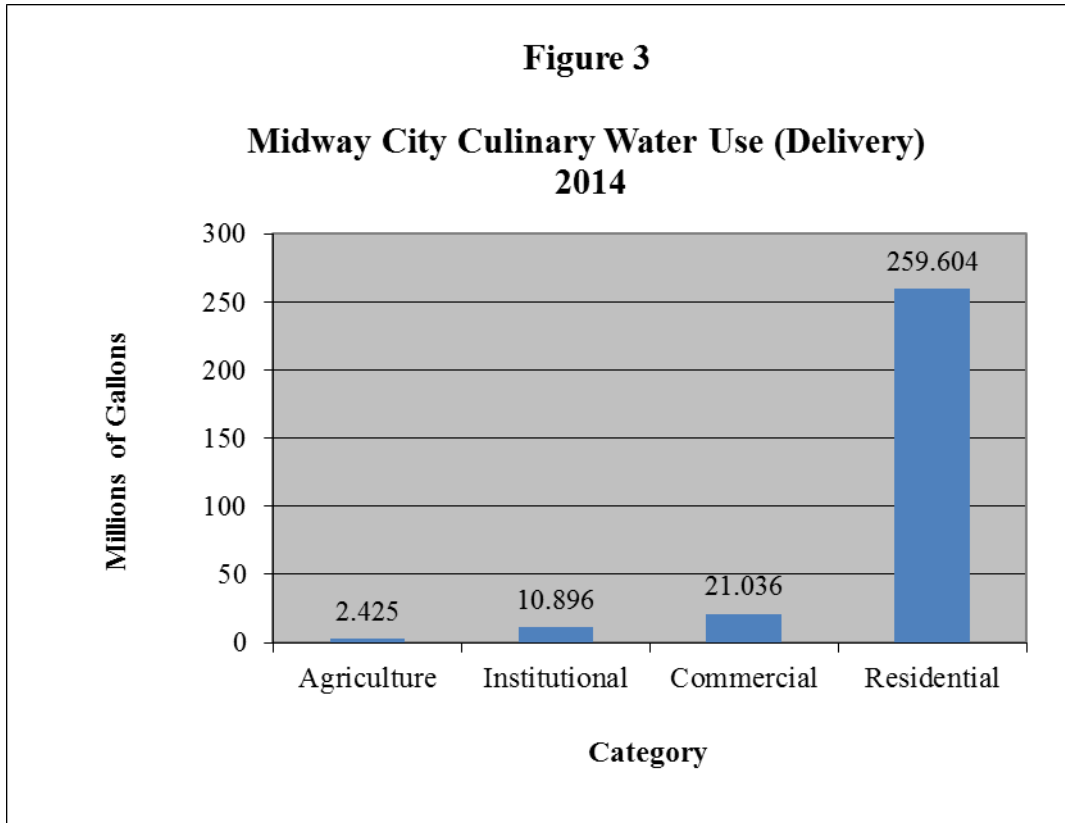
Due to numerous leaks and un-metered connections, the per capital culinary water use is an approximation and is comparatively high. When all uses of culinary grade water are compared with the number of residents in the city, Midway citizens used 191 gallons of water per capita per day (gpcd). This number is derived by using the total amount of water entering the culinary system in 2014, 352,753 Kgal, and the average number of Midway City residents at the end of 2014 (5,063 people). Therefore, the 191 gpcd usage includes water losses and probable tank overflow that never reaches the user. This is compared to the statewide average of 185 gpcd.

When just residential water use only is considered, Midway citizens used 140 gallons of water per capita per day (gpcd). This number is derived by using the metered water used for residential connections in 2014, 259,604 Kgallons, and the average number of Midway City residents at the end of 2014 (5,063 people). This number is compared to the statewide average of 127 gpcd.

Approximately one third of the Midway households leave their water running in a faucet during the cold winter months of December, January, and February. There are approximately 1,335 total households in Midway City, and it is estimated that 445 of those households leave their water running these three months of the year. At an average rate of 0.25 gallons per minute used to prevent freezing, 360 gallons per day per household is used during this time. This equates to 14,418 Kgallons of water per year metered through the residential meters used to prevent water line freezes. If the total residential usage of 259,604 Kgallons is adjusted down for this use, the total would be 245,186 Kgallons used in 2014. The new residential water used would be 132 gpcd,

which would put Midway City closer to the statewide average residential use of 127 gpcd.

Figure 3 shows the Midway City’s 2014 culinary water use for agriculture, institutional, commercial, and residential categories. The water use in Figure 3 is water use metered at the connection.



**2050 Culinary Water Use Projections**

Midway City’s population is projected to be approximately 14,571 people by the year 2050 (*Mountain Land Association of Governments April 2012 Population Projections*). Using this population estimate and the 191 gpcd total water usage, the 2050 total culinary water usage, including losses, will be 1,015,817,265 gallons per year.

Using the 140 gpcd residential water usage, the 2050 total culinary water usage will be 744,578,100 gallons per year. The projected supply can potentially be reduced by implementing conservation programs and practices.

# WATER PROBLEMS AND CONSERVATION GOALS

## Problems Identified

Several problems of the current water conservation measure have been identified.

- The previous droughts in Utah have had some positive influence towards water conservation awareness throughout Midway City. However, there is still a need for a better understanding of landscaping water requirements and efficient water-use habits and practices. Only a small percentage of residents know how much water is required to maintain healthy landscaped areas and how to consistently use water efficiently outdoors. Some citizens' irrigation and outdoor practices are based on convenience rather than plant needs and water supply considerations.
- Some of the old existing water lines are shallow and are prone to freezing in the winter. This promotes leaving water running in homes and flush valves during the winter and causes additional leaks.
- Old existing water lines are providing inaccurate data due to age and obsolescence.
- Traditional Midway City families have landscapes with large garden areas, grass, and other water intensive landscaping. The landscapes irrigation needs usually create a water use peak in July straining the existing water delivery system and necessitates constant upgrades to the main delivery lines and reservoir capacities. The recent installation of the pressurized irrigation system is helping to relieve the strain on the culinary system; however, conservation efforts for the pressurized irrigation system are also needed.
- Currently, about 15 percent of the residents use surface irrigation to irrigate lawns and gardens, because pressurized irrigation is not available. The water is delivered to Midway Irrigation Company shareholders via a network of small ditches. This method of irrigation is very inefficient, resulting in a significant quantity of lost water. It is estimated that water losses in the delivery system are 50 percent.
- The existing connections to the pressurized irrigation are not individually metered. Some of these users may over-water landscaping because there is simply a flat fee per month for pressurized irrigation water use. Individual meters are not installed in the pressurized irrigation system due to costs.
- The water reading and recording of the inflow water usage has been inaccurate and needs to be addressed.

Each of these problems represents an opportunity for change. The opportunity exists to prepare a new generation of wise-water users who build low-water use landscaping. This can be assisted with a strong sustained water education program in the public and private schools.



Additional opportunities exist to improve other conservation problems. Landscaping along existing and future roads in the city could be more easily maintained if low water use shrubs and mulches were used instead of Kentucky Bluegrass. Methods could possibly be incorporated to decrease secondary water use to ensure sufficient water for additional users in the future. All of these measures will help reduce peak demands and the need for expensive water system upgrades.

### **Water Conservation Goals**

As part of Midway City's Water Conservation Plan, Midway City has established the following goals in pursuit of solutions to the previously identified problems:

- Goal 1: Reduce Midway City's total per capita water use, including losses, by approximately five percent in five years. The water-use rate is currently 191 gallons of culinary water per capita day (gpcd). The goal is to bring this down to 181 gpcd by 2020.
- Goal 2: Reduce Midway City's residential per capita water use, metered at home, by approximately five percent in five years. The water-use rate is currently 140 gallons of culinary water per capita day (gpcd). The goal is to bring this down to 133 gpcd by 2020.
- Goal 3: Encourage that at least 90% of outdoor irrigation be from pressurized irrigation system and eliminate as much ditch irrigation as possible. This would help to reduce the demand on the culinary water system.
- Goal 4: Maintain or improve the appearance of street landscapes, open spaces, and yards. Improved irrigation practices and water efficient landscapes can enhance the beauty of the city while helping to reduce water consumption. Midway City will continue to provide measures which encourage the use of low water-use shrubs, plants, and mulches in new developments and any existing landscape replacement projects.
- Goal 5: Analyze current system of reading/recording inflow water usage. Develop and implement an improved system for reading/recording water inflow readings to provide a more accurate record of water inflow usage in the future.

## **CURRENT WATER CONSERVATION MEASURES AND PROGRAMS**

Midway City's water conservation efforts have primarily been directed at finding and fixing leaks in the existing system, education, and instituting a pressurized irrigation system in new developments. This section briefly describes the measures that are now being implemented to help achieve the City's conservation goals. Descriptions of how Midway City is addressing each item, along with other appropriate details, are listed under the following headings. These current measures appear to be working.

*Water Preservation Ordinance*  
*Pressurized Irrigation System for Outdoor Use*  
*Leak Detection and System Maintenance*  
*Conservation Oriented Rate Structure*  
*Public Information and Education Program*

### **Water Preservation Ordinance**

Midway City currently has the following water preservation ordinance in place. Section 10.01.160, Waste Prohibited: It shall be unlawful for any water user to waste water, or allow it to be wasted, by imperfect stops, taps, valves, leaky joints or pipes, or allow tanks or water troughs to leak or overflow or to wastefully run water from hydrants, faucets, or stops or through basins, water closets, urinals, sinks, or apparatus or to use water in violation of the rules, regulations, or ordinances for controlling the City water system.

### **Pressurized Irrigation System for Outdoor Use**

Midway City recently installed a pressurized irrigation system. The purpose of this system is to both conserve culinary water and reduce water loss through irrigation ditches. A pressurized irrigation system makes another source of water available to the City to meet its public and private landscape watering demands, which in turn reduces culinary water use. Some of the existing open irrigation ditches have been recently piped to help stop infiltration and evaporation prior to converting to the pressurized system. When the pressurized irrigation system is implemented, the majority of water lost through ditch infiltration and evaporation will be conserved. All new developments are required to implement the pressurized irrigation system. In areas where pressurized irrigation is available, approximately 85% of the available outdoor irrigation connections are voluntarily utilizing the pressurized irrigation. If this number decreases, Midway City will consider requiring residences to connect to the pressurized system where it is available. In the case of a future water shortage, the plan will be to mandate watering times.

### **Leak Detection and Meter Replacement**

The City has a monitoring device which operates off sound. Its purpose is to help the City locate, repair and replace leaking waterlines.

The City has recently installed new radio read devices on all of their residential meters. This update will provide a more automated and correct read of water usage throughout the system.

### **Conservation Oriented Rate Structure**

Designing an appropriate rate schedule is a complex task. Rate design is a process of matching the costs of operating the water system to the unique economic, political and social environments in which the city provides its service. The cost of delivering the service must be evaluated and understood. Each water system has unique assets and constraints. Based on the characteristics of the system, and past capital and operating costs, revenue requirements can be estimated. City staff has estimated the cost of providing water service and proposed a rate schedule designed to cover such costs. In 2009, Midway City adopted a stepped billing rate that charges more at each stepped increase in water usage. The rates were recently increased in 2015 to encourage reduced culinary water use. The new billing rates have been structured to help generate income to also help finance the replacement of leaking lines, which will help to reduce water losses. The details of the recently updated billing schedule are shown in Table 3 below.

Connection Size (inch)	Allowable Usage (gallons)	Base Billing Rate	Tier I Overage \$3.73 per 1000 gallons	Tier II Overage \$4.67 per 1000 gallons
3/4	10,000	\$28.00	5,000	5,001
1	20,000	\$56.00	5,000	5,001
1-1/2	40,000	\$112.00	5,000	5,001
2	70,000	\$196.00	5,000	5,001
3	160,000	\$448.00	5,000	5,001
4	300,000	\$840.00	5,000	5,001
6	640,000	\$1,792.00	5,000	5,001

### **Public Information and Education Program**

Our water conservation education is aimed at enhancing the awareness and understanding of water-related problems and is based on the premise that it will influence people to voluntarily use outdoor water more efficiently and cooperate with regulatory requirements. The public information and education program currently includes bill stuffers and newspaper articles containing water awareness information. It addresses both long-term and short-term water use practices for outdoor use. The program appears to be beneficial. The following are examples of things that are presented as part of the education program.

## **Outdoor Water Use**

- Irrigate landscaping only as needed according to the types of vegetation and the specific weather patterns of your area. In general, water in the early morning or late evening hours.
- Do not water on hot, sunny, and/or windy days. You may actually end up doing more harm than good to your landscaping, as well as wasting a significant amount of water.
- A single lawn sprinkler spraying five gallons of water per minute uses 50 percent more water in just one hour than the combination of 10 toilet flushes, two five-minute showers, two dishwasher loads, and one full load of laundry.
- Sweep sidewalks and driveways instead of using the hose to clean them off.
- Wash your car from a bucket of soapy (biodegradable) water and rinse while parked on or near the grass or landscaping so that all the water running off goes to beneficial use instead of running down the gutter to waste.
- Check for and repair leaks in all pipes, hoses, faucets, couplings, valves, etc. Verify there are no leaks by turning everything off and checking your water meter to see if it is still running. Areas with drip systems will use much less water, particularly during hot, dry and windy conditions.
- Keep your lawn well-trimmed and all other landscaped areas free of weeds to reduce overall water needs of your yard.
- Install water saturation sensors which turn outdoor sprinklers on based on need, and will automatically shut off water during rain events.

## **FUTURE WATER CONSERVATION OPTIONS**

In addition to the current water conservation measures and programs being implemented. Midway City may consider some of the options listed below to further enhance its water conservation efforts and to help meet the goals set forth above.

*Public Information and Education Program*

*Establish a Water Conservation Committee*

*Promote Water Efficient Landscaping*

*Secondary Irrigation Water Conservation*

*Peak Use Reduction*

*Retrofit Devices*

*In Home Leak Detection and Water Use Management Assistance*

*Shortage Management*

### **Public Information and Education Program**

Midway City currently educates the public concerning outdoor water conservation. Indoor water conservation is also an important part of controlling culinary water use. The following are examples of things that could be presented as additions to our current public information and education program.

#### **Indoor Water Use**

About two thirds of the total water used in a household is used in the bathroom. Concentrate on reducing your bathroom use. Following are suggestions for this specific area:

- Do not use your toilet as a wastebasket. Put all tissues, wrappers, diapers, etc. in the trash can.
- Check the toilet for leaks. Is the water level too high? Put a few drops of food coloring in the tank. If the bowl water becomes colored without flushing, there is a leak. If you do not have a low volume flush toilet, put a plastic bottle full of sand and water to reduce the amount of water used per flush. However, be careful not to over conserve to the point of having to flush twice to make the toilet work. Also, be sure the containers used do not interfere with the flushing mechanism.
- Take short showers with the water turned up only as much as necessary. Install low flow showerheads and/or other flow restriction devices.
- Do not let the water run while shaving or brushing your teeth. Fill the sink or a glass instead.
- When doing laundry, make sure you always wash a full load or adjust the water level appropriately if your machine will do that. Most machines use 40 gallons or more for each load, whether it is two socks or a week's worth of clothes.
- Repair any leak within the household. A minor slow drip can waste up to 15 to 20 gallons of water a day.
- Know where your main shutoff valve is and make sure that it works. Shutting the water off yourself when a pipe breaks or a leak occurs will not

only save water, but also eliminate or minimize damage to your personal property.

- Keep a container of water in the refrigerator for a cold drink instead of running water from the tap until it gets cold. You are putting several glasses of water down the drain for one cold drink.
- Stopper the sink when rinsing vegetables, dishes, or anything else; use only a sink full of water instead of continually running water down the drain.

### **Establishment of a Water Conservation Committee**

A technical advisory committee may be useful for evaluating water conservation measures and making recommendations concerning such measures to the local government. This committee could evaluate the success of water conservation measures currently in practice and consider the potential applicability of other practices for future application. Midway City's current "Water Advisory Board" would probably be able to adopt the tasks of such a water conservation committee.

Additional decisions to be made:

- How many persons comprise the committee or should it be a single coordinator
- Would the committee be made of current city employees
- How committee members are, or will be, chosen
- Minimum length of service
- Establish meeting schedule; monthly, bi-monthly etc
- Committee's authority and responsibility
- Types of issues for which the committee will be responsible

### **Promote Water Efficient Landscaping**

During some months, water used for lawn and landscape may comprise more than half of the public water deliveries for many communities. Landscaping with low water use plants and site designs reduces the amount of water needed for irrigation. Such landscapes do not have to be barren, lacking in color, diversity or only consist of thorny desert plants. Succulent plants and other popular ornamentals may be designed into a water wise landscape if placed in a location that does not require excess watering. Landscaping along existing and future roads may also be designed to use low water-use shrubs, plants, and mulches that do not have intrusive root systems. Midway City has previously researched various plants with non-intrusive roots systems which could be utilized for low water-use areas.

Additional ideas to promote:

- Include water wise landscaping as a major topic in public information and education programs.
- Adopt a policy of applying water efficient landscaping principles to newly landscaped or re-landscaped public buildings, parks, and other sites.
- Monitor and evaluate the results of the water wise landscape information and education.
- Consider including water efficient landscape requirements in a landscaping ordinance.
- Investigate the technologies of Xeriscape and its potential use in Midway City.
- Use landscape saturation sensors in City parks. These water landscape based on need, and shut off water during rain events.

### **Secondary Irrigation Water Conservation**

As more users connect to the pressurized irrigation system, the amount of available water to each user will decrease. Conservation measures will have to be utilized to ensure enough secondary water is available for all users. A step by step process could be followed to slowly reduce use as the demand for pressurized irrigation increases. Individual pressurized irrigation connection metering should be done as soon as technology permits. These are measures that could be utilized if more users connect to the pressurized irrigation system and if maintaining ample secondary water becomes an issue.

### **Peak Use Reduction**

Some water systems are capable of meeting average daily demands but have difficulties meeting peak demands. Measures, which reduce peak demand, may forestall the need to develop new resources or expand treatment and distribution facilities. Some methods that may be used to reduce peak demand include:

- Installation of “demand meters”
- Seasonal peak time rates
- Quantity of use restrictions
- Restrictions on landscape irrigation and other outside water uses during peak demand time

If no peak use reduction measure is in place then:

- Define a set of measures to consider
- Evaluate the impact that such measures would likely have on peak water demand
- Analyze the advisability of adopting such measures for their systems.

### **Retrofit Devices**

Installation of water conserving devices in existing structures complements plumbing codes that require low water-use items in new structures. Retrofit requirements should usually be mandatory or devices be provided free of charge in order to achieve a high degree of compliance. Some localities require retrofit devices to be installed before ownership of a property can be transferred.

Possible program features:

- Identify homes, office buildings, and other structures built prior to 1992 and develop a strategy to distribute or install high-efficiency plumbing fixtures such as ultra-low-flow toilets, showerheads, faucet aerators, etc
- Offer rebates for high efficiency appliances to promote water conservation indoors.
- Evaluate the impact that such measures would likely have on water demand.
- Analyze the advisability of adopting those measures.

### **In Home Leak Detection and Water Use Management Assistance**

The utility of local government may provide a free technical assistance outreach program for locating leaks and identifying ways in which a resident or property owner might use water more efficiently. This program would provide staff knowledgeable in leak detection and water conservation methods.

Probable action items prior to program origination are the following:

- Design as assistance program to consider
- Evaluate the impact that the program would likely have on water demand.
- Analyze the advisability of implementing the program in their service areas.

### **Shortage Management**

The city is developing a contingency plan, which spells out climate and political realities related to water use during drought or other water supply shortages. Included here are conservation measures that Midway City may implement during times of emergency.

They are as follows:

- Eliminate watering on city property during the hottest times of the day
- Water city properties on a minimal watering schedule that does not water during hot daylight hours
- Eliminate watering of city property in cases of severe shortages
- Educate the public on the water supply situation
- Instigate voluntary public conservation measures
- No outside watering from 10:00 a.m. to 7:00 p.m
- Issue information to all customers on conservation procedures each can accomplish around their own property and within their own homes
- Instigate mandatory public conservation measures
- Enforced outside watering restrictions including watering times and quantities
- Instigate emergency conservation measures
  - Strictly enforce all conservation policies with significant fines for non-compliance
  - Physically restrict water supplies to (in order of priority)
    - All outside irrigation systems
    - Park properties and other non-essential support facilities
    - Commercial businesses, restricting largest users first
    - Residential areas



- Any other “non-life support” areas, insuring water supplies to hospitals, hospices, all other health care facilities, and controlled designated area water supply facilities
- Additional non-emergency water conservation measures

## **IMPLEMENTING & UPDATING THE CONSERVATION PLAN**

Tasks must be set forth to ensure the goals stated above are reached. A person or department must be given the responsibility of completing tasks with deadlines. Midway City's Water Advisory Board will be the committee designated to perform the water conservation tasks. The Midway City council has authorized this and will have the responsibility for providing funding for the measures outlined in this plan. The Water Advisory Board will be responsible to ensure that tasks necessary to meet the goals are carried out within the appropriate time line. If deemed necessary, the Water Advisory Board will submit annual or quarterly reports on the progress to the city council.

This water conservation plan was placed on the December 9, 2015 Midway City Council meeting. It was adopted by the city council. A copy of the minutes for this meeting are included in Appendix A. The city council members are listed below:

Mayor Colleen Bonner	Council Member Ken Van Wagoner
Council Member Dick Hines	Council Member Karl Dodge
Council Member Danny Hofheins	Council Member Kent Kohler

Midway City's Water Conservation Plan will be revised and updated as required to meet changing conditions and needs of the city. The plan will help promote the effective use of culinary water if the methods set forth are utilized. Through public awareness and involvement, water may continue to be available for years to come.

## **APPENDIX A**



REPORT OF ACTION  
of the  
Midway City Council

Item: 2015 Water Conversation Plan for Midway City

Action: Approved

Date of Action: 9 December 2015

Consent Calendar

Be it hereby moved that the following consent calendar items stand approved:

- a. Agenda for the 9 December 2015 City Council Regular Meeting
- b. Warrants
- c. Minutes of the 10 November 2015 City Council Work Meeting
- d. Minutes of the 10 November 2015 City Council Regular Meeting
- e. A Second One Year Extension of Final Approval for the Homestead Villas Subdivision Located at Bayhill Drive and Fairway Drive
- f. Release the Construction Bond, Minus 10%, and Begin the One Year Warranty Period for Plat "B" of the Killowen Village Subdivision Located at 305 West 500 South
- g. Release the Construction Bond, Minus 10%, and Begin the One Year Warranty Period for Plat "C" of the Killowen Village Subdivision Located at Approximately 295 West Killowen Drive (Approximately 565 South)
- h. 2015 Water Conversation Plan for Midway City

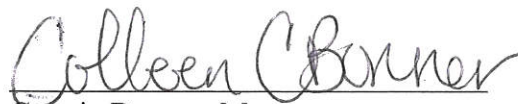
Motion: Council Member Hines moved to approve the consent calendar.

Second: Council Member Hofheins seconded the motion.

Discussion: None

Vote: The motion was approved with the Council voting as follows:

Council Member Hines	Aye
Council Member Hofheins	Aye
Council Member Van Wagoner	Excused from the Meeting
Council Member Dodge	Aye
Council Member Kohler	Aye

  
 Connie Bonner, Mayor

## **REFERENCES**

Non-Published references:

HORROCKS ENGINEERS, 2010. *Water Conservation Plan for Midway City, Utah: Horrocks Engineers.*

MIDWAY CITY, 2009-2014, *Culinary Water Use Reports.* Midway City: *Midway City's Internal documentation.*

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES, *Water Conservation Plan Template.* State of Utah Division of Water Resources.