

MIDVALE CITY, UTAH

RESOLUTION NO. 2019-R-48

A RESOLUTION ADOPTING THE 2019 MIDVALE CITY WATER CONSERVATION PLAN

WHEREAS, Midvale City adopted a Water Conservation Plan in 1999, as required by the State of Utah; and

WHEREAS, periodically this Water Conservation Plan is required to be updated, the last update being in 2014; and

WHEREAS, a current update of the Water Conservation Plan is due this year; and

WHEREAS, it is in the best interest of Midvale City and its residents to conserve water to ensure a continued supply at reasonable cost well into the future.

NOW THEREFORE BE IT RESOLVED, that based on the foregoing, the Midvale City Council approves this resolution formally adopting the 2019 update of the City's Water Conservation Plan.

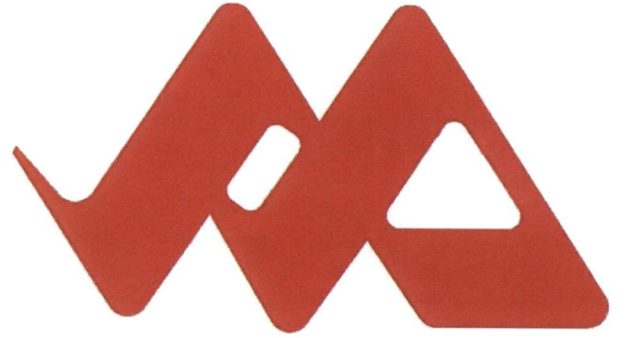
APPROVED AND ADOPTED this 12<sup>th</sup> day of November 2019.

*Robert M. Hale*  
Robert M. Hale, Mayor

ATTEST:  
*Roji L. Andreason*  
Roji L. Andreason, MMC  
City Recorder



Voting by City Council:	"Aye"	"Nay"
Quinn Sperry	ABSENT	_____
Paul Glover	✓	_____
Paul Hunt	✓	_____
Bryant Brown	✓	_____
Dustin Gettel	✓	_____



**MIDVALE CITY**

## **WATER CONSERVATION PLAN**

(HAL Project No.: 141.42.100)

**January 2020**

**MIDVALE CITY**  
**WATER CONSERVATION PLAN**

(HAL Project No.: 141.42.100)



**Lance Nielsen**  
**Project Engineer**

**HANSEN  
ALLEN  
& LUCE<sub>inc</sub>**  
ENGINEERS

**January 2020**

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# CHAPTER 1 – INTRODUCTION

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In response to projected future growth along the Wasatch Front, the citizens and leaders of Midvale City are concerned about the future water supply in the region. The Utah State Legislature has passed legislation requiring public water suppliers to prepare a Water Conservation Plan and then to update the plan periodically. The City prepared the original Water Conservation Plan in 1999 and has updated the plan in 2003, 2010, and 2014. This report is the 2019 update of the City's Water Conservation Plan.

This report describes the drinking water system, reviews and summarizes water consumption, assesses the water conservation alternatives available to the City, sets goals to conserve water, and identifies existing and proposed water conservation measures to be implemented by the City.

## CHAPTER 2 – EXISTING WATER SYSTEM

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Midvale City, located in the heart of Salt Lake County, had an estimated population of about 27,964 people in 2010 (US Census Bureau, 2010). The City is bounded by Murray City on the north, Cottonwood Heights on the east, Sandy City on the south, and the Jordan River on the west.

In 1998, the City annexed the Union area which essentially doubled the size and population of the City at the time. However, the drinking water needs for the Union area continued to be supplied by Sandy City and Jordan Valley Water Conservancy District (JVWCD). During the summer of 2009, Midvale City reached an agreement with Sandy City to take over the drinking water system for the Union area (See Figure 2-1). This was accomplished by the installation of water meters on each pipeline that crossed the Sandy City - Midvale City boundary with Sandy City billing Midvale City on a wholesale basis for water provided to the Union area. The portion of the Union area served by JVWCD (See Figure 2-1) is in the process of also being taken over by the City.

The population served by the historic Midvale City water system (without the Union area) was estimated to be about 14,700 based on 2010 US Census data. The total Midvale City population in 2018 was estimated to be 33,636 based on the 2010 US Census and the growth rate of new connections to the City water system.

There are currently many redevelopment projects that are planned for the city, which are expected to add roughly 4,150 additional residential units in the next 5 years. Assuming an average household size of 2.5, an estimated 10,500 new residents are expected to be added. The city estimates that in the next 30 years the population will increase to 55,000 residents. Water demands for the City are expected to increase accordingly.

At the end of 2018, the City had 7,403 connections to the water system. The connection type is shown in Table 2-1.

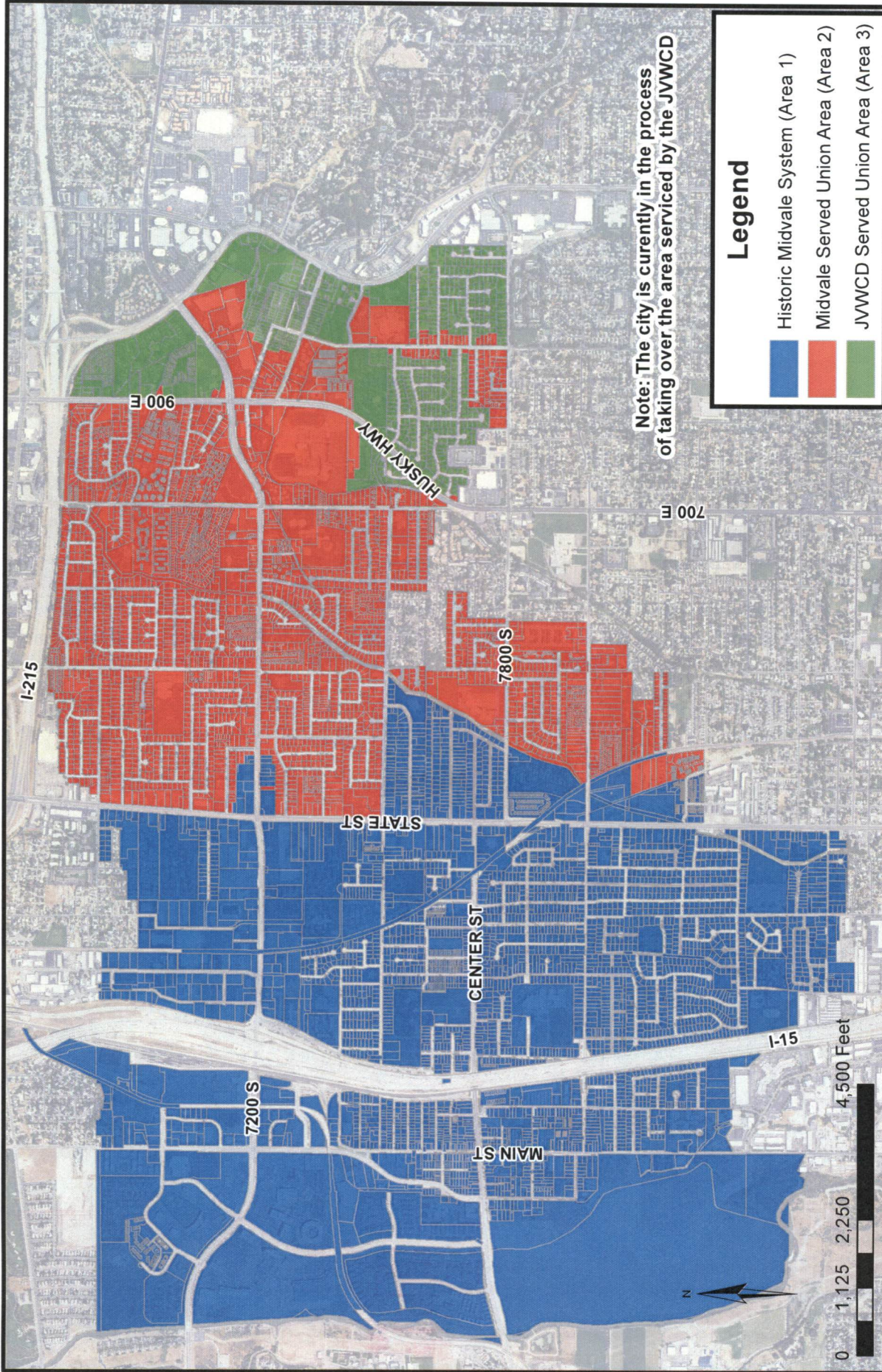
**Table 2-1  
2018 Water System Connections**

<b>Connection Type</b>	<b>Total Connections</b>
Residential	6,098
Commercial/Other*	1,305
<b>Total</b>	<b>7,403</b>

### INVENTORY OF WATER RESOURCES

The City currently receives drinking water from seven wells, and several wholesale connections to Jordan Valley Water Conservancy District (JVWCD). As of this past summer, with the connection of a second new meter vault from JVWCD, the City no longer obtains any water from Sandy City. Three of the City's wells are not currently in use. Table 2-2 summarizes the City's drinking water sources.







**Table 2-2  
Existing Water Sources**

Source	Water Rights	Existing Source Capacity
Hancock Well	57-1398 (126 ac-ft), -2251 (4.47 cfs)	2,100 gpm*
Million Gallon Well	57-1398, -2251, 7909 (158.5 ac-ft)	2,100 gpm
Oak Street Well	57-1398, -2251	1,200 gpm
Park Street Flowmatch Well	57-1398, -2251, -1008 (0.61 cfs)	Not Used (1,200 gpm)
Park Street Submersible Well	57-2251	Not Used
Prowswood Well	57-8248 (44 ac-ft), -8505 (430.2 ac-ft)	Not Used (570 gpm)
Phillips Well	-3066 (1.158 cfs)	520 gpm
Sandy City	Contract with Sandy City Ended in 2019	
JVWCD	Contract with JVWCD	2019: 2,450 ac-ft 2020 & beyond: 3,085 ac-ft
<b>Midvale Reliable Supply (based on water rights limitations and Current contract with JVWCD):</b>		<b>Wells: 5,275 ac-ft JVWCD: 3,085 ac-ft Total: 8,360 ac-ft</b>

\* Due to water rights constraints, Hancock Well is only pumped at 1,000 gpm when Million Gallon Well is pumping simultaneously. When Million Gallon Well is not pumping, Hancock Well can be pumped at 2,100 gpm.

**WATER USE**

Historical water supplied by the Midvale City drinking water sources is summarized in Table 2-3. Data prior to 2010 does not include connections in the Union Area.

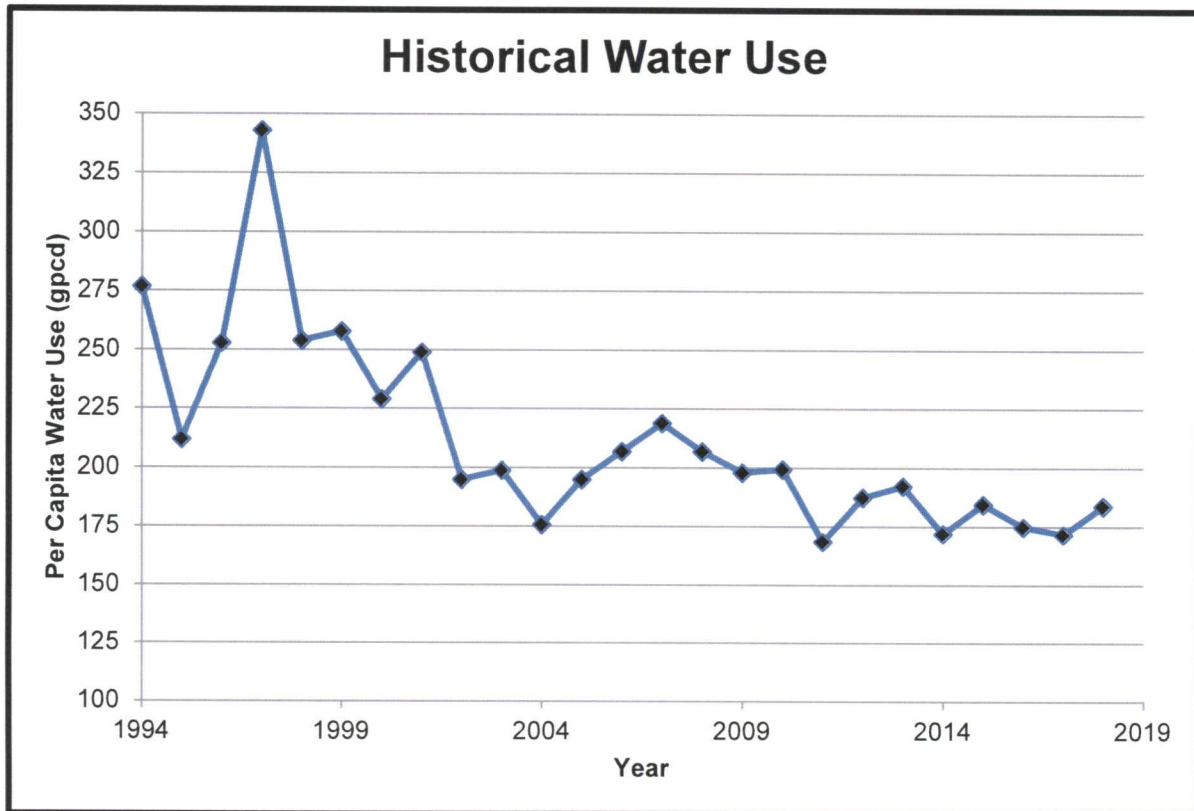
**Table 2-3  
Historical Water Supply Summary**

Year	Source Supplied (ac-ft)								Total (ac-ft)
	Hancock	Million Gallon	Oak Street	Park Street Flowmatch	Prowswood Well	Phillips Well	Sandy City	JVWCD	
1998	456.5	1,695.9	563.2	245.5	NA	NA	0	142.7	3,103.8
1999	523.7	1,862.3	501.5	109.0	NA	NA	2.2	146.7	3,145.4
2000	868.6	1,461.8	545.7	353.9	NA	NA	51.6	147.9	3,429.5
2001	953.9	1,190.5	591.4	399.3	NA	NA	14.4	146.1	3,295.6
2002	935.5	1,027.2	387.3	312.1	NA	NA	118.8	162.0	2,942.9
2003	882.1	729.0	441.6	287.0	NA	NA	314.0	194.9	2,848.6
2004	687.4	777.5	665.5	177.0	NA	NA	79.2	142.4	2,529.0
2005	1,096.7	822.0	282.6	223.6	NA	NA	233.3	149.3	2,807.5
2006	1,063.6	825.6	347.6	358.2	NA	NA	247.6	138.3	2,980.9
2007	907.5	979.5	328.7	344.5	NA	NA	406.9	187.9	3,155.0
2008	657.2	803.7	462.6	471.2	NA	NA	481.3	164.2	3,040.2



Year	Source Supplied (ac-ft)								Total (ac-ft)
	Hancock	Million Gallon	Oak Street	Park Street Flowmatch	Prowswood Well	Phillips Well	Sandy City	JVWCD	
2009	104.2	1,457.3	464.3	600.1	NA	NA	293.3	5.0	2,924.2
2010	963.2	1,594.8	449.3	265.3	1	0	2,039.1	148.7	5,460.4
2011	1,087.2	1,099.1	273.2	131.8	1	0	1,922.6	139.2	4,653.1
2012	1,263.9	1,163.6	436.5	0	0	124.3	2,244.6	150.4	5,259.0
2013	896.5	2,114.7	256.7	0	1	146.09	2,002.4	185.9	5,456.2
2014	1106.7	1492.6	426.2	0	0	0	1927	127.9	5080.4
2015	1144.3	1648.3	448.6	0	0	0	1933.1	180.51	5354.8
2016	856.1	2052.8	358.2	0	0	0	1959	131.1	5357.2
2017	979.2	1763.7	345.9	0	0	124.3	1918	165.6	5296.7
2018	915.2	2336.1	332.5	0	0	146.9	1599.8	390.1	5720.6

Based on population estimates for the historical Midvale City water system, the per capita water use for the City from 1998 through 2001 was approximately 250 gallons per capita per day (gpcd). From 2002 through 2009, the water use dropped to about 200 gpcd (See Figure 2-2). From 2009 through 2014 the use dropped to about 190 gpcd. In the past 5 years, Midvale has continued to show a declining trend in water use. The average for these 5 years has been 178 gpcd. It is



**Figure 2-2: Midvale City Historical Water Use**

interesting to note that a significant amount of water conservation seems to have been realized in a single year's time period from 2001 to 2002. This is consistent with statewide water conservation publicity campaigns implemented by the State of Utah and several cooperating public water systems. This was also during an extended drought period. It is believed that the initial water conservation push resulted in a rapid general change in the public mindset regarding water consumption, resulting in the reduced per capita usage. Since that time, water usage has slowly trended downward with slight variations from the average from year to year. Midvale City's current water use is lower than the State of Utah 2015 average of 239 gpcd for indoor and outdoor use (DNR, 2015).

Water use is categorized into residential, commercial, Industrial and Institutional/other uses. The historical percentage of water use for each type of use is shown in Table 2-4. These percentages include the Union area. It should be noted that the commercial water use percentage also includes multi-unit apartment buildings.

**Table 2-4  
Percent Water Use by Type of Use**

Type of Water Use	Percent Water Use			
	Residential	Commercial	Industrial	Institutional/Other
2009	63.2%	27.3%	0.9%	8.5%
2010	49.4%	46.8%	0%	3.8%
2011	53.7%	41.3%	0%	5.0%
2012	56.0%	44.0%	0%	0%
2013	54.3%	45.7%	0%	0%
2014	60.6%	39.4%	0%	0%
2015	48.0%	52.0%	0%	0%
2016	54.2%	37.6%	0.1%	8.1%
2017	54.9%	38.6%	0.1%	6.4%
2018	47.3%	47.6%	0.1%	5.0%

Table 2-5 compares the water supplied to the Midvale City drinking water system to the metered water use for the years 2014 through 2018. About 8% of the water supplied by the City's drinking water sources was unaccounted for in 2018. Possible explanations for the unaccounted water use include leaks in the distribution system, meter inaccuracies, and miscellaneous unmetered water use (such as pipe line flushing, etc.).

**Table 2-5  
Comparison of Water Supplied to Metered Water Use**

Year	Supplied Water (ac-ft)	Metered Water Use (ac-ft)	Percent Difference
2010	5,460.4	4,891	10%
2011	4,653.1	4,427	5%
2012	5,259.0	5,103	3%
2013	5,456.2	4,690	14%
2014	5,080.4	4671	8%
2015	5,354.8	4815	10%
2016	5,357.2	5,173	3%
2017	5,296.7	5,002	6%
2018	5,720.6	5262	8%

Based on the 2014-2018 water meter billings for the months of November through April, the typical indoor water demand is estimated to be about 202 acre-feet per month (2,422 acre-feet per year). Assuming this indoor use is consistent through the summer months of May through October, the estimated average quantity of water used for irrigation is about 2487.2 acre-feet. Table 2-6 estimates the amount of outdoor irrigation use based on the previous Water Conservation Plan and the most recent meter billing data.

**Table 2-6  
Midvale Irrigation Use Estimations**

Type of Use (ac-ft)	Summer Use (May-October)	Winter Use (November-April)	Irrigation Use (Summer Use – Winter Use)	% of Summer Use attributed to Irrigation
2011	3439	1,223	2,216	64%
2012	3228	1,221	2,007	62%
2013	3538	1,189	2,349	66%
2014	3470	1,140	2,330	67%
2015	3576	1,175	2,401	67%
2016	3,798	1,375	2,423	64%
2017	3,718	1,284	2,434	65%
2018	3,951	1,311	2,640	67%

**EXISTING AND FUTURE WATER USE**

Water use for the City is expected to grow in proportion to the number of connections added to the City’s water system. Assuming the per capita water use over the past 5 years of 178 gpcd, the estimated 2020 water use for Midvale City (estimated city population of 34,771) is about 6,940 ac-ft/year. When the City has reached its population growth potential of about 55,000, the estimated water use will be about 8980 ac-ft/year.

If current water conservation efforts can be maintained into the future, it will save the City about 3,630 ac-ft/year of required build-out water supply compared to their 1995 water use rates. Water losses in the system were low, but if water losses could be reduced from 8% to 4%, the estimated additional water savings at build-out would be about 360 ac-ft/year.

When, and if, future demands exceed the existing water supply summarized in Table 2-2, Midvale City plans to meet these demands through additional wholesale purchase from Jordan Valley Water Conservancy District.



## CHAPTER 3 – CONSERVATION ISSUES AND GOALS

### WATER METERING AND PIPELINE REPLACEMENT

Midvale City currently meters water use at all connections and reads meters on a monthly basis. Midvale City replaced all the meters within the historic Midvale water system with radio-read meters within the past 10 to 11 years and continues to monitor and replace meters throughout the city as they become older and defective. Water meters in the Midvale served Union area have been replaced in the last five years. The meters in the JWCD served Union area are currently being replaced.

Midvale City has a current program to replace and/or upsize old or undersized water pipelines in streets that need to be re-constructed. Typically, this results in the replacement of over 1,000 feet per year. In addition, other old or undersized pipelines have been and will be identified for replacement in the City's Water System Master Plans. These projects are implemented as City budget allows. The City also regularly replaces old water service laterals with new copper or poly lines as pipeline projects are constructed.

### CURRENT WATER RATE STRUCTURE

Midvale City's drinking water rate structure is summarized in Table 3-1. The City has different rates for seven meter sizes in three different areas (Figure 2-1). Rates are evaluated yearly and adjusted for fiscal and water conservation needs.

**Table 3-1  
Water Rate Structure 2019**

Meter Size	Area #1	Area #2	Area #3
<b>Base Rate</b>			
3/4"	\$18.01	\$20.59	\$21.67
1"	\$25.21	\$28.81	\$30.33
1.5"	\$32.41	\$37.05	\$39.01
2"	\$52.21	\$59.70	\$62.82
3"	\$198.05	\$226.40	\$238.28
4"	\$252.05	\$288.16	\$303.26
6"	\$378.05	\$432.23	\$454.91
<b>Overage Charge every 1000 Gallons</b>			
Peak (Jun-Sep)	\$1.78	\$1.87	\$1.87
Off-Peak (Oct-May)	\$1.24	\$1.29	\$1.29



## IDENTIFIED PROBLEMS

Midvale City is concerned with the potential waste of water from inefficient indoor/outdoor water use and from system wide losses. The following specific concerns have been identified by the City:

- Many pipes in the drinking water distribution system are old and are undersized and may be leaking.
- Although the City has adopted an annually increasing rate structure with higher overage charges for peak usage times, the City is still concerned that the rates are insufficient and should continue to change to promote conservation.
- Comparison of the water supplied to the distribution system and the monthly meter readings has revealed water that is unaccounted for.
  - The City meters some construction water. However, the metered water has not been included in the metered water records.
  - The City currently has no estimates for the amount of water used during fire hydrant tests and distribution system flushing.

Midvale City has decided to set goals to address the identified problems and to promote conservation. The City is currently promoting water conservation measures similar to the State of Utah water conservation campaign that was instituted in 2001. Utah's M&I Water Conservation Plan, released in July 2003, sets a state-wide goal to reduce per capita water use 25% from the 1995 usage by the year 2025. In the mid 1990's, the average Midvale City water use was estimated to be about 250 gpcd. Midvale City's estimated 2018 water use is about 184 gpcd which represents a water use reduction of about 26% from the state wide goal in 1995.

## GOALS

Midvale City has reached the state-wide goal of reducing their Per capita water consumption by 25%. A goal was also set in 2015 for each city in Salt Lake County to be below 187 gpcd. Even though Midvale has completed both of the state goals they will continue to promote conservation. The following specific conservation goals have been identified by the City to help continue to promote conservation:

- The City will continue public education efforts including encouraging customers to limit outside watering to the hours of 6 pm to 10 am.
- The City will continue to support the water conservation measures currently in effect as defined in Chapter 4.
- The City will re-evaluate the water rate structure to continue to promote water conservation.
- The City will determine potential causes for unmetered/unaccounted for drinking water and attempt to reduce this water loss.
- The City will replace leaking pipelines as they are discovered and as budget will allow.

# CHAPTER 4 – CONSERVATION MEASURES & IMPLEMENTATION

Midvale City believes that water conservation is an important factor for allowing the City to meet water demands into the future. Although the City hasn't appointed a separate water conservation coordinator, staff is aware of the conservation goals and work together to implement the goals. Water conservation efforts are coordinated by:

Glen Kennedy  
 Midvale City Public Works Director  
 801-567-7235

## EXISTING CONSERVATION MEASURES

Table 4-1 identifies water conservation measures that are currently being implemented by Midvale City. The measures will continue to be implemented according to the plan indicated in Table 4-1. It is believed that existing conservation measures and public education programs are working based on the continued decline of water use rates seen since 2002.

**Table 4-1  
 Existing Conservation Measures**

Conservation Measure	Implementation Plan
<u>Public Education:</u> Promote water conservation measures to City residents through public education. (See Appendix for public education material)	Advertise conservation measures through: <ul style="list-style-type: none"> <li>• The City's website</li> <li>• The annual Water Quality Report</li> <li>• The City Newsletter</li> </ul>
<u>Require Water Saving Fixtures:</u> City has adopted the International Plumbing Code which requires water saving plumbing fixtures for new development.	Check building plans for water saving fixtures during building permit reviews and enforce compliance through building inspections for new construction
<u>Replace Old Water Service Laterals:</u> New copper or poly laterals installed in place of steel galvanized or other old laterals.	Replace with copper or poly water services as leaks are detected and as part of any pipeline replacement project. Many of the old galvanized steel services have been replaced to date.
<u>Replacement Program for Old Pipelines:</u> City replaces more than 1,000 feet of pipeline per year.	Replace old/undersized pipeline: <ul style="list-style-type: none"> <li>• Whenever a street is redone</li> <li>• According to master planned projects</li> <li>• As leaks are detected</li> <li>• As Annual budget will allow</li> </ul>
<u>Replacement Program of Old Water Meters:</u> New accurate radio-read meters installed at all connections.	All water meters: <ul style="list-style-type: none"> <li>• Have been replaced within the past 10 to 11 years in the Historic Midvale system</li> <li>• Have been replaced within the last 5 to 6 years in the old Midvale served Union Area</li> <li>• Are currently being replaced in the JVVCD served Union Area being taken over by Midvale City</li> </ul>
<u>Restrict Water Use for Public Landscaped Areas:</u> Practice water-wise irrigation for City facilities.	Sprinkler irrigation at new public landscaped areas is: <ul style="list-style-type: none"> <li>• adjusted based on weather</li> <li>• performed during the cooler parts of the day</li> </ul>



Conservation Measure	Implementation Plan
<u>Require Separate Meters for Large Irrigated Areas:</u>	Separate meters for landscaping are required for commercial and industrial connections with large landscaped areas.
<u>Evaluate Water Rate Structure:</u> The water rate structure promotes water conservation through increasing rates and higher average costs during peak water use times.	The City re-evaluates the water rate structure annually to promote water conservation.

In addition to water conservation measures implemented by Midvale City, residents of the City also have access to conservation measures that are implemented by Jordan Valley Water Conservancy District (JVWCD). A summary of JVWCD efforts is included below:

- Free Water Audits: At the request of residential, commercial, industrial, or institutional water users, JVWCD will perform a check of the sprinkling system and landscaping to increase irrigation efficiency and promote conservation.
- Water-Wise Landscaping Classes: JVWCD offers landscaping classes that focus on water conservation principles for residential and commercial water users.
- Large Water User Workshops: Provides tools to assist large outdoor water users with managing large landscaped areas. Applicable to public schools, churches, parks and recreation, municipalities, etc.
- Water Quest – Saving Water by the Yard: Four residential homes within the Salt Lake Valley were re-landscaped to demonstrate what a water-wise landscape actually looks like in a home setting. These homes serve as localized demonstration gardens with before and after photos included on the JVWCD website.

## PROPOSED CONSERVATION MEASURES

Table 4-2 identifies water conservation measures that are proposed to be implemented by Midvale City in the future in addition to existing conservation measures shown in Table 4-1.

**Table 4-2  
Proposed Conservation Measures**

Conservation Measure	Implementation Plan
<u>Public Education:</u> Promote water conservation measures to City residents through public education.	Advertise conservation measures by providing links to water conservation websites on the City website: <ul style="list-style-type: none"> <li>• See Appendix for example websites</li> </ul>
<u>Landscaping Ordinances:</u>	Update City landscaping ordinances to provide incentives to incorporate xeriscaping on existing landscaping.
<u>Include Metered Construction Water in Water Use Records:</u> Not all construction water is currently metered and included in the City's overall water use records.	The City currently requires contractors to meter the water that they use for construction projects. The City will begin recording this metered water use in its water use records to accurately account for the used water.
<u>Replacement Program for Old Pipelines:</u> City replaces more than 1,000 feet of pipeline per year.	Replace old/undersized pipeline: <ul style="list-style-type: none"> <li>• Whenever a street is redone</li> <li>• According to master planned projects</li> <li>• As leaks are detected</li> </ul>

Conservation Measure	Implementation Plan
<u>Estimate Fire Hydrant Testing and Flushing Flows:</u>	The City plans to request estimates of the duration and flow rates for fire hydrant testing and flushing programs implemented by the Unified Fire Department and City maintenance staff.
<u>Restrict Water Use for Public Landscaped Areas:</u> Practice water-wise irrigation for City facilities.	Irrigation at public landscaped areas will be: <ul style="list-style-type: none"> <li>• adjusted based on weather</li> <li>• performed during the cooler parts of the day</li> </ul>
<u>Require Separate Meters for Large Irrigated Areas:</u>	Separate meters for landscaping are required for commercial or industrial connections with large landscaped areas.
<u>Evaluate Water Rate Structure:</u> The current rate structure promotes water conservation through increasing rates and higher overage costs during peak water use times.	The City will continue to re-evaluate the water rate structure annually to evaluate whether the current rate structure on an annual basis to promote water conservation.



## REFERENCES

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<http://www.waterrights.utah.gov/cgi-bin/wuseview.exe?Startup>

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# **APPENDIX A**

## **PUBLIC EDUCATION MATERIALS**

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## Ten ways that will save the most:

1. Water your lawn only when it needs it. Step on your grass. If it springs back when you lift your foot, it doesn't need water. So set your sprinklers for more days in-between watering. Saves 750-1,500 gallons per month.
2. Fix leaky faucets and plumbing joints. Saves 20 gallons per day for every leak stopped.
3. Don't run the hose while washing your car. Use a bucket of water and a quick hose rinse at the end. Saves 150 gallons each time. For a two car family that's up to 1,200 gallons a month.
4. Install water-saving shower heads or flow restrictors. Saves 500 to 800 gallons per month.
5. Run only full loads in the washing machine and dishwasher. Saves 300 to 800 gallons per month.
6. Shorten your showers. Even a one or two minute reduction can save up to 700 gallons per month.
7. Use a broom instead of a hose to clean driveways and sidewalks. Saves 150 gallons or more each time.
8. Don't use your toilet as an ashtray or wastebasket. Saves 400 to 600 gallons per month.
9. Capture tap water. While you wait for hot water to come down the pipes, catch the flow in a watering can to use later on houseplants or your garden. Saves 200 to 300 gallons per month.
10. Don't water the sidewalks, driveway or gutter. Adjust your sprinklers so that water lands on your lawn or garden where it belongs--and only there. Saves 500 gallons per month.

## In the bathroom:

1. Put a plastic bottle or a plastic bag weighted with pebbles and filled with water in your toilet tank. Displacing water in this manner allows you to use less water in each flush. (Don't use bricks, they decompose and can stain the toilet) Better yet, for even greater savings, replace your water-guzzling five to seven gallon a flush toilet with a three and a half gallon, low flush or one and a half gallon, ultra-low flush model.
2. Check toilet for leaks. Put dye tablets or food coloring in the tank. If color appears in the bowl without flushing, there's a leak that should be repaired.
3. Turn off the water while brushing your teeth.
4. Turn off the water while shaving. Fill the bottom of the sink with a few inches of water to rinse your razor.

## In the kitchen and laundry:

1. If you wash dishes by hand, don't leave the water running for rinsing. If you have two sinks, fill one with rinse water. If you only have one sink, use a spray device or short blasts instead of letting the water run.
2. When washing dishes by hand, use the least amount of detergent possible. This minimizes rinse water needed.
3. Keep a container of drinking water in the refrigerator. This eliminates the need to run the tap water until it gets cold.
4. Don't defrost frozen foods with running water. Either plan ahead by placing frozen items in the refrigerator overnight or defrost them in the microwave.
5. Don't let the faucet run while you clean vegetables. Rinse them in a filled sink or pan.
6. Use the garbage disposal sparingly.

## Outside:

1. Put a layer of mulch around trees and plants. Chunks of bark, peat moss or gravel slows down evaporation.
2. Water during the cool parts of the day.
3. Don't water the lawn on windy days. There is too much evaporation.

4. Cut down watering on cool and overcast days and don't water in the rain. Adjust or deactivate automatic sprinklers
5. Set lawn mower height to 2 1/2 to 3 inches. This promotes deeper roots and reduces evaporation.
6. Mow less frequently, this reduces the stress on turfgrass.
7. Sharpen mower blades. A cleaner cut grass blade heals quicker, thus less water.
8. Wash your car on the lawn. Rinse water can help water the grass.
9. Tell your children not to play with the garden hose.
10. Xeriscape--replace your lawn and high water using plants with less thirsty ones. But do this only in early spring. Even drought tolerant plants take extra water to get them going.

Most importantly, dispose of hazardous materials properly! One quart of oil can contaminate 250,000 gallons of water, effectively eliminating that much water from our water supply. Contact Midvale City Public Works at 567-7235 for proper disposal option.



ADDITIONAL WEBSITES PROMOTING WATER CONSERVATION:

- SLOW THE FLOW campaign website: <http://www.slowtheflow.org/>
- Jordan Valley Water Conservation District's conservation website: <http://www.jvwcd.org/conservation/>
- Utah Division of Water Resources' main water conservation website: <http://www.conservewater.utah.gov/>
- Utah Division of Water Resources' water conservation education for kids website: <http://www.watereducation.utah.gov/conservation/>

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# **APPENDIX B**

## **CITY COUNCIL ADOPTION OF CONSERVATION PLAN**

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