



# WATER CONSERVATION PLAN

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# SECTION 1 – SYSTEM PROFILE

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## SERVICE AREA

The Woodland South Hills Irrigation Company provides culinary water to approximately 85 residents through 45 residential connections in the Woodland Estates subdivision, Wasatch County, near Woodland Utah. Many of the lots are used for seasonal recreational purposes. Consequently, the population and water usage significantly drop during the winter months.

The water is intended for residential uses only. The system is projected to have a total of 76 active residential connections at build out.

## SUPPLY

Water is obtained from two wells: the River Well and the Mountain Well. Currently the Mountain Well is offline and only used as an emergency back-up until the grout seal can be brought up to Division of Drinking Water Standards. Based on a review of the water rights, the total available water supply from the wells is 12-acre feet. Currently only about 6.25-acre feet or 52% of the available source is used.

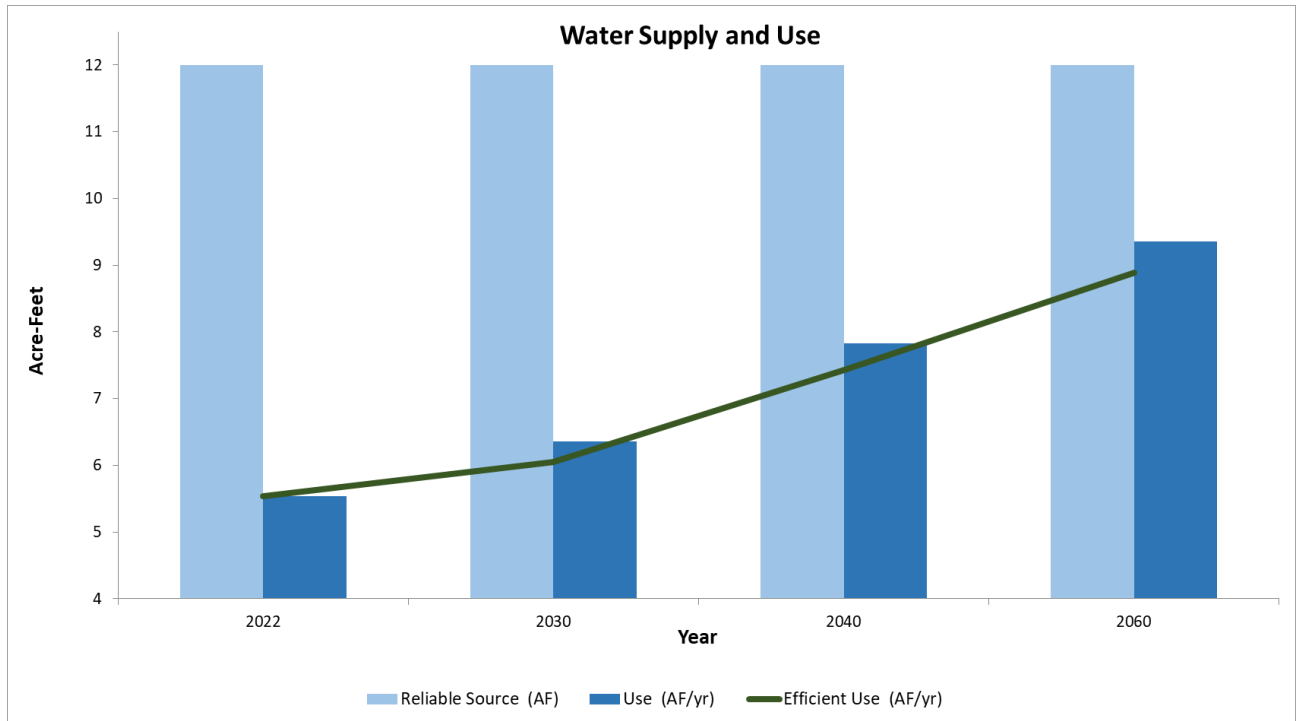
Table 1.1 below shows the breakdown of the current water sources available, as of April 2023.

**Table 1.1 - Existing Water Sources Available**

Source	Total (Acre-Feet)
Mountain Well	0.00
River Well	6.25
Purchased Water	0.00
	<b>6.25</b>

As illustrated in graph 1.1 below, the Company's water supply versus projected use provides a sufficient amount of water through the year 2060.

**Graph 1.1 - Water Supply and Use**



### **FUTURE WATER SOURCES & COST PROJECTION**

Growth rates within the System average two new connections per year. The System is master planned to meet future growth needs - up to 76 residential connections. It is predicted that adequate water supply will be available through 2060. Conservation of these resources will help the supply to last over a longer period. By delaying or eliminating the need for additional water, the Company can save a significant amount of money, as well.

### **WATER MEASUREMENT AND BILLING**

**Meters:** All of the connections (100% residential) to the water system are metered and read manually between the months of April and December. Meters are calibrated per the manufacturer and replaced as needed.

## System Water Loss Control

Table 1.2 below shows the population, annual use, and percentage loss in relation to used source.

**Table 1.2 – Annual Information**

Year	Population	Annual Use (AF)	Percentage Loss
2022	85	5.54	11.34%
2021	95	6.75	34.84%
2020	170	7.32	42.16%
2019	145	4.89	45.78%
2018	100	6.09	10.42%
2017	100	8.34	1.12%
2016	90	6.67	0.00%
2015	90	6.87	0.00%
2014	100	7.15	0.00%
2013	0	7.06	0.00%
2012	100	6.17	-0.99%
2011	100	0.00	100%
2010	No Data Available		
2009	0	9.21	0.00%
2008	0	0	0.00%
2007	126	12.35	-1.41%
2006	100	6.09	0.00%
2005	0	0	0.00%

Water loss is controlled by:

**Independent Audit:** The Company contracts with American Leak Detection to audit the Company’s water system. Their specialized equipment allows them to detect leaks that the Company may otherwise not know about – due to their size (i.e. very small in nature) or location. When a leak is discovered, the Company is able to quickly repair it and improve the area as needed.

In addition to this, they conduct continual independent audits of the amount of water billed verse the amount of water used. This ensures the water being used is being paid for and usage is accurately being tracked. This audit is independent of and in addition to the Company’s annual fiscal budget audit.

**New Connections:** As part of the approval process, each lot owner must apply to the Company and pay the required fees for connection. Lot owners are prohibited from subdividing the existing lots within the Company’s service area by both the Company’s bylaws and the Wasatch Counties P-160 preservation zoning. During construction of the connection, Woodland South Hills Company staff oversee and inspect the water system to ensure the installation meets the Company’s Standards.

## INCREASING RATE STRUCTURE

The following table outlines the current water rate schedule associated with the Company’s connections. The rate is adopted as part of the 2022 Bylaws and is in addition to the \$1,425 annual fee assessed to each connection.

**Table 1.3 - Water Rate Schedule**

Connection	\$ Base Rate / Month	Base Allotment	Overage Usage
Residential	\$40.00	7,000 gallons / month	\$0.0009 per gallon (7,001 – 15,000 gallons)  \$0.015 per gallon (15,001 gallons +)
Residential No Activity for 5 Months	\$10.00 / Month		

## WATER USE

Table 1.4 below shows the water inflow versus the water outflow for each type of use between 2005 and 2022.

**Table 1.4 –Water Use**

Year	INFLOW				OUTFLOW					% Diff.
	Total (AF)	Res	Com	Ind	Inst.	Whole-sale	Other Uses	Un-metered	Total (AF)	
2022	6.25	5.54	0.00	0.00	0.00	0.00	0.00	0.00	5.54	11.34
2021	10.35	6.75	0.00	0.00	0.00	0.00	0.00	0.00	6.75	34.84
2020	12.65	7.32	0.00	0.00	0.00	0.00	0.00	0.00	7.32	42.16
2019	9.02	4.89	0.00	0.00	0.00	0.00	0.00	0.00	4.89	45.78
2018	6.80	6.09	0.00	0.00	0.00	0.00	0.00	0.00	6.09	10.42
2017	8.44	8.34	0.00	0.00	0.00	0.00	0.00	0.00	8.34	1.12
2016	6.67	6.67	0.00	0.00	0.00	0.00	0.00	0.00	6.67	0.00
2015	6.87	6.87	0.00	0.00	0.00	0.00	0.00	0.00	6.87	0.00
2014	7.15	7.15	0.00	0.00	0.00	0.00	0.00	0.00	7.15	0.00
2013	7.06	7.06	0.00	0.00	0.00	0.00	0.00	0.00	7.06	0.00
2012	6.17	6.23	0.00	0.00	0.00	0.00	0.00	0.00	6.23	-0.99
2011	9.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100
2009	9.21	9.21	0.00	0.00	0.00	0.00	0.00	0.00	9.21	0.00
2008	9.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	12.18	12.35	0.00	0.00	0.00	0.00	0.00	0.00	12.35	-1.41
2006	6.09	6.09	0.00	0.00	0.00	0.00	0.00	0.00	6.09	0.00
2005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

\*Information obtained from Utah Division of Water Rights Water Records/Use Information, No data for 2010.

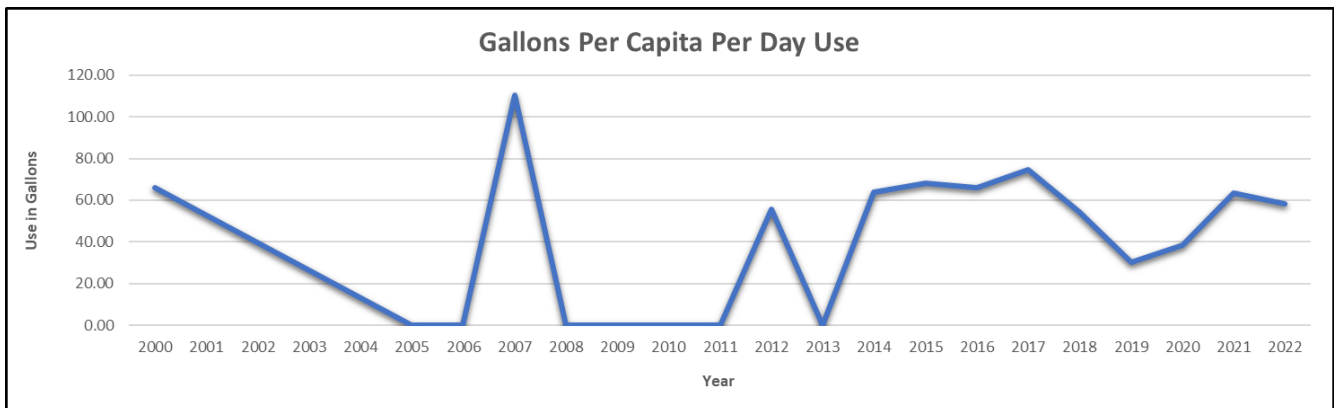
Based on the data represented, the analysis shows an average loss of 33.52% in the distribution system between 2022 and 2019. This number is significantly higher than the average loss of 2.33% between 2018 and 2015 and the loss of 24.76% between 2014 and 2007. The goal of the Company is to reduce these losses even further as additional improvements are made to the water infrastructure. Some of the improvement over time can be attributed to improvements in the infrastructure. Water unaccounted for generally comes from system leaks, fire hydrant use, and meter errors.

### USE – GALLONS PER CAPITA PER DAY

**In 2022, residential gallons per capita per day = 58.19**

Based on graph 1.2 below, the Company has had fluctuating daily use of water. This is largely attributed to population numbers reported and an increase in users over time. The population is reported based on a headcount conducted by the Company; however, due to the nature of the service area many users have several months throughout the year without any water use.

**Graph 1.2 – Gallons Per Capita Per Day**



## SECTION 2 – CONSERVATION PRACTICES

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### CURRENT CONSERVATION

The Woodland South Hills Water Company places a high value on the conservation of water and is already practicing the following:

- The Company maintains a membership with the Rural Water Association that helps educate their personnel and keep up to date on source protection, public education, and current regulations.
- The current water pricing and billing system was updated and adopted in 2022. The new pricing and billing is adequate to cover expenses in the water enterprise account and includes a higher rate for overages to discourage excessive water use. The Company may consider additional water pricing and billing system updates as needed.
- The Company enforces no outdoor watering with culinary water.
- The Company continues to complete infrastructure projects as identified on master planning documents completed by Consultants.

### CONTACT

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### EVALUATION OF EXISTING CONSERVATION EFFORTS

The Woodland South Hills Irrigation Company does not meet the State requirements for completing a Water Conservation Plan – and unless the system significantly grows past the projected build-out will not ever meet this requirement. While there are no formally established goals, the Company has implemented conversation efforts as stated in the “Current Conservation” section above.

### WATER CONSERVATION GOAL – REGIONAL GOAL INFO - NEW BEST MANAGEMENT PRACTICES & IMPLEMENTATION PLAN

**Goal 1 – Reduce or Maintain the Company’s Per Capita Water Use Rate By 5% by 2030:** The water use rate is currently 58 gallons per capita per day (gcpd). The goal is to maintain or bring this down approximately 53 gcpd. The savings will be measured in acre-feet and will be analyzed every five years by using the data that is submitted to the Division of Water Rights. This goal will be implemented by:



1. Actively investigating, monitoring, and educating the few connections that utilize water for outdoor uses to decrease outdoor use.
2. Reducing the loss of water by identifying and repairing leaks.
3. Continuing to replace infrastructure (as required).
4. The implementation of Goals 2 and 3 below will also aid in the reduction of water use.

### **Goal 2 – Increase Reporting Accuracy: Population Calculation**

Over the years, there has been an inconsistent process for calculating the population served by the Company. In general, because the service area is so small, it will never be captured via a formal government census. Current practice is to conduct an informal headcount. Over the next five years, the Company will work to identify the best source for calculating the population (e.g. based on census number per household in the County) and create a Standard Operating Procedure (SOP) for reporting this data. The SOP can then be used by any existing or new employee to consistently calculate the population. This will provide a more accurate reporting of water use per person.

**Goal 3 – Increase Public Awareness & Education Efforts:** Over the next five years, the Company plans to provide periodic flyers/information with the monthly utility bill utilizing existing messages from Slow the Flow, DWRs’s Conserve Utah, and WaterSense. Information will also be provided on the Company’s website.

## **PUBLIC INFORMATION, EDUCATION, & PROGRAMS**

- The Company currently has information posted on the Company’s website (<https://www.woodlandestateshoa.com/water-services>).
- Flyers are posted in the common mailbox area for residents.
- Information is mailed to each connection with the monthly water bill.
- Residents that exceed their monthly allotments are contacted directly to inquire about a possible leak or problem.

## **BYLAWS & STANDARDS IN PLACE**

The following bylaws and standards have been adopted and are currently in place:

- 2023 Company CCR Article 14 – Regulated Usage
- 2023 Water System Standards