LEEDS DOMESTIC
WATERUSERS ASSOCIATION

A private non-profit, shareholder owned culinary water utility.

WATER CONSERVATION PLAN

Updated July 2022

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1. INTRODUCTION

1.1. Introduction

Water conservation is a top priority given that Washington County is one of the fastest growing and driest regions in Utah.

In response to the increasing demands and concerns pertaining to water resources throughout the State of Utah, the state legislature has passed and revised the Water Conservation Plan Act (House Bill 71 and Section 73-10-32 UCA). This act requires agencies with more than 500 water service connections to prepare and submit a water conservation plan to the Division of Water Resources. The act also stipulates that the plans be updated no less than every 5 years. Although at this time the Leeds Domestic Waterusers Association's has only 409 connections, as of July 2022, the Association recognizes the importance of conservation especially during a period where the region is experiencing drought conditions, that we are updating our plans.

This water conservation plan has been prepared to address the concerns of leaders and citizens of both the Town of Leeds and the state of Utah.

It is intended that the plan will help the Town of Leeds prepare for and meet the future water needs of their community and effectively manage their water resources.

1.2. About Us

Leeds Domestic Waterusers Association (LDWA) is a non-profit shareholder-owned private corporation providing culinary water services since January 1956 to LDWA of Leeds. In 1954, the LDWA, made a bold move when they sought to remedy the obvious health & safety hazards resulting from the open ditch. LDWA borrowed $50,000.00 to build a 9-mile pipeline to bring drinking water down to Leeds from a spring high above LDWA, located at the base of Pine Valley Mountain. Until that time, the townspeople's drinking water had been piped and drawn directly from the open Leeds irrigation water ditch. With the funding and the men of Leeds supplying much of the back-breaking labor in laying the pipeline, Leeds citizens began to receive clean drinking water delivered in a secure system in January of 1956.

The Division of Drinking Water (DDW) and the Department of Environmental Quality (DEQ) recognize LDWA as the Culinary Water Authority for Leeds Town and thus requires LDWA to comply with DDW/DEQ requirements. These requirements include purification of culinary water in compliance with DDW/DEQ Rules.

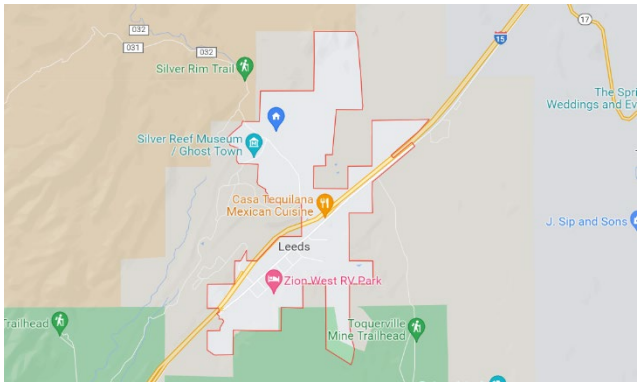
Visit the Associations Website: ldwacorp.org

1.3. The Area Served

The Town of Leeds is located in a beautiful valley in Southwestern Utah in Washington County, located along I-15 139 miles north of Las Vegas and 289 miles south of Salt Lake City. Leeds is in the center of Southern Utah's many national and state parks including Zion, Bryce Canyon, Quail Creek and Snow Canyon.

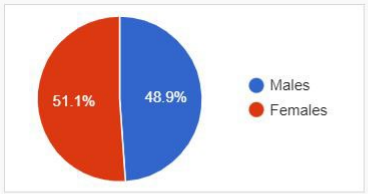
The Town's municipal boundaries encompass approximately six square miles with the 2020 population estimated at just fewer than 775 people. Within Leeds Town are the subdivision communities of downtown Leeds, Silver Reef, El Dorado, and others.

Visit the Town's Website: leedstown.org

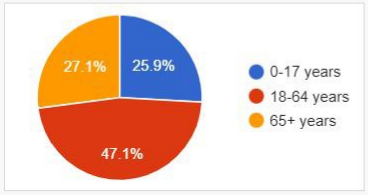


1.4. Demographics

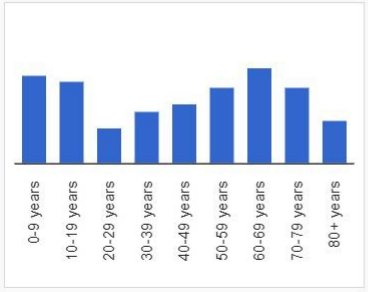
Leeds is a city located in Washington County Utah. Leeds has a 2020 population of 903. The community's vision for the future is to incorporate a generally open, rural, low profile form of development with an uncrowded feel and ample open space.



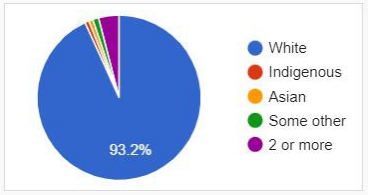
Gender (C 2010)	
Males	401
Females	419



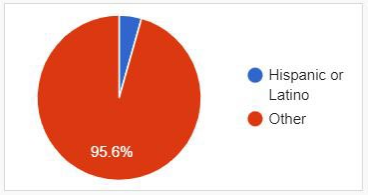
Age Groups (C 2010)	
0-17 years	212
18-64 years	386
65+ years	222



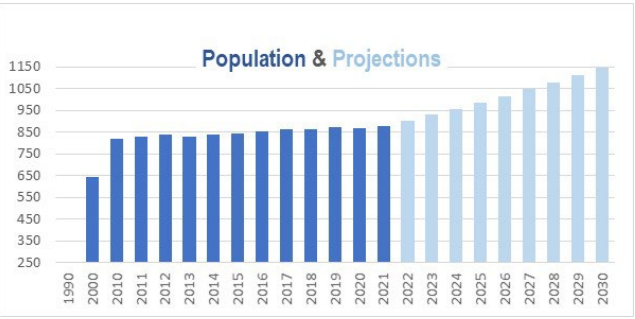
Age Distribution (C 2010)	
0-9 years	119
10-19 years	110
20-29 years	49
30-39 years	71
40-49 years	81
50-59 years	102
60-69 years	128
70-79 years	102
80+ years	58



»Race« (C 2020)	
White	805
Indigenous	7
Asian	7
Some other	10
2 or more	35



Ethnicity (C 2020)	
Hispanic or Latino	38
Other	826



2. WATER SYSTEM OVERVIEW

2.1. Water Connections

LDWA currently has 409 allocated water connections. Out of the 414 connections, 356 are residential, 20 are commercial, 5 are institutional, 1 industrial, and 27 connections are inactive (standby taps).

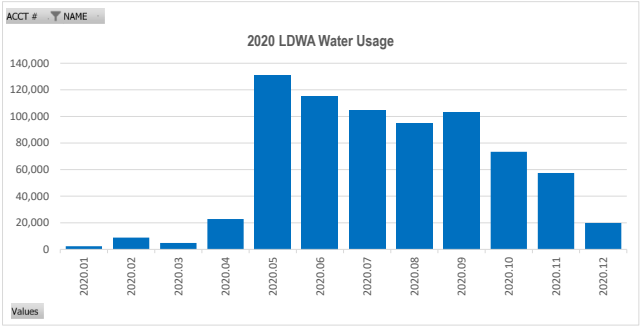
There are within the boundaries of Leeds Town a total of 193 parcels of land that do not own a water share and are within LDWA's service area.

2.2. Water Supply

LDWA receives most of its water from Oak Grove Spring at the base of Pine Valley Mountain and underground water stored in LDWA wells. LDWA currently provides culinary water to 100% of the Town of Leeds residents. In 2009, the Town of Leeds Municipality voted to provide a secondary water source for future annexations and development within Leeds in conjunction with the WCWCD.

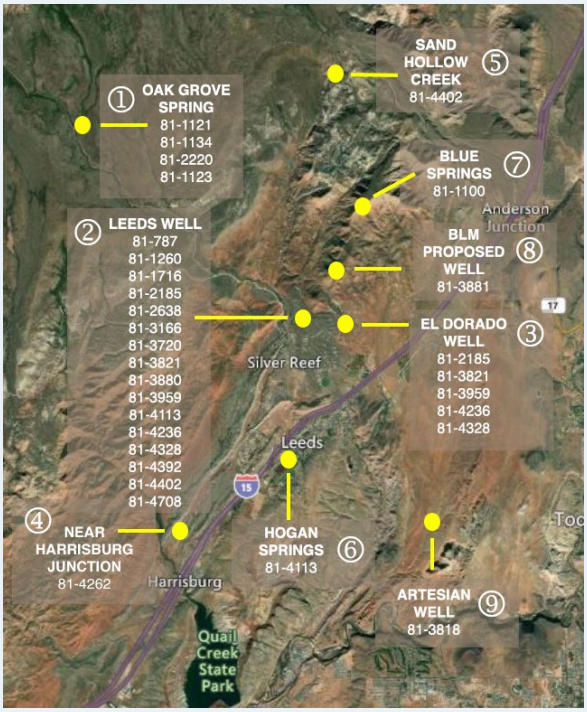
2.3. Water Use

Culinary water use increases during the summer months due to outdoor use.



2.4. Water Rights & Points of Diversion

Water Right	Type/Status	Priority Date	Quantity (ACFT)	Flow (CFS)	Use Type	Source
81-787	Certificated	08/06/1965	22.5	0.5	Municipal	Underground Water Well
81-1121	Decree	1880	4.5	0.05	Domestic	Quail Creek Spring (aka Oak Grove)
81-1123	Decree	1900	57	0.1727	Irrigation	Quail Creek
81-1134	Certificated	1880	79.64	0.11	Municipal	Oak Grove Spring
81-1260	Certificated	11/30/1970	60	0.25	Municipal	Underground Water Well
81-1344	Water User's Claim	11/30/1975	89.196	0.25	-	Underground Water Well
81-1716	Certificated	05/05/1965	80.1	0.3335	Municipal	Underground Water Well
81-1752	Certificated	03/17/1952	85.298	0.4394	-	Underground Water Well
81-2185	Certificated	05/05/1965	31	0	Municipal	Underground Water Wells (2)
81-2220	Decree	1880	14.4	0.05	Domestic	Quail Creek Spring (aka Oak Grove)
81-2638	Decree	1880	39	0	Irrigation	Hogan Springs
81-3160	Certificated	01/08/1969	40.08	0.167	-	Underground Water Well
81-3166	Decree	1880	21	0.07	Irrigation	Hogan Springs
81-3720	Certificated	01/24/1964	10.5	0	Municipal	Underground Water Well
81-3821	Certificated	07/23/1981	0.772	0	Municipal	Underground Water Wells (2)
81-3853	Certificated	05/05/1965	5.82	-	Irrigation	Underground Water Well
81-3959	Certificated	11/30/1971	10.2	0	Municipal	Underground Water Wells (2)
81-4113	Decree	1880	8	0	Irrigation	Hogan Springs
81-4236	Certificated	11/30/1971	5.65	0	Municipal	Underground Water Wells (2)
81-4262	Certificated	11/30/1971	18	0	Irrigation	Underground Water Well
81-4328	Certificated	11/30/1971	1.7	0	Municipal	Underground Water Wells (2)
81-4392	Certificated	11/30/1971	11	0	Irrigation	Underground Water Well
81-4402	Decree	1885	24	0	Irrigation	Sand Hollow Creek
81-4540	Certificated	11/30/1971	43.15	0.0925	Irrigation	Underground Water Well
81-4707	Certificated	11/30/1971	8.78	-	Irrigation	Underground Water Well
81-4708	Certificated	11/30/1971	1	0	Irrigation	Underground Water Well
81-4757	Certificated	12/01/1960	8	0	-	Underground Water Well
81-4804	Certificated	03/23/1972	5	0		Underground Water Well



3. CONSERVATION MEASURES

3.1. Current Programs

LDWA currently implements the following water conservation measures and programs:

Public Awareness Program.

LDWA provides notices and newsletters including water conservation information within its monthly invoicing and billing statements, in conjunction with public email distribution and a comprehensive website to educate and inform all LDWA customers. Residents are encouraged to participate in water conservation throughout the year.

Water System Maintenance.

LDWA has installed a Supervisory Control and Data Acquisition (SCADA) system to monitor tank levels and pump controls to avoid potential overflows. The Water Superintendent routinely checks for water leaks and LDWA plans to purchase a leak detector in the future. The upgrade of the LDWA water system includes a back up well and installation of new meters.

Water Rates.

An inclining block water rate has been adopted to encourage conservation through increased rates for water used in excess of a reasonable amount.

Water Use Rates

LDWA Monthly Rates Schedule

Effective August 1, 2009

RESIDENTIAL RATES

0 up to 20,000 gals =	$40.00/mo +
20,001 up to 40,000	$1.00/1,000
40,001 up to 60,000	$3.00/1,000
60,001 up to 80,000	$5.00/1,000
80,001 up to 100,000	$6.00/1,000
100,001 and up	$7.00/1,000

COMMERCIAL RATES

0 up to 20,000 gals =	$40.00/mo +
20,001 up to 40,000	$2.00/1,000
40,001 up to 60,000	$4.00/1,000
60,001 up to 80,000	$5.00/1,000
80,001 up to 100,000	$6.00/1,000
100,001 and up	$7.00/1,000

INSTITUTIONAL RATES

0 up to 20,000 gals =	$40.00/mo +
20,001 up to 40,000	$2.00/1,000
40,001 up to 60,000	$4.00/1,000
60,001 up to 80,000	$5.00/1,000
80,001 up to 100,000	$6.00/1,000
100,001 and up	$7.00/1,000

INDUSTRIAL RATES

0 up to 20,000 gals =	$40.00/mo +
20,001 up to 40,000	$2.00/1,000
40,001 up to 60,000	$4.00/1,000
60,001 up to 80,000	$5.00/1,000
80,001 up to 100,000	$6.00/1,000
100,001 and up	$7.00/1,000

4. KEY COMPONENTS OF WATER

4.1. Challenges/Opportunities

Key Components of Water Conservation
These key components of water conservation work together synergistically to promote wise water use:

Water pricing
Tiered-rate structures apply higher rates as water use increases. These rate structures encourage efficiency, while ensuring the affordability of water for essential uses.

Incentives
Tools that invite and encourage the community to participate in the conservation programs.

Regulations
City and county governments have adopted a variety of land-use codes and water-use ordinances to promote the efficient and wise use of local water resources.

Education
Designed to invite acceptance and compliance from the community while helping residents understand that responsible water use is a critical choice when living in a desert environment.

4.2. Water Pricing

As listed on Page 6, the LDWA has in place a tiered water pricing model. This model & it's pricing/usage structure should be evaluated periodically to reflect the changes in demographics and water supply.

4.3. Incentives

Clearly a tier based pricing model done correctly is consistent way to drive water conservation within a user base. Where larger utilities are able to structure rebate programs to their based, small rural privately held organizations like the LDWA have to be more creative.

Researching and informing shareholders of programs from manufactures is a way to promote those incentives into our user base.

Programs such as: (for Outdoor Conservation)

- Water Smart Irrigation Rebate Programs which include devised like high efficiency spray nozzles for irrigation.
- Conversion programs from spray nozzles to micro drip systems.
- Purchase discounts for Smart Water Application Technology (SWAT) Controllers for irrigation.

Programs such as: (for Indoor Conservation)

- High-Efficiency Clothes Washer Rebate Program from Equipment Manufacturers.
- High-Efficiency Dish Washer Rebate Program from Equipment Manufacturers.
- Programs from Manufactures regarding WaterSense-labeled toilet replacements.
- WaterSense-labeled smart Controls for home system monitoring.

4.4. Regulations

Continue to work with the Town of Leeds & the County and align land-use codes and water-use ordinances to promote the efficient and wise use of local water resources.

4.5. Education

LDWA will encourage Waterusers to:

1. Install water-efficient fixtures in all new construction.
2. Replace non-efficient fixtures with water-efficient fixtures in existing structures.
3. Promote water conservation policies & xeriscape & water-efficient landscaping.
4. Take immediate corrective action and institute recurrence control on all water system leaks.

LDWA will:

1. Publish the status of LDWA's water consumption with comments and recommendations for conservation. Also provide examples of water conservation landscaping that are effective.
2. Continue to use water rate structures that reward low water usage.
3. Promote the use of new conservation technologies.
4. Promote use of a secondary water system for irrigation purposes.

The following information on efficient outdoor and indoor water is available to all citizens through the LDWA website and included in invoice statements throughout the year.

Water Conservation :: Outdoor Tips

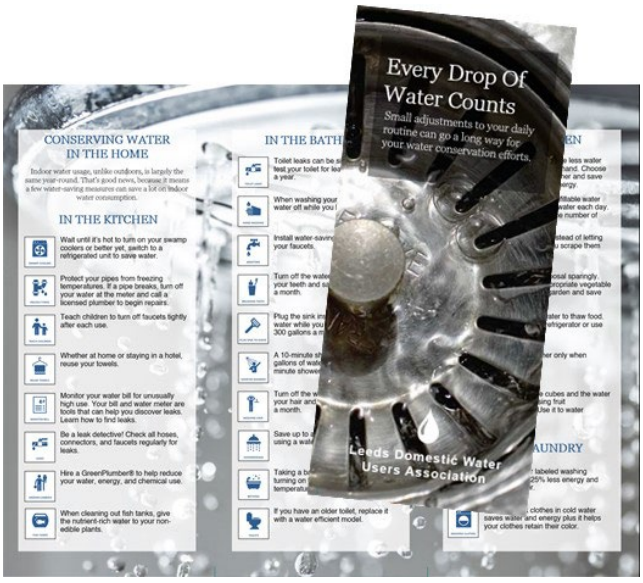
Outdoor water usage can be twice that of indoor water usage. Currently the LDWA has produced the following to drive awareness.

Online information: LINK TO INFO
Brochure: LINK TO PDF

Water Conservation :: Indoor Tips

There are many incremental changes individuals can make in their homes to lower water consumption.

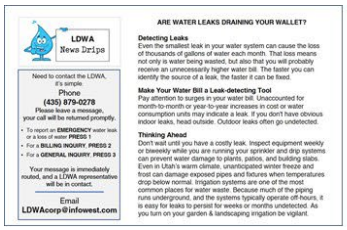
Online information: LINK TO INFO
Brochure: LINK TO PDF

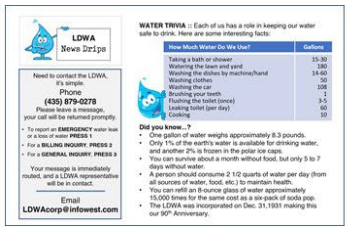


Water Conservation :: NewsDrips Articles

Printed on back of monthly invoices throughout the year. *(Links to articles below)*

Detecting Water Leaks, When in Drought Conserve, Use of Fire Hydrants, Water Consumption Facts





4.5. Table of Water Conservation Activities

PROGRAM	DESCRIPTION
Real water loss reduction (system wide)	Find and replace leaks in the distribution system to reduce real water loss.
Tiered water conservation rate	Continually evaluate water rate structure to incentivize conservation. Modifications could include adjusting the tiers or rates.
Advanced Metering Infrastructure (AMI)	Evaluate system upgrades and promote consumer efforts to implement AMI systems and make consumption data easily accessible to water users.
Weather-based irrigation controller rebates	Promote awareness for weather-based irrigation controllers inform consumers of any manufacturer rebates if available.
Irrigation equipment rebates	Promote information to shareholders that manufactures offer rebates for converting to high-efficiency sprinkler nozzles, eliminating an irrigation station and adding pressure reducer valves.
Efficient outdoor watering education	Educate the public on outdoor efficiency initiatives, including workshops, certified landscaper training, plant tagging, speakers bureau, managing water conservation gardens, coordinated outreach to other water provides, local nurseries/landscapers etc.
Outdoor water audit	Promote importance of periodic inspection of all outdoor water irrigation for leaks & repair.
Tree rebate	Provide the fact that local merchants offer discounts & rebates to community for water-efficient trees,
Public and school education	Raise awareness of conservation benefits and measures via school programs, speakers bureau, media coverage, advertising campaigns, and electronic/printed educational materials

5. IMPLEMENTING & UPDATING PLAN

5.1. Implementing & Updating

To manage the existing and additional water conservation programs, the LDWA may need to increase conservation staffing and spending. The LDWA would of course prefer to recruit volunteers for our nonprofit association. Hiring additional employees and/or engaging additional consultants to help promote and implement the various conservation programs and plans could result in progressively increasing our rate schedule and budget to cover additional costs.

These individuals would be needed to oversee the education, outreach and communication campaigns to promote the various water conservation programs. Efforts would most likely include the preparation and distribution of creative materials, newsletters/articles, public speaking activities, direct mailers, social media postings and participation in various community events.

This plan has been reviewed, approved and adopted by the Leeds Domestic Waterusers Association Board of Directors on July 1, 2022, LDWA Resolution 2022.01 and included herein. It is an update of the LDWA Water Conservation Plan adopted by Resolution 2010-01 on April 15, 2010.

This water conservation plan will be updated and resubmitted to the Utah Division of Water Resources as necessary.

6. CONCLUSION

6.1. Conclusion

LDWA has a limited water resource. The Association has taken an aggressive approach to protect our water rights, but even with these actions water conservation is very important to ensure our community has a safe, reliable water supply for current and future generations.

- Key milestones needed to achieve our water conservation goals include:
- Continue existing water conservation programs
- Create programs for residential landscape consultations
- Promote water audits and investigate customized water saving program for high users
- Work with our municipal partners to pass and enforce new development standards
- Secure additional staff to promote, implement and track conservation programs
- Increase participation levels and conservation budget