

May 15th Lunch and Learn - Water

Speakers:

- Nathan Brooks (Director of Environmental Health - Summit County)
- Shital Poudyal (Assistant Professor and Extension Specialist - Utah State University)
- Susan Cordone (Conservation Coordinator – Water Department - Park City Municipal Corporation)

For general questions contact Evan Hodson | evan.hodson@parkcity.org

Nate Brooks (Director of Environmental Health - Summit County)

Environmental Health focuses on monitoring and mitigating environmental factors that impact public health now and in the future. Key areas include:

- **Air Quality**
- **Drinking Water**
- **Wastewater Management**

Summit County is a leader in wastewater innovation in Utah, employing many experimental systems:

1. **Conventional Septic Systems:** These include septic tanks and drain fields.
2. **Alternative Septic Systems:** These use a septic tank combined with a recirculating hanging fabric filter.
3. **Graywater Systems:** These systems reuse water from sinks, showers, and washing machines, which contains detergent and soap by-products. Summit County permits graywater systems that operate about six inches below the surface.
4. **Hybrid Alternative Systems:** These combine blackwater (from toilets) and graywater for subsurface irrigation.

Shital Poudyal (Assistant Professor and Extension Specialist - Utah State University)

USU is researching the effects of graywater on plants and soil, finding no negative impact on plant growth.

QWEL Certification (Qualified Water Efficient Landscaper) is an EPA WaterSense-labeled professional certification for irrigation installation and audits, available for both residential and commercial applications. Training is organized by USU Extension, Water District, and UNLA, typically 3-4 times a year.

- **Cost:** \$100
- **Duration:** 20 hours (2 days of training, 1 day of examination)
- **Annual Renewal:** Free

Benefits:

- Inclusion in the EPA and QWEL directory
- Use of the QWEL logo
- Networking opportunities
- Access to free resources from CWEL (Center for Water Efficient Landscaping), including webinars and other educational materials.

Susan Cordone (Conservation Coordinator – Water Department - Park City Municipal Corporation)

Local initiatives to promote water efficiency:

- **Weather-Based Irrigation Controllers:** Available with rebates to help manage water usage efficiently.
- **WaterSmart Program:** Assists in identifying leaks and other water usage anomalies.
- **Turf Removal Rebate:** Through an interlocal agreement with Weber Basin, residents can get \$3.00 per square foot of live turf removed to encourage water-saving landscaping.

In Park City, water usage is evenly split between commercial (26%) and residential (26%) sectors, highlighting the importance for us all to step into our role as water managers.



Onsite Wastewater and Gray Water in Summit County

Nathan Brooks- Summit County Health Department

Summit County Environmental Health

Environmental Health: The branch of public health provides monitoring and mitigation for environmental factors that currently affect and may affect future generations.

What services do we provide the public:

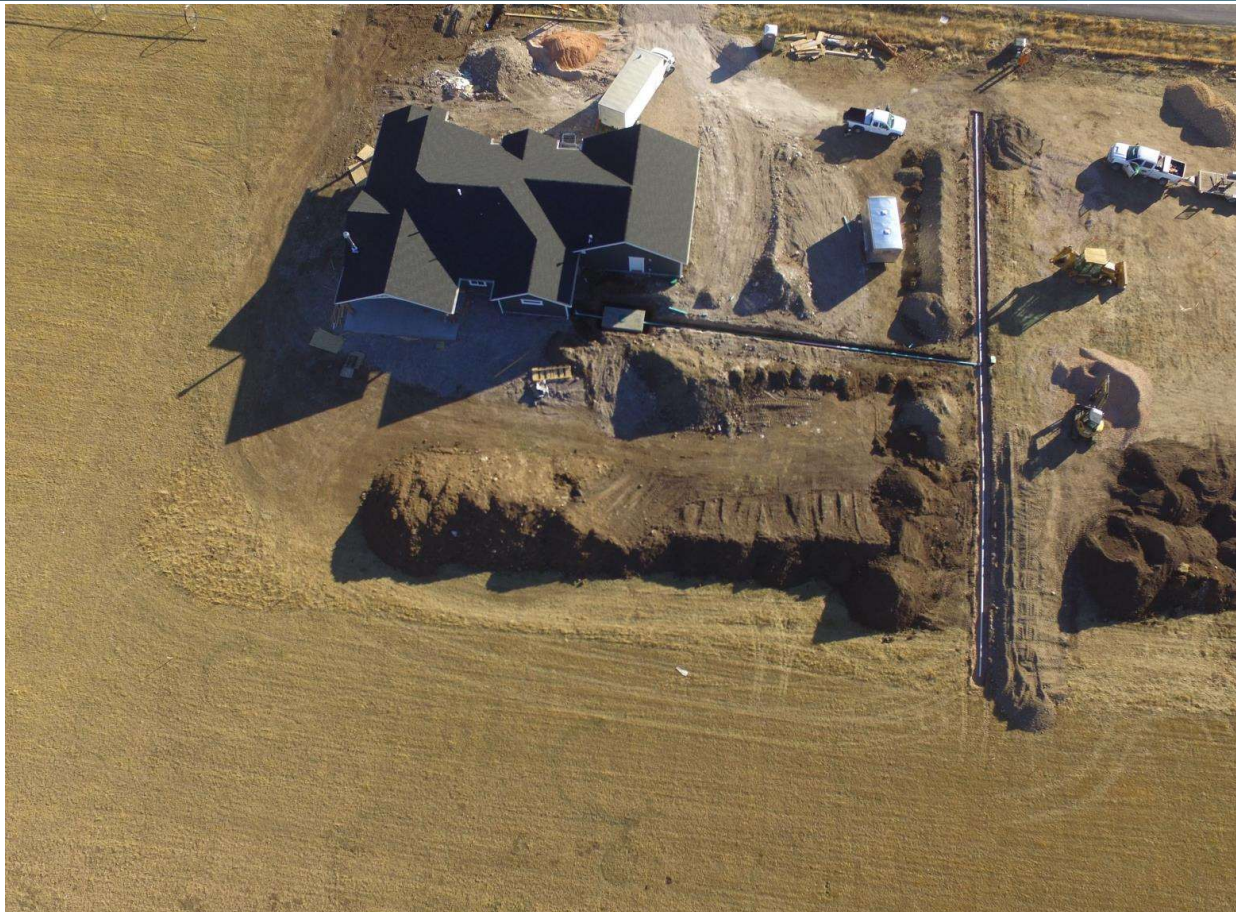
- Permit, Inspect, test, educate, and work with the public in the program below:
 - Air quality
 - Onsite wastewater
 - Public swimming pools
 - Drinking water
 - Restaurants/food trucks/special events
 - Recreation water quality
 - Hazmat response



Summit County Onsite Wastewater

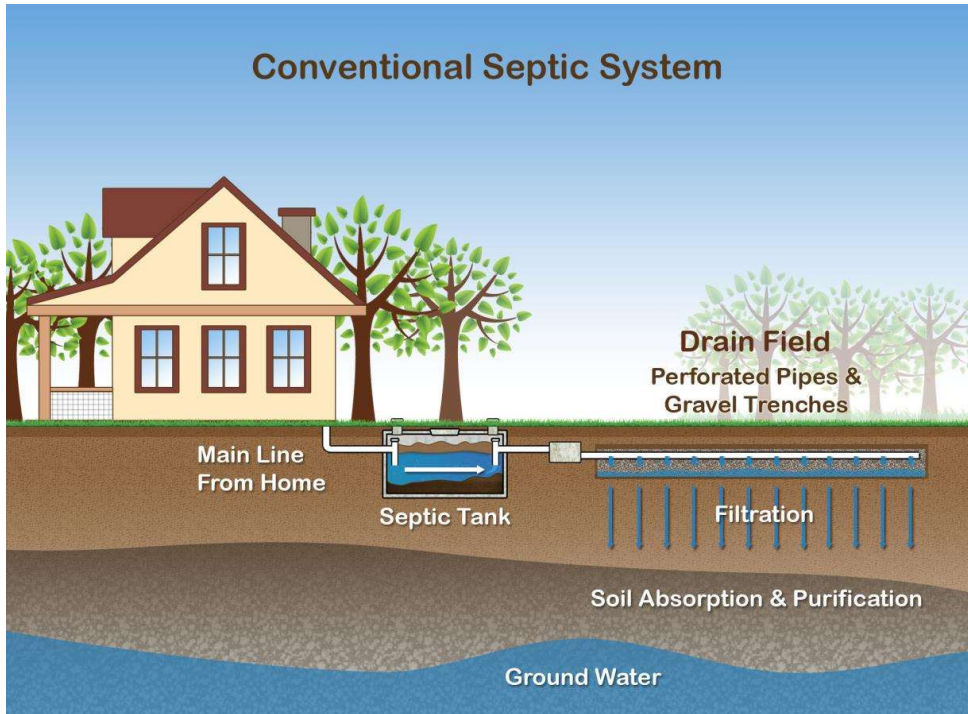
- The first septic systems were permitted in the early 1970's (the Health District at the time was covering Morgan, Wasatch, and Summit Counties)
- Summit County leads the way in innovations within the State of Utah for new technology and wastewater treatment
 - Currently have 4 experimental systems in use, more than the entire State of Utah
- A “crappy” problem occurring is that more growth in our mountain valleys = more wastewater production
- Roughly permit 120 new septic systems per year- perc test, plan review, permit, and final inspection
- Summit County is the headwaters for the Weber and Provo Rivers- Many cabins along these river corridors.
- SCHED currently manages State DWQ Large Underground Waste Disposal Systems- 5000 gallons per day of wastewater.

Summit County Onsite Wastewater

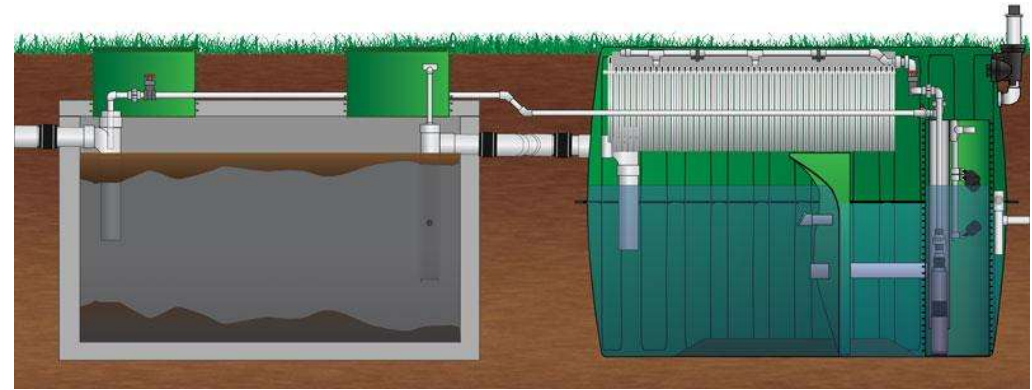


What is a septic system?

Conventional Septic System



Alternative Septic System



Why use a septic system?



Nearly 8000 septic systems within Summit County



Many areas do not have public sewer



Effective method to treat and discharge wastewater



Septic system discharge water back into the ground, not into a stream so the water stays within the County



R317-4 Utah Onsite Wastewater code was first composed in the mid-1970s. Many code revisions and standards are much higher now.

Gray and Black Water

KNOW YOUR WATER

CLEAR WATER	GRAY WATER	BLACK WATER
		
Faucet/Tap	Baths, Bathroom Sinks, Washing Machines	Toilets, Dishwashers, Kitchen Drains

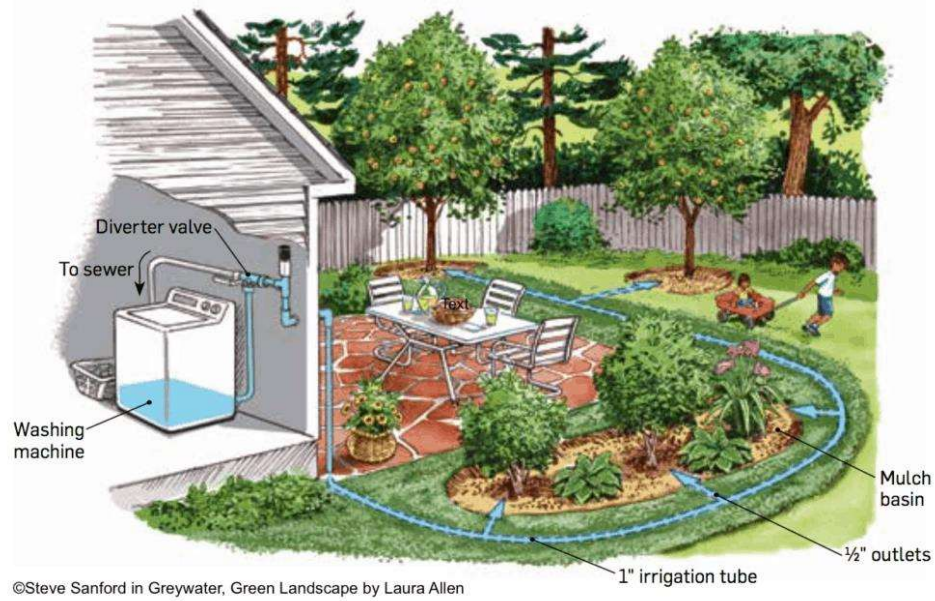
The infographic is set against a teal background. At the top, the title 'KNOW YOUR WATER' is written in a bold, white, sans-serif font. Below the title, three columns are arranged horizontally. Each column has a header in all caps: 'CLEAR WATER', 'GRAY WATER', and 'BLACK WATER'. Under each header is a circular illustration of a plumbing fixture. The first circle shows a faucet with a small inset showing clear blue water. The second circle shows a showerhead with a small inset showing brownish-gray water. The third circle shows a toilet with a small inset showing black water. Below each illustration is a text label identifying the fixture and the types of water it produces.

Graywater

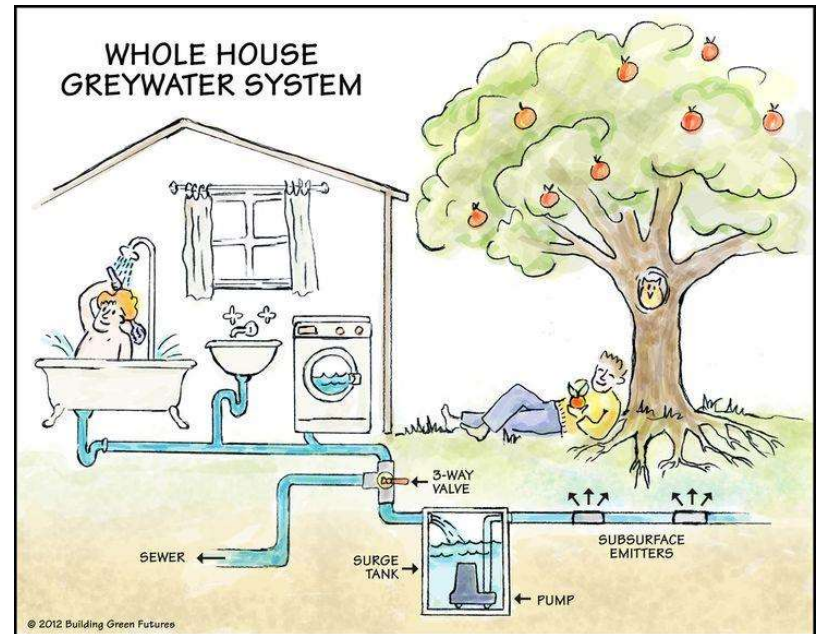
- R317-401- Utah Graywater System Code
- Code was just revised on May 1, 2024
- Only allows for subsurface application
- Graywater contains more detergent and soap by-product levels than standard black water.
- Can be installed in conjunction with a septic system or public sewer
- Summit County does permit graywater systems- No systems have been permitted to date
- Tiered Graywater systems:
 - Tier 1- Gravity-fed graywater system that does not include a surge tank, pre-treatment or pressured components. Simple to operate and can easily be disconnected if needed.
 - Tier 2- Graywater system that employs a surge tank, pretreatment, drip line irrigation system, or pressurized components.

Graywater

Tier 1

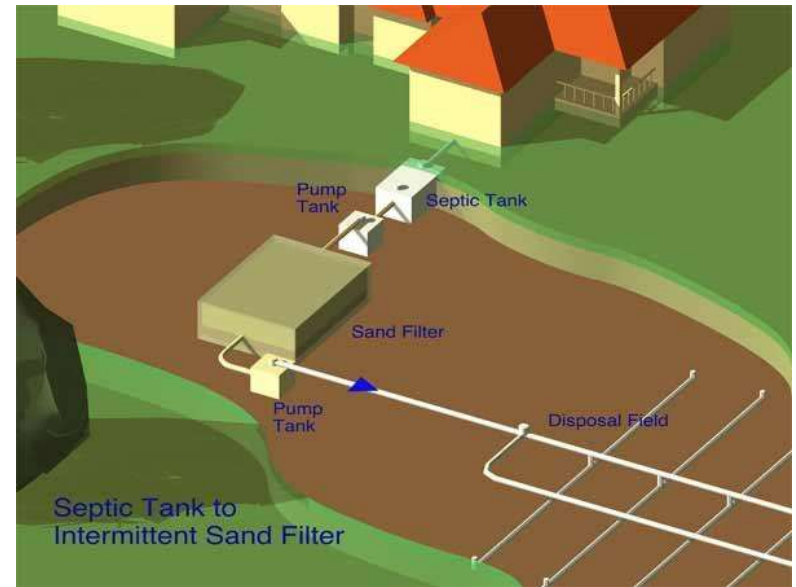


Tier 2



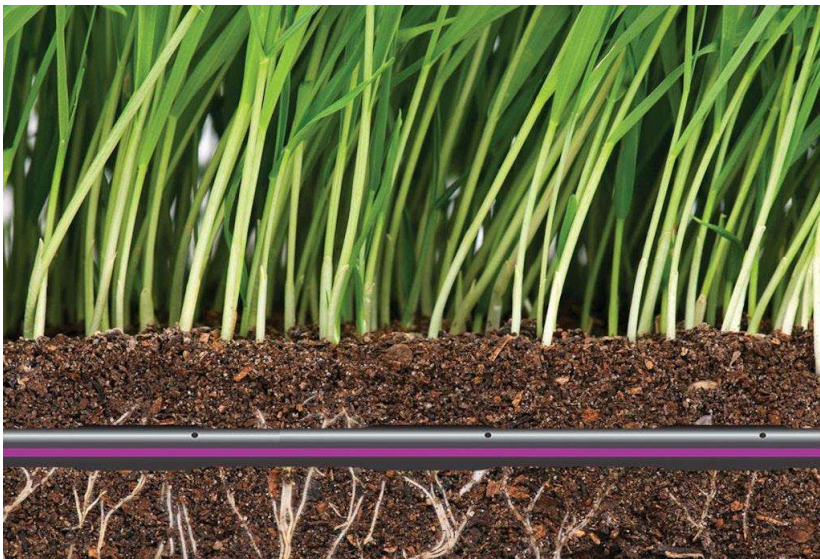
Hybrid Alternative Black and Graywater System

Utilizes both black and gray water in the same system to provide subsurface irrigation



Hybrid System

Utilizes both black and gray water in the same system to provide subsurface irrigation



Conclusion

1

Summit County encourages water reuse and restrictions

2

We understand the challenges currently and, in the future

3

Codes can be restrictive, but it does not mean that we are limited in our progressive outlook for the future

4

Through education and citizen's awareness, we can develop a more robust water conservancy partnership in Summit County



QWEL Certification: What, how and why

Shital Poudyal, Ph.D

Assistant Professor and Extension Specialist



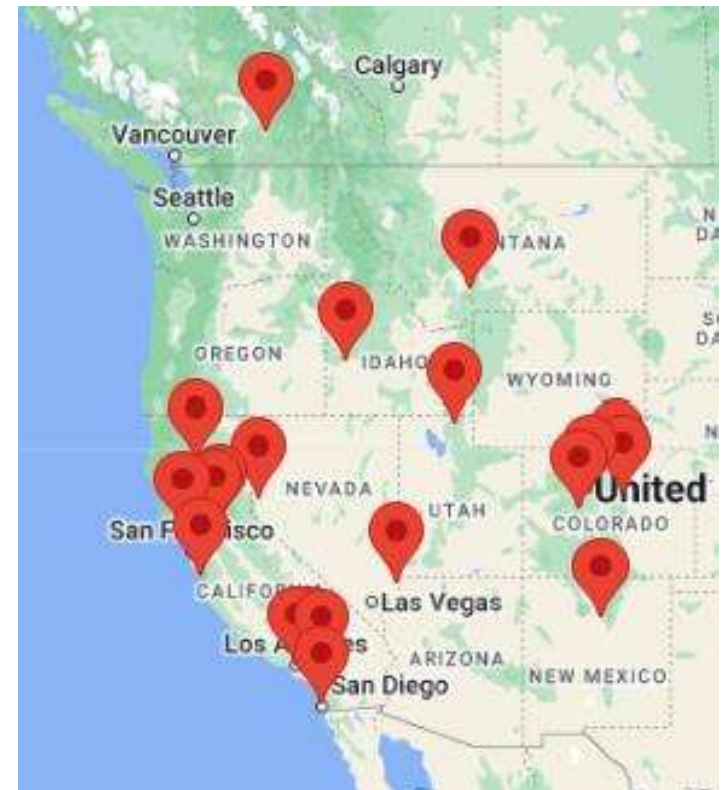
What is QWEL

- Qualified Water Efficient Landscaper (QWEL) program is an EPA WaterSense labeled professional certification in irrigation system audits.
- Both Residential, Commercial
- Started by Sonoma-Marín Saving Water Partnership (Partnership) that now represents 13 water utilities in Sonoma and Marin counties, CA that have joined together to provide regional solutions for water use efficiency.
- Now adopted in 7 states and Canada



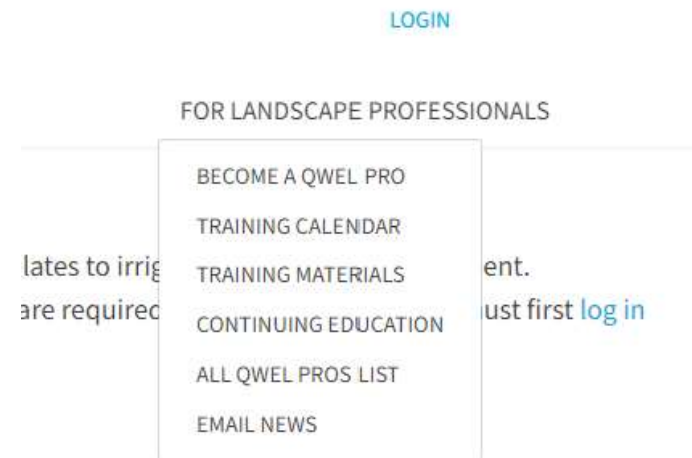
What is QWEL

- For three consecutive years (2014-16) the Partnership was the recipient of the Professional Certifying Partner of the Year award for its work in educating landscape professionals through its WaterSense labeled QWEL professional certification program.
- For six consecutive years (2017-2022) the Partnership has been the recipient of the Sustained Excellence Award.



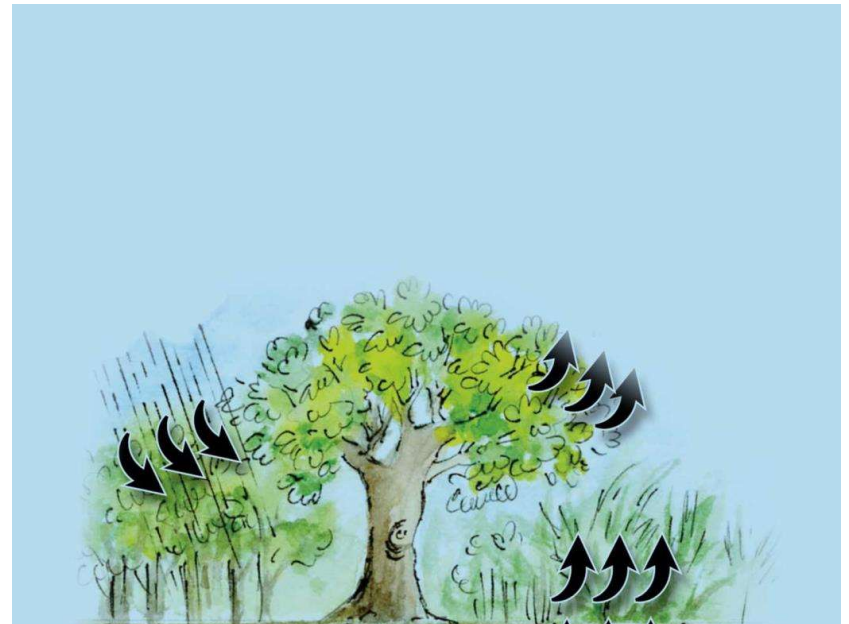
How do you become QWEL Certified

- USU Extension, Water District and UNLA jointly organize training and education session
- Low cost 20-hour training and certification on irrigation and water management
- Need to register at <https://www.qwel.net/calendar>
- Create an account.
- Attend 2 days of training schedule and pass exam
- Complete requirements for FREE annual renewal



Why QWEL

- Gain understanding of relevant topics
 - Where Our Water Comes From
 - Sustainable Landscaping
 - Soils
 - Landscape Water
 - Irrigation Systems
 - Irrigation Maintenance & Trouble Shooting
 - Irrigation System Auditing
 - Irrigation Scheduling
 - Irrigation Controllers



Why QWEL

- Listing your name/business name on EPA Watersense and QWEL website as Certified Professional
- Free use of QWEL Logo
- Networking
- Great food

Find a Pro



WaterSense and its professional certifying organization partners jointly maintain the Directory of Certified Professionals. Updates to the directory are made quarterly and reflect the best information available at the time. Individuals listed in the directory have successfully completed all the requirements of at least one WaterSense labeled professional certification program.

Related Links

- [Irrigation with a Pro Page](#)
- [WaterSense Outdoors](#)
- [Download Full List of Professionals](#)
- [WaterSense Home](#)

[Reset ZIP Code Only](#)

Search by ZIP Code [?]

84341 [Search](#)

25 Miles

2 Records Found for Certified Professionals
Showing Records **1** through **2**

Andrew Beutler

Company Name Applewood Tree And Landscape

Email: applewood23@gmail.com

Phone: (435) 760-0286

Customer Types: Residential, Commercial

Certifications: Irrigation System Audit

Professional Certifying Organization: Utah State University Cooperative Extension, a QWEL Adopting Organization

Sort By ↓ ↑

Available For Hire: Yes

Distance (Miles): N/A

City: Logan

State: UT

Website: N/A

CWEL - USU



Center for Water Efficient Landscaping

Providing research-based outreach programs to help improve the efficient use of water for landscape irrigation.

BUYBACK PROGRAM
Outdoor water use makes up 60% of our municipal and industrial use. Expanded turf removal programs show we are serious about water conservation.

60%
WATER CONSERVATION MEASURES

STATEWIDE INSTALLATION OF SECONDARY WATER METERS

WATER PLANNING
Land and water use planning are currently done separately. Adopting water efficiency standards is proactive and more cost effective than future turf replacement.

AGRICULTURAL OPTIMIZATION
Agriculture accounts for approximately 75% of Utah's water use.

Utah Growing Water Smart Program

The **Utah Growing Water Smart** program provides workshops and resources for community leaders and staff to integrate water and land use planning and support decision making for building a more



Webinar Series

The **Water Well with CWEL Webinar Series** is for anyone interested in water conservation and related topics.



Demonstration Landscapes

Demonstration Landscapes Initiative Waterwise Landscape Plans

Our goal is to provide you with water-efficient ideas that are easy to replicate in your home landscape.

Thank you

Shital Poudyal, Ph.D

Shital.poudyal@usu.edu





Public Utilities

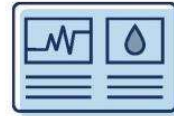


Conservation



WATER RATE STRUCTURE

Tier based water rates
Water pricing designed to discourage excessive water use



WATERSMART MAILER

6x a year with recommendations to reduce water usage

WATER LOSS REDUCTION PROGRAM



A target of less than 20% system loss by 2030



ONGOING RESTRICTIONS

Watering prohibited from 10:01 am – 6:59 pm.
Watering restricted to every other day at most.
Water Waste is prohibited.

REBATES/INCENTIVES



Utahwatersavers.com
Slowtheflow.org
Rain Barrels



PARTNERSHIP WITH WEBER BASIN WATER CONSERVANCY DISTRICT

- Conservation Garden
- Classes

WATERSMART WEBSITE



A customer's hourly consumption data.
A library of 140 conservation activities.

MEMBERSHIPS

Utah Water Conservation Forum
Alliance for Water Efficiency



LEAK ALERTS
Single Family and Irrigation Accounts



USAGE ALERTS
Available for all account types.



Conservation

- Signed Interlocal Agreement with Weber Basin
 - Now \$3.00 rebate per sq. ft. (of live turf removed)
- 50 + Site Visits
- 4 Conversions (one more finishing up)
- Water Harvest – Rain Barrel Program – May 5th, 2024
- 1 Large HOA is planning on removing 20k of turf
- 3 more HOA's pending approval

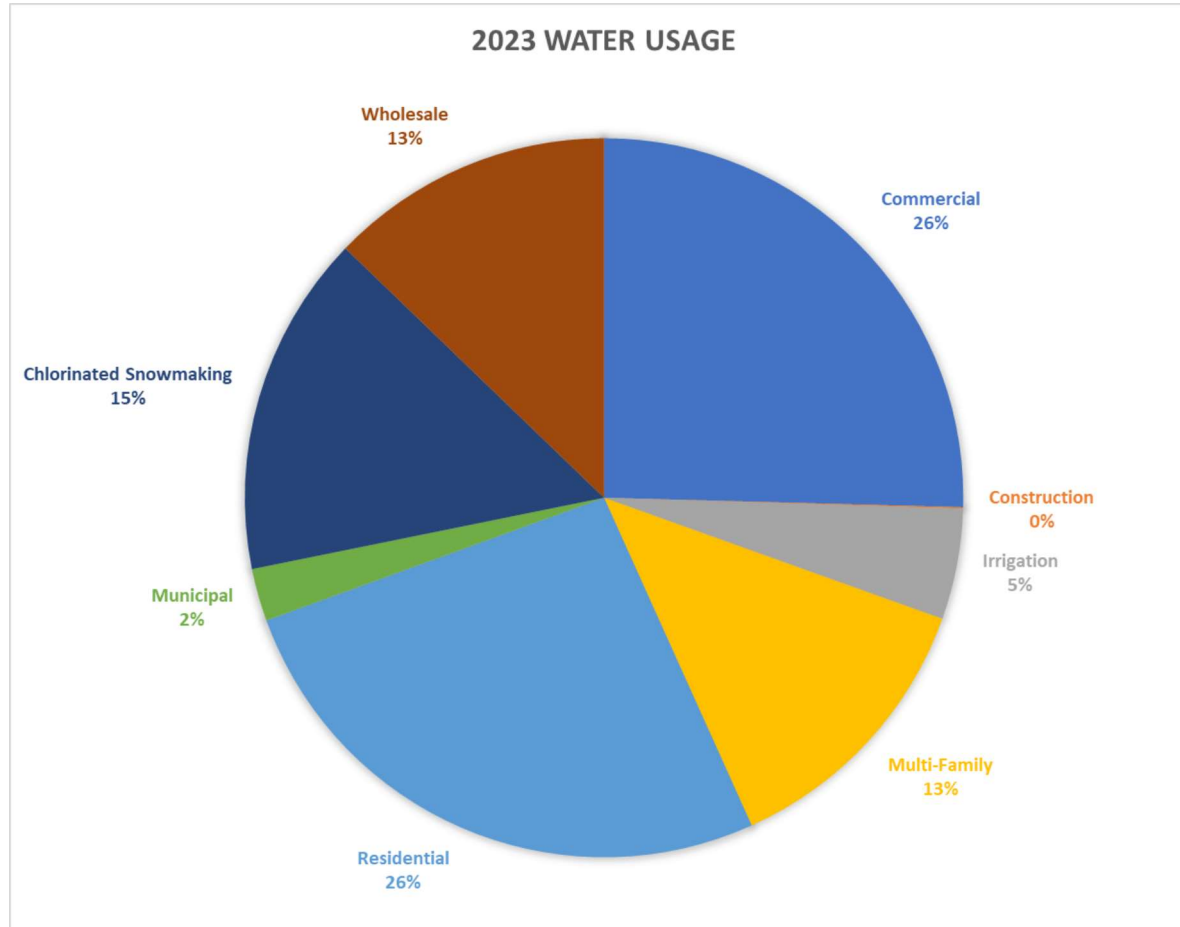


Conservation

- Behavioral
- Device driven
- Industry Leadership...what are 'they' doing?
- Everyone is a ***Water Manager***
- Next steps for Summit County...



2023 Water Usage



Trivia Break

- What area is at the top of the local watershed?
- Does what we do/consume affect our downstream neighbors?
- What can we do to help the community effort?



Contact us:

- Park City Water Department main # 435-615-5335
- Landscape Incentive Program savewater@parkcity.org
- Susan Cordone – 435-615-5312 or susan.cordone@parkcity.org

