

Chapter 05

Water Conservation

Chapter Highlights

- Water is Utah's most precious resource. Understanding and conserving it is critical in meeting Utah's future water needs.
- The establishment of regional water conservation goals recognizes that, while different areas of Utah have unique challenges, everyone can help reduce water demand through water conservation practices.
- The Division administers and promotes several programs aimed at water education and conservation outreach.

Water is Utah's Most Precious Resource

Water is necessary for life. Everything from our lifestyles to our gardens to the network servers that allow us to browse social media depends on it. Utah has a semi-arid climate and is one of the driest states in the nation. Utahns must work together to appreciate and conserve water.

The Utah Division of Water Resources (Division) administers water conservation and education outreach to inform, promote, and strengthen Utah's waterwise ethic, which leads to more efficient use of this precious resource.

The Division has been promoting water conservation practices for over 30 years, including:

- Emphasizing water conservation in state and river basin water plans.
- Implementing state water funding boards' water conservation policies.
- Administering the Water Conservation Plan Act.
- Supporting and leading the media campaign of the Governor's Water Conservation Team.
- Researching new water conservation technologies and practices.
- Promoting water reuse.
- Recommending Best Management Practices for Utah's water providers.
- Setting the example of efficient water use at state facilities.
- Implementing Regional Water Conservation Goals.

The State of Utah continues to make significant progress in water conservation. According to the [2015 Municipal and Industrial Water Use Report](#), statewide water use decreased by about 18% from 2000 to 2015. New regional water conservation goals were developed to enhance water conservation efforts around the state. Regional goals are specified in the document titled [Utah's Regional M&I Water Conservation Goals](#) and are shown in Graphic 5-1.

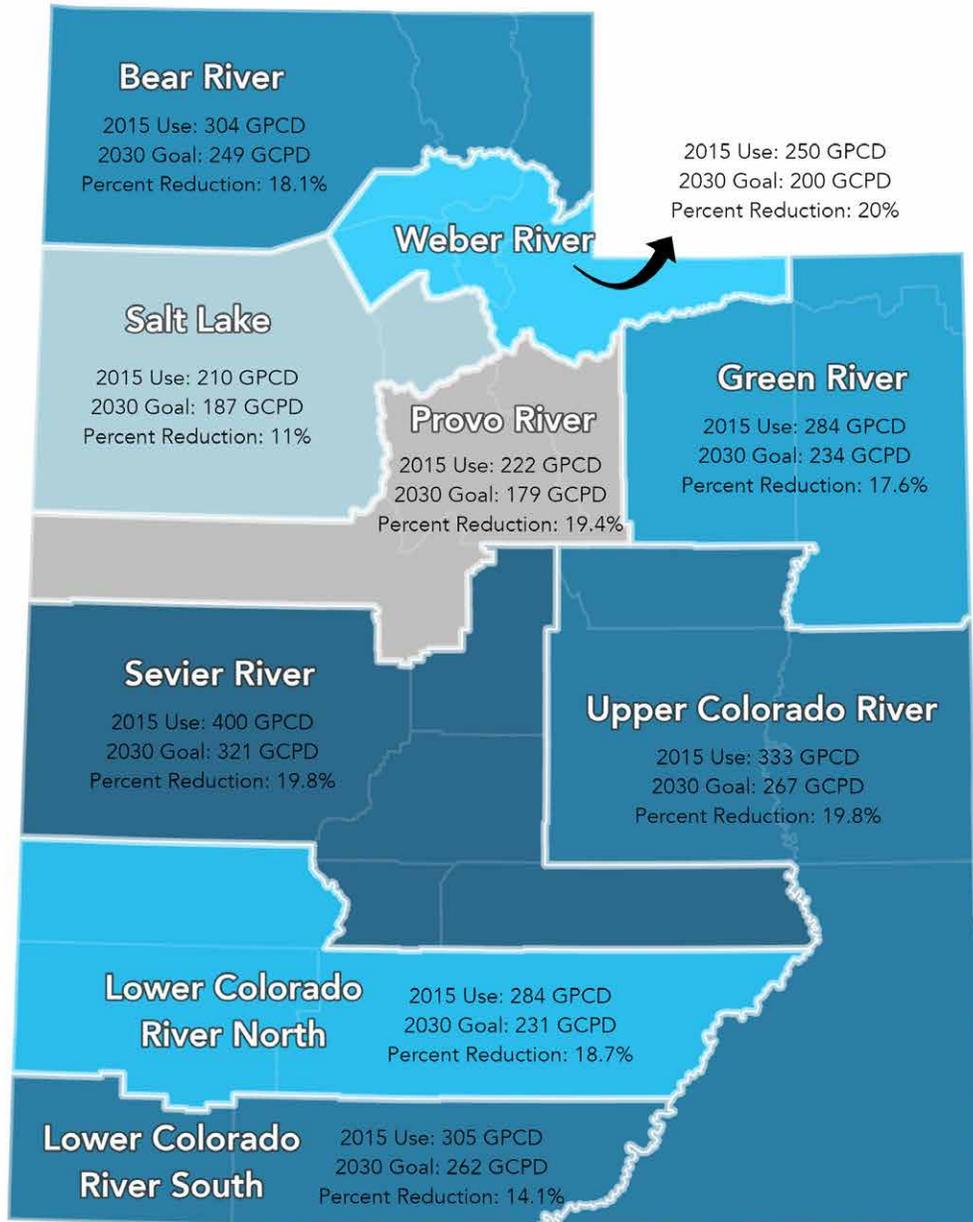
Region-specific goals for Utah make sense, given Utah's diverse geography. Utah is the first state to establish conservation goals on a regional level. The regions (see Graphic 5-2) were created based on the Board of Water Resource's river districts, except the Lower Colorado River North and Lower Colorado River South regions.

The regional goals build on the previous statewide goal of reducing per-capita use by 25% by 2025. Reaching these regional goals will require actions including policy and ordinance changes on the state, county, and municipal levels.

As part of the Division's effort to develop regional water conservation goals, over 1,650 people participated in a water conservation survey. The Division also held open houses in eight different locations across the state in the fall of 2018 to solicit input and answer questions. This robust public process resulted in 330 public comments. After public input was compiled, a team consisting of water providers, members from the Governor's office, and Division staff worked with a third-party consultant to provide input on region-specific M&I water

Graphic 5-1 What Is the Regional Water Conservation Goal Where You Live?

M&I Water Conservation Regions 2030 Goals and 2015 Use Averages



2030 Statewide Water Conservation Goal
202 GPCD
Gallons per Capita per Day

16% Reduction from
240 GPCD State Average Use

conservation goals. These regional goals will help guide the state's water industry in planning future infrastructure, policies, and programs consistent with Utah's semi-arid climate and growing demand for water. The Division appreciates all who participated in developing these goals.

Fast-Tracking Water Conservation

On July 29, 2021, Governor Cox held a press conference to show his administration's commitment to advancing more aggressive water conservation measures in Utah. This included four focus areas to fast-track water conservation and water planning (see Graphic 5-2).

Expanding Turf Buyback

Turf buyback programs like "Flip Your Strip" offered by local water conservancy districts along the Wasatch Front provide a valuable incentive for people to replace thirsty grass with waterwise options. These programs are typically only offered by local water agencies. Utah wants to be the first state to expand the turf buyback program statewide. The goal is to plant grass in areas where it's actively used rather than using it as the default groundcover. Implementing a statewide rebate program will show Utah is serious about conservation and leading the way.

Integrating Land Use & Water Planning

As one of the fastest-growing states in the nation, how we grow and develop today will set our water use for decades to come.

Land use planning is often undertaken independently of water planning efforts, even though the two can and should inform one another. Integrating these and requiring water-efficient landscape ordinances from the beginning of a development proposal is more cost-effective than retrofitting existing landscapes. The state is enlisting the help of local officials to adopt water efficiency standards for new development.

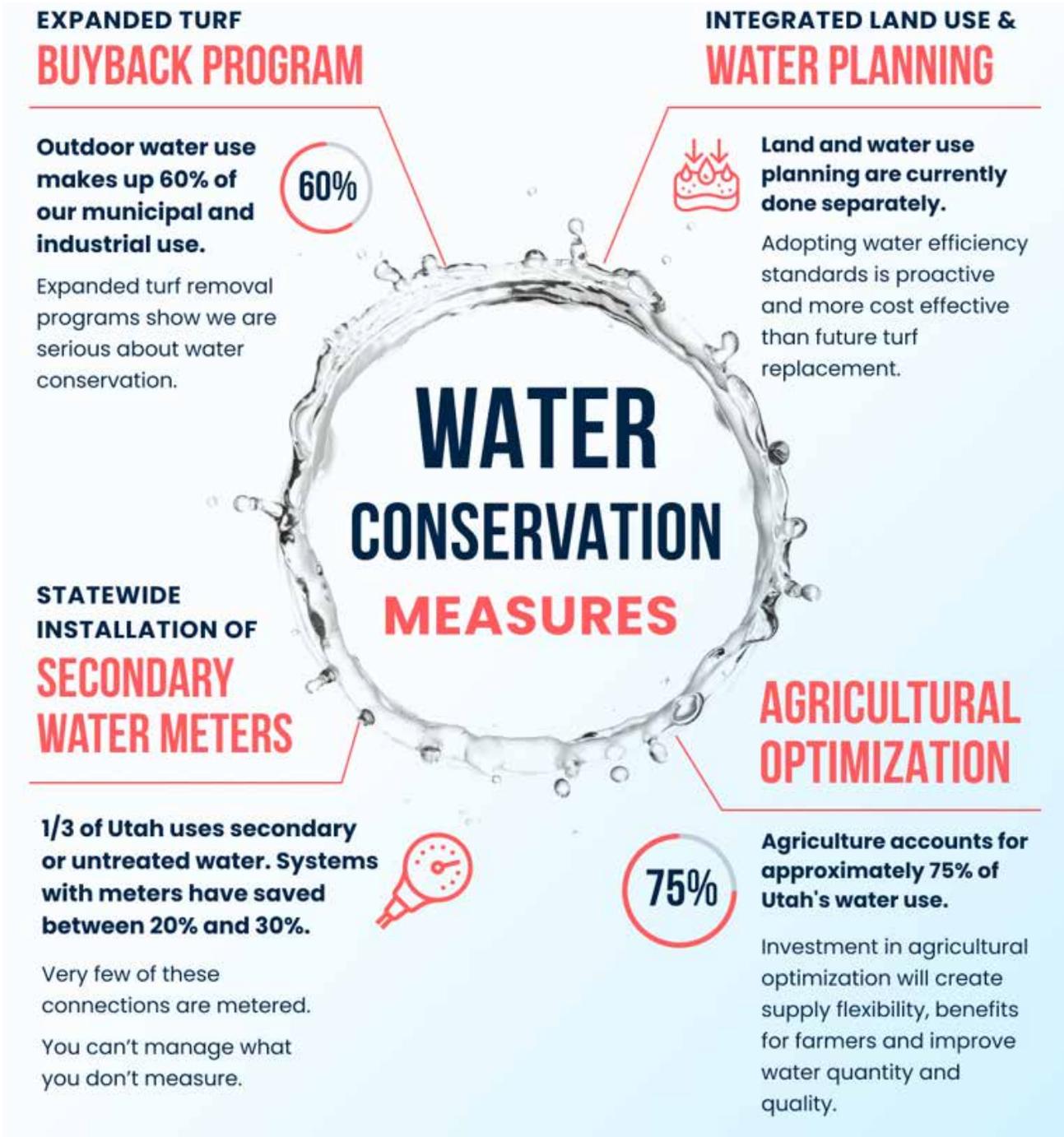
Secondary Water Meters

Installing secondary meters saves water. Data shows significant savings of 20-30%. Over the last few years, legislation has been passed to require meters on new secondary connections, and \$2 million annually has been appropriated in matching grant funds to offset the cost of installation in first- and second-class counties. This effort must be accelerated statewide.

Agricultural Optimization

The state is facing critical long-term reliable water supply issues. The agricultural sector accounts for about 75% of the state's total water use. (It ranges from 6% in Salt Lake County, to 58% in Utah and Juab counties, and 95% in rural areas like Millard, Cache and Uintah counties.) Agriculture and agricultural water use need to be part of any water planning discussion. Over the last few years, the state has invested approximately \$7.3 million in agricultural optimization research and projects. Continued investment will help the state evaluate ways to improve agricultural water use practices, create benefits for farmers, optimize water use, and protect water quantity and quality for all uses in the system.

Graphic 5-2 Four Focus Areas to Fast-Track Water Conservation and Planning



Water Conservation Plans

Water Conservation Plans help water providers and suppliers prepare for their future water needs by creating goals and implementing water efficiency and conservation management strategies. The Water Conservation Plan Act (Act) ([Utah Code 73-10-32](#)) was enacted in 1998. The Act requires culinary water providers with 500+ connections and smaller systems that seek funding from the state to prepare a water conservation plan and submit it to the Division every five years. By statute, the plan “shall contain a clearly stated overall water use reduction goal and an implementation plan for each of the water conservation measures it chooses to use, including a timeline for action and an evaluation process to measure progress.” The Division also requests each water system to describe its pricing structure, reliable water supply, and future demand in its water conservation plan. The Act applies to approximately 175 water systems throughout the state.

A water conservation plan provides an opportunity for water systems to define their water conservation programs and celebrate their accomplishments. Water conservation coordinators are key to successful water conservation programs on a state, county, and municipal level. Coordinators assist planners as they develop water conservation plans to ensure water resources are considered when planning for development, encourage the public to implement wise water-saving tactics, and offer educational resources to water users.

The Division provides planning resources to water systems through its [Water Conservation](#) website. The website lists

water systems that have water conservation plans due and lists systems that are compliant/noncompliant with the Act. It also serves as an educational resource for the public to learn about water conservation, the value of water, and how to use water efficiently.

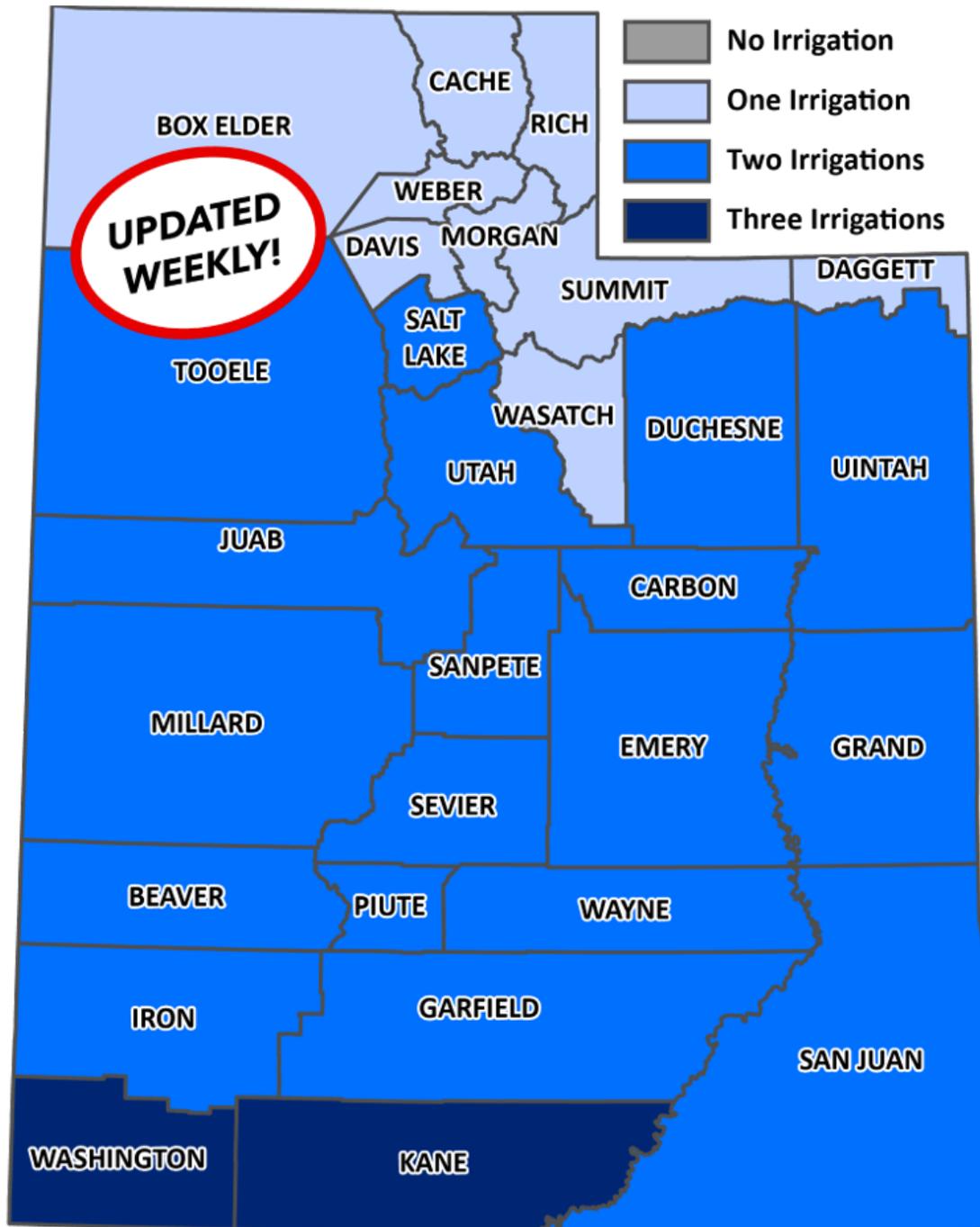
Utah’s Weekly Lawn Watering Guide

The Division posts a [Weekly Lawn Watering Guide](#) online during the irrigation season (see the sample shown in Graphic 5-3). This guide provides watering recommendations based on current weather patterns and evapotranspiration rates in each county. The Division uses social media to publicize the recommendations and has built a large following on Facebook due in part to the popularity of the guide. These are general county recommendations. Additional area-specific information may be available from local water providers.

Water Loss Accounting

The Division has partnered with several water conservancy districts, Rural Water Users Association, and the Intermountain Section of the American Water Works Association to provide training for water providers to implement water loss auditing in their systems. A system audit involves measuring or estimating all of the water passing through the system. After water uses are measured or estimated, a system water balance is created. The audit produces valuable information that can lead to more efficient water use, more accurate

Graphic 5-3 Division Lawn Watering Guide (Sample)



One Irrigation is equivalent to 20 minutes with pop-up spray heads and 40 minutes with impact rotor sprinklers

accounting, recovery of lost revenue, and leak detection and reduction. Audit results help managers and engineers make informed decisions regarding necessary system rehabilitation and meter replacement and management. The state continues to work with stakeholders and promotes training programs and education through standardized training on water audits.

Water Education

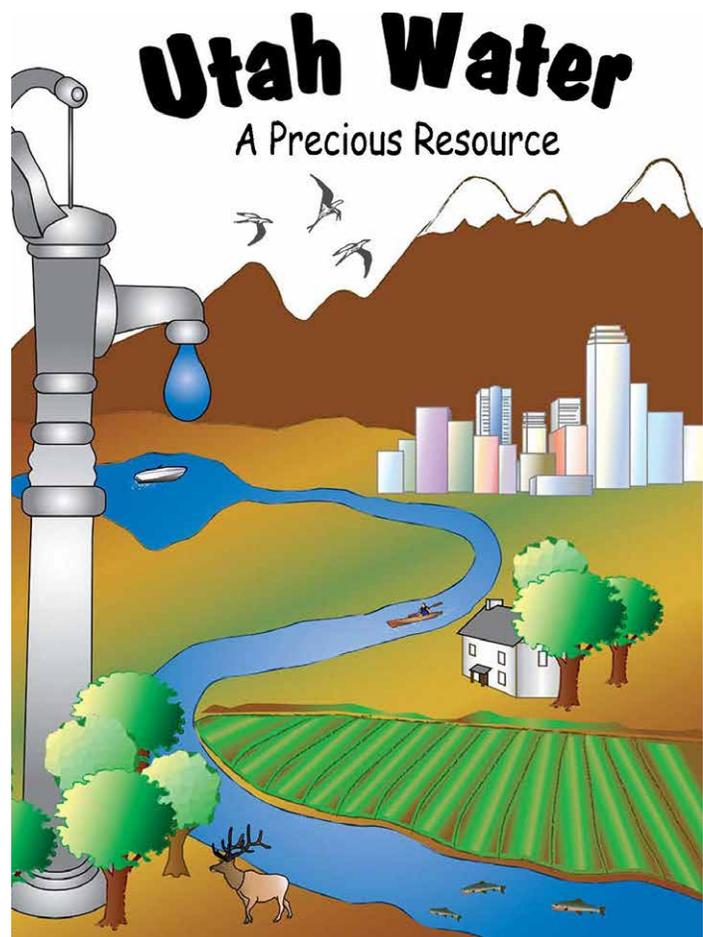
A foundational understanding of water leads to responsible water use, which is why the Division has supported water education efforts. However, in the summer of 2020, due to budget cuts triggered by the COVID-19 pandemic, the Division's education program was cut, eliminating resources previously provided to schools and teachers.

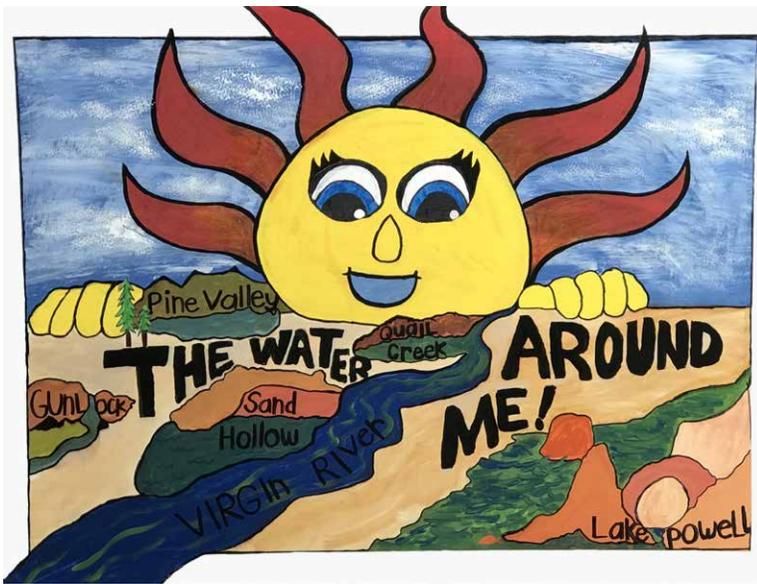
Water education in elementary school helps to prepare children to become responsible water users as adults. Early education instills a sense of ownership, builds values, and strengthens the lifelong waterwise ethic Utah has cultivated over the years. Elementary students are introduced to the concept of water as a finite resource and understand that they must use it wisely. Children proudly share what they learn with those around them and often become champions for waterwise choices.

Before the budget cuts, the Division collaborated with the Utah State Board of Education, the Loveland Living Planet Aquarium, municipal agencies, water providers, and other organizations to

support water education. The Division's annual poster contest allowed students to express their ideas about water-related themes through art. This creative expression allows for a deeper understanding and appreciation of a resource we don't think about all the time, but use every day, water. The Division encourages schools to prioritize water education and develop a meaningful water education curriculum so the next generation understands how we use water, why we need it, and how we can be better stewards of Utah's most precious resource.

The Division will continue to provide educational materials and lesson plans with its remaining budget. Resources are available on the water conservation website.





Artist: P. Haymore, 2020 Grand Prize Winning Poster

Utah Water – A Precious Resource is a free activity book for elementary school-age children. Using fun facts, colorful graphics, puzzles, and water experiments, the activity book teaches about water in Utah. The book contains valuable information about Utah water and focuses on how to use water responsibly. Copies of the book can be ordered from the [water conservation website](#).

The Division also seeks to educate all Utahns about their responsibility to be wise water stewards. Among other things, the Division's water conservation website contains valuable information on free landscape watering checks, water-wise landscaping or Localscapes, and water-saving rebates. The Division is working with communities and billing software companies to also provide more useful water use information on customer water bills. In addition to state programs, many water conservancy districts and public water providers landscape

their property with waterwise landscaping examples and provide educational materials. Some systems offer a self-guided tour through a demonstration garden to inform visitors which plants to use and group together. They also teach waterwise landscaping classes. Utah State University and various community education programs also have classes and information on landscaping and waterwise practices.

Learning Leads to Taking Action

Water education and conservation aren't two separate efforts. Education leads to making better decisions and taking action. Statewide education and conservation programs are critical as Utah meets the needs of its growing population. The Division will strive to reestablish its education program. Not educating Utah's future generations about the water cycle, water conservation, and the critical role water plays in all aspects of life will impair Utah's long-term waterwise ethic. In the meantime, the Division will seek opportunities for partnerships to provide water education.

There's Work to Do

From individuals to industry, there are still many things to do to improve and advance water conservation in Utah. The following pages offer examples.

INDIVIDUALS

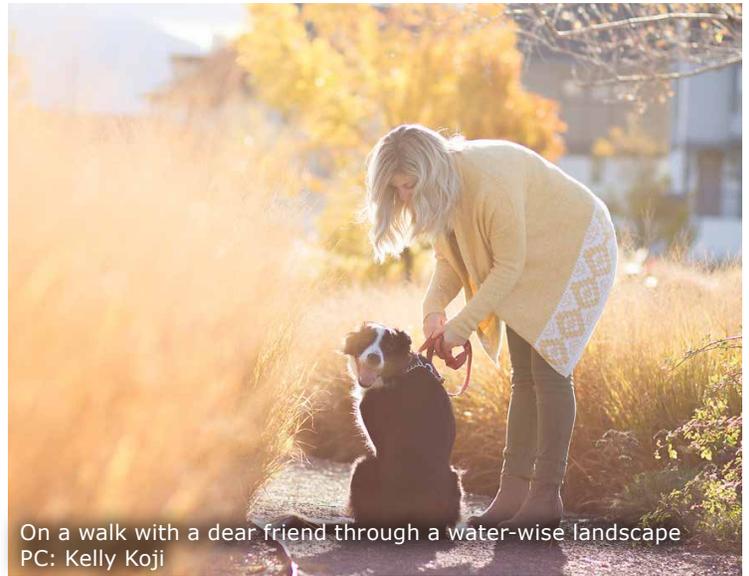
- Understand water bill and use
- Transition to waterwise landscapes
- Convert to more efficient irrigation, including drip irrigation
- Avoid watering during the hottest times of day
- Find and repair leaks
- Install smart irrigation controllers
- Replace aging fixtures and appliances

STATE GOVERNMENT

- Utilize state water experts to inform legislative policies
- Enact laws requiring waterwise practices at state-owned facilities
- Prioritize water conservation funding
- Continue to fund statewide rebates
- Implement building and landscape water-efficiency audits at state buildings

DIVISION OF WATER RESOURCES

- Advise state leaders on water policies
- Continue to encourage effective water efficiency practices
- Collect and analyze data to support water conservation
- Assist regions to measure water conservation goal progress
- Promote water loss accounting audits
- Provide funding for secondary water metering





Lehi City neighborhood
PC: Rob Hall



Division staff tour of Weber Basin Water Conservancy District



Causey Reservoir near Huntsville
PC: Marcie McCartney

MUNICIPALITIES

- Remove laws, ordinances, and HOA bylaws that conflict with water conservation
- Create ordinances that encourage water conservation
- Incorporate waterwise landscaping and other conservation strategies in future planning
- Implement water conservation practices at government facilities
- Integrate land use and water planning

WATER SYSTEMS

- Quantify reliable water supply
- Develop quality water conservation plans
- Provide accurate water use data to the Division of Water Rights
- Hire a water conservation specialist
- Install meters on all new secondary water connections (Class I and II counties)
- Adopt educational water billing practices and tiered rate structures that reflect the true cost of water

WATER ASSOCIATIONS and ORGANIZATIONS

- Promote water conservation efforts throughout the state
- Promote presentations that focus on water conservation at conferences and symposiums
- Educate members on current water issues and upcoming policies

Utah
Water
Savers



SLOW
THE **FLOW**
SAVE H₂O



Water Partnerships

The Division partners with water districts to promote responsible water use. Through the [Utah Water Savers](#) program, statewide rebates for the purchase and installation of low-flow toilets and smart controllers for irrigation systems are available. Regional water providers may offer additional rebates.

[Slow The Flow](#) is aimed at changing water use behaviors and teaching skills necessary to conserve water in Utah. The statewide campaign often creates commercials and public service announcements. In addition, partnerships have been created with local businesses to encourage water conservation, including: Snowbird, Home Depot, Sprinkler Supply Company, and Garbett Homes.

The Division is a founding partner of [Locascapes](#). Waterwise landscaping has been recommended since it was introduced in the 1990 State Water Plan. Locascapes, developed by Jordan Valley Water Conservancy District, is a waterwise landscape approach. It is a series of landscaping patterns and practices that take into account Utah's unique climate.

The Division promotes the Utah State University Extension [Water Check](#) program. This program evaluates automated sprinkler system efficiency and provides customized irrigation schedules.

Recommendations

The Division will work with cooperating partners to implement the following recommendations:

- Explore ways to help counties and water systems meet their regional water conservation goals.
- Continue to provide technical assistance for water conservation plans submitted to the Division.
- Provide recommendations and additional resources to systems with water conservation plans due.
- Find ways to enhance water conservation education within existing resources and pursue re-establishing a water education program.
- Collaborate with stakeholders to increase water audits throughout the state.
- Expand secondary metering program statewide.
- Expand “Flip your Strip” program statewide.
- Study and develop tools on integrating water and land use planning to share with municipalities and counties.

Chapter 5 Links

Regional Water Conservation Goals - <https://conservewater.utah.gov/regional-water-conservation-goals/>

2015 Municipal and Industrial Water Use Report - <https://water.utah.gov/wp-content/uploads/2019/08/2015-MI-Data-2019-v2.pdf>

Utah's Regional M&I Water Conservation Goals - <https://water.utah.gov/wp-content/uploads/2019/12/Regional-Water-Conservation-Goals-Report-Final.pdf>

Water Conservation Plan Act Utah Code 73-10-32 - <https://le.utah.gov/xcode/Title73/Chapter10/73-10-S32.html>

Water Conservation Website - <https://conservewater.utah.gov/>

Weekly Lawn Watering Guide - <https://conservewater.utah.gov/guide.html>

Utah Water Savers - <https://utahwatersavers.com/>

Slow The Flow - <https://slowtheflow.org/about-us/>

Localscapes - <https://localscapes.com/>

USU Extension Water Check Program - https://extension.usu.edu/news_sections/agriculture_and_natural_resources/water-check-program-2016

Water Loss Accounting HB40 - <https://le.utah.gov/~2020/bills/static/HB0040.html>

Utah Water – A Precious Resource - https://watered.utah.gov/wp-content/uploads/2019/02/UWAPR_10-17-16-small.pdf