

May 10, 2023



American Planning Association, Utah  
Spring Conference

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# Planning for Utah's Water Future

## Challenges & Opportunities



**Todd Stonely** | Assistant Director  
Division of Water Resources

**Rachel Shilton** | River Basin Planning Manager  
Division of Water Resources



PLAN | CONSERVE | DEVELOP | PROTECT  
Utah's Water Resources

# Outline

- State Water Plan & Coordinated Action Plan for Water
- Water Conservation
- Great Salt Lake
- Colorado River
- Integrating Land and Water Planning
  - Water as Part of General Plan
  - Utah Growing Water Smart
- Secondary Water Metering





# Water Resources Plan

December 2021



UTAH STATE WATER PLAN

[water.utah.gov/2021waterplan/](https://water.utah.gov/2021waterplan/)

# Utah's Coordinated Action Plan for Water

November 2022

*A collaborative effort from:*

Governor's Office of Planning & Budget  
Governor's Office of Economic Opportunity  
Department of Agriculture and Food  
Department of Environmental Quality  
Department of Natural Resources  
Colorado River Authority of Utah



[gopb.utah.gov/waterplan/](https://gopb.utah.gov/waterplan/)



# Water Conservation

## Regulation

- Water conservation plans
- Regional water conservation goals
- Metering requirements
- Tiered water rates
- Landscape ordinances
- Plumbing standards



## Education

- Slow the Flow
- Smart Billing
- K-12 water education
- Municipal plan assistance



01

02

03



## Incentives

- Smart controller rebates
- High-efficiency toilet rebates
- Landscaping Rebates
- Transparent water billing grants
- Secondary metering grants

# Utah Water Savers

Utah  
Water  
Savers



Statewide  
Rebate Programs

Apply for cash rebates today!

**Save water. Get money.**

[UtahWaterSavers.com](http://UtahWaterSavers.com)



# Rebate Options



AVAILABLE FOR:  
**ALL OF UTAH!**

Old toilets are a leading cause of wasted water in Utah homes. Rebates will only be given for replacing toilets that use more than 1.6 gallons per flush and were installed in homes built before 1994.



AVAILABLE FOR:  
**ALL OF UTAH!**

Smart controllers can help save water by automatically adjusting watering schedules based on local weather and landscape needs. Ready to stop worrying about turning your sprinklers off after it rains? Rebates for smart controllers are available throughout the state.



AVAILABLE FOR:  
**AREAS OF NORTHERN UTAH**

Localscapes Rewards makes getting a landscape that thrives in Utah easier than ever. If you are looking to install or renovate a landscape, you may qualify for cash rewards and a free review of your landscape plan!



AVAILABLE FOR:  
**MOST OF SALT LAKE COUNTY**

Want to improve your existing landscape? Sign up for a free consultation to get expert advice about your watering practices, landscape, and sprinkler system.



AVAILABLE FOR:  
**ALL OF UTAH!**

For the replacement of grass with waterwise landscaping. Rebates available in areas sponsored by water conservancy districts or in communities that adopt landscape ordinances.

A close-up of a Mandalorian helmet in the foreground, looking towards a Jedi flying through the air in the background. The Jedi is silhouetted against a bright, cloudy sky. The scene is set in a dark, industrial environment.

**Water Conservation Rebate**

***I gotta get one of those.***



# Statewide



AVAILABLE FOR:  
**ALL  
OF  
UTAH!**

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# Toilet Replacement



Old toilets are a leading cause of wasted water in Utah homes. Rebates will only be given for replacing toilets that use more than 1.6 gallons per flush and were installed in homes built before 1994.



## Overview

- Receive up to \$100/toilet
- Up to two rebates per home, max of \$200
- Participant agrees to dispose of old toilet(s)

## Eligibility

- Home must be built before 1994
- Rebates will only be given for replacing toilets that use more than 1.6 gpf
- New toilets must be EPA WaterSense labeled (1.28 gpf)

# Smart Controller



## Overview

- Rebates for up to \$75

## Eligibility

- Residential program
- New smart controllers must be EPA WaterSense labeled
- Rebates limited to one smart controller per property every five years



Smart controllers can help save water by automatically adjusting watering schedules based on local weather and landscape needs. Ready to stop worrying about turning your sprinklers off after it rains? Rebates for smart controllers are available throughout the state.



# Landscape Incentives



For the replacement of grass with waterwise landscaping. Rebates available in areas sponsored by water conservancy districts or in communities that adopt landscape ordinances.



## Overview

- For the replacement of grass with waterwise landscaping
- Launched May 1st for eligible cities
- Up to \$3/square foot
- Partnerships with water conservancy districts

## Eligibility

- Eligibility for state funding dependent on landscape ordinance adoption

# Bridal Veil Avalanche

- January 10, 2023  
around 7:00 AM
- Avalanche prone  
area closed to  
public November-  
March





SKY FOX













# Great Salt Lake

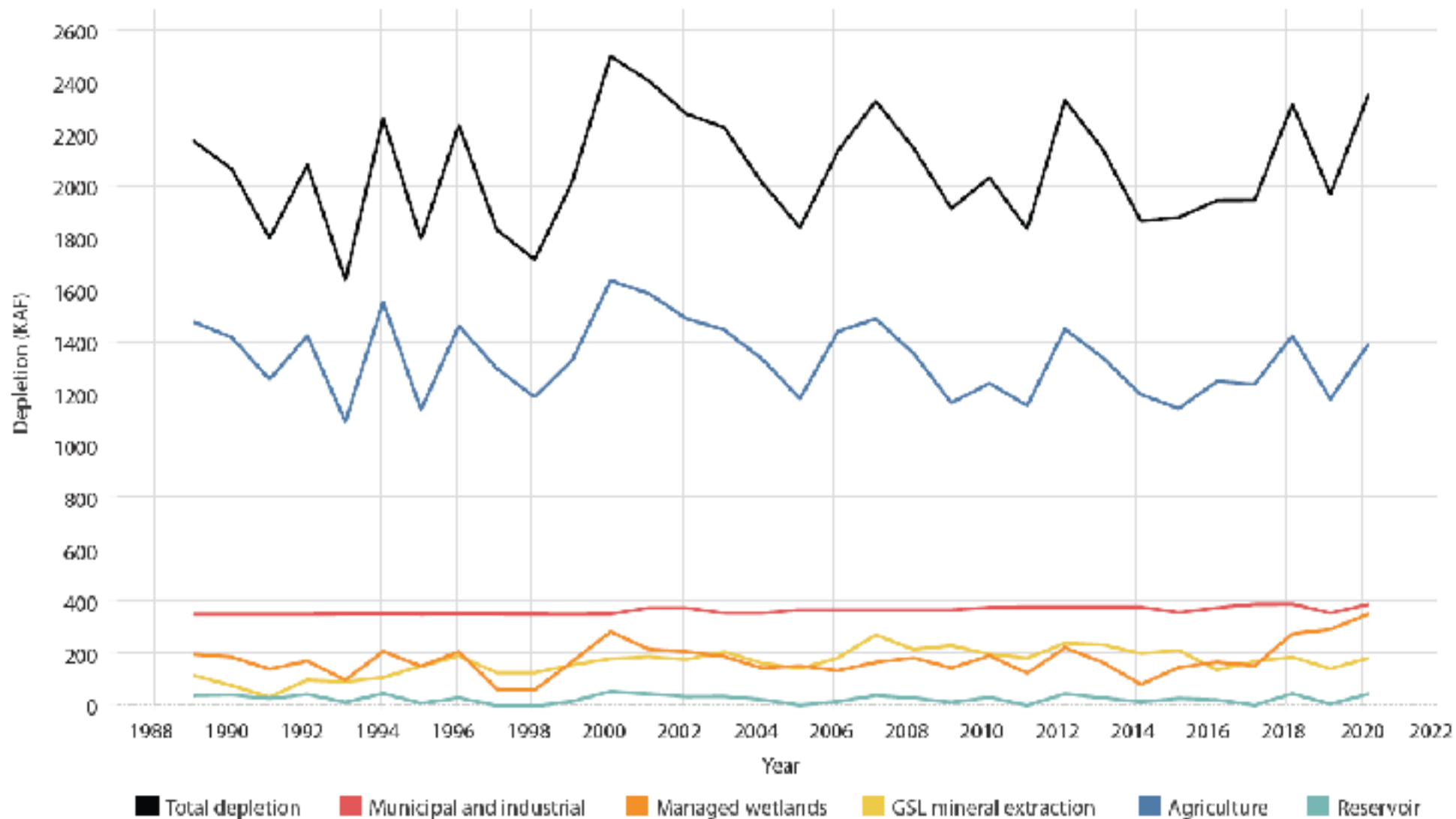
- Record low in 2021 and again in 2022
- Toxic dust could impact health all along the Wasatch Front
- “The lake could disappear within five years if no action is taken.”
- **National News** (CNN, NPR, Wall Street Journal, Washington Post, New York Times, etc.)
- **International News** (BBC, The Guardian)





# Great Salt Lake Water Budget

Source: Great Salt Lake Water Budget, Division of Water Resources, 2023



# Why is the lake so low?



Direct Evaporation from Climate Warming  
**Estimated Impact: 8–11%**



Natural Variability (Precipitation and Runoff Efficiency)  
**Estimated Impact: 15–23%**



**Policy Lever** Natural and Human Consumptive Use  
**Estimated Impact: 67–73%**

Source: Analysis from Great Salt Lake Strike Team, 2022; Mohammed, I., & Tarboton, D. (2012). An examination of the sensitivity of the Great Salt Lake to changes in inputs. Water Resources Research, Volume 48, Issue 11. <https://doi.org/10.1029/2012WR011908>

# Good Things Are Happening!

- Agricultural optimization (\$270M)
- Secondary water meters (\$268M)
- Great Salt Lake Trust (\$40M)
- GSL Basin Integrated Plan (\$5M)
- Landscape Conversion (\$5M)
- Utah WaterWays (\$1M)
- Air quality monitoring
- Water monitoring and data enhancements





# Key Takeaways

- Great Salt Lake is vital resource worth protecting
- Actions are being taken
- Conservation is key
- A little help from Mother Nature is appreciated
- We need to do our part!!



# Colorado River

## Allocation of The River

- 1922 Colorado River Compact
- Divides the river into an Upper Basin and a Lower Basin
- Equitably divides resource with the use of 7.5 MAF to each Basin
- Additional 1 MAF of development in Lower Basin
- Requires that Upper Basin States not deplete flow at Lee Ferry below 75 MAF over any 10-year period
- 1944 Treaty with Mexico 1.5 MAF
- **Total allocation 17.5 MAF**



# Colorado River Actual Flow

- 1909-1929 (Compact 1922) 17.92 MAF
- To date running average 14.26 MAF
- Current ten-year running average 13.35 MAF
- 2000-2020 Millennium Drought 12.3 MAF annual average





# Colorado River Use

- 2000 maximum use 16.9 MAF
- 2000-2020 average use 15.0 MAF
  - Upper Basin 4.4 MAF
  - Lower Basin 10.6 MAF
- Annual Deficit **1.6 MAF**
  - 20-year cumulative deficit **32.0 MAF**



# Reservoir Levels

## Lake Powell

Full reservoir elevation - 3700 feet

Power pool – 3490 feet

Dead pool – 3370 feet

Current elevation – 3520.2 feet (3/10/23)

## Lake Mead

Normal operation elevation – 1219 feet

Power pool – 950 feet

Dead pool – 895 feet (except NV outtake)

Current elevation - 1046.2 (3/10/23)





# Upper Division States 5-Point Plan

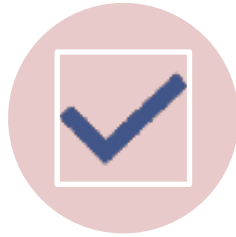
- Reauthorize System Conservation Pilot Program
- Start evaluation of a 2023 DROA Plan by August 2022
- Consider an Upper Basin Demand Management program
- Implement Bipartisan Infrastructure Law funding to accelerate enhanced measurement, monitoring, and reporting in Upper Basin to improve water management across Upper Division States
- Continue strict water management and administration including implementation and expansion of conservation programs



# Utah Actions



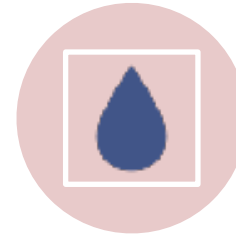
CREATION OF  
COLORADO RIVER  
AUTHORITY OF UTAH



PARTICIPATION IN THE  
SYSTEM  
CONSERVATION PILOT  
PROGRAM



PREPARE FOR  
POTENTIAL DEMAND  
MANAGEMENT



EVALUATION OF  
COLORADO RIVER  
WATER RIGHTS/USES



MEASURING AND  
MODELING



# Integrating Water into Land Planning

## Water Considerations in General Plan

Utah Code Title 10 Municipal Code

<https://le.utah.gov/xcode/Title10/Chapter9A/10-9a-P4.html>

Utah Code Title 17 County Code

<https://le.utah.gov/xcode/Title17/Chapter27A/17-27a-P4.html>

Utah Code 73-10-36 Division to provide technical assistance

<https://le.utah.gov/xcode/Title73/Chapter10/73-10-S36.html>



# Integrating Water into Land Planning

## Utah Code Title 10 Municipal Code

<https://le.utah.gov/xcode/Title10/Chapter9A/10-9a-P4.html>

- Utah Code 10-9a-401 General plan required
- Utah Code 10-9a-403 General plan preparation
- Utah Code 10-9a-404 Public hearing....





# Integrating Water into Land Planning

## Utah Code Title 17 County Code

<https://le.utah.gov/xcode/Title17/Chapter27A/17-27a-P4.html>

- Utah Code 17-27a-401 General plan required
- Utah Code 17-27a-403 General plan preparation
- Utah Code 17-27a-403 Public hearing....



# Integrating Water into Land Planning

**Utah Code 73-10-36 Division to provide technical assistance**

**<https://le.utah.gov/xcode/Title73/Chapter10/73-10-S36.html>**

**Division of Water Resources Planning Branch**

Nick Yeiter  
Conservation  
385-466-9779  
nickyeiter@utah.gov

Shelby Ericksen  
Conservation  
801-300-1623  
shelbyericksen@utah.gov

Rachel Shilton  
River Basin Planning  
801-214-5771  
rachelshilton@utah.gov





# Integrating Water into Land Planning

## Growing Water Smart Workshops



# Integrating Water into Land Planning



- Research
- Technology Innovation
- Partnerships
- Education & Training



# Western Resource Advocates

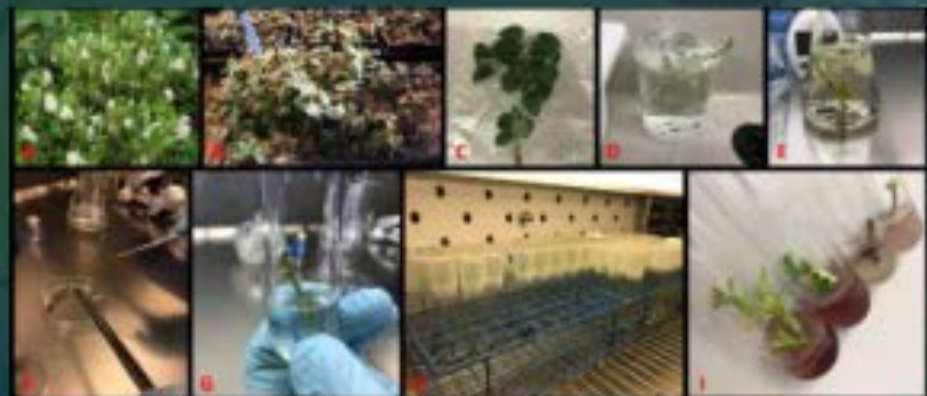
- Intermountain west conservation organization with more than 30 years experience
- Craft innovative solutions to pressing environmental challenges using law, science, and economics
- Conserve western lands, ensure healthy rivers, and protect air quality throughout the region



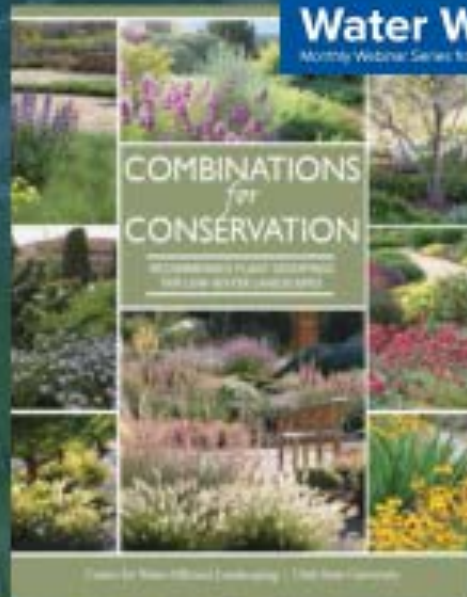




The mission of the Center for Water Efficient Landscaping is “to sustain the quality of life enjoyed from landscaping while conserving water.”



Research



Education



Outreach



# Integrating Water into Land Planning

## Growing Water Smart Workshops

- 3-day workshops
- Addressing development & system challenges
- June 6-8 Workshop in Logan
- 7 Community Teams

**More on the way!**



# Integrating Water into Land Planning

## Utah Growing Water Smart Workshops



**Day 1:** Setting Workshop Intention



**Day 2:** Peer-to-Peer & Team Breakouts



**Day 3:** Action Planning & Messaging



[water.utah.gov/integrated-land-water-planning/](http://water.utah.gov/integrated-land-water-planning/)



# Secondary Water Use Metering

<https://water.utah.gov/wp-content/uploads/2019/Funding/PDF/Secondary-Water-Meter-Funding-Guidelines.pdf>

- Legislative metering requirements
- Funding opportunities
- Apply to secondary water providers
  - Not individual water users
- Board of Water Resources Funding



<https://le.utah.gov/xcode/Title73/Chapter10/73-10-S34.html>

# Secondary Water Use Metering

- Over 123,000 meters installed
- Estimated 57,000 ac-ft of water conserved



Sand Hollow Reservoir



Kolob Reservoir



# Secondary Water Use Metering

## Division Staff Available as a Resource

Marisa Egbert

Project Funding

801-538-7252

marisaegbert@utah.gov

JackHinzman

Technical Services

801-520-9725

jackhinzman@utah.gov

Heidi King

Conservation

385-522-3701

hking@utah.gov







# More Information

[water.utah.gov](http://water.utah.gov)

**Todd Stonely**

Division of Water Resources

[toddstonely@utah.gov](mailto:toddstonely@utah.gov)

801-538-7277

**Rachel Shilton**

Division of Water Resources

[rachelshilton@utah.gov](mailto:rachelshilton@utah.gov)

801-538-7271

