



## Our Water. Our Future. Our Choice.

The purposes of the District include planning for and facilitating the long-term conservation, development, protection, distribution, management, and stabilization of water rights and water supplies for domestic, irrigation, power, manufacturing, municipal, recreational and other beneficial uses, including the natural stream environment, in a cost-effective way to meet the needs of the residents and growing population of Cache County. [www.cachewaterdistrict.com](http://www.cachewaterdistrict.com)

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# CACHE WATER DISTRICT BOARD OF TRUSTEES MEETING MINUTES

## June 7, 2021

The Cache Water District Board of Trustees convened for a regular meeting on June 7, 2021, at 5:30 p.m. in the Cache County Historic Courthouse Council Chambers, 199 North Main Street, Logan, Utah.

### **MEMBERS OF THE BOARD IN ATTENDANCE:**

Don Baldwin – Agricultural Representative  
Scott Clark - Logan #2 Council District  
Jared Clawson – At-Large Position  
Jonathan Hardman – South Council District  
Kirt Lindley – At-Large Position  
Max Pierce – North Council District  
Bret Randall – Northeast Council District  
Brett Roper – At Large Position  
Jeannie Simmonds – Logan #1 Council District

### **MEMBERS OF THE BOARD ABSENT:**

Shaun Dustin – Southeast Council District  
Herm Olsen – Logan #3 Council District

### **OTHERS IN ATTENDANCE:**

Nathan Daug (Manager), Mike Wilson, Chris Slater, Wayne Wurtsbaugh, Ann Neville

### **CALL TO ORDER**

The meeting was called to order by Chairman Hardman at 5:35 p.m.  
Consideration for minutes from May 3, 2021, and agenda for June 7, 2021

**ACTION: Motion by Mr. Clawson to approve the agenda and the minutes as submitted. Seconded by Mr. Pierce. The motion was approved unanimously.**

### **PUBLIC COMMENT**

Ann Neville asked that there be a way to virtually attend meetings.

## FINANCIAL REPORT

See [-Attachment 1-](#)

There are no concerns. State reports are all taken care of.

## CALENDAR EVENTS

- June 8 - 3:30 p.m. Governor Cox will address Drought Declaration
- June 9 – 11:00 Key Stakeholder Mtg. <https://jubengineers.zoom.us/j/99698122296>
- June 9 – Utah Water Task Force @ 1:30 p.m. (in-person & broadcast)  
<https://meet.google.com/itk-ojyu-yod>
- June 11 – Agricultural Water Optimization @ 10:00 a.m. [meet.google.com/zec-yqby-trd](https://meet.google.com/zec-yqby-trd)
- June 21 – APO @ 5:30 p.m. (Bear River Development & Local Outreach)
- July 19 – APO @ 5:30 p.m. (Water Purchase/Lease & Irrigation Delivery)
- No Board meetings to be held in July and August.

## MANAGER'S REPORT

### **PL-566 Projects**

Logan River Watershed project is moving forward. The alternative design phase design/concept is being developed.

Wellsville-Mendon – have met with the cities to discuss flood concerns (from rain events, not stormwater). Approximately 40 comments have been received. Fieldwork is anticipated to begin August-September.

Nathan Todd, from NRCS, sent out a letter to most of the northern and eastern cities (areas such as Cove, Richmond, and east of the Cub River) asking if there were any potential projects. Before putting in an application, NRCS will do a preliminary feasibility study before any submittals.

### **Water Banking**

Working with Hyrum Irrigation and Wellsville-Mendon Conservation District and Emily Lewis. A draft leasing agreement has been developed that the canal companies can review. The Bureau does not think there will be any issues. Although this will not be a formal water bank, it will provide a lot of good information for the report.

Ms. Simmonds said the Wilson Neighborhood Council (Logan) is concerned about the Logan River Watershed project and the fact that it does not seem to be too transparent. Mr. Daugs said the District has posted what NRCS has allowed. Ms. Simmonds said there is some confusion about the Crocket Avenue Irrigation project and the Logan River Watershed and suggested putting information on our site that would be easily accessible and easy to understand.

6:05 p.m. Mr. Clark arrived.

## OTHER

Mr. Daugs said the Slow the Flow outreach program has shifted its campaign to address the drought. Most of the print outreach is along the Wasatch Front. They have a lot of information on social media, which the District can help disseminate to residents and cities within Cache Valley.

## Recaps from Water Users Conference

See [-Attachment 2-](#)

Nate, Jon, Max, and Scott recapped presentations they attended at the recent Water Users Conference held in St. George, Utah.

### Discussion Points:

- Ms. Neville encouraged the District to gather the data they need to tell the story, similar to what the Great Salt Lake Council has done.
- Mr. Clark agreed that the statistics need to be examined carefully and all sources of water usage should be reviewed.
- Mr. Pierce said an important element is for organizations to collaborate.
- Kirt noted that the agricultural rights in Cache Valley have been the same for the past 50 years. He has trouble with the thought that agriculture is using all the water.
- Mr. Baldwin said agriculture irrigation has become more efficient and production has increased.
- Mr. Wurtsbaugh said there has not been a huge increase in agricultural water, slight increases in other uses. We have been in a drought for the last 20 years. Predictions are difficult with climate change.
- Mr. Daugs said one of the goals in conservation is to emphasize the need for smaller building lots. The average lot size in Cache Valley is 12,000 SF, which needs to be smaller to meet the Governor's goal for water reduction.
- Chairman Hardman said it would be good to have things to hand out at events with the District's logo and contact information.
- Ms. Simmonds said Northern Utah needs to ensure that their voice is heard.
- An important element is to determine how best to reach out to constituents regarding water usage/conservation and help find incentives for upgrading products and facilities that help with conservation.

## ADJOURN

The meeting adjourned at 7:15 p.m.

# -ATTACHMENT 1-

10:21 AM

06/07/21

Accrual Basis

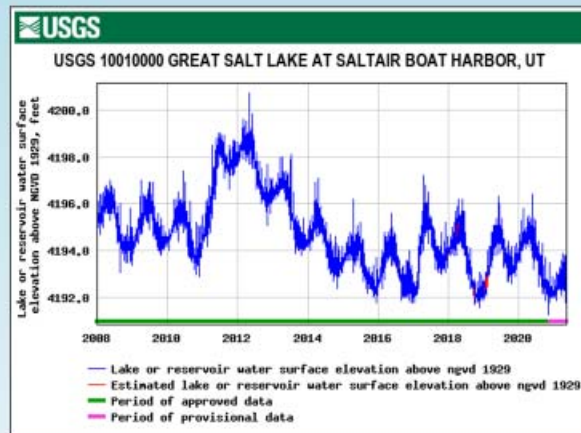
## Cache Water District Profit & Loss Budget vs. Actual April 2021

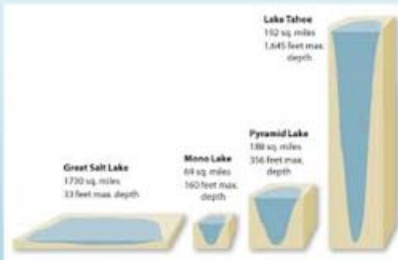
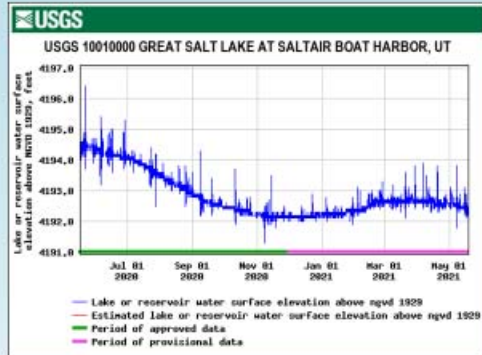
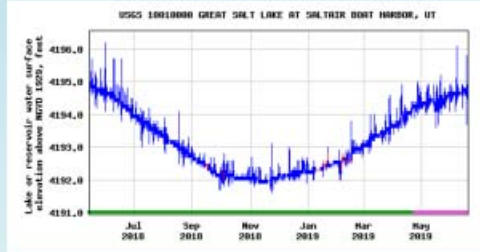
	Apr 21	Budget	% of Budget
<b>Ordinary Income/Expense</b>			
<b>Income</b>			
Cache County Property Taxes	0.00	22,916.00	0.0%
PL-566 Watershed Grant	0.00	83,333.00	0.0%
<b>Total Income</b>	0.00	106,249.00	0.0%
<b>Gross Profit</b>	0.00	106,249.00	0.0%
<b>Expense</b>			
<b>Office</b>			
Insurance and Bonding	0.00	416.00	0.0%
Office Supplies	0.00	125.00	0.0%
Publications	0.00	416.00	0.0%
Rent	0.00	458.00	0.0%
<b>Technology</b>			
Cell Phone	53.68		
Technology - Other	0.00	250.00	0.0%
<b>Total Technology</b>	53.68	250.00	21.5%
<b>Vehicle</b>			
Fuel	0.00	208.00	0.0%
Vehicle - Other	0.00	4,166.00	0.0%
<b>Total Vehicle</b>	0.00	4,374.00	0.0%
<b>Total Office</b>	53.68	6,039.00	0.9%
<b>Outreach</b>			
Conservation	0.00	2,083.00	0.0%
Dues	0.00	208.00	0.0%
Sponsorships	0.00	208.00	0.0%
Training	0.00	500.00	0.0%
Website	0.00	166.00	0.0%
<b>Total Outreach</b>	0.00	3,165.00	0.0%
<b>Personnel</b>			
Salary and benefits	6,555.57	10,708.00	61.2%
Travel and Mileage	989.20	416.00	237.8%
<b>Total Personnel</b>	7,544.77	11,124.00	67.8%
<b>Professional Fees</b>			
Administrative	0.00	125.00	0.0%
Attorney Services	0.00	2,500.00	0.0%
Audit	0.00	583.00	0.0%
Financial Services	0.00	833.00	0.0%
<b>Total Professional Fees</b>	0.00	4,041.00	0.0%
<b>Project funding</b>			
Cloud Seeding	9,177.50	4,166.00	220.3%
Water Acquisition	0.00	3,083.00	0.0%
<b>Water Studies</b>			
PL566 Logan River	29,000.00	33,333.00	87.0%
Wellsville/Mendon Irrigation	0.00	50,000.00	0.0%
Water Studies - Other	0.00	12,500.00	0.0%
<b>Total Water Studies</b>	29,000.00	95,833.00	30.3%
<b>Total Project funding</b>	38,177.50	103,082.00	37.0%
<b>Total Expense</b>	45,775.95	127,451.00	35.9%
<b>Net Ordinary Income</b>	-45,775.95	-21,202.00	215.9%
<b>Net Income</b>	<u>-45,775.95</u>	<u>-21,202.00</u>	<u>215.9%</u>

-ATTACHMENT 2-

# Great Salt Lake Update 2021

TIM HAWKES

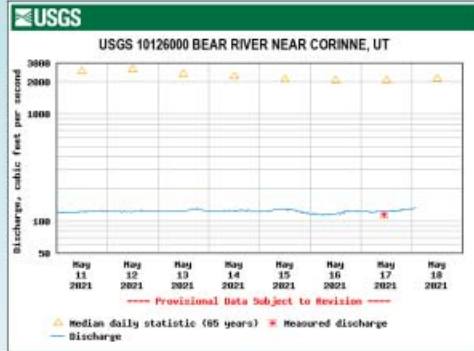




6/8/2021

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Bear River: 7% of normal



Weber River: 19% of normal



## Definition and Assessment of Great Salt Lake Health (GSLAC, 2012)

Table 10. Current Overall Health of Eight Ecological Targets for Great Salt Lake Summarized by Bay

Ecological Targets	Gilbert Bay	Gunnison Bay	Bear River Bay	Farmington Bay	OVERALL RANKING	Uncertainty <sup>a</sup>
System-wide Lake and Wetland	Good				Good	Medium
Open Water	Good	Not ranked	Not ranked	Not ranked	Not ranked	Very High <sup>b</sup>
Unimpounded marsh complex	Not ranked	Not ranked	Not ranked	Not ranked	Not ranked	High
Impounded wetlands	Not ranked	Not ranked	Good	Poor	Not ranked	Very High
Mudflats and playas	Good	Very Good	Good	Good	Good	Low
Isolated island habitat for breeding birds	Good	Good	NA	NA	Good	Low
Alkali knolls	Fair	Very Good	Poor	Poor	Fair	Low
Adjoining grasslands and agricultural lands	Good	Good	Good	Good	Good	Low
<b>SUMMARY</b>					<b>Good</b>	<b>Medium</b>

<sup>a</sup> Ecological targets with very high uncertainty are those for which more than 75% of the indicators could not be evaluated with current data for at least 2 bays. Ecological targets with high uncertainty are those for which more than half of the indicators but less than 75% could not be evaluated with current data for at least two bays. Those with low uncertainty are those for which all

# Definition and Assessment of Great Salt Lake Health (GSLAC, 2012)

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Impounded wetlands	Not ranked	Not ranked	Good	Poor	Not ranked	Very High
Mudflats and playas	Good	Very Good	Good	Good	Good	Low
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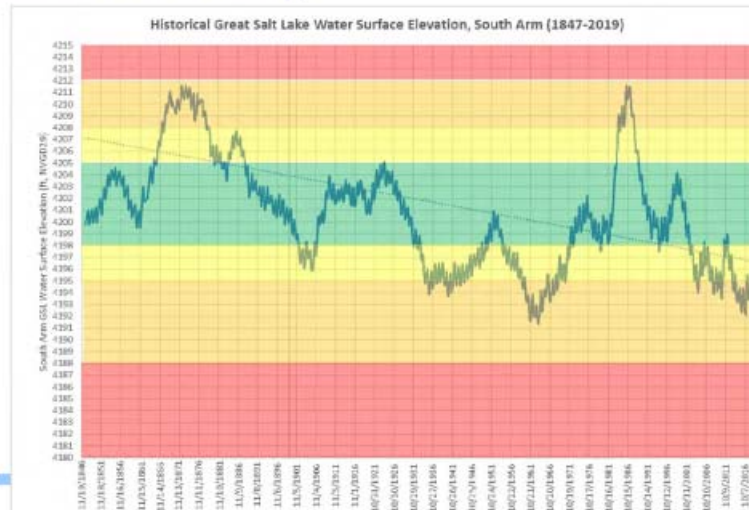
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## A Record of Change

UW&I  
INTEGRATED WATER  
MANAGEMENT





# Minerals produced

## Current

- Magnesium
- Salt (table salt, road salt)
- Potassium (sulfate of potash)
- Trace minerals (supplements)

## Historic

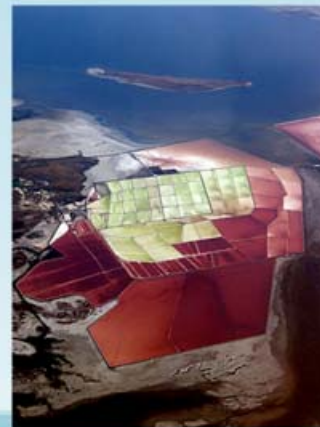
- Titanium
- Lithium



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## Mineral extraction = \$1.13 billion



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## Brine shrimp industry = \$57 million

*Belgium, Netherlands, Ecuador, Mexico, Indonesia, Thailand, Vietnam, India*



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## Tourism = \$136 million

*hunting, birdwatching, boating, hiking*



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Labor Income = \$375 million

Total Jobs = 7,706

*Weber, Davis, Tooele, Salt Lake, Box Elder counties*



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Avoided Cost (sewer treatment) = \$10-60 Million



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## Other avoided costs

- Dust
  - Human Health
  - Air Traffic
  - Crop Impacts
  - Property Values
- Lake Effect Snow (5-14%) + albedo effect losses
- Temperature Moderation



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## Lake Effect Snow: 5-14%



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## IMPACTS: ecologic, economic, human health

- Commercial fishing catches fell from 43,430 tons in 1960 to zero in 1980, destroying the local economy.
- Loss of wetlands, biodiversity.
- Weather changes (less humidity; hotter summers, colder winters).
- Windblown salts, heavy metals, pesticides, PCBs.
- Harm to native vegetation and ag fields.
- Infant mortality spike (highest in the region); anemia; breast-feeding discouraged.
- Some of the highest rates of respiratory illnesses/deaths in the world.



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## Great Salt Lake Advisory Council

- **Conservation Impacts Study – Bowens & Collins (2020)**

*The Study finds that if additional water conservation efforts can significantly decrease water use, there is the potential to further delay, reduce the magnitude, or perhaps even eliminate the need for future large water development projects, such as the currently defined Bear River Development project.*

- **Water Strategies for GSL – Clyde Snow, Jacobs (2020)**

*Combining technical and legal expertise, this Report analyzes each priority strategy and provides decisions makers with context, considerations, and action options for realizing greater lake levels.*

- **Water for Great Salt Lake – SWCA (2017)**

*Compiled 72 potential strategies to protect and/or increase water supplies.*

## Great Salt Lake Advisory Council

- **Great Salt Lake Integrated Model – Jacobs (2017, 2020)**

*While at the mercy of climate variability, conservation actions can help keep the Lake at elevations where it meets all or most of its beneficial uses.*

- **Assessment of Potential Costs of Declining Water Levels – Martin & Nicholson, ECONorthwest (2019)**

*Estimates costs of \$1.6-2.2 billion if the Lake is lost, with many of those impacts occurring as levels decline.*

- **Consequences of Drying Lake Systems Around the World – AECOM (2019)**

- **Definition and Assessment of Great Salt Lake Health – SWCA (2012)**

- **Economic Significance of the Great Salt Lake – Bioeconomics (2012)**

## Policy Changes

### **HCR-10 (2019)**

- “[R]ecognizes the critical importance of continued water flows to Great Salt Lake and its wetlands and the need for solutions to address declining water levels, while appropriately balancing economic, social, and environmental needs.”
- “[U]rges expeditious and collaborative development of recommendations for policy and actionable solutions to avert economic, social, and environmental harm due to declining water levels at Great Salt Lake and its wetlands.”
- Work Group (2020)
- Detailed Recommendations (2020):  
<https://ychef.files.bbci.co.uk/976x549/p0981q0j.jpg>

## Six Focus Areas

- Goal – Make a Difference
- Not Exclusive or Inclusive, all vary in Scope and Complexity, but all are Important
- Together, they Provide a Balanced Approach to:
  - Engage the Community
  - Build Upon Existing Law & Policy
  - Use Science as the Foundation
- 16 Opportunities, 60 Recommendations



## Conclusions

- Great Salt Lake is a centerpiece of our water legacy
- Preserving Great Salt Lake is a significant challenge to overcome
- It is not a “zero-sum game”
- Collaboration, ingenuity, determination are the solution
- These recommendations represent common ground
- A catalyst for discussion, study and action
- We must start now



## Policy Changes cont'd ...

### **Watershed Councils (2020)**

- Expressly included a Great Salt Lake Watershed Council

### **State Water Policy (2020)**

- *the study and development of strategies and practices necessary to address declining water levels and protect the water quality and quantity of the Great Salt Lake ...*
- regulations and practices, including voluntary practices, that maintain sufficient stream flows and lake levels to provide reasonable access to recreational activities and protect and restore water quality, quantity, and healthy ecosystems, including protecting groundwater and surface water sources from pollution;

## Policy Changes cont'd

### **• Water Banking (2020)**

- Cf. instream flows (2008)
- One of the few strategies likely to work at scale
- Least disruptive; protects existing rights, works w/in existing framework

### **• Economic Development (2021)**

- Explicit goal: "secur[e] healthy and resilient ecosystems for current and future generations."
- *"[D]evelop the statewide economic strategy in view of the state water policy described in Section 73-1-21, including the state's commitment to appropriate conservation, efficient and optimal use of water resources, infrastructure development and improvement, optimal agricultural use, water quality, reasonable access to recreational activities, effective wastewater treatment, and protecting and restoring healthy ecosystems ...*





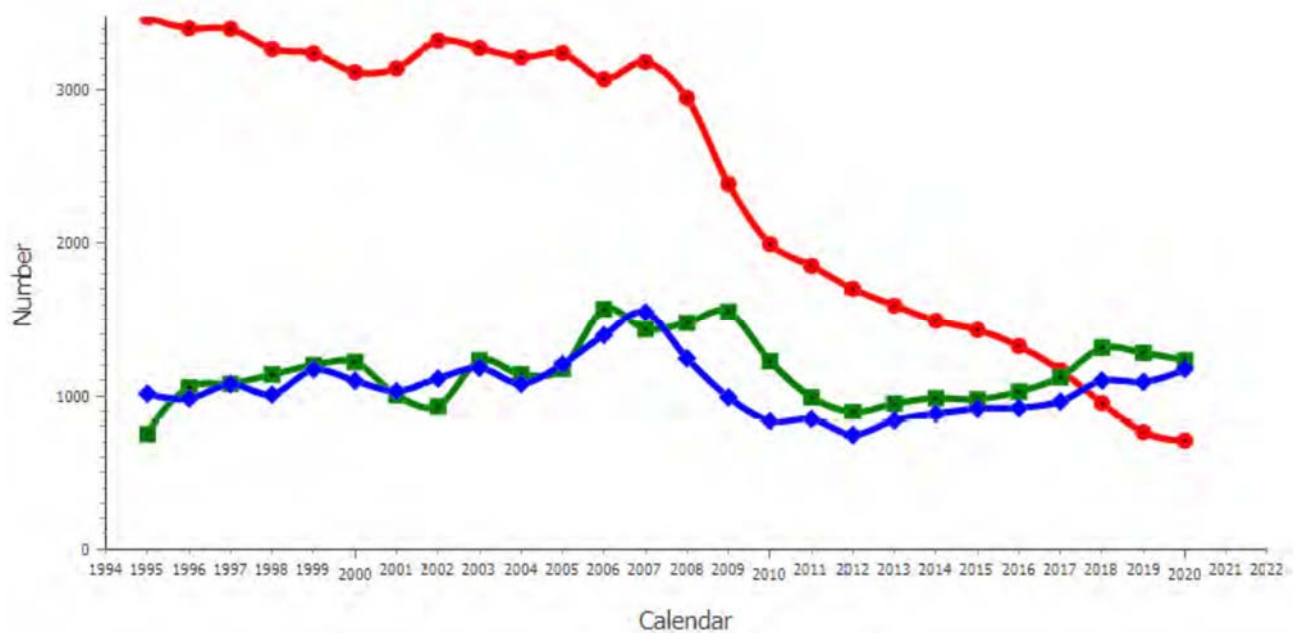
# Water Rights - Updates from the State Engineer

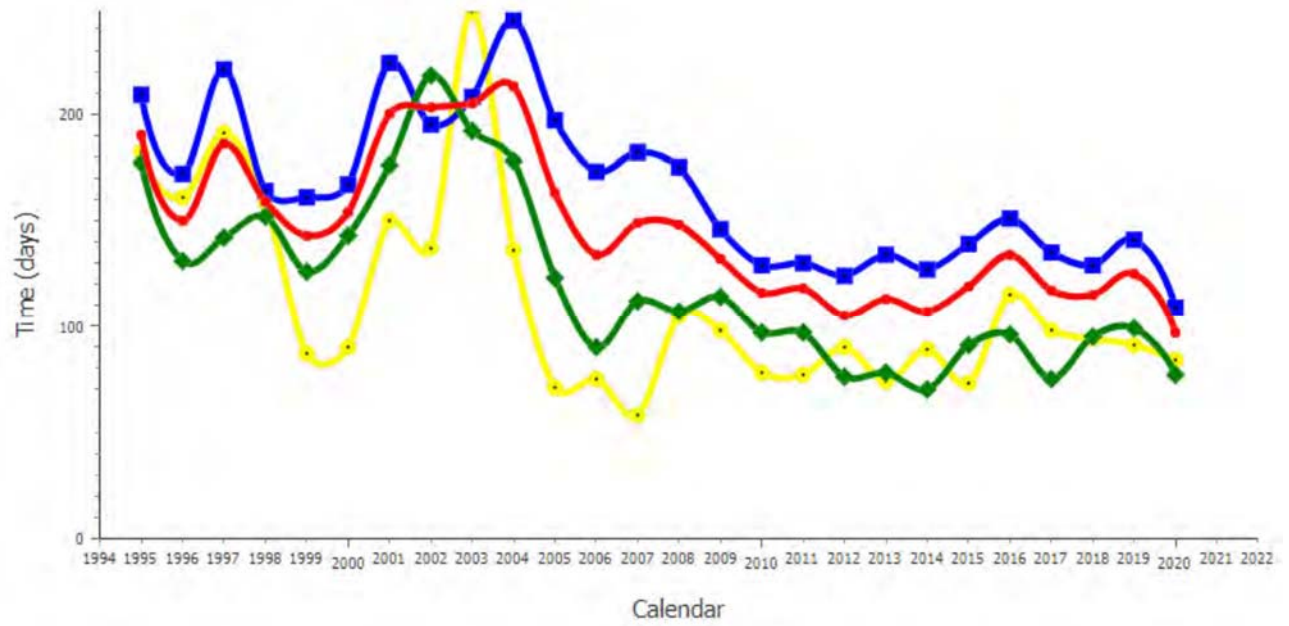
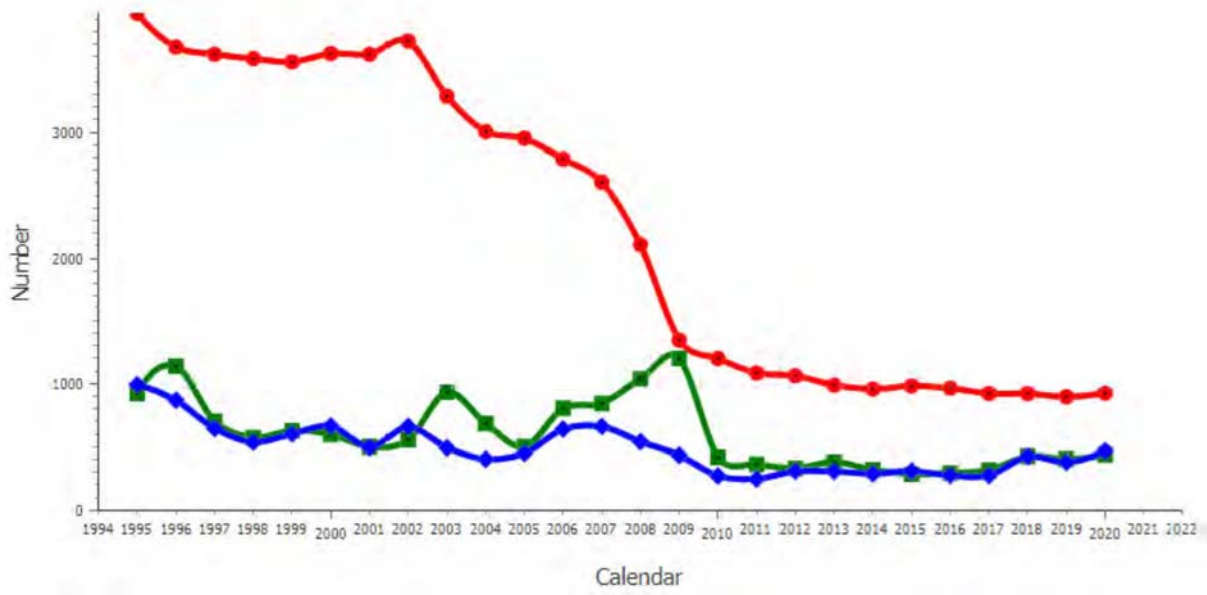
**Utah Water Users Conference  
May 18, 2021**

Teresa Wilhelmsen, P.E.

*State Engineer – Director, Division of Water Rights*

## Applications, How Are We Doing?



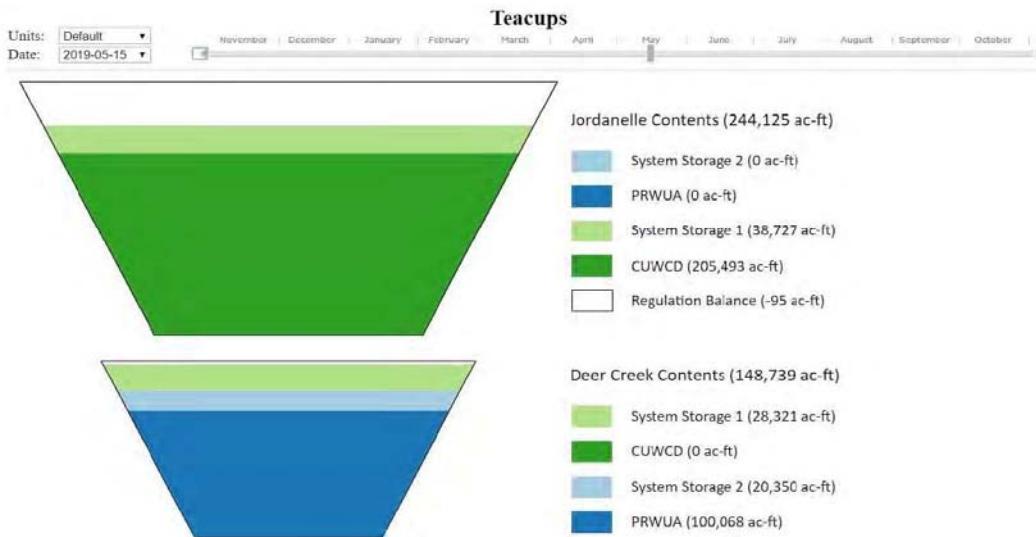


# Navajo Water Rights Settlement

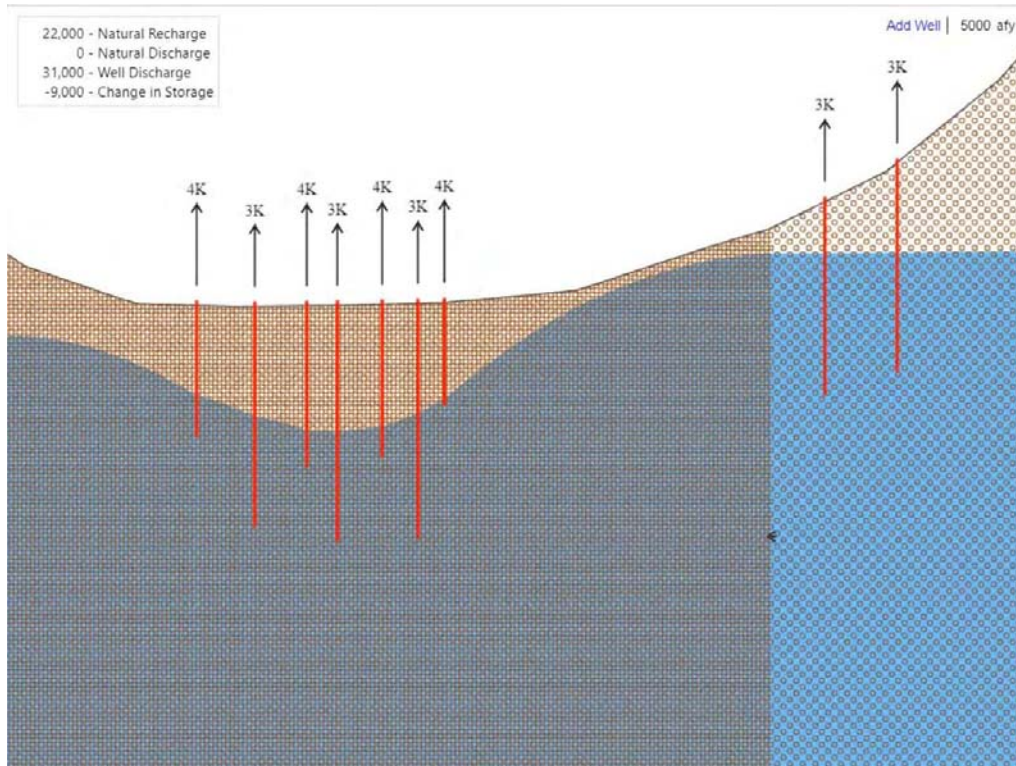
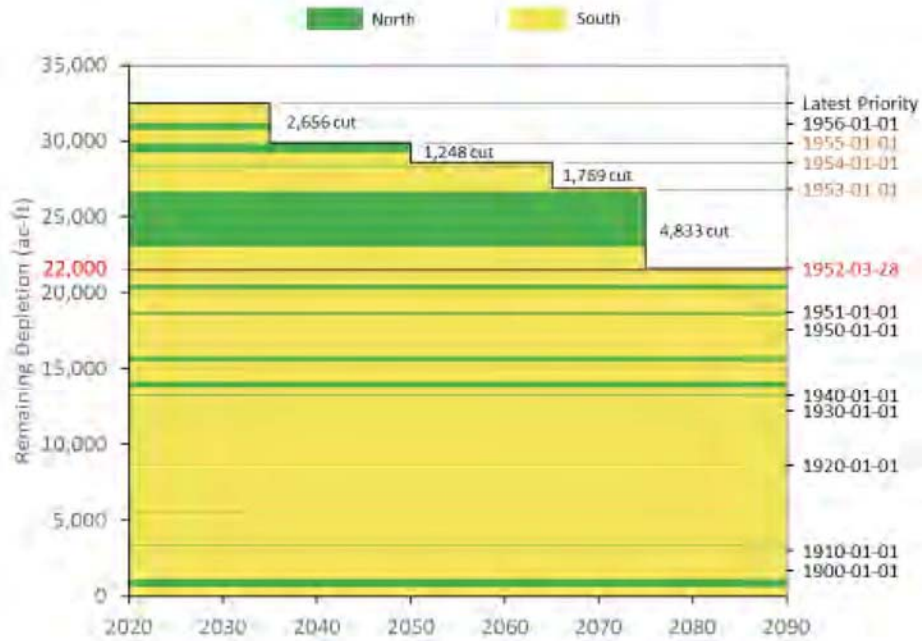
- Federal reserved water right
- \$8,000,000.00
- Ratify the agreement
- Interlocutory decree
- Clean water projects for Navajo Nation in Utah
- Brings clarity to the water rights based on Utah's Colorado River allocation



## Utah Division of Water Rights



# Groundwater Management



# Electronic communication and other new tools

- Scanned documents
- Document attachments
- On-line filing and payment
- Pilot project – Stream Alteration Permits
- Proof Affidavit Tool



MAP OF BENEFICIAL USE



## Current Issues

- Irrigation Depletion (Change / Flexibility)
- Instream / Environmental beneficial use
- Public Welfare
- Sharing a limited resource
- Ground water management
- Conjunctive management



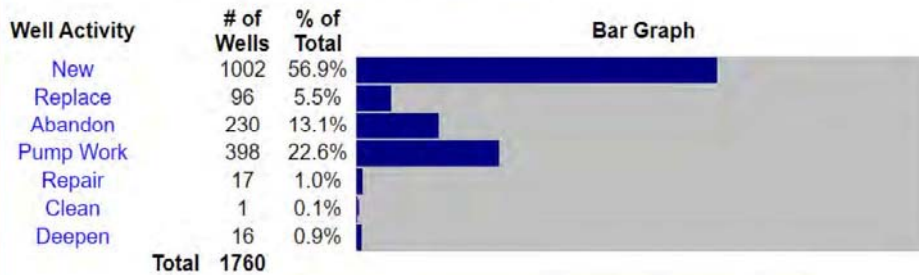
## Cooperative Studies

- Ground-based Evapotranspiration Network
- Moab City Well Water Chemistry Sampling
- Hydrogeology and Water Budget Studies
  - Goshen Valley
  - Juab Valley
  - Bryce Canyon City / Emery Valley/ John's Valley



# Well Drilling Statistics

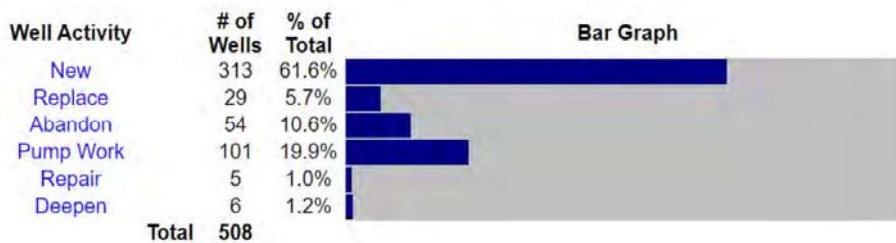
2020 Well Activity Statistics



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# Well Drilling Statistics

2021 Well Activity Statistics



# Water Resources Update

Utah Water Users Workshop

May 18, 2021

Todd Adams, P.E.  
Director, Utah Division of Water Resources



## Utah Division of Water Resources Plan | Conserve | Develop | Protect Utah's Water Resources





## Main Focus

- Board of Water Resources' Project Funding
  - Water Supply & Development Projects
  - Dam Safety
- State Water Planning
  - Water Supply & Use Data
  - Water Conservation & Education
  - State Water Plan Documents
- Interstate Streams
  - Colorado River
  - Bear River



Photo Credit: John Zinke / USFWS  
Bear River Refuge

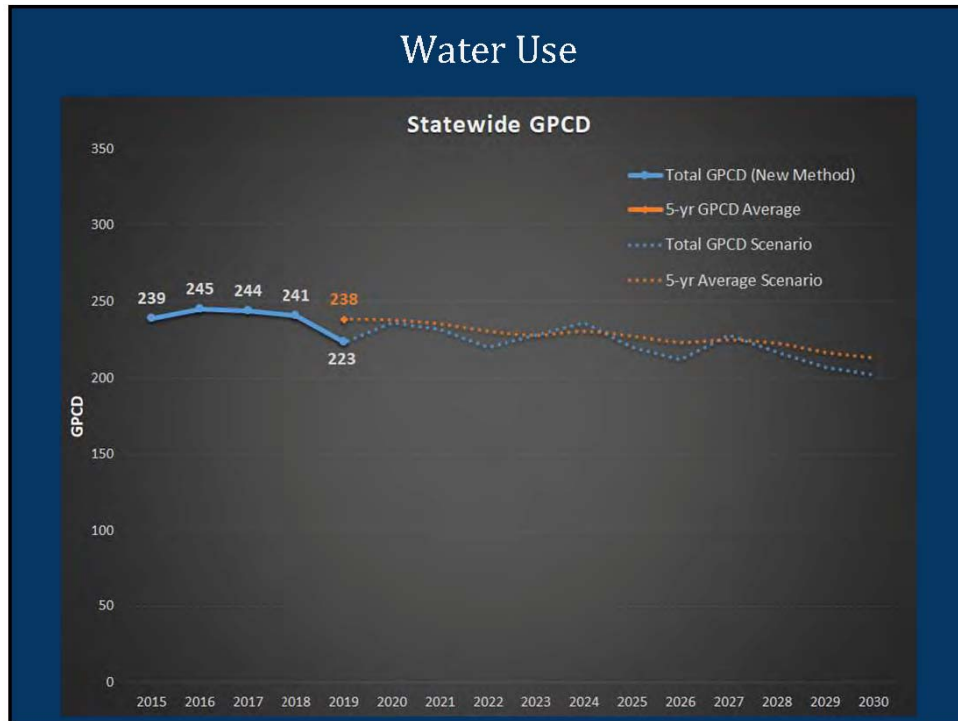


## Year in Review

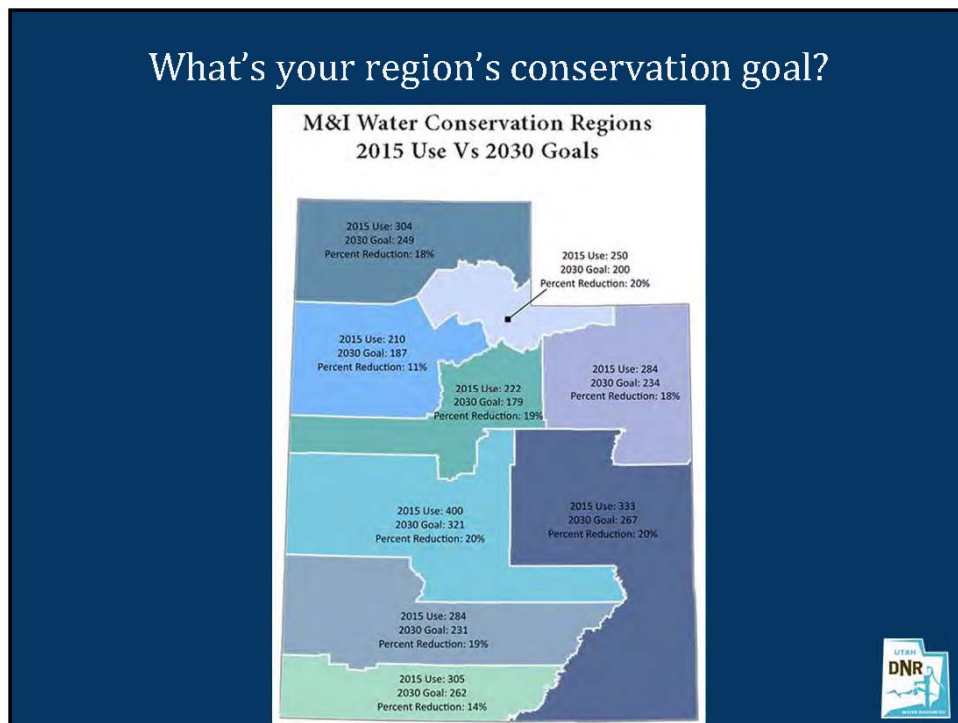
- Water Banking
- State Water Plan
- Water-related Land Use
- Joint Bear River Planning Model
- Bear River Development
- Lake Powell Pipeline
- Demand Management
- Secondary Water Metering
- Climate Change Analysis
- Regional Watershed Councils
- Utah Water Savers Rebate Program



# Water Use



## What's your region's conservation goal?



## Tools & Resources



IMPRESSED OR CONCERNED? REPORT ON WATER USE.  
**Hall of Fame Or Shame**  
WATER.UTAH.GOV/FAMEORSHAME



**Weekly Lawn Watering Guide**

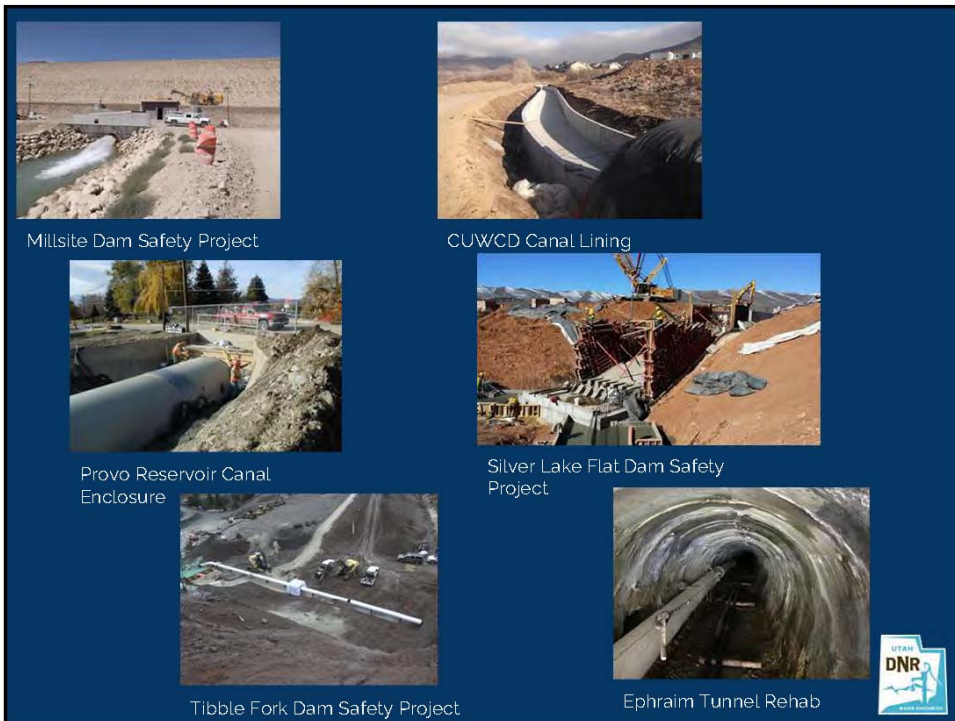


## Secondary Water Metering



Improved Data | Education | Reduce Use | Water Rates



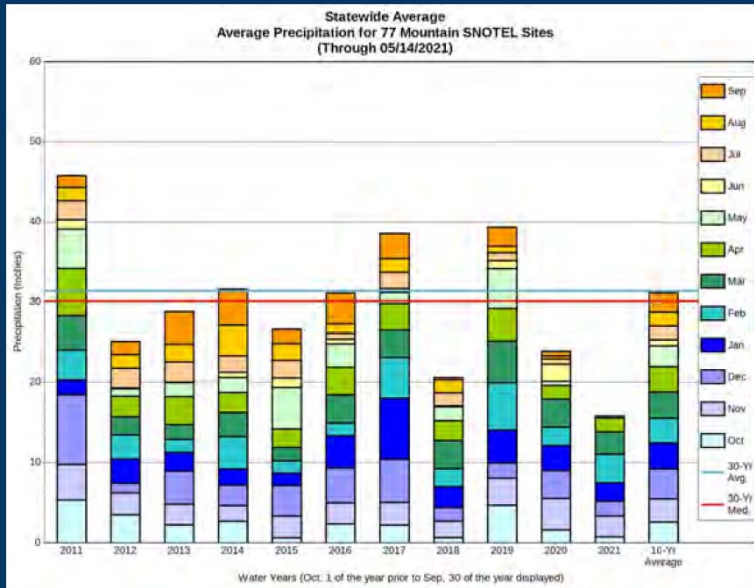


## Dam Safety Funds

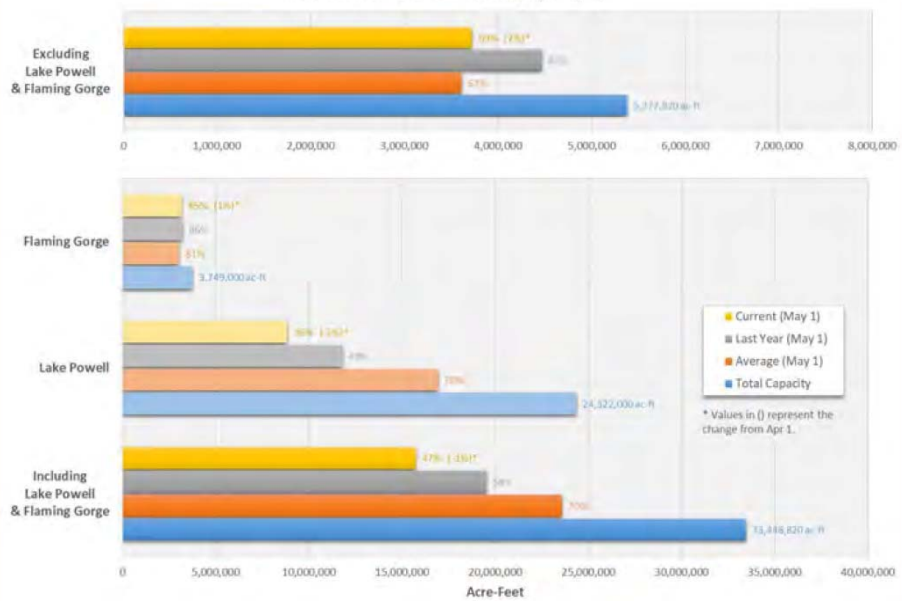
- Annual dam safety funding \$3.8 M
- 54 dams upgraded or in design process
- 100+ high hazard dams need to be upgraded
- 2015 Legislature provided \$11 M in one-time funds to partner with NRCS dams (Silver Lake Flat, Tibble Fork & Millsite)
- 2018 Legislature provided an additional 8.425M
- 2021 Legislature authorized \$18M in one time funds

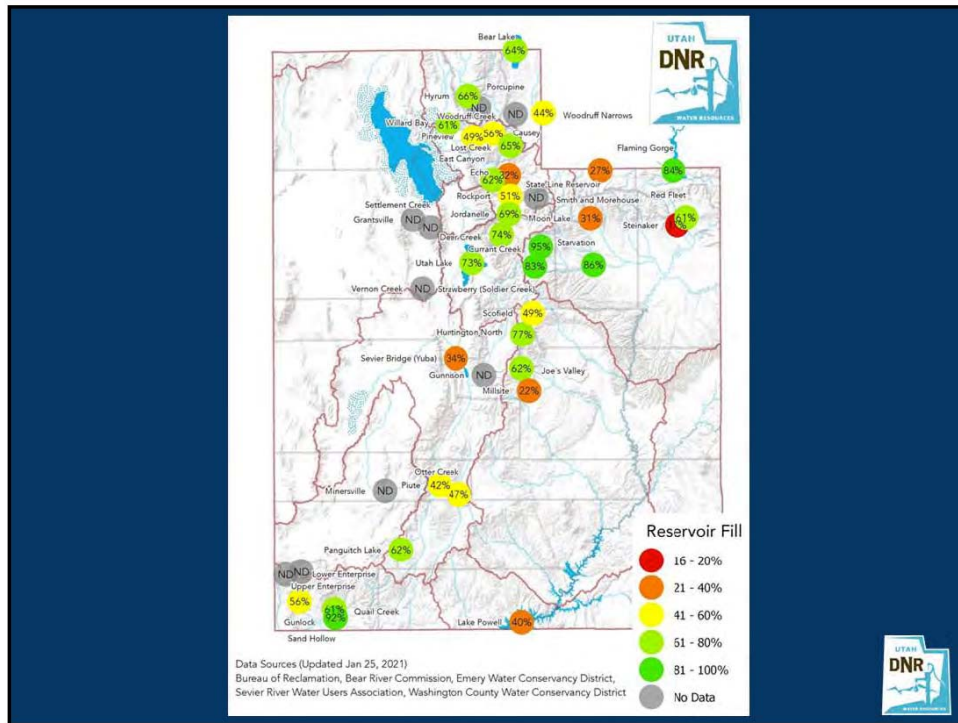


# Current Conditions & Forecast



## Statewide Reservoir Storage (May 1)





## Soil Moisture

