



State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF WATER QUALITY
Erica Brown Gaddis, PhD
Director

Water Quality Board
Steven K. Earley, Chair
James Webb, Vice Chair
Carly Castle
Brandon Gordon
Michela Harris
Joseph Havasi
Trevor Heaton
Michael D. Luers
Kimberly D. Shelley
Dr. Erica Brown Gaddis
Executive Secretary

Utah Water Quality Board Meeting
195 North 1950 West
Via [Zoom](#)

DEQ Board Room 1015
195 North 1950 West
Salt Lake City, UT 84116

February 23, 2022
Board Meeting Begins at 8:30 am

AGENDA

Water Quality Board Meeting – Roll Call

A. Minutes:

Approval of Minutes for January 26, 2022 Water Quality Board Meeting Steven Earley

B. Executive Secretary’s Report Erica Gaddis

C. Funding:

1. Financial Report..... Krystol Carfaro

D. Other

- 1. Jordan River Blueprint Revision..... Soren Simonson, Jordan River Commission
- 2. Agricultural Water Optimization Task Force Report & RecommendationsJeff Den Bleyker
- 3. Wastewater Operator Certification Council 2021-2025 Appointment RecommendationsJudy Etherington

E. Public Comment Period

F. Meeting Adjournment

Next Meeting March 23, 2022 at 8:30 am
DEQ Board Room 1015
195 North 1950 West
Salt Lake City, UT 84116
Via [Zoom](#)

In compliance with the American Disabilities Act, individuals with special needs (including auxiliary communicative aids and services) should contact Larene Wyss, Office of Human resources, at (801) 536-4281, TDD (801) 536-4284, or by email at lwys@utah.gov at least five working days prior to the scheduled meeting.

Revised 2/11/2022
DWQ-2022-002327

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MINUTES

**UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
UTAH WATER QUALITY BOARD
MASOB
and
Via Zoom**

January 26, 2022
8:30 am Board Meeting

UTAH WATER QUALITY BOARD MEMBERS PRESENT

Carly Castle	Trevor Heaton
Steven Earley	Mike Luers
Brandon Gordon	James Webb
Michela Harris	

Excused Joe Havasi
 Kim Shelley

DIVISION OF WATER QUALITY STAFF MEMBERS PRESENT

Robert Beers	John Mackey
Jennifer Berjikian	Glen Lischeske
Emily Cantón	George Meados
Krystol Carfaro	Meg Osswald
Eric Castrejon	Winnie Pan
Skyler Davies	Dave Pierson
Amy Dickey	Andrew Pompeo
Judy Etherington	Jeanne Riley
Erica Gaddis	Jen Robinson
Dan Griffin	Danny Ryan
Dan Hall	Lonnie Shull
Clanci Hawks	Jeff Studenka
Samantha Heusser	Sarah Ward
Ken Hoffman	Beth Wondimu
Brenda Johnson	Yan Yan
Danielle Lenz	

OTHERS PRESENT

Jimmy McKnight	Provo City
Michelle Kaufusi	Provo City
Issac Paxman	Provo City
Dave Decker	Provo City
Dave Torgerson	Provo City
Gary Calder	Provo City
Cory Christiansen	Water Works Engineering (Provo City)
Dennis Pay	South Salt Lake City
Crystal Makin	South Salt Lake City
David Hair	Millville City
Corey Twedt	Millville City
Chad Brown	Millville City
Lance Houser	Millville City
Bill Wright	Payson City
David Tucket	Payson City
Travis Jockumsen	Payson City
Cathy Jensen	Payson City
Jason Broome	Forsgren Engineering (Payson City)
Brian Baker	Zions Bank (Payson City)
Trevor Schlossnagle	UGS
Kaden Figgins	Garfield County
Elise Erler	SITLA
Chris Fausett	SITLA
Matthew Kennard	Heber City
Marian Rice	SL Public Utilities
Melissa Reynolds	Holland & Hart
Renn Lambert	Limno
Jordan Mathis	Bear River Health Department
Dani Cepernich	Snow Christensen & Martineau
Jeanette	Johnson Patterson & Yellowhorse
Justin Atkinson	Sunrise Engineering
Soren Simonson	Jordan River Commission
Lance Syrett	Ruby's Inn
David Dodds	
Steve Pitts	
Ron Worley	
Justine M	
Travis Holm	
Scott Holm	

Mr. Earley called the Meeting to order at 8:30 AM.

ROLL CALL

Mr. Earley took roll call for the members of the Board and audience.

APPROVAL OF MINUTES OF DECEMBER 15, 2021 BOARD MEETING

Motion: Mr. Heaton moved to approve the minutes of the December 15, 2021 Board meeting.

Mr. Gordon seconded the motion. The motion passed unanimously.

EXECUTIVE SECRETARY REPORT

Dr. Gaddis addressed the Board with the following updates.

Water Quality Board

- Introduced and welcomed new Board member, Carly Castle

Division Management

- Introduced new Water Quality Assistant Directors, Meg Osswald and Emily Cantón
- Water Quality Section reorganization

National

- *Waters of the United States (WOTUS)*
 - Rulemaking – agencies propose to reinstate the pre-2015 definition of “Waters of the United States”

Legislative

- SB111 Permanent Community Impact Funds Board Amendments – adds 3 new local representatives and removes the positions for the Chair of the Water Quality Board and Water Resources Board.
- HB232 Utah Lake Authority – Water Quality retains all authority with respect to Clean Water Act implementation and includes a seat on the Authority for the Department of Environmental Quality (DEQ)

State

- Governor’s budget
 - Utah Lake Preservation Fund - \$25 million
 - Southern Utah Water Reuse Grant - \$5 million
 - Division of Water Quality one-time request - \$750,000

FUNDING REQUESTS

Financial Report: Ms. Carfaro updated the Water Quality Board on the Loan Funds and Hardship Grant Funds as indicated in the packet.

Provo Supplemental Funding Authorization: Mr. Meados presented the Water Quality Board with a request for additional funding in the amount of \$20,000,000 for membrane bioreactors to enable the facility to biologically remove phosphorus and nitrogen.

Motion: Mr. Luers moved to approve the staff recommendations to authorize a funding package of a \$10,000,000 in a loan at an interest rate of 0.5% repayable over 20 years plus \$5,000,000 of additional funding as principal forgiveness with the following special conditions:

1. Provo must agree to participate annually in the Municipal Wastewater Planning Program (MWPP).
2. Provo must pursue and retain remaining funding necessary to fully implement the project.
3. Provo must develop and implement an asset management program that is consistent with EPA's Fiscal Sustainability Plan guidance.

Mr. Gordon seconded the motion. The motion passed unanimously.

South Salt Lake City Supplemental Funding Authorization: Mr. Davies presented a request for supplemental hardship financial assistance from the Utah Water Quality Board in the amount of \$1,760,000 to cover the City's share of the cost growth associated with the BNR Basin Project, plus \$1,032,000 to cover their portion of the additional costs for the Blower Building Project.

Motion: Mr. Webb moved to approve the staff recommendations that the Board authorize \$1,760,000 of additional funding as principal forgiveness to fund the BNR Project and a Utah Wastewater Loan Fund loan of \$1,032,000 at an interest rate of 0% repayable over 20 years both with the following special conditions:

1. South Salt Lake must agree to participate annually in the Municipal Wastewater Planning Program (MWPP).
2. South Salt Lake must pursue and retain remaining funding necessary to fully implement the projects.
3. South Salt Lake must develop and implement an asset management program that is consistent with EPA's Fiscal Sustainability Plan guidance.

Ms. Castle seconded the motion. The motion passed unanimously.

Millville Refinance & Supplemental Funding Authorization: Mr. Hoffman presented to the Water Quality Board a request for additional assistance to reduce the estimated monthly rate below \$100 per month per ERU. A user rate of \$100/month/ERU is 2.03% of MAGI.

Motion: Mr. Luers moved to approve the staff recommendations that the Board authorize a refinance of the \$5,011,000 USDA-RD loan comprised of \$3,750,000 million in principal forgiveness and \$1,261,000 of loan at 0% for a term of 30 years after completion of drawing USDA-RD funds. In addition, Mr. Luers moved to approve

the staff recommendation the Board authorize \$151,768 from the Hardship Grant Fund to pay off the existing UWLF debt. This is subject to the following special conditions:

- 1. Millville must agree to participate annually in the Municipal Wastewater Planning Program (MWPP).**
- 2. As part of the facility planning, Millville must complete a Water Conservation and Management Plan.**
- 3. Millville must pursue and retain remaining funding necessary to fully implement the collection system project.**
- 4. Millville must develop and implement an asset management program that is consistent with the EPA's Fiscal Sustainability Plan guidance.**
- 5. The hardship grant funds will be awarded only after the award of the construction contract.**
- 6. The refinance and hardship grant fund authorizations will expire on May 14, 2022 if the City has not has awarded the construction contract by that date.**
- 7. Staff may negotiate with the City an escalating principal repayment schedule.**

Mr. Gordon seconded the motion. The motion passed unanimously.

Payson City Reauthorization: Mr. Pompeo presented a request by Payson City for additional funding from the Water Quality Board in the amount of \$10,000,000 in addition to the \$11,500,000 for which they were originally authorized. In addition to potential additional funding, Payson City requested that the interest rate of the previously authorized funding be re-evaluated with a term of 30 years. Mr. Pompeo also presented staff's recommendations for supplemental funding of the project as constrained by available funds. These funds will be used for the modification of their water reclamation facility to bring it into compliance with the TBPEL.

Motion: Mr. Gordon moved to approve the staff recommendations that the Board re-authorize the previous funding package as a \$13,500,000 at an interest rate of 0.5% repayable over 30 years plus \$1,000,000 of additional funding as principal forgiveness with the following special conditions:

- 1. Payson must agree to participate annually in the Municipal Wastewater Planning Program (MWPP).**
- 2. Payson must pursue and retain remaining funding necessary to fully implement the project.**
- 3. Payson must demonstrate an overall net or effective project useful life of 30 years or more. A shorter life will result in a reduced loan term.**
- 4. Payson must develop and implement an asset management program that is consistent with EPA's Fiscal Sustainability Plan guidance.**

Mr. Heaton seconded the motion. The motion passed unanimously.

OTHER

Approval Request for Aquifer Classification Petition for Bryce Canyon Area, Garfield County, UT: Ms. Ward presented the Water Quality Board with the request to authorize Division staff to proceed with the Ground Water Classification for the Bryce Canyon Area in Garfield County, Utah, based on the petition of the Garfield County Commission.

Motion: Ms. Castle moved to approve that the Water Quality Board authorize Division staff to proceed with Ground Water Classification for the Bryce Canyon Area in Garfield County, Utah.

Ms. Harris seconded the motion. The motion passed unanimously.

PUBLIC COMMENTS

Millville City Refinance & Supplemental Funding Authorization

Jordan Mathis, Bear River Health Department

Aquifer Classification Petition for Bryce Canyon Area, Garfield County, UT

Kaden Higgens, Garfield County

Scott Holms, Concerned Citizen

MEETING ADJOURNMENT

Motion: Mr. Gordon moved to adjourn the meeting.

Ms. Castle seconded the motion. The motion passed unanimously.

To view the full recording of the Water Quality Board meeting.

<https://deq.utah.gov/boards/utah-water-quality-board-meetings>

Next Meeting – February 23, 2022

Meeting begins at 8:30 am

In-Person

MASOB

195 North 1950 West

Board Room 1015

Salt Lake City, UT 84116

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January 26, 2022
Water Quality Board
Minutes

Via Zoom

<https://us02web.zoom.us/j/7074990271>

Steven Earley, Chair
Utah Water Quality Board

DWQ-2022-001704

LOAN FUNDS FINANCIAL STATUS REPORT FEBRUARY 2022

STATE REVOLVING FUND (SRF)	State Fiscal Year 2022	State Fiscal Year 2023	State Fiscal Year 2024	State Fiscal Year 2025	State Fiscal Year 2026	State Fiscal Year 2027
Funds Available						
Capitalization Grants Awards (FFY19 - 21)	\$22,092,801	\$0	\$0	\$0	\$0	\$0
State Match (FFY20 - 21)	\$3,343,000	\$0	\$0	\$0	\$0	\$0
Future Capitalization Grants (estimated)	\$8,000,000	\$8,000,000	\$8,000,000	\$8,000,000	\$8,000,000	\$8,000,000
Future State Match (estimated)	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000
SRF - 2nd Round	\$47,933,101	\$11,220,994	-\$1,857,162	-\$4,656,414	\$25,108,176	\$54,930,338
Interest Earnings at 0.4252%	\$84,921	\$47,712	\$0	\$0	\$106,760	\$233,564
Loan Repayments (5255)	\$4,303,170	\$17,484,132	\$20,400,749	\$20,164,590	\$20,115,402	\$18,678,941
Total Funds Available	\$87,356,994	\$38,352,838	\$28,143,586	\$25,108,176	\$54,930,338	\$83,442,843
Project Obligations						
Central Valley Water Reclamation Facility	(15,300,000)	(6,800,000)	-	-	-	-
Moab City	(80,000)	-	-	-	-	-
Provo City	(34,045,000)	(20,000,000)	(8,800,000)	-	-	-
South Salt Lake City (A)	(2,290,000)	(234,000)	-	-	-	-
Millville City	(1,150,000)	-	-	-	-	-
Loan Authorizations						
South Davis Sewer District (with NPS)	(7,000,000)	(7,176,000)	-	-	-	-
Mountain Green	(1,500,000)	(4,000,000)	(1,500,000)	-	-	-
Payson City	-	(2,000,000)	(12,500,000)	-	-	-
Provo City	(5,000,000)	-	(10,000,000)	-	-	-
Millville	(8,011,000)	-	-	-	-	-
South Salt Lake City	(1,760,000)	-	-	-	-	-
Planned Projects						
Total Obligations	(76,136,000)	(40,210,000)	(32,800,000)	-	-	-
SRF Unobligated Funds	\$ 11,220,994	\$ (1,857,162)	\$ (4,656,414)	\$ 25,108,176	\$ 54,930,338	\$ 83,442,843

UTAH WASTEWATER LOAN FUND (UWLF)	State Fiscal Year 2022	State Fiscal Year 2023	State Fiscal Year 2024	State Fiscal Year 2025	State Fiscal Year 2026	State Fiscal Year 2027
Funds Available						
UWLF	23,978,484	14,847,049	11,386,936	14,183,627	17,314,762	20,293,015
Sales Tax Revenue	-	3,587,500	3,587,500	3,587,500	3,587,500	3,587,500
Loan Repayments (5260)	787,864	2,495,988	2,473,791	2,808,235	2,655,353	2,270,341
Total Funds Available	24,766,349	20,930,536	17,448,227	20,579,362	23,557,615	26,150,857
General Obligations						
State Match Transfers	(4,943,000)	(1,600,000)	(1,600,000)	(1,600,000)	(1,600,000)	(1,600,000)
DWQ Administrative Expenses	(832,300)	(1,664,600)	(1,664,600)	(1,664,600)	(1,664,600)	(1,664,600)
Project Obligations						
South Salt Lake City (B)	(3,112,000)	(1,779,000)	-	-	-	-
Loan Authorizations						
Spanish Fork	-	(4,500,000)	-	-	-	-

LOAN FUNDS FINANCIAL STATUS REPORT FEBRUARY 2022

South Salt Lake City Planned Projects	(1,032,000)					
Total Obligations	(9,919,300)	(9,543,600)	(3,264,600)	(3,264,600)	(3,264,600)	(3,264,600)
UWLF Unobligated Funds	\$ 14,847,049	\$ 11,386,936	\$ 14,183,627	\$ 17,314,762	\$ 20,293,015	\$ 22,886,257
Total Loan Fund Balance	26,068,042	9,529,774	9,527,214	42,422,938	75,223,354	106,329,100
Project Reserve		(5,000,000)	(10,000,000)	(15,000,000)	(20,000,000)	(25,000,000)
Total Available Loan Funds	26,068,042	4,529,774	(472,786)	27,422,938	55,223,354	81,329,100

HARDSHIP GRANT FUNDS FINANCIAL STATUS REPORT FEBRUARY 2022

HARDSHIP GRANT FUNDS (HGF)	State Fiscal Year 2022	State Fiscal Year 2023	State Fiscal Year 2024	State Fiscal Year 2025	State Fiscal Year 2026	State Fiscal Year 2027
Funds Available						
Beginning Balance		1,722,272	1,959,540	2,335,074	2,625,795	2,731,827
Federal HGF Beginning Balance (5250)	3,894,378	-	-	-	-	-
State HGF Beginning Balance (5265)	2,517,512	-	-	-	-	-
Interest Earnings at 0.4252%	11,360	7,323	8,332	9,929	11,165	11,616
UWLF Interest Earnings at 0.4252%	42,482	63,130	48,417	60,309	73,622	86,286
Hardship Grant Assessments (5255)	323,764	1,097,077	1,021,544	945,012	767,302	690,077
Interest Payments - (5260)	93,310	319,738	297,241	275,471	253,943	232,597
Advance Repayments	-	-	-	-	-	-
Total Funds Available	6,882,806	3,209,540	3,335,074	3,625,795	3,731,827	3,752,403
Financial Assistance Project Obligations						
Eagle Mountain City - Construction Grant	(510,000)	-	-	-	-	-
Emigration Sewer Imp Dist - Planning Grant	(26,158)	-	-	-	-	-
Lewiston City - Design and Construction	(274,000)	-	-	-	-	-
Millville City - Design and Construction	(1,000,000)	-	-	-	-	-
Millville City - Loan Payoff Grant	(158,000)	-	-	-	-	-
Mount Pleasant Planning Advance	(50,000)	-	-	-	-	-
Spanish Fork - Hardship Grant	(250,000)	(250,000)	-	-	-	-
Salina Design Advance	(400,000)	-	-	-	-	-
Hanksville Planning Advance	(36,600)	-	-	-	-	-
Non-Point Source/Hardship Grant Obligations						
Fitzgerald ARDL interest-rate buy down	(51,056)	-	-	-	-	-
McKees ARDL interest-rate buy down	(55,261)	-	-	-	-	-
Munk Dairy ARDL interest-rate buy down	(16,017)	-	-	-	-	-
(FY12) Utah Department of Agriculture	(177,928)	-	-	-	-	-
(FY15) DEQ - Ammonia Criteria Study	(27,242)	-	-	-	-	-
(FY17) DEQ - Utah Lake Water Quality Study	(348,301)	-	-	-	-	-
(FY20) Wasatch Co Health Dept Ground WQ Study	(8,270)	-	-	-	-	-
USU - Historic Trophic State/Nutrient Concentrations Paleo	(84,629)	-	-	-	-	-
FY 2018 - Remaining Payments	(7,100)	-	-	-	-	-
FY 2019 - Remaining Payments	(111,419)	-	-	-	-	-
FY 2020 - Remaining Payments	(380,969)	-	-	-	-	-
FY 2021 - Remaining Payments	(302,879)	-	-	-	-	-
FY 2022 - Remaining Payments	(884,705)	-	-	-	-	-
Future NPS Annual Allocations		(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)
Planned Projects						
Total Obligations	(5,160,534)	(1,250,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)
HGF Unobligated Funds	\$ 1,722,272	\$ 1,959,540	\$ 2,335,074	\$ 2,625,795	\$ 2,731,827	\$ 2,752,403

State of Utah
Wastewater Project Assistance Program
Project Priority List

As of February 16, 2022

Rank	Project Name	Funding Authorized	Total Points	Point Categories			
				Project Need	Potential Improvement	Population Affected	Special Consideration
1	Provo City	X	144	50	24	10	60
2	South Salt Lake City (CVWRF)	X	143	50	23	10	60
3	South Davis Sewer District	X	138	50	18	10	60
4	Payson	X	120	35	17	8	60
5	Spanish Fork Water Reclamation Facility	X	117	50	19	8	40
6	Millville City	X	114	45	46	3	20
7	Mountain Green	X	108	50	14	4	40
8	Lewiston City	X	67	10	16	1	40

X - funding authorized; R - Additional Funding Requested; 0 - Funding Not Yet Authorized



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MEMORANDUM

TO: Water Quality Board

THROUGH: Erica Brown Gaddis, PhD

FROM: Soren Simonsen, Executive Director, Jordan River Commission

DATE: February 23, 2022

SUBJECT: Update to the Blueprint Jordan River

Dear Members of the Utah Water Quality Board :

In 2008, the ***Blueprint Jordan River*** was completed under the direction of Salt Lake County and a steering committee of municipal, county and state agency leaders, and through the work of Envision Utah.

This regional vision for the Jordan River and its surrounding environment led to the creation of the Jordan River Commission by an Interlocal Cooperation Agreement in 2010. Since then, the Commission has worked in a coordinated manner to support its numerous partners on many projects and programs related to active transportation and outdoor recreation, improvements to water quality and in-stream flows, the preservation and conservation of open space for active and passive recreation uses, restoration of wildlife habitat, and the technical review and coordination of responsible river-oriented development.

In 2018, the Commission secured a Transportation and Land Use Connection grant from the Wasatch Front Regional Council to update the Blueprint Jordan River. This effort was intended to acknowledge and reflect on the work and accomplishments over the prior decade, seek additional community input to identify and respond to current and emerging opportunities and challenges, and offer greater strategic guidance to the Commission and its partners on the implementation of the goals and objectives of the Blueprint Jordan River. Throughout the process of updating the Blueprint Jordan River, Envision Utah and an extended technical consulting team received input from over 8,000 community members and focus group participants, and met with dozens of subject matter experts to draft the updated Blueprint Jordan River.

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February 23, 2022
Water Quality Board
Jordan River Blueprint Revision

The Commission will share the final draft document with Utah Water Quality Board at its February Water Quality Board Meeting. Board members and staff of the Division of Water Quality are invited to share their feedback on the draft document over the next two weeks, and help finalize this new edition of the Blueprint Jordan River for anticipated adoption by the Jordan River Commission Governing Board later this spring.

A copy of the draft Blueprint Jordan River Refresh is available [online](#). Here viewers can read the full document, add comments, and respond to comments by others.

I look forward to meeting with you later this month. Thank you for your time and input on this important Jordan River community initiative and resource guide.

Best regards –

A handwritten signature in black ink, appearing to read 'Soren Simonsen', with a long horizontal flourish extending to the right.

Soren Simonsen, FAIA, AICP, LEED AP
Executive Director
Jordan River Commission



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MEMORANDUM

TO: Utah Water Quality Board

FROM: Brenda Johnson

THROUGH: Erica Brown Gaddis, PhD, Director

DATE: February 23, 2022

SUBJECT: Agricultural Water Optimization Task Force Report & Recommendations

Jeff Den Bleyker will be presenting the Agricultural Water Optimization Task Force report and recommendations.

Attachments: 1. Cultivating Agriculture Water Resiliency in Utah

DWQ-2022-002902

CULTIVATING AGRICULTURE WATER RESILIENCY IN UTAH

A Down Payment on the Future

PHASE I: ASSESSING THE POSSIBILITIES (2018 H.B. 381)

OBJECTIVE:

The Agricultural Water Optimization Task Force was formed in 2018 by the Utah State Legislature (H.B. 381). The Task Force's initial objective was to:

Identify and initiate research that identifies how the State could:

1. Optimize agricultural water supply and use
2. Improve the quantification of agricultural water use

The Task Force initiated research to achieve this objective with funds appropriated by the legislature. Research was completed during the 2019-2021 growing seasons. All but one study are complete.

KEY FINDINGS

Proven technologies and methods for optimizing irrigation, cropping, and tillage already exist that can reduce water consumption and maintain agricultural production. These can be leveraged, improved, and implemented in Utah (Barber and Peters 2020).

Field testing of different combinations of LEPA/LESA sprinkler systems, tillage, crops, cover crops, and deficit irrigation have proven the feasibility of reducing water consumption and maintaining agricultural production in Utah (Yost et al. 2021).

Drip irrigation works, is less consumptive, requires less diversion, and maintains yield vs. surface irrigation (Allen et al. 2021).

Quantification of diverted and applied water provides significant benefits to the producer, community, and environment and is desired by water users and water managers. The Emery County experience is proof positive that this works in Utah (Green et al. 2020).

Ground-based and remote sensing technology exists to provide water users and water managers with the water diversion, application, and depletion information they need (Jacobs 2020).

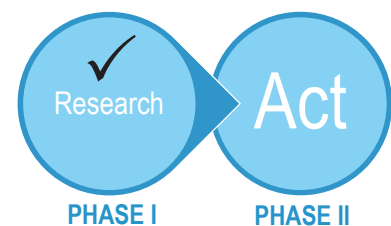
Preliminary results from field testing of ground-based and remote sensing technologies indicate that water depletion accounting is feasible in Utah (Allen et al. forthcoming).

What is agricultural water optimization?

The implementation of agricultural and water management practices that maintain or increase viable agriculture while minimizing negative impacts on water supply, water quality, and the environment.

CONCLUSIONS

1. Utah must innovate and adapt to address acute drought and chronic water supply and demand challenges.
2. There are readily available and proven tools and approaches that can be implemented to incentivize and make progress toward agricultural water optimization and resiliency.
3. The State of Utah must invest now to preserve agriculture in Utah and enable the growth that is envisioned.



Pivoting from Research to Action

PHASE II: PIVOT FROM RESEARCH TO ACTION

The Challenge and Need

Acute droughts such as what we experienced in 2021 are a **significant threat to the viability of our farms and ranches**. Utah agriculture is facing relentless pressure from growth that is transforming agricultural lands and increasing demands on a limited water supply. Long-term climate trends have decreased and will likely continue to decrease the available water supply. **Immediate action that optimizes the use and management of our finite water supplies is needed** to both preserve agriculture and sustain the desired growth in Utah for future generations.

The Task Force estimates that an investment of >\$6B would improve drought resiliency and could potentially reduce diversions by up to 20-30% for Utah's irrigation and canal systems. Utah must make a significant investment now.

A New Objective – To Act

Develop and implement an agricultural water resiliency plan for Utah that accomplishes the following goals:

GOALS

1. Preserve agriculture and enable smart growth in Utah for future generations

- Preserve Utah's agricultural economy
- Increase local use of Utah agricultural products
- Adapt agricultural market to less consumptive products
- Promote smart growth; protect critical agricultural lands

2. Boost the resilience of Utah's agriculture to anticipate, respond, and succeed in spite of drought and other impacts of climate change

- Quantification – Provide water users and water managers with the data (for example, via metering) they need to optimize their operation and increase water use accountability/transparency
- Tools – Reduce agricultural water diversions and consumption through improved infrastructure and methods
- Education – Increase agriculture irrigation outreach, technical assistance, education, and demonstration projects

3. Expand the capacity of agriculture to adapt to increasing demands upon a decreasing water supply

- Preserve an adequate water supply to maintain Utah's agricultural economy
- Protect non-consumptive system uses of water
- Develop basin integrated plans
- Avoid regulatory curtailments through voluntary efficiency measures that maintain agricultural production



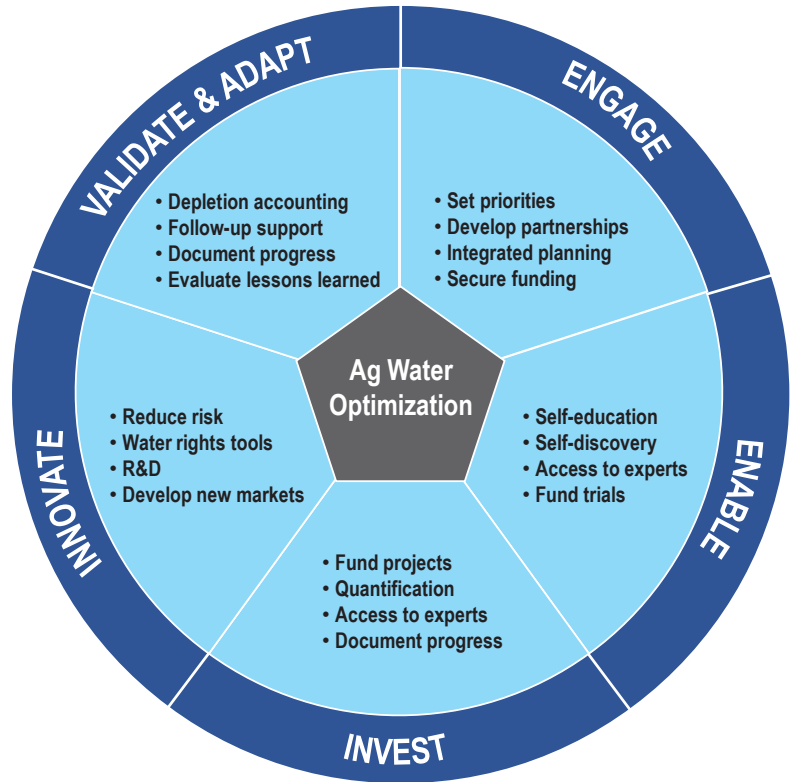


Pivoting from Research to Action

We must define the need and develop local solutions.

A Utah Agriculture Water Resiliency Plan will:

1. **Engage** stakeholders and **enable** water users to make **voluntary** changes
2. Provide a framework for individual basin plans that will identify and prioritize **investments** from a **local** perspective
3. Incentivize water users and water managers to **innovate** to minimize risks and maximize benefits.
4. Minimize the risk of change by structuring improvements to be **temporary** until they are **validated**.
5. Develop the means to **adapt** plan elements to maximize benefits to the water user and basins.



The Agricultural Water Optimization Task Force requests a one-time appropriation of \$1,000,000 to develop a framework for a statewide Agriculture Water Resiliency Plan in 2022-2023. The Task Force has already identified actions for 2022; the framework will serve as the foundation and guide for a collaborative and integrated effort to develop local solutions.

The Task Force requests a one-time appropriation of \$6,000,000 to develop basin-specific agriculture water resiliency plans that follow the statewide framework. The basins will be prioritized based upon existing and forecasted challenges, potential benefits, and willing partners.

Invest \$7,000,000 to develop state and basin-specific agriculture water resiliency plans. potentially reduce This is requested as a new appropriation.

Moving the Needle – A Down Payment on the Future

The Task Force recommends four areas of focus in 2022 that will initiate a bold vision for agriculture water resiliency in Utah, lay the foundation for the Utah Agriculture Water Resiliency Plan, and represent a critical down payment on the future of Utah. Three of these areas are already included in the Utah Department of Agriculture and Food's (UDAF) previous request for \$95M in ARPA funds for agriculture water optimization.

Invest \$100,000,000 as a down payment on agriculture water resiliency in Utah. \$95,000,000 has already been requested by UDAF from available ARPA funds. \$5,000,000 is requested as a new appropriation.

On-farm Irrigation Conversions

\$25,000,000 for a competitive irrigation efficiency program that will optimize existing irrigation systems (included in UDAF's previous ARPA request). These projects could enable up to a 20% reduction in the amount of water being used for irrigation while maintaining agricultural production. Projects will be prioritized based upon water saved, water risk in the basin, and number of participants in the basin.

Conveyance Conversions

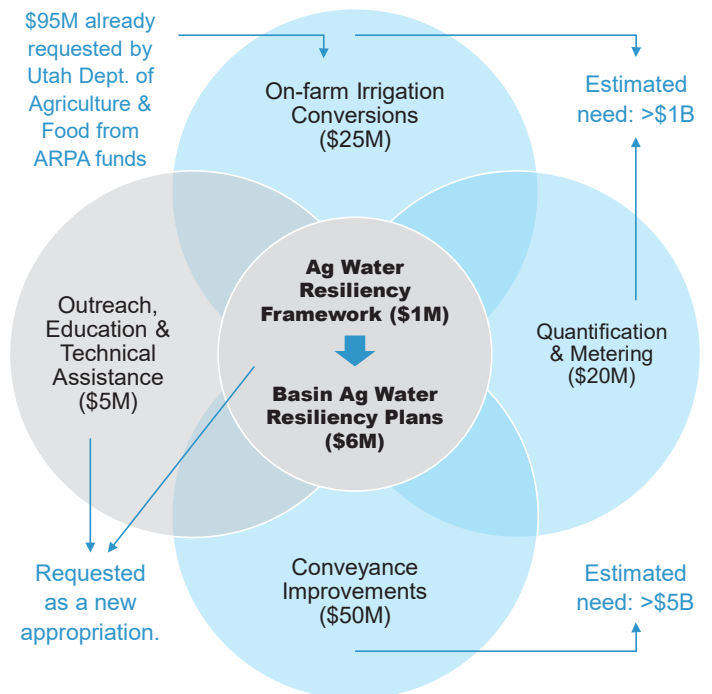
\$50,000,000 for a competitive conveyance efficiency program that reduces evaporation and infiltration in existing canals and ditches (included in UDAF's previous ARPA request). Projects will be prioritized based upon their safety risk, existing loss of water to evaporation and infiltration, local hydrologic conditions and impacts, and opportunities to collaborate and leverage other funds. These projects could reduce water losses in canals by up to 5% to 40%.

Quantification

\$20,000,000 to realize the benefits of a real-time monitoring system statewide (included in UDAF's previous ARPA request). The program would begin to meter irrigation diversions and applied water, monitor groundwater levels, provide telemetry and data management systems, provide education and technical assistance, implement an agricultural water depletion accounting program, and make the information available to water users. Data describing actual diversions and depletions is expected to directly benefit water users as they maximize their production, and benefit water managers and their communities as they plan for a resilient water supply that enables sustainable growth.

Outreach, Education, and Technical Assistance

\$5,000,000 to develop and implement an outreach, education, and technical assistance program to support the implementation of irrigation improvements (new appropriation). The program will include adding two Extension irrigation specialists to focus upon outreach and education, developing a new program to develop farm-specific irrigation plans and incentivize implementation, add three Extension irrigation specialists to help identify financial assistance opportunities; provide technical evaluation, design, and assistance during installation and operation of plan elements; and implement demonstration projects throughout the state.





State of Utah

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Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF WATER QUALITY
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Kimberly D. Shelley
Dr. Erica Brown Gaddis
Executive Secretary

MEMORANDUM

TO: Utah Water Quality Board

FROM: Judy Etherington, DWQ, Wastewater Certification Program Coordinator

THROUGH: Erica Brown Gaddis, PhD, Director
Emily Cantón, Assistant Director
Lenora Sullivan, Data and Information Services Section Manager

DATE: February 23, 2022

SUBJECT: Recommendations for Appointment to the Utah Wastewater Operator Certification Council for February 1, 2022 through January 31, 2025

As of January 31, 2022, the terms of three members of the Utah Wastewater Operator Certification Council expire. The members with expiring terms are Giles Demke, representing wastewater management; Blaine Shipley, representing certified wastewater collection operators; and Brian Lamar, representing certified wastewater treatment operators. Other current members of the Council include Chad Burrell, Phil Harold, Rob Jaterka, and Dr. Jennifer Weidhaas.

Recommendations for appointment to these positions were solicited from individuals and organizations in the wastewater sector and educational institutions. Individuals are appointed for a three-year term. Council members may be reappointed, but they do not automatically succeed themselves. The names recommended to the Board at this time are selected from written recommendations received by the Division of Water Quality prior to January 4, 2022.

At this time, it is recommended that all three individuals be reappointed to serve another 3-year term representing the same areas that they recently did. This includes: *Brian Lamar*, who currently works at North Davis Sewer District and holds both Wastewater Treatment Grade IV and Collections Grade IV certifications; *Blaine Shipley*, currently employed by Price River Water Improvement District and holds both Wastewater Treatment Grade IV and Collections Grade IV certifications; and *Giles Demke*, who is manager of the Orem Water Reclamation Facility and holds Wastewater Treatment Grade IV certification.

DWQ-2022-000994