



State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF DRINKING WATER
Nathan Lunstad, P.E.
Director

Drinking Water Board
Kristi Bell, Chair
Eric Franson, P.E., Vice-Chair
Dawn Ramsey
Justin Maughan
Corinna Harris
Jeff Coombs
David O. Pitcher
Blake Tullis, Ph.D.
Kimberly D. Shelley
Nathan Lunstad
Executive Secretary

DRINKING WATER BOARD MEETING

February 29, 9:00 AM
Via Zoom Webinar & In Person:
Dixie Convention Center
1835 S Convention Center Dr,
St. George, UT 84790

Nathan Lunstad Cell # 385-239-5974

AGENDA

1. Call to Order
2. Roll Call – Nathan Lunstad
3. Approval of Meeting Minutes
 - A. January 9, 2024
4. Disclosure for Conflict of Interest
5. Directors Report – Nathan Lunstad
 - A. Drinking Water Board Member Recognition of Service; David Pitcher
 - B. New Board Member; Shazelle Terry
 - C. New Employees; Russell Seeley, Atie Amirgol, John Steffan, Marisa Mathie
 - D. Enforcement Report (Board Packet Item Only)
 - E. Other
6. Rural Water Association – Dale Pierson
 - A. Report
 - B. Rural Water Finance Agency (RWFA)
7. Rule Making
 - A. R309-515 - Source Protection – Deidre Beck
 - B. R309-600 - Sewers in Source Protection Zones – Deidre Beck
 - C. R309-540 - Pump Rule – Michael Newberry
8. Financial Assistance Committee Report
 - A. Status Report – Wayne Boyce
 - B. Cashflow – Wayne Boyce

- C. Project Priority List – Michael Grange
- D. SRF Applications
 - i. Federal
 - a. Salt Lake City - LSL/Federal - Andrea Thurlow
 - b. Big Plains Water SSD - Michael Grange
 - c. Wilson Arch - Additional Funding - Heather Pattee
 - ii. State
 - a. Holden Town - Extension - Heather Pattee
 - b. Johnson WID - Extension - Heather Pattee
 - c. Austin Special Service District - Additional Funding
 - iii. Deauthorizations
 - a. Hidden Lake Association - Allyson Spevak
 - iv. Other Business
 - a. Disposition of Remaining ARPA Emergency Funds
- 9. Public Comment Period
- 10. Open Board Discussion
- 11. Other
 - A. Financial Assistance Committee
- 12. Next Board Meeting
 - Date: April 30, 2024
 - Time: 1:00 PM
 - Place: Multi-Agency State Office Building
195 North 1950 West
Salt Lake City, UT 84116
- 13. Adjourn

Agenda Item

3(A)



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DRINKING WATER BOARD MEETING

January 9, 2024, 1:00 PM

Via Zoom Webinar & In Person:

Multi-Agency State Office Building
195 North 1950 West
Salt Lake City, UT 84116

DRAFT MINUTES

1. Call to Order

Kristi Bell, Chair, called the Drinking Water Board (Board, DWB) meeting to order at 1:01 PM.

2. Roll Call – Nathan Lunstad

Board Members Present at Roll Call: Kristi Bell, Eric Franson, Justin Maughan, Dawn Ramsey, Corinna Harris, Blake Tullis, Jeff Coombs, David Pitcher.

Division of Drinking Water (DDW, Division) Staff Present: Nathan Lunstad, Michael Grange, Jessica Fitzgerald, Wayne Boyce, Rebecca Yoo, Michelle Deras, Allyson Spevak, Linda Ross

3. Approval of Meeting Minutes

A. November 7, 2023

- Eric Franson moved to approve the November 7, 2023, Drinking Water meeting minutes. Jeff Coombs seconded. The motion was carried unanimously by the Board.

4. Disclosure for Conflict of Interest

None.

5. Director Report – Nathan Lunstad

A. New Employees; Rebecca Yoo

Rebecca Yoo has joined the Permitting section as an Environmental Engineer.

B. Enforcement Report (Board Packet Item Only)

The Enforcement Report can be found in the Drinking Water Board Packet.

C. Other

Nathan Lunstad updated the Board on his appointment as Director of the Division of Drinking Water, announced Friday, January 5, 2024.

6. Rural Water Association Report – Dale Pierson

Dale Pierson, Rural Water Association of Utah (RWAU) Executive Director, noted that the two (2) contracted RWAU staff reports are available in the packet. He mentioned the absence of a Development Contract report due to the current pause in that contract, however, it is expected to resume at the next meeting following its accepted contract proposal.

Dale also informed the Board about the next meeting, which will coincide with the RWAU Annual Conference in St. George, and extended an invitation to all Board members to attend the full conference.

7. Financial Assistance Committee Report

A. Status Report – Wayne Boyce

Federal SRF

Wayne Boyce, DDW Financial Manager, highlighted the improved financial position due to recording another year of grants, resulting in a negative projection of approximately \$14 million. He noted that there have been no other significant changes.

Wayne clarified that the current availability is \$103 million in the primary account and \$3.7 million in the hardship fund. Accounting for authorizations, closed projects, and considering Fiscal Year 2024 (FY24) grants, principal and interest payments, and interest earnings, the authorizations, and commitments exceed expected resources by about \$14 million. Wayne mentioned that the fund balance, approximately \$75 million, resides in Fund 5210, the primary federal account.

ARPA

Approximately \$480,000 is available for emergency funding requests, and this allocation must be utilized by December 31, 2025.

LEAD ARPA

Wayne informed the Board that the available funds for Lead ARPA have changed, and the current amount is approximately \$536,000.

Lead Service Line

Wayne directed the Board to page 33 of the Board Packet and highlighted that not much has changed since the last Board meeting.

Emerging Contaminants

The alignment on Emerging Contaminants funding has changed. After reviewing the projects, the availability remains approximately the same, with the new grant year contributing up to about \$7 million, and an additional \$7 million projected for FY24.

State SRF Program

Approximately, the State SRF program has a balance of \$26 million, and after authorizations has an uncommitted balance of approximately \$5.5 million.

B. Cashflow – Wayne Boyce

Wayne reported an improvement in the forecast. Where previously, Fiscal Year 2025 (FY25) showed a balance of less than \$5,000, the current projection is up to \$13 million available, thanks to additional grants.

C. SRF Applications

i. Federal

a. Skyline Mountain SSD - extension (Allyson Spevak)

Representing Skyline Mountain SSD was Craig Godwin, Board Chairman.

Allyson reported to the Board an extension request for Skyline Mountain SSD. On January 11, 2022, the Drinking Water Board authorized Skyline Mountain SSD a loan of \$3,123,000 for 30 years at 2.09% interest/fee to construct a new 41,000-gallon tank, well house, and to refinance their existing loan.

The project initially went out to bid in June 2022 and received two bids, both of which were approximately \$2 million, far exceeding the project estimate of \$466,000. The project was sent out to bid once more at the beginning of 2023 and received one bid from a previous 2022 contractor/bidder with a price tag in the same range as their 2022 bid.

The District is taking several steps to mitigate the problems this issue has caused. They are working to increase rates to meet their current bond obligation and plan for the future. They're working with their engineers to find a local Sanpete County contractor to take the project with a significantly reduced scope. The District believes that with the reduced scope it can complete the project for far less than the original cost estimate provided to the Drinking Water Board.

The reduced scope will be a 30,000-gallon cement storage tank connected to a very basic fill station on Thad's Peak. The tank would also provide significantly improved fire mitigation where brush trucks could fill, and helicopters could fill from a deployed "pumpkin" tank should there be a fire emergency.

Division of Drinking Water Staff recommended that the Drinking Water Board authorize a one-year extension to Skyline Mountain SSD.

Craig Godwin, Chairman of the Board at Skyline Mountain SSD, updated the Board, stating they've reached out to contractors in Sanpete County. Currently, two contractors are bidding on the project, expressing confidence that they will find contractors who understand the project's requirements.

- Eric Franson moved that the Drinking Water Board authorize a one-year extension to Skyline Mountain SSD. Dawn Ramsey seconded. The motion was carried unanimously by the Board.

8. Public Comment Period

None.

9. Open Board Discussion

Eric Franson inquired about the recent email discussing the restart of the SRF funding process, seeking clarification on this timeframe. He also mentioned the time constraints of ARPA funds.

Michael Grange, Infrastructure Funding Section Manager, clarified that the decision to lift the moratorium was made with the expectation that applications would be prepared for the June meeting. Consequently, Drinking Water SRF applications will be accepted for the June meeting until May 8th, which aligns with the 60-day timeframe before the June meeting. This information will be communicated to engineers, the Rural Water Users Association, and other relevant parties.

Eric Franson inquired about the potential backlog of projects due to the moratorium being lifted and ongoing staff communications with entities that plan to request funds. He questioned whether there might be more requests than funds available, resulting in a need to sift through them. Michael explained that they anticipate a significant influx of projects. The strategy is to employ the Project Priority list calculations and use it to prioritize projects to be presented before the Board. Only those projects with sufficiently high scores will be brought before the Board. This process will continue until they reach a point, considering a reserve fund, where they limit the number of applications accepted based on Congressional allocations. This ensures that the funds are not depleted.

Eric reiterated that the intention is for DDW staff to screen projects before they come to the Board meeting, rather than having all projects presented directly to the Board. This screening process helps manage the influx of projects and ensures that only prioritized ones reach the Board for consideration.

Michael updated the Board on the remaining ARPA funds, indicating that approximately \$479,000 is still available in the emergency funds established with the Board's approval. These funds need to be obligated with signed agreements with entities by December 31, 2024. As per the agreement with the Legislature, these funds are intended for small disadvantaged rural communities.

Kristi Bell made a note that David Pitcher left the meeting at 1:25 PM.

Eric inquired about the Lead Service Line funds and expressed concern about the continued accumulation, emphasizing that this funding shouldn't be used solely for inventories. He wanted to know if there was a timeframe for spending this money.

Michael explained that, according to the legislation Bi-Partisan Infrastructure Law (BIL), the funds are allocated until spent. Although there's a desire to spend it promptly, there isn't an exact timeframe specified. Michael mentioned an application from Salt Lake City for a lead service line replacement project, requesting \$35-40 million. They are considering a programmatic/portfolio finance option to utilize the funds over a 5-year period. This application will likely be presented to the Board at the February 29th meeting, potentially allocating funds from FY22 to FY24 under the BIL.

Michael emphasized the need to reconstitute the Financial Assistance Committee (FAC). With David Pitcher's retirement, the committee seeks a fourth member from the Board to volunteer. The FAC meets 3-4 weeks before the Drinking Water Board meeting to review projects, follows staff recommendations, and decides whether to table, request more information, or pass a project to the Board without a recommendation. Currently, Eric Franson, Jeff Coombs, and Justin Maughan are on the FAC. The next meeting is scheduled for February 7, 2024, and will discuss the Salt Lake City application.

Nathan Lunstad added that discussions with Dave Pitcher indicate he plans to attend the next Board meeting and may still be available for the FAC meeting. Kristi Bell, the Chair, suggested determining Dave Pitcher's availability for the last FAC meeting before his final Board meeting and deciding on the FAC composition for the future afterward.

Eric Franson proposed adding a discussion topic for the next board meeting to determine the needs of the Financial Assistance Committee.

10. Other

None.

11. Next Board Meeting

Date: February 29, 2024
Time: 9:00 AM
Place: Dixie Convention Center
1835 S Convention Center Dr,
St. George, UT 84790

12. Adjourn

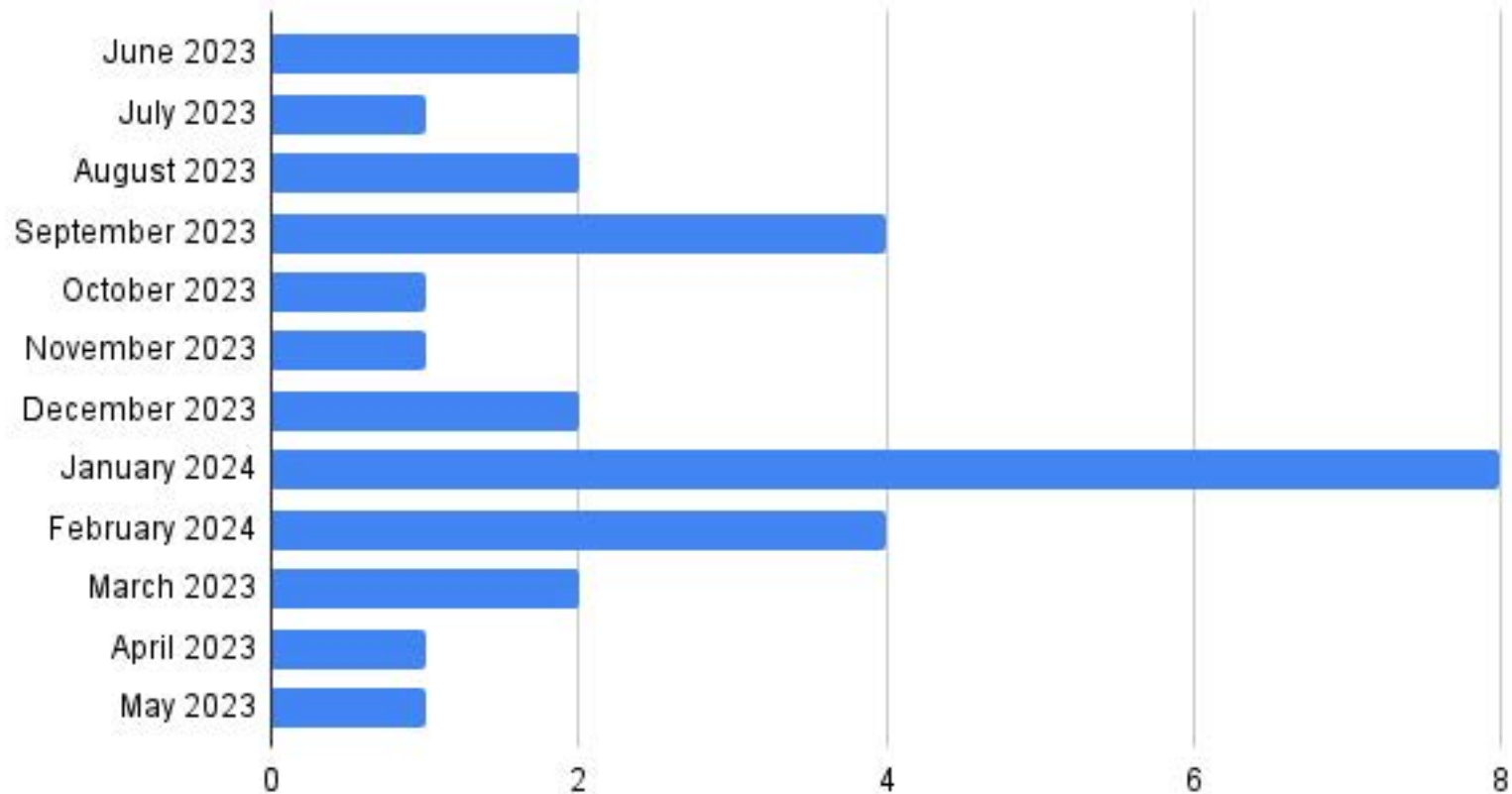
- Eric Franson moved to adjourn the meeting. Justin Maughan seconded. The motion was carried unanimously by the Board.

Agenda Item 5(D)

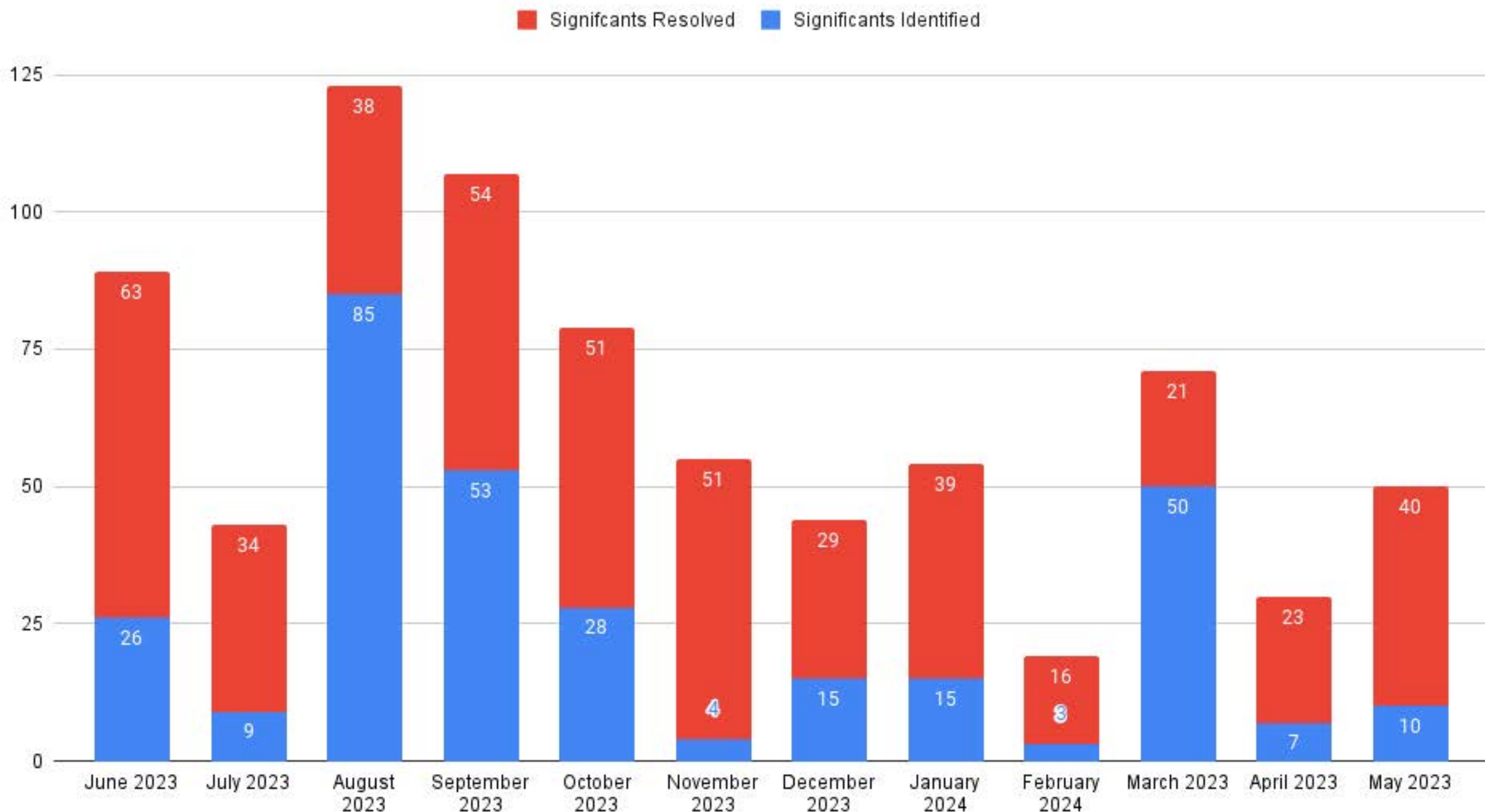
Board Report As of February 15, 2024

PWS ID	PWS Name	PWS Type	Pop Served	IPS Pts	Rating	Rating Date
Corrective Action Systems						
UTAH13001	ALTON TOWN WATER SYSTEM	Community	136	230	Corrective Action	6/24/2021
UTAH06008	WEBER BASIN JOB CORPS	Community	230	75	Corrective Action	5/9/2023
UTAH22114	BULL MOOSE WATERWORKS	Transient Non-Community	136	330	Corrective Action	1/2/2024
UTAH29092	COLE CANYON WATER COMPANY	Community	39	45	Corrective Action	10/17/2023
UTAH26033	DEER CREEK PARK	Transient Non-Community	150	190	Corrective Action	7/8/2020
UTAH14051	DESERET - OASIS SSD	Community	490	270	Corrective Action	1/3/2024
UTAH02010	EAST GROUSE CREEK PIPELINE CO	Community	70	135	Corrective Action	9/9/2020
UTAH22003	ECHO MUTUAL WATER SYSTEM	Community	70	115	Corrective Action	2/24/2023
UTAH20056	ESCAPE RV RESORTS - MT PLEASANT	Transient Non-Community	144	125	Corrective Action	9/29/2023
UTAH29053	GREEN HILLS COUNTRY ESTATES	Community	237	525	Corrective Action	1/2/2024
UTAH14004	HINCKLEY TOWN WATER SYSTEM	Community	675	290	Corrective Action	1/10/2024
UTAH14013	HOLDEN TOWN WATER SYSTEM	Community	475	45	Corrective Action	2/1/2024
UTAH18055	MT HAVEN OWNERS ASSOCIATION	Transient Non-Community	85	15	Corrective Action	4/12/2023
UTAH08034	PACIFICORP HUNTINGTON PLANT	Non-Transient	175	30	Corrective Action	4/24/2023
UTAH23075	PENNEYS GRILL LLC	Transient Non-Community	27	85	Corrective Action	3/10/2023
UTAH27089	BIG PLAINS WATER SSD - CEDAR POINT	Community	232	255	Corrective Action	10/17/2023
UTAH17023	RENDEZVOUS BEACH	Transient Non-Community	200	240	Corrective Action	3/29/2023
UTAH07067	SOUTH DUCHESNE CULINARY WATER	Community	286	175	Corrective Action	5/25/2022
UTAH29046	VALLEY VIEW STAKE CAMP	Transient Non-Community	300	0	Corrective Action	7/20/2022
UTAH26059	WASATCH MOBILE HOME PARK	Community	31	275	Corrective Action	10/16/2020
UTAH17001	BRIDGERLAND WATER CO	Community	240	0	Corrective Action	2/22/2023
Not Approved Systems						
UTAH03002	AMALGA TOWN WATER SYSTEM	Community	495	180	Not Approved	01/19/2024
UTAH24051	DESERT SAGE HOA	Community	55	820	Not Approved	01/12/2022
UTAH11099	FOOTHILL WATER USERS ASSOCIATION	Community	28	760	Not Approved	03/27/2023
UTAH25184	BATEMANS MOSIDA FARMS	Community	90	975	Not Approved	10/30/2023
UTAH02078	M & J TRAILER HOME COMMUNITY	Community	27	670	Not Approved	08/20/2018
UTAH15015	MOUNTAIN GREEN WATER ASSOCIATION	Community	47	120	Not Approved	10/23/2023
UTAH29107	POLE PATCH WATER SYSTEM	Community	68	180	Not Approved	10/23/2023
UTAH25077	RIVERBEND GROVE INC	Transient Non-Community	25	215	Not Approved	02/10/2021

New Systems Activated



Significants Identified and Significants Resolved



Agenda Item

6(A)

DRINKING WATER BOARD PACKET
Rural Water Association Report

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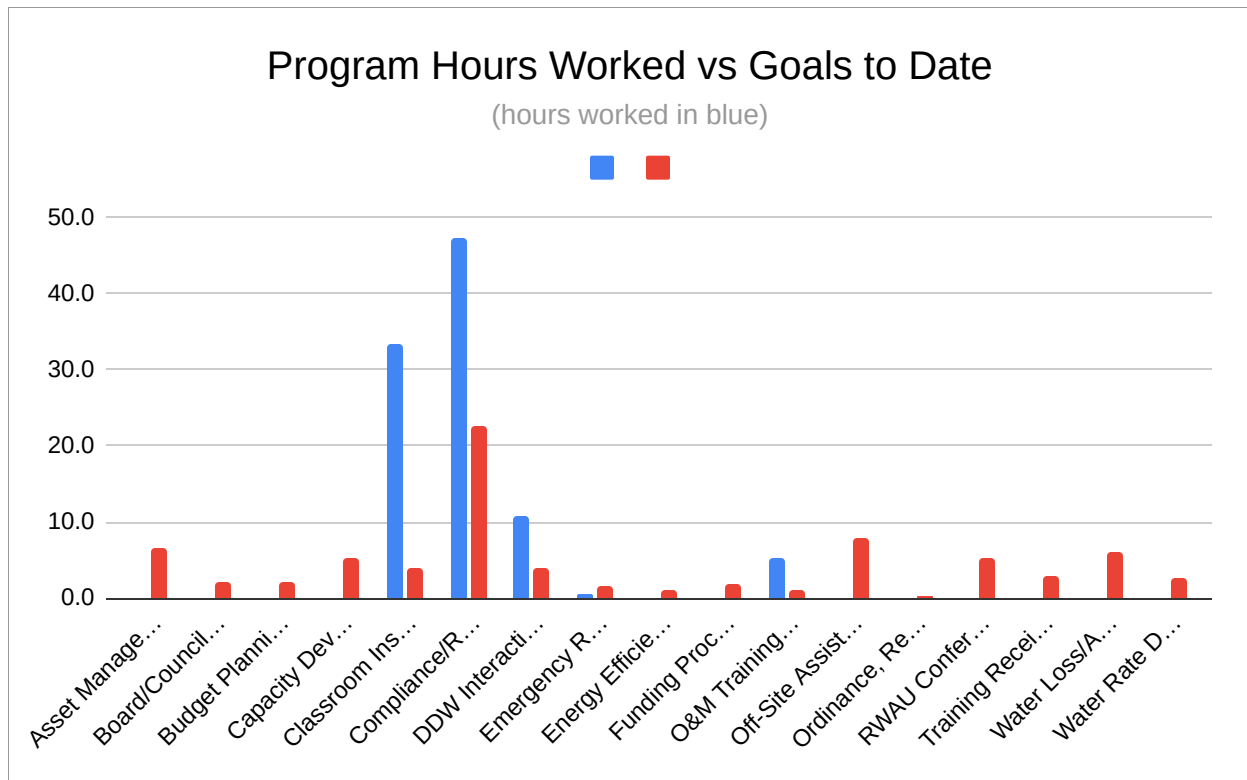
Terry Smith - Compliance Specialist 2
Janell Braithwaite –Management Technician 5
Curt Ludvigson – Management Technician 10

Rural Water Association - DWB Report

Report Period: January, 2024

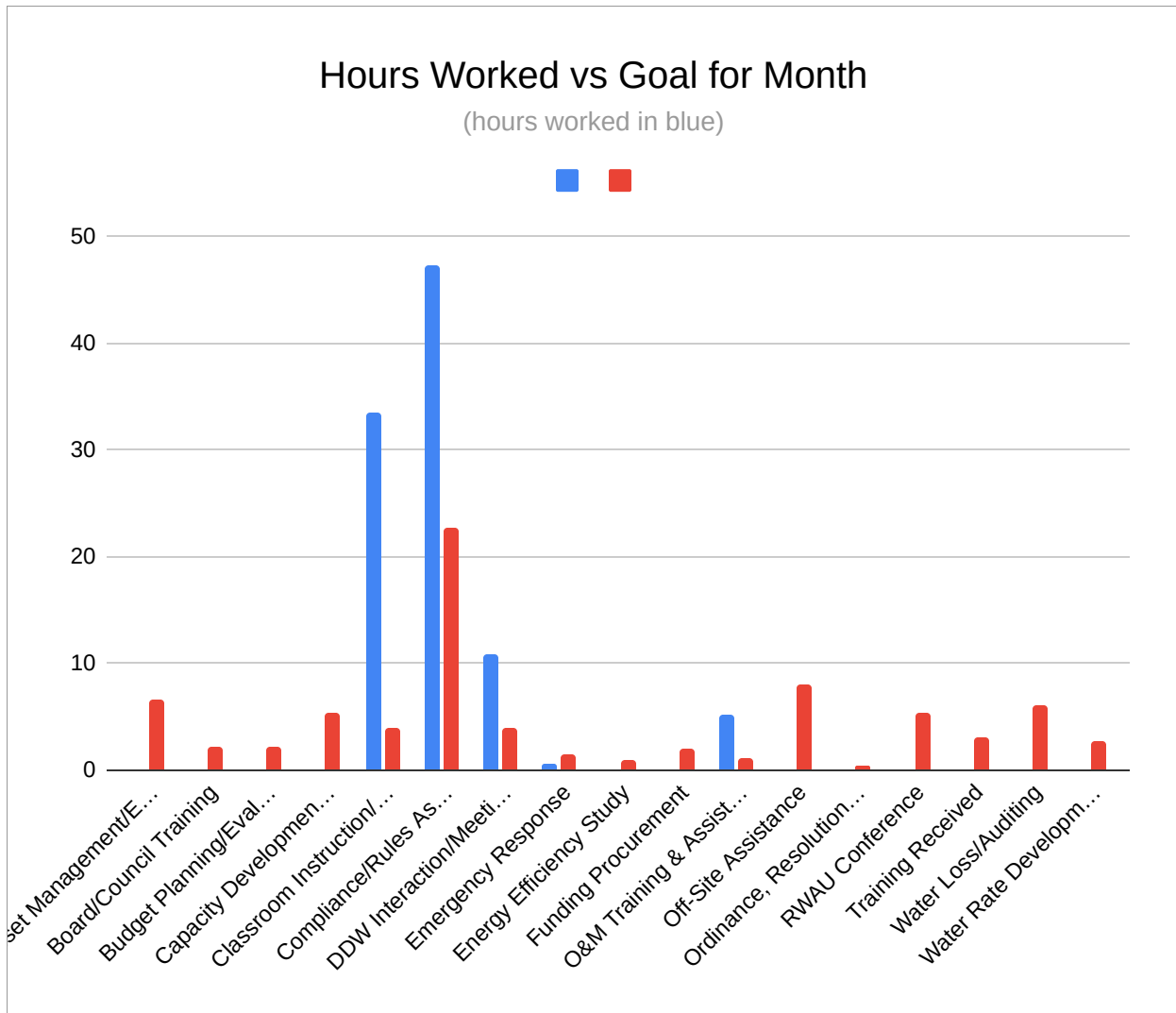
Terry Smith - Compliance Circuit Rider

Contract Goal Titles	Hours, Current Month	Contract YTD Hours Achieved	Contract YTD Goal Hours	Annual Contract Goals
Asset Management/Evaluation	0	0	7	80
Board/Council Training	0	0	2	26
Budget Planning/Evaluation	0	0	2	26
Capacity Development/Master Planning	0	0	5	64
Classroom Instruction/Training	34	34	4	48
Compliance/Rules Assistance	47	47	23	272
DDW Interaction/Meetings/Reports	11	11	4	48
Emergency Response	0	0	2	18
Energy Efficiency Study	0	0	1	12
Funding Procurement	0	0	2	24
O&M Training & Assistance	5	5	1	14
Off-Site Assistance	0	0	8	96
Ordinance, Resolutions, By-Laws Development	0	0	0	4
RWAU Conference	0	0	5	64
Training Received	0	0	3	36
Water Loss/Auditing	0	0	6	72
Water Rate Development/Analysis	0	0	3	32
Totals:	97	97	78	936



Report Period: January, 2024
Notable Assistance & Work Performed

System	Description:
ANGELL SPRINGS SSD	Met with Shawn to instruct him on a hazard CC survey
ENOCH CITY	Discussion with Hayden pertaining to failure to install treatment
MOUNT AIR SUB. (18134)	Helping Freddie with a SOP for disinfection of lines/tanks
PEOA PIPELINE CO	Discussion with Lloyd about operator cert - offer support, etc.
COVE SSD	Assisting Randy with annual water usage report
HOLDEN TOWN	Discussion with Rod about failed exam review policy & options
BRIAN HEAD TOWN	Presenting - Preparing for Natural Disasters
BRIAN HEAD TOWN	Presenting - Distribution Care and Maintenance
CENTRAL UT WCD-DUCH VLY	Email explanation of the DRC rule to Mike and Jesse
MOUNT AIR SUB. (18134)	Talked to Freddie about rule related to backup power for well
ENTERPRISE CITY	Training - annual water usage report with Clint
PORTAGE TOWN	Working on Portage Town assistance request
WASATCH WING/CLAY (25180)	Working on DDW request for assistance - coordinating with Biz
MARYSVALE TOWN	Proctor exam & training on altitude valve O&M
HARMONY FARMS WTR USRS	Advisin Eric on potable water hauling and resources



Rural Water Association of Utah

Water System Assistance Report

Report Month: January

Contract

Employee: Terry Smith

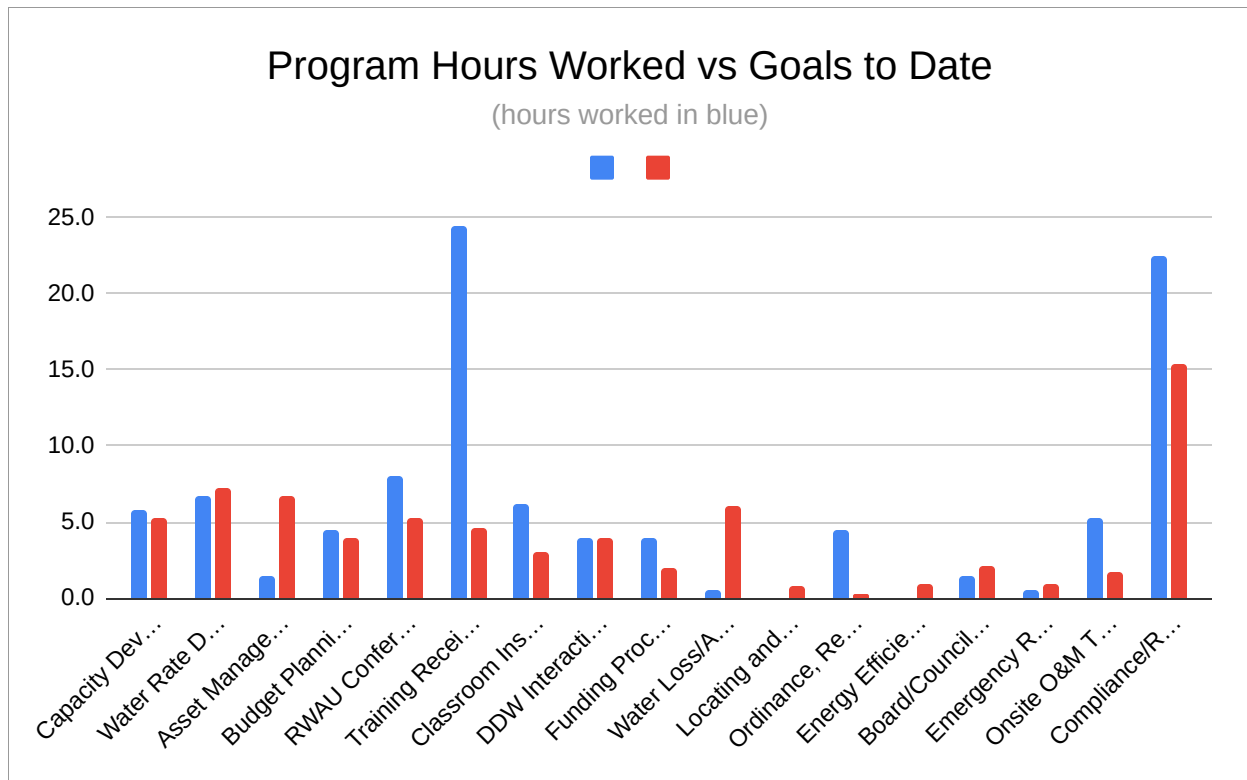
			<i>Direct System Assistance Percentage:</i>	33%
1/5/2024	Coodinating date/time with Marie to proctor exams	ST GEORGE CITY		1.00
1/5/2024	Working with Mike on disinfection violation, sent email to Jen	FRUITLAND SSD		1.00
1/5/2024	Met with Shawn to instruct him on a hazard CC survey	ANGELL SPRINGS SSD		1.50
1/5/2024	Discussion with Hayden pertaining to failure to install treatement	ENOCH CITY		0.50
1/10/2024	Reaching out to Mr. Johnson to offer assistance	BOULDER MTN GUEST RANCH		0.50
1/10/2024	Reaching out to Mr. Hill & Mr Ulanich to offer assistance - TC sample	HIDDEN LAKE ASSOC		1.00
1/10/2024	Helping Freddie with a SOP for disinfection of lines/tanks	MOUNT AIR SUB. (18134)		1.00
1/10/2024	Proctor exam - Barry Marshall	MINERSVILLE TOWN WATER		2.00
1/11/2024	Proctor exam - Patrick Warner	KANE COUNTY WCD		2.25
1/11/2024	Discussion with Lloyd about operator cert - offer support, etc.	PEOA PIPELINE CO		0.50
1/11/2024	Assisting Randy with annual water usage report	COVE SSD		0.50
1/12/2024	Proctor exam	WASHINGTON CITY		2.50
1/12/2024	Discussion with Rod about failed exam review policy & options	HOLDEN TOWN		0.50
1/16/2024	Presenting - Preparing for Natural Disasters	BRIAN HEAD TOWN		2.00
1/16/2024	Presenting - Distribution Care and Maintenance	BRIAN HEAD TOWN		1.50
1/17/2024	Email explanation of the DRC rule to Mike and Jesse	CENTRAL UT WCD-DUCH VLY		1.00
1/17/2024	Helped Nathan with rule requiring respirator/chlorine. Sent email.	MARYSVALE TOWN		1.00
1/17/2024	Talked to Freddie about rule related to backup power for well	MOUNT AIR SUB. (18134)		1.00
1/17/2024	Helped Terry with annual water report - how to calculate numbers	MOUNTAIN VLY WTR (18162)		1.00
1/19/2024	Proctor SS exam - Raymond Coombs	PINE VALLEY MTN FARMS		2.75
1/19/2024	Training - annual water usage report with Clint	ENTERPRISE CITY		0.50
1/22/2024	Meeting with Chad	BEAVER CITY		1.50
1/23/2024	Proctor CC Admin exam - Travis Batty	NEW HARMONY TOWN		2.50
1/25/2024	Helping Marty get registered to take CC Admin exam	ANGELL SPRINGS SSD		0.50
1/25/2024	Proctoring - Tyler Mendenhall, CC Admin	HATCH TOWN		3.00
1/25/2024	Advising Matt concerning Cross Connection rules	FILLMORE CITY		0.50
1/25/2024	Working on Portage Town assistance request	PORTAGE TOWN		1.00
1/26/2024	Proctoring exams	ST GEORGE CITY		3.75
1/26/2024	Contacting Matt to set up date/time for exam	CEDAR CITY		0.50
1/29/2024	Working on DDW request for assistance - coordinating with Biz	WASATCH WING/CLAY (25180)		1.00
1/29/2024	Exam review preparation	FREDONIA		2.00
1/31/2024	Proctor exam & training on altitude valve O&M	MARYSVALE TOWN		5.25
1/31/2024	Advisin Eric on potable water hauling and resources	HARMONY FARMS WTR USRS		0.50

Rural Water Association - DWB Report

Report Period: January, 2024

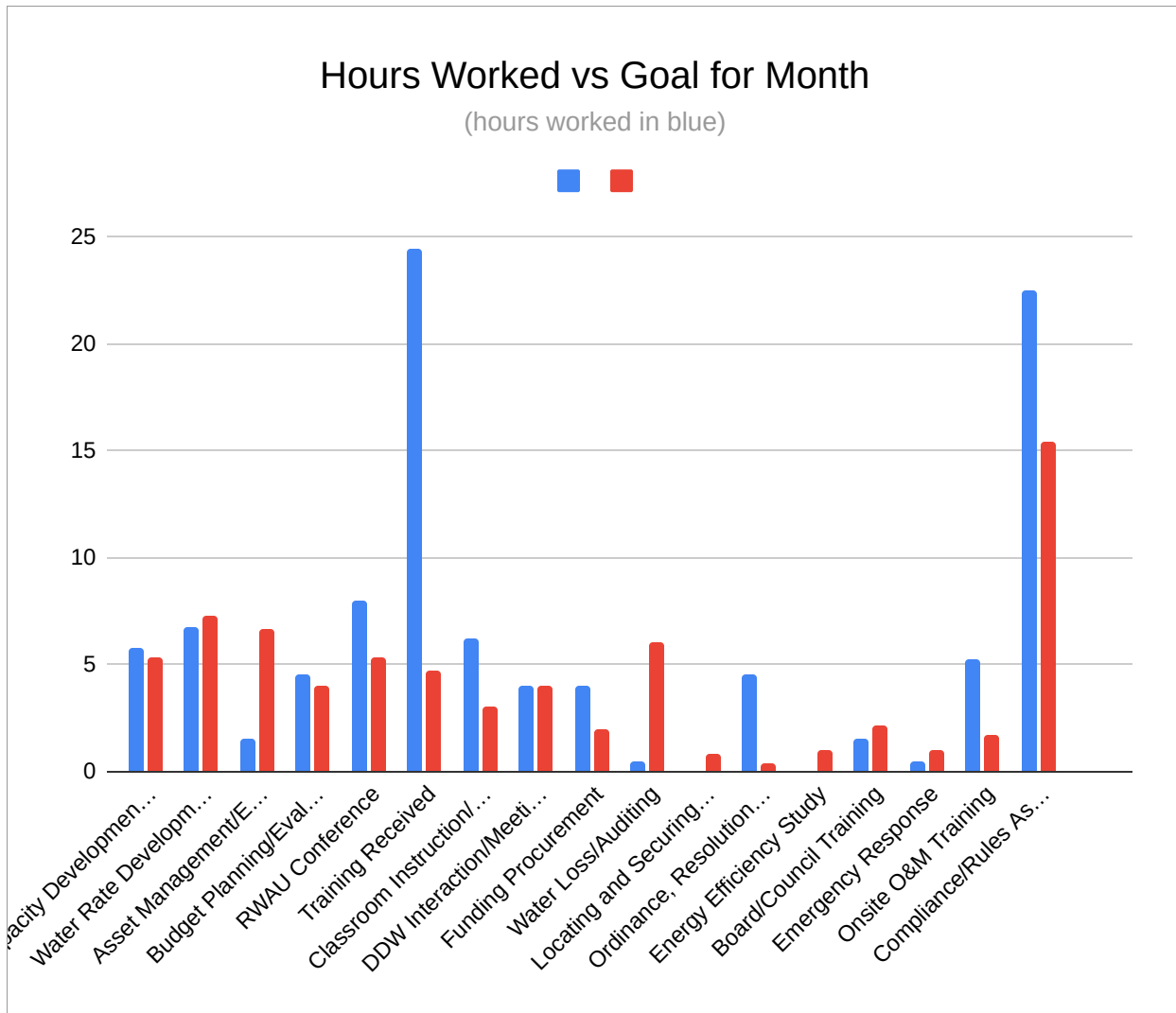
Janell Braithwaite - Management Technician

Contract Goal Titles	Hours, Current Month	Contract YTD Hours Achieved	Contract YTD Goal Hours	Annual Contract Goals
Capacity Development/Master Planning	6	6	5	64
Water Rate Development & Fee Analysis	7	7	7	87
Asset Management/Evaluation	2	2	7	80
Budget Planning/Evaluation	5	5	4	48
RWAU Conference	8	8	5	64
Training Received	25	25	5	56
Classroom Instruction/Training	6	6	3	36
DDW Interaction/Meetings/Reports	4	4	4	48
Funding Procurement	4	4	2	24
Water Loss/Auditing	1	1	6	72
Locating and Securing Engineering	0	0	1	10
Ordinance, Resolution, By-Law Development	5	5	0	4
Energy Efficiency Study	0	0	1	12
Board/Council Training	2	2	2	26
Emergency Response	1	1	1	12
Onsite O&M Training	5	5	2	20
Compliance/Rules Assistance, CCC, Water Monitor	23	23	15	185
Totals:	100	100	71	848



Report Period: January, 2024
Notable Assistance & Work Performed

System	Description:
TRAPPERS CROSSING	Prepare for and meet online w/Melissa & Brenda, Board members
BLANDING CITY	Meet online w/Trent, City Manager, re: budget and rates, send info ne
	Attend online DWB mtg.
WALES TOWN	Attend Wales council meeting, discuss rates, capacity development
FREMONT WATER WORKS	Call from Kaitlyn re: ceus for water op, CCC and conference help
ANGELL SPRINGS SSD	Call from Karen Blankenship re: funding, RFP for project
GREEN RIVER CITY	Contacted by Tyler re: impact fees, rules, ordinance, send Tyler info
SPRINGVILLE CITY	Meet w/Tyson to review rate study for any corrections, budget, etc.
BIG WATER MUNICIPAL	Call from Peggy re: SSD questions on public hearings and noticing
	Meet w/Curt and Michael Grange to review DWB funding
DANIEL DOMESTIC WATER	Meet w/Kim and Erik to review rate study and make needed correctio
STORM HAVEN WATER CO	Meet w/Kim and Erik to review rate study and make needed correctio
MAYFIELD TOWN	Call from Jake re: LCRR questions, info given
GENOLA TOWN	Meet w/Lucinda re: rates and budget, need rates updated for bond
SUMMIT CO SERV AREA #3	Prepare for and meet online w/Vincent, Chris Bullock & John O'Brian



Rural Water Association of Utah

Water System Assistance Report

Report Month:

January

Contract

Employee:

Janell Braithwaite

			<i>Direct System Assistance Percentage:</i>	61%
1/2/2024	Finish Daniel rate study as far as I can until I get more information	DANIEL DOMESTIC WATER		1.50
1/2/2024	Finish Storm Haven rate study as far as I can until more info received	STORM HAVEN WATER CO		2.00
1/2/2024	Contacted by Melissa re: rate study, set up meeting	TRAPPERS CROSSING		0.50
1/2/2024	Contacted by Marlana, Recorder, to get water rate study, info sent	MANILA TOWN		0.50
1/2/2024	Call Helper re: water rate study requested	HELPER CITY		0.25
1/2/2024	Call Wes re: water rate study requested, info sent of what is needed	JOHNSON WATER DIST		0.25
1/2/2024	Call from Delora, council member re: cross connection program	LAKETOWN CITY		0.50
1/2/2024	Received final info needed-work on rate study	DANIEL DOMESTIC WATER		1.75
1/3/2024	Received final info needed-work on rate study	STORM HAVEN WATER CO		2.00
1/3/2024	Work on Springville water rate study	SPRINGVILLE CITY		3.00
1/4/2024	Contact Melissa to reschedule meeting	TRAPPERS CROSSING		0.25
1/4/2024	Prepare for and meet online w/Melissa & Brenda, Board members	TRAPPERS CROSSING		2.25
1/4/2024	Contacted by Jordon re: taking op cert exam	FAYETTE TOWN		0.25
1/4/2024	Work on rate study for Springville	SPRINGVILLE CITY		1.75
1/4/2024	Meet online w/Trent, City Manager, re: budget and rates, send info needed	BLANDING CITY		1.25
1/4/2024	Work on rate study for Springville	SPRINGVILLE CITY		0.75
1/5/2024	Review billing info received from Janet in Springville for wrs	SPRINGVILLE CITY		0.25
1/5/2024	Contacted by Karen re: funding application	HURRICANE CITY		0.50
1/5/2024	Work on rate study for Springville	SPRINGVILLE CITY		3.00
1/5/2024	Work on rate study for Springville	HURRICANE CITY		3.75
1/8/2024	Work on Springville water rate study	SPRINGVILLE CITY		1.75
1/8/2024	Work on Springville water rate study	SPRINGVILLE CITY		3.75
1/8/2024	Work on info for Wales council meeting tomorrow night	WALES TOWN		0.25
1/9/2024	Review Rule R309 for Wales mtg. tonight	WALES TOWN		2.25
1/9/2024	Call from Curt re: funding available from DWB	MANDERFIELD CUL WTR		0.50
1/9/2024	Call Mike D. and Justin Atkinson re: Wales new well	WALES TOWN		0.50
1/9/2024	Work on rate study for Springville	SPRINGVILLE CITY		2.25
1/9/2024	Attend Wales council meeting, discuss rates, capacity development	WALES TOWN		1.50
1/10/2024	Work on rate study for Springville	SPRINGVILLE CITY		2.25
1/10/2024	Call from Mike re: rate study for Hanna	HANNA WTR/SWR DIST		0.25
1/10/2024	Work on rate study for Springville	SPRINGVILLE CITY		2.75
1/11/2024	Work on rate study for Springville	SPRINGVILLE CITY		3.75
1/11/2024	Work on rate study for Springville	SPRINGVILLE CITY		1.75
1/11/2024	Call from Kaitlyn re: ceus for water op, CCC and conference help	FREMONT WATER WORKS		0.25
1/11/2024	Work on rate study for Springville	SPRINGVILLE CITY		0.75

1/12/2024	Work on rate study for Springville	SPRINGVILLE CITY	4.00
1/12/2024	Work on rate study for Springville	SPRINGVILLE CITY	2.50
1/12/2024	Call from Karen Blankenship re: funding, RFP for project	ANGELL SPRINGS SSD	0.50
1/12/2024	Work on rate study for Springville	SPRINGVILLE CITY	1.25
1/16/2024	Call from Kaitlyn re: how to renew CCC administrator, sent link	FREMONT WATER WORKS	0.25
1/16/2024	Call from Curt re: rate study for Henrieville, resent to Curt and Marie	HENRIEVILLE TOWN	0.25
1/16/2024	Need more info from Janet for rate study, sent request	SPRINGVILLE CITY	0.25
1/16/2024	Work on Daniel water rate study	DANIEL DOMESTIC WATER	1.00
1/18/2024	Call Mike D. re: Mountain Regional funding progress	MOUNTAIN REGNL WTR SSD	0.25
1/18/2024	Work on Springville rate study, set up mtg. w/system	SPRINGVILLE CITY	3.00
1/19/2024	Call from Mayor Bruce re: funding, income survey	HONEYVILLE CITY	0.50
1/19/2024	Work on Springville's rate study, call Tiffany to set up meeting	SPRINGVILLE CITY	1.50
1/19/2024	Contacted by Tyler re: impact fees, rules, ordinance, send Tyler info	GREEN RIVER CITY	1.25
1/19/2024	Contact Janet, need more info for usage, she will work on, rate study	SPRINGVILLE CITY	2.50
1/22/2024	Work on updated info for water rate study	SPRINGVILLE CITY	2.25
1/22/2024	Work on updated info for water rate study	SPRINGVILLE CITY	2.00
1/22/2024	Work on updated info for rate study, meeting tomorrow morning	SPRINGVILLE CITY	1.25
1/23/2024	Meet w/Tyson to review rate study for any corrections, budget, etc.	SPRINGVILLE CITY	2.25
1/23/2024	Call from Peggy re: SSD questions on public hearings and noticing	BIG WATER MUNICIPAL	0.50
1/23/2024	Work on updating rate study for meeting tonight	STORM HAVEN WATER CO	0.75
1/23/2024	Call from Scott A. re: emergency funding possibility, will talk to M.Grange	GARLAND CITY	0.25
1/23/2024	Work on SSD information for Katie	BIG WATER MUNICIPAL	0.50
1/23/2024	Meet w/Kim and Erik to review rate study and make needed corrections	DANIEL DOMESTIC WATER	0.75
1/23/2024	Meet w/Kim and Erik to review rate study and make needed corrections	STORM HAVEN WATER CO	0.75
1/24/2024	Work on updating Storm Haven rate study	STORM HAVEN WATER CO	0.25
1/24/2024	Call from Scott A. re: funding info from Michael Grange, DDW	BIG PLAINS/APPLE VLY (27069)	0.25
1/24/2024	Called Mike Davis-needed disadvantageded/population info, sent him	MOUNTAIN REGNL WTR SSD	0.25
1/24/2024	Call Peggy and Curt re: SSD meeting/compliance info	BIG WATER MUNICIPAL	0.50
1/24/2024	Call from Jake re: LCRR questions, info given	MAYFIELD TOWN	0.25
1/24/2024	Work on updating Storm Haven rate study	STORM HAVEN WATER CO	0.50
1/24/2024	Meet w/Lucinda re: rates and budget, need rates updated for bond	GENOLA TOWN	1.00
1/25/2024	Work on updating Daniel rate study	DANIEL DOMESTIC WATER	1.25
1/25/2024	Discuss ARPA funding w/Tyler, projects needed	GREEN RIVER CITY	0.50
1/25/2024	Finish updates to rate study	DANIEL DOMESTIC WATER	1.00
1/26/2024	Call Jake N., water op, back re: LCRR info requested	MAYFIELD TOWN	0.25
1/26/2024	Work on funding info for Vincent, new well/tank project	SUMMIT CO SERV AREA #3	1.00
1/26/2024	Work on funding info for Vincent, new well/tank project	SUMMIT CO SERV AREA #3	0.75
1/26/2024	Call Dalton B. re: funding info for new tank	MANDERFIELD CUL WTR	0.50

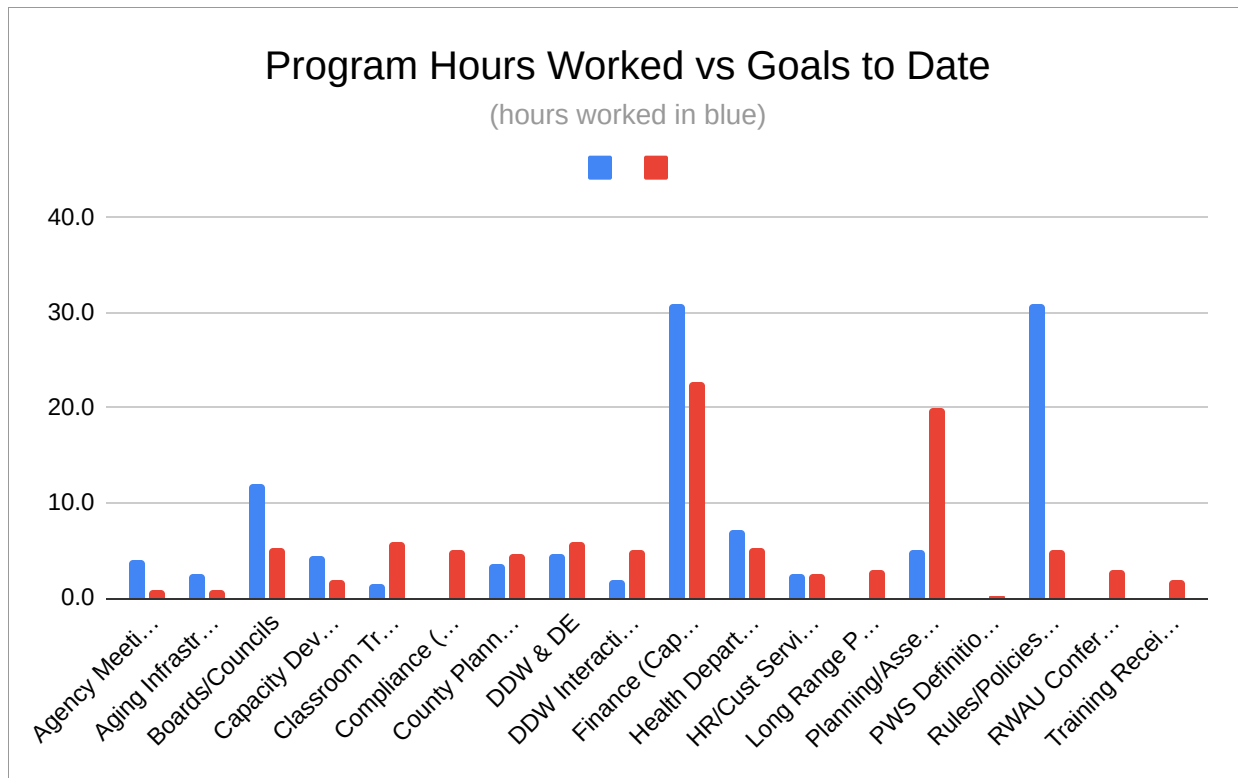
1/26/2024	Call from Mike Davis re: update on Daniel visit	DANIEL DOMESTIC WATER	0.25
1/29/2024	Contact Helper re: rate study requested, not in a big hurry, Brittany	HELPER CITY	0.25
1/29/2024	Call from Shilo re: rate study requested, info sent to get started	FRUITLAND SSD	0.50
1/29/2024	Reach out to Scofield for rate study as requested by USDA	SCOFIELD TOWN	0.25
1/29/2024	Set up mtg. w/Vincent for tomorrow	SUMMIT CO SERV AREA #3	0.25
1/29/2024	Review more funding for Summit #3 mtg. tomorrow	SUMMIT CO SERV AREA #3	0.25
1/29/2024	Send Scott A. info from rate study done for system he may work with	LAKE ROCKPORT EST	0.25
1/29/2024	Contact Wendi re: update on rate study that was requested per: Mike	HANNA WTR/SWR DIST	0.25
1/30/2024	Prepare for and meet online w/Vincent, Chris Bullock & John O'Brian	SUMMIT CO SERV AREA #3	2.50
1/30/2024	Contacted by Jennie re: water op cert proctoring	CLEARFIELD CITY	0.25
1/30/2024	Contacted by Mayor Meli re: funding acquired & RFP needed	STOCKTON TOWN	0.25
1/30/2024	Read loan docs sent by Mayor Meli, call from Mayor re: RFP	STOCKTON TOWN	2.00
1/30/2024	Call Curt re: RFP and grant for Stockton	STOCKTON TOWN	0.25
1/30/2024	Review project info sent by Mayor Meli	STOCKTON TOWN	1.25

Rural Water Association - DWB Report

Report Period: January, 2024

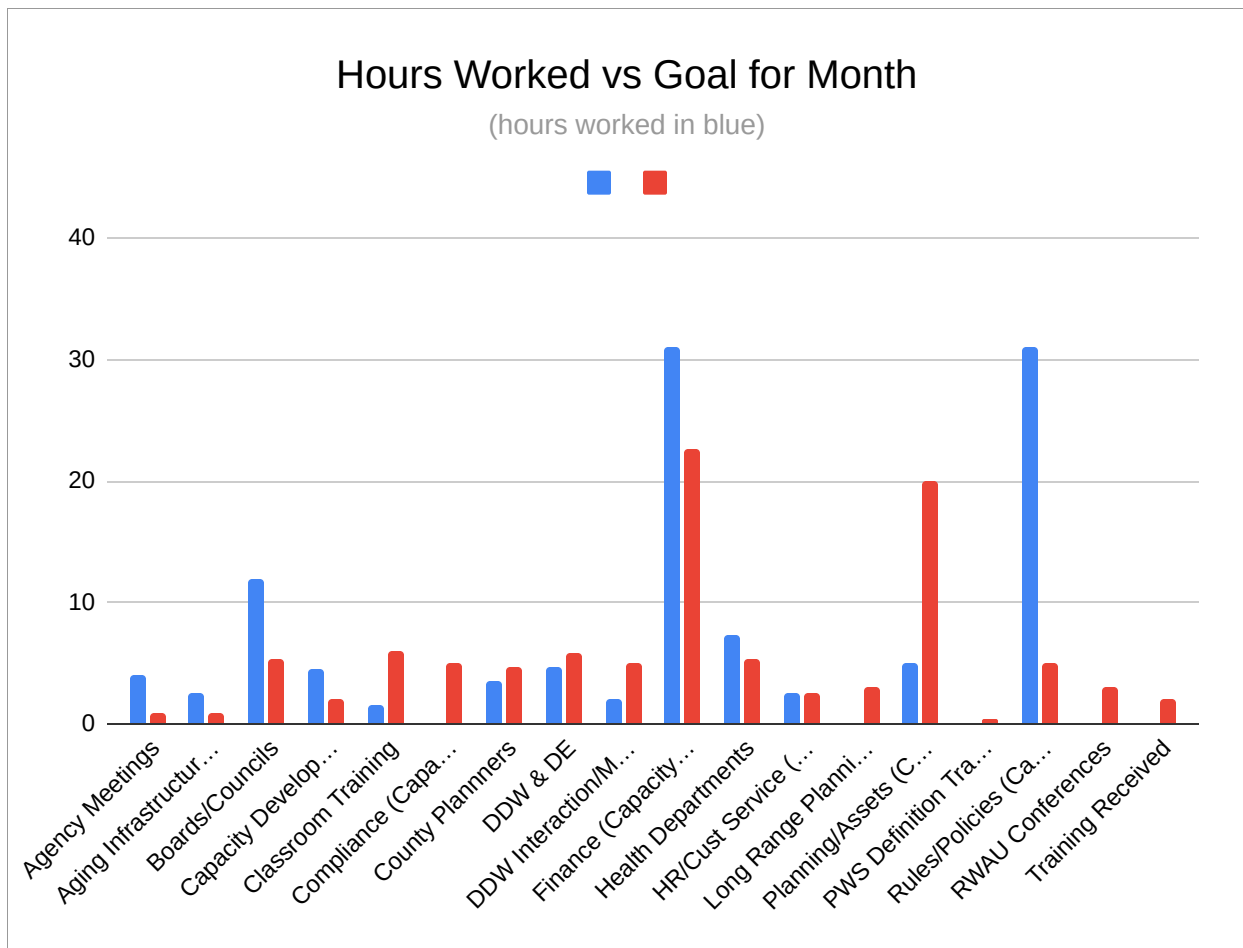
Curt Ludvigson - Development Specialist

Contract Goal Titles	Hours, Current Month	YTD Goal Hours Achieved	YTD Goal Hours	Annual Program Goals
Agency Meetings	4	4	1	10
Aging Infrastructure Planning	2	2	1	10
Boards/Councils	12	12	5	64
Capacity Development Planning	5	5	2	24
Classroom Training	2	2	6	72
Compliance (Capacity Development)	0	0	5	60
County Planners	4	4	5	56
DDW & DE	5	5	6	71
DDW Interaction/Meetings	2	2	5	60
Finance (Capacity Development)	31	31	23	272
Health Departments	7	7	5	64
HR/Cust Service (Capacity Development)	2	2	3	30
Long Range Planning	0	0	3	36
Planning/Assets (Capacity Development)	5	5	20	240
PWS Definition Training	0	0	0	4
Rules/Policies (Capacity Development)	31	31	5	60
RWAU Conferences	0	0	3	36
Training Received	0	0	2	24
Totals:	111	111	99	1,193



Report Period: January, 2024
Notable Assistance & Work Performed

System	Description:
PIUTE-SEVIER/DEER CR WTR	Working on By-Laws for Piute/Sevier Deer Creek
LOA WATERWORKS	I met with the Town Clerk and Treasurer of Loa Town and discussed C
BICKNELL TOWN	I met with Scott Woolsey from Bicknell Town and discussed the needs
Bicknell Bottoms	Proctor a test for Riley Taylor from Bicknell Bottoms
BIG WATER MUNICIPAL	Reviewing Ordinances for Big Water Town
MYTON CITY	I met with Myton City and discussed putting in new meters
JOHNSON WATER DIST	I met with the New Manager of Johnson Water and discussed system
TROPIC TOWN	I met with the Mayor, Clerk and Operator of Tropic and took pictures
HENRIEVILLE TOWN	I met with the Henrieville Town Clerk and went over their budget. I've
MARYSVALE TOWN	I met with the Marysville Town Council and discussed projects they a
ELWOOD TOWN	Working on a rate study for Elwood
HATCH TOWN	Continued working on rate study for Hatch Town
FAIRVIEW CITY	Attended Fairview City Council Meeting and discussed the funding op
EPHRAIM CITY	I met with the Ephraim City Manager and discussed ongoing projects
DESERET OASIS SSD	I met with the Secretary and President of Deseret Oasis and went thro



Rural Water Association of Utah

Water System Assistance Report

Report Month:

January

Contract

Employee:

Curt Ludvigson

			<i>Direct System Assistance Percentage:</i>	67%
1/2/2024	Working on By-Laws for Piute/Sevier Deer Creek	PIUTE-SEVIER/DEER CR WTR		4.00
1/3/2024	Meeting with John Chartier discussing the issues of Puite/Sevier Deer Creek and other systems	District Engineers		2.50
1/3/2024	I met with the Annbella Town Clerk and discussed their rates and budget. They asked me to review this each year for them	ANNABELLA		1.50
1/3/2024	I met with the Town Clerk of Central Valley Town and discussed their rates. They will have us do a rate study for them soon.	Central Valley Town		1.25
1/3/2024	I met with the Mayor of Redmond and discussed a project they are considering and how they would pay for it	REDMOND TOWN		1.25
1/4/2024	I met with the Town Clerk and Treasurer of Loa Town and discussed Ordinance and Resolution updates they need to have done. We reviewed some of them and I made some recommendations. I will prepare a Land Use Ordinance for them for dealing with subdividers, etc.	LOA WATERWORKS		2.00
1/4/2024	I met with Scott Woolsey from Bicknell Town and discussed the needs of their system. Things are going pretty good for now, but he's worrying about the lack of snow in the mountains.	BICKNELL TOWN		1.25
1/4/2024	Proctor a test for Riley Taylor from Bicknell Bottoms	Bicknell Bottoms		3.00
1/5/2024	Phone Call with Big Water Town discussing their Agreements with the Big Water SSD	BIG WATER MUNICIPAL		1.00
1/5/2024	Reviewing Ordinances for Big Water Town	BIG WATER MUNICIPAL		4.00
1/8/2024	I met with Clyde Watkins of the Duchesne County WCD and discussed the growth issues he is dealing with and also the difficulty of dealing with the Tribe	Duchesne County WCD		1.50
1/9/2024	I met with Myton City and discussed putting in new meters	MYTON CITY		2.00
1/9/2024	I met with the New Manager of Johnson Water and discussed system expansion that is being considered, and also discussed conflicts with some of the Board Members	JOHNSON WATER DIST		1.75
1/10/2024	I met with the Mayor and Town clerk of TABiona and discussed issues they are having in finishing up their project because of the Tribe now allowing them to cross Tribal ground with the pipeline	TABIONA TOWN		2.25
1/10/2024	I met with the Wasatch County Health Department and discussed some updates they want to do with their subdivision Ordinance, and I will work on that	Wasatch Health Dept.		1.50
1/10/2024	I met with the Town Council in a work meeting discussing their development Ordinances and updates that need to be made. They are starting to have developers wanting to come into the area and they don't know how to deal with it.	WALLSBURG TOWN		1.50
1/11/2024	Working on Development Ordinance for Wallsburg	WALLSBURG TOWN		4.00
1/11/2024	I met with the Genola Town Clerk and reviewed thier budget and rates	GENOLA TOWN		2.25

1/12/2024	Working on developing an Ordinance for Wallsburg	WALLSBURG TOWN	4.00
1/12/2024	Working on an Ordinance update for Wasatch County Health Dept	Wasatch Health Dept.	4.00
1/16/2024	I met with the Mayor, Clerk and Operator of Tropic and took pictures for our awards at the Conference. We also discussed their budget and rates	TROPIC TOWN	2.00
1/16/2024	I met with the Henrieville Town Clerk and went over their budget. I've been working on thier rates, but I needed more information and clarification as to their finances	HENRIEVILLE TOWN	1.75
1/16/2024	I met with the Hatch Town Clerk and got information I need in order to do a rate study for the town	HATCH TOWN	1.50
1/17/2024	I met with the City Manager of Panguitch and discussed more projects they want to do. We discussed funding options and their MAGI	PANGUITCH CITY	1.75
1/17/2024	I met with the Board of Puite/Sevier Deer Creek for a very long meeting. We went over all the changes being proposed to their By-Laws. We discussed the possiblility of expansion of the system and we discussed issues of conflict between Board members	PIUTE-SEVIER/DEER CR WTR	4.00
1/17/2024	I met with the Marysvale Town Council and discussed projects they are planning, engineering, funding, and their budget and rates	MARYSVALE TOWN	2.50
1/18/2024	Meeting with the Juab County Economic Development Director. We toured the areas in the County where significant development is taking place and discussed plans they have for future development and how I might be able to assist them with Ordinances and securing funding.	Juab County Planning Commissi	3.50
1/18/2024	I met with the Levan Public Works Director and discussed the project they are working on and a few snags they have run into	LEVAN TOWN	1.25
1/19/2024	Working on a rate study for Elwood	ELWOOD TOWN	4.00
1/19/2024	Working on a rate study for Henrieville	HENRIEVILLE TOWN	4.00
1/22/2024	Working on rate study for Hatch	HATCH TOWN	2.00
1/22/2024	Continued working on rate study for Hatch Town	HATCH TOWN	4.25
1/23/2024	I met with the President of the Board of Covered Bridge and discussed Personel Policies	COVERED BRIDGE CANYON	2.50
1/24/2024	I met with the Summit County Health Department and discussed the development that is going on there and issues they have with ongoing enforcement	Summit County Health Dept	1.75
1/24/2024	I met with the Secretary of Wanship Water and went over their budget with her and discussed the need for a rate study and increase.	WANSHIP MUTUAL WTR CO	2.00
1/24/2024	I met with the City recorder of Oakley and discussed their budget and loan payments from their most recent project	OAKLEY CITY	1.25
1/24/2024	I met with the City Engineer and the City Recorder and discussed a project they are contimplating and the funding that may be available	KAMAS CITY	1.25
1/25/2024	I met with the City Recorder of Eureka and went over their budget and rates. They need to have a rate study done and I will see if the Council is agreeable	EUREKA CITY	2.00
1/25/2024	I met with the Division of Public Utilities and discussed the issues in Puite/Sevier Deer Creek and what jurisdiction the DPU has over them. We discussed their need to increase rates and fees and getting prepared for the area to develop and expand.	Division of Public Utilities (Public	2.50

1/25/2024	Attended Fairview City Council Meeting and discussed the funding options for the spring redevelopment project that they need to do.	FAIRVIEW CITY	1.75
1/29/2024	Working on reviewing Eureka's budget	EUREKA CITY	2.50
1/29/2024	Meeting with Karl Larsen of USDA discussing the upcoming conference and also the status of their funding availability	USDA RURAL DEVELOPMENT	1.50
1/29/2024	I met with the Ephraim City Manager and discussed ongoing projects they are doing and the massive growth they are experiencing.	EPHRAIM CITY	1.50
1/30/2024	I met with the Secretary and President of Deseret Oasis and went through boxes of paperwork and meeting minutes trying to figure out what they're latest policies acutally are. I will try to help them write some new By-Laws based on what we found.	DESERET OASIS SSD	4.00
1/30/2024	I met with the Mayor of Scipio and discussed a project they are working on and we discussed engineering issues they are having.	SCIPIO TOWN	1.50
1/31/2024	Working on By-Laws for Deseret Oasis	DESERET OASIS SSD	4.00
1/31/2024	Continued working on By-Laws for Deseret Oasis	DESERET OASIS SSD	4.00

Agenda Item

7(A)

DRINKING WATER BOARD PACKET
(Request to Begin Rulemaking)

R309-515 Facility Design and Operation: Source Development

Presented to the Drinking Water Board

February 29, 2024

PROPOSAL:

The Division of Drinking Water proposes to make nonsubstantive changes to R309-515-5(5)(f), R309-515-6(13), and R309-515-6(13)(e) to delete references to parts of R309-540, which will no longer be accurate when R309-540 is revised by a separate rulemaking proposal.

The Division proposes to make substantive changes to R309-515-6(4) to delete special construction requirements for sewer mains, laterals, and maintenance holes located in Source Protection Zone 2.

HISTORY/CONTEXT:

The proposed amendment to R309-515-6(4) deletes special construction requirements for sewer mains, laterals, and maintenance holes located in Source Protection Zone 2 but retains them for Source Protection Zone 1. The current requirements can rarely be met, and the division frequently must issue exceptions to the rule requirements, which the division believes are unnecessary to provide protection of groundwater sources in Zone 2.

The proposed amendment to R309-515-6(4) also clarifies that the special construction requirements apply to sewer mains and laterals carrying wastewater from a building to a public sewer, septic system, or wastewater dispersal system and clarifies that the special construction requirements don't apply to floor drains.

The proposed amendment deletes Subsection R309-515-6(4)(h), which currently requires, as a special construction requirement, an impermeable cutoff wall along the upgradient edge of sewer trenches in Source Protection Zone 1 for protected aquifers and in Source Protection Zone 2 for unprotected aquifers. The requirement would no longer apply to sewer lines and laterals in Zone 2 because all special construction requirements are being deleted. The division also believes this requirement is overly restrictive and unnecessary for the protection of groundwater sources in Zone 1.

The proposed rule has been distributed within the division and to public water systems, consultants, and others for review. The division has considered all comments received and revised the rule as necessary. The proposed rule has also been pre-filed with the Office of Administrative Rules for review as required by Executive Order 2021-12, *Establishing Effective Oversight Over State Agency Rulemaking*, issued by Governor Cox on May 6, 2021.

DIVISION STAFF/DIRECTOR RECOMMENDATION:

The Division recommends that the Drinking Water Board approve filing the amendment to R309-515-5 and -6 with the Office of Administrative Rules (OAR) to begin the rulemaking process and making the reenacted rule effective on May 8, 2024, if no comments are received

during the comment period. The Division plans to make other nonsubstantive changes in the existing rule language throughout the rule to conform the Rulewriting Manual for Utah. The Division will share the final version of the rule to the Board on June 25, 2024 when the Division returns to request the Board approval to adopt the rule if no comments are received during the public comment period.

IMPLEMENTATION SCHEDULE:

Request Drinking Water Board Approval to File Proposed Rule:	02/29/2024
Deadline to File Proposed Rule with OAR:	03/15/2024
Publication of Proposed Rule in Utah State Bulletin:	04/01/2024
End of 30-Day Comment Period:	05/01/2024
File Notice of Effective Date with OAR (if no comments received):	05/08/2024
Anticipated Effective Date of Proposed Rule (if no comments received):	05/08/2024
Return to Request Board Approval to Adopt Rule (if no comments received):	06/25/2024

COST ESTIMATE:

The Division anticipates that the proposed rule amendment will have no aggregate cost or savings to the state budget, local governments, small businesses, non-small businesses, or other persons.

The proposed rule amendment is expected to have no compliance costs for affected persons, which are public water suppliers that plan to construct a groundwater source in which sewer lines or laterals are present in Source Protection Zones 1 or 2, because the amendment does not impose any new requirements.

R309. Environmental Quality, Drinking Water.

R309-515. Facility Design and Operation: Source Development.

R309-515-1. Purpose.

This rule specifies requirements for public drinking water sources. It is intended to be applied in conjunction with R309-500 through R309-550. Collectively, these rules govern the design, construction, operation and maintenance of public drinking water system facilities. These rules are intended to assure that such facilities are reliably capable of supplying adequate quantities of water that consistently meet applicable drinking water quality requirements and do not pose a threat to general public health.

R309-515-2. Authority.

This rule is promulgated by the Drinking Water Board as authorized by Title 19, Environmental Quality Code, Chapter 4, Safe Drinking Water Act, Subsection 104(1)(a)(ii) of the Utah Code Annotated and in accordance with 63G-3 of the same, known as the Administrative Rulemaking Act.

R309-515-3. Definitions.

Definitions for certain terms used in this rule are given in R309-110 but may be further clarified herein.

R309-515-4. General.

(1) Issues to be Considered.

The selection, development, and operation of a public drinking water source must be done in a manner that will protect public health and assure that all required water quality standards, as described in R309-200, are met.

(2) Communication with the Division.

Because of the issues described above in (1), engineers are advised to work closely with the Division to help assure that sources are properly sited, developed, and operated.

(3) Number of Sources and Quantity Requirements.

Community water systems serving more than 100 connections shall have a minimum of two sources, except where served by a surface water treatment plant. For all systems, the total developed source capacity shall equal or exceed the peak day demand of the system. Refer to R309-510-7 of these rules for procedure to estimate the peak day demand.

(4) Quality Requirements.

In selecting a source of water for development, the designing engineer shall demonstrate to the satisfaction of the Director that the source(s) selected for use in public water systems are of satisfactory quality, or can be treated in a manner so that the quality requirements of R309-200 can be met.

(5) Initial Analyses.

All new drinking water sources, unless otherwise noted below, shall be analyzed for the following:

(a) all the primary and secondary inorganic contaminants listed in R309-200, Table 200-1 and Table 200-5 (excluding Asbestos unless it would be required by R309-205-5(2));

(b) Ammonia as N; Boron; Calcium; Copper; Lead; Magnesium; Potassium; Turbidity, as NTU; Specific Conductivity at 25 degrees Celsius, micro mhos/cm; Bicarbonate; Carbon

Dioxide; Carbonate; Hydroxide; Phosphorous, Ortho as P; Silica, dissolved as SiO₂; Surfactant as MBAS; Total Hardness as CaCO₃; and Alkalinity as CaCO₃;

(c) pesticides, PCBs and SOCs as listed in R309-200-5(3)(a), Table 200-2 unless the system is a transient non-community PWS or, if a community PWS or non-transient non-community PWS, has received waivers in accordance with R309-205-6(1)(f). The following six constituents have been excused from monitoring in the State by the EPA, dibromochloropropane, ethylene dibromide, Diquat, Endothall, glyphosate and Dioxin;

(d) VOCs as listed in R309-200-5(3)(b), Table 200-3 unless the system is a transient non-community PWS; and,

(e) radiologic chemicals as listed in R309-200-5(4) unless the system is a non-transient non-community PWS or a transient non-community PWS.

All analyses shall be performed by a certified laboratory as required by R309-205-4 (Specially prepared sample bottles are required),

(6) Source Classification.

Subsection R309-505-7(1)(a)(i) provides information on the classification of water sources. The Director shall classify all existing or new sources as either:

(a) surface water or ground water under direct influence of surface water which requires conventional surface water treatment or an approved equivalent; or as,

(b) ground water not under the direct influence of surface water.

(7) Latitude and Longitude.

The latitude and longitude, to at least the nearest second, or the location by section, township, range, and course and distance from an established outside section corner or quarter corner of each point of diversion shall be submitted to the Director prior to source approval.

R309-515-5. Surface Water Sources.

(1) Definition.

A surface water source, as is defined in R309-110, shall include, but not be limited, to tributary systems, drainage basins, natural lakes, artificial reservoirs, impoundments and springs or wells that have been classified as being directly influenced by surface water. Surface water sources will not be considered for culinary use unless they can be rendered acceptable by conventional surface water treatment or other equivalent treatment techniques acceptable to the Director.

(2) Pre-design Submittal.

The following information must be submitted to the Director and approved in writing before commencement of design of diversion structures and/or water treatment facilities:

(a) a copy of the chemical analyses required by R309-200 and described in R309-515-4(5) above; and,

(b) a survey of the watershed tributary to the watercourse along which diversion structures are proposed. The survey shall include, but not be limited to:

(i) determining possible future uses of impoundments or reservoirs;

(ii) the present stream classification by the Division of Water Quality, any obstacles to having stream(s) reclassified 1C, and determining degree of watershed control by owner or other agencies;

(iii) assessing degree of hazard to the supply by accidental spillage of materials that may be toxic, harmful or detrimental to treatment processes;

(iv) obtaining samples over a sufficient period of time to assess the microbiological, physical, chemical and radiological characteristics and variations of the water;

- (v) assessing the capability of the proposed treatment process to reduce contaminants to applicable standards; and,
- (vi) consideration of currents, wind and ice conditions, and the effect of tributary streams at their confluence.

(3) Pre-construction Submittal.

Following approval of a surface water source, the following additional information must be submitted for review and approval prior to commencement of construction:

- (a) acceptable evidence that the water system has a legal right to divert water for the proposed uses from the proposed sources;
- (b) minimum quantity that the surface water source is capable of producing (see R309-515-5(4)(a) below); and
- (c) complete plans and specifications and supporting documentation for the proposed treatment facilities to ascertain compliance with R309-525 or R309-530.

(4) Quantity.

The quantity of water from surface sources shall:

- (a) be assumed to be no greater than the low flow of a 25-year recurrence interval or the low flow of record for these sources when 25 years of records are not available;
- (b) meet or exceed the anticipated peak day demand for water as estimated in R309-510-7 and provide a reasonable surplus for anticipated growth; and,
- (c) be adequate to compensate for all losses such as silting, evaporation, seepage, and sludge disposal, which would be anticipated in the normal operation of the treatment facility.

(5) Diversion Structures.

Design of intake structures shall provide for:

- (a) withdrawal of water from more than one level if quality varies with depth;
- (b) intake of lowest withdrawal elevation located at sufficient depth to be kept submerged at the low water elevation of the reservoir;
- (c) separate facilities for release of less desirable water held in storage;
- (d) occasional cleaning of the inlet line;
- (e) a diversion device capable of keeping large quantities of fish or debris from entering an intake structure; and,
- (f) suitable protection of pumps where used to transfer diverted water[(refer to R309-540-5)].

(6) Impoundments.

The design of an impoundment reservoir shall provide for, where applicable:

- (a) removal of brush and trees to the high water level;
- (b) protection from floods during construction;
- (c) abandonment of all wells, which may be inundated (refer to applicable requirements of the Division of Water Rights); and,
- (d) adequate precautions to limit nutrient loads.

R309-515-6. Ground Water - Wells.

(1) Required Treatment.

If properly developed, water from wells may be suitable for culinary use without treatment. A determination concerning whether treatment may be required can only be made after the source has been developed and evaluated.

(2) Standby Power.

Water suppliers shall assess the capability of their system in the event of a power outage. If a community water system has no naturally flowing water sources such as springs or flowing wells, one or more of the system's sources shall be equipped for operation during power outages. In this event:

(a) to ensure continuous service when the primary power has been interrupted, a redundant power supply shall be provided. A redundant power supply may include a transfer switch for auxiliary power such as a generator or a power supply service with coverage from two independent substations.

(b) when automatic pre-lubrication of pump bearings is necessary, and an auxiliary power supply is provided, the pre-lubrication line shall be provided with a valved by-pass around the automatic control, or the automatic control shall be wired to the emergency power source.

(3) The Utah Division of Water Rights.

The Utah Division of Water Rights (State Engineer's Office) regulates the drilling of water wells. Before the drilling of a well commences, the well driller must receive a start card from the State Engineer's Office. For public drinking water supply wells, the rules of R655-4 apply and shall be followed in addition to these rules.

(4) Source Protection.

Public drinking water systems are responsible for protecting their sources from contamination. The selection of a well location shall only be made after consideration of the requirements of Rule R309-600. Sources shall be located in an area that will minimize threats from existing or potential sources of pollution.

~~[Generally, sewer lines may not be located within zone one and zone two of a public drinking water system's source protection zones. However, if the following precautions are taken, sewer lines may be permitted within a public drinking water system's source protection zone one and zone two. Sewer lines shall meet the conditions identified in R309-600-13(3), and shall be specially constructed as follows throughout zone one in aquifers classified as protected, and zones one and two, if the aquifer is classified as unprotected]~~

~~(a) Sewer lines shall be constructed to remain watertight. The lines shall be deflection-tested in accordance with the Division of Water Quality Rule R317-3. The lines shall be video-inspected for any defect following completion of construction and before being placed in service. The sewer pipe material shall be: A public water system shall not develop a new groundwater source if existing sewer infrastructure, including sewer lines, sewer laterals, or sewer maintenance holes, exist within the boundaries of source protection zone one. For purposes of this section, floor drains are not considered to be applicable sewer infrastructure.~~

~~(b) The Director may approve, as a permit order under Section 19-1-301.5, new groundwater sources if the conditions identified in Subsection R309-600-13(3) are met and each applicable sewer infrastructure, carrying wastewater from a building or home to a public sewer or an onsite wastewater system, located within source protection zone one is specially constructed as follows:~~

~~(i) high density polyethylene (HDPE) pipe with a PE3408 or PE4710 rating from the Plastic Pipe Institute and have a Dimension Ratio (DR) of 17 or less, and all joints shall be fusion-welded; or, Sewer lines shall be constructed to remain watertight. The lines shall be deflection-tested in accordance with Rule R317-3. The lines shall be video-inspected for any defect after completion of construction and before being placed in service. The sewer pipe material shall be:~~

(A) high density polyethylene (HDPE) pipe with a PE3408 or PE4710 rating from the Plastic Pipe Institute and have a Standard Dimension Ratio (SDR) of 17 or less, and each joint shall be fusion-welded; or,

~~(ii)~~ (B) polyvinyl chloride (PVC) pipe meeting AWWA Specification C900 or C905 and have a DR of 18 or less. PVC pipe shall be either restrained gasketed joints or shall be fusion-welded. Solvent cement joints shall not be acceptable. The PVC pipe shall be clearly identified when installed, by marking tape or other means as a sanitary sewer line; or,

~~(iii)~~ (C) ductile iron pipe with ceramic epoxy lining, polyethylene encasement, restrained joints, and a minimum pressure class of 200.

~~(b)~~ (ii) Procedures for leakage tests shall be [specified] named and comply with [Division of Water Quality] Rule R317-3.

~~(e)~~ (iii) Lateral to [main] sewer line connection shall be fusion-welded, shop-fabricated, or saddled with a mechanical clamping watertight device designed for the specific pipe.

~~(d)~~ (iiii) Inlet and outlet sewer pipes shall be joined to a [manhole] maintenance hole with a gasketed flexible watertight connection.

~~(e)~~ (v) The sewer pipe shall be laid with no greater than 2% [percent] deflection at any joint.

~~(f)~~ (vi) Backfill shall be compacted to not less than 95% [percent] of maximum laboratory density as determined in accordance with ASTM Standard D-690.

~~(g)~~ (vii) Sewer [manholes] maintenance hole shall meet the [following] Subsections R309-515-6(4)(b)(vii)(A) through (C) requirements.

(i) (A) The [manholes] maintenance hole shall be constructed of reinforced concrete~~[-], HDPE, or approved equivalent.~~

~~(ii)~~ (B) [Manhole] Maintenance hole base and walls, up to a point at least 12 inches above the top of the upper most sewer pipe entering the [manhole] maintenance hole, shall be fabricated in a single concrete pour without joints.

~~(iii)~~ (C) The [manholes] maintenance hole shall be air pressure tested after installation.

~~(h) In unprotected aquifers, an impermeable cutoff wall shall be constructed in all sewer trenches on the up-gradient edge of zone two. In protected aquifers, an impermeable cutoff wall shall be constructed in all sewer trenches on the up-gradient edge of zone one.~~

(5) Outline of Well Approval Process.

(a) Well drilling shall not commence until both of the following items are submitted and receive a favorable review:

(i) a Preliminary Evaluation Report on source protection issues as required by R309-600-13, and

(ii) engineering plans and specifications governing the well drilling, prepared by a licensed well driller holding a current Utah Well Drillers License or prepared, signed, and stamped by a licensed professional engineer or professional geologist licensed to practice in Utah.

(b) Inspection of Well Sealing During Construction.

(i) Authorized Individuals

(A) The following individuals are authorized to witness the well sealing procedure for a public drinking water well:

(I) an engineer or a geologist from the Division of Drinking Water;

(II) a district engineer of the Department of Environmental Quality;

(III) an authorized representative of the Division of Water Rights; or,
(IV) an individual having written authorization from the Director and meeting the below listed criteria.

(B) At the time of the well sealing an individual, who is authorized per (i)(A)(IV), shall present to the well driller a copy of the letter authorizing him or her to witness a well sealing on behalf of the Division of Drinking Water. A copy of this letter shall be appended to the witness certification letter.

(C) At least three days before the anticipated well sealing, the well driller shall arrange for an authorized witness listed in (i)(A) above to witness the procedure. (See R309-515-6(6)(i)).

(ii) Obtaining Authorization

(A) To be authorized per (i)(A)(IV) above to witness a well sealing procedure, an individual must have no relationship to the driller or the well's owner. The individual must have at least five years professional experience designing wells, supervising well drilling or other equivalent experience associated with well drilling or well sealing that is acceptable to the Director.

(B) Individuals, desiring the Director's authorization to witness a well sealing procedure, shall provide the following information to the Director for review over his or her signature attesting to the correctness of the information:

(I) a detailed description of the applicant's experience with well drilling projects, including number of years of experience and type of work. Three references confirming this professional experience are required.

(II) evidence of licensure as a professional engineer or professional geologist in Utah.

(III) no relationship may exist between a person authorized to witness well sealings and a well driller that would serve as the basis for suspicion of favoritism, leniency, or punitive action in the performance of this task. Examples of such relationships would be family; former long-term employment associations; business partnerships, either formal or informal; etc. The Director's decision, with right of appeal as provided in R305-7, shall be accepted relative to what constitutes a conflict of interest or a relationship sufficient to disqualify an applicant from all or specific witness opportunities.

(IV) An acknowledgement that he/she would not be acting as an agent or employee of the State of Utah and any losses incurred while acting as a witness would not be covered by governmental immunity or Utah's insurance.

(VI) Willingness to follow established protocols and attend such training events as may be required by the Director.

(VII) Complete with a minimum 75 percent passing grade, an examination on water well drilling rules, as offered by the Division of Water Rights.

(C) The Director may rescind the authorization if an individual fails to comply with the criteria or conditions of authorization listed above.

(iii) Well Seal Certification

The individual witnessing the well sealing procedure shall provide a signed letter, including the following information, to the Director within 30 days of the well sealing:

(A) certification that the well sealing procedure met all the requirements of Rule R309-515-6(6)(i);

(B) the water right under which the well was drilled and the well driller's license number;

- (C) the public water system name (if applicable);
- (D) the latitude and longitude of the well and method used for its determination;
- (E) the well head's approximate elevation;
- (F) casing diameter(s), length(s), and material(s);
- (G) the size of the annulus between the borehole and casing;
- (H) a description of the sealing process including the sealing material used, its volume, density, method of placement, and depth from surface; and,
- (I) the names and company affiliations of other individuals observing the sealing procedure including, but not limited to, the well driller, the well owner, and/or a consultant.

(c) After completion of the well drilling, the following information shall be submitted and receive a favorable review before water from the well can be introduced into a public water system:

- (i) a copy of the "Report of Well Driller" as required by the State Engineer's Office which is complete in all aspects and has been stamped as received by the same;
 - (ii) a copy of the letter from the authorized individual described in R309-515-6(5)(b) above, indicating inspection and confirmation that the well was grouted in accordance with the well drilling specifications and the requirements of this rule;
 - (iii) a copy of the aquifer drawdown test data, as a minimum, including the yield versus drawdown test data, as described in R309-515-6(10)(b) along with comments and interpretation by a licensed professional engineer or licensed professional geologist of the graphic drawdown information required by R309-515-6(10)(b)(vi)(E);
 - (iv) a copy of the chemical analyses required by R309-515-4(5);
 - (v) acceptable evidence that the water system owner has a legal right to divert water for the proposed use(s) from the well source(s);
 - (vi) a copy of complete plans and specifications prepared, signed, and stamped by a licensed professional engineer covering the well housing, equipment, and diversion piping necessary to introduce water from the well into the distribution system; and
 - (vii) a bacteriological analysis of water obtained from the well after installation of permanent equipment, disinfection, and flushing.
- (d) An Operation Permit shall be obtained in accordance with R309-500-9 before any water from the well is introduced into a public water system.
- (6) Well Materials, Design, and Construction.
- (a) ANSI/NSF Standards 60 and 61 Certification.

All interior surfaces must consist of products complying with ANSI/NSF Standard 61. This requirement applies to drop pipes, well screens, coatings, adhesives, solders, fluxes, pumps, switches, electrical wire, sensors, and all other equipment or surfaces which may contact the drinking water.

All substances introduced into the well during construction or development shall be certified to comply with ANSI/NSF Standard 60. This requirement applies to drilling fluids (biocides, clay thinners, defoamers, foamers, loss circulation materials, lubricants, oxygen scavengers, viscosifiers, weighting agents) and regenerants.

- (b) Permanent Steel Casing Pipe shall:
 - (i) be new single steel casing pipe meeting AWWA Standard A-100, ASTM or API specifications and having a minimum weight and thickness as given in Table 6 found in R655-4-11.2.3 of the Utah Administrative Code (Administrative Rules for Water Well Drillers, adopted April 11, 2011, Division of Water Rights);

(ii) have additional thickness and weight, if minimum thickness is not considered sufficient to assure reasonable life expectancy of the well;

(iii) be capable of withstanding forces to which it is subjected;

(iv) be equipped with a drive shoe when driven;

(v) have full circumferential welds or threaded coupling joints; and

(vi) project at least 18 inches above the anticipated final ground surface and at least 12 inches above the anticipated pump house floor level. At sites subject to flooding, the top of the well casing shall terminate at least three feet above the 100-year flood level or the highest known flood elevation, whichever is higher.

(c) Non-Ferrous Casing Material.

The use of any non-ferrous material for a well casing shall receive prior approval of the Director based on the ability of the material to perform its desired function. Thermoplastic water well casing pipe shall meet AWWA Standard A100-06 and shall bear the logo NSF-wc indicating compliance with NSF Standard 14 for use as well casing.

(d) Disposal of Cuttings.

Cuttings and waste from well drilling operations shall not be discharged into a waterway, lake, or reservoir. The rules of the Utah Division of Water Quality must be observed with respect to these discharges.

(e) Packers.

Packers, if used, shall be of material that will not impart taste, odor, toxic substances, or bacterial contamination to the well water. Lead or partial lead packers are specifically prohibited.

(f) Screens.

The use of well screens is recommended where appropriate and, if used, they shall:

- (i) be constructed of material resistant to damage by chemical action of groundwater or cleaning operations;
- (ii) have size of openings based on sieve analysis of formations or gravel pack materials;
- (iii) have sufficient diameter to provide adequate specific capacity and low aperture entrance velocities;
- (iv) be installed so that the operating water level remains above the screen under all pumping conditions; and,
- (v) be provided with a bottom plate or wash-down bottom fitting of the same material as the screen.

(g) Plumbness and Alignment Requirements.

Every well shall be tested for plumbness and vertical alignment in accordance with AWWA Standard A100. Plans and specifications submitted for review shall:

- (i) have the test method and allowable tolerances clearly stated in the specifications; and,
- (ii) clearly indicate any options the design engineer may have if the well fails to meet the requirements. Generally, wells may be accepted if the misalignment does not interfere with the installation or operation of the pump or uniform placement of grout.

(h) Casing Perforations.

The placement of perforations in the well casing shall:

- (i) be located, as far as practical, to permit the uniform collection of water around the circumference of the well casing; and,
- (ii) be of dimensions and size to restrain the water bearing soils from entrance into the well.

(i) Well Sealing Techniques and Requirements.

For all public drinking water wells, the annulus between the outermost well casing and the borehole wall shall be sealed with grout to a depth of at least 100 feet below the ground surface unless an "exception" is issued by the Director (see R309-500-4(1)). If more than one casing is used, including a conductor casing, the annulus between the outermost casing and the next inner casing shall be sealed with grout (meeting the sealing materials requirements of R309-515-6(i)(ii) herein) or with a water tight steel ring having a thickness equal to that of the permanent well casing and continuously welded to both casings. If a public drinking water well will be equipped with a pitless adapter or unit, a well seal shall be installed to a minimum depth of 110 feet to take into account the top 10 feet of compromised seal interval.

The following shall apply to all drinking water wells:

(i) Consideration During Well Construction.

(A) Sufficient annular opening shall be provided to permit a minimum of two inches of grout between the outermost permanent casing and the drilled hole, taking into consideration any joint couplings.

(B) The casing(s) must be placed to permit unobstructed flow and uniform thickness of grout.

(ii) Sealing Materials.

(A) Neat Cement Grout.

Cement, conforming to ASTM Standard C150, and water, with no more than six gallons of water per sack of cement, shall be used for two-inch openings. Additives may be used to increase fluidity subject to approval by the Director.

(B) Concrete Grout.

Equal parts of cement conforming to ASTM Standard C150, and sand, with not more than six gallons of water per sack of cement, may be used for openings larger than two inches.

(C) Clay Seal.

Where an annular opening greater than six inches is available, a seal of swelling bentonite meeting the requirements of R655-4-11.4.2 may be used when approved by the Director.

(iii) Application.

(A) When the annular opening is less than four inches, grout shall be installed under pressure, by means of a positive displacement grout pump, from the bottom of the annular opening to be filled.

(B) When the annular opening is four or more inches and 100 feet or less in depth, and concrete grout is used, it may be placed by gravity through a grout pipe installed to the bottom of the annular opening in one continuous operation until the annular opening is filled.

(C) All temporary construction casings shall be removed prior to or during the well sealing operation. Any exceptions shall be approved by the State Engineer's Office, and evidence of State Engineer's Office's approval shall be submitted to the Director (see R655-4-11.4.3.1 for conditions concerning leaving temporary surface casing in place). A temporary construction casing is a casing not intended to be part of the permanent well.

(D) When a "well in a protected aquifer" classification is desired, the grout seal shall extend from the ground surface down to at least 100 feet below the surface, and through the protective clay layer (see R309-600-6(1)(x)).

(E) After cement grouting is applied, work on the well shall be discontinued until the cement or concrete grout has properly set, usually a period of 72 hours.

(j) Water Entered Into Well During Construction.

Any water entering a well during construction shall not be contaminated and should be obtained from a chlorinated municipal system. Where this is not possible, the water must be treated to produce a 100 mg/l free chlorine residual in accordance with R655-4-11.6.5.

(k) Gravel Pack Wells.

The following shall apply to gravel packed wells:

(i) the gravel pack material shall be of well-rounded particles, at least 90 percent siliceous material, no more than five percent acid solubility, smooth and uniform, free of foreign material, properly sized, washed, and then disinfected immediately prior to or during placement;

(ii) the gravel pack shall be placed in one uniform continuous operation;

(iii) refill pipes, when used, shall be Schedule 40 steel pipe incorporated within the pump foundation and terminated with screwed or welded caps at least 12 inches above the pump house floor or concrete apron;

(iv) refill pipes located in the grouted annular opening shall be surrounded by a minimum of 1.5 inches of grout;

(v) protection shall be provided to prevent leakage of grout into the gravel pack or screen; and,

(vi) any casings not withdrawn entirely shall meet requirements of R309-515-6(6)(b) or R309-515-6(6)(c).

(7) Well Development.

(a) Every well shall be developed to remove the native silts and clays, drilling mud, or finer fraction of the gravel pack.

(b) Development should continue until the maximum specific capacity is obtained from the completed well.

(c) Where chemical conditioning is required, the specifications shall include provisions for the method, equipment, chemicals, testing for residual chemicals, and disposal of waste and inhibitors.

(d) Where blasting procedures may be used, the specifications shall include the provisions for blasting and cleaning. Special attention shall be given to assure that the grouting and casing are not damaged by the blasting.

(8) Capping Requirements.

(a) The well shall be securely capped in accordance with R655-4-14.1 until permanent equipment can be installed.

(b) At all times during the progress of work, the contractor shall provide protection to prevent tampering with the well or entrance of foreign materials.

(9) Well Abandonment.

(a) Test wells and groundwater sources, which will be permanently abandoned shall be abandoned in accordance with R655-4-14.

(b) Wells to be abandoned shall be sealed to prevent undesirable exchange of water from one aquifer to another. Preference shall be given to using a neat cement grout. Where fill materials are used, which are other than cement grout or concrete, they shall be disinfected and free of foreign materials. When an abandoned well is filled with cement-grout or concrete, these materials shall be applied to the well-hole through a pipe, tremie, or bailer.

(10) Well Assessment.

(a) Step Drawdown Test.

Preliminary to the constant-rate test required below, it is recommended that a step-drawdown test (uniform increases in pumping rates over uniform time intervals with single drawdown measurements taken at the end of the intervals) be conducted to determine the maximum pumping rate for the desired intake setting.

(b) Constant-Rate Test.

A "constant-rate" yield and drawdown test shall:

(i) be performed on every production well after well development and prior to placement of the permanent pump;

(ii) have the test methods clearly indicated in the specifications;

(iii) have a test pump with sufficient capacity that when pumped against the maximum anticipated drawdown, it will be capable of pumping in excess of the desired design discharge rate;

(iv) provide for continuous pumping for at least 24 hours or until stabilized drawdown has continued for at least six hours when test pumped at a "constant-rate" equal to the desired design discharge rate;

(v) provide the following data:

(A) capacity vs. head characteristics for the test pump (manufacturer's pump curve);

(B) static water level (in feet to the nearest tenth, as measured from an identified datum; usually the top of casing);

(C) depth of test pump intake; and,

(D) time and date of starting and ending test(s);

(vi) For the "constant-rate" test, provide the following at time intervals sufficient for at least ten essentially uniform intervals for each log cycle of the graphic evaluation required below:

(A) record the time since starting test (in minutes);

(B) record the actual pumping rate;

(C) record the pumping water level (in feet to the nearest tenth, as measured from the same datum used for the static water level);

(D) record the drawdown (pumping water level minus static water level in feet to the nearest tenth);

(E) provide graphic evaluation on semi-logarithmic graph paper by plotting the drawdown measurements on the arithmetic scale at locations corresponding to time since starting test on the logarithmic scale; and,

(vii) Immediately after termination of the constant-rate test, and for a period of time until there are no changes in depth to water level measurements for at least six hours, record the following at time intervals similar to those used during the constant-rate pump test:

(A) time since stopping pump test (in minutes),

(B) depth to water level (in feet to the nearest tenth, as measured from the same datum used for the pumping water level).

(c) Safe Yield.

If the aquifer drawdown test data show that the drawdown has stabilized, the Director will consider 2/3 of the pumping rate used in the constant-rate test as the safe yield of the well. The safe yield is used to determine the number of permanent residential connections or ERCs that a well source can support.

(11) Well Disinfection.

Every new, modified, or reconditioned well including pumping equipment shall be disinfected before being placed into service for drinking water use. These shall be disinfected according to AWWA Standards C654-03 and A100-06 as modified to incorporate the following as a minimum standard:

(i) the well shall be disinfected with a chlorine solution of sufficient volume and strength and so applied that a concentration of at least 50 parts per million is obtained in all parts of the well and the equipment installed in the well. This solution shall remain in the well for a period of at least eight hours; and,

(ii) a satisfactory bacteriologic water sample analysis shall be obtained prior to the use of water from the well in a public water system.

(12) Well Equipping.

(a) Naturally Flowing Wells.

Naturally flowing wells shall:

(i) have the discharge controlled by valves;

(ii) be provided with permanent casing and sealed by grout; and,

(iii) if erosion of the confining bed adjacent to the well appears likely, special protective construction may be required by the Director.

(b) Well Pumps.

(i) The design discharge rate of the well pump shall not exceed the rate used during the constant-rate aquifer drawdown test.

(ii) Wells equipped with line shaft pumps shall:

(A) have the casing firmly connected to the pump structure or have the casing inserted into the recess extending at least 0.5 inches into the pump base;

(B) have the pump foundation and base designed to prevent fluids from coming into contact with joints between the pump base and the casing;

(C) be designed such that the intake of the well pump is at least ten feet below the maximum anticipated drawdown elevation; and,

(D) avoid the use of oil lubrication for pumps with intake screens set at depths less than 400 feet (see R309-105-10(7) and/or R309-515-8(2) for additional requirements of lubricants).

(iii) Where a submersible pump is used:

(A) the top of the casing shall be effectively sealed against the entrance of water under all conditions of vibration or movement of conductors or cables;

(B) the electrical cable shall be firmly attached to the riser pipe at 20-foot intervals or less; and,

(C) the intake of the well pump must be at least ten feet below the maximum anticipated drawdown elevation.

(c) Pitless Well Units and Adapters.

If the excavation surrounding the well casing allowing installation of the pitless unit compromises the surface seal, the competency of the surface seal shall be restored. Torch-cut holes in the well casing shall be to neat lines closely following the outline of the pitless adapter and completely filled with a competent weld with burrs and fins removed prior to the installation of the pitless unit and adapter.

Pitless well units and adapters shall:

(i) be used to make a connection to a water well casing that is made below the ground. A below-the-ground connection shall not be submerged in water during installation;

- (ii) terminate at least 18 inches above final ground elevation or three feet above the highest known flood elevation, whichever is greater;
- (iii) contain a label or have a certification indicating compliance with the Water Systems Council Pitless Adapter Standard (PAS-97);
- (iv) have suitable access to the interior of the casing in order to disinfect the well;
- (v) have a suitable sanitary seal or cover at the upper terminal of the casing that will prevent the entrance of any fluids or contamination, especially at the connection point of the electrical cables;
- (vi) have suitable access so that measurements of static and pumped water levels in the well can be obtained;
- (vii) allow at least one check valve within the well casing;
- (viii) be furnished with a cover that is lockable or otherwise protected against vandalism or sabotage;
- (ix) be shop-fabricated from the point of connection with the well casing to the unit cap or cover;
- (x) be of watertight construction throughout;
- (xi) be constructed of materials at least equivalent to and having wall thickness compatible to the casing;
- (xii) have field connection to the lateral discharge from the pitless unit of threaded, flanged, or mechanical joint connection;
- (xiii) be threaded or welded to the well casing. If the connection to the casing is by field weld, the shop-assembled unit must be designed specifically for field welding to the casing. The only field welding permitted on the pitless unit is to connect the pitless unit to the casing; and,
- (xiv) have an inside diameter as great as that of the well casing, up to and including casing diameters of 12 inches, to facilitate work and repair on the well, pump, or well screen.

(d) Well Discharge Piping.

The discharge piping shall:

- (i) be designed so that the friction loss will be low;
- (ii) have control valves and appurtenances located above the pump house floor when an above-ground discharge is provided;
- (iii) be protected against the entrance of contamination;
- (iv) be equipped with a smooth-nosed sampling tap, a check valve, a pressure gauge, a means of measuring flow, and a shutoff valve (with the smooth-nosed sampling tap being the first item from the well head and the shut-off valve as the last item), unless it is a naturally flowing well which may need an alternative design;
- (v) where a well pumps directly into a distribution system, be equipped with an air release vacuum relief valve located upstream from the check valve, with exhaust/relief piping terminating in a down-turned position at least six inches above the well house floor and covered with a No. 14 mesh corrosion resistant screen. An air release vacuum relief valve is not required if the specific proposed well head valve and piping design includes provisions for pumping to waste all trapped air before water is introduced into the distribution system;
- (vi) have all exposed piping valves and appurtenances protected against physical damage and freezing;
- (vii) be properly anchored to prevent movement;
- (viii) be properly protected against surge or water hammer; and,

(ix) if a pump to waste line exists, it shall not be connected to a sewer/storm drain without a minimum 12-inch clearance to the flood rim, and the discharge end of the pump-to-waste line shall be downturned and covered with a No. 4 mesh corrosion resistant screen (refer to R309-545-10(1)).

(e) Water Level Measurement.

(i) Provisions shall be made to permit periodic measurement of water levels in the completed well.

(ii) Where permanent water level measuring equipment is installed, it shall be made using corrosion resistant materials attached firmly to the drop pipe or pump column and installed to prevent entrance of foreign materials.

(f) Observation Wells.

Observation wells shall be:

(i) constructed in accordance with the requirements for permanent wells if they are to remain in service after completion of a water supply well; and,

(ii) protected at the upper terminal to preclude entrance of foreign materials.

(g) Electrical Protection.

Sufficient electrical controls shall be placed on all pump motors to eliminate electrical problems due to phase shifts, surges, lightning, etc.

(13) Well House Construction.

The use of a well house is strongly recommended, particularly in installations utilizing above ground motors.

[In addition to applicable provisions of R309-540, w]Well pump houses shall conform to the following:

(a) Casing Projection Above Floor.

The permanent casing for all ground water wells shall project at least 12 inches above the pump house floor or concrete apron surface and at least 18 inches above the final ground surface.

However, casings terminated in underground vaults may be permitted if the vault is provided with a "drain-to-daylight" sized to handle in excess of the well flow and surface runoff is directed away from the vault access.

(b) Floor Drain.

Where a well house is constructed, the floor surface shall be at least six inches above the final ground elevation and shall be sloped to provide drainage. A "drain-to-daylight" shall be provided unless highly impractical.

(c) Earth Berm.

Sites subject to flooding shall be provided with an earth berm terminating at an elevation at least two feet above the highest known flood elevation or other suitable protection as determined by the Director.

(d) Well Casing Termination at Flood Sites.

The top of the well casing at sites subject to flooding shall terminate at least three feet above the 100-year flood level or the highest known flood elevation, whichever is higher (refer to R309-515-6(6)(b)(vi)).

(e) Miscellaneous.

The well house shall be ventilated, heated, and lighted in such a manner as to assure adequate [protection]operation of the equipment [(refer to R309-540-5(2) (a) through (h))].

(f) Fencing.

Where necessary to protect the quality of the well water, the Director may require that certain wells be fenced in a manner similar to fencing required around spring areas.

(g) Access.

An access shall be provided either through the well house roof or sidewalls in the event the pump must be pulled for replacement or servicing the well.

R309-515-7. Ground Water - Springs.

(1) General.

Springs vary greatly in their characteristics and they should be observed for some time prior to development to determine any flow and quality variations. Springs determined to be under the direct influence of surface water shall comply with surface water treatment requirements.

(2) Source Protection.

Public drinking water systems are responsible for protecting their spring sources from contamination. The selection of a spring shall only be made after consideration of the requirements of R309-515-4. Springs must be located in an area that shall minimize threats from existing or potential sources of pollution. A Preliminary Evaluation Report on source protection issues is required by R309-600-13(2). If certain precautions are taken, sewer lines may be permitted within a public drinking water system's source protection zones at the discretion of the Director. When sewer lines are permitted in protection zones both sewer lines and manholes shall be specially constructed as described in R309-515-6(4).

(3) Surface Water Influence.

Some springs yield water that has been filtered underground for years; other springs yield water that has been filtered underground only a matter of hours. Even with proper development, the untreated water from certain springs may exhibit turbidity and high coliform counts. This indicates that the spring water is not being sufficiently filtered in underground travel. If a spring is determined to be under the direct influence of surface water, it shall be treated to meet the surface water treatment requirements specified in R309-505-6.p

(4) Pre-construction Submittal

Before beginning spring development construction, the following information shall be submitted to the Director and approved in writing:

- (a) detailed plans and specifications covering the development work;
- (b) if available, a copy of an engineer's or geologist's statement indicating:
 - (i) the historical record of spring flow variation;
 - (ii) expected minimum flow and the time of year it will occur;
 - (iii) expected maximum flow and the time of year it will occur;
 - (iv) expected average flow and,
 - (v) the behavior of the spring during drought conditions;

(c) acceptable evidence that the water system has a legal right to divert water for the proposed use(s) from the spring source(s);

(d) a Preliminary Evaluation Report on source protection issues as required by R309-600-13;

(e) a copy of the chemical analyses required by R309-515-4(5) ; and,

(f) an assessment of whether the spring is under the direct influence of surface water(refer to R309-505-7(1)(a)).

(5) Information Required after Spring Development.

After development of a spring as a drinking water source, the following information shall be submitted to the Director for review.

- (a) proof of satisfactory bacteriologic quality;
- (b) information on the rate of flow developed from the spring.

Immediately after spring development, the water system shall collect monthly spring flow data during operating seasons when the spring is reasonably accessible, as a minimum, for three years, and submit spring flow data to the Director for determination of spring yield. After evaluating the spring flow information including seasonal and annual variations, the Director will determine a spring yield, which will be used in assessing the number of and type of connections that can be served by the spring. The spring yield typically is set at the 25th percentile of the spring flow data. If the spring exhibits significant seasonal or annual variations, the spring yield may be assessed on a case-by-case basis.

- (c) Record drawings of spring development.
- (6) Operating Permit Required.

Water from the spring can be introduced into a public water system only after it has been approved for use, in writing, as evidenced by the issuance of an Operating Permit by the Director (see R309-500-9).

- (7) Spring Development.

The development of springs for drinking water purposes shall comply with the following requirements.

(a) The spring collection device, whether it be collection tile, perforated pipe, imported gravel, infiltration boxes, or tunnels must be covered with a minimum of 10 feet of relatively impervious soil cover. Such cover must extend a minimum of 15 feet in all horizontal directions from the spring collection device. Clean, inert, non-organic material shall be placed in the vicinity of the collection device(s).

(b) Where it is impossible to achieve the 10 feet of relatively impervious soil cover, an acceptable alternate will be the use of an impermeable liner provided that:

- (i) the liner has a minimum thickness of at least 40 mils;
- (ii) all seams in the liner are folded or welded to prevent leakage;
- (iii) the liner is certified as complying with ANSI/NSF Standard 61. This requirement is waived if certain that the drinking water will not contact the liner;
- (iv) the liner is installed in such a manner as to assure its integrity. No stones, two inch or larger or sharp edged, shall be located within two inches of the liner;
- (v) a minimum of two feet of relatively impervious soil cover is placed over the impermeable liner; and,
- (vi) the soil and liner cover are extended a minimum of 15 feet in all horizontal directions from the collection devices.

(c) Each spring collection area shall be provided with at least one collection box to permit spring inspection and testing.

(d) All junction boxes and collection boxes, must comply with R309-545 with respect to access openings, venting, and tank overflow. Lids for these spring boxes shall be gasketed and the box adequately vented.

(e) The spring collection area shall be surrounded by a fence located a distance of 50 feet (preferably 100 feet if conditions allow) from all collection devices on land at an elevation equal to or higher than the collection device, and a distance of 15 feet from all collection devices on land at an elevation lower than the collection device. The elevation datum to be used is the

surface elevation at the point of collection. The fence shall be at least "stock tight" (see R309-110). In remote areas where no grazing or public access is possible, an exception to the fencing requirement may be granted by the Director. In populated areas, a six-foot high chain link fence with three strands of barbed wire may be required.

(f) Within the fenced area all vegetation having deep roots shall be removed by a means not negatively affecting water quality.

(g) A diversion channel, or berm, capable of diverting all anticipated surface water runoff away from the spring collection area shall be constructed immediately inside the fenced area.

(h) A permanent flow-measuring device shall be installed. Flow measurement devices such as critical depth meters or weirs shall be properly housed and otherwise protected.

(i) The spring shall be developed as thoroughly as possible to minimize the possibility of excess spring water ponding within the collection area. Where the ponding of spring water is unavoidable, the excess shall be collected by shallow piping or french drain, and be routed beyond and down grade of the fenced area required above, whether or not a fence is in place.

R309-515-8. Operation and Maintenance.

(1) Spring Collection Area Maintenance.

(a) Spring collection areas shall be periodically (preferably annually) cleared of deep-rooted vegetation to prevent root growth from clogging collection lines. Frequent hand or mechanical clearing of spring collection areas and diversion channel is strongly recommended. It is advantageous to encourage the growth of grasses and other shallow rooted vegetation for erosion control and to inhibit the growth of more detrimental flora.

(b) No pesticide (e.g., herbicide) may be applied on a spring collection area without the prior written approval of the Director. Such approval can be granted only when:

(i) acceptable pesticides are proposed

(ii) the pesticide product manufacturer certifies that no harmful substance will be imparted to the water and,

(iii) spring development construction meets the requirements of these rules.

(2) Pump Lubricants.

The U.S. Food and Drug Administration (FDA) has approved propylene glycol and certain types of mineral oil for occasional contact with or for addition to food products. These oils are commonly referred to as "food-grade mineral oils". All oil lubricated pumps shall utilize food grade mineral oil suitable for human consumption as determined by the Director.

(3) Algicide Treatment.

No algicide shall be applied to a drinking water source unless specific approval is obtained from the Director. Such approval will be given only if the algicide is certified as meeting the requirements of ANSI/NSF Standard 60, Water Treatment Chemicals - Health Effects.

KEY: drinking water, source development, source maintenance

Date of Last Change: January 21, 2014

Notice of Continuation: March 12, 2020

Authorizing, and Implemented or Interpreted Law: 19-4-104

Agenda Item 7(B)

DRINKING WATER BOARD PACKET
(Request to Begin Rulemaking)

R309-600. Source Protection: Drinking Water Source Protection For Ground-Water Sources.

Presented to the Drinking Water Board
February 29, 2029

PROPOSAL:

The Division of Drinking Water proposes to make changes to R309-600-13(3) to delete special construction criteria for sewer mains, laterals, and maintenance holes when locating new groundwater sources in Source Protection Zone 2.

HISTORY/CONTEXT:

The proposed amendment to R309-600-13(3) deletes special construction criteria for sewer mains, laterals, and manholes when locating new groundwater sources in Source Protection Zone 2 because the criteria can rarely be met, and the division frequently must issue exceptions to the rule requirements. The Division believes the special construction criteria are unnecessary to provide protection of groundwater sources in Zone 2.

The proposed amendment also deletes the requirement that the Preliminary Evaluation Report (PER) for the new source demonstrate that the special construction requirements have been met for sewer mains, laterals, and maintenance holes located in Source Protection Zone 2.

Sewer maintenance holes have been added to the list of facilities that must meet special construction requirements and a minimum isolation distance from a wellhead or collection area margin when locating a new groundwater source in Zone 1 for protected aquifers.

The proposed rule has been distributed within the Division and to public water systems, consultants, and others for review. The Division has considered all comments received and revised the rule as necessary. The proposed rule has also been pre-filed with the Office of Administrative Rules for review as required by Executive Order 2021-12, *Establishing Effective Oversight Over State Agency Rulemaking*, issued by Governor Cox on May 6, 2021.

DIVISION STAFF/DIRECTOR RECOMMENDATION:

The Division recommends that the Drinking Water Board approve filing the amendment to R309-600-13(3) with the Office of Administrative Rules (OAR) to begin the rulemaking process and making the reenacted rule effective on May 8, 2024, if no comments are received during the comment period. The Division plans to make other nonsubstantive changes in the existing rule language throughout the rule to conform the Rulewriting Manual for Utah. The Division will share the final version of the rule to the Board on June 25, 2024 when the Division returns to request the Board approval to adopt the rule if no comments are received during the public comment period.

IMPLEMENTATION SCHEDULE:

Request Drinking Water Board Approval to File Proposed Rule:	02/29/2024
Deadline to File Proposed Rule with OAR:	03/15/2024
Publication of Proposed Rule in Utah State Bulletin:	04/01/2024
End of 30-Day Comment Period:	05/01/2024
File Notice of Effective Date with OAR (if no comments received):	05/08/2024
Anticipated Effective Date of Proposed Rule (if no comments received):	05/08/2024
Return to Request Board Approval to Adopt Rule (if no comments received):	06/25/2024

COST ESTIMATE:

The Division anticipates that the proposed rule amendment will have no aggregate cost or savings to the state budget, local governments, small businesses, non-small businesses, or other persons.

The proposed rule amendment is expected to have no compliance costs for affected persons, which are public water suppliers that plan to construct a groundwater source in which sewer mains, laterals, or maintenance holes are present in Source Protection Zone 2, because the amendment does not impose new requirements.

R309. Environmental Quality, Drinking Water.

R309-600. Source Protection: Drinking Water Source Protection For Ground-Water Sources.

R309-600-1. Authority.

Under authority of Section 19-4-104(1)(a)(iv), the Drinking Water Board adopts this rule which governs the protection of ground-water sources of drinking water.

R309-600-2. Purpose.

Public Water Systems (PWSs) are responsible for protecting their sources of drinking water from contamination. R309-600 sets forth minimum requirements to establish a uniform, statewide program for implementation by PWSs to protect their ground-water sources of drinking water. PWSs are encouraged to enact more stringent programs to protect their sources of drinking water if they decide they are necessary.

R309-600 applies to ground-water sources and to ground-water sources which are under the direct influence of surface water which are used by PWSs to supply their systems with drinking water. However, compliance with this rule is voluntary for existing ground-water sources of drinking water which are used by public (transient) non-community water systems.

R309-600-3. Implementation.

(1) New Ground-Water Sources - Each PWS shall submit a Preliminary Evaluation Report (PER) in accordance with R309-600-13(2) for each of its new ground-water sources to the Division of Drinking Water (DDW). A PWS shall not begin construction of a new source until the Director concurs with its PER.

(2) Existing Ground-Water Sources - Each PWS shall submit a Drinking Water Source Protection (DWSP) Plan in accordance with R309-600-7(1) for each of its existing ground-water sources to DDW according to the following schedule. Well fields or groups of springs may be considered to be a single source.

TABLE 1

Population Served By PWS:	Percent Of Sources:	DWSP Plans Due By:
Over 10,000	50% of wells	December 31, 1995
Over 10,000	100% of wells	December 31, 1996
3,300-10,000	100% of wells	December 31, 1997
Less than 3,300	100% of wells	December 31, 1998
Springs and other sources	100%	December 31, 1999

(3) DWSP for existing ground-water sources under the direct influence of surface water shall be accomplished through delineation of both the ground water and surface water contribution areas. The requirements of R309-600-7(1) apply to the ground water portion and the requirements of R309-605 apply to the surface water portion, except that the schedule for submitting these DWSP plans to DDW is based on the schedule in R309-605-3(1).

(4) PWSs shall maintain all land use agreements which were established under previous

rules to protect their ground-water sources of drinking water from contamination.

R309-600-4. Exceptions.

(1) Exceptions to the requirements of R309-600 or parts thereof may be granted by the Director to PWSs if: due to compelling factors (which may include economic factors), a PWS is unable to comply with these requirements, and the granting of an exception will not result in an unreasonable risk to health.

(2) The Director may prescribe a schedule by which the PWS must come into compliance with the requirements of R309-600.

R309-600-5. Designated Person.

(1) A designated person shall be appointed and reported in writing to the Director by each PWS within 180 days of the effective date of R309-600. The designated person's address and telephone number shall be included in the written correspondence. Additionally, the above information must be included in each DWSP Plan and PER that is submitted to DDW.

(2) Each PWS shall notify the Director in writing within 30 days of any changes in the appointment of a designated person.

R309-600-6. Definitions.

(1) The following terms are defined for the purposes of this rule:

(a) "Collection area" means the area surrounding a ground-water source which is underlain by collection pipes, tile, tunnels, infiltration boxes, or other ground-water collection devices.

(b) "Controls" means the codes, ordinances, rules, and regulations currently in effect to regulate a potential contamination source. "Controls" also means physical controls which may prevent contaminants from migrating off of a site and into surface or ground water. "Controls" also means negligible quantities of contaminants.

(c) "Criteria" means the conceptual standards that form the basis for DWSP area delineation to include distance, ground-water time of travel, aquifer boundaries, and ground-water divides.

(d) "Criteria threshold" means a value or set of values selected to represent the limits above or below which a given criterion will cease to provide the desired degree of protection.

(e) "DDW" means Division of Drinking Water.

(f) "DWSP Program" means the program to protect drinking water source protection zones and management areas from contaminants that may have an adverse effect on the health of persons.

(g) "DWSP Zone" means the surface and subsurface area surrounding a ground-water source of drinking water supplying a PWS, through which contaminants are reasonably likely to move toward and reach such ground-water source.

(h) "Designated person" means the person appointed by a PWS to ensure that the requirements of R309-600 are met.

(i) "Director" means the Director of the Division of Drinking Water.

(j) "Engineer" means a person licensed under the Professional Engineers and Land Surveyors Licensing Act, 58-22 of the Utah Code, as a "professional engineer" as defined therein.

(k) "Existing ground-water source of drinking water" means a public supply ground-water source for which plans and specifications were submitted to DDW on or before July 26, 1993.

(l) "Geologist" means a person licensed under the Professional Geologist Licensing Act, 58-76 of the Utah Code, as a "professional geologist" as defined therein.

(m) "Ground-water Source" means any well, spring, tunnel, adit, or other underground

opening from or through which ground-water flows or is pumped from subsurface water-bearing formations.

(n) "Hydrogeologic methods" means the techniques used to translate selected criteria and criteria thresholds into mappable delineation boundaries. These methods include, but are not limited to, arbitrary fixed radii, analytical calculations and models, hydrogeologic mapping, and numerical flow models.

(o) "Land management strategies" means zoning and non-zoning strategies which include, but are not limited to, the following: zoning and subdivision ordinances, site plan reviews, design and operating standards, source prohibitions, purchase of property and development rights, public education programs, ground-water monitoring, household hazardous waste collection programs, water conservation programs, memoranda of understanding, written contracts and agreements, and so forth.

(p) "Land use agreement" means a written agreement wherein the owner(s) agrees not to locate or allow the location of uncontrolled potential contamination sources or pollution sources within zone one of new wells in protected aquifers. The owner(s) must also agree not to locate or allow the location of pollution sources within zone two of new wells in unprotected aquifers and new springs unless the pollution source agrees to install design standards which prevent contaminated discharges to ground water. This restriction must be binding on all heirs, successors, and assigns. Land use agreements must be recorded with the property description in the local county recorder's office. Refer to R309-600-13(2)(d).

Land use agreements for protection areas on publicly owned lands need not be recorded in the local county recorder office. However, a letter must be obtained from the Administrator of the land in question and meet the requirements described above.

(q) "Management area" means the area outside of zone one and within a two-mile radius where the Optional Two-mile Radius Delineation Procedure has been used to identify a protection area.

For wells, land may be excluded from the DWSP management area at locations where it is more than 100 feet lower in elevation than the total drilled depth of the well.

For springs and tunnels, the DWSP management area is all land at elevation equal to or higher than, and within a two-mile radius, of the spring or tunnel collection area. The DWSP management area also includes all land lower in elevation than, and within 100 horizontal feet, of the spring or tunnel collection area. The elevation datum to be used is the point of water collection. Land may also be excluded from the DWSP management area at locations where it is separated from the ground-water source by a surface drainage which is lower in elevation than the spring or tunnel collection area.

(r) "New ground-water source of drinking water" means a public supply ground-water source of drinking water for which plans and specifications are submitted to DDW after July 26, 1993.

(s) "Nonpoint source" means any diffuse source of pollutants or contaminants not otherwise defined as a point source.

(t) "PWS" means public water system.

(u) "Point source" means any discernible, confined, and discrete source of pollutants or contaminants, including but not limited to any site, pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, animal feeding operation with more than ten animal units, landfill, or vessel or other floating craft, from which pollutants are or may be discharged.

(v) "Pollution source" means point source discharges of contaminants to ground water or

potential discharges of the liquid forms of "extremely hazardous substances" which are stored in containers in excess of "applicable threshold planning quantities" as specified in SARA Title III. Examples of possible pollution sources include, but are not limited to, the following: storage facilities that store the liquid forms of extremely hazardous substances, septic tanks, drain fields, class V underground injection wells, landfills, open dumps, landfilling of sludge and septage, manure piles, salt piles, pit privies, drain lines, and animal feeding operations with more than ten animal units.

The following definitions are part of R309-600 and clarify the meaning of "pollution source:"

(i) "Animal feeding operation" means a lot or facility where the following conditions are met: animals have been or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12 month period, and crops, vegetation forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility. Two or more animal feeding operations under common ownership are considered to be a single feeding operation if they adjoin each other, if they use a common area, or if they use a common system for the disposal of wastes.

(ii) "Animal unit" means a unit of measurement for any animal feeding operation calculated by adding the following numbers; the number of slaughter and feeder cattle multiplied by 1.0, plus the number of mature dairy cattle multiplied by 1.4, plus the number of swine weighing over 55 pounds multiplied by 0.4, plus the number of sheep multiplied by 0.1, plus the number of horses multiplied by 2.0.

(iii) "Extremely hazardous substances" means those substances which are identified in the Sec. 302(EHS) column of the "Title III List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(R) of the Clean Air Act, As Amended," (550B98017). A copy of this document may be obtained from: NCEPI, PO Box 42419, Cincinnati, OH 45202. Online ordering is also available at <http://www.epa.gov/ncepihom/orderpub.html>.

(w) "Potential contamination source" means any facility or site which employs an activity or procedure which may potentially contaminate ground water. A pollution source is also a potential contamination source.

(x) "Protected aquifer" means a producing aquifer in which the following conditions are met:

(i) A naturally protective layer of clay, at least 30 feet in thickness, is present above the aquifer;

(ii) the PWS provides data to indicate the lateral continuity of the clay layer to the extent of zone two; and

(iii) the public-supply well is grouted with a grout seal that extends from the ground surface down to at least 100 feet below the surface, and for a thickness of at least 30 feet through the protective clay layer.

(y) "Replacement well" means a public-supply well drilled for the sole purpose of replacing an existing public-supply well which is impaired or made useless by structural difficulties and in which the following conditions are met:

(i) the proposed well location shall be within a radius of 150 feet from an existing ground-water supply well, as defined in R309-600-6(1)(k); and

(ii) the PWS provides a copy of the replacement application approved by the State Engineer (refer to Section 73-3-28 of the Utah Code Annotated).

(z) "Time of travel" means the time required for a particle of water to move in the producing aquifer from a specific point to a ground-water source of drinking water.

(aa) "Unprotected aquifer" means any aquifer that does not meet the definition of a protected aquifer.

(bb) "Wellhead" means the physical structure, facility, or device at the land surface from or through which ground-water flows or is pumped from subsurface, water-bearing formations.

R309-600-7. DWSP Plans.

(1) Each PWS shall develop, submit, and implement a DWSP Plan for each of its ground-water sources of drinking water.

Required Sections for DWSP Plans - DWSP Plans should be developed in accordance with the "Standard Report Format for Existing Wells and Springs." This document may be obtained from DDW. DWSP Plans must include the following seven sections:

(a) DWSP Delineation Report - A DWSP Delineation Report in accordance with R309-600-9(6) is the first section of a DWSP Plan.

(b) Potential Contamination Source Inventory and Assessment of Controls - A Prioritized Inventory of Potential Contamination Sources and an assessment of their controls in accordance with R309-600-10 is the second section of a DWSP Plan.

(c) Management Program to Control Each Preexisting Potential Contamination Source - A Management Program to Control Each Preexisting Potential Contamination Source in accordance with R309-600-11 is the third section of a DWSP Plan.

(d) Management Program to Control or Prohibit Future Potential Contamination Sources - A Plan for Controlling or Prohibiting Future Potential Contamination Sources is the fourth section of a DWSP Plan. This must be in accordance with R309-600-12, consistent with the general provisions of this rule, and implemented to an extent allowed under the PWS's authority and jurisdiction.

(e) Implementation Schedule - Each PWS shall develop a step-by-step implementation schedule which lists each of its proposed land management strategies with an implementation date for each strategy.

(f) Resource Evaluation - Each PWS shall assess the financial and other resources which may be required for it to implement each of its DWSP Plans and determine how these resources may be acquired.

(g) Recordkeeping - Each PWS shall document changes in each of its DWSP Plans as they are continuously updated to show current conditions in the protection zones and management areas. As a DWSP Plan is executed, the PWS shall document any land management strategies that are implemented. These documents may include any of the following: ordinances, codes, permits, memoranda of understanding, public education programs, public notifications, and so forth.

(2) DWSP Plan Administration - DWSP Plans shall be submitted, corrected, retained, implemented, updated, and revised according to the following:

(a) Submitting DWSP Plans - Each PWS shall submit a DWSP Plan to DDW in accordance with the schedule in R309-600-3 for each of its ground-water sources of drinking water.

(b) Correcting Deficiencies - Each PWS shall correct any deficiencies in a disapproved DWSP Plan and resubmit it to DDW within 90 days of the disapproval date.

(c) Retaining DWSP Plans - Each PWS shall retain on its premises a current copy of each of its DWSP Plans.

(d) Implementing DWSP Plans - Each PWS shall begin implementing each of its DWSP

Plans in accordance with its schedule in R309-600-7(1)(e), within 180 days after submittal if they are not disapproved by the Director.

(e) Updating and Resubmitting DWSP Plans - Each PWS shall update its DWSP Plans as often as necessary to ensure they show current conditions in the DWSP zones and management areas. Updated plans also document the implementation of land management strategies in the recordkeeping section. Actual copies of any ordinances, codes, permits, memoranda of understanding, public education programs, bill stuffers, newsletters, training session agendas, minutes of meetings, memoranda for file, etc. must be submitted with the recordkeeping section of updated plans. DWSP Plans are initially due according to the schedule in R309-600-3. Thereafter, updated DWSP Plans are due every six years from their original due date. This applies even though a PWS may have been granted an extension beyond the original due date.

(f) Revising DWSP Plans - Each PWS shall submit a revised DWSP Plan to DDW within 180 days after the reconstruction or redevelopment of any ground-water source of drinking water which addresses changes in source construction, source development, hydrogeology, delineation, potential contamination sources, and proposed land management strategies.

R309-600-8. DWSP Plan Review.

(1) The Director shall review each DWSP Plan submitted by PWSs and "concur," "concur with recommendations," "conditionally concur" or "disapprove" the plan. The Director may also authorize the designated DDW Source Protection Manager to issue the following actions: "concur" and "concur with recommendations."

(2) The Director may "disapprove" DWSP Plans for any of the following reasons:

(a) An inaccurate DWSP Delineation Report, a report that uses a non-applicable delineation method, or a DWSP Plan that is missing this report or any of the information and data required in it (refer to R309-600-9(6));

(b) an inaccurate Prioritized Inventory of Potential Contamination Sources or a DWSP Plan that is missing this report or any of the information required in it (refer to R309-600-10(1));

(c) an inaccurate assessment of current controls (refer to R309-600-10(2));

(d) a missing Management Program to Control Each Preexisting Potential Contamination Source which has been assessed as "not adequately controlled" by the PWS (refer to R309-600-11(1));

(e) a missing Management Program to Control or Prohibit Future Potential Contamination Sources (refer to R309-600-12);

(f) a missing or incomplete Implementation Schedule, Resource Evaluation, Recordkeeping Section, Contingency Plan, or Public Notification Plan (refer to R309-600-7(1)(e)-(g), R309-600-14, and R309-600-15).

(3) The Director may "concur with recommendations" when PWSs propose management programs to control preexisting potential contamination sources or management programs to control or prohibit future potential contamination sources for existing or new drinking water sources which appear inadequate or ineffective.

(4) The Director may "conditionally concur" with a DWSP Plan or PER. The PWS must implement the conditions and report compliance the next time the DWSP Plan is due and submitted to DDW.

R309-600-9. Delineation of Protection Zones and Management Areas.

(1) PWSs shall delineate protection zones or a management area around each of their

ground-water sources of drinking water using the Preferred Delineation Procedure or the Optional Two-mile Radius Delineation Procedure. The hydrogeologic method used by PWSs shall produce protection zones or a management area in accordance with the criteria thresholds below. PWSs may also choose to verify protected aquifer conditions to reduce the level of management controls applied in applicable protection areas.

(2) Reports must be prepared by a qualified licensed professional - A submitted report which addresses any of the following sections shall be stamped and signed by a professional geologist or professional engineer:

(a) A Delineation Report for Estimated DWSP Zones produced using the Preferred Delineation Procedure, as explained in R309-600-13(2)(a);

(b) a DWSP Delineation Report produced using the Preferred Delineation Procedure, as explained in R309-600-9(3)(a) and (6)(a);

(c) a report to verify protected aquifer conditions, as explained in R309-600-9(4) and (7);

(d) a report which addresses special conditions, as explained in R309-600-9(5); or

(e) a Hydrogeologic Report to Exclude a Potential Contamination Source, as explained in R309-600-9(6)(b)(ii).

(3) Criteria Thresholds for Ground-water Sources of Drinking Water:

(a) Preferred Delineation Procedure - Four zones are delineated for management purposes:

(i) Zone one is the area within a 100-foot radius from the wellhead or margin of the collection area.

(ii) Zone two is the area within a 250-day ground-water time of travel to the wellhead or margin of the collection area, the boundary of the aquifer(s) which supplies water to the ground-water source, or the ground-water divide, whichever is closer. If the available data indicate a zone of increased ground-water velocity within the producing aquifer(s), then time-of-travel calculations shall be based on this data.

(iii) Zone three (waiver criteria zone) is the area within a 3-year ground-water time of travel to the wellhead or margin of the collection area, the boundary of the aquifer(s) which supplies water to the ground-water source, or the ground-water divide, whichever is closer. If the available data indicate a zone of increased ground-water velocity within the producing aquifer(s), then time-of-travel calculations shall be based on this data.

(iv) Zone four is the area within a 15-year ground-water time of travel to the wellhead or margin of the collection area, the boundary of the aquifer(s) which supplies water to the ground-water source, or the ground-water divide, whichever is closer. If the available data indicate a zone of increased ground-water velocity within the producing aquifer(s), then time-of-travel calculation shall be based on this data.

(b) Optional Two-mile Radius Delineation Procedure - In place of the Preferred Delineation Procedure, PWSs may choose to use the Optional Two-mile Radius Delineation Procedure to delineate a management area. This procedure is best applied in remote areas where few if any potential contamination sources are located. Refer to R309-600-6(1)(q) for the definition of a management area.

(4) Protected Aquifer Classification - PWSs may choose to verify protected aquifer conditions to reduce the level of management controls for a public-supply well which produces water from a protected aquifer(s) or to meet one of the requirements of a VOC or pesticide susceptibility waiver (R309-600-16(4)). Refer to R309-600-6(1)(x) for the definition of a "protected aquifer."

(5) Special Conditions - Special scientific or engineering studies may be conducted to

support a request for an exception (refer to R309-600-4) due to special conditions. These studies must be approved by the Director before the PWS begins the study. Special studies may include confined aquifer conditions, ground-water movement through protective layers, wastewater transport and fate, etc.

(6) DWSP Delineation Report - Each PWS shall submit a DWSP Delineation Report to DDW for each of its ground-water sources using the Preferred Delineation Procedure or the Optional Two-mile Radius Delineation Procedure.

(a) Preferred Delineation Procedure - Delineation reports for protection zones delineated using the Preferred Delineation Procedure shall include the following information and a list of all sources or references for this information:

(i) Geologic Data - A brief description of geologic features and aquifer characteristics observed in the well and area of the potential protection zones. This should include the formal or informal stratigraphic name(s), lithology of the aquifer(s) and confining unit(s), and description of fractures and solution cavities (size, abundance, spacing, orientation) and faults (brief description of location in or near the well, and orientation). Lithologic descriptions can be obtained from surface hand samples or well cuttings; core samples and laboratory analyses are not necessary. Fractures, solution cavities, and faults may be described from surface outcrops or drill logs.

(ii) Well Construction Data - If the source is a well, the report shall include the well drillers log, elevation of the wellhead, borehole radius, casing radius, total depth of the well, depth and length of the screened or perforated interval(s), well screen or perforation type, casing type, method of well construction, type of pump, location of pump in the well, and the maximum projected pumping rate of the well. The maximum pumping rate of the well must be used in the delineation calculations. Averaged pumping rate values shall not be used.

(iii) Spring Construction Data - If the source is a spring or tunnel the report shall include a description or diagram of the collection area and method of ground-water collection.

(iv) Aquifer Data for New Wells - A summary report including the calculated hydraulic conductivity of the aquifer, transmissivity, hydraulic gradient, direction of ground-water flow, estimated effective porosity, and saturated thickness of the producing aquifer(s). The PWS shall obtain the hydraulic conductivity of the aquifer from a constant-rate aquifer test and provide the data as described in R309-515-6(10)(b). Estimated effective porosity must be between 1% and 30%. Clay layers shall not be included in calculations of aquifer thickness or estimated effective porosity. This report shall include graphs, data, or printouts showing the interpretation of the aquifer test.

(v) Aquifer Data for Existing Wells - A summary report including the calculated hydraulic conductivity of the aquifer, transmissivity, hydraulic gradient, direction of ground-water flow, estimated effective porosity, and saturated thickness of the producing aquifer(s). The PWS shall obtain the hydraulic conductivity of the aquifer from a constant-rate aquifer test using the existing pumping equipment. Aquifer tests using observation wells are encouraged, but are not required. If a previously performed aquifer test is available and includes the required data described below, data from that test may be used instead. Estimated effective porosity must be between 1% and 30%. Clay layers shall not be included in calculations of aquifer thickness or estimated effective porosity. This report shall include graphs, data, or printouts showing the interpretation of the aquifer test.

If a constant-rate aquifer test is not practical, then the PWS shall obtain hydraulic conductivity of the aquifer using another appropriate method, such as data from a nearby well in the same aquifer, specific capacity of the well, published hydrogeologic studies of the same aquifer, or local or regional ground-water models. A constant-rate test may not be practical for such reasons as

insufficient drawdown in the well, inaccessibility of the well for water-level measurements, or insufficient overflow capacity for the pumped water.

The constant-rate test shall:

(A) Provide for continuous pumping for at least 24 hours or until stabilized drawdown has continued for at least six hours. Stabilized drawdown is achieved when there is less than one foot of change of ground-water level in the well within a six-hour period.

(B) Provide data as described in R309-515-6(10)(b)(v) through (vii).

(vi) Additional Data for Observation Wells - If the aquifer test is conducted using observation wells, the report shall include the following information for each observation well: location and surface elevation; total depth; depth and length of the screened or perforated intervals; radius, casing type, screen or perforation type, and method of construction; prepumping ground-water level; the time-drawdown or distance-drawdown data and curve; and the total drawdown.

(vii) Hydrogeologic Methods and Calculations - These include the ground-water model or other hydrogeologic method used to delineate the protection zones, all applicable equations, values, and the calculations which determine the delineated boundaries of zones two, three, and four. The hydrogeologic method or ground-water model must be reasonably applicable for the aquifer setting. For wells, the hydrogeologic method or ground-water model must include the effects of drawdown (increased hydraulic gradient near the well) and interference from other wells.

(viii) Map Showing Boundaries of the DWSP Zones - A map showing the location of the ground-water source of drinking water and the boundary for each DWSP zone. The base map shall be a 1:24,000-scale (7.5-minute series) topographic map, such as is published by the U.S. Geological Survey. Although zone one (100-foot radius around the well or margin of the collection area) need not be on the map, the complete boundaries for zones two, three, and four must be drawn and labeled. More detailed maps are optional and may be submitted in addition to the map required above.

The PWS shall also include a written description of the distances which define the delineated boundaries of zones two, three, and four. These written descriptions must include the maximum distances upgradient from the well, the maximum distances downgradient from the well, and the maximum widths of each protection zone.

(b) Optional Two-Mile Radius Delineation Procedure - Delineation Reports for protection areas delineated using the Optional Two-mile Radius Delineation Procedure shall include the following information:

(i) Map Showing Boundaries of the DWSP Management Area - A map showing the location of the ground-water source of drinking water and the DWSP management area boundary. The base map shall be a 1:24,000-scale (7.5-minute series) topographic map, such as is published by the U.S. Geological Survey. Although zone one (100-foot radius around the well or margin of the collection area) need not be on the map, the complete two-mile radius must be drawn and labeled. More detailed maps are optional and may be submitted in addition to the map required above.

(ii) Hydrogeologic Report to Exclude a Potential Contamination Source - To exclude a potential contamination source from the inventory which is required in R309-600-10(1), a hydrogeologic report is required which clearly demonstrates that the potential contamination source has no capacity to contaminate the source.

(7) Protected Aquifer Conditions - If a PWS chooses to verify protected aquifer conditions, it shall submit the following additional data to DDW for each of its ground-water sources for which the protected aquifer conditions apply. The report must state that the aquifer meets the definition of a protected aquifer based on the following information:

- (a) thickness, depth, and lithology of the protective clay layer;
- (b) data to indicate the lateral continuity of the protective clay layer over the extent of zone two. This may include such data as correlation of beds in multiple wells, published hydrogeologic studies, stratigraphic studies, potentiometric surface studies, and so forth; and
- (c) evidence that the well has been grouted or otherwise sealed from the ground surface to a depth of at least 100 feet and for a thickness of at least 30 feet through the protective clay layer in accordance with R309-600-6(1)(x) and R309-515-6(6)(i).

R309-600-10. Potential Contamination Source Inventory and Identification and Assessment of Controls.

(1) **Prioritized Inventory of Potential Contamination Sources** - Each PWS shall list all potential contamination sources within each DWSP zone or management area in priority order and state the basis for this order. This priority ranking shall be according to relative risk to the drinking water source. The name and address of each commercial and industrial potential contamination source is required. Additional information should include the name and phone number of a contact person and a list of the chemical, biological, and/or radiological hazards associated with each potential contamination source. Additionally, each PWS shall identify each potential contamination source as to its location in zone one, two, three, four or in a management area and plot it on the map required in R309-600-9(6)(a)(viii) or R309-600-9(6)(b)(i).

(a) **List of Potential Contamination Sources** - A List of Potential Contamination Sources is found in the "Source Protection User's Guide for Ground-Water Sources." This document may be obtained from DDW. This list may be used by PWSs as a guide to inventorying potential contamination sources within their DWSP zones and management areas.

(b) **Refining, Expanding, Updating, and Verifying Potential Contamination Sources** - Each PWS shall update its list of potential contamination sources to show current conditions within DWSP zones or management areas. This includes adding potential contamination sources which have moved into DWSP zones or management areas, deleting potential contamination sources which have moved out, improving available data about potential contamination sources, and all other appropriate refinements.

(2) **Identification and Assessment of Current Controls** - PWSs are not required to plan and implement land management strategies for potential contamination source hazards that are assessed as "adequately controlled." If controls are not identified, the potential contamination source will be considered to be "not adequately controlled." Additionally, if the hazards at a potential contamination source cannot be identified, the potential contamination source must be assessed as "not adequately controlled." Identification and assessment should be limited to one of the following controls for each applicable hazard: regulatory, best management/pollution prevention, physical, or negligible quantity. Each of the following topics for a control must be addressed before identification and assessment will be considered to be complete. Refer to the "Source Protection User's Guide for Ground-Water Sources" for a list of government agencies and the programs they administer to control potential contamination sources. This guide may be obtained from DDW.

(a) **Regulatory Controls** - Identify the enforcement agency and verify that the hazard is being regulated by them; cite and/or quote applicable references in the regulation, rule or ordinance which pertain to controlling the hazard; explain how the regulatory control prevents ground-water contamination; assess the hazard; and set a date to reassess the hazard.

(b) **Best Management/Pollution Prevention Practice Controls** - List the specific best management/pollution prevention practices which have been implemented by potential

contamination source management to control the hazard and indicate that they are willing to continue the use of these practices; explain how these practices prevent ground-water contamination; assess the hazard; and set a date to reassess the hazard.

(c) Physical Controls - Describe the physical control(s) which have been constructed to control the hazard; explain how these controls prevent contamination; assess the hazard; and set a date to reassess the hazard.

(d) Negligible Quantity Control - Identify the quantity of the hazard that is being used, disposed, stored, manufactured, and/or transported; explain why this amount should be considered a negligible quantity; assess the hazard; and set a date to reassess the hazard.

(3) For the purpose of meeting the requirements of R309-600, the Director will consider a PWS's assessment that a potential contamination source which is covered by a permit or approval under one of the regulatory programs listed below sufficient to demonstrate that the source is adequately controlled unless otherwise determined by the Director. For all other state programs, the PWS's assessment is subject to review by the Director; as a result, a PWS's DWSP Plan may be disapproved if the Director does not concur with its assessment(s).

(a) The Utah Ground-Water Quality Protection program established by Section 19-5-104 and R317-6;

(b) closure plans or Part B permits under authority of the Resource Conservation and Recovery Act (RCRA) of 1984 regarding the monitoring and treatment of ground water;

(c) the Utah Pollutant Discharge Elimination System (UPDES) established by Section 19-5-104 and R317-8;

(d) the Underground Storage Tank Program established by Section 19-6-403 and R311-200 through R311-208; and

(e) the Underground Injection Control (UIC) Program for classes I-IV established by Sections 19-5-104 and 40-6-5 and R317-7 and R649-5.

R309-600-11. Management Program to Control Each Preexisting Potential Contamination Source.

(1) PWSs shall plan land management strategies to control each preexisting potential contamination source in accordance with their authority and jurisdiction. Land management strategies must be consistent with the provisions of R309-600, designed to control potential contamination, and may be regulatory or non-regulatory. Each potential contamination source listed on the inventory required in R309-600-10(1) and assessed as "not adequately controlled" must be addressed. Land management strategies must be implemented according to the schedule required in R309-600-7(1)(e).

(2) PWSs with overlapping protection zones and management areas may cooperate in controlling a particular preexisting potential contamination source if one PWS will agree to take the lead in planning and implementing land management strategies and the remaining PWS(s) will assess the preexisting potential contamination source as "adequately controlled."

R309-600-12. Management Program to Control or Prohibit Future Potential Contamination Sources for Existing Drinking Water Sources.

(1) PWSs shall plan land management strategies to control or prohibit future potential contamination sources within each of its DWSP zones or management areas consistent with the provisions of R309-600 and to an extent allowed under its authority and jurisdiction. Land management strategies must be designed to control potential contamination and may be regulatory

or non-regulatory. Additionally land management strategies must be implemented according to the schedule required in R309-600-7(1)(e).

(2) Protection areas may extend into neighboring cities, towns, and counties. Since it may not be possible for some PWSs to enact regulatory land management strategies outside of their jurisdiction, except as described below, it is recommended that these PWSs contact their neighboring cities, towns, and counties to see if they are willing to implement protective ordinances to prevent ground-water contamination under joint management agreements.

(3) Cities and towns have extraterritorial jurisdiction in accordance with Section 10-8-15 of the Utah Code Annotated to enact ordinances to protect a stream or "source" from which their water is taken... "for 15 miles above the point from which it is taken and for a distance of 300 feet on each side of such stream..." Section 10-8-15 includes ground-water sources.

(4) Zoning ordinances are an effective means to control potential contamination sources that may want to move into protection areas. They allow PWSs to prohibit facilities that would discharge contaminants directly to ground water. They also allow PWSs to review plans from potential contamination sources to ensure there will be adequate spill protection and waste disposal procedures, etc. If zoning ordinances are not used, PWSs must establish a plan to contact potential contamination sources individually as they move into protection areas, identify and assess their controls, and plan land management strategies if they are not adequately controlled.

R309-600-13. New Ground-water Sources of Drinking Water.

(1) Prior to constructing a new ground-water source of drinking water, each PWS shall develop a PER which demonstrates whether the source meets the requirements of this section and submit it to DDW. Additionally, engineering information in accordance with R309-515-6(5)(a) or R309-515-7(4) must be submitted to DDW. The Director will not grant plan approval until both source protection and engineering requirements are met. Construction standards relating to protection zones and management areas (fencing, diversion channels, sewer line construction, and grouting, etc.) are found in R309-515. After the source is constructed a DWSP Plan must be developed, submitted, and implemented accordingly.

(2) Preliminary Evaluation Report for New Sources of Drinking Water - PERs shall cover all four zones or the entire management area. PERs should be developed in accordance with the "Standard Report Format for New Wells and Springs." This document may be obtained from DDW. PWSs shall include the following four sections in each PER:

(a) Delineation Report for Estimated DWSP Zones - The same requirements apply as in R309-600-9(6), except that the hydrogeologic data for the PER must be developed using the best available data which may be obtained from: surrounding wells, published information, or surface geologic mapping. PWSs must use the Preferred Delineation Procedure to delineate protection zones for new wells. The Delineation Report for Estimated DWSP Zones shall be stamped and signed by a professional geologist or professional engineer unless the Optional Two-Mile Radius Delineation Procedure is used for a new spring.

(b) Inventory of Potential Contamination Sources and Identification and Assessment of Controls - The same requirements apply as in R309-600-10(1) and (2). Additionally, the PER must demonstrate that the source meets the following requirements:

(i) Protection Areas Delineated using the Preferred Delineation Procedure in Protected Aquifers - A PWS shall not locate a new ground-water source of drinking water where an uncontrolled potential contamination source or a pollution source exists within zone one.

(ii) Protection Areas Delineated using the Preferred Delineation Procedure in Unprotected

Aquifers - A PWS shall not locate a new ground-water source of drinking water where an uncontrolled potential contamination source or an uncontrolled pollution source exists within zone one. Additionally, a new ground-water source of drinking water may not be located where a pollution source exists within zone two unless the pollution source implements design standards which prevent contaminated discharges to ground water.

(iii) Management Areas Delineated using the Optional Two-Mile Radius Delineation Procedure - A PWS shall not locate a new spring where an uncontrolled potential contamination source or a pollution source exists within zone one. Additionally, a new spring may not be located where a pollution source exist within the management area unless: a hydrogeologic report in accordance with R309-600-9(6)(b)(ii) which verifies that it does not impact the spring; or the pollution source implements design standards which prevent contaminated discharges to ground water.

(c) Land Ownership Map - A land ownership map which includes all land within zones one and two or the entire management area. Additionally, include a list which exclusively identifies the land owners in zones one and two or the management area, the parcel(s) of land which they own, and the zone in which they own land. A land ownership map and list are not required if ordinances are used to protect these areas.

(d) Land Use Agreements, Letters of Intent, or Zoning Ordinances - Land use agreements which meet the requirements of the definition in R309-600-6(1)(p). Zoning ordinances which are already in effect or letters of intent may be substituted for land use agreements; however, they must accomplish the same level of protection that is required in a land use agreement. Letters of intent must be notarized, include the same language that is required in land use agreements, and contain the statement that "the owner agrees to record the land use agreement in the county recorder's office, if the source proves to be an acceptable drinking water source." The PWS shall not introduce a new source into its system until copies of all applicable recorded land use agreements are submitted to DDW.

(3) Sewers Within DWSP Zones One and [Management Areas] - ~~[Sewer lines may not be located within zones one and two or a management area unless the criteria identified below are met]. A new groundwater source shall not be located where a sanitary sewer line, sewer lateral, or sewer maintenance hole exists within zone one unless the criteria identified in Subsections R309-600-13(3)(a) or R309-600-13(3)(b) are met. If sewer lines, sewer laterals, or sewer maintenance holes are located or planned to be located within zone[s] one [and two or a management area], the PER must demonstrate that they comply with these criteria. Sewer lines that comply with these criteria may be assessed as adequately controlled potential contamination sources.~~

(a) Unprotected Aquifers - In zone one, each sewer line, sewer lateral, and sewer maintenance hole shall be constructed in accordance with Subsection R309-515-6(4) and shall be at least 50 feet from the wellhead or margin of the collection area.

~~[(i) Zone one all sewer lines and laterals shall be at least 50 feet from the wellhead or margin of the collection area, and be constructed in accordance to R309-515-6.]~~

~~[(ii) Zone two all sewer lines and laterals within zone two or a management area shall be constructed in accordance with R309-515-6.]~~

(b) Protected Aquifers - in zone one, [all] each sewer line[s], sewer lateral, and [laterals] sewer maintenance hole shall be constructed in accordance with Subsection R309-515-6(4), and shall be at least 10 feet from the wellhead or margin of the collection area.

(4) Use waivers for the VOC and pesticide parameter groups may be issued if the inventory

of potential contamination sources indicates that the chemicals within these parameter groups are not used, disposed, stored, transported, or manufactured within zones one, two, and three or the management area.

(5) Replacement Wells - A PER is not required for proposed wells, if the PWS receives written notification from the Director that the well is classified as a replacement well. The PWS must submit a letter requesting that the well be classified as a replacement well and include documentation to show that the conditions required in R309-600-6(1)(y) are met. If a proposed well is classified as a replacement well, the PWS is still required to submit and obtain written approval for all other information as required in:

- (a) DWSP Plan for New Sources of Drinking Water (refer to R309-600-13(6), and
- (b) the Outline of Well Approval Process (refer to R309-515-6(5)).

(6) DWSP Plan for New Sources of Drinking Water - The PWS shall submit a DWSP Plan in accordance with R309-600-7(1) for any new ground-water source of drinking water within one year after the date of the Director's concurrence letter for the PER. In developing this DWSP Plan, PWSs shall refine the information in the PER by applying any new, as-constructed characteristics of the source (i.e., pumping rate, aquifer test, etc.).

R309-600-14. Contingency Plans.

PWSs shall submit a Contingency Plan which includes all sources of drinking water for their entire water system to DDW concurrently with the submission of their first DWSP Plan. Guidance for developing Contingency Plans may be found in the "Source Protection User's Guide for Ground-Water Sources." This document may be obtained from DDW.

R309-600-15. Public Notification.

A PWSs consumers must be notified that its DWSP plans are available for their review. This notification must be released to the public by December 31, 2003. Public notifications shall address all of the PWS's sources and include the following:

- (a) A discussion of the general types of potential contamination sources within the protection zones;
- (b) an analysis that rates the system's susceptibility to contamination as low, medium, or high; and
- (c) a statement that the system's complete DWSP plans are available to the public upon request.

Examples of means of notifying the public and examples of public notification material are discussed in the "Source Protection User's Guide for Ground-Water Sources" which may be obtained from DDW.

R309-600-16. Monitoring Reduction Waivers.

(1) Three types of monitoring waivers are available to PWSs. They are: a) reliably and consistently, b) use, and c) susceptibility. The criteria for establishing a reliably and consistently waiver is set forth in R309-205. The criteria for use and susceptibility waivers follow.

(2) If a source's DWSP plan is due according to the schedule in R309-600-3, and is not submitted to DDW, its use and susceptibility waivers for the VOC and pesticide parameter groups (refer to R309-205-6(1)(e) and (f); and (R309-205-6(2)(h) and (i)) will expire unless an exception (refer to R309-600-4) for a new due date has been granted. Additionally, current use and susceptibility waivers for the VOC, pesticide and unregulated parameter groups will expire upon

review of a DWSP plan, if these waivers are not addressed in the plan. Monitoring reduction waivers must be renewed every six years at the time the PWSs Updated DWSP Plans are due and be addressed therein.

(3) Use Waivers - If the chemicals within the VOC and/or pesticide parameter group(s) (refer to R309-200 table 200-3 and 200-2) have not been used, disposed, stored, transported, or manufactured within the past five years within zones one, two, and three, the source may be eligible for a use waiver. To qualify for a VOC and/or pesticide use waiver, a PWS must complete the following two steps:

(a) List the chemicals which are used, disposed, stored, transported, and manufactured at each potential contamination source within zones one, two, and three where the use of the chemicals within the VOC and pesticide parameter groups are likely; and

(b) submit a dated statement which is signed by the system's designated person that none of the VOCs and pesticides within these respective parameter groups have been used, disposed, stored, transported, or manufactured within the past five years within zones one, two, and three.

(4) Susceptibility Waivers - If a source does not qualify for use waivers, and if reliably and consistently waivers have not been issued, it may be eligible for susceptibility waivers. Susceptibility waivers tolerate the use, disposal, storage, transport, and manufacture of chemicals within zones one, two, and three as long as the PWS can demonstrate that the source is not susceptible to contamination from them. To qualify for a VOC and/or pesticide susceptibility waiver, a PWS must complete the following steps:

(a) Submit the monitoring results of at least one applicable sample from the VOC and/or pesticide parameter group(s) that has been taken within the past six years. A non-detectable analysis for each chemical within the parameter group(s) is required;

(b) submit a dated statement from the designated person verifying that the PWS is confident that a susceptibility waiver for the VOC and/or pesticide parameter group(s) will not threaten public health; and

(c) verify that the source is developed in a protected aquifer, as defined in R309-600-6(1)(x), and have a public education program which addresses proper use and disposal practices for pesticides and VOCs which is described in the management sections of the DWSP plan.

(5) Special Waiver Conditions - Special scientific or engineering studies or best management practices may be developed to support a request for an exception to paragraph R309-600-16(4)(c) due to special conditions. These studies must be approved by the Director before the PWS begins the study. Special waiver condition studies may include:

(a) geology and construction/grout seal of the well to demonstrate geologic protection;

(b) memoranda of agreement which addresses best management practices for VOCs and/or pesticides with industrial, agricultural, and commercial facilities which use, store, transport, manufacture, or dispose of the chemicals within these parameter groups;

(c) public education programs which address best management practices for VOCs and/or pesticides;

(d) contaminant quantities;

(e) affected land area; and/or

(f) fate and transport studies of the VOCs and/or pesticides which are listed as hazards at the PCSs within zones one, two, and three, and any other conditions which may be identified by the PWS and approved by the Director.

KEY: drinking water, environmental health

Date of Last Change: November 6, 2017

Notice of Continuation: March 12, 2020

Authorizing, and Implemented or Interpreted Law: 19-4-104(1)(a)(iv)

Agenda Item

7(C)

DRINKING WATER BOARD PACKET
(Request to Begin Rulemaking)

R309-540

Facility Design and Operation: Pump Stations

Presented to the Drinking Water Board

February 29, 2024

PROPOSAL:

The Division of Drinking Water proposes to repeal R309-540, *Pump Stations*, and to reenact a new rule in its place. The division is taking this action to make the requirements for design and construction of pump facilities and hydropneumatic pressure facilities clearer and easier to follow for public water suppliers. The title of the reenacted rule will be changed from *Pump Stations* to *Pump and Hydropneumatic Pressure Facilities*. Also, the Division made other nonsubstantive changes in the rule to conform to the Rulewriting Manual for Utah.

HISTORY/CONTEXT:

R309-540, *Pump Stations*, was adopted in its current form on February 15, 2009. Most of the requirements of the current rule have been retained in the proposed rule in a reformatted and reorganized form. Some of the requirements of the current rule are unnecessary to support the purpose of the rule and have not been carried over to the proposed rule. The division would also like to add new requirements to the rule primarily to provide greater clarity.

Because of the substantial rearrangement of the requirements of the rule, the division is proposing to repeal the current rule and reenact a new rule in its place. In this case, the repeal and reenactment process is less complicated than amending the current rule. A list is attached of the major differences between the current rule and the proposed rule.

The proposed rule has been distributed within the division and to public water systems, consultants, and others for review. The division has considered all comments received and revised the proposed rule when necessary. The proposed rule has also been pre-filed with the Office of Administrative Rules for review as required by Executive Order 2021-12, *Establishing Effective Oversight Over State Agency Rulemaking*, issued by Governor Cox on May 6, 2021.

DIVISION STAFF/DIRECTOR RECOMMENDATION:

The Division recommends that the Drinking Water Board approve filing to repeal and reenact R309-540 with the Office of Administrative Rules (OAR) to begin the rulemaking process and making the reenacted rule effective on May 08, 2024, if no comments are received during the comment period.

IMPLEMENTATION SCHEDULE:

Request Drinking Water Board Approval to File Proposed Rule:	02/29/2024
Deadline to File Proposed Rule with OAR:	03/15/2024
Publication of Proposed Rule in Utah State Bulletin:	04/01/2024
End of 30-Day Comment Period:	05/01/2024
File Notice of Effective Date with OAR (if no comments received):	05/08/2024

Anticipated Effective Date of Proposed Rule (if no comments received): 05/08/2024
Return to Request Board Approval to Adopt Rule (if no comments received): 06/25/2024

COST ESTIMATE:

The Division anticipates that the proposed rule will have no aggregate costs or savings to the state budget, local governments, small businesses, non-small businesses, or other persons.

The proposed rule only applies to affected persons that own or operate a public water system that either has or plans to construct pump or hydropneumatic pressure facilities. The proposed rule amendment is anticipated to have no compliance costs for affected persons because it does not impose new requirements.

R309. Environmental Quality, Drinking Water.

~~[R309-540. Facility Design and Operation: Pump Stations.~~

~~R309-540-1. Purpose.~~

~~———— The purpose of this rule is to provide specific requirements for pump stations utilized to deliver drinking water to facilities of public water systems. It is intended to be applied in conjunction with rules R309-500 through R309-550. Collectively, these rules govern the design, construction, operation and maintenance of public drinking water system facilities. These rules are intended to assure that such facilities are reliably capable of supplying adequate quantities of water which consistently meet applicable drinking water quality requirements and do not pose a threat to general public health.~~

~~R309-540-2. Authority.~~

~~———— This rule is promulgated by the Drinking Water Board as authorized by Title 19, Environmental Quality Code, Chapter 4, Safe Drinking Water Act, Subsection 104(1)(a)(ii) of the Utah Code and in accordance with 63G-3 of the same, known as the Administrative Rulemaking Act.~~

~~R309-540-3. Definitions.~~

~~———— Definitions for certain terms used in this rule are given in R309-110 but may be further clarified herein.~~

~~R309-540-4. General.~~

~~———— Pumping stations shall be designed to maintain the sanitary quality of water and to provide ample quantities of water at sufficient pressure.~~

~~R309-540-5. Pumping Facilities.~~

~~———— (1) Location.~~

~~———— (a) The pumping station shall be designed such that:~~

~~———— (i) the proposed site will meet the requirements for sanitary protection of water quality, hydraulics of the system, and protection against interruption of service by fire, flood or any other hazard;~~

~~———— (ii) the access to the pump station shall be six inches above the surrounding ground and the station located at an elevation which is a minimum of three feet above the 100-year flood elevation, or three feet above the highest recorded flood elevation, which ever is higher, or protected to such elevations;~~

~~———— (iii) the station is readily accessible at all times unless permitted to be out of service for the period of inaccessibility;~~

~~———— (iv) surrounding ground is graded so as to lead surface drainage away from the station; and~~

~~———— (v) the station is protected to prevent vandalism and entrance by animals or unauthorized persons.~~

~~———— (2) Pumping Stations.~~

~~———— (a) Building structures for both raw and drinking water shall:~~

~~———— (i) have adequate space for the installation of additional pumping units if needed, and for the safe servicing of all equipment;~~

~~———— (ii) be of durable construction, fire and weather resistant, with outward opening doors;~~

~~———— (iii) have an interior floor elevation at least six inches above the exterior finished grade;~~

- ~~— (iv) have any underground facilities, especially wet wells, waterproofed;~~
- ~~— (v) have all interior floors drained in such a manner that the quality of drinking water contained in any wet wells will not be endangered. All floors shall slope at least one percent (one foot every 100 feet) to a suitable drain; and~~
- ~~— (vi) provide a suitable outlet for drainage from pump glands without discharging onto the floor.~~
- ~~— (b) Suction wells shall:~~
 - ~~— (i) be watertight;~~
 - ~~— (ii) have floors sloped to permit removal of water and entrained solids;~~
 - ~~— (iii) be covered or otherwise protected against contamination; and~~
 - ~~— (iv) have two pumping compartments or other means to allow the suction well to be taken out of service for inspection, maintenance, or repair.~~
- ~~— (c) Servicing equipment shall consist of:~~
 - ~~— (i) crane ways, hoist beams, eyebolts, or other adequate facilities for servicing or removal of pumps, motors or other heavy equipment;~~
 - ~~— (ii) openings in floors, roofs or wherever else needed for removal of heavy or bulky equipment; and~~
 - ~~— (iii) a convenient tool board, or other facilities as needed, for proper maintenance of the equipment.~~
- ~~— (d) Stairways and ladders shall:~~
 - ~~— (i) be provided between all floors, and in pits or compartments which must be entered; and~~
 - ~~— (ii) have handrails on both sides, and treads of non-slip material. They shall have risers not exceeding nine inches and treads wide enough for safety.~~
- ~~— (e) Heating provisions shall be adequate for:~~
 - ~~— (i) the comfort of the operator; and~~
 - ~~— (ii) the safe and efficient operation of the equipment.~~
- ~~— (f) Ventilation shall:~~
 - ~~— (i) conform to existing local and/or state codes; and~~
 - ~~— (ii) forced ventilation of at least six changes of air per hour shall be provided for all rooms, compartments, pits and other enclosures below ground floor, and any area where unsafe atmosphere may develop or where excessive heat may be built up.~~
- ~~— (g) Lighting:~~
 - ~~— Pump stations shall be adequately lighted throughout. All electrical work shall conform to the requirements of the relevant state and/or local building codes.~~
- ~~— (h) Sanitary and other conveniences.~~
 - ~~— Plumbing shall be so installed as to prevent contamination of a public water supply. Wastes shall be discharged in accordance with the plumbing code, R317-4, or R317-1-3.~~
- ~~— (3) Pumps.~~
 - ~~— (a) Capacity:~~
 - ~~— Capacity shall be provided such that the pump or pumps shall be capable of providing the peak day demand of the system or the specific portion of the system serviced.~~
 - ~~— The pumping units shall:~~
 - ~~— (i) have ample capacity to supply the peak day demand against the required distribution system pressure without dangerous overloading;~~
 - ~~— (ii) be driven by prime movers able to meet the maximum horsepower condition of the pumps without use of service factors;~~

~~— (iii) be provided readily available spare parts and tools; and~~
~~— (iv) be served by control equipment that has proper heater and overload protection for air temperature encountered.~~

~~— (b) Suction Lift.~~

~~— Suction lift, where possible, shall be avoided. If suction lift is necessary, the required lift shall be within the pump manufacturer's recommended limits and provision shall be made for priming the pumps.~~

~~— (c) Priming.~~

~~— Prime water shall not be of lesser sanitary quality than that of the water being pumped. Means shall be provided to prevent back siphonage. When an air-operated ejector is used, the screened intake shall draw clean air from a point at least 10 feet above the ground or other source.~~

~~— (4) Booster Pumps.~~

~~— (a) Booster pumps shall be located or controlled so that:~~

~~— (i) they will not produce negative pressure in their suction lines;~~

~~— (ii) automatic cutoff pressure shall be at least 10 psi in the suction line;~~

~~— (iii) automatic or remote control devices shall have a range between the start and cutoff pressure which will prevent excessive cycling; and~~

~~— (iv) a bypass is available.~~

~~— (b) Inline booster pumps (pumps withdrawing water directly from distribution lines without the benefit of storage and feeding such water directly into other distribution lines rather than storage), in addition to the other requirements of this section, shall have at least two pumping units (such that with any one pump out of service, the remaining pump or pumps shall be capable of providing the peak day demand of the specific portion of the system serviced), shall be accessible for servicing and repair and located or controlled so that the intake pressure shall be at least 20 psi when the pump or pumps are in normal operation.~~

~~— (c) Individual home booster pumps shall not be allowed for any individual service from the public water supply main.~~

~~— (5) Automatic and remote-controlled stations.~~

~~— All remote controlled stations shall be electrically operated and controlled and shall have signaling apparatus of proven performance. Installation of electrical equipment shall conform with the applicable state and local electrical codes and the National Electrical Code.~~

~~— (6) Appurtenances.~~

~~— (a) Valves.~~

~~— Valves shall be used to permit satisfactory operation, maintenance, and repair of the equipment. If foot valves are necessary, they shall have a net valve area of at least 2 1/2 times the area of the suction pipe and they shall have a positive-acting check valve on the discharge side between the pump and the shut-off valve.~~

~~— (b) Piping.~~

~~— Piping within and near pumping stations shall:~~

~~— (i) be designed so that the friction losses will be minimized;~~

~~— (ii) not be subject to contamination;~~

~~— (iii) have watertight joints;~~

~~— (iv) be protected against surge or water hammer; and~~

~~— (v) be such that each pump has an individual suction line or that the lines shall be so manifolded that they will insure similar hydraulic and operating conditions.~~

~~— (c) Gauges and Meters.~~

~~Each pump shall:~~

~~(i) have a standard pressure gauge on its discharge line;~~

~~(ii) have a compound gauge (capable of indicating negative pressure or vacuum as well as positive pressure) on its suction line; and~~

~~(iii) have recording gauges in the larger stations.~~

~~(d) Water Seal:~~

~~Where pumps utilize water seals, the seals shall:~~

~~(i) not be supplied with water of a lesser sanitary quality than that of the water being pumped; and~~

~~(ii) when pumps are sealed with potable water and are pumping water of lesser sanitary quality, the seal shall be provided with a break tank open to atmospheric pressure, and have an air gap of at least six inches or two pipe diameters, whichever is greater, between the feeder line and the spill line of the tank.~~

~~(e) Controls:~~

~~Controls shall be designed in such a manner that they will operate their prime movers, and accessories, at the rated capacity without dangerous overload. Where two or more pumps are installed, provision shall be made for alternation. Provision shall be made to prevent energizing the motor in the event of a backspin cycle. Electrical controls shall be protected against flooding. Equipment shall be provided or other arrangements made to prevent surge pressures from activating controls which switch on pumps or activate other equipment outside the normal design cycle of operation.~~

~~(f) Standby Power:~~

~~Standby power, to ensure continuous service when the primary power has been interrupted, shall be provided from at least two independent sources or a standby or an auxiliary source shall be provided. If standby power is provided by onsite generators or engines, the fuel storage and fuel line must be designed to protect the water supply from contamination.~~

~~(g) Water Pre-Lubrication:~~

~~When automatic pre-lubrication of pump bearings is necessary and an auxiliary direct drive power supply is provided, the pre-lubrication line shall be provided with a valved bypass around the automatic control so that the bearings can, if necessary, be lubricated manually before the pump is started or the pre-lubrication controls shall be wired to the auxiliary power supply.~~

~~R309-540-6. Hydropneumatic Systems:~~

~~(1) General:~~

~~Hydropneumatic systems shall comply with all appropriate sections of R309-540-5 except as otherwise indicated herein.~~

~~Unpressurized ground level or elevated storage, designed in accordance with R309-545, shall be provided for community type public water systems or non-transient non-community systems where a demand in excess of the capacity of the source(s) is required, in addition to the diaphragm or air tanks. Diaphragm or air pressure tank storage shall not be considered for fire protection purposes or effective system storage for community type systems.~~

~~(2) Location:~~

~~If diaphragm or air tanks and appurtenances are located below ground, adequate provisions for drainage, ventilation, maintenance, and flood protection shall be made and the electrical controls shall be located above grade so as to be protected from flooding as required by R309-540-5(6)(e). Any discharge piping from combination air release/vacuum relief valves(air/vac's) or pressure relief~~

valves located in below ground chambers shall comply with all the pertinent requirements of R309-550-6(6):

———(3) Operating Pressures.

———The system shall be designed to provide minimum pressures in R309-105-9 at all points in the distribution system. A pressure gauge shall be installed on the pressure tank inlet line.

———(4) Piping.

———In addition to the bypass required by R309-540-5(4)(iv) on the pumps, the diaphragm or air tanks shall have sufficient bypass piping to permit operation of the hydropneumatic system while one or more of the tanks are being repaired, replaced or painted.

———(5) Pumps.

———At least two pumping units shall be provided except for those type systems not requiring unpressurized storage in R309-540-6(1); they may use the pump within their groundwater source to pressurize the diaphragm or air tanks. With any pump out of service the remaining pump or pumps shall be capable of providing the peak instantaneous demand of the system as described in R309-510-9(2), while recharging the pressure tank at 115 percent of the upper pressure setting. Pump cycling shall not exceed 15 starts per hour, with a maximum of ten starts per hour preferred.

———(6) Pressure Tanks.

———(a) Pressure tanks shall meet the requirement of state and local laws and regulations for the manufacture and installation of unfired pressure vessels. Interior coatings or diaphragms used in pressure tanks that will come into contact with the drinking water shall comply with ANSI/NSF Standard 61. Non diaphragm pressure tanks shall have an access manhole, a drain, control equipment consisting of pressure gauge, water sight glass, automatic or manual air blow-off, means for adding air, and pressure operated start stop controls for the pumps.

———(b) The minimum volume of the pressure tank or combination of tanks shall be greater than or equal to the sum of S and the value of CX divided by 4W.

———where the following values are used in the equation above:

———C = minutes per operating cycle, four minutes to meet the requirements of R309-540-6(5) above or preferably six minutes, and is equal to pump ON time plus pump OFF time.

———X = output capacity rating of the pump(s) at the high pressure condition in the tank(s), in gpm.

———W = percent of volume withdrawn during a given drop in tank pressure: specifically, between P_h and P_l . $W = 100(P_h - P_l)/P_h$ where P_h = high pressure in tank in psia (high absolute pressure) and P_l = low pressure in tank in psia (low absolute pressure). Values of W range typically from 0.26 to 0.31 for pressure differentials of 15 to 30 psi and high system pressures of 45 to 85 psi at elevations of approximately 5,000 feet.

———S = water seal volume in gallons, the volume of inactive water remaining in tank at low pressure condition.

———(7) Air Volume.

———The method of adjusting the air volume shall be acceptable to the Director. Air delivered by compressors to the pressure tank shall be adequately filtered, oil free, and be of adequate volume. Any intake shall be screened and draw clean air from a point at least 10 feet above the ground or other source of possible contamination, unless the air is filtered by an apparatus approved by the Director. Discharge piping from air relief valves shall be designed and installed with screens to eliminate the possibility of contamination from this source.

———(8) Water Seal.

———For air pressure tanks without an internal diaphragm the volume of water remaining in a air

~~pressure tank at the lower pressure setting shall be sufficient to provide an adequate water seal at the outlet to prevent the leakage of air.~~

~~_____ The following water seal depths shall be considered as minimum requirements.~~

~~_____ (a) Horizontal outlets shall maintain sufficient depth, as measured from the centerline of the horizontal outlet pipe, such that the depth is greater than or equal to the sum of d and twice the value v^2 divided by $2G$.~~

~~_____ (b) Vertical outlets, if un baffled, the depth shall be the same as in (a) except measured from the pipe outlet; if baffled, the depth shall be greater than or equal to the value v^2 divided by $2G$.~~

~~_____ where the following values are used in the equations above:~~

~~_____ v = the axial velocity in the pipe outlet for the peak instantaneous demand flow rate of the system.~~

~~_____ d = the diameter of the outlet pipe in ft.~~

~~_____ G = the gravitational constant of 32.2 ft/sec/sec.~~

~~_____ (9) Standby Power Supply.~~

~~_____ Where a hydropneumatic system is intended to serve a public water system, categorized as a community water system as defined in R309-110, a standby source of power shall be provided.]~~

R309-540. Facility Design and Operation: Pump and Hydropneumatic Pressure Facilities.

R309-540-1. Purpose.

The purpose of this rule is to provide specific requirements for pump stations utilized to deliver drinking water to facilities of public water systems. It is intended to be applied in conjunction with Rules R309-500 through R309-550. Collectively, these rules govern the design, construction, operation, and maintenance of public drinking water system facilities. These rules are intended to assure that facilities are reliably capable of supplying quantities of water which consistently meet applicable drinking water quality requirements of Rules R309-510 and R309-200 and do not pose a threat to general public health.

R309-540-2. Authority.

This rule is promulgated by the Drinking Water Board as authorized by Title 19, Chapter 4, Safe Drinking Water Act, Subsection 104(1)(a)(ii), and in accordance with Title 63G, Chapter 3 Utah Administrative Rulemaking Act.

R309-540-3. Definitions.

Definitions for certain terms used in this rule are given in Rule R309-110. Terms not defined in Rule R309-100 but used in Rule R309-540 include those defined in Subsections R309-540-3(1) through (8).

(1) "Air-Over-Water Hydropneumatic Tank" means a pressure tank with a single chamber in which air and water are in direct contact. Water pumped into the tank compresses the air above it.

(2) "Bladder Hydropneumatic Tank" means a pressure tank that has a bladder in the bottom section of the tank that holds water under pressure. Water pumped into the bladder compresses the air in the upper section of the tank.

(3) "Booster Pump" means a pump that increases pressure in a water distribution system or supplies water to an elevated storage tank. The water supplying a booster pump is provided by a water storage tank or a water distribution line.

(4) "Diaphragm Hydropneumatic Tank" means a pressure tank with a fixed, flexible

diaphragm that separates water in the lower section of the tank from air in the upper section. Water pumped into the lower section compresses the air in the upper section of the tank.

(5) “NSF/ANSI 60” - the joint National Sanitation Foundation/American National Standards Institute 60, Drinking Water Treatment Chemicals - Health Effects

(6) “NSF/ANSI 61” - the joint National Sanitation Foundation/American National Standards Institute 60, Drinking Water System Components - Health Effects

(7) “Pump Station” means a structure housing pumps and associated piping, valves, and auxiliary equipment.

(8) “Service Factor” - A multiplier which, when applied to rated power, indicates a permissible power loading that may be carried under the conditions specified for the service factor.

R309-540-4. Applicability.

Rule R309-540 applies to a pump, other than a well pump, that pumps drinking water for distribution or storage by a public water system.

R309-540-5. Pump Stations.

(1) Location. The location for a pump station shall be compatible with the hydraulics of the water system.

(2) Flood Protection and Site Drainage.

(a) A pump station shall be located at, or protected from, flooding to an elevation of at least three feet above either the 100 year flood or highest recorded flood, whichever is higher.

(b) The site for a pump station shall be graded to direct surface water drainage away from the pump station.

(3) Pump Station Drainage and Flooding Prohibition. A pump station:

(a) may not be subject to flooding,

(b) shall be drained to prevent water from collecting on the floor; and

(c) shall provide an outlet for drainage from pump glands, air release valves, and other equipment without allowing water to flow across the floor to reach the outlet. See Subsection R309-550-6(6) for clearance requirements for air release vent pipes discharging to floor drains.

(4) Access .

(a) A pump station shall be accessible.

(b) Access to a pump station in an underground vault or compartment or between floors of a pump station shall be provided by a permanent stairway, ladder, or ramp.

(5) Construction, Security, and Layout. A pump station shall be:

(a) weatherproof,

(b) constructed and maintained to exclude animals;

(c) locked to prevent unauthorized entry and vandalism; and

(d) sized, configured, and equipped to allow for:

(i) operation and maintenance; and

(ii) installation and removal of pumps and other equipment.

(6) Heating. Heating shall be provided if needed:

(a) for the safe and efficient operation of equipment; and

(b) to prevent equipment from freezing.

(7) Lighting. Lighting shall be provided to allow for operation and maintenance of equipment.

(8) Ventilation.

(a) Ventilation shall be provided for a pump station.

(b) Forced ventilation of at least six air-changes per hour shall be provided for a pump station:

(i) in a confined space;

(ii) in a subsurface compartment or vault;

(iii) if an unsafe atmosphere may develop.

(9) Wet Wells. A Finished water wet well at a pump station shall:

(a) be waterproof;

(b) allow for the removal of water and sediment;

(c) be covered to protect the water from contamination; and

(d) have an access opening and a lid that meet the requirements for a water storage tank in Section R309-545-14.

(10) Return of Used Water to the Drinking Water System Prohibited. Water withdrawn from a public drinking water system for any use may not be returned to the system.

(11) Automatic and Remote-Controlled Stations.

(a) An automatically operated pump station shall have an automatic signaling apparatus that immediately notifies a water system operator when the station is out of service.

(b) A remote-controlled pump station shall be:

(i) electrically operated and controlled; and

(ii) have an automatic signaling apparatus that immediately notifies a water system operator when the station is out of service.

R309-540-6. Pumps.

(1) Capacity and Minimum Distribution System Pressure. A pump used to provide minimum distribution system pressure shall:

(a) have the capacity to meet the maximum demand of the specific portion of the distribution system served; and

(b) be capable of providing the minimum pressures required by Section R309-105-9.

(2) Number of Pumps.

(a) A water supplier shall have at least two pumps installed and in operation at a booster pump facility that provides the only means available to meet the minimum distribution system pressure requirements of Section R309-105-9 for the water distribution pipeline served by the facility.

(b) A booster pump facility that requires at least two pumps shall meet the maximum demand of the water distribution pipeline served by the facility with the largest pump out of service.

(3) Booster Pumps.

(a) A booster pump shall be equipped with an automatic shutoff or low-pressure controller as recommended by the pump manufacturer.

(b) A booster pump withdrawing water from a distribution line shall maintain an intake pressure of at least 20 psi when the pump is in normal operation.

(c) A booster pump withdrawing water directly from a water storage tank shall be provided with net positive suction head.

(4) Pump Motor. A pump motor shall:

(a) be sized to meet operating conditions without overloading; and

(b) provide the maximum horsepower required by the pump without the use of a service factor.

(5) Certification of Drinking Water Treatment Chemicals and System Components.

(a) Chemicals added to drinking water at pump facilities shall be certified to meet NSF/ANSI 60.

(b) Products, components, and materials used in pump facilities that may impart chemical contaminants or impurities to drinking water shall be certified to meet NSF/ANSI 61.

(6) Suction Lift. When a pump provides suction lift:

(a) the . maximum lift shall be within the pump manufacturer's recommended limits; and

(b) tanks priming shall be provided for the pump.

(7) Priming.

(a) When a pump requires priming, the priming system shall:

(i) use water of at least the same quality as the water being pumped; and

(ii) include a means to prevent back siphoning.

(b) When an air-operated ejector is used for vacuum priming, it shall draw clean air through a screened intake:

(i) at least ten feet above the ground; and

(ii) at least ten feet away from a point of contamination.

(8) Water Seal.

(a) Water used as a seal for a pump shall be of at least the same quality of the water being pumped.

(b) A water line supplying drinking water used as a seal for a pump that pumps non-potable water shall be protected from backflow.

(9) Individual Home Booster Pumps. Individual home booster pumps shall not be allowed for any individual service from the public water supply main. Exceptions to the rule may be granted by the Director if it can be shown that the granting of an exception will not jeopardize public health.

R309-540-7 Pump Appurtenances.

(1) Valves.

(a) Valves shall be provided to allow satisfactory operation and maintenance of a pump facility.

(b) Each pump shall have an isolation valve:

(i) on the intake side of the pump; and

(ii) on the discharge side of the pump.

(c) An air release valve shall:

(i) be provided where needed to allow the release of accumulated air in pump facility piping; and

(ii) meet the requirements of Subsection R309-550-6(6).

(d) If used, a foot valve shall be sized according to the manufacturer's recommendation.

(2) Piping. Piping for a pump shall:

(a) have watertight joints; and

(b) be protected against surge or water hammer

(3) Controls. Controls for a pump shall:

(a) be protected from flooding;

(b) allow a pump motor to operate at rated capacity without overloading;

(c) have proper overload protection for the air temperature encountered;
(d) provide for alternate operation of pumps where two or more pumps are installed;
(e) prevent the pump motor from starting during pump backspin;
(f) set start and cutoff pressures to prevent continuous on-off cycling;
(g) follow manufacturer's requirements for automatic cutoff pressure; and
(h) prevent surge pressures from activating controls that turn on pumps or other equipment outside the normal design cycle of operation.

(4) Water Pre-Lubrication of Pump Bearings. If water is used for automatic pre-lubrication of pump bearings, and an auxiliary direct-drive power supply is provided:

(a) the pre-lubrication line shall have a valved bypass around the automatic control so that the bearings can be lubricated manually before the pump is started; or

(5) Pressure Measurement. A pump or group of pumps operating together shall have a means of measuring pressure:

(a) on the discharge line; and

(b) on the intake line capable of indicating positive and negative pressure. (b) the pre-lubrication controls shall be wired to the auxiliary power supply.

(6) Standby Power Supply.

(a) A community water system that relies solely on a pump facility to supply water to a service area shall be provided with standby power, power using a permanent or portable generator or electrical service from two independent substations.

(b) If a fuel-operated generator provides standby power:

(i) the water supply shall be protected from contamination from the fuel supply and fuel line; and

(ii) a carbon monoxide detector shall be installed if the generator is located indoors.

R309-540-8. Hydropneumatic Facilities for Maintaining Distribution System Pressure.

(1) Applicability.

(a) Section R309-540-8 applies to a hydropneumatic facility that maintains distribution system pressure for a public water system.

(b) Sections R309-540-5 through R309-540-7 apply to a pump, other than a well pump, that supplies water under pressure to a hydropneumatic pressure tank.

(c) Section R309-540-8 applies to air-over-water, diaphragm, and bladder hydropneumatic pressure tanks.

(d) Section R309-540-8 does not apply to:

(i) a surge protection tank;

(ii) pressure relief equipment; or

(iii) a pressure tank dedicated solely to fire suppression

(2) Number of Pumps. A public water system using a hydropneumatic facility to meet the minimum distribution system pressure requirements of Section R309-105-9 shall have at least two pumps installed and in operation at the hydropneumatic facility, unless the hydropneumatic facility is supplied solely by a well pump.

(3) Pressure Tank Certification. A hydropneumatic pressure tank shall have:

(a) NSF/ANSI 61 certification; and

(b) ASME Boiler and Pressure Vessel Code certification.

(4) Use of Pressure Tank Volume for Water Storage Sizing. A community water system may not use the volume of a hydropneumatic pressure tank to meet the water storage sizing

requirements in Section R309-510-8.

(5) Pressure Tank Located Below Ground.

(a) A below-ground location for a hydropneumatic pressure tank and appurtenances shall meet the requirements of:

(i) Subsection R309-540-5(2) for flood protection and site drainage;

(ii) Subsection R309-540-5(3) for pump station drainage and flooding prohibition;

(iii) Subsection R309-540-5(4)(b) for access; and

(iv) Subsection R309-540-5(8) for ventilation.

(b) Electrical controls for a hydropneumatic pressure tank located below ground shall be:

(i) located above grade; and

(ii) protected from flooding.

(6) Operating Pressure Measurement. A means to measure the operating pressures of a hydropneumatic facility shall be provided.

(7) Bypass Piping. Each hydropneumatic tank shall have bypass piping and isolation valves to allow the tank to be removed from service without disruption of water distribution.

(8) Pressure Tank Sizing. The minimum volume of a hydropneumatic tank shall be sized to avoid continuous pump cycling as recommended by the manufacturer.

(9) Air-Over-Water Pressure Tanks.

(a) An air-over-water pressure tank shall have:

(i) an access opening;

(ii) a drain;

(iii) a means to measure pressure;

(iv) a means to measure the water level in the tank;

(v) an automatic or manual air blow-off;

(vi) a means for adding air; and

(vii) pressure operated start-stop controls for a pump.

(b) Air delivered by a compressor to an air-over-water pressure tank shall be:

(i) drawn from a point above ground;

(ii) free of contamination;

(iii) filtered; and

(iv) oil free.

(c) The volume of water remaining in an air-over-water pressure tank at the lowest pressure setting shall provide a water seal at the water outlet to prevent the leakage of air.

KEY: drinking water, pumps, hydropneumatic systems, individual home booster pumps

Date of Enactment or Last Substantive Amendment: February 15, 2009

Notice of Continuation: March 12, 2020

Authorizing, and Implemented or Interpreted Law: 19-4-104

Agenda Item

8(A)

DIVISION OF DRINKING WATER

FEDERAL SRF

as of January 31, 2024

FIRST ROUND FUND	
1997 thru 2023 SRF Grants	
Net Federal SRF Grants:	\$240,270,701
Total State Matches:	\$50,999,400
Closed Loans:	-\$255,489,761
Total Grant Dollars:	\$35,780,340

FEDERAL SECOND ROUND FUND	
Principal Repayments	Earnings on Invested Cash Balance
Principal (P):	\$41,470,245
Interest (I):	\$25,898,165
Total P & I:	\$67,368,410
	Total: \$3,344,295

Hardship Fund
Total: \$2,653,151

SUMMARY	
Total Federal State Revolving Fund:	\$106,493,045
Total Federal Hardship Fund:	\$2,653,151
Subtotal:	\$109,146,196
Less:	
Authorized & Partially Disbursed Closed Loans:	\$149,741,417
Authorized Federal Hardship:	\$799,339
Subtotal:	\$150,540,756

**LESS
AUTHORIZED &
PARTIALLY
DISBURSED**

PROPOSED		
	Proposed Federal Project(s):	\$0
	Proposed Federal Hardship Project(s):	\$0
	Subtotal:	\$0

AS OF:	January 31, 2024	TOTAL REMAINING LOAN FUNDS:	-\$43,248,372
		TOTAL REMAINING HARDSHIP FUNDS:	\$1,853,812

Total Balance of ALL Funds after deducting proposed actions: -\$41,394,559

Projected Receipts thru January 31, 2025	
2023 Fed SRF Supplemental and Base grant & State Match	\$0
2024 Fed SRF Supplemental Grant & State Match	\$19,666,900
Interest on Investments	\$1,314,000
Principal Payments	\$8,582,603
Interest on loans	\$782,409
Hardship & Technical Assistance fees	\$924,342
Fund 5215 principal & int payments	\$111,200
Total:	\$31,381,454

Receive 60% in January

Total Estimated Federal SRF Funds Available through: 01/31/2025 **-\$10,013,106**
See "DDW Cash Flow Forecast" file for additional information

SRF Subsidization Requirements - Base & Supplemental Grants						
Grant Year	Minimum	Maximum	Closed Subsidy	Authorized/Not Closed Subsidy	Status	
2021	\$2,200,200	\$5,390,490	\$2,200,200	\$12,640,606	COMPLETE	
2022	\$6,500,000	\$12,250,000	\$4,223,002	\$4,143,586	INCOMPLETE	
Total:	\$2,200,200	\$5,390,490	\$2,200,200	\$12,640,606		

**DIVISION OF DRINKING WATER
FEDERAL STATE REVIVING FUND**

PROJECTS AUTHORIZED BUT NOT YET CLOSED

as of January 31, 2024

PUBLIC WATER SYSTEM	Project			Authorized Date	Closing Date Scheduled or Estimated	Authorized From Fund 5210 (1st or 2nd Round)			Hardship Fund 5215
	Total Project	Terms	Loan #			Loan	Forgiveness	Total	
	Cornish Town - pws 03005	\$ 1,704,922	0%, 30 yrs			3F1812	02-Nov-21	Feb 2024	
Bristlecone - pws 09077	\$ 93,500	100% PF	3F1822	11-Jan-22	now state grant			\$ -	
Skyline Mountain SSD - pws 20043	\$ 3,123,000	2.09% HGA Fee 30yrs	3F1831	11-Jan-22		\$ 3,123,000		\$ 3,123,000	
M & J Trailer Home Community - pws 02	\$ 768,000	0%, 40 yrs	3F1848	16-May-23		\$ 438,000	\$ 270,000	\$ 708,000	
Ukon Water Co.	\$ 1,530,000		3F2002	16-May-23			\$ 1,530,000	\$ 1,530,000	
Roosevelt City - pws 07004	\$ 2,951,400	100% PF	3F1854	08-Jun-22			\$ 2,841,400	\$ 2,841,400	
Henefer Town - pws 22005	\$ 2,100,000	1% HGA 30 yrs lof \$21k	3F1843	07-Jun-22		\$ 2,100,000		\$ 2,100,000	
Henefer Town - pws 22005 (add'l funds)	\$ 6,573,000	1% HGA 30 yrs lof \$21k	3F1843	16-May-23		\$ 1,100,000		\$ 1,100,000	
Johnson WID - pws 07006	\$ 2,452,000	100% PF	3F1862	21-Jul-22			\$ 2,352,000	\$ 2,352,000	
Holden Town - pws 14013	\$ 8,841,000	0%, 40 yrs	3F1847	21-Jul-22		\$ 5,191,000	\$ 3,100,000	\$ 8,291,000	
San Juan County - NTUA Westwater #2	\$ 4,355,105	100% PF	3F1821P	11-Jan-22			\$ 457,000	\$ 457,000	
San Juan County La Sal pws 19000	\$ 60,000	100% PF	3F1871P	07-Jun-22			\$ 60,000	\$ 60,000	
Brian Head Town - PWS 11001	\$ 1,761,920	0%, 40 yrs	3F1861	16-May-23		\$ 632,000	\$ 271,934	\$ 903,934	
Brian Head Town - PWS 11001	\$ 6,769,206	0%, 40 yrs	3F1910	16-May-23		\$ 3,838,000	\$ 1,645,748	\$ 5,483,748	
Wallsburg Town - pws 26009	\$ 6,933,000	0%, 40 yrs	3F1889	31-Aug-22		\$ 3,433,000	\$ 3,261,000	\$ 6,694,000	
Leeds Domestic Users Assn - pws 27010	\$ 7,797,500	0%, 40 yrs; refi existing \$273K loa	3F1892	31-Aug-22	Feb 2024	\$ 4,293,000	\$ 3,009,500	\$ 7,302,500	
Hanna Water & Sewer ID - pws 07062	\$ 3,483,838	0%, 40 yrs	3F1883	31-Aug-22		\$ 860,000	\$ 2,623,838	\$ 3,483,838	
Ballard WID - pws 24001	\$ 7,287,000	0%, 40 yrs	3F1896	31-Aug-22		\$ 3,600,000	\$ 3,050,000	\$ 6,650,000	
Ballard (design advance + test well)			3F1896	07-Nov-23			\$ 450,000	\$ 450,000	
Timber Lakes Water SSD - pws 26057	\$ 3,295,630	0%, 40 yrs	3F1877	31-Aug-22		\$ 3,263,000		\$ 3,263,000	
Upper Whittemore Water Co-PWS 2513	\$ 500,000	0%, 20 yrs	3F1900	01-Nov-22		\$ 250,000	\$ 250,000	\$ 500,000	
Wilson Arch Wtr & Swr Co PWS 19069	\$ 1,138,000	0% int/hqf 30 yrs	3F1904	01-Nov-22		\$ 569,000	\$ 569,000	\$ 1,138,000	
South Duchesne Culinary Water - PWS 07067	\$ 1,992,500	2%, 30 yrs	3F1879A	21-Jul-22				\$ -	\$ 482,000
Hidden Lake Assn - PWS 22029	\$ 3,838,040	0%, 40 yrs	3F1911	10-Jan-23		\$ 3,838,040		\$ 3,838,040	
Ogden City - PWS 29011	\$ 87,000,000	1% 30 years	3F1908	10-Jan-23		\$ 34,370,000		\$ 34,370,000	
Virgin Town - PWS 27020	\$ 3,470,489	0%, 40 yrs	3F1909	16-May-23		\$ 2,140,000	\$ 930,489	\$ 3,070,489	
Paragonah	\$ 7,452,100	0%, 40 yrs	3F1913	16-May-23		\$ 5,110,000	\$ 1,890,000	\$ 7,000,000	
Green River (see Emerging Contam. tab)	\$ 5,575,000	3.16%, 30 yrs	3F1925E	16-May-23		\$ 2,045,000		\$ 2,045,000	
Spring City	\$ 5,932,000	1%, 40 yrs	3F1926	16-May-23		\$ 4,338,000	\$ 1,494,000	\$ 5,832,000	
Stockton Town (Add'l \$\$ & Design Advance)	\$ 2,067,000	1%, 40 yrs	3F1928	27-Jun-23		\$ 2,240,000	\$ 960,000	\$ 3,200,000	
Green Hills Estates WSID	\$ 2,067,000	1%, 30 yrs	3F1930E	16-May-23		\$ 926,000	\$ 1,121,000	\$ 2,047,000	
Genola (add'l funds & refinance 1732)	\$ 2,849,400	0%, 40yrs	3F2001	16-May-23		\$ 265,000	\$ 265,000	\$ 530,000	
Payson City - Christian Life Assembly	343,000	100% PF	3F2003	27-Jun-23		\$ -	\$ 343,000	\$ 343,000	
Irontown - new project, Additional \$	106,100	0%, 30 yrs	3F2015	30-Aug-23	1/29/2024	\$ 85,000	\$ 21,100	\$ 106,100	
Fremont Waterworks Company	1,425,000	1%, 30 yrs	3F2016	30-Aug-23		\$ 997,000	\$ 428,000	\$ 1,425,000	
Foothill Water Users Assoc -	\$ 603,030	0%, 40yrs	3F2006	07-Nov-23		\$ 422,000	\$ 181,030	\$ 603,030	
Holiday Hills HOA	\$ 250,000	0%, 20yrs		07-Nov-23		\$ 175,000	\$ 75,000	\$ 250,000	
TOTAL CONSTRUCTION AUTHORIZED:						\$ 90,395,040	\$ 34,200,961	\$ 124,596,001	\$ 482,000
COMMITTED ADVANCES / AGREEMENTS or PARTIALLY DISBURSED CLOSED 2ND ROUND AGREEMENTS:									
					Date Closed	Loan	PF		Fund 5215
Rural Water Assn of Utah	\$ 676,000	5 yr contract for Development Spe	Ongoing	07-Jan-18	6/5/2018			\$ -	\$ -
Rural Water Assn of Utah		CONTRACT # 21-6428						\$ -	\$ 2,600
Hyde Park City	\$ 5,994,000	2.91% HGF 20 yrs	3F1744	14-Jan-20	4/15/2021	\$ 1,500,000		\$ 1,500,000	
Bicknell	\$ 2,278,000	1% 30 yrs HGA?	3F1786	08-Jun-21	8/18/2022	\$ 408,000	\$ 270,000	\$ 678,000	
East Carbon City - pws 04012	\$ 5,099,000	1% int/hqf 30 yrs (increased pf am	3F1792	01-Nov-22	3/30/2023	\$ 650,000	\$ 650,000	\$ 1,300,000	
Blanding City - West Water PWS 19001	\$ 40,000	100% PF	3F1816P	22-Sep-21	3/29/2022				\$ 4,503
Cornish Town - pws 03005	\$ 40,000	100% PF	3F1826P	22-Nov-21	1/18/2022				\$ 40,000
High Valley Water Company - pws 22021	\$ 4,009,000	0%, 30 yrs	3F1835	03-Mar-22	6/6/2023	\$ 755,000	\$ 754,000	\$ 1,509,000	
High Valley Water Company - pws 22021	\$ 4,009,000	0%, 30 yrs (add'l funds for longer t	3F1835	16-May-23	6/6/2023	\$ 350,000	\$ 350,000	\$ 700,000	
Timber Lakes Water SSD - pws 26057	\$ 40,000	100% PF	3F1840P	25-Feb-22	4/14/2022				\$ 19,584
Pine Valley Mt Farms - pws 27061	\$ 12,000	100% PF	3F1868P	18-Jul-22	8/15/2022				\$ 520
Panguitch City - pws 09007	\$ 1,629,000	50/50 2.0% 20 yrs HGA	3F1855	09-Jun-22	8/10/2023	\$ 423,000	\$ 423,000	\$ 846,000	
Granger-Hunter Improve District - pws 18	\$ 13,811,820	.5% hga fee 30 yrs	3F1850	21-Jul-22	5/9/2023	\$ 9,480,000	\$ 2,432,620	\$ 11,912,620	
Ouray Park WID	\$ 40,000	100% PF	3F1865P	31-Aug-22	6/12/2023		\$ 20	\$ 20	
Beaver City - pws 01001	\$ 2,829,146	0%, 40 yrs	3F1874	21-Jul-22	8/17/2023	\$ 797,000	\$ 805,620	\$ 1,602,620	
Pine Valley Mt Farms - pws 27061	\$ 700,000	100% PF	3F1890	31-Aug-22	4/4/2023		\$ 630,015	\$ 630,015	
Leeds Domestic Users Assn - pws 27010	\$ -	planning advance 100% pf	3F1892	31-Aug-22	5/17/2023		\$ -	\$ -	
Beaver Dam Village SSD	\$ 32,900	100% PF	3F1921P	18-Apr-23	5/23/2023				\$ 16,642
Paragonah (advance)	\$ 300,000	0%, 40 yrs	3F1913	16-May-23	9/11/2023		\$ 300,000	\$ 300,000	
Spring City		P/F planning/design Advance	3F1926	16-May-23	6/12/2023		\$ -	\$ -	
Wales Town	\$ 80,000	100% PF	3F1929	16-May-23	7/3/2023		\$ 3,406	\$ 3,406	
Henrieville Town	\$ 49,000	100% PF	3F1914P	25-May-23	6/20/2023				\$ 44,000
Price Municipal Corporation	\$ 85,890	100% PF	3F2000P	14-Jun-23	7/3/2023				\$ 85,890
Highlands Water Company	\$ 40,000	0%, 5 years	3F1917P	15-Jun-23	7/3/2023	\$ 40,000		\$ 40,000	
Big Plains Water SSD	\$ 35,200	100% PF	3F2007P	20-Jun-23	7/5/2023		\$ 35,200	\$ 35,200	
Hinckley Town	\$ 39,000	100% PF	3F1999P	14-Jun-23	7/11/2023				\$ 39,000
Weber Meadowview Ranch - pws 22009	\$ 2,258,400	0%, 40 yrs	3F1815	18-Nov-21	7/19/2023	\$ 560,000		\$ 560,000	
Bridgerland Village Water Co - pws 1700	\$ 1,350,000	1.7% 30yrs LOF \$13,500	3F1837	03-Mar-22	7/26/2023	\$ 1,350,000		\$ 1,350,000	
Wanship Mutual Water Company	\$ 61,500	0%, 5 years	3F1916P	23-Jan-23	9/12/2023	\$ 37,485		\$ 37,485	
LaVerkin City	\$ 64,600	100% PF	3F2012P	10-Aug-23	10/2/2023				\$ 64,600
Wallsburg Town - pws 26009	\$ 239,000	planning advance 100% pf	3F1889	31-Aug-22	10/2/2023		\$ -	\$ -	
Neola Water & Sewer District	\$ 75,000	100% PF	3F1918P	14-Jun-23	10/2/2023		\$ 75,000	\$ 75,000	
Levan Town - pws 12001	\$ 2,895,000	2%, 30 yrs	3F1856	21-Jul-22	11/6/2023	\$ 1,033,000	\$ 1,033,050	\$ 2,066,050	
TOTAL PLANNING AUTHORIZED:						\$ 17,383,485	\$ 7,761,931	\$ 25,145,416	\$ 317,339
TOTAL CONSTRUCTION & PLANNING:								\$ 149,741,417	\$ 799,339
AVAILABLE PROJECT FUNDS:									\$ (43,248,372)
AVAILABLE HARDSHIP FUNDS:									\$ 1,853,812

DIVISION OF DRINKING WATER

ARPA Grant FUNDS

AS OF January 31, 2024

SUMMARY		
	FY21 ARPA Appropriation:	\$25,000,000
	FY22 ARPA Appropriation:	\$21,500,000
	Subtotal:	\$46,500,000
LESS AUTHORIZED	Less:	
	Authorized Grants & Closed Grants in Construction:	\$46,020,616
	Subtotal:	\$46,020,616
	Total available after Authorized deducted	\$479,384
PROPOSED	Proposed Loan Project(s):	\$0
	Subtotal:	\$0
AS OF:		
January 31, 2024	TOTAL REMAINING ARPA GRANT FUNDS:	\$479,384

(see Page 2 for details)

(see Page 2 for details)

Total Balance of Funds: \$479,384

Projected Receipts Next Twelve Months:	
FY2023 Appropriation and Federal Funding	
Total Projections	\$0

Total Estimated ARPA Funds Available through 01-31-2025	\$479,384
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DIVISION OF DRINKING WATER
LEAD ARPA Grant FUNDS
AS OF January 31, 2024

SUMMARY		
	FY22 ARPA Appropriation:	\$3,500,000
	Subtotal:	\$3,500,000
LESS AUTHORIZED	Less:	
	Authorized Grants & Closed Grants in Construction:	\$2,965,462
	Subtotal:	\$2,965,462
	Total available after Authorized deducted	\$534,538
PROPOSED	Proposed Loan Project(s):	\$0
	Subtotal:	\$0
AS OF: January 31, 2024	TOTAL REMAINING ARPA GRANT FUNDS:	\$534,538

(see Page 2 for details)

(see Page 2 for details)

Total Balance of Funds: \$534,538

Projected Receipts Next Twelve Months:	
FY2023 Appropriation and Federal Funding	
Total Projections	\$0

Total Estimated ARPA Funds Available through 01-31-2025	\$534,538
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DIVISION OF DRINKING WATER
Lead Service Line Grant Funds
as of January 31, 2024

SUMMARY		
	FY22 LSL Grant Loan Portion	\$26,248,000
	Subtotal:	\$26,248,000
LESS AUTHORIZED	Less:	
	Authorized Grants & Closed Grants and Loans:	\$5,862,600
	Subtotal:	\$5,862,600
	Total available after Authorized deducted	\$20,385,400
PROPOSED	Proposed Loan Project(s):	\$39,525,000
	Subtotal:	\$39,525,000
AS OF: January 31, 2024	TOTAL REMAINING LSLR LOAN/GRANT FUNDS:	-\$19,139,600

(see Page 2 for details)

(see Page 2 for details)

Total Balance of Funds: -\$19,139,600

Projected Receipts Next Twelve Months:	
FY2023 Appropriation and Federal Funding	
Total Projections	\$26,248,000

Total Estimated LSLR Funds Available through 01-31-2025	\$7,108,400
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DIVISION OF DRINKING WATER
Lead Service Line Grant Funds

As Of: 1/31/2024

Fund 5210

Community	Grant #	Date Authorized	Date Agreement Executed	Loan	Grant & P/F	Total	
CONSTRUCTION PROJECTS AUTHORIZED, NOT CLOSED							
Subtotal Construction Loans and Grants Authorized					\$0	\$0	\$0
PLANNING PROJECTS AUTHORIZED, IN PROCESS							
Marysville Town	3F1931PL	23-Apr-23	12-Jun-23		\$ 100,000	100,000	
South Salt Lake Water System	3F1933PL	13-Apr-23	20-Jun-23		\$ 100,000	100,000	
Corinne City Corp	3F1939PL	21-Jul-23	31-Aug-23		\$ 100,000	100,000	
LaVerkin City	3F1948PL	18-Jul-23	31-Aug-23		\$ 100,000	100,000	
Orderville Town	3F1950PL	25-Apr-23	31-Jul-23		\$ 87,000	87,000	
Antimony Town	3F1951PL	03-Jul-23	14-Aug-23		\$ 37,000	37,000	
Tridell Lapoint Water Improvement District	3F1957PL	25-Apr-23	25-Jul-23		\$ 100,000	100,000	
Escalante City Water System	3F1958PL	12-May-23	03-Jul-23		\$ 41,000	41,000	
Daggett Co-Dutch John Town	3F1959PL	18-Jul-23	31-Jul-23		\$ 80,000	80,000	
Joseph Municipal Water System	3F1960PL	21-Jul-23	31-Jul-23		\$ 36,000	36,000	
Cedar City Waterworks	3F1961PL	28-Apr-23	11-Jul-23		\$ 100,000	100,000	
Neola Water & Sewer District	3F1963PL	18-Jul-23	15-Aug-23		\$ 100,000	100,000	
Fremont Water Works	3F1964PL	21-Jul-23	31-Jul-23		\$ 88,000	88,000	
Rockville Pipeline Company	3F1966PL	21-Jul-23	11-Sep-23		\$ 69,000	69,000	
Ballard Water Improvement District	3F1970PL	20-Jul-23	11-Sep-23		\$ 85,000	85,000	
Kearns Improvement District	3F1972PL	03-May-23	06-Jul-23		\$ 100,000	100,000	
Magna Water District.	3F1973PL	05-May-23	17-Jul-23		\$ 100,000	100,000	
Granger-Hunter Improvement District	3F1975PL	03-May-23	03-Jul-23		\$ 100,000	100,000	
City of Moab	3F1977PL	15-May-23	12-Jun-23		\$ 100,000	100,000	
Green River City	3F1978PL	12-May-23	31-Jul-23		\$ 96,000	96,000	
Cedarview Montwell SSD	3F1979PL	25-Jul-23	15-Aug-23		\$ 100,000	100,000	
Wellington City	3F1981PL	22-May-23	31-Aug-23		\$ 100,000	100,000	
Jensen Water Improvement District	3F1988PL	21-Jul-23	11-Sep-23		\$ 96,000	96,000	
Sandy City - amended	3F1991PL	03-May-23	31-Aug-23		\$ 100,000	100,000	
Holden Town Water System	3F1992PL	04-Aug-23	15-Aug-23		\$ 73,000	73,000	
Price Municipal Corporation	3F1996PL	25-Jul-23	31-Aug-23		\$ 100,000	100,000	
Kane County Water Conservancy District	3F2008PL	27-Jun-23	25-Jul-23		\$ 389,300	389,300	
Cannonville Town	3F2011PL	25-Jul-23	31-Aug-23		\$ 78,000	78,000	
Circleville Town Water System	3F1945PL	03-Jul-23	19-Jul-23		\$ 83,000	83,000	
West Corinne Water Company	3F1983PL	20-Jul-23	19-Jul-23		\$ 60,000	60,000	
Springdale Town Water System	3F1965PL	20-Jul-23	02-Oct-23		\$ 94,000	94,000	
Church Wells Special Service District	3F1943P	21-Jul-23	02-Oct-23		\$ 37,000	37,000	
Myton City	3F1980P	18-Jun-23	02-Oct-23		\$ 100,000	100,000	
Junction Town	3F1942P	03-Jul-23	04-Oct-23		\$ 53,000	53,000	
Provo City	3F1934P	13-Jun-23	18-Oct-23		\$ 100,000	100,000	
City of Logan	3F1997P	05-May-23			\$ 100,000	100,000	
North Village Special Service District	3F1953P	Jul-23	Jan-24		\$ 8,300	8,300	
Jordanelle Special Service District	3F1954P	Jul-23	Jan-24		\$ 15,500	15,500	
Twin Creeks Special Service District	3F1955P	Jul-23	Jan-24		\$ 17,500	17,500	
Charleston Water Conservancy District	3F1967P	Jul-23	Feb-24		\$ 25,000	25,000	
Cedar Fort W.S.	3F1945P	Jul-23			\$ 35,000	35,000	
Lyman W.S.	3F1941P	Jul-23			\$ 72,000	72,000	
Axtell Community Special Service District	3F1989P	Jul-23			\$ 75,000	75,000	
Glen Canyon Special Service District	3F1976P	Jul-23	Jan-24		\$ 78,000	78,000	
Panguitch City	3F1962P	Jul-23	Dec-23		\$86,000	86,000	
Milford W.S.	3F1998P	May-23	Jan-24		\$ 90,000	90,000	

DIVISION OF DRINKING WATER
Emerging Contaminants Grant Funds
as of January 31, 2024

SUMMARY		
	FY22 EC Grant (excludes set-asides):	\$6,797,600
	Subtotal:	\$6,797,600
LESS AUTHORIZED	Less:	
	Authorized Grants & Closed Grants in Construction:	\$6,530,000
	Subtotal:	\$6,530,000
	Total available after Authorized deducted	\$267,600
PROPOSED	Proposed Loan Project(s):	\$0
	Subtotal:	\$0
AS OF:		
January 31, 2024	TOTAL REMAINING EC GRANT FUNDS:	\$267,600

(see Page 2 for details)

(see Page 2 for details)

Total Balance of Funds: **\$267,600**

Projected Receipts Next Twelve Months:	
FY2023 Appropriation and Federal Funding	
Total Projections	\$6,800,000

Total Estimated EC Funds Available through 01-31-2025	\$7,067,600
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**DIVISION OF DRINKING WATER
FEDERAL SRF LOAN FUNDS
as of January 31, 2024**

	Loan Funds 1st Round	Loan Payments		Hardship Fund	TOTAL
		2nd Round			
		Principal	Interest		
Federal Capitalization Grants and State 20% match	\$291,270,101				
Earnings on Invested 1st Round Funds			3,344,295		
Repayments (including interest earnings on 2nd round receipts)		41,470,245	25,898,165	2,653,151	364,635,957
Less:					
Closed loans and grants	-255,489,761				-255,489,761
SUBTOTAL of Funds Available	\$35,780,340	\$41,470,245	\$29,242,460	\$2,653,151	\$109,146,196
Loans & Grants authorized but not yet closed or fully disbursed	-121,816,001	-20,163,485	-7,761,931	-799,339	-150,540,756
SUBTOTAL of Funds Available less Authorized	-\$86,035,661	\$21,306,760	\$21,480,530	\$1,853,812	-\$41,429,759
Future Estimates:					
Proposed Loans/Grants for current board package	0			0	0
SUBTOTAL of Funds Available less Proposed Loans & Grants	-\$86,035,661	\$21,306,760	\$21,480,530	\$1,853,812	-\$41,429,759
PROJECTIONS THRU January-2025					
2023 BIL Supplemental & Match					
2023 FED Base SRF Grant & State Match	0				
2024 BIL Supplemental & Match	19,666,900				
Projected repayments & revenue during the next twelve months		8,693,803	782,409	924,342	10,400,554
Projected annual investment earnings on invested cash balance		1,200,000	84,000	30,000	1,314,000
TOTAL	-\$66,368,761	\$31,200,562	\$22,346,939	\$2,808,154	-\$10,048,306

**DIVISION OF DRINKING WATER
FEDERAL STATE REVIVING FUND**

PROJECTS AUTHORIZED BUT NOT YET CLOSED

as of January 31, 2024

PUBLIC WATER SYSTEM	Project			Authorized Date	Closing Date Scheduled or Estimated	Authorized From Fund 5210 (1st or 2nd Round)			Hardship Fund 5215
	Total Project	Terms	Loan #			Loan	Forgiveness	Total	
	Cornish Town - pws 03005	\$ 1,704,922	0%, 30 yrs			3F1812	02-Nov-21	Feb 2024	
Bristlecone - pws 09077	\$ 93,500	100% PF	3F1822	11-Jan-22	now state grant			\$ -	
Skyline Mountain SSD - pws 20043	\$ 3,123,000	2.09% HGA Fee 30yrs	3F1831	11-Jan-22		\$ 3,123,000		\$ 3,123,000	
M & J Trailer Home Community - pws 02	\$ 768,000	0%, 40 yrs	3F1848	16-May-23		\$ 438,000	\$ 270,000	\$ 708,000	
Ukon Water Co.	\$ 1,530,000		3F2002	16-May-23			\$ 1,530,000	\$ 1,530,000	
Roosevelt City - pws 07004	\$ 2,951,400	100% PF	3F1854	08-Jun-22			\$ 2,841,400	\$ 2,841,400	
Henefer Town - pws 22005	\$ 2,100,000	1% HGA 30 yrs lof \$21k	3F1843	07-Jun-22		\$ 2,100,000		\$ 2,100,000	
Henefer Town - pws 22005 (add'l funds)	\$ 6,573,000	1% HGA 30 yrs lof \$21k	3F1843	16-May-23		\$ 1,100,000		\$ 1,100,000	
Johnson WID - pws 07006	\$ 2,452,000	100% PF	3F1862	21-Jul-22			\$ 2,352,000	\$ 2,352,000	
Holden Town - pws 14013	\$ 8,841,000	0%, 40 yrs	3F1847	21-Jul-22		\$ 5,191,000	\$ 3,100,000	\$ 8,291,000	
San Juan County - NTUA Westwater #2	\$ 4,355,105	100% PF	3F1821P	11-Jan-22			\$ 457,000	\$ 457,000	
San Juan County La Sal pws 19000	\$ 60,000	100% PF	3F1871P	07-Jun-22			\$ 60,000	\$ 60,000	
Brian Head Town - PWS 11001	\$ 1,761,920	0%, 40 yrs	3F1861	16-May-23		\$ 632,000	\$ 271,934	\$ 903,934	
Brian Head Town - PWS 11001	\$ 6,769,206	0%, 40 yrs	3F1910	16-May-23		\$ 3,838,000	\$ 1,645,748	\$ 5,483,748	
Wallsburg Town - pws 26009	\$ 6,933,000	0%, 40 yrs	3F1889	31-Aug-22		\$ 3,433,000	\$ 3,261,000	\$ 6,694,000	
Leeds Domestic Users Assn - pws 27010	\$ 7,797,500	0%, 40 yrs; refi existing \$273K loa	3F1892	31-Aug-22	Feb 2024	\$ 4,293,000	\$ 3,009,500	\$ 7,302,500	
Hanna Water & Sewer ID - pws 07062	\$ 3,483,838	0%, 40 yrs	3F1883	31-Aug-22		\$ 860,000	\$ 2,623,838	\$ 3,483,838	
Ballard WID - pws 24001	\$ 7,287,000	0%, 40 yrs	3F1896	31-Aug-22		\$ 3,600,000	\$ 3,050,000	\$ 6,650,000	
Ballard (design advance + test well)			3F1896	07-Nov-23			\$ 450,000	\$ 450,000	
Timber Lakes Water SSD - pws 26057	\$ 3,295,630	0%, 40 yrs	3F1877	31-Aug-22		\$ 3,263,000		\$ 3,263,000	
Upper Whittemore Water Co-PWS 2513	\$ 500,000	0%, 20 yrs	3F1900	01-Nov-22		\$ 250,000	\$ 250,000	\$ 500,000	
Wilson Arch Wtr & Swr Co PWS 19069	\$ 1,138,000	0% int/hqf 30 yrs	3F1904	01-Nov-22		\$ 569,000	\$ 569,000	\$ 1,138,000	
South Duchesne Culinary Water - PWS 07067	\$ 1,992,500	2%, 30 yrs	3F1879A	21-Jul-22				\$ -	\$ 482,000
Hidden Lake Assn - PWS 22029	\$ 3,838,040	0%, 40 yrs	3F1911	10-Jan-23		\$ 3,838,040		\$ 3,838,040	
Ogden City - PWS 29011	\$ 87,000,000	1% 30 years	3F1908	10-Jan-23		\$ 34,370,000		\$ 34,370,000	
Virgin Town - PWS 27020	\$ 3,470,489	0%, 40 yrs	3F1909	16-May-23		\$ 2,140,000	\$ 930,489	\$ 3,070,489	
Paragonah	\$ 7,452,100	0%, 40 yrs	3F1913	16-May-23		\$ 5,110,000	\$ 1,890,000	\$ 7,000,000	
Green River (see Emerging Contam. tab)	\$ 5,575,000	3.16%, 30 yrs	3F1925E	16-May-23		\$ 2,045,000		\$ 2,045,000	
Spring City	\$ 5,932,000	1%, 40 yrs	3F1926	16-May-23		\$ 4,338,000	\$ 1,494,000	\$ 5,832,000	
Stockton Town (Add'l \$\$ & Design Advance)	\$ 2,067,000	1%, 40 yrs	3F1928	27-Jun-23		\$ 2,240,000	\$ 960,000	\$ 3,200,000	
Green Hills Estates WSID	\$ 2,067,000	1%, 30 yrs	3F1930E	16-May-23		\$ 926,000	\$ 1,121,000	\$ 2,047,000	
Genola (add'l funds & refinance 1732)	\$ 2,849,400	0%, 40yrs	3F2001	16-May-23		\$ 265,000	\$ 265,000	\$ 530,000	
Payson City - Christian Life Assembly	343,000	100% PF	3F2003	27-Jun-23		\$ -	\$ 343,000	\$ 343,000	
Irontown - new project, Additional \$	106,100	0%, 30 yrs	3F2015	30-Aug-23	1/29/2024	\$ 85,000	\$ 21,100	\$ 106,100	
Fremont Waterworks Company	1,425,000	1%, 30 yrs	3F2016	30-Aug-23		\$ 997,000	\$ 428,000	\$ 1,425,000	
Foothill Water Users Assoc -	\$ 603,030	0%, 40yrs	3F2006	07-Nov-23		\$ 422,000	\$ 181,030	\$ 603,030	
Holiday Hills HOA	\$ 250,000	0%, 20yrs		07-Nov-23		\$ 175,000	\$ 75,000	\$ 250,000	
TOTAL CONSTRUCTION AUTHORIZED:						\$ 90,395,040	\$ 34,200,961	\$ 124,596,001	\$ 482,000
COMMITTED ADVANCES / AGREEMENTS or PARTIALLY DISBURSED CLOSED 2ND ROUND AGREEMENTS:									
					Date Closed	Loan	PF		Fund 5215
Rural Water Assn of Utah	\$ 676,000	5 yr contract for Development Spe	Ongoing	07-Jan-18	6/5/2018			\$ -	\$ -
Rural Water Assn of Utah		CONTRACT # 21-6428						\$ -	\$ 2,600
Hyde Park City	\$ 5,994,000	2.91% HGF 20 yrs	3F1744	14-Jan-20	4/15/2021	\$ 1,500,000		\$ 1,500,000	
Bicknell	\$ 2,278,000	1% 30 yrs HGA?	3F1786	08-Jun-21	8/18/2022	\$ 408,000	\$ 270,000	\$ 678,000	
East Carbon City - pws 04012	\$ 5,099,000	1% int/hqf 30 yrs (increased pf am	3F1792	01-Nov-22	3/30/2023	\$ 650,000	\$ 650,000	\$ 1,300,000	
Blanding City - West Water PWS 19001	\$ 40,000	100% PF	3F1816P	22-Sep-21	3/29/2022				\$ 4,503
Cornish Town - pws 03005	\$ 40,000	100% PF	3F1826P	22-Nov-21	1/18/2022				\$ 40,000
High Valley Water Company - pws 22021	\$ 4,009,000	0%, 30 yrs	3F1835	03-Mar-22	6/6/2023	\$ 755,000	\$ 754,000	\$ 1,509,000	
High Valley Water Company - pws 22021	\$ 4,009,000	0%, 30 yrs (add'l funds for longer t	3F1835	16-May-23	6/6/2023	\$ 350,000	\$ 350,000	\$ 700,000	
Timber Lakes Water SSD - pws 26057	\$ 40,000	100% PF	3F1840P	25-Feb-22	4/14/2022				\$ 19,584
Pine Valley Mt Farms - pws 27061	\$ 12,000	100% PF	3F1868P	18-Jul-22	8/15/2022				\$ 520
Panguitch City - pws 09007	\$ 1,629,000	50/50 2.0% 20 yrs HGA	3F1855	09-Jun-22	8/10/2023	\$ 423,000	\$ 423,000	\$ 846,000	
Granger-Hunter Improve District - pws 18	\$ 13,811,820	.5% hga fee 30 yrs	3F1850	21-Jul-22	5/9/2023	\$ 9,480,000	\$ 2,432,620	\$ 11,912,620	
Ouray Park WID	\$ 40,000	100% PF	3F1865P	31-Aug-22	6/12/2023		\$ 20	\$ 20	
Beaver City - pws 01001	\$ 2,829,146	0%, 40 yrs	3F1874	21-Jul-22	8/17/2023	\$ 797,000	\$ 805,620	\$ 1,602,620	
Pine Valley Mt Farms - pws 27061	\$ 700,000	100% PF	3F1890	31-Aug-22	4/4/2023		\$ 630,015	\$ 630,015	
Leeds Domestic Users Assn - pws 27010	\$ -	planning advance 100% pf	3F1892	31-Aug-22	5/17/2023		\$ -	\$ -	
Beaver Dam Village SSD	\$ 32,900	100% PF	3F1921P	18-Apr-23	5/23/2023				\$ 16,642
Paragonah (advance)	\$ 300,000	0%, 40 yrs	3F1913	16-May-23	9/11/2023		\$ 300,000	\$ 300,000	
Spring City		P/F planning/design Advance	3F1926	16-May-23	6/12/2023		\$ -	\$ -	
Wales Town	\$ 80,000	100% PF	3F1929	16-May-23	7/3/2023		\$ 3,406	\$ 3,406	
Henrieville Town	\$ 49,000	100% PF	3F1914P	25-May-23	6/20/2023				\$ 44,000
Price Municipal Corporation	\$ 85,890	100% PF	3F2000P	14-Jun-23	7/3/2023				\$ 85,890
Highlands Water Company	\$ 40,000	0%, 5 years	3F1917P	15-Jun-23	7/3/2023	\$ 40,000		\$ 40,000	
Big Plains Water SSD	\$ 35,200	100% PF	3F2007P	20-Jun-23	7/5/2023		\$ 35,200	\$ 35,200	
Hinckley Town	\$ 39,000	100% PF	3F1999P	14-Jun-23	7/11/2023				\$ 39,000
Weber Meadowview Ranch - pws 22009	\$ 2,258,400	0%, 40 yrs	3F1815	18-Nov-21	7/19/2023	\$ 560,000		\$ 560,000	
Bridgerland Village Water Co - pws 1700	\$ 1,350,000	1.7% 30yrs LOF \$13,500	3F1837	03-Mar-22	7/26/2023	\$ 1,350,000		\$ 1,350,000	
Wanship Mutual Water Company	\$ 61,500	0%, 5 years	3F1916P	23-Jan-23	9/12/2023	\$ 37,485		\$ 37,485	
LaVerkin City	\$ 64,600	100% PF	3F2012P	10-Aug-23	10/2/2023				\$ 64,600
Wallsburg Town - pws 26009	\$ 239,000	planning advance 100% pf	3F1889	31-Aug-22	10/2/2023		\$ -	\$ -	
Neola Water & Sewer District	\$ 75,000	100% PF	3F1918P	14-Jun-23	10/2/2023		\$ 75,000	\$ 75,000	
Levan Town - pws 12001	\$ 2,895,000	2%, 30 yrs	3F1856	21-Jul-22	11/6/2023	\$ 1,033,000	\$ 1,033,050	\$ 2,066,050	
TOTAL PLANNING AUTHORIZED:						\$ 17,383,485	\$ 7,761,931	\$ 25,145,416	\$ 317,339
TOTAL CONSTRUCTION & PLANNING:								\$ 149,741,417	\$ 799,339
AVAILABLE PROJECT FUNDS:									\$ (43,248,372)
AVAILABLE HARDSHIP FUNDS:									\$ 1,853,812

**DIVISION OF DRINKING WATER
FEDERAL SRF LOAN FUNDS
as of January 31, 2024**

	Loan Funds 1st Round	Loan Payments		Hardship Fund	TOTAL
		2nd Round			
		Principal	Interest		
Federal Capitalization Grants and State 20% match	\$291,270,101				
Earnings on Invested 1st Round Funds			3,344,295		
Repayments (including interest earnings on 2nd round receipts)		41,470,245	25,898,165	2,653,151	364,635,957
Less:					
Closed loans and grants	-255,489,761				-255,489,761
SUBTOTAL of Funds Available	\$35,780,340	\$41,470,245	\$29,242,460	\$2,653,151	\$109,146,196
Loans & Grants authorized but not yet closed or fully disbursed	-121,816,001	-20,163,485	-7,761,931	-799,339	-150,540,756
SUBTOTAL of Funds Available less Authorized	-\$86,035,661	\$21,306,760	\$21,480,530	\$1,853,812	-\$41,429,759
Future Estimates:					
Proposed Loans/Grants for current board package	0			0	0
SUBTOTAL of Funds Available less Proposed Loans & Grants	-\$86,035,661	\$21,306,760	\$21,480,530	\$1,853,812	-\$41,429,759
PROJECTIONS THRU January-2025					
2023 BIL Supplemental & Match					
2023 FED Base SRF Grant & State Match	0				
2024 BIL Supplemental & Match	19,666,900				
Projected repayments & revenue during the next twelve months		8,693,803	782,409	924,342	10,400,554
Projected annual investment earnings on invested cash balance		1,200,000	84,000	30,000	1,314,000
TOTAL	-\$66,368,761	\$31,200,562	\$22,346,939	\$2,808,154	-\$10,048,306

DIVISION OF DRINKING WATER

ARPA Grant FUNDS

AS OF January 31, 2024

SUMMARY		
	FY21 ARPA Appropriation:	\$25,000,000
	FY22 ARPA Appropriation:	\$21,500,000
	Subtotal:	\$46,500,000
LESS AUTHORIZED	Less:	
	Authorized Grants & Closed Grants in Construction:	\$46,020,616
	Subtotal:	\$46,020,616
	Total available after Authorized deducted	\$479,384
PROPOSED	Proposed Loan Project(s):	\$0
	Subtotal:	\$0
AS OF:		
January 31, 2024	TOTAL REMAINING ARPA GRANT FUNDS:	\$479,384

(see Page 2 for details)

(see Page 2 for details)

Total Balance of Funds: \$479,384

Projected Receipts Next Twelve Months:	
FY2023 Appropriation and Federal Funding	
Total Projections	\$0

Total Estimated ARPA Funds Available through 01-31-2025	\$479,384
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DIVISION OF DRINKING WATER
LEAD ARPA Grant FUNDS
AS OF January 31, 2024

SUMMARY		
	FY22 ARPA Appropriation:	\$3,500,000
	Subtotal:	\$3,500,000
LESS AUTHORIZED	Less:	
	Authorized Grants & Closed Grants in Construction:	\$2,965,462
	Subtotal:	\$2,965,462
	Total available after Authorized deducted	\$534,538
PROPOSED	Proposed Loan Project(s):	\$0
	Subtotal:	\$0
AS OF: January 31, 2024	TOTAL REMAINING ARPA GRANT FUNDS:	\$534,538

(see Page 2 for details)

(see Page 2 for details)

Total Balance of Funds: \$534,538

Projected Receipts Next Twelve Months:	
FY2023 Appropriation and Federal Funding	
Total Projections	\$0

Total Estimated ARPA Funds Available through 01-31-2025	\$534,538
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DIVISION OF DRINKING WATER
Lead Service Line Grant Funds
as of January 31, 2024

SUMMARY		
	FY22 LSL Grant Loan Portion	\$26,248,000
	Subtotal:	\$26,248,000
LESS AUTHORIZED	Less:	
	Authorized Grants & Closed Grants and Loans:	\$5,862,600
	Subtotal:	\$5,862,600
	Total available after Authorized deducted	\$20,385,400
PROPOSED	Proposed Loan Project(s):	\$39,525,000
	Subtotal:	\$39,525,000
AS OF: January 31, 2024	TOTAL REMAINING LSLR LOAN/GRANT FUNDS:	-\$19,139,600

(see Page 2 for details)

(see Page 2 for details)

Total Balance of Funds: -\$19,139,600

Projected Receipts Next Twelve Months:	
FY2023 Appropriation and Federal Funding	
Total Projections	\$26,248,000

Total Estimated LSLR Funds Available through 01-31-2025	\$7,108,400
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DIVISION OF DRINKING WATER
Emerging Contaminants Grant Funds
as of January 31, 2024

SUMMARY		
	FY22 EC Grant (excludes set-asides):	\$6,797,600
	Subtotal:	\$6,797,600
LESS AUTHORIZED	Less:	
	Authorized Grants & Closed Grants in Construction:	\$6,530,000
	Subtotal:	\$6,530,000
	Total available after Authorized deducted	\$267,600
PROPOSED	Proposed Loan Project(s):	\$0
	Subtotal:	\$0
AS OF:		
January 31, 2024	TOTAL REMAINING EC GRANT FUNDS:	\$267,600

(see Page 2 for details)

(see Page 2 for details)

Total Balance of Funds: \$267,600

Projected Receipts Next Twelve Months:	
FY2023 Appropriation and Federal Funding	
Total Projections	\$6,800,000

Total Estimated EC Funds Available through 01-31-2025	\$7,067,600
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DIVISION OF DRINKING WATER
STATE LOAN FUNDS
as of January 31, 2024

SUMMARY		
	Total State Fund:	\$26,638,797
	Total State Hardship Fund:	\$4,153,072
	Subtotal:	\$30,791,870
LESS AUTHORIZED	Less:	
	Authorized Loans & Closed loans in construction:	\$18,643,000
	Authorized Hardship:	\$2,574,501
	Subtotal:	\$21,217,501
	Total available after Authorized deducted	\$9,574,369
PROPOSED	Proposed Loan Project(s):	\$0
	Proposed Hardship Project(s):	\$0
	Subtotal:	\$0
AS OF:		
January 31, 2024	TOTAL UNCOMMITTED STATE LOAN FUNDS:	\$7,995,797
	TOTAL UNCOMMITTED STATE HARDSHIP FUNDS:	\$1,578,572

Total Balance of ALL Funds: \$9,574,369

Projected Receipts Next Twelve Months: and Sales Tax Revenue	
Annual Maximum Sales Tax Projection	\$3,587,500
Less Seven County Infrastructure Coalition	(\$363,009)
Less State Match for 2024 Base/BIL Grants	(\$3,057,600)
Less Appropriation to DDW Operating Budg	(\$1,286,500)
SUBTOTAL Sales Tax Revenue including adjustments:	-\$1,119,609
Payment:	
Interest on Investments (Both Loan and Hardship Accounts)	\$600,000
Principal payments	\$2,731,000
Interest payments	\$612,417
Total Projections:	\$2,823,808
Total Estimated State SRF Funds Available through 01-31-2025	\$12,398,177

Agenda Item

8(B)

**DW SRF LOAN FUNDS
CASH FLOW FORECAST REPORT
January 31, 2024**

FEDERAL STATE REVOLVING FUND (FSRF - 5210)	State Fiscal Year 2024	State Fiscal Year 2025	State Fiscal Year 2026	State Fiscal Year 2027	State Fiscal Year 2028	State Fiscal Year 2029	State Fiscal Year 2030
Funds Available							
Supplemental 2022 Grant not disbursed	11,636,920						
Base Grant 2023 (est w/o inc & less set-asides)	5,020,920	-	-	-	-	-	-
Future Base Grant State Match (est @ 20%)		-	-	-	-	-	-
BIL SRF-Capitalization Grants 2023 (est)*	16,091,100	16,716,600	18,107,800	18,107,800			
Future BIL State Match (est)		4,518,000	4,894,000	4,894,000			
SRF - 2nd Round	67,686,739	40,092,244	13,324,519	28,417,934	58,289,926	70,609,601	83,682,847
Interest Earnings at 2%	1,353,735	801,845	266,490	568,359	1,165,799	1,412,192	1,673,657
Interest Payments (5210)	782,409	766,761	751,426	736,397	721,669	707,236	693,091
Loan Repayments	8,582,603	9,011,733	9,462,320	9,935,436	10,432,208	10,953,818	11,501,509
Total Funds Available	111,154,426	71,907,183	46,806,555	62,659,926	70,609,601	83,682,847	97,551,103
PROJECT OBLIGATIONS							
Granger Hunter ImpDist: 3F1708 & 3F1850	(3,400,000)	(5,000,000)	(4,512,620)				
Hyde Park City	(1,500,000)						
Moroni - 3F1878	(400,000)						
Bicknell	(678,000)						
East Carbon	(1,300,000)						
High Valley Water Company - pws 22021	(1,509,000)						
High Valley Water Company - pws 22021	(700,000)						
Pine Valley Mt Farms - pws 27061	(630,015)						
Spring City	(366,000)						
Wales Town	(5,976)						
Highlands Water Company	(40,000)						
Big Plains Water SSD	(35,200)						
Panguitch City 3F1855	(846,000)						
Beaver City 3F1874	(1,602,620)						
Leeds Domestic 3F1892	-						
Paragonah	(300,000)						
Weber Meadowview 3F1815	(560,000)						
Bridgerland Village 3F1837	(1,350,000)						
Wanship Mutual 3F1916P	(37,485)						
Wallsburg Town 3F1889	-						
Neola Water 3F1918P	(75,000)						
PROJECT AUTHORIZATIONS							
Authorized Projects Under 2 Million	(5,217,228)	(4,935,258)					
Skyline Mountain SSD	(2,883,000)	(240,000)					
Roosevelt City	(840,000)	(2,001,400)					
Henefer Secondary Water	(2,100,000)	(1,100,000)					
Johnson WID	(2,352,000)						
Levan	(1,171,050)	(1,695,000)					
Holden Town	(4,345,500)	(3,945,500)					
Wallsburg Town	(2,284,000)	(4,410,000)					
Leeds Domestic Users Assn	(1,708,696)	(3,633,494)	(1,960,310)				
Hanna Water & Sewer	(167,254)	(2,695,893)	(620,691)				
TimberLakes SSD 3F1877	(3,263,000)						
Ballard Water ID 3F1896	(305,000)	(5,500,000)	(1,295,000)				
Hidden Lake Assn	(3,838,040)						
Ogden City	(10,000,000)	(10,000,000)	(10,000,000)	(4,370,000)			
Virgin Town	(1,535,244)	(1,535,245)					
Brian Head Town	(2,741,874)	(2,741,874)					
Paragonah	(3,650,000)	(3,350,000)					
Leamington Town	-	-					
Green River (EC portion excluded)	(1,045,000)	(1,000,000)					
Spring City	(2,733,000)	(3,099,000)					
Stockton Town	(1,500,000)	(1,700,000)					
Green Hills Estates WSID	(2,047,000)						
Proposed Projects							
Est Total Outflow	(71,062,182)	(58,582,664)	(18,388,621)	(4,370,000)	-	-	-
Est Fund Balance Available	\$ 40,092,244	\$ 13,324,519	\$ 28,417,934	\$ 58,289,926	\$ 70,609,601	\$ 83,682,847	\$ 97,551,103

*EPA grant awards are usually delayed until the following state fiscal year: e.g. GY22 was received in Sept 2022.

UTAH SRF FUND (STATE SRF FUND 5235)	State Fiscal Year 2024	State Fiscal Year 2025	State Fiscal Year 2026	State Fiscal Year 2027	State Fiscal Year 2028	State Fiscal Year 2029	State Fiscal Year 2030
Funds Available							
Water Development Security Fund	\$ 23,684,899	\$ 21,845,399	\$ 18,405,899	\$ 17,873,399	\$ 17,954,899	\$ 25,153,299	\$ 32,532,599
Sales Tax Revenue	3,587,500	3,587,500	3,587,500	3,587,500	3,587,500	3,587,500	3,587,500
Loan Repayments	3,000,000	3,150,000	3,308,000	3,473,000	3,647,000	3,829,000	4,020,000
Total Funds Available	30,272,399	28,582,899	25,301,399	24,933,899	25,189,399	32,569,799	40,140,099
General Obligations							
State Match Transfers	-	(4,518,000)	(4,894,000)	(4,894,000)	-	-	-
DDW Administrative Expenses est inc of 3%	-	(33,000)	(34,000)	(35,000)	(36,100)	(37,200)	(38,300)
Project Obligations							
Pleasant Grove City	(2,300,000)						
Powder Mtn WSID	(300,000)						
Tridell Lapoint SSD 0% 40 yrs	(300,000)						
Circleville Town 470k loan .5% 30yrs	(470,000)						

Agenda Item

8(C)

**DRINKING WATER BOARD
BOARD PACKET FOR PROJECT PRIORITY LIST
PRESENTED TO THE DRINKING WATER BOARD**

There are two new projects being added to the project priority list:

Big Plains Water SSD scored 100 priority rating points as an emergency funding request. Big Plains Water Special Service District is seeking emergency funds to address critical needs with aging infrastructure and water source issues. The District is requesting emergency funding to add an interconnecting service line, consisting of a 4.5-mile pipeline, between the Apple Valley Water System and the Cedar Point Water System. The District has this project as a top priority in the master plan that was completed in July 2023. The emergency source capacity conditions in the Cedar Point System have further increased the need to complete this connection as quickly as possible.

Salt Lake City DPU scored 20.3 priority rating points. Their project will coordinate both planning and construction efforts for lead service line inventory and replacements, identify lead services through records review, public outreach, and verification methods (including but not limited to field investigations, customer provided data, and test pitting), and develop a targeted approach for service line removal throughout the system. The construction component of the program will include public and private lead service line removal, as well as to potentially replace aging water mains to facilitate the service line replacements where large quantities of lead are present.

FINANCIAL ASSISTANCE COMMITTEE RECOMMENDATION:

The Drinking Water Board approve the updated Project Priority List.

Agenda Item

8(D)(i)(a)

**DRINKING WATER BOARD
BOARD PACKET FOR CONSTRUCTION ASSISTANCE**

APPLICANT’S REQUEST:

Salt Lake City is requesting financial assistance for a 5-year planning and construction project for lead service line inventory and replacement.

This project will coordinate both planning and construction efforts for lead service line inventory and replacements. They will identify lead services through records review, public outreach, and verification methods (including but not limited to field investigations, customer provided data, and test pitting), and will develop a targeted approach for removals throughout the system. The construction component of the program will include public and private lead service line removals, as well as potential replacement of aging water mains to facilitate these service line replacements where large quantities of lead are present. Estimated LSLs for replacement range from 9,402 to 14,457 and will be updated in the inventory as LSLs are replaced and unknowns are identified.

This project scored 20.3 points on the Project Priority List.

The total project cost is \$39,525,000. They are requesting the full amount from the Drinking Water Board.

STAFF COMMENTS:

The local MAGI for Salt Lake City is \$46,500 which is 90% of the State MAGI. The current average water bill is \$95.83, which is 2.47% of the local MAGI. The estimated after project water bill at full loan would be \$91.96 or 2.37% of the local MAGI. Based on the after project water bill, Salt Lake City qualifies to be considered for additional subsidy.

Option	Loan / Grant	Principal Forgiveness	Loan	Term	Interest Rate (HGA)	Water Bill	% Local MAGI
1	51 /49	\$19,350,000	\$20,175,000	20 yrs	1.50%	\$91.96	2.37%

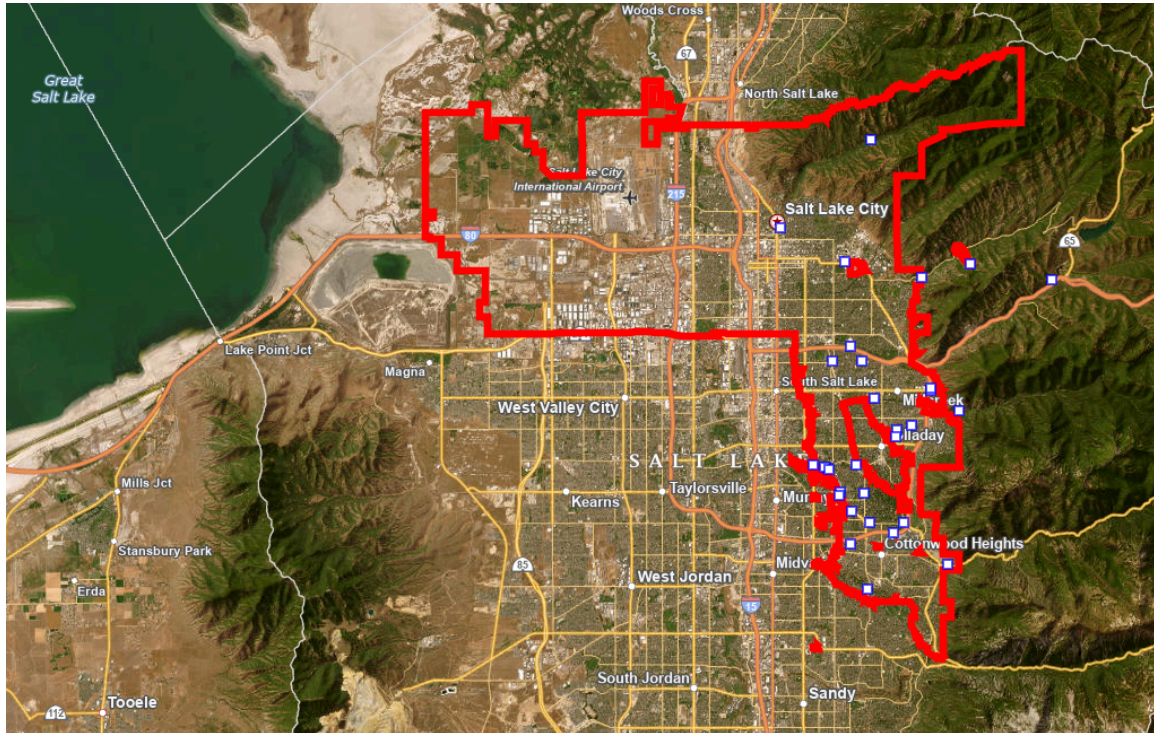
FINANCIAL ASSISTANCE COMMITTEE RECOMMENDATION:

The Drinking Water Board authorize a construction loan of up to \$39,525,000 with \$19,350,000 in principal forgiveness to Salt Lake City, for a repayable loan amount of \$20,175,000 at 1.50% hardship grant assessment fee for up to 39 years.

APPLICANT'S LOCATION:

Salt Lake City is located in Salt Lake County.

MAP OF APPLICANT'S LOCATION:



PROJECT DESCRIPTION:

Construction work will include removal and replacement of both public services and private services that are currently either lead or galvanized requiring replacement. New copper services will be installed in place of the lead or GRR services. This work may also include removal and replacement of aging water mains in order to facilitate service line replacements where large quantities of lead services are present. Additionally, this project will include all work associated with both service line and water main replacements inclusive of valve, fitting, and hydrant replacements, temporary bypass, and site restoration. Construction may include new copper piping for service lines, new curbstops, and new connections to existing water mains, as well as connections to existing water meters on the customer side. Items that are not lead service line replacements will be reimbursed from the base SRF program.

POPULATION GROWTH:

Population growth is based on Salt Lake City’s service area.

Year	Population	Connections
Current	364,982	92,374
2030	376,438	95,273
2040	400,439	101,348

COST ESTIMATE:

Legal/Bonding/Admin	\$1,581,000
Engineering - Design	\$1,844,500
Engineering - CMS	\$4,479,500
Construction -	\$26,350,000
Contingency (~10%)	\$5,270,000
Total	\$39,525,000

COST ALLOCATION:

<u>Funding Source</u>	<u>Cost Sharing</u>	<u>Percent of Project</u>
DWB Loan (1.5 %, 20-yr)	\$20,175,000	51%
DWB PF	\$19,350,000	49%
Total	\$39,525,000	100%

IMPLEMENTATION SCHEDULE:

DWB Funding Authorization:	Feb 2024
Advertise for Bids:	May 2024
Bid Opening:	June 2024
Loan Closing:	July 2024
Begin Construction:	August 2024
Complete Construction:	August 2029

IPS SUMMARY:

Code	Description	Physical Facilities	Quality & Monitoring	Significant Deficiency Violations
PS33	PUMP FACILITY NOT PROTECTED FROM VANDALISM OR UNAUTHORIZED ENTRY (PF010)	15		
V004	STORAGE TANK LADDERS IN EXCESS OF 20 FEET LACK SAFETY FEATURE SUCH AS CAGE, HARNESS OR PLATFORM (ST029)	15		
	Total =	30		

CONTACT INFORMATION:

APPLICANT: Salt Lake City Water System
1530 S West Temple Street
Salt Lake City, UT 84115

PRESIDING OFFICIAL &
CONTACT PERSON: Laura Briefer
1530 S West Temple
Salt Lake City, UT 84115
801-483-6700
Laura.briefer@slcgov.com

TREASURER/RECORDER: Lisa Tarufelli
801-483-6755
lisa.tarufelli@slcgov.com

CONSULTING ENGINEER: Emma McGowan
Jacobs
6440 S. Millrock Drive, Suite 300
Salt Lake City, UT 84121
413-522-7768
emma.mcgowan@jacobs.com

BOND ATTORNEY: Bradley Patterson
Gilmore & Bell
15 West South Temple, Suite 1450
Salt Lake City, UT 84101
801-258-2724
bpatterson@gilmorebell.com

WATER QUALITY &
TREATMENT
ADMINISTRATOR Teresa Gray
801-483-6744
Teresa.Gray@slcgov.com

PROGRAM MANAGER Dustin White
801-483-6867
dustin.white@slcgov.com

DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Salt Lake City
 COUNTY: UT
 PROJECT DESCRIPTION: Lsl Inventory and replacement

FUNDING SOURCE: Federal SRF

51 % Loan & 49 % P.F.

ESTIMATED POPULATION:	364,982	NO. OF CONNECTIONS:	76127 *	SYSTEM RATING:	APPROVED
CURRENT AVG WATER BILL:	\$95.83 *			PROJECT TOTAL:	\$39,525,000
CURRENT % OF AGI:	2.47%	FINANCIAL PTS:	55	LOAN AMOUNT:	\$20,175,000
ESTIMATED MEDIAN AGI:	\$46,500			PRINC. FORGIVE.:	\$19,350,000
STATE AGI:	\$51,600			TOTAL REQUEST:	\$39,525,000
SYSTEM % OF STATE AGI:	90%				

	@ ZERO % RATE	@ RBBI MKT RATE		@ CALCULATED INTEREST RATE
SYSTEM	0%	3.54%		1.59%
ASSUMED LENGTH OF DEBT, YRS:	20	20		20
ASSUMED NET EFFECTIVE INT. RATE:	0.00%	3.54%		1.59%
REQUIRED DEBT SERVICE:	\$1,008,750.00	\$1,424,677.39		\$1,185,559.63
*PARTIAL COVERAGE (15%):	\$0.00	\$0.00		\$0.00
*ADD. COVERAGE AND RESERVE (10%):	\$100,875.00	\$142,467.74		\$118,555.96
ANNUAL NEW DEBT PER CONNECTION:	\$14.58	\$20.59		\$17.13
O & M + FUNDED DEPRECIATION:	\$69,425,909.00	\$69,425,909.00		\$69,425,909.00
OTHER DEBT + COVERAGE:	\$9,375,000.00	\$9,375,000.00		\$9,375,000.00
REPLACEMENT RESERVE ACCOUNT:	\$3,896,732.95	\$3,917,529.32		\$3,905,573.43
ANNUAL EXPENSES PER CONNECTION:	\$1,086.31	\$1,086.58		\$1,086.43
TOTAL SYSTEM EXPENSES	\$83,807,266.95	\$84,285,583.45		\$84,010,598.03
TAX REVENUE:	\$0.00	\$0.00		\$0.00
RESIDENCE				
MONTHLY NEEDED WATER BILL:	\$91.74	\$92.26		\$91.96
% OF ADJUSTED GROSS INCOME:	2.37%	2.38%		2.37%

\$0.00

Agenda Item

8(D)(i)(b)

DRINKING WATER BOARD
BOARD PACKET FOR CONSTRUCTION ASSISTANCE

APPLICANT'S REQUEST:

The Big Plains Water Special Service District (BPWSSD) is requesting emergency financial assistance to install a 4.5-mile transmission line to connect the Apple Valley Water System with the Cedar Point Water System and resolve a source capacity issue in the Cedar Point system. Both systems are currently managed by the District but are not physically connected. Total project cost is estimated at \$3,370,000 and the District is requesting the full amount from the Board.

As an emergency request, this project scored 100 points on the Project Priority List.

STAFF COMMENTS:

The local MAGI for the District is \$38,300, which is 74.2% of the State MAGI. The current average water bill is \$81.29/ERC, which is 2.55% of the local MAGI. The estimated after project water bill at full loan would be \$115.58/ERC or 3.62% of the local MAGI. Based on the local MAGI and after project water bill, Big Plains Water SSD qualifies to be considered for additional subsidy.

Option	Loan / Grant	Principal Forgiveness	Loan	Term	Interest Rate	Water Bill	% Local MAGI
1	100 / 0	\$0	\$3,370,000	30 yrs	1.62%	\$115.58	3.62%
2	60 / 40	\$1,350,000	\$2,020,000	39 yrs	1.62%	\$100.01	3.13%
3	70 / 30	\$1,000,000	\$2,370,000	39 yrs	0.0%	\$97.97	3.07%
4	60 / 40	\$1,350,000	\$2,020,000	39 yrs	0.0%	\$96.04	3.01%

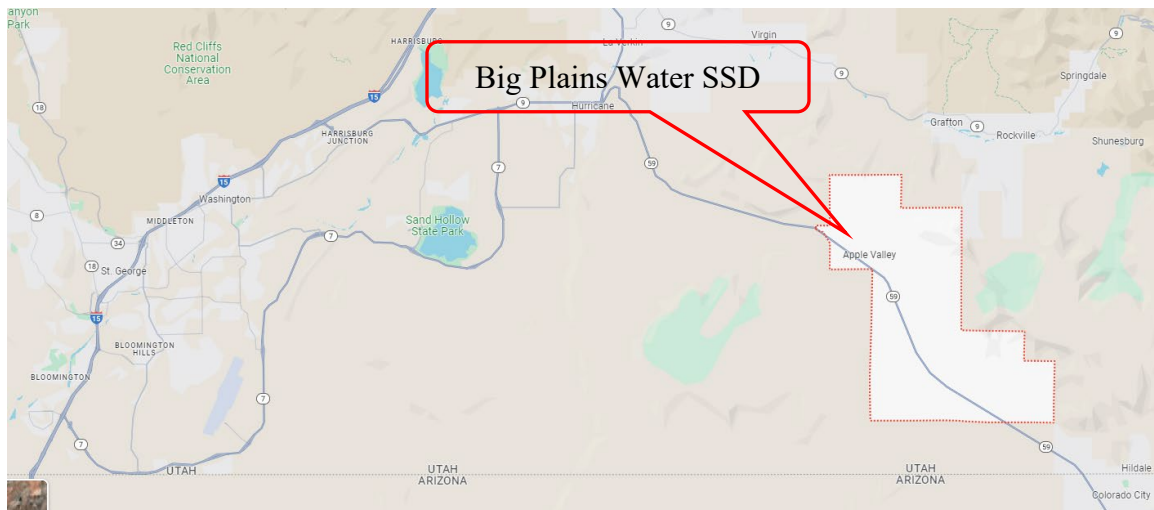
FINANCIAL ASSISTANCE COMMITTEE RECOMMENDATION:

The Financial Assistance Committee moved this project to the Drinking Water Board for discussion without a specific funding recommendation.

APPLICANT'S LOCATION:

Big Plains Water SSD serves Apple Valley Town and is located in Washington County approximately 26 miles west of St. George. The District's service area lies within the Town's municipal boundary.

MAP OF APPLICANT'S LOCATION:



PROJECT DESCRIPTION:

The District is requesting emergency funding to add an interconnecting service line, consisting of a 4.5-mile pipeline, between the Apple Valley Water System and the Cedar Point Water System. The District has this project as a top priority in the master plan that was completed in July 2023. The emergency source capacity conditions in the Cedar Point System have further increased the need to complete this connection as quickly as possible.

This improvement uses the excess capacity in the Apple Valley System's wells to supplement the Cedar Point System's capacity requirements. The line will provide enough water to be the sole source for Cedar Point if Cedar Point's wells were to go down.

The Apple Valley System has historically had very low levels of radium. Therefore, this interconnection will potentially allow the District to continue to operate the Cedar Point System's wells by blending the water received from the Apple Valley System, enabling the distribution water to meet the regulatory requirements for radium.

POPULATION GROWTH:

The District estimates growth over the next several years as follows.

Year	Population	Connections
Current	763	371
2030	1,211	484
2040	1,973	789
2050	3,148	1,596

COST ESTIMATE:

Legal/Bonding/Admin	\$26,600
Engineering - Planning	\$45,500
Engineering - Design	\$157,500
Engineering - CMS	\$227,800
Construction -	\$2,476,200
Other (land, etc.)	\$65,000
Contingency (~15%)	\$371,000
1% Loan Origination Fee	\$0
Total	\$3,370,000

COST ALLOCATION:

<u>Funding Source</u>	<u>Cost Sharing</u>	<u>Percent of Project</u>
DWB Loan (0.0%, 39-yrs)	\$2,020,000	60%
DWB Grant	\$1,350,000	40%
Local Contribution		
Total	\$3,370,000	100%

IMPLEMENTATION SCHEDULE:

(Estimated completion dates for major milestones – add or delete rows as needed)

DWB Funding Authorization:	Feb 2024
Complete Design	Feb 2024
DDW Plan Approval:	July 2024
Advertise for Bids:	July 2024
Bid Opening:	Aug 2024
Loan Closing:	Aug 2024
Begin Construction:	Sep 2024
Complete Construction:	Feb 2025

IPS SUMMARY:

See attached reports.

CONTACT INFORMATION:

APPLICANT: Big Plains Water Special Service District
1777 N Meadowlark Ln.
Apple Valley, UT 84737
Telephone: (435) 877-1190
Fax: (435) 877-1192
Email: clerk@applevalleyut.gov

PRESIDING OFFICIAL &
CONTACT PERSON: Barrat Nielson
Board Chair
Telephone: (435) 877-1190
Fax: (435) 877-1192
Email: ssdchairman@applevalleyut.gov

TREASURER/RECORDER: Jenna Vizcardo
Telephone: (435) 877-1190
Fax: (435) 877-1192
Email: clerk@applevalleyut.gov

CONSULTING ENGINEER: Nathan Wallentine
Sunrise Engineering, Inc.
11 North 300 West
Washington, UT 84780
Telephone: (435) 767-0990
Fax: (435) 652-8416
Email: nwallentine@sunrise-eng.com

CITY ATTORNEY: Ben Ruesch
Ruesch & Reeve
86 North 3400 West
Hurricane, UT 84737
Telephone: (435)635-7737
Fax: (435)635-7100
Email: ben@rrlegal.com

DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Big Plains Water SSD
 COUNTY: Washington
 PROJECT DESCRIPTION: 4.5-mile Transmission Line

FUNDING SOURCE: Federal SRF

60% Loan / 40% Grant

ESTIMATED POPULATION:	763	NO. OF CONNECTIONS:	446 *	SYSTEM RATING:	APPROVED
CURRENT AVG WATER BILL:	\$81.29 *			PROJECT TOTAL:	\$3,370,000
CURRENT % OF AGI:	2.55%	FINANCIAL PTS:	55	LOAN AMOUNT:	\$2,020,000
ESTIMATED MEDIAN AGI:	\$38,300			PRINC. FORGIVE.:	\$1,350,000
STATE AGI:	\$51,600			TOTAL REQUEST:	\$3,370,000
SYSTEM % OF STATE AGI:	74.2%				

	@ ZERO % RATE	@ RBBI MKT RATE		@ CALCULATED INTEREST RATE
SYSTEM	0%	3.59%		0.00%
ASSUMED LENGTH OF DEBT, YRS:	39	39		39
ASSUMED NET EFFECTIVE INT. RATE:	0.00%	3.59%		0.00%
REQUIRED DEBT SERVICE:	\$51,794.87	\$97,039.96		\$51,794.87
*PARTIAL COVERAGE (15%):	\$0.00	\$0.00		\$0.00
*ADD. COVERAGE AND RESERVE (10%):	\$5,179.49	\$9,704.00		\$5,179.49
ANNUAL NEW DEBT PER CONNECTION:	\$127.75	\$239.34		\$127.75
O & M + FUNDED DEPRECIATION:	\$258,295.00	\$258,295.00		\$258,295.00
OTHER DEBT + COVERAGE:	\$176,188.75	\$176,188.75		\$176,188.75
REPLACEMENT RESERVE ACCOUNT:	\$22,552.04	\$24,814.30		\$22,552.04
ANNUAL EXPENSES PER CONNECTION:	\$1,024.74	\$1,029.82		\$1,024.74
TOTAL SYSTEM EXPENSES	\$514,010.15	\$566,042.00		\$514,010.15
TAX REVENUE:	\$0.00	\$0.00		\$0.00
RESIDENCE				
MONTHLY NEEDED WATER BILL:	\$96.04	\$105.76		\$96.04
% OF ADJUSTED GROSS INCOME:	3.01%	3.31%		3.01%

\$0.00

Public Water System IPS Report

Big Plains Water Ssd - Apple Valley

PWS ID: UTAH27069

Rating: Approved

03/12/2021

Status: Active

<p>Contacts</p> <p>Type: Administrative Contact Name: BARRATT NIELSON Office: 435-375-9270 Emergency: Email: bnielson@applevalleyut.gov clerk@applevalleyut.gov</p>	<p>Site Information</p> <p>Legal Contact: BIG PLAINS SPECIAL SERVICE DISTRICT Address: 1777 N Meadowlark Dr , APPLE VALLEY, UT 84737 Phone: 435-877-1190 County: WASHINGTON COUNTY System Type: Community Certification Required: SS Total Population: 450</p>	<p>Site Updates</p> <p>Last Inventory Update: 10/25/2023 Last Surveyor Update: 09/23/2021 Surveyor: JEREMY ROBERTS Operating Period: 1/1 - 12/31 Last IPS Update: 02/01/2024 14:10:00</p>	<p>Political Districts</p> <p>Representative: 71 Senate: 71</p> <p>Water Usage Information per ERC</p> <p>Total Ips Points: 120</p>
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IPS SUMMARY			Total IPS Points: 120
Admin & Physical Facilities	Quality & Monitoring	Significant Deficiency Violations	
70	50	0	

PHYSICAL FACILITY POINTS

Total Pts: 70

Facility	Facility Name	Status	Points Effective	Details			
DS001	UTAH27069 DISTRIBUTION SYSTEM	A	30	Hide Details (2)			
	Code	Description	Severity	Comments	Determined Date	Pending	Assessed
	M007	CCC-LACKS ON-GOING ENFORCEMENT IMPLEMENTATION	MIN	CCC information is in the Apple Valley City Offices and operator does not have access to records.	09/23/2021	0	15
	M006	CCC-LACKS WRITTEN RECORDS OF CCC ACTIVITIES	MIN	CCC information is in the Apple Valley City Offices and operator does not have access to records.	09/23/2021	0	15
ST001	STORAGE FACILITY ST001	A	15	Hide Details (1)			
	Code	Description	Severity	Comments	Determined Date	Pending	Assessed
	V021	STORAGE TANK ROOF OR SIDEWALLS SHOW SIGNS OF MILD OR MODERATE DETERIORATION	MIN	The inside of the tank is deteriorating.	09/23/2021	0	15
ST002	STORAGE FACILITY ST002	A	15	Hide Details (1)			
	Code	Description	Severity	Comments	Determined Date	Pending	Assessed
	V021	STORAGE TANK ROOF OR SIDEWALLS SHOW SIGNS OF MILD OR MODERATE DETERIORATION	MIN	The inside of the tank is deteriorating.	09/23/2021	0	15
WS002	APPLE VALLEY WELL #2	A	5	Hide Details (1)			
	Code	Description	Severity	Comments	Determined Date	Pending	Assessed
	SP04	ACTIVE SOURCE LACKS APPROVED UPDATES TO DWSP PLAN	MIN		10/01/2018	0	5
WS003	WELL #1 REPLACEMENT	A	5	Hide Details (1)			
	Code	Description	Severity	Comments	Determined Date	Pending	Assessed
	SP04	ACTIVE SOURCE LACKS APPROVED UPDATES TO DWSP PLAN	MIN		10/01/2018	0	5

SIGNIFICANT DEFICIENCY VIOLATIONS

Total Pts: 0

ID	Violation	Code	Deficiency	Determined	Points Effective
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LEAD COPPER MONITORING AND QUALITY VIOLATIONS

Total Pts: 0

Violation No.	Period	Code	Description/Name	Points Effective
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CHEMICAL MONITORING RULE VIOLATIONS

Total Pts: 0

Facility	Violation No	Period	Code	Violation Type	Analyte Group	Determined	Seasonality	Points Effective
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TREATMENT VIOLATIONS

Total Pts: 0

Facility	Violation No	Period	Code	Violation Type	Analyte Group	Determined	Points Effective
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MICROBIAL RULE VIOLATIONS

Total Pts: 50

Date Range Start: 01/01/2023

Determine Date	Compliance Period	Code	Violation Type	Return To Compliance	Points Effective
06/22/2023	04/01/2023 - 04/30/2023	3A	MONITORING, ROUTINE, MAJOR (RTCR)	N	25
01/21/2024	12/01/2023 - 12/31/2023	3A	MONITORING, ROUTINE, MAJOR (RTCR)	N	25

OPERATOR CERTIFICATION

Type	Level Required	Highest Certificate
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Distribution	Small System	
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Treatment		
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CONSUMER CONFIDENCE REPORT

Total Effective Points: 0

Violation No.	Period	Code	Description/Name	Points Effective
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PUBLIC NOTIFICATION VIOLATIONS

Total Pts: 0

Violation No.	Date	Code	Description/Name	Points Effective
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IPS COMPLIANCE SCHEDULES

Type	Required Activities	Severity	Created	Due
CCR SCHEDULES	Submit Consumer Confidence Report		01/01/2024	07/01/2024
CCR SCHEDULES	Submit CCR Certification Letter		01/01/2024	10/01/2024
Lead Copper Rule Revisions	COMPLETE INITIAL LSL INVENTORY		12/16/2021	10/16/2024
Lead Copper Rule Revisions	SUBMIT LEAD SERVICE LINE INVENTORY		12/16/2021	10/16/2024

Public Water System IPS Report

Big Plains Water Ssd - Canaan Ranch

PWS ID: UTAH27093

Rating: Approved

03/14/2023

Status: Active

Contacts Type: Administrative Contact Name: BARRATT NIELSON Office: 435-375-9270 Emergency: Email: bnielson@applevalleyut.gov clerk@applevalleyut.gov	Site Information Legal Contact: BIG PLAINS SPECIAL SERVICE DISTRICT Address: 1777 N Meadowlark Dr , APPLE VALLEY, UT 84737 Phone: 435-877-1190 County: WASHINGTON COUNTY System Type: Community Certification Required: SS Total Population: 62	Site Updates Last Inventory Update: 10/25/2023 Last Surveyor Update: 09/19/2022 Surveyor: PAUL WRIGHT Operating Period: 1/1 - 12/31 Last IPS Update: 02/01/2024 14:10:00	Political Districts Representative: 0 Senate: 0 Water Usage Information per ERC Total Ips Points: 125
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IPS SUMMARY	Total IPS Points: 125
Admin & Physical Facilities	Quality & Monitoring
75	50
	Significant Deficiency Violations
	0

PHYSICAL FACILITY POINTS								Total Pts: 75
Facility	Facility Name	Status	Points Effective	Details				
DS001	UTAH27093 DISTRIBUTION SYSTEM	A	60	Hide Details (4)				
	Code	Description	Severity	Comments	Determined Date	Pending	Assessed	
	M003	CCC-LACKS LOCAL AUTHORITY	MIN		09/21/2007	0	15	
	M006	CCC-LACKS WRITTEN RECORDS OF CCC ACTIVITIES	MIN		12/11/2019	0	15	
	M007	CCC-LACKS ON-GOING ENFORCEMENT IMPLEMENTATION	MIN		09/21/2007	0	15	
	VF34	SYSTEM LACKS REQUIRED STORAGE CAPACITY DUE TO FIRE DEMAND BUT HAS SOP FOR FOLLOWING FIRE INCIDENT	MIN	67% based on fire suppression	12/11/2019	0	15	
WS001	CANAAN SPRINGS	A	15	Hide Details (1)				
	Code	Description	Severity	Comments	Determined Date	Pending	Assessed	
	SS02	SPRING COLLECTION AREA NOT FENCED	MIN		09/21/2007	0	15	

SIGNIFICANT DEFICIENCY VIOLATIONS

Total Pts: 0

ID	Violation	Code	Deficiency	Determined	Points Effective
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LEAD COPPER MONITORING AND QUALITY VIOLATIONS

Total Pts: 0

Violation No.	Period	Code	Description/Name	Points Effective
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CHEMICAL MONITORING RULE VIOLATIONS

Total Pts: 0

Facility	Violation No	Period	Code	Violation Type	Analyte Group	Determined	Seasonality	Points Effective
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TREATMENT VIOLATIONS

Total Pts: 0

Facility	Violation No	Period	Code	Violation Type	Analyte Group	Determined	Points Effective
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MICROBIAL RULE VIOLATIONS

Total Pts: 50

Date Range Start: 01/01/2023

Determine Date	Compliance Period	Code	Violation Type	Return To Compliance	Points Effective
06/22/2023	04/01/2023 - 04/30/2023	3A	MONITORING, ROUTINE, MAJOR (RTCR)	N	25
01/21/2024	12/01/2023 - 12/31/2023	3A	MONITORING, ROUTINE, MAJOR (RTCR)	N	25

OPERATOR CERTIFICATION

Type	Level Required	Highest Certificate
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Distribution	Small System
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Treatment

CONSUMER CONFIDENCE REPORT

Total Effective Points: 0

Violation No.	Period	Code	Description/Name	Points Effective
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PUBLIC NOTIFICATION VIOLATIONS

Total Pts: 0

Violation No.	Date	Code	Description/Name	Points Effective
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IPS COMPLIANCE SCHEDULES

Type	Required Activities	Severity	Created	Due
CCR SCHEDULES	Submit Consumer Confidence Report		01/01/2024	07/01/2024
CCR SCHEDULES	Submit CCR Certification Letter		01/01/2024	10/01/2024
Revised Total Coliform Rule	LVL1 TTT TC+/EC- WO RPTS		05/25/2023	06/25/2023
Lead Copper Rule Revisions	COMPLETE INITIAL LSL INVENTORY		12/16/2021	10/16/2024
Lead Copper Rule Revisions	SUBMIT LEAD SERVICE LINE INVENTORY		12/16/2021	10/16/2024
Lead Consumer Notice	SUBMIT LCN CERTIFICATE		01/01/2021	09/28/2021

Public Water System IPS Report

Big Plains Water Ssd - Cedar Point

PWS ID: UTAH27089

Rating: Corrective Action

10/17/2023

Status: Active

<p>Contacts</p> <p>Type: Administrative Contact Name: BARRATT NIELSON Office: 435-375-9270 Emergency: Email: bnielson@applevalleyut.gov clerk@applevalleyut.gov</p>	<p>Site Information</p> <p>Legal Contact: BIG PLAINS SPECIAL SERVICE DISTRICT Address: 1777 N Meadowlark Dr , APPLE VALLEY, UT 84737 Phone: 435-877-1190 County: WASHINGTON COUNTY System Type: Community Certification Required: SS Total Population: 232</p>	<p>Site Updates</p> <p>Last Inventory Update: 10/25/2023 Last Surveyor Update: 09/23/2021 Surveyor: JEREMY ROBERTS Operating Period: 1/1 - 12/31 Last IPS Update: 02/01/2024 14:10:00</p>	<p>Political Districts</p> <p>Representative: 71 Senate: 28</p> <p>Water Usage Information per ERC</p> <p>Total Ips Points: 255</p>
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IPS SUMMARY			Total IPS Points: 255
Admin & Physical Facilities	Quality & Monitoring	Significant Deficiency Violations	
30	175	50	

PHYSICAL FACILITY POINTS

Total Pts: 30

Facility	Facility Name	Status	Points Effective	Details			
DS001	UTAH27089 DISTRIBUTION SYSTEM	A	30	Hide Details (3)			
	Code	Description	Severity	Comments	Determined Date	Pending	Assessed
	M007	CCC-LACKS ON-GOING ENFORCEMENT IMPLEMENTATION	MIN	Not Provided	09/23/2021	0	15
	M006	CCC-LACKS WRITTEN RECORDS OF CCC ACTIVITIES	MIN	Not Provided	09/23/2021	0	15
	S094	SYSTEM LACKS MORE THAN 20% OF REQUIRED SOURCE CAPACITY	SIG	Based on capacity calc worksheet the existing % is 42.9%.	09/23/2021	50	0
WS004	WELL NO. 4	A	0	Hide Details (1)			
	Code	Description	Severity	Comments	Determined Date	Pending	Assessed
	S001	UNAPPROVED SOURCE IN SERVICE	SIG	SYSTEM LACK AN OPERATING PERMIT.	07/05/2023	200	0
WS006	STOUT WELL	P	0	Hide Details (1)			
	Code	Description	Severity	Comments	Determined Date	Pending	Assessed
	SP06	NEW WATER SOURCE LACKS APPROVED PER	SIG		03/19/2019	0	

SIGNIFICANT DEFICIENCY VIOLATIONS

Total Pts: 50

ID	Violation	Code	Deficiency	Determined	Points Effective
DS001	45 FAILURE ADDRESS DEFICIENCY (GWR)	S094	SYSTEM LACKS MORE THAN 20% OF REQUIRED SOURCE CAPACITY	05/03/2023	50

LEAD COPPER MONITORING AND QUALITY VIOLATIONS

Total Pts: 0

Violation No.	Period	Code	Description/Name	Points Effective
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CHEMICAL MONITORING RULE VIOLATIONS

Total Pts: 150

Facility	Violation No	Period	Code	Violation Type	Analyte Group	Determined	Seasonality	Points Effective
WS004	2024-26535	10/01/2023 - 12/31/2023	02	MCL, AVERAGE	RRAD	01/23/2024	P	50
WS002	2024-26534	10/01/2023 - 12/31/2023	02	MCL, AVERAGE	RRAD	01/23/2024	P	50
WS004	2024-26533	10/01/2023 - 12/31/2023	03	MONITORING, ROUTINE MAJOR	RRAD	01/23/2024	P	25
WS002	2024-26532	10/01/2023 - 12/31/2023	03	MONITORING, ROUTINE MAJOR	RRAD	01/23/2024	P	25

TREATMENT VIOLATIONS

Total Pts: 0

Facility	Violation No	Period	Code	Violation Type	Analyte Group	Determined	Points Effective
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MICROBIAL RULE VIOLATIONS

Total Pts: 25

Date Range Start: 01/01/2023

Determine Date	Compliance Period	Code	Violation Type	Return To Compliance	Points Effective
06/22/2023	04/01/2023 - 04/30/2023	3A	MONITORING, ROUTINE, MAJOR (RTCR)	N	25

OPERATOR CERTIFICATION

Type	Level Required	Highest Certificate
Distribution	Small System	
Treatment		

CONSUMER CONFIDENCE REPORT

Total Effective Points: 0

Violation No.	Period	Code	Description/Name	Points Effective
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PUBLIC NOTIFICATION VIOLATIONS

Total Pts: 0

Violation No.	Date	Code	Description/Name	Points Effective
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IPS COMPLIANCE SCHEDULES

Type	Required Activities	Severity	Created	Due
CCR SCHEDULES	Submit CCR Certification Letter		01/01/2024	10/01/2024
CCR SCHEDULES	Submit Consumer Confidence Report		01/01/2024	07/01/2024
BCA COMPLIANCE SCHEDULES	COLLECT AND SUBMIT TCR SAMPLE RESULTS		10/17/2023	04/01/2024
BCA COMPLIANCE SCHEDULES	GWR CORRECT DEFICIENCY 30 DAYS	SIG	10/17/2023	03/31/2024
BCA COMPLIANCE SCHEDULES	GWR CORRECT DEFICIENCY 120 DAYS	SIG	10/16/2023	03/31/2024
BCA COMPLIANCE SCHEDULES	GWR CORRECT DEFICIENCY 120 DAYS	SIG	10/16/2023	07/19/2019
Lead Consumer Notice	SUBMIT LCN CERTIFICATE		06/01/2023	12/29/2023
Lead Copper Rule Revisions	SUBMIT LEAD SERVICE LINE INVENTORY		12/16/2021	10/16/2024
Lead Copper Rule Revisions	COMPLETE INITIAL LSL INVENTORY		12/16/2021	10/16/2024
Lead Consumer Notice	SUBMIT LCN CERTIFICATE		06/01/2021	12/29/2021
Lead Consumer Notice	SUBMIT LCN CERTIFICATE		01/01/2021	03/31/2022
Lead Consumer Notice	SUBMIT LCN CERTIFICATE		06/01/2020	12/29/2020
Revised Total Coliform Rule	SAMPLING SITE PLAN SUBMITTAL		01/01/2017	09/30/2017

Agenda Item

8(D)(i)(c)

DRINKING WATER BOARD
BOARD PACKET FOR CONSTRUCTION ASSISTANCE

APPLICANT’S REQUEST

Wilson Arch Water and Sewer Special Service District was authorized financial assistance to replace and add new water lines, water meters, a booster pump, and new 30,000-gallon storage tank in the amount of \$1,138,000.

This project scored 43.9 points on the Project Priority List.

STAFF COMMENTS

Wilson Arch WSSSD opened bids in January 2024 and the low bidder came in higher than anticipated, so they would like to request additional funds in the amount of \$360,000 to cover the increased cost of completing the project.

Based on both the current and estimated after-project after bill, the system qualifies to be considered for additional subsidy.

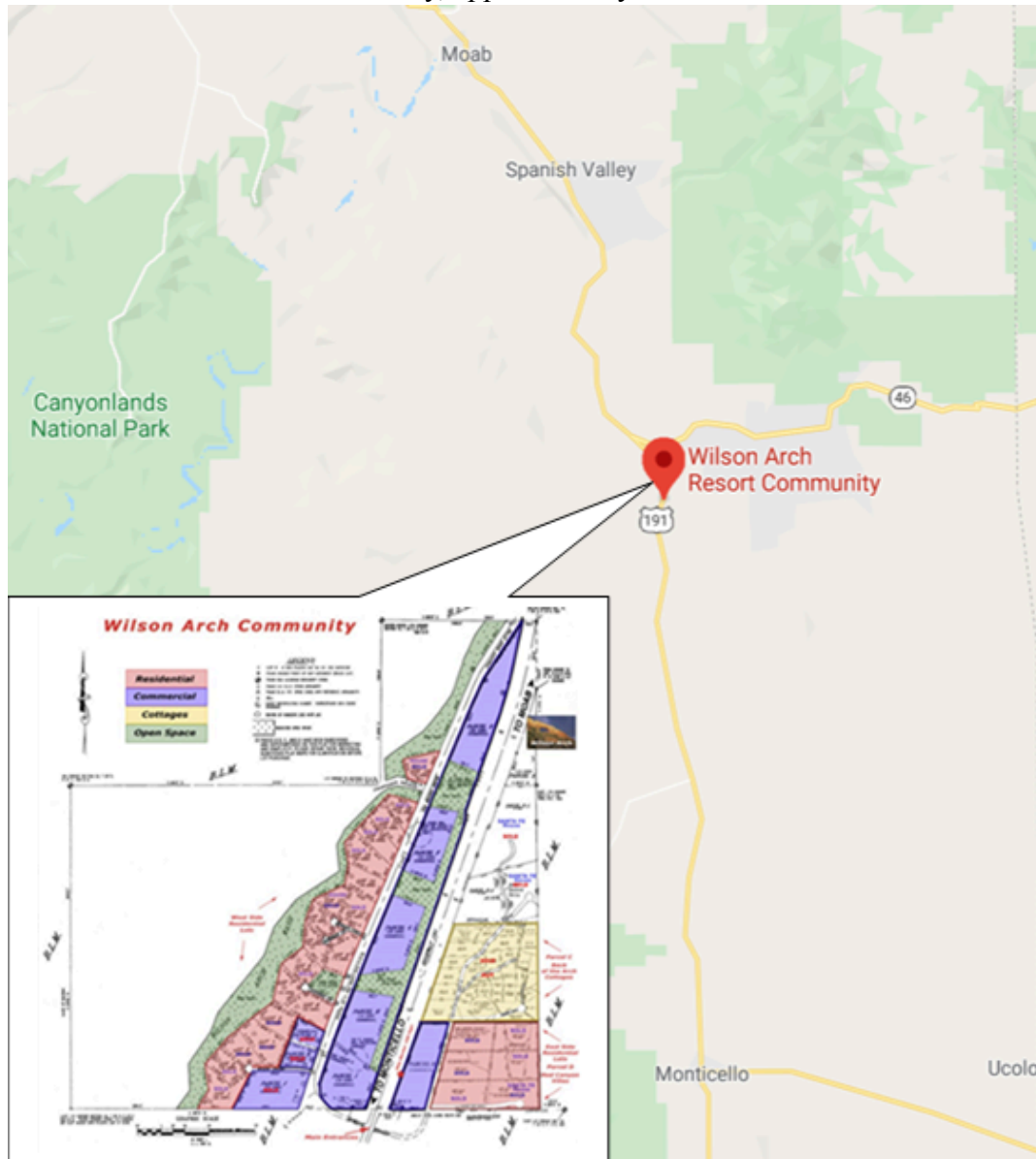
Option	Loan/ PF	Loan	Principal Forgiveness	Term	Interest/ HGA	Water Bill	% Local MAGI
Base	100 / 0	\$1,138,000	\$0	30 yrs	3.02%	\$281.94	8.83%
Authorized amount	50 / 50	\$569,000	\$569,000	30 yrs	0%	\$161.25	5.05%
Additional funding	50 / 50	\$749,000	\$749,000	30 yrs	0%	\$179.34	5.62%

STAFF RECOMMENDATION

The Drinking Water Board authorize an increase in funding in the amount of \$360,000 for a total of a construction loan of \$1,498,000 with \$749,000 in principal forgiveness to Wilson Arch Water and Sewer Special Service District, for a repayable loan amount of \$749,000 at 0% interest for 30 years for new water lines, water meters, booster pump, and storage tank.

APPLICANT'S LOCATION

Wilson Arch is in San Juan County, approximately 26 miles south of Moab.



PROJECT DESCRIPTION

The district recently had a water master plan and impact fee study completed by Sunrise Engineering. The master plan report recommends that Wilson Arch SSD take immediate action to increase fire flow on the east side of the system to meet requirements set forth by the San Juan County Fire Marshal. To address this deficiency, the following would be added: 1000' of new 8" water distribution line; 600' of new 4" water distribution line; replace 1100' of existing 6" line with 8" distribution line; install a new booster pump. Low booster pump capacity is the most significant factor limiting the system.

The addition of an 8-inch diameter line that connects the west and east sides will have a large impact on fire flow. Connecting the two sides will allow the large pumps on the west side to help the east side. It will also make the water storage on the west side available to the east side, which is important. Other improvements include adding water meters on existing and new connections and installing new fire hydrants. One of the proposed distribution lines will cross State Highway 191. The other lines, and pump will be constructed on easements owned by the SSD.

Additionally, the master plan noted that Wilson Arch SSD will need to add 25,600 gallons (minimum) of culinary water storage by the year 2032 to accommodate projected growth of Phase 1 development. The report recommended that Wilson Arch SSD add an additional 30,000-gallon fiberglass storage tank and connect it to the current 30,000-gallon fiberglass tanks on the west side. Burying the tank will incur added cost but will add a degree of security and will fall best in line with the community's goal to preserve scenery. If Wilson Arch SSD chooses to increase capacity by more than 30,000-gallons, the report recommends a concrete tank.

To meet fire storage requirements on its own, the east side would need a total of 60,000 gallons when it currently only has 20,000 gallons. By connecting the two sides, the 60,000 gallons of storage on the west side will become available to the east. Connecting the two sides will also create greater redundancy, which adds a factor of safety should a pump fail.

The estimated design life of the project components are as follows:

- New storage tank (fiberglass): 30 years
- Waterlines: 100 years
- Water meters: 20 years
- New booster pump: 15 years

POPULATION GROWTH

Projected population and connections for Wilson Arch over the next 20 years is based on a 6.8% annual growth rate estimated in their application.

Year	Population	Connections
2022	27	19
2042	100	98

IMPLEMENTATION SCHEDULE

DWB Authorization	February 2024
Begin Design	November 2022
DDW Plan Approval	March 2023
Advertise for Bids	April 2023
Bid Opening	May 2023
Loan Closing	April 2024
Begin Construction	April 2024
Complete Construction/DDW Permit	February 2025

COST ESTIMATE

Legal/Bonding	\$50,000
Engineering – Design/Pre-Project	\$97,400
Engineering – CMS	\$86,500
Construction - Mobilization	\$1,194,575
Contingency	\$69,525
Total Project Cost	\$1,498,000

COST ALLOCATION

Funding Source	Cost Sharing	Percent of Project
DWB Loan (30 yrs, 0%)	\$ 749,000	50%
DWB Principal Forgiveness	\$ 749,000	50%
Total Amount	\$ 1,498,000	100%

IPS SUMMARY

Code	Description	Physical Facilities	Quality & Monitoring	Significant Deficiency Violations
G001	Unapproved facility (West Side Pump) in service Note: <i>final operating permit currently under review by DEQ</i>	50		
	Total = 50			

CONTACT INFORMATION

APPLICANT: Wilson Arch Water and Sewer Special
Service District
131 South Joe Wilson Drive
La Sal, UT 84530

PRESIDING OFFICIAL &
CONTACT PERSON: Eric Linscheid
Chair
Telephone: (907) 539-6829
bodwassd@gmail.com

CONSULTING ENGINEER: Devan Shields
Sunrise Engineering
25 East 500 North
Fillmore, UT 84631
(435) 743-6151
dshields@sunrise-eng.com

TREASURER/RECORDER: Craig Simpson
Telephone: (601) 297-8288
Csimpson0824@gmail.com

BOND ATTORNEY: TBD

DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Wilson Arch

FUNDING SOURCE: Federal SRF

COUNTY: San Juan

PROJECT DESCRIPTION: New tank, meters, booster pump, waterlines

50 % Loan & 50 % P.F.

ESTIMATED POPULATION:	27	NO. OF CONNECTIONS:	34 *	SYSTEM RATING:	APPROVED
CURRENT AVG WATER BILL:	\$85.00 *	(ERC-R)		PROJECT TOTAL:	\$1,498,000
CURRENT % OF AGI:	2.66%	FINANCIAL PTS:	35	LOAN AMOUNT:	\$749,000
ESTIMATED MEDIAN AGI:	\$38,300			PRINC. FORGIVE.:	\$749,000
STATE AGI:	\$46,500			TOTAL REQUEST:	\$1,498,000
SYSTEM % OF STATE AGI:	82%				

	@ ZERO % RATE	@ RBBI MKT RATE		AFTER REPAYMENT PENALTY & POINTS
	0%	3.87%		0.00%
SYSTEM				
ASSUMED LENGTH OF DEBT, YRS:	30	30		30
ASSUMED NET EFFECTIVE INT. RATE:	0.00%	3.87%		0.00%
REQUIRED DEBT SERVICE:	\$24,966.67	\$42,633.66		\$24,966.67
*PARTIAL COVERAGE (15%):	\$3,745.00	\$6,395.05		\$3,745.00
*ADD. COVERAGE AND RESERVE (10%):	\$2,496.67	\$4,263.37		\$2,496.67
ANNUAL NEW DEBT PER CONNECTION:	\$924.69	\$1,579.02		\$924.69
O & M + FUNDED DEPRECIATION:	\$41,425.00	\$41,425.00		\$41,425.00
OTHER DEBT + COVERAGE:	\$0.00	\$0.00		\$0.00
REPLACEMENT RESERVE ACCOUNT:	\$0.00	\$0.00		\$0.00
ANNUAL EXPENSES PER CONNECTION:	\$1,227.41	\$1,227.41		\$1,227.41
TOTAL SYSTEM EXPENSES	\$72,633.33	\$94,717.08		\$72,633.33
TAX REVENUE:	\$0.00	\$0.00		\$0.00
RESIDENCE				
MONTHLY NEEDED WATER BILL:	\$179.34	\$233.87		\$179.34
% OF ADJUSTED GROSS INCOME:	5.62%	7.33%		5.62%

Agenda Item

7(D)(ii)(a)

**DRINKING WATER BOARD
BOARD PACKET FOR CONSTRUCTION ASSISTANCE**

APPLICANT’S REQUEST:

Holden Town was authorized financial assistance on July 21, 2022, to drill a new well, install a transmission line, construct a new 500,000 gallon tank, redundant tank distribution line, meter upgrades and upgrades to the chlorination. This project scored 9.8 points on the Project Priority List.

The total project cost is \$8,841,00. Holden Town will be contributing \$150,000 towards the project and is requesting the balance of \$8,691,000 from the Drinking Water Board.

STAFF COMMENTS:

Holden Town has been working diligently to locate an alternate well site that would be more favorable to drilling a new well. They are in talks with a property owner on either purchasing or leasing the property for the well site. They are at 60% design for the project, pending the finalization of the well site and would like to formally request an extension of authorization while they work out the details.

Option	Loan / PF	Principal Forgiveness	Loan	Term	Interest Rate (HGA)	Water Bill	% Local MAGI
1	100% loan	\$0	\$8,691,000	40 yrs	0%	\$119.20	3.21%
2	50/50	\$4,341,000	\$4,350,000	40 yrs	0%	\$77.18	2.08%
3	47/53	\$3,500,000	\$5,191,000	40 yrs	0%	\$85.32	2.30%
4	47/53	\$3,500,000	\$5,191,000	30 yrs	0%	\$102.07	2.75%

FINANCIAL ASSISTANCE COMMITTEE RECOMMENDATION:

The Drinking Water Board authorize a one-year extension to the authorization to Holden Town.

CONTACT INFORMATION:

APPLICANT: Holden Town
PO Box 127
56 North Main
Holden, Utah 84636
Telephone: 435-795-2213

PRESIDING OFFICIAL &
CONTACT PERSON: Darren Fox, Mayor
56 North Main
Holden, Utah 84636
Telephone: 435-979-4312
Holdentown.utah@gmail.com

TREASURER/RECORDER: Tyler Teuscher
801-669-1248
treasurer@holdenutah.us

CONSULTING ENGINEER: Jesse Ralphs
Sunrise Engineering
25 East 500 North
Fillmore, Utah 84631
Telephone: 435-743-6151
jralphs@sunrise-eng.com

BOND ATTORNEY: Richard Chamberlain
Olsen & Chamberlain
225 North 100 East
Richfield, Utah 84701
435-896-4461

Agenda Item

8(D)(ii)(b)

**DRINKING WATER BOARD
BOARD PACKET FOR CONSTRUCTION ASSISTANCE**

APPLICANT’S REQUEST:

Johnson Water Improvement District was authorized funding on July 21, 2022, to install a main line and upgrade water lines for the Independence area of the District. This project addresses a public health issue and compliance issue. This project scored 4.8 points on the Project Priority List.

The total project cost is estimated at \$2,452,000. The District is contributing \$100,000 towards this project and requests the full balance of \$2,352,000 from the Drinking Water Board.

STAFF COMMENTS:

Johnson Water ID and their engineer have been working on the environmental portion of the project and have had some difficulty obtaining the rights-of-way and easements through tribal land to complete the environmental work. They plan to have everything in place so they can go out to bid this spring and therefore request an extension of authorization while they complete the final requirements for SRF funding.

Option	Loan / Grant	Principal Forgiveness	Loan	Term	Interest Rate/ HGA	Water Bill	% Local MAGI
1	0/100	\$2,352,000	\$0	yrs	%	\$69.29	2.30%

FINANCIAL ASSISTANCE COMMITTEE RECOMMENDATION:

The Drinking Water Board authorize a one year extension of funding to Johnson Water Improvement District.

CONTACT INFORMATION:

APPLICANT:

Johnson water Improvement District
3758 West UT-87
Roosevelt, Utah 84066
435-722-2620

**PRESIDING OFFICIAL &
CONTACT PERSON:**

Dusty Monks, Chairman
3758 West UT-87
Roosevelt, Utah 84066
435-722-2620
jwdwater@stratanet.com

TREASURER/RECORDER:

Karen Ashby
435-722-2620

CONSULTING ENGINEER:

Jason Blankenagel
Sunrise Engineering
363 East Main, Suite 201
Vernal, Utah 84078
435-789-7364
jblankenagel@sunrise-eng.com

Agenda Item

8(D)(iii)(a)

**DRINKING WATER BOARD
BOARD PACKET FOR DEAUTHORIZATION**

APPLICANT'S REQUEST:

On January 10, 2023, the Drinking Water Board authorized a loan of \$3,838,040 for 40 years at 0% interest to Hidden Lake Association to drill a new well, install approximately 18,000 feet of 4-inch distribution line and 600 feet of 8-inch distribution line, and to install a 50,800-gallon concrete tank.

On January 22, 2024, staff received an email from Hidden Lake Association indicating that the system is not ready to move forward with a project at this time and requested that the funding be deauthorized.

STAFF RECOMMENDATION:

The Drinking Water Board de-authorize the \$3,838,040 loan for 40 years at 0% interest to Hidden Lake Association.



Allyson Spevak <allysonspevak@utah.gov>

Re: Hidden Lake SRF Project #3F1911 - Update Request

1 message

JoElla Horrocks <joellahorrocks@icloud.com>

Mon, Jan 22, 2024 at 4:03 PM

To: Allyson Spevak <allysonspevak@utah.gov>

Cc: Terry Ulanich <tulanich@yahoo.com>, Letizia Wetzel <lrwetzel@yahoo.com>, Clark Hill <cndhill@msn.com>, Michael Grange <mgrange@utah.gov>, NORMAN and LINDA WILLIAMSON <lnwilliamson@msn.com>

Hi Allyson,

Thank you for the follow up.

Yes, the board did meet and we discussed de authorizing the loan and water project this year so that you can use it elsewhere within the state.

We are not in a position to use it this year, but may want to in the future.

Thank you for staying in touch.

JoElla

Sent from my iPhone

On Jan 22, 2024, at 8:12 AM, Allyson Spevak <allysonspevak@utah.gov> wrote:

Hi JoElla,

I am following up on our January 8 Zoom Meeting, wherein Letizia said that the HLA Board would discuss deauthorizing the SRF Project at their January 13 meeting. As discussed during the January 8 meeting, it is the Division's recommendation to deauthorize the funding at this time and reapply when Hidden Lake has gathered the necessary water use data.

Was the project discussed? Did the Board decide on how to proceed?

Thank you,

**Allyson Spevak**Environmental Scientist II-DWSRF Project Manager
Infrastructure Funding Section**Office:** (801) 536-4200**Cell:** (385) 249-0324drinkingwater.utah.gov

Emails to and from this email address may be considered public records and thus subject to Utah GRAMA requirements.

Agenda Item

8(D)(iv)(a)

**DRINKING WATER BOARD
BOARD PACKET FOR THE DISPOSITION
OF REMAINING ARPA ASSISTANCE FUNDS**

STAFF COMMENTS:

On August 31, 2022, the Drinking Water Board set aside \$699,384 of remaining American Rescue Plan Act funds appropriated to the Board by the state legislature. These remaining funds were set aside as small grants for drinking water systems that needed quick access to financial assistance to repair or replace infrastructure on an emergency basis. As of the January 9, 2024 Board meeting, \$479,384 remains of the initial \$699,384.

As a reminder, Congress imposed strict time constraints on the ARPA funds, which are that those funds must be obligated by December 31, 2024, and fully spent by December 31, 2026. “Obligated” is defined as the state has entered into a signed agreement with the assistance recipient by December 31, 2024, and we are interpreting “spent” to mean that final reimbursement requests shall be submitted to the state no later than November 30, 2026.

Based on these constraints, Staff is proposing that the remaining \$479,384 be released from its emergency set-aside status and be returned to the construction fund. The funding returned will only be available to water systems that meet the criteria initially established for ARPA funding, namely small, rural, disadvantaged systems.

FINANCIAL ASSISTANCE COMMITTEE PROPOSAL:

The Drinking Water Board release the remaining \$479,384 in American Rescue Plan Act appropriation from the emergency set aside action of August 31, 2022 and return it to the Construction fund to be used for projects for eligible small, rural, disadvantaged drinking water systems.