

Drinking Water Board Packet

August 30, 2016

Agenda



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Alan Matheson
Executive Director

DIVISION OF DRINKING WATER
Kenneth H. Bousfield, P.E.
Director

Drinking Water Board
Paul Hansen, P.E., *Chair*
Betty Naylor, *Vice-Chair*
Brett Chynoweth
Tage Flint
Roger G. Fridal
Alan Matheson
David L. Sakrison
David Stevens, Ph.D.
Mark Stevens, M.D.
Kenneth H. Bousfield, P.E.
Executive Secretary

DRINKING WATER BOARD MEETING

August 30, 2016 – 1:30 pm

Davis Conference Center – Zephyr Room
1651 North 700 West
Layton, Utah 84041

Ken Bousfield's Cell Phone #: (801) 674-2557

1. Call to Order – Chairman Hansen
2. Roll Call – Ken Bousfield
3. Approval of the Minutes:
 - A. July 8, 2016
 - B. August 4, 2016
4. Financial Assistance Committee Report
 - A. Status Report – Michael Grange
 - B. Project Priority List – Michael Grange
 - C. SRF Applications
 - i. STATE:
 - ii. FEDERAL:
 - a) Boulder Farmstead – Michael Grange
 - b) Wales – Michael Grange
 - c) San Juan Spanish Valley – Julie Cobleigh
 - iii. Other:
5. Authorization to Begin Rulemaking to Amend R309-105-15 and R309-400-12 – Ken Bousfield
6. Authorization to Begin Rulemaking to Amend R309-535-5, Fluoridation – Bernie Clark
7. Rural Water Association Report – Dale Pierson

8. Directors Report
 - A. Splitting of the Rules Section into two Sections

9. Other

10. Next Board Meeting:

Date: Friday, November 18, 2016
Time: 1:00 pm
Place: Multi Agency State Office Building
Room 1015
195 North 1950 West
Salt Lake City, Utah 84116

11. Adjourn

In compliance with the American Disabilities Act, individuals with special needs (including auxiliary communicative aids and services) should contact Dana Powers, Office of Human Resources, at: (801) 499-2117, TDD (801) 903-3978, at least five working days prior to the scheduled meeting.

Agenda Item

3(A)



State of Utah

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Executive Secretary

DRINKING WATER BOARD MEETING

July 8, 2016 – 1:00 pm
Vernal City Hall
374 East Main Street
Vernal, Utah 84078

DRAFT MINUTES

- ❖ **A tour of the Greendale Water System was conducted at 8:00 am, prior to the Board meeting. Neither discussion of any agenda item nor any Board actions were conducted during the tour.**

Board Members present: Paul Hansen, Betty Naylor, Brett Chynoweth, Tage Flint, and David Stevens

Division Staff present: Ken Bousfield, Michael Grange, Nathan Hall, Rich Peterson, Gary Kobzeff, Heather Bobb, and Marianne Booth

- ❖ **Immediately following the tour, and prior to the Board meeting, the group went to lunch. Neither discussion of any agenda item nor any Board actions were conducted during this time.**

Board Members present: Paul Hansen, Betty Naylor, Brett Chynoweth, Tage Flint, and David Stevens.

Division Staff present: Ken Bousfield, Michael Grange, Rich Peterson, and Gary Kobzeff

1. Call to Order – Chairman Hansen

Paul Hansen, Board Chairman, called the meeting to order at 1:00 pm.

Paul expressed appreciation to Ken Basset for hosting the Board meeting in Vernal's City Hall and noted that it was a wonderful experience for the Board to be able to tour the completed Greendale water system project.

2. Roll Call – Ken Bousfield

Board Members present: Paul Hansen, Betty Naylor, Brett Chynoweth, Tage Flint, David Sakrison, and David Stevens.

Board Members excused: Brad Johnson, Alan Matheson, Roger Fridal and Mark Stevens

Division Staff present: Ken Bousfield, Michael Grange, Heather Bobb, Marianne Booth, Gary Kobzeff, Nathan Hall, Rich Peterson, and Bernie Clark.

3. Approval of the Minutes:

A. May 13, 2016

- Betty Naylor moved to approve the minutes. Brett Chynoweth seconded. The motion was carried unanimously by the Board.

4. Financial Assistance Committee Report

A. Status Report – Michael Grange

Michael Grange, Construction Assistance Section Manager with the Division of Drinking Water (DDW, the Division), reported that there is currently \$2.2 million in the State SRF fund and over the course of the next year the Division is expecting an additional \$4.7 million to come into the fund, for a total of approximately \$6.9 million to be available for funding of projects. He informed the Board that Trenton Town and Sterling City having been authorized, are in the process of being able to close on their loans. He also informed the Board that Helper City and Daggett County/Dutch John have closed their loans and their projects are now under construction.

Michael then reported that there is currently \$17.5 million in the Federal SRF fund and over the course of the next year the Division is expecting an additional \$17 million to come into the fund, for a total of approximately \$34.5 million to be available for funding of projects.

B. Project Priority List – Michael Grange

Michael Grange proposed that the following four new projects be added to the project priority list:

- Old Irontown, with 43.3 points, and a project consisting of a new 300,000 gallon tank and a transmission line.
- Virgin Town, with 41.4 points, and a project consisting of a new 500,000 gallon tank and a transmission line.
- Big Water Town, with 18.5 points, and a project consisting of a tank refurbishment, installation of radio read meters, and a distribution line.
- Thatcher Penrose, with 8.1 points, and a project consisting of water line replacement.

The Financial Assistance Committee (FAC) recommends that the Board approve the updated project priority list.

Betty Naylor, Board Vice-Chair, noted that Thatcher Penrose, though being added to the project priority list today, will not come to Board for action on their project at this time.

- David Stevens moved to approve the updated project priority list. Paul Hansen seconded. The motion was carried unanimously by the Board.

C. SRF Applications

i. STATE:

a) Big Plains SSD – Rich Peterson

Representing Big Plains SSD (Big Plains) was Kelly Crane of Ensign Engineering.

Rich Peterson, Environmental Engineer with the Division, informed the Board that Big Plains is requesting \$176,000 in financial assistance to upgrade their well house and transmission line. The local MAGI for Apple Valley is \$32,468, which is 77% of the State MAGI. Their water bill after funding is expected to be 2.36% of the local MAGI, therefore they do qualify for additional subsidization. The FAC recommends that the Board authorize an \$88,000 construction loan at 0% interest for 20 years with \$88,000 in grant with the condition that they resolve all issues on their compliance report, namely missing lead and copper sampling.

There was discussion between the Board, Division Staff, and Kelly Crane regarding where this system is located in regards to the other Apple Valley system and that it is a separate system. There was also discussion regarding the lack of lead and copper samples and that those will be submitted before loan closing.

- Tage Flint moved to authorize an \$88,000 construction loan at 0% interest for 20 years with \$88,000 in grant to Big Plains on the condition that they resolve all issues on their compliance report, namely missing lead and copper sampling. David Sakrison seconded. The motion was carried unanimously by the Board.

b) Koosharem – Nathan Hall

Representing Koosharem was Jeff Hatch, Town Councilman, and Lynn Wall of Wall Engineering.

Nathan Hall, Environmental Engineer with the Division, informed the Board that Koosharem is requesting \$40,000 in financial assistance to install an epoxy coating liner on the inside of their existing water tank; and that Koosharem will also contribute \$40,000 toward the total estimated project cost of \$80,000. He informed the Board that Koosharem is also requesting that any remaining monies be pre-authorized to be used to install an epoxy coating liner on their second tank. The local MAGI for Koosharem is \$34,441, which is 82% of the State MAGI. Their current average water bill is \$21, or 0.74% of the local MAGI therefore Koosharem does not qualify for additional subsidization. However Division Staff feels that the Board should also take into consideration that closing costs on a \$40,000 loan would be substantial in comparison to the loan amount and the potential for health risks are high with the added time of bonding. The FAC recommends that the Board

authorize a \$40,000 grant to the Town of Koosharem for installation of a storage tank liner/coating.

There was discussion between the Board, Division Staff, and those representing Koosharem regarding the use of the epoxy liner coating versus other options. Lynn Wall informed the Board that this same application was used in a water tank at the Whispering Pines Water Company in Mt. Pleasant two years ago when they had the same spalling issue and as of last week, when he talked with them, they have had no issues with the liner. There was also discussion regarding the hope to have enough money to do both tanks, and Lynn and Nathan informed the Board that there is no real expectation of that; the preauthorization is more to allow it in the event they are able to get the liner for the first tank around \$40,000 as was estimated by Commercial Industrial Membrane.

- Paul Hansen moved to authorize a \$40,000 grant to the town of Koosharem for the installation of a storage tank liner/coating with the added condition that any remaining monies are also authorized to be used to install an epoxy coating liner on their second tank. David Stevens seconded. The motion was carried unanimously by the Board.

ii. FEDERAL:

a) Virgin Town – Nathan Hall

Representing Virgin Town was Kelly Crane of Ensign Engineering. Kelly apologized on behalf of the community that they were unable to attend.

Nathan Hall informed the Board that Virgin Town (Virgin) was requesting \$1,120,000 to construct a 0.5 million gallon storage tank and replace undersized water lines in their distribution system. The local MAGI for Virgin is \$38,523, which is 92% of the State MAGI. Their current average water bill is \$69.26, or 2.16% of their local MAGI, therefore Virgin does qualify for additional subsidization. Division Staff presented three options to the FAC. The FAC recommends that the Board authorize a \$1,120,000 construction loan at 0% interest for 30 years to Virgin for construction of a storage tank and water lines.

There was discussion between the Board, Division Staff, and Kelly Crane regarding how this new tank would be on the opposite side of the water system helping to balance it out hydraulically.

- David Stevens moved to authorize a \$1,120,000 construction loan at 0% interest for 30 years to Virgin for the construction of a storage tank and water lines. Tage Flint seconded. The motion was carried unanimously by the Board.

b) Irontown – Nathan Hall

Representing Irontown was Kelly Crane of Ensign Engineering. Kelly apologized on behalf of the community that they were unable to attend.

Nathan Hall informed the Board that Irontown is requesting \$474,000 in financial assistance to construct a 300,000 gallon tank and replace approximately 2800 feet of

transmission line. He then informed the Board that in March of 2016 Division Staff had authorized Irontown a planning grant to develop a Master Plan and during the preliminary evaluation it was noted that the existing steel tank was developing leaks and damage that was too extensive to repair. The local MAGI for Irontown is \$32,103, which is 77% of the State MAGI. Their current average monthly water bill is \$58, or 2.17% of the local MAGI, so Irontown does qualify for additional subsidization. Division Staff presented three options to the FAC. The FAC recommends that the Board authorize a \$474,000 construction loan at 0% interest for 30 years with \$95,000 in principal forgiveness to Irontown for construction of a storage tank and transmission water line.

There was discussion between the Board, Division Staff, and Kelly Crane regarding the master plan that has been submitted to Division Staff and is currently under review, the potential for regionalization of the system in the next ten years, and that there had been some community input as this would raise water rates considerably.

- Paul Hansen moved to authorize a \$474,000 loan at 0% interest for 30 years with \$95,000 in principal forgiveness to Irontown for the construction of a storage tank and transmission water line. David Stevens seconded. The motion was carried unanimously by the Board.

c) Glen Canyon/Big Water – Gary Kobzeff

Representing Glen Canyon/Big Water (Big Water) was Bruce Williams of Zions Public Finance, Jennifer Johnson, Treasurer/Recorder, and David Schmuker, Mayor/Water Operator.

Gary Kobzeff, Environmental Engineer with the Division, informed the Board that Big Water is requesting \$1,228,000 in financial assistance to refurbish a 100,000 gallon storage tank, install a new distribution line, and refinance \$349,000 of Glen Canyon Special Service District (Glen Canyon) debt in order to take over ownership and maintenance responsibility of the water system. The local MAGI for Big Water is \$29,533, which is 70% of the State MAGI. Their current average water bill is \$46.14, or 1.87% of the local MAGI, therefore Big Water does qualify for additional subsidization. The FAC recommends that the Board authorize a \$1,228,000 construction loan at 2.45% interest or fee per annum for 30 years with \$176,000 in principal forgiveness to Glen Canyon/Big Water Town with the condition that they resolve all issues on their compliance report.

There was discussion between the Board, Division Staff, and those representing Glen Canyon/Big Water regarding the taking over of the Glen Canyon Special Service District and creating a Special Service District under the town's auspices. There was also discussion of the systems commercial customer who accounts for ½ of the total water usage.

- David Stevens moved to authorize a \$1,228,000 construction loan at 2.45% interest or fee per annum for 30 years with \$176,000 in principal forgiveness to Glen Canyon/Big Water Town with the condition that they resolve all issues on their compliance report. Tage Flint seconded. The motion was carried unanimously by the Board.

iii. Other:

Henrieville Town

Michael Grange informed the Board that Henrieville Town is requesting an emergency Board meeting to consider funding that would cover the costs of recently completed emergency repairs to their water line, pressure reducing valve, air relief valves, chlorinator, and source water areas as well as requesting additional funds to resolve the remaining issues in their transmission line. Estimated costs are just over \$650,000. Division Staff is requesting that the Board be willing to hold an Emergency Board meeting in two to three weeks for Henrieville Town.

- The Board approved the request and an Emergency Board meeting will be held in two to three weeks for Henrieville Town.

Legislative Audit Water Use Study Incentives

Michael informed the Board that in order to comply with the Legislative Audit recommendations, the Division, as part of a water use study, will need to collect data from water systems throughout the State through the use of AMI (advanced metering infrastructures) meters; however the Division was not given additional funding to accomplish this task. The Division sent a letter requesting that systems interested in assisting with the study contact them and has received several responses. Division Staff is requesting that the Board approve research into an incentive for water systems as they would need to install these new AMI meters at a substantial cost to themselves.

There was discussion between the Board and Division staff regarding the fact that it would be approximately 50 to 80 meters for each of the selected systems and they would be installed in stages, that the AMI meters would meter both outdoor and indoor water use, and that some of the larger water systems are already using meters and are willing to assist with the study.

- The Board approved the request for Division Staff to research incentive options for water systems that participate in the water use study.

EPA Final Report

Michael then informed the Board that he had received the final report of the EPA audit that was done in February 2016. He pointed out that the SRF funds unliquidated obligations are a concern, however the fund use rate is 83% and the pace of construction is at 94%, which means that contractors and water systems are working diligently once their loan is closed.

5. House Bill 305 Related Rules – Ken Bousfield

Ken Bousfield, Division Director of DDW, informed the Board that in response to House Bill 305, staff has prepared changes to three rules and is recommending that the Board authorize the Division to proceed with rulemaking by filing the indicated changes with the State Division of Administrative Rules (DAR).

R309-105-15 – specifically designates that all community and non-transient non-community water systems are required to complete the “Utah Water Use Data Form” from the Utah Division of Water Rights annually.

- Tage Flint moved to authorize Division Staff to proceed with rulemaking by filing the indicated changes with the DAR. David Stevens seconded. The motion was carried unanimously by the Board.

R309-300-5 – specifically designates that a certified operator or a professional engineer sign the “Utah Water Use Data Form” attesting to the accuracy of the data reported. A certified operator shall include his certification number.

- David Sakrison moved to authorize Division Staff to proceed with rulemaking by filing the indicated changes with the DAR. Brett Chynoweth seconded. The motion was carried unanimously by the Board.

R309-400-12 – specifically designates that all community and non-transient non-community water systems who fail to submit their “Utah Water Use Data Form” to the Division of Water Rights shall be assessed 50 points on their IPS report.

- Betty Naylor moved to authorize Division Staff to proceed with rulemaking by filing the indicated changes with the DAR. David Stevens seconded. The motion was carried unanimously by the Board.

6. Rule 309-105-12 – Ken Bousfield

Ken Bousfield informed the Board that the change to R309-105-12 Cross Connection Control is a change to reference the current plumbing code. Division staff recommends that the Board authorize staff to proceed with filing the substantive changes to rule R309-105-12(1) with DAR for adoption.

- Brett Chynoweth moved to authorize Division Staff to proceed with filing for substantive changes to R309-105-12(1) with DAR for adoption. David Stevens seconded. The motion was carried unanimously by the Board.

7. Authorization to begin Rulemaking to Amend R309-540, *Facility Design and Operation: Pumping Facilities* – Bernie Clark

Bernie Clark, Environmental Scientist with the Division, informed the Board that when staff started updating R309-540, they deleted requirements that were thought to be unnecessary, changed requirements that were too specific or too overly broad, reworded a number of requirements in order to clarify them, and reorganized the entire rule and established separate sections for pumps, booster pumps serving the distribution system, pump stations, and hydropneumatic systems. He then informed the Board that there has been an informal internal review and an informal external review, received comments, and made changes in response to those comments. Bernie noted that if given authorization the anticipated schedule would be filing with DAR by July 15, 2016, publishing in the Utah State Bulletin on August 1, 2016, to be followed by a formal 30 day public comment period and if no changes are made to the rule, returning to the Board for adoption in November 2016. Division Staff recommends, because

the proposed changes are substantive, that the Board authorize Division Staff to begin the rulemaking process to repeal and re-enact R309-540 and to file the proposed rule for publication in the Utah State Bulletin on August 1, 2016.

There was discussion between the Board and Bernie regarding the striking out of 17 provisions and the addition of only 8 in the new rule, though it has more sections it has 16% fewer words than the old rule, and the updating of terminology.

Ken Bousfield informed the Board that he had just received input with regards to problems with variable speed drive motors in pumps from an electrical engineering firm on July 7th and proposed that additional changes to the rule be made to give standard specification that design engineers employ the services of an electrical engineer with experience in pumps and motors and would identify specific electrical issues in the design. Currently there is no written language for this addition.

- Paul Hansen moved to authorize Division Staff to begin the rulemaking process to repeal and re-enact R309-540 and to file the proposed rule for publication in the Utah State Bulletin on August 1, 2016 as presented in the packet and to consider additional language additions in response to Ken's request when it is available at a later meeting as an amendment to the R309-540. Betty Naylor seconded. The motion was carried unanimously by the Board.

8. Rural Water Association Report – Dale Pierson:

Dale Pierson, Executive Director of the Rural Water Association of Utah (RWAU), informed the Board that the contract for RWAU's Management Specialist and Compliance Circuit Rider positions are up for renewal with the Division but because this year their sole source designation was challenged they had to submit new proposals, and a decision should be made on July 12, 2016.

Terry Smith, Management Specialist, with RWAU, updated the Board on some of the work that he has been doing, including:

- Leak detector correlator training.
- Energy efficiency and distribution flushing training.
- Attended the National RWA in Arkansas and incorporated training into an emergency response plan template.
- Attended EPA drought and conservation training in St. George.
- Presented at the National RWA in Little Rock on capacity development and financial assessments.
- RTCR training.

Brian Pattee, Compliance Circuit Rider with RWAU, updated the Board on some of the work that he has been doing, including:

- Working with CAP (State enforcement list) and ETT (EPA enforcement list) systems.
- Assisting systems with source sampling and source protection plans.
- Cross connection control and Backflow 101 training.
- Operator Certification training.

Curt Ludvigson, Development Specialist with RWAU, updated the Board on some of the work that he has been doing, including:

- Working in the Six County area to finish up a non-public drinking water rule. .
- Working with Summit and Wasatch counties on a non-public drinking water rule.
- Assisting with the Henrieville issue, during which he learned that Ephraim has a truck that will haul 6500 gallons of water and they are willing to assist other communities in need.
- Assisting the towns of Genola and Wales on water system issues.

9. Directors Report

Management Specialist and Compliance Circuit Rider Contracts

Ken Bousfield updated the Board regarding the contract process for the Management Specialist and Compliance Circuit Rider positions that Dale Pierson had previously mentioned. He informed them that due to the request for an open bid, the Division has to follow a process set forth by the State Division of Purchasing, (Purchasing), and noted that only 1 bid has been received, Purchasing will verify their qualifications, and then contracts will be awarded.

There was discussion between the Board and Ken regarding this process and it was noted that the Rural Community Assistance Corporation (RCAC), based out of Colorado, challenged the sole source designation assigned to Rural Water. He also informed the Board that RCAC does provide a few trainings in the State throughout the year.

A. Report before a Legislative Interim Committee on December 2014 Legislative Audit

Ken then informed the Board that he had reported to the Legislative Interim Committee regarding the DDW audit that suggested the Division do a water use study and update their requirements. He referred the Board to a copy of the letter that was sent to water systems requesting that those systems interested in assisting with the study contact the Division.

B. Report before a Legislative Interim Committee on DDW's fees

Ken went on to inform the Board that he had also reported to a different Legislative Interim Committee with regards to DDW's fee schedule. He noted that the Division had opened up the witnessing of well grouts to qualified professionals in the private sector.

C. Division of Water Resource's H2Oath: Utah's Water-Wise Pledge

Ken reported on an email that was sent to him from Josh Palmer, Public Information Officer with the Division of Water Resources (DWR), informing him about a new program known as H2Oath, where individuals and entities could sign the pledge to do their part in conserving water, and requesting that the Board support this idea. Ken recommended that the Board support the DWR H2Oath program.

- Paul Hansen moved to support the DWR H2Oath program. David Stevens seconded. The motion was carried unanimously by the Board.

10. Other

11. Next Board Meeting:

Paul Hansen noted that the next meeting will be an emergency teleconference to be scheduled for the end of July or the first of August to conduct business for Henrieville and to amend R309-540 with language, as noted above.

Paul also noted the next scheduled Board meeting will be:

Date: Tuesday, August 30, 2016
Time: 1:30 pm
Place: Davis Conference Center – Zephyr Room
1651 North 700 West
Layton, Utah 84041

12. Adjourn

- Paul Hansen moved to adjourn the meeting. The motion was carried unanimously by the Board.

The meeting adjourned at 2:50 pm

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Agenda Item

3(B)



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Mark Stevens, M.D.
Kenneth H. Bousfield, P.E.
Executive Secretary

DRINKING WATER BOARD MEETING

August 4, 2016 – 11:00 am

Multi Agency State Office Building
Arches South Conference Room - 3116
195 North 1950 West
Salt Lake City, Utah 84116
Emergency Teleconference

DRAFT MINUTES

1. Call to Order – Chairman Hansen

Paul Hansen, Board Chairman, called the meeting to order at 11:03 am

2. Roll Call – Ken Bousfield

Board members present: Paul Hansen, Betty Naylor, Roger Fridal, Brad Johnson, David Sakrison, and David Stevens.

Board members excused: Brett Chynoweth, Tage Flint, and Mark Stevens.
Citing a conflict in interest, Brett Chynoweth recused himself.

Division Staff present: Ken Bousfield, Michael Grange, Heather Bobb, and Marianne Booth

3. Financial Assistance Committee Report

A. SRF Applications

i. STATE:

a) Henrieville Town – Michael Grange

Representing Henrieville Town (Henrieville) was Dave Roberts, Mayor; Marie Jagger, Town Clerk; and Carson DeMille, of Jones & DeMille Engineering.

Michael Grange, Construction Assistance Section Manager with the Division of Drinking Water (DDW, the Division), informed the board that on June 24, 2016 Henrieville suffered a complete water outage. Investigation identified an airlock in the horizontal well and potential airlocks in the transmission line as the cause; additional investigation also identified at least one air release valve blown off the transmission line when water was restored and found several other valves severely corroded and inoperable; therefore they are requesting \$690,000 in financial assistance to install 34,000 feet of 6 inch diameter transmission line, build a new water turnout, reconstruct a source collection box, install a low water level alarm at the storage tank, and also perform a hydrogeological and source evaluation. The local MAGI for Henrieville is \$33,983, which is 81% of the State MAGI. Their current average water bill is \$36.15, or 1.28% of local MAGI, and includes a \$5 irrigation water fee. Their water bill after funding is expected to be \$73.05, or 2.58% of the local MAGI, therefore they do qualify for additional subsidization. Due to the emergency nature of this project the FAC did not review it, however Division Staff recommends that the Board authorize a \$345,000 construction loan at 1% interest for 30 years and a \$345,000 construction grant to Henrieville Town to complete replacement of the Town's transmission line and other necessary construction to solve the emergency situation as well as conduct a hydrogeologic and source water assessment to meet the Town's source water capacity needs.

There was discussion between the Board, Division Staff, and those representing Henrieville regarding the \$5 irrigation fee not being included in the monthly water bill but is a separate water bill. Michael noted that as it is a water related fee it does get included in the calculations as a way to ensure comparability to other cities. There was also discussion regarding the ability of Henrieville to make the annual payments on the loan as they already have two outstanding loans on their water system that use approximately 50% of their annual budget, the additional increases to the water bill would put a financial burden on many of their citizens, phasing of the project, the possibility of refinancing and consolidating their current loans, and options for additional funding from other sources. It was also noted that Henrieville was without water for a total of 7 days and after it was restored they had a boil order in effect for approximately 3 weeks.

- David Stevens moved that due to the emergency nature of the project the DWB authorize a \$345,000 construction grant to Henrieville Town to begin replacement of the transmission line and other necessary construction to resolve the emergency situation. Roger Fridal seconded. The motion was carried unanimously by the Board.

4. Next Board Meeting:

Date: Tuesday, August 30, 2016
Time: 1:30 pm
Place: Davis Conference Center – Zephyr
Room 1651 North 700 West
Layton, Utah 84041

5. Adjourn

- Betty Naylor moved to adjourn the meeting. The motion was carried unanimously by the Board.

The meeting adjourned at 11:32 am.

In compliance with the American Disabilities Act, individuals with special needs (including auxiliary communicative aids and services) should contact Dana Powers, Office of Human Resources, at: (801) 499-2117, TDD (801) 903-3978, at least five working days prior to the scheduled meeting.

Agenda Item

4(A)

DIVISION OF DRINKING WATER
STATE LOAN FUNDS
AS OF July 31, 2016

SUMMARY		
	Total State Fund:	\$5,357,065
	Total State Hardship Fund:	\$885,080
	Subtotal:	\$6,242,145
LESS AUTHORIZED	Less:	
	Authorized Loans & Closed loans in construction:	\$1,710,000
	Authorized Hardship:	\$1,492,685
	Subtotal:	\$3,202,685
	Total available after Authorized deducted	\$3,039,459
PROPOSED	Proposed Loan Project(s):	\$345,000
	Proposed Hardship Project(s):	\$345,000
	Subtotal:	\$690,000
AS OF:		
July 31, 2016	TOTAL REMAINING STATE LOAN FUNDS:	\$3,302,065
	TOTAL REMAINING STATE HARDSHIP FUNDS:	(\$952,606)

(see Page 2 for details)

(see Page 2 for details)

Total Balance of ALL Funds: \$2,349,459

Projected Receipts Next Twelve Months: and Sales Tax Revenue	
Annual Maximum Sales Tax Projection	\$3,587,500
Less State Match for 2017 Federal Grant	(\$2,100,000)
Less Appropriation to DDW	(\$800,000)
Less Wtr Use Study Appropriation	(\$500,000)
Less Administration Fees	(\$153,600)
SUBTOTAL Sales Tax Revenue including adjustments:	\$33,900
Payment:	
Interest on Investments (Both Loan and Hardship Accounts)	\$66,000
Principal payments	\$3,451,154
Interest payments	\$921,926
Total Projections:	\$4,472,980

Receive 80% in January

Total Estimated State SRF Funds Available through 7-31-2017	\$6,822,439
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**DIVISION OF DRINKING WATER
STATE LOAN FUNDS
PROJECTS AUTHORIZED BUT NOT YET CLOSED
AS OF July 31, 2016**

Community	Loan #	Cost Estimate	Date Authorized	Date Closed/Anticipated	Authorized Funding		
					Loan	Grant	Total
Sterling City 2.52% int, 20 yrs	3S239	300,000	May-16		258,000		258,000
Cedar Point/Big Plains 0%, 20yrs	3S240	176,000	Jul-16		88,000	88,000	176,000
Koosharem	3S238	40,000	Jul-16			40,000	40,000
Subtotal Loans and Grants Authorized					346,000	128,000	474,000
PLANNING LOANS / GRANTS IN PROCESS							
Huntsville	3S202P	39,000	Sep-14		39,000		39,000
Eagle Mountain	3S228P	30,000	Aug-15		30,000		30,000
Springdale Town	3S214P	40,000	Jan-15	Mar-15		22,645	22,645
Cedarview-Montwell SSD	3S219P	65,000	May-15	Jun-15		27,085	27,085
LaVerkin City	3S223P	40,000	Jun-15	Jun-15		19,955	19,955
Parowan	3S227P	40,000	Jul-15	Sep-15		40,000	40,000
Weber County General	3S225P	40,000	Jun-15	Sep-15		20,000	20,000
Cove SSD	3S208P	40,000	Nov-14	Jun-16		40,000	40,000
					69,000	169,685	238,685
CLOSED LOANS (partially disbursed)							
Helper City 0% int 30 yrs	3S230	3,500,000	Jul-15	Oct-15	1,295,000	555,000	1,850,000
Daggett Co - Dutch John 0% int 30 yrs	3S216	1,020,000	Jan-15	Feb-16	0	640,000	640,000
							0
Subtotal Planning Loans/Grants Auth					1,295,000	1,195,000	2,490,000
Total authorized or closed but not yet funded					\$1,710,000	\$1,492,685	\$3,202,685
PROPOSED PROJECTS for SEPT 2016							
							0
Henrieville 1.0 % int Em Loan		690,000			345,000	345,000	690,000
							0
							0
Total Proposed Projects					345,000	345,000	690,000

DIVISION OF DRINKING WATER
STATE LOAN FUNDS
AS OF July 31, 2016

	5235	5240	
	Loan	Interest	
	Funds	(use for Grants)	Total
Cash:	\$5,357,065	\$885,080	\$6,242,145
Less:			
Loans & Grants authorized but not yet closed (schedule attached)	(415,000)	(297,685)	(712,685)
Loans & Grants closed but not fully disbursed (schedule attached)	(1,295,000)	(1,195,000)	(2,490,000)
Proposed loans & grants	(345,000)	(345,000)	(690,000)
Administrative quarterly charge for entire year	(153,600)		(153,600)
Appropriation to DDW	(800,000)		(800,000)
Appropriation to DDW - Wtr Use Study	(500,000)		(500,000)
FY 2017 Federal SRF 20% match of \$???	(2,100,000)		(2,100,000)
	(251,535)	(952,606)	(1,204,141)
Projected repayments during the next twelve months			
Thru 07-31-2017			
Principal	3,451,154		3,451,154
Interest		921,926	921,926
Projected annual investment earnings on invested cash balance		66,000	66,000
Sales Tax allocation thru Jul-31-2017	3,587,500		3,587,500
Total	\$6,787,119	\$35,320	\$6,822,439
* All interest is added to the Hardship Fee account.			

DIVISION OF DRINKING WATER
FEDERAL SRF
AS OF July 31, 2016

FIRST ROUND FUND		FEDERAL SECOND ROUND FUND		Hardship Fund
1997 thru 2015 SRF Grants		Principal Repayments	Earnings on Invested Cash Balance	Total:
Net Federal SRF Grants:	\$157,144,401	Principal (P):	\$44,574,605	Total: \$1,163,298
Total State Matches:	\$35,108,900	Interest (I):	\$12,464,361	
Closed Loans:	-\$185,651,741	Total P & I:	\$57,038,966	Total: \$2,715,283
Total Grant Dollars:	\$6,601,560			

SUMMARY		
	Total Federal State Revolving Fund:	\$64,803,823
	Total Federal Hardship Fund:	\$2,715,283
	Subtotal:	\$67,519,106
LESS	Less:	
AUTHORIZED & PARTIALLY DISBURSED	Authorized & Partially Disbursed Closed Loans:	\$45,597,767
	Authorized Federal Hardship:	\$3,318,330
	Subtotal:	\$48,916,097
		(see Page 2 for details)
PROPOSED	Proposed Federal Project(s):	\$2,585,000
	Proposed Federal Hardship Project(s):	\$0
	Subtotal:	\$2,585,000
		(see Page 2 for details)

AS OF:	July 31, 2016	TOTAL REMAINING LOAN FUNDS:	\$16,621,056
		TOTAL REMAINING HARDSHIP FUNDS:	-\$603,047

Total Balance of ALL Funds after deducting proposed actions: \$16,018,009

Projected Receipts thru August 1, 2017	
2017 Fed SRF Grant	\$7,400,000
2017 State Match	\$2,000,000
Interest on Investments	\$524,400
Principal Payments	\$6,366,246
Interest	\$1,372,752
Hardship & Technical Assistance fees	\$363,917
Total:	\$18,027,314

} Receive 60% in January

Total Estimated Federal SRF Funds Available through: 08/01/2017 **\$34,045,323**

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

**PROJECTS AUTHORIZED BUT NOT YET CLOSED
AS OF July 31, 2016**

COMMUNITY	Project			Authorized Date	Closing Date Scheduled	Authorized From Loan Funds (1st or 2nd Round)			Hardship Fund
	Total Project	Terms	Loan #			Loan	Forgiveness	Total	
West Erda Improvement District	1,622,600	0% int, 30 yr	3F233	Nov-14	Jul-17	811,000	811,600	1,622,600	
Liberty Pipeline Company	699,000	2.83% 20 years (LOF \$6,990)	3F236	May-15		699,000		699,000	
Fillmore City	2,552,000	2.45%, 20 yrs (LOF \$21,520)	3F239	Sep-15		2,152,000		2,152,000	
Fairfield Culinary Wtr System	1,180,000	0% int, 30 yrs	3F252	Jan-16	Sep-16	580,000	580,000	1,160,000	
Eagle Mountain City	3,366,805	1.8% int/hgf, 20 yrs	3F254	Jan-16	May-17	2,895,000		2,895,000	
Bear River WCD	200,000	Master Plan 0% int 10 yrs	3F253P	Jan-16	Sep-16	100,000	100,000	200,000	
Juab County	27,210,000	2.5% int/hgf, 30 yrs	3F259	Mar-16		21,210,000		21,210,000	
North Fork SSD 2% int 20 yrs	2,397,000	2% int, 20 yrs	3F260	Mar-16		2,199,000		2,199,000	
Wellington	1,063,000	2.2% int/hgf, 30 yrs	3F265	Apr-16		851,000	212,000	1,063,000	
Corinne City	561,000	2.85% int/hgf, 20 yrs	3F266	May-16		442,000	113,500	555,500	
Springdale	5,654,000	1.25% int/hgf, 30 yrs	3F264	May-16	Apr-17	3,856,000	1,652,350	5,508,350	
Virgin Town	1,120,000	0% int, 30 yrs	3F272	Jul-16		1,120,000		1,120,000	
Irontown	474,000	0% int, 30 yrs	3F271	Jul-16		379,000	95,000	474,000	
Glen Canyon SSD #1/Big Water	1,288,000	2.45% int/hgf, 30 yrs	3F270	Jul-16		1,052,000	176,000	1,228,000	
Cedar Point - Big Plains Wtr & Swr	83,000	0.0% 5 yrs \$42,000 PF Aquafer study	3F224P	May-14				0	83,000
Central Iron County WCD	100,000	0.0% 5 yrs \$50,000 PF Aquafer study	3F230	Nov-14				0	100,000
Greenwich Water Company	130,000	65K loan at 0%, 30 yrs/ 65K pf	3F258	Mar-16				0	65,000
Echo Mutual Wtr System	36,219	100% pf	3F267	May-16				0	35,857
Water Use Study	1,000,000	Legislature Appropriated		Mar-16	Jul-16				1,000,000
TOTAL CONSTRUCTION AUTHORIZED:						\$ 38,346,000	\$ 3,740,450	\$ 42,086,450	\$ 1,283,857
COMMITTED PLANNING ADVANCES / AGREEMENTS or PARTIALLY DISBURSED CLOSED 2ND ROUND AGREEMENTS:									
					Date Closed				
								0	0
Rural Water Assn of Utah	124,758	5 yr contract for Development Specialist	Ongoing	Nov-12	Jan-13			0	200,744
Eureka	694,095	100% Principal Forgiveness	3F235	May-15	Jun-15			0	279,938
Joseph Town	40,000	pl 100% pf	3F245P	Sep-15	Oct-15			0	40,000
Orderville Town	40,000	pl 100% pf	3F241P	Sep-15	Dec-15			0	40,000
Bluffdale City	40,000	pl 100% pf	3F242P	Sep-15	Nov-15			0	40,000
Elsinore	45,000	pl 100% pf	3F243P	Nov-15	Jun-16			0	45,000
Torrey Town	40,000	pf	3F248P	Nov-15				0	40,000
Woodland Mutual Wtr Co	25,000	pf	3F256P	Jan-16	Mar-16			0	25,000
Glendale Town	37,500	pf	3F261P	Mar-16	Apr-16			0	37,500
Old Irontown POA	37,000	pf	3F262P	Mar-16	Apr-16			0	37,000
Freemont Waterworks	40,000	pl 0% int 5 yrs	3F257P	Jan-16				0	40,000
Greenwich Water Company	130,000	65K loan at 0%, 30 yrs/ 65K pf	3F258	Mar-16	Jun-16			0	65,000
Woodenshoe Water Company	413,292	100% pf	3F247	Nov-15	Jun-16			0	413,292
Trenton Town	732,000	state grant w/731,000 loan	3S234	Nov-15	Aug-16			0	731,000
Forest Glen Plat A HOA	1,438,986	0% int, 30 yrs	3F222	Feb-14	Dec-14	253,000	116,986	369,986	
Kane Co WCD-Johnson	1,401,020	1.93% int, 30 yrs	3F165	Mar-11	Dec-11	277,000	73,000	350,000	
Herriman	1,528,000	2.25% int, 20 yrs	3F194	Mar-12	May-15	200,000		200,000	
Taylor West Weber Water Improvement Dis	7,636,391	2.26% int, 30 yr	3F234	Feb-15	Apr-15	2,591,331	0	2,591,331	
TOTAL PLANNING AUTHORIZED:						\$3,321,331	\$189,986	\$3,511,317	\$2,034,473
TOTAL CONSTRUCTION & PLANNING:								\$45,597,767	\$3,318,330
AVAILABLE PROJECT FUNDS:									\$19,206,056
AVAILABLE HARDSHIP FUNDS:									-\$603,047
PROPOSED PROJECTS FOR SEPT 2016:									
Boulder Farmstead	35,000	100% principal forgiveness	3F274				35,000	35,000	
San Juan Spanish Valley SSD	5,100,000	0% int, 30yrs (combined w/CIB)	3F275			1,785,000	765,000	2,550,000	
TOTAL PROPOSED PROJECTS FOR THIS MEETING:						\$1,785,000	\$800,000	\$2,585,000	\$0
*RWAU hardship grant is being disbursed monthly									
TOTAL FUNDS AFTER PROPOSED PROJECTS ARE FUNDED:									\$16,621,056
TOTAL FUNDS AFTER PROPOSED HS PROJECTS ARE FUNDED:									-\$603,047

DIVISION OF DRINKING WATER
FEDERAL SRF LOAN FUNDS
AS OF July 31, 2016

	Loan Funds 1st Round	Loan Payments		Hardship Fund	TOTAL
		2nd Round			
		Principal	Interest		
Federal Capitalization Grants and State 20% match thru 2015	\$192,253,301				
Earnings on Invested 1st Round Funds			1,163,298		
Repayments (including interest earnings on 2nd round receipts)		44,574,605	12,464,361	2,715,283	253,170,847
Less:					
Closed loans and grants	-185,651,741				-185,651,741
SUBTOTAL of Funds Available	\$6,601,560	\$44,574,605	\$13,627,658	\$2,715,283	\$67,519,106
Loans & Grants authorized but not yet closed or fully disbursed	-39,306,450	-6,101,331	-189,986	-3,318,330	-48,916,097
SUBTOTAL of Funds Available less Authorized	-\$32,704,890	\$38,473,274	\$13,437,672	-\$603,047	\$18,603,009
Future Estimates:					
Proposed Loans/Grants for current board package	-2,585,000			0	-2,585,000
SUBTOTAL of Funds Available less Proposed Loans & Grants	-\$35,289,890	\$38,473,274	\$13,437,672	-\$603,047	\$16,018,009
PROJECTIONS THRU August-2017					
	0				
2017 SRF Capitalization Grant (Loan Portion)	7,400,000				
2017 SRF Capitalization State Match	2,000,000				
Projected repayments & revenue during the next twelve months		6,366,246	1,372,752	363,917	8,102,914
Projected annual investment earnings on invested cash balance		480,000	24,000	20,400	524,400
TOTAL	-\$25,889,890	\$45,319,520	\$14,834,424	-\$218,730	\$34,045,323

Agenda Item

4(B)

**DRINKING WATER BOARD
PACKET FOR PROJECT PRIORITY LIST**

There are two new projects being added to the Project Priority List:

Boulder Farmstead is being added to the Project Priority List with 35.7 points. Their project consists of repairing roads from the water line project. This is a request for additional funds to complete the water line project

San Juan Spanish Valley is being added to the Project Priority List with 25.3 points. Their project consists of a new water system.

STAFF RECOMMENDATION:

The Drinking Water Board approve the updated Project Priority List.

July 6, 2016

Utah Federal SRF Program

Project Priority List

Authorized

Total Unmet Needs:

\$250,329,975

Total Needs, incl. Recent funding

\$263,130,867

\$232,190,468

N	date	type	%Green	Priority Points	Total Unmet Needs:			Total Needs, incl. Recent funding			
					System Name	County	Pop.	ProjectTitle	Project Total	Request DWB	Funds Authorized
N				43.5	Wellington City	Carbon	1,676	New 750,000-gallon Storage Tank	\$1,006,167.00	1,006,167	
N				35.7	Boulder Farmstead	Garfield	226	Repair roads from 2015 water line project	\$35,354	35,354	
N				25.3	San Juan Spanish Valley SSD	San Juan	491	New System: tank, well, distribution	\$5,125,758	2,575,758	
N				22.8	Old Meadows	Iron	41	Replace Distribution System	\$338,747	413,292	
N				8.1	Thatcher Penrose SD	Box Elder	580	Water line replacement	\$129,400	110,000	
A				90.5	North Fork SSD	Utah	1,500	New tank and well	\$2,408,354	2,210,350	
A				82.6	West Erda	Tooele	158	Connect West Erda and Tooele Airport to Erda Acres	\$1,801,331.00	1,801,331	\$1,622,600
A				72.3	Springdale	Washington	572	Treatment Plant	\$4,730,000	4,600,000	
A				43.3	Old Irontown POA	Iron	90	New 300,000-gallon tank and transmission line	\$478,788	478,788	\$474,000
A				41.4	Virgin Town	Washington	750	New 500,000-gallon tank and transmission line	\$1,131,313	1,131,313	\$1,120,000
A				32.2	Fairfiled Culinary Water System	Utah	35	New well, pump station, tank	\$1,130,000	565,000	\$1,160,000
A				25.5	Fillmore City	Millard	2,260	Water Line Replacement	\$2,555,556	2,555,556	\$2,152,000
A				22.5	White Hills Water	Utah	419	Water line replacement, tank rehab, new PRV	\$1,047,168	1,047,168	\$1,037,000
A				21.6	Wooden Shoe	Summit	47	Replace Distribution System	\$413,292	413,292	\$413,292
N				20.6	Corinne City	Box Elder	700	Radium Filter, Spring Rehab, Transmission Line	\$561,111.00	561,111	
A				18.5	Big Water Town	Kane	480	Refurbish Tank, radio read meters, distribution line	\$1,287,185	413,292	\$1,228,000
A				18.3	Greenwich	Piute	67		\$131,300	131,300	
A				11.4	Eagle Mountain	Utah	25,593	New water line and pump station	\$3,395,763	2,895,763	\$2,895,000
A				9.7	Juab Co	Juab	???	Regionalization pipeline	\$24,000,000	21,000,000	
A				7.9	Echo Mutual Water System	Summit	50	Radium Filter, Spring Rehab, Transmission Line	\$35,857.00	35,857	
A				4.8	Liberty Pipeline Company	Weber	2,504	New Well	\$743,954	\$698,647	\$699,000

N = New Application

A = Authorized

P = Potential Project- no application

E= Energy Efficiency

W= Water Efficiency

G= Green Infrastructure

I= Environmentally Innovative

GREEN PROJECTS

EMERGENCY FUNDING

N	100	Trenton Town	Cache	466	Spring Re-development	\$401,150.00	\$241,150
N	100	Marble Hills	Box Elder	250	Pump replacement	\$152,167.00	\$28,170

July 6, 2016

Utah Federal SRF Program

Project Priority List

Authorized

Total Unmet Needs: \$250,329,975 Total Needs, incl. Recent funding \$263,130,867 \$232,190,468

date	type	%Green	Priority Points	System Name	County	Pop.	ProjectTitle	Project Total	Request DWB	Funds Authorized
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POTENTIAL PROJECTS

P			125.2	Soldier Summit SSD-2nd home sub	Utah	33	Water line upgrade	\$530,303	\$530,303	
P			36.4	Santa Clara (on hold)	Washington	8,000	Water line upgrades	\$6,419,202	\$6,354,202	
P			35.0	CUWCD-Utah Valley	Utah		Treatment plant upgrades	\$39,369,500	\$36,950,000	
P			24.4	Jordan Valley WCD	Salt Lake	82,500	Treatment	\$3,200,000		
P			20.0	Pinon Forest	Duchesne	n/a	New system- residents haul water	\$21,247,000		
P			17.9	Wendover	Tooele	1,600	Water line upgrades	\$833,000		
P			17.5	Draper City	Salt Lake	15,000	Storage and distribution upgrades	\$35,789,000		
P			17.1	East Zion SSD	Kane	49	Water line	\$128,876	\$128,876	
P			16.4	Eastland SSD	San Juan	60	New well for back up purposes	\$500,000		
P			16.4	Neola	Duchesne	840	Waterline upgrades, storage, source improvements	\$3,607,592	\$3,607,592	
P			15.3	Newton Town	Cache	799	Spring rehabilitation, water line upgrades	\$1,581,500		
P			15.3	South Rim Water	Tooele	264	Well equipment and house, new tank	\$600,000		
P			15.2	Midvalley Estates Water Company	Iron	700	Source, storage, distribution	\$500,000		
P			15.1	Syracuse	Davis	25,200	Water line upgrades	\$1,589,756	\$1,589,756	
P			14.7	Central Waterworks Co.	Sevier	450	Storage and distribution upgrades	\$1,400,000		
P			14.0	Herriman	Salt Lake	18,431	Booster Pump, water line	\$2,050,000		
P			13.7	Cornish Town	Cache	300	Connect to Lewiston, rehab well	\$1,226,263		
P			13.7	Morgan City	Morgan	3,250	Water line upgrades	\$692,026		
P			13.5	Riverdale	Weber	8,200	New well and tank, water line upgrades	\$2,050,000		
P			13.3	Richfield City	Sevier	7,111	System repairs	\$2,722,000		
P			13.0	Uintah City	Weber	1,300	Treatment	\$1,063,000		
P			12.8	Centerfield	Sanpete	1,200	New tank, upgrade water lines	\$3,600,000		
P			12.6	Enterprise	Washington	1,500	New tank, upgrade water lines	\$1,917,100		
P			12.6	Price River	Carbon	7,659	New tank, water lines, treatment	\$2,750,000		
P			11.6	Manila Culinary Water Co.	Utah	2,450	Treatment and water line upgrades	\$700,000		
P			11.6	Jordan Valley WCD	Salt Lake	82,500	Flouride facility, well equipping	\$3,694,000	\$2,000,000	
P			11.4	Pineview West Water Company	Weber	115	Telemetry system	\$25,000		
P			11.4	North Ogden City	Weber	15,000	Water line upgrades	\$746,000	\$746,000	
P			11.3	Farmington	Davis	15,000	New well, new tank, water line replacement	\$2,830,000		
P			10.7	Ogden City	Weber	77,000	Source rehabilitation, treatment plant upgrades	\$26,500,000		
P			10.7	High Valley Water Company	Summit	850	Water line upgrades	\$1,000,000		

July 6, 2016

Utah Federal SRF Program

Project Priority List

Authorized

Total Unmet Needs:

\$250,329,975

Total Needs, incl. Recent funding

\$263,130,867

\$232,190,468

	date	type	%Green	Priority Points	System Name	County	Pop.	ProjectTitle	Project Total	Request DWB	Funds Authorized
P				10.3	City of Monticello	San Juan	2,000	Storage and distribution upgrades	\$1,200,000		
P				9.8	Gorgoza	Summit	4,200	Waterline upgrades	\$1,000,000		
P				9.7	Moutain Regional SSD	Summit	6,700	Transmission line	\$600,000		
P				9.7	Benson Culinary Water District	Cache	743	New tank, water line replacement	\$500,000		
P				9.3	Mapleton City	Utah	7,300	Replace distribution lines	\$15,339,560		
P				9.2	Greendale Water Co.	Daggett	500	Treatment system	\$800,000		
P				9.1	Center Creek	Wasatch	200	Pump house and pump	\$80,000		
P				8.4	Nibley City	Cache	4,300	New tank	\$1,270,355		
P				8.3	Hurricane	Washington	8,000	Water line replacement and new tank	\$5,047,899		
P				7.6	Harmony Farms Water User Assoc.	Washington	300	Water line Replacement	\$3,000		
P				6.8	Hooper Water Improvement District	Weber	16,520	Storage, water lines, treatment	\$2,887,000		
P				6.7	Centerville City	Davis	16,000	Replacement well, water line upgrades	\$2,965,000		
P				6.1	Marble Hill Water Company	Box Elder	250	New storage tank	\$225,000		
P				4.5	Peterson Pipeline Association	Morgan	450	Source, storage, distribution	\$1,700,000		
P				4.5	Perry City	Box Elder	4,603	Source, storage, distribution	\$4,782,220		
P				3.9	Wolf Creek Country Club	Weber	2,000	Water line	\$180,000		
P				3.4	Highland City	Utah	15,066	New well houses	\$650,000		

Agenda Item

4(C)(ii)(a)

**DRINKING WATER BOARD
BOARD PACKET FOR CONSTRUCTION LOAN
PRESENTED TO THE DRINKING WATER BOARD**

APPLICANT'S REQUEST

Boulder Farmstead Water Company is requesting additional funding in the amount of \$35,000 from the Drinking Water Board to finish the construction of their 2014 water line project.

STAFF COMMENTS:

On May 9, 2014 the Board authorized a loan of \$2,000,000 with \$1,000,000 principle forgiveness for 30 years at 0.0% interest to Boulder Farmstead for the project. The actual water system components of the project are substantially complete, but there is final grading and road repair work that still needs to be completed, one of the PRV vaults needs a sump pump, and the engineer is requesting additional funding for the remaining construction management.

The cost estimate includes \$10,000 for legal and bonding if the Board authorizes loan, which would require Boulder Farmstead to go through the bonding process for the additional funding. As discussed in the Financial Assistance Committee conference call it is understood that the \$10,000 for legal/bonding should not be needed if the Board authorizes 100% principle forgiveness, but it can be left in the authorized amount as contingency that will only be used if a change order is approved by the Division.

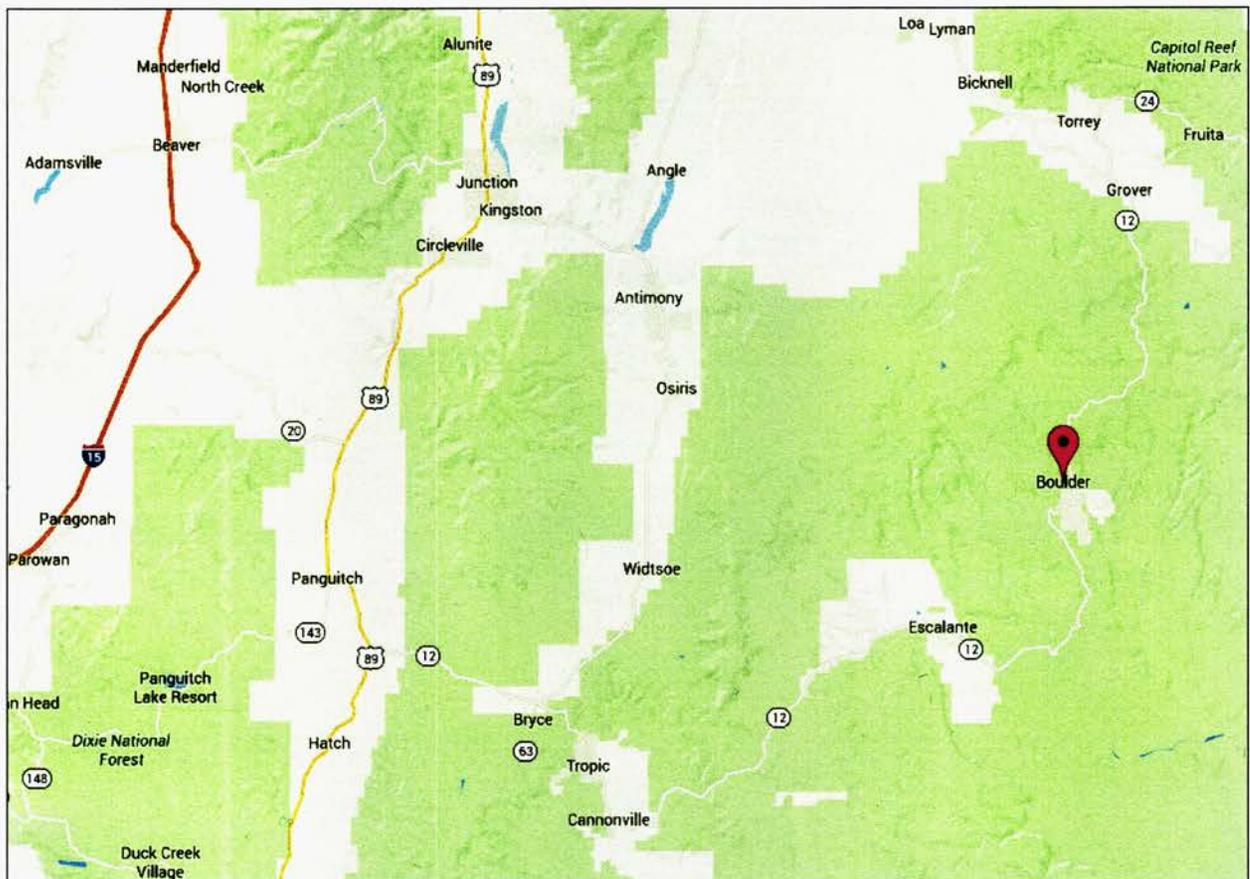
Based on information from the Utah State Tax commission, the 2014 Median Adjusted Gross Income (MAGI) for Boulder Farmstead is \$22,697, which is 54% of the State MAGI of \$41,923. The current average monthly water bill is calculated as \$30.75, which is 1.63% of the local MAGI. The base evaluation returned an interest rate of 2.10% for 20 years and resulted in a water bill of 1.78% of the local MAGI. Therefore, Boulder Farmstead qualifies as a disadvantaged community based on both the local MAGI being less than 80% of the state MAGI and the post project average water bill being more than 1.75% of the local MAGI.

FINANCIAL ASSISTANCE COMMITTEE RECOMMENDATION:

Drinking Water Board authorize a \$35,000 construction loan with \$35,000 in principle forgiveness to Boulder Farmstead for completion of the 2014 project.

APPLICANT'S LOCATION:

Boulder Farmstead provides drinking water to the community of Boulder, which is located in Garfield County, approximately 20 miles northeast of Escalante.



PROJECT DESCRIPTION:

The additional funding will be used to finish the 2014 project, including gravel and paved road repair, sump pump installation in a PRV vault, construction management, and if needed, legal costs associated with the municipal revenue bonding process.

POPULATION GROWTH:

A growth rate of 1.0% is used to in the population projections.

IMPLEMENTATION SCHEDULE:

Apply to DWB for Funding:	June 2016
DWB Funding Authorization:	Aug 2016
Loan Closing:	Oct 2016
Begin Construction:	Oct 2016
Complete Construction:	July 2017

COST ESTIMATE:

Construction:	\$20,000
Engineering / Const Management:	\$5,000
Legal/Bonding/Admin:	\$10,000
Total Cost:	<hr/> \$35,000

Boulder Farmstead

August 30, 2016

Page 4 of 4

CONTACT INFORMATION:

APPLICANT:

Boulder Farmstead Water Company
P.O. Box 1356
Boulder, UT 84716
435-335-7358
con.ed19@gmail.com

PRESIDING OFFICIAL &
CONTACT PERSON:

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President
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DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Boulder Farmstead
 COUNTY: Garfield
 PROJECT DESCRIPTION: Additional Funding to finish 2014 Waterline project

FUNDING SOURCE: Federal SRF

100 % Loan & 0 % P.F.

ESTIMATED POPULATION:	226	NO. OF CONNECTIONS:	337 *	SYSTEM RATING:	APPROVED
CURRENT AVG WATER BILL:	\$30.75 *			PROJECT TOTAL:	\$35,000
CURRENT % OF AGI:	1.63%	FINANCIAL PTS:	49	LOAN AMOUNT:	\$35,000
ESTIMATED MEDIAN AGI:	\$22,697			PRINC. FORGIVE.:	\$0
STATE AGI:	\$41,923			TOTAL REQUEST:	\$35,000
SYSTEM % OF STATE AGI:	54%				

	@ ZERO % RATE	@ RBBI MKT RATE	AFTER REPAYMENT PENALTY & POINTS
SYSTEM	0%	3.52%	2.10%
ASSUMED LENGTH OF DEBT, YRS:	20	20	20
ASSUMED NET EFFECTIVE INT. RATE:	0.00%	3.52%	2.10%
REQUIRED DEBT SERVICE:	\$1,750.00	\$2,467.10	\$2,161.20
*PARTIAL COVERAGE (15%):	\$0.00	\$0.00	\$0.00
*ADD. COVERAGE AND RESERVE (10%):	\$175.00	\$246.71	\$216.12
ANNUAL NEW DEBT PER CONNECTION:	\$5.71	\$8.05	\$7.05
O & M + FUNDED DEPRECIATION:	\$43,864.00	\$43,864.00	\$43,864.00
OTHER DEBT + COVERAGE:	\$65,741.25	\$65,741.25	\$65,741.25
REPLACEMENT RESERVE ACCOUNT:	\$4,910.35	\$4,946.20	\$4,930.91
ANNUAL EXPENSES PER CONNECTION:	\$339.81	\$339.92	\$339.87
TOTAL SYSTEM EXPENSES	\$116,440.60	\$117,265.26	\$116,913.48
TAX REVENUE:	\$0.00	\$0.00	\$0.00
RESIDENCE			
MONTHLY NEEDED WATER BILL:	\$33.59	\$33.80	\$33.71
% OF ADJUSTED GROSS INCOME:	1.78%	1.79%	1.78%

* Equivalent Residential Connections

R309-700-5

Boulder Farmstead
Garfield
July 12, 2016

TABLE 2 FINANCIAL CONSIDERATIONS

	POINTS	
1. COST EFFECTIVENESS RATIO (SELECT ONE)		
A. Project cost \$0 to \$500 per benefitting connection	16	X
B. \$501 to \$1,500	14	
C. \$1,501 to \$2,000	11	
D. \$2,001 to \$3,000	8	
E. \$3,001 to \$5,000	4	
F. \$5,001 to \$10,000	1	
G. Over \$10,000	0	
	\$104	
2. CURRENT LOCAL MEDIAN ADJUSTED GROSS INCOME (AGI) (SELECT ONE)		
A. Less than 70% of State Median AGI	19	X
B. 71 to 80% of State Median AGI	16	
C. 81 to 95% of State Median AGI	13	
D. 96 to 110% of State Median AGI	9	
E. 111 to 130% of State Median AGI	6	
F. 131 to 150% of State Median AGI	3	
G. Greater than 150% of State Median AGI	0	
	54%	
3. PROJECT FUNDING CONTRIBUTED BY APPLICANT (SELECT ONE)		
a. Greater than 25% of project funds	17	
b. 15 to 25% of project funds	14	
c. 10 to 15% of project funds	11	
d. 5 to 10% of project funds	8	
e. 2 to 5% of project funds	4	
f. Less than 2% of project funds	0	X
	0.0%	
4. ABILITY TO REPAY LOAN		
4. WATER BILL (INCLUDING TAXES) AFTER PROJECT IS BUILT RELATIVE TO LOCAL MEDIAN ADJUSTED GROSS INCOME (SELECT ONE)		
a. Greater than 2.50% of local median AGI	16	
b. 2.01 to 2.50% of local median AGI	12	
c. 1.51 to 2.00% of local median AGI	8	X
d. 1.01 to 1.50% of local median AGI	3	
e. 0 to 1.00% of local median AGI	0	
	1.78%	
5. SPECIAL INCENTIVE POINTS Applicant: (Mark all that apply)		
A. has a replacement fund receiving annual deposits of 5% of the system's drinking water budget been established, and has already accumulated a minimum of 10% of said annual DW budget in this reserve fund.	5	
B. Has a replacement fund equal to at least 15% or 20% of annual DW budget.	5	
C. Is creating or enhancing a regionalization plan	16	
D. Has a rate structure encouraging conservation	6	X
TOTAL POINTS FOR FINANCIAL NEED	49	
TOTAL POSSIBLE POINTS FOR FINANCIAL NEED	100	

Boulder Farmstead

PROPOSED BOND REPAYMENT SCHEDULE

100 % Loan & 0 % P.F.

PRINCIPAL	\$35,000.00	ANTICIPATED CLOSING DATE	01-Oct-16
INTEREST	2.10%	FIRST P&I PAYMENT DUE	01-Jan-18
TERM	20	REVENUE BOND	
NOMIN. PAYMENT	\$2,161.20	PRINC. FORGIVE.:	\$0.00

YEAR	BEGINNING BALANCE	DATE OF PAYMENT	PAYMENT	PRINCIPAL	INTEREST	ENDING BALANCE	PAYM NO.
2017	\$35,000.00		\$183.75 *	\$0.00	\$183.75	\$35,000.00	0
2018	\$35,000.00		\$1,735.00	\$1,000.00	\$735.00	\$34,000.00	1
2019	\$34,000.00		\$1,714.00	\$1,000.00	\$714.00	\$33,000.00	2
2020	\$33,000.00		\$2,693.00	\$2,000.00	\$693.00	\$31,000.00	3
2021	\$31,000.00		\$2,651.00	\$2,000.00	\$651.00	\$29,000.00	4
2022	\$29,000.00		\$2,609.00	\$2,000.00	\$609.00	\$27,000.00	5
2023	\$27,000.00		\$2,567.00	\$2,000.00	\$567.00	\$25,000.00	6
2024	\$25,000.00		\$2,525.00	\$2,000.00	\$525.00	\$23,000.00	7
2025	\$23,000.00		\$2,483.00	\$2,000.00	\$483.00	\$21,000.00	8
2026	\$21,000.00		\$2,441.00	\$2,000.00	\$441.00	\$19,000.00	9
2027	\$19,000.00		\$2,399.00	\$2,000.00	\$399.00	\$17,000.00	10
2028	\$17,000.00		\$2,357.00	\$2,000.00	\$357.00	\$15,000.00	11
2029	\$15,000.00		\$2,315.00	\$2,000.00	\$315.00	\$13,000.00	12
2030	\$13,000.00		\$2,273.00	\$2,000.00	\$273.00	\$11,000.00	13
2031	\$11,000.00		\$1,231.00	\$1,000.00	\$231.00	\$10,000.00	14
2032	\$10,000.00		\$2,210.00	\$2,000.00	\$210.00	\$8,000.00	15
2033	\$8,000.00		\$2,168.00	\$2,000.00	\$168.00	\$6,000.00	16
2034	\$6,000.00		\$1,126.00	\$1,000.00	\$126.00	\$5,000.00	17
2035	\$5,000.00		\$2,105.00	\$2,000.00	\$105.00	\$3,000.00	18
2036	\$3,000.00		\$1,063.00	\$1,000.00	\$63.00	\$2,000.00	19
2037	\$2,000.00		\$2,042.00	\$2,000.00	\$42.00	\$0.00	20
			\$42,890.75	\$35,000.00	\$7,890.75		

*Interest Only Payment

Boulder Farmstead

DWB Loan Terms

Local Share (total):	\$	-
Other Agency Funding:	\$	-
DWB Grant Amount:	\$	-
DWB Loan Amount:	\$	35,000
DWB Loan Term:		20
DWB Loan Interest:		2.10%
DWB Loan Payment:	\$	2,161

DW Expenses (Estimated)

Proposed Facility Capital Cost:	\$	35,000
Existing Facility O&M Expense:	\$	43,864
Proposed Facility O&M Expense:	\$	43,864
O&M Inflation Factor:		1.0%
Existing Debt Service:	\$	52,593

DW Revenue Sources (Projected)

Beginning Cash:	\$	-
Existing Customers (ERC):		337
Projected Growth Rate:		1.0%
Impact Fee/Connection Fee:	\$	-
Current Monthly User Charge:	\$	25.95
Needed Average Monthly User Charge:	\$	28.91

DW Revenue Projections

Yr	Growth Rate (%)	Annual Growth (ERC)	Total Users (ERC)	User Charge Revenue	Impact Fee Revenue	Property Tax Revenue	Total Revenue	DWB Loan Repayment	DWB Loan Reserves	Remaining Principal	Principal Payment	Interest Payment	Existing DW Debt Service	O&M Expenses	Total Expenses	Debt Service Ratio
0	1.0%	3	337	104,955	-	-	104,955	-	-	35,000	-	-	52,593	43,864	96,457	-
1	1.0%	3	340	117,954	-	-	117,954	1,735	216	34,000	1,000	735	52,593	43,864	98,408	1.36
2	1.0%	4	344	119,342	-	-	119,342	1,714	216	33,000	1,000	714	52,593	44,303	98,826	1.38
3	1.0%	3	347	120,383	-	-	120,383	2,693	216	31,000	2,000	693	52,593	44,746	100,248	1.37
4	1.0%	4	351	121,770	-	-	121,770	2,651	216	29,000	2,000	651	52,593	45,193	100,653	1.39
5	1.0%	3	354	122,811	-	-	122,811	2,609	216	27,000	2,000	609	52,593	45,645	101,063	1.40
6	1.0%	4	358	124,199	-	-	124,199	2,567	216	25,000	2,000	567	52,593	46,102	101,478	1.42
7	1.0%	3	361	125,240	-	-	125,240	2,525	216	23,000	2,000	525	52,593	46,563	101,897	1.43
8	1.0%	4	365	126,627	-	-	126,627	2,483	216	21,000	2,000	483	52,593	47,028	102,320	1.45
9	1.0%	4	369	128,015	-	-	128,015	2,441	216	19,000	2,000	441	52,593	47,498	102,749	1.46
10	1.0%	3	372	129,056	-	-	129,056	2,399	216	17,000	2,000	399	52,593	47,973	103,182	1.47
11	1.0%	4	376	130,444	-	-	130,444	2,357	216	15,000	2,000	357	52,593	48,453	103,403	1.49
12	1.0%	4	380	131,831	-	-	131,831	2,315	216	13,000	2,000	315	52,593	48,938	103,846	1.51
13	1.0%	4	384	133,219	-	-	133,219	2,273	216	11,000	2,000	273	52,593	49,427	104,293	1.53
14	1.0%	3	387	134,260	-	-	134,260	1,231	216	10,000	1,000	231	52,593	49,921	103,745	1.57
15	1.0%	4	391	135,647	-	-	135,647	2,210	216	8,000	2,000	210	52,593	50,421	105,224	1.56
16	1.0%	4	395	137,035	-	-	137,035	2,168	216	6,000	2,000	168	52,593	50,925	105,686	1.57
17	1.0%	4	399	138,423	-	-	138,423	1,126	216	5,000	1,000	126	52,593	51,434	105,153	1.62
18	1.0%	4	403	139,810	-	-	139,810	2,105	216	3,000	2,000	105	52,593	51,948	106,646	1.61
19	1.0%	4	407	141,198	-	-	141,198	1,063	216	2,000	1,000	63	52,593	52,468	106,124	1.65
20	1.0%	4	411	142,586	-	-	142,586	2,042	216	-	2,000	42	52,593	52,992	107,627	1.64
Total Paid in Debt Service =											35,000	7,707				

Agenda Item

4(C)(ii)(b)

DRINKING WATER BOARD
PACKET FOR CONSTRUCTION LOAN

APPLICANT'S REQUEST

Wales Town is requesting \$253,000 in financial assistance to drill, equip, and connect a new well to the existing distribution system. Total project costs are estimated to be \$266,327 and Wales is contributing \$13,327 to the project. Due to the current source capacity issues and restricted water use in Wales Town, the Town requests the Board give this application emergency status.

STAFF COMMENTS:

Wales Town has lost use of all but one well for drinking water purposes. Outdoor watering has been limited since June 2016. The Town has considered several solutions including rehabilitating an existing well and drilling a new well. Based on project economics and engineering review, the town has determined that drilling a new well will provide the best long-term solution to its source capacity issue.

The Town has a population of 302, with 116 residential connections. Based on information from the Utah State Tax commission, the 2014 MAGI for Wales is \$37,642, which is 90% of the State MAGI of \$41,923. The current average monthly water bill is calculated as \$43.04, or 1.37% of local MAGI.

Funding options for the Wales Town project are outlined in the table below. The base evaluation, a full loan at 2.04% for 20 years, resulted in an estimated average after project water bill of \$61.74, 1.97% of the local MAGI. Therefore Wales Town qualifies to be considered for additional subsidization.

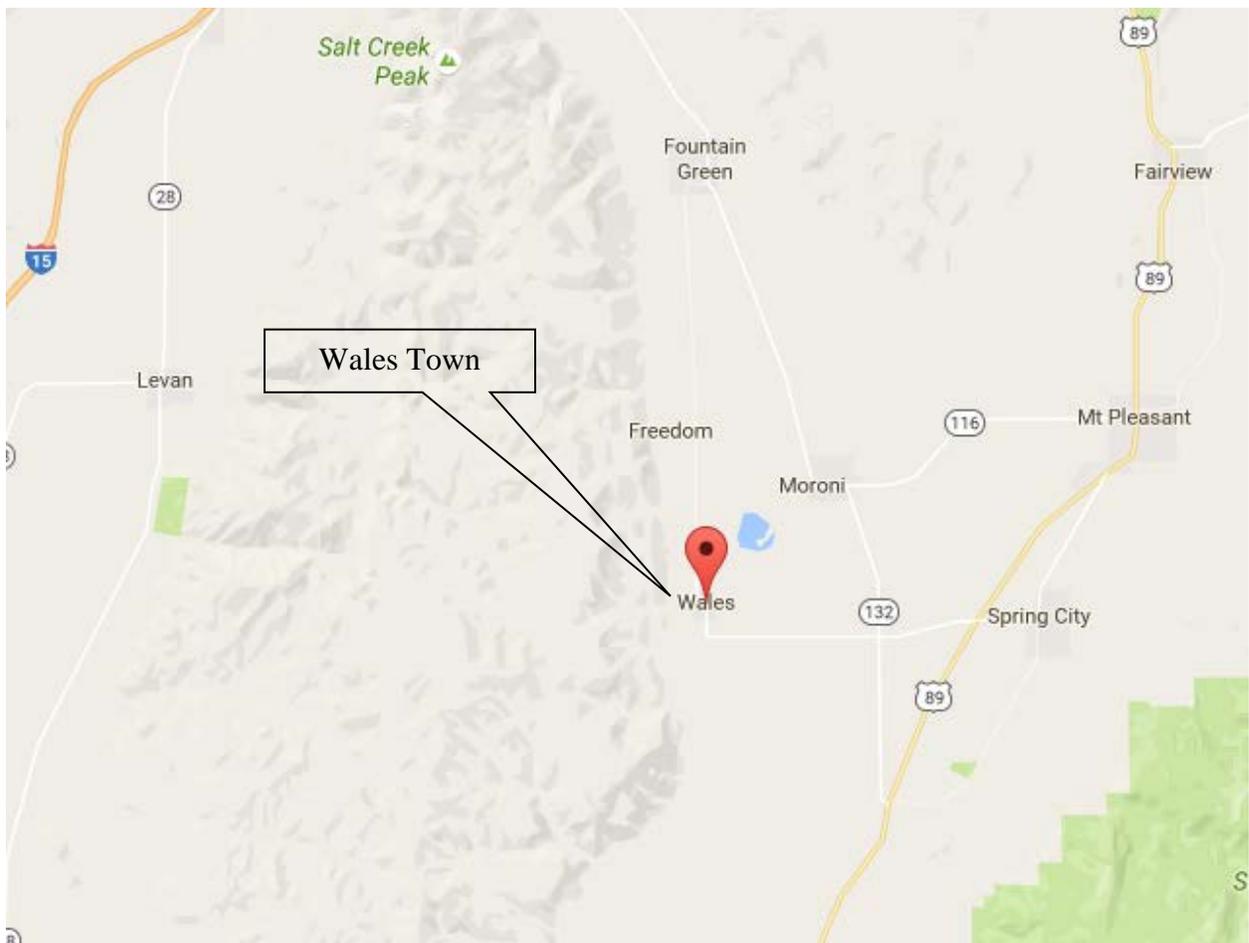
	Description	Loan Amount	Interest Rate	Term	PF Amount	Monthly Water Rate	% of Local MAGI
1	Base Evaluation	\$253,000	2.04%	20 yrs	\$0	\$61.74	1.97%
2	Reduced Interest	\$253,000	1.04%	20 yrs	\$0	\$60.54	1.93%
3	20% PF, Base Interest	\$203,000	2.04%	20 yrs	\$50,000	\$59.21	1.89%
4	50% PF, 0% Interest	\$127,000	0.00%	30 yrs	\$126,000	\$52.41	1.67%

STAFF RECOMMENDATION:

Due to the emergency nature of the request, the Financial Assistance Committee did not consider this application. Therefore staff recommends the Drinking Water Board authorize option number four; a \$253,000 construction loan at 0% interest for 30 years with \$126,000 in principal forgiveness to Wales Town to drill, equip, and connect a new well to the existing drinking water distribution system. The repayable loan amount will be \$127,000.

APPLICANT'S LOCATION:

Wales Town is located in Sanpete County, approximately 4 miles southwest of Moroni.



PROJECT DESCRIPTION:

Drilling, equipping, and connecting a new well to the existing municipal drinking water distribution system.

POPULATION GROWTH:

Population growth projections are shown in the table below.

	Year	Population	Connections
Current	2016	302	116
Projected	2035	397	140

IMPLEMENTATION SCHEDULE:

Apply to DWB for Funding:	August 2016
DWB Funding Authorization:	August 2016
Plans Submitted:	September 2016
Plan Approval:	September 2016
Advertise for Bids:	October 2016
Bid Opening:	October 2016
Loan Closing:	November 2016
Begin Construction:	November 2016
Complete Construction:	March 2017

COST ESTIMATE:

Legal and Bonding	\$10,000
Administration	\$10,000
Land Acquisition	\$20,000
Engineering – Design	\$36,227
Engineering – Construction Management	\$14,100
Construction	\$153,105
Contingency	\$22,895
Total	<u>\$266,327</u>

COST ALLOCATION:

DWB Loan (0%, 30 yrs)	\$127,000	47.7%
DWB Principal Forgiveness	\$126,000	47.3%
Applicant Contribution	\$13,327	5.0%

CONTACT INFORMATION:

APPLICANT:	Wales Town 150 North State Street HC 13 Box 4274 Wales, UT 84667 435-436-9345 wales@cut.net
PRESIDING OFFICIAL & CONTACT PERSON:	Keith Jensen, Mayor 150 North State Street HC 13 Box 4274 Wales, UT 84667 435-436-9345 wales@cut.net
TREASURER/RECORDER	Velva Lee Sherman 150 North State Street HC 13 Box 4274 Wales, UT 84667 435-436-9345 wales@cut.net
CONSULTING ENGINEER:	Robert Worley Sunrise Engineering 25 E 500 N Fillmore, UT 84631 435-743-6151 rworley@sunrise-eng.com
BOND ATTORNEY:	



25 East 500 North, Fillmore, Utah 84631
TEL 435.743.6151 | FAX 435.743.7900 | sunrise-eng.com

17 August 2016

Mr. Michael Grange
Division of Drinking Water
mgrange@utah.gov

RE: Drinking Water Board Funding Application for Wales Emergency Water Project

Dear Mr. Grange:

This letter is being written as background for the Wales Emergency Water Project.

The Town of Wales is in a precarious situation. They are down to only one water source and have been limited on watering outside for the past two months.

They have been considering all of the alternatives for repairing their well versus drilling a new well. After much deliberation, they have decided to abandon the plan to repair it and have chosen to drill a new well. They believe that this is the best choice for a lasting solution to their water difficulties.

The Town has requested a water master plan. They know that they have deficiencies in their water system that will require a major project which will involve the distribution system and redeveloping their well and tank.

Wales is requesting a grant/loan mix or a low interest loan for this well portion of the project. They will also have significant debt with the additional project in the near future, and they only have approximately 100 connections to work toward meeting those financial obligations.

We appreciate your consideration of this important emergency project.

Sincerely,


Doug Nielsen
Funding Specialist

DN/lmt

DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Wales Town
 COUNTY: Sanpete
 PROJECT DESCRIPTION: new well

FUNDING SOURCE: Federal SRF

Staff Recommendation

50 % Loan & 50 % P.F.

ESTIMATED POPULATION:	302	NO. OF CONNECTIONS:	116 *	SYSTEM RATING:	APPROVED
CURRENT AVG WATER BILL:	\$43.04 *			PROJECT TOTAL:	\$266,327
CURRENT % OF AGI:	1.37%	FINANCIAL PTS:	43	LOAN AMOUNT:	\$127,000
ESTIMATED MEDIAN AGI:	\$37,642			PRINC. FORGIVE.:	\$126,000
STATE AGI:	\$41,923			TOTAL REQUEST:	\$253,000
SYSTEM % OF STATE AGI:	90%				

	@ ZERO % RATE 0%	@ RBBI MKT RATE 3.06%		AFTER REPAYMENT PENALTY & POINTS 0.00%
<u>SYSTEM</u>				
ASSUMED LENGTH OF DEBT, YRS:	30	30		30
ASSUMED NET EFFECTIVE INT. RATE:	0.00%	3.06%		0.00%
REQUIRED DEBT SERVICE:	\$4,233.33	\$6,529.80		\$4,233.33
*PARTIAL COVERAGE (15%):	\$0.00	\$0.00		\$0.00
*ADD. COVERAGE AND RESERVE (10%):	\$423.33	\$652.98		\$423.33
ANNUAL NEW DEBT PER CONNECTION:	\$40.14	\$61.92		\$40.14
O & M + FUNDED DEPRECIATION:	\$54,936.00	\$54,936.00		\$54,936.00
OTHER DEBT + COVERAGE:	\$10,000.00	\$10,000.00		\$10,000.00
REPLACEMENT RESERVE ACCOUNT:	\$3,358.47	\$3,473.29		\$3,358.47
ANNUAL EXPENSES PER CONNECTION:	\$588.75	\$589.74		\$588.75
TOTAL SYSTEM EXPENSES	\$72,951.13	\$75,592.07		\$72,951.13
TAX REVENUE:	\$0.00	\$0.00		\$0.00
<u>RESIDENCE</u>				
MONTHLY NEEDED WATER BILL:	\$52.41	\$54.30		\$52.41
% OF ADJUSTED GROSS INCOME:	1.67%	1.73%		1.67%

* Equivalent Residential Connections

R309-700-5

Wales Town
Sanpete
August 18, 2016

TABLE 2 FINANCIAL CONSIDERATIONS

	POINTS	
1. COST EFFECTIVENESS RATIO (SELECT ONE)		
A. Project cost \$0 to \$500 per benefitting connection	16	
B. \$501 to \$1,500	14	
C. \$1,501 to \$2,000	11	
D. \$2,001 to \$3,000	8	X
E. \$3,001 to \$5,000	4	
F. \$5,001 to \$10,000	1	
G. Over \$10,000	0	
	\$2,296	
2. CURRENT LOCAL MEDIAN ADJUSTED GROSS INCOME (AGI) (SELECT ONE)		
A. Less than 70% of State Median AGI	19	
B. 71 to 80% of State Median AGI	16	
C. 81 to 95% of State Median AGI	13	X
D. 96 to 110% of State Median AGI	9	
E. 111 to 130% of State Median AGI	6	
E. 131 to 150% of State Median AGI	3	
F. Greater than 150% of State Median AGI	0	
	90%	
3. PROJECT FUNDING CONTRIBUTED BY APPLICANT (SELECT ONE)		
a. Greater than 25% of project funds	17	
b. 15 to 25% of project funds	14	
c. 10 to 15% of project funds	11	
c. 5 to 10% of project funds	8	X
d. 2 to 5% of project funds	4	
e. Less than 2% of project funds	0	
	5.0%	
4. WATER BILL (INCLUDING TAXES) AFTER PROJECT IS BUILT RELATIVE TO LOCAL MEDIAN ADJUSTED GROSS INCOME (SELECT ONE)		
a. Greater than 2.50% of local median AGI	16	
b. 2.01 to 2.50% of local median AGI	12	
c. 1.51 to 2.00% of local median AGI	8	X
d. 1.01 to 1.50% of local median AGI	3	
e. 0 to 1.00% of local median AGI	0	
	1.67%	
5. SPECIAL INCENTIVE POINTS Applicant: (Mark all that apply)		
A. has a replacement fund receiving annual deposits of 5% of the system's drinking water budget been established, and has already accumulated a minimum of 10% of said annual DW budget in this reserve fund.	5	
B. Has a replacement fund equal to at least 15% or 20% of annual DW budget.	5	
C. Is creating or enhancing a regionalization plan	16	
D. Has a rate structure encouraging conservation	6	X
TOTAL POINTS FOR FINANCIAL NEED	43	
TOTAL POSSIBLE POINTS FOR FINANCIAL NEED	100	

Wales Town

PROPOSED BOND REPAYMENT SCHEDULE

50 % Loan & 50 % P.F.

PRINCIPAL	\$127,000.00	ANTICIPATED CLOSING DATE	15-Oct-16
INTEREST	0.00%	FIRST P&I PAYMENT DUE	15-Oct-17
TERM	30	REVENUE BOND	
NOMIN. PAYMENT	\$4,233.33	PRINC. FORGIVE.:	\$126,000.00

YEAR	BEGINNING BALANCE	DATE OF PAYMENT	PAYMENT	PRINCIPAL	INTEREST	ENDING BALANCE	PAYM NO.
2016	\$127,000.00		\$0.00 *	\$0.00	\$0.00	\$127,000.00	0
2017	\$127,000.00		\$4,000.00	\$4,000.00	\$0.00	\$123,000.00	1
2018	\$123,000.00		\$4,000.00	\$4,000.00	\$0.00	\$119,000.00	2
2019	\$119,000.00		\$4,000.00	\$4,000.00	\$0.00	\$115,000.00	3
2020	\$115,000.00		\$4,000.00	\$4,000.00	\$0.00	\$111,000.00	4
2021	\$111,000.00		\$4,000.00	\$4,000.00	\$0.00	\$107,000.00	5
2022	\$107,000.00		\$4,000.00	\$4,000.00	\$0.00	\$103,000.00	6
2023	\$103,000.00		\$4,000.00	\$4,000.00	\$0.00	\$99,000.00	7
2024	\$99,000.00		\$4,000.00	\$4,000.00	\$0.00	\$95,000.00	8
2025	\$95,000.00		\$4,000.00	\$4,000.00	\$0.00	\$91,000.00	9
2026	\$91,000.00		\$4,000.00	\$4,000.00	\$0.00	\$87,000.00	10
2027	\$87,000.00		\$4,000.00	\$4,000.00	\$0.00	\$83,000.00	11
2028	\$83,000.00		\$4,000.00	\$4,000.00	\$0.00	\$79,000.00	12
2029	\$79,000.00		\$4,000.00	\$4,000.00	\$0.00	\$75,000.00	13
2030	\$75,000.00		\$4,000.00	\$4,000.00	\$0.00	\$71,000.00	14
2031	\$71,000.00		\$4,000.00	\$4,000.00	\$0.00	\$67,000.00	15
2032	\$67,000.00		\$4,000.00	\$4,000.00	\$0.00	\$63,000.00	16
2033	\$63,000.00		\$5,000.00	\$5,000.00	\$0.00	\$58,000.00	17
2034	\$58,000.00		\$4,000.00	\$4,000.00	\$0.00	\$54,000.00	18
2035	\$54,000.00		\$5,000.00	\$5,000.00	\$0.00	\$49,000.00	19
2036	\$49,000.00		\$4,000.00	\$4,000.00	\$0.00	\$45,000.00	20
2037	\$45,000.00		\$5,000.00	\$5,000.00	\$0.00	\$40,000.00	21
2038	\$40,000.00		\$4,000.00	\$4,000.00	\$0.00	\$36,000.00	22
2039	\$36,000.00		\$5,000.00	\$5,000.00	\$0.00	\$31,000.00	23
2040	\$31,000.00		\$4,000.00	\$4,000.00	\$0.00	\$27,000.00	24
2041	\$27,000.00		\$5,000.00	\$5,000.00	\$0.00	\$22,000.00	25
2042	\$22,000.00		\$4,000.00	\$4,000.00	\$0.00	\$18,000.00	26
2043	\$18,000.00		\$5,000.00	\$5,000.00	\$0.00	\$13,000.00	27
2044	\$13,000.00		\$4,000.00	\$4,000.00	\$0.00	\$9,000.00	28
2045	\$9,000.00		\$5,000.00	\$5,000.00	\$0.00	\$4,000.00	29
2046	\$4,000.00		\$4,000.00	\$4,000.00	\$0.00	\$0.00	30
			\$127,000.00	\$127,000.00	\$0.00		

*Interest Only Payment

Wales Town

DWB Loan Terms

Local Share (total):	\$	13,327
Other Agency Funding:	\$	-
DWB Grant Amount:	\$	126,000
DWB Loan Amount:	\$	127,000
DWB Loan Term:		30
DWB Loan Interest:		0.00%
DWB Loan Payment:	\$	4,233

DW Expenses (Estimated)

Proposed Facility Capital Cost:	\$	267,597
Existing Facility O&M Expense:	\$	54,936
Proposed Facility O&M Expense:	\$	54,936
O&M Inflation Factor:		1.0%
Existing Debt Service:	\$	8,000

DW Revenue Sources (Projected)

Beginning Cash:	\$	-
Existing Customers (ERC):		116
Projected Growth Rate:		1.0%
Impact Fee/Connection Fee:	\$	7,329
Current Monthly User Charge:	\$	43.04
Needed Average Monthly User Charge:	\$	52.41

DW Revenue Projections

Yr	Growth Rate (%)	Annual Growth (ERC)	Total Users (ERC)	User Charge Revenue	Impact Fee Revenue	Property Tax Revenue	Total Revenue	DWB Loan Repayment	DWB Loan Reserves	Remaining Principal	Principal Payment	Interest Payment	Existing DW Debt Service	O&M Expenses	Total Expenses	Debt Service Ratio
0	1.0%	1	116	59,912	7,329	-	67,241	-	-	127,000	-	-	8,000	54,936	62,936	-
1	1.0%	1	117	73,580	7,329	-	80,909	4,000	423	123,000	4,000	-	8,000	54,936	67,359	2.16
2	1.0%	1	118	74,209	7,329	-	81,538	4,000	423	119,000	4,000	-	8,000	55,485	67,909	2.17
3	1.0%	2	120	75,467	14,658	-	90,125	4,000	423	115,000	4,000	-	8,000	56,040	68,464	2.84
4	1.0%	1	121	76,096	7,329	-	83,425	4,000	423	111,000	4,000	-	8,000	56,601	69,024	2.24
5	1.0%	1	122	76,724	7,329	-	84,053	4,000	423	107,000	4,000	-	8,000	57,167	69,590	2.24
6	1.0%	1	123	77,353	7,329	-	84,682	4,000	423	103,000	4,000	-	8,000	57,738	70,162	2.25
7	1.0%	1	124	77,982	7,329	-	85,311	4,000	423	99,000	4,000	-	8,000	58,316	70,739	2.25
8	1.0%	2	126	79,240	14,658	-	93,898	4,000	423	95,000	4,000	-	8,000	58,899	71,322	2.92
9	1.0%	1	127	79,869	7,329	-	87,198	4,000	423	91,000	4,000	-	8,000	59,488	71,911	2.31
10	1.0%	1	128	80,498	7,329	-	87,827	4,000	423	87,000	4,000	-	8,000	60,083	72,506	2.31
11	1.0%	1	129	81,127	7,329	-	88,456	4,000		83,000	4,000	-	8,000	60,684	72,684	2.31
12	1.0%	2	131	82,384	14,658	-	97,042	4,000		79,000	4,000	-	8,000	61,290	73,290	2.98
13	1.0%	1	132	83,013	7,329	-	90,342	4,000		75,000	4,000	-	8,000	61,903	73,903	2.37
14	1.0%	1	133	83,642	7,329	-	90,971	4,000		71,000	4,000	-	8,000	62,522	74,522	2.37
15	1.0%	2	135	84,900	14,658	-	99,558	4,000		67,000	4,000	-	8,000	63,148	75,148	3.03
16	1.0%	1	136	85,529	7,329	-	92,858	4,000		63,000	4,000	-	8,000	63,779	75,779	2.42
17	1.0%	1	137	86,158	7,329	-	93,487	5,000		58,000	5,000	-	8,000	64,417	77,417	2.24
18	1.0%	2	139	87,416	14,658	-	102,074	4,000		54,000	4,000	-	8,000	65,061	77,061	3.08
19	1.0%	1	140	88,044	7,329	-	95,373	5,000		49,000	5,000	-	8,000	65,712	78,712	2.28
20	1.0%	2	142	89,302	14,658	-	103,960	4,000		45,000	4,000	-	8,000	66,369	78,369	3.13
21	1.0%	1	143	89,931	7,329	-	97,260	5,000		40,000	5,000	-	8,000	67,032	80,032	2.33
22	1.0%	1	144	90,560	7,329	-	97,889	4,000		36,000	4,000	-	8,000	67,703	79,703	2.52
23	1.0%	2	146	91,818	14,658	-	106,476	5,000		31,000	5,000	-	8,000	68,380	81,380	2.93
24	1.0%	1	147	92,447	7,329	-	99,776	4,000		27,000	4,000	-	8,000	69,064	81,064	2.56
25	1.0%	2	149	93,704	14,658	-	108,362	5,000		22,000	5,000	-	8,000	69,754	82,754	2.97
26	1.0%	1	150	94,333	7,329	-	101,662	4,000		18,000	4,000	-	8,000	70,452	82,452	2.60
27	1.0%	2	152	95,591	14,658	-	110,249	5,000		13,000	5,000	-	8,000	71,156	84,156	3.01
28	1.0%	1	153	96,220	7,329	-	103,549	4,000		9,000	4,000	-	8,000	71,868	83,868	2.64
29	1.0%	2	155	97,478	14,658	-	112,136	5,000		4,000	5,000	-	8,000	72,586	85,586	3.04
30	1.0%	1	156	98,107	7,329	-	105,436	4,000		-	4,000	-	8,000	73,312	85,312	2.68

Total Paid in Debt Service = 127,000

DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Wales Town
 COUNTY: Sanpete
 PROJECT DESCRIPTION: new well

FUNDING SOURCE: Federal SRF

100 % Loan & 0 % P.F.

ESTIMATED POPULATION:	302	NO. OF CONNECTIONS:	116 *	SYSTEM RATING:	APPROVED
CURRENT AVG WATER BILL:	\$43.04 *	FINANCIAL PTS:	43	PROJECT TOTAL:	\$266,327
CURRENT % OF AGI:	1.37%			LOAN AMOUNT:	\$253,000
ESTIMATED MEDIAN AGI:	\$37,642			PRINC. FORGIVE.:	\$0
STATE AGI:	\$41,923			TOTAL REQUEST:	\$253,000
SYSTEM % OF STATE AGI:	90%				

	@ ZERO % RATE 0%	@ RBBI MKT RATE 3.06%		AFTER REPAYMENT PENALTY & POINTS 2.04%
<u>SYSTEM</u>				
ASSUMED LENGTH OF DEBT, YRS:	20	20		20
ASSUMED NET EFFECTIVE INT. RATE:	0.00%	3.06%		2.04%
REQUIRED DEBT SERVICE:	\$12,650.00	\$17,100.05		\$15,532.44
*PARTIAL COVERAGE (15%):	\$0.00	\$0.00		\$0.00
*ADD. COVERAGE AND RESERVE (10%):	\$1,265.00	\$1,710.00		\$1,553.24
ANNUAL NEW DEBT PER CONNECTION:	\$119.96	\$162.16		\$147.29
O & M + FUNDED DEPRECIATION:	\$54,936.00	\$54,936.00		\$54,936.00
OTHER DEBT + COVERAGE:	\$10,000.00	\$10,000.00		\$10,000.00
REPLACEMENT RESERVE ACCOUNT:	\$3,779.30	\$4,001.80		\$3,923.42
ANNUAL EXPENSES PER CONNECTION:	\$592.37	\$594.29		\$593.62
TOTAL SYSTEM EXPENSES	\$82,630.30	\$87,747.86		\$85,945.11
TAX REVENUE:	\$0.00	\$0.00		\$0.00
<u>RESIDENCE</u>				
MONTHLY NEEDED WATER BILL:	\$59.36	\$63.04		\$61.74
% OF ADJUSTED GROSS INCOME:	1.89%	2.01%		1.97%

* Equivalent Residential Connections

DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Wales Town
 COUNTY: Sanpete
 PROJECT DESCRIPTION: new well

FUNDING SOURCE: Federal SRF

100 % Loan & 0 % P.F.

ESTIMATED POPULATION:	302	NO. OF CONNECTIONS:	116 *	SYSTEM RATING:	APPROVED
CURRENT AVG WATER BILL:	\$43.04 *			PROJECT TOTAL:	\$266,327
CURRENT % OF AGI:	1.37%	FINANCIAL PTS:	43	LOAN AMOUNT:	\$253,000
ESTIMATED MEDIAN AGI:	\$37,642			PRINC. FORGIVE.:	\$0
STATE AGI:	\$41,923			TOTAL REQUEST:	\$253,000
SYSTEM % OF STATE AGI:	90%				

	@ ZERO % RATE	@ RBBI MKT RATE		AFTER REPAYMENT PENALTY & POINTS
SYSTEM	0%	3.06%		1.04%
ASSUMED LENGTH OF DEBT, YRS:	20	20		20
ASSUMED NET EFFECTIVE INT. RATE:	0.00%	3.06%		1.04%
REQUIRED DEBT SERVICE:	\$12,650.00	\$17,100.05		\$14,076.61
*PARTIAL COVERAGE (15%):	\$0.00	\$0.00		\$0.00
*ADD. COVERAGE AND RESERVE (10%):	\$1,265.00	\$1,710.00		\$1,407.66
ANNUAL NEW DEBT PER CONNECTION:	\$119.96	\$162.16		\$133.49
O & M + FUNDED DEPRECIATION:	\$54,936.00	\$54,936.00		\$54,936.00
OTHER DEBT + COVERAGE:	\$10,000.00	\$10,000.00		\$10,000.00
REPLACEMENT RESERVE ACCOUNT:	\$3,779.30	\$4,001.80		\$3,850.63
ANNUAL EXPENSES PER CONNECTION:	\$592.37	\$594.29		\$592.99
TOTAL SYSTEM EXPENSES	\$82,630.30	\$87,747.86		\$84,270.90
TAX REVENUE:	\$0.00	\$0.00		\$0.00
RESIDENCE				
MONTHLY NEEDED WATER BILL:	\$59.36	\$63.04		\$60.54
% OF ADJUSTED GROSS INCOME:	1.89%	2.01%		1.93%

* Equivalent Residential Connections

DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Wales Town
 COUNTY: Sanpete
 PROJECT DESCRIPTION: new well

FUNDING SOURCE: Federal SRF

80 % Loan & 20 % P.F.

ESTIMATED POPULATION:	302	NO. OF CONNECTIONS:	116 *	SYSTEM RATING:	APPROVED
CURRENT AVG WATER BILL:	\$43.04 *			PROJECT TOTAL:	\$266,327
CURRENT % OF AGI:	1.37%	FINANCIAL PTS:	43	LOAN AMOUNT:	\$203,000
ESTIMATED MEDIAN AGI:	\$37,642			PRINC. FORGIVE.:	\$50,000
STATE AGI:	\$41,923			TOTAL REQUEST:	\$253,000
SYSTEM % OF STATE AGI:	90%				

	@ ZERO % RATE	@ RBBI MKT RATE		AFTER REPAYMENT PENALTY & POINTS
SYSTEM	0%	3.06%		2.04%
ASSUMED LENGTH OF DEBT, YRS:	20	20		20
ASSUMED NET EFFECTIVE INT. RATE:	0.00%	3.06%		2.04%
REQUIRED DEBT SERVICE:	\$10,150.00	\$13,720.59		\$12,462.79
*PARTIAL COVERAGE (15%):	\$0.00	\$0.00		\$0.00
*ADD. COVERAGE AND RESERVE (10%):	\$1,015.00	\$1,372.06		\$1,246.28
ANNUAL NEW DEBT PER CONNECTION:	\$96.25	\$130.11		\$118.18
O & M + FUNDED DEPRECIATION:	\$54,936.00	\$54,936.00		\$54,936.00
OTHER DEBT + COVERAGE:	\$10,000.00	\$10,000.00		\$10,000.00
REPLACEMENT RESERVE ACCOUNT:	\$3,654.30	\$3,832.83		\$3,769.94
ANNUAL EXPENSES PER CONNECTION:	\$591.30	\$592.83		\$592.29
TOTAL SYSTEM EXPENSES	\$79,755.30	\$83,861.48		\$82,415.01
TAX REVENUE:	\$0.00	\$0.00		\$0.00
RESIDENCE				
MONTHLY NEEDED WATER BILL:	\$57.30	\$60.25		\$59.21
% OF ADJUSTED GROSS INCOME:	1.83%	1.92%		1.89%

* Equivalent Residential Connections

Agenda Item

4(C)(ii)(c)

DRINKING WATER BOARD
BOARD PACKET FOR CONSTRUCTION LOAN
AUTHORIZATION

APPLICANT’S REQUEST:

San Juan Spanish Valley Special Service District (SSD) is requesting financial assistance in the amount of \$2,550,000 to develop a new culinary drinking water system. The total cost of the project is expected to be \$5,100,000 and they have requested \$2,550,000 from the Community Impact Board (CIB). They scored 25.3 points on the project priority list.

STAFF COMMENTS:

Currently, the Spanish Valley area within San Juan County does not have a community culinary water system. The residents rely on private on-site wells. San Juan County has recently formed a SSD to serve the area of Spanish Valley and have recently acquired the water rights necessary to operate a community wide culinary water system. An engineering study was conducted to determine the best alternative to install a new culinary system that is able to provide for the 230 existing homes and support population growth over the next 20 years for this area. A community wide culinary water system will provide fire protection and reduce the potential for aquifer contamination posed by many wells and septic systems.

The proposed project includes a new well, a 500,000-gallon water storage tank, 3,000 feet of distribution piping and several valve stations.

The local MAGI for San Juan County is \$31,965, which is 76% of the State MAGI. Based on their estimated operation and maintenance costs, a full loan at the calculated interest rate of 2.48% for 20 years would result in an average water bill of approximately \$121/ERC which is 4.56% of their local MAGI. Based on their MAGI and anticipated water bill, San Juan Spanish Valley SSD qualifies to be considered for additional subsidization. A maximum of 30% principal forgiveness meets the ceiling limits of most capitalization grants.

The following options were evaluated:

	Total Funding	Principal Forgiveness	Loan	Term	Interest Rate	Water Bill	% of Local MAGI
Option 1	\$2,550,000	\$510,000	\$2,040,000	20 yrs	2.48%	\$106.67	4.00%
Option 2	\$2,550,000	\$765,000	\$1,785,000	30 yrs	1.00%	\$78.84	2.96%
Option 3	\$2,550,000	\$765,000	\$1,785,000	30 yrs	0%	\$74.46	2.80%

San Juan Spanish Valley SSD
August 31, 2016
Page 2

*The evaluations are based on the assumption that CIB will provide 50% grant with 2.5% interest for 30 years as terms on the loan portion.

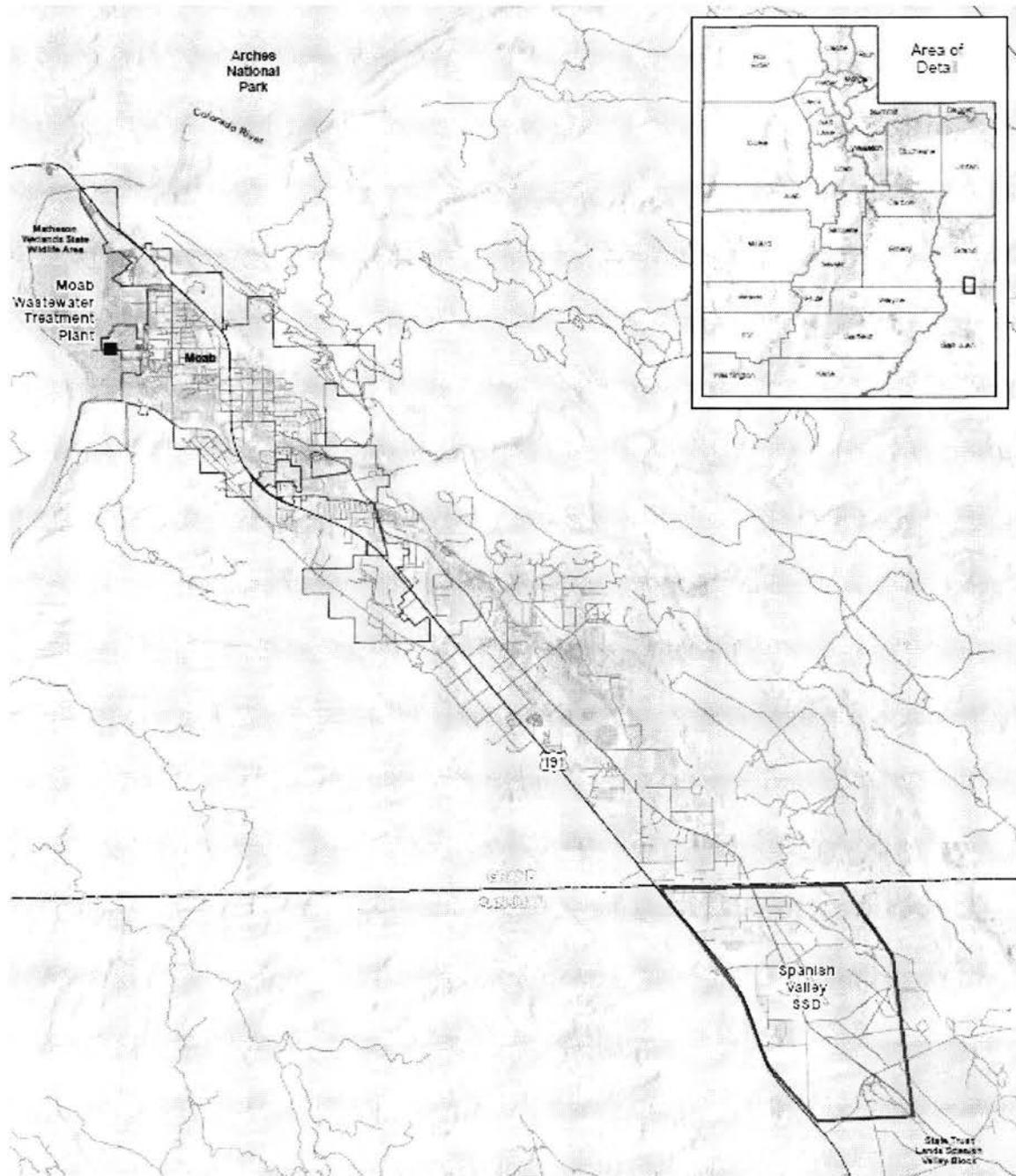
FINANCIAL ASSISTANCE COMMITTEE RECOMMENDATION:

The Drinking Water Board authorize a loan of \$2,550,000 at 0% interest for 30 years with \$765,000 in principal forgiveness to the San Juan Spanish Valley SSD.

APPLICANT'S LOCATION:

San Juan Spanish Valley SSD is located in San Juan County, 9 miles south of Moab.

MAP OF APPLICANT'S LOCATION:



PROJECT DESCRIPTION:

The proposed project is to construct a stand-alone culinary water system, to be maintained and administered by San Juan Spanish Valley SSD. The project will include a new well, a 500,000-gallon water storage tank, 3,000 feet of distribution piping, hydrants and several valve stations. The will also pursue purchasing an existing well as a second source, and upgrading to comply with Division Rules.

ALTERNATIVES EVALUATED:

The following alternatives were evaluated:

- No action- Continue the use of private on-site wells to supply culinary water for residences within the Spanish Valley SSD service area.
- Design and construct a stand-alone culinary water system to be constructed, maintained and administered solely by Spanish Valley SSD.
- Design and construct a culinary water system cooperatively with Grand Water & Sewer Service Agency. This alternative would use the existing GWSSA well source, storage tank and 16-inch transmission line to serve the lowest pressure zone of the proposed distribution system in San Juan County. Also, if needed, water could be provided to the GWSSQ distribution system from the proposed Spanish Valley SSD well and storage tank.

POPULATION GROWTH:

Based on the Master Plan prepared for San Juan Spanish Valley SSD, a growth rate of approximately 2% per year is expected over the next 20 years.

	<u>Year</u>	<u>Population</u>	<u>ERC</u>
Current:	2016	575	229
Projected:	2035	854	340

IMPLEMENTATION SCHEDULE:

Apply to DWB for Construction Funds:	July 2016
SRF Committee Conference Call:	August 2016
DWB Funding Authorization:	August 2016
Advertise Environmental Assessment:	October 2016
Complete Design:	February 2017
Plan Approval:	March 2017
Advertise for Bids:	March 2017

Bid Opening:	March 2017
Loan Closing:	April 2017
Begin Construction:	May 2017
Complete Construction:	May 2018
Receive Operating Permit:	May 2018

COST ESTIMATE:

Legal and Bonding	\$10,000
Rights of Way & Easements	\$30,000
Environmental	\$43,000
Engineering	\$507,500
Construction- Well	\$565,000
Construction- Water Lines	\$2,584,500
Construction- Storage Tank	\$520,000
Road Repairs/Mobilization	\$430,000
Contingency	<u>\$410,000</u>
Total Project Cost	\$5,100,000

* American Iron and Steel and Davis Bacon Wages were incorporated into cost estimates

COST ALLOCATION:

The cost allocation proposed for the project is shown below.

<u>Funding Source</u>	<u>Cost Sharing</u>	<u>Percent of Project</u>
DWB Loan (0%, 30-yrs)	\$1,785,000	35%
DWB Grant	\$765,000	15%
CIB	<u>\$2,550,000</u>	<u>50%</u>
Total Amount	\$5,100,000	100%

ESTIMATED ANNUAL COST OF WATER SERVICE:

Operation and Maintenance plus Depreciation: \$55,000
 DDW Debt Service: \$59,500
 DDW Debt Service Coverage: \$5,950
 Partial Coverage: \$8,925
 CIB Debt plus coverage: \$76,145
 Annual Cost/ERC: \$15,260.50
 Monthly Cost/ERC: \$74.46/ERC
 Cost as % MAGI: 2.80%

APPLICANT:

San Juan Spanish Valley SSD
P.O. Box 9
Monticello, UT 84535
Telephone: (435) 587-3225

PRESIDING OFFICIAL &
CONTACT PERSON:

Kelly Pehrson

P.O. Box 9
Monticello, UT 84535
Telephone: (435) 587-3225
Email: kpehrson@sanjuancounty.org

CONSULTING ENGINEER:

Ryan Jolley
Jones and DeMille Engineering
1535 South 100 West
Richfield, UT 84701
(435) 896-8266
ryanj@jonesanddemille.com

BOND ATTORNEY:

Richard Chamberlain
Chamberlain & Associates
(435) 896-4461
Rchamberlain13@gmail.com

----- Forwarded message -----

From: **Ryan Jolley** <Ryanj@jonesanddemille.com>

Date: Mon, Jun 20, 2016 at 8:57 PM

Subject: RE: San Juan Spanish Valley SSD - O&M Estimate

To: Nathan Hall <nhall@utah.gov>, "Pehrson, Kelly" <kpehrson@sanjuancounty.org>

Cc: Scott Hacking <SCOTTH@utah.gov>, John Chartier <Jchartier@utah.gov>, Michael Grange <mgrange@utah.gov>, Daniel Hawley <daniel.h@jonesanddemille.com>

Nathan,

Thanks for the thorough review and the thought you've put into this application.

We are working on finalizing the written water system feasibility study. We used the alternatives analysis from that study to determine the most feasible water system alternative. We'll send the written report over in the next week, which will give you some more information on the system in the area including the O&M estimate. We're also almost finished with the DDW application for the remainder of the funding.

In summary, the alternative of combining systems with Grand Water and Sewer was considered and evaluated closely. It was determined that a combined system wouldn't eliminate any portion of the proposed system. In fact connecting the systems would require a significant amount of additional piping and valve/pump stations. In addition to the additional system components, the Grand Water and Sewer District intended to charge full impact fees to each of the new hookups. GWSSA has also told us multiple times that they will not encumber their residents to help pay for the San Juan Spanish Valley system. Because of the significant additional expenses (added components and impact fees), it was determined that a separate system was much more economical to the SV resident.

We have discussed an emergency connection between the systems and both districts are very amenable to this idea.

We are also very aware of the difficulty in getting people to sign up and we have discussed at length. We have a couple of ideas that we intend to implement if we can't sell enough connections to the existing residents. ...

Your input and questions are appreciated. This project is very important to San Juan County and they are willing to provide whatever information is needed to make this a successful funding request.

Ryan Jolley, PE

Principal

435.979.0403 mobile

infrastructure professionals

From: Nathan Hall [<mailto:nhall@utah.gov>]

Sent: Tuesday, June 14, 2016 9:17 AM

To: Pehrson, Kelly <kpehrson@sanjuancounty.org>

Cc: Ryan Jolley <Ryanj@jonesanddemille.com>; Scott Hacking <SCOTTH@utah.gov>; John Chartier <Jchartier@utah.gov>; Michael Grange <mgrange@utah.gov>

Subject: Re: San Juan Spanish Valley SSD - O&M Estimate

Kelly,

I know that you are working with Grand Water and Sewer on the sewer part of this project and you have evaluated the possibility of getting wholesale drinking water from them too - but with the elevation differences and impact fees the water side ended up being more economical to have a separate system with maybe an emergency connection to Grand W&S.

In the past when we have funded brand new systems like the one you are proposing, one of the biggest challenges is getting enough people to "sign up" to connect before loan closing so you have a verified income source large enough to pay back the bond.

In that respect, and regarding economies of scale, the scenario of expanding Grand W&S to serve across the county line makes a lot more sense - just because they are already an established system and not starting from scratch. I know there are political considerations, and issues with them providing service across the county line, but I have heard that there are ways around that, with interlocal agreements and other legal tools. I don't think it is impossible for a District to cross into another County if they really want too and there is cooperation between counties, and I believe there are Districts along the Wasatch Front that have worked around it.

Can you let me know your thoughts about this scenario? Whether you have already had this specific conversation with Grand W&S? If this option has not been explored, can you look into it, reach out to Grand W&S, and let me know how it goes? Please reply-all and add any others you think should be in the conversation.

Thanks,

Nathan D Hall, P.E.
Utah Division of Drinking Water
Construction Assistance Section
Phone: [801-536-0048](tel:801-536-0048)
Fax: [801-536-4211](tel:801-536-4211)
Email: nhall@utah.gov

Agenda Item

5

Rule revisions to R309-105 and R309-400

At the last Board meeting held on Friday July 8th in Vernal, staff presented three proposed rule changes relate to the Department of Natural Resources data collection efforts. The changes to the Division's rules were requirements assigned to the Division by House Bill 305 (a copy of the enrolled bill is attached). The Board directed staff to proceed with Rule making for all three proposed changes. On looking at the specific rule change associated with R309-105 and R309-400 staff determined that it was not totally consistent with the legislative bill language and/or consistent with the practices of the Division of Water Rights. Hence updated versions of these proposed rules have been prepared.

Staff Recommendation: Staff recommends that the Board authorize staff to proceed with the rule making process by filing the indicated changes with the State Division of Administrative Rules.

R309-105. Administration: General Responsibilities of Public Water Systems.

R309-105-15. [Annual] Report[s] Submittal.

~~[All community water systems shall be required to complete annual report forms furnished by the Division of Drinking Water. The information to be provided shall include: the status of all water system projects started during the previous year; water demands met by the system; problems experienced; and anticipated projects.]~~

~~(1) A public water shall submit water use data if required by a state agency and shall verify the accuracy of the data by including a certification by a certified operator or a professional engineer performing the duties of a certified operator.~~

~~*Guidance: Utah Division of Water Rights requires certain water systems to submit an annual Utah Water Use Data Form.*~~

~~(2) A public water system shall comply with the report submittal requirements of the R309 rules.~~

KEY: drinking water, watershed management

Date of Enactment or Last Substantive Amendment: [May 1, 2016]

Notice of Continuation: March 13, 2015

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

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R309-400. Water System Rating Criteria.

R309-400-12. Reporting and Record Maintenance Issues.

Points may be assessed for failure to provide required reports to the Director by the reporting deadline. The points shall be assigned as the failure occurs and shall remain on record for a period of one year.

(1) Monthly Reports:

- (a) For each failure to report the monthly water treatment plant report, 100 points shall be assessed.

(2) Quarterly Reports:

- (a) For each failure to report the quarterly disinfection report, 50 points shall be assessed.

(3) Annual and Other Reports:

- (a) [For failure to provide the annual report, 2 points shall be assessed.] A public water system that fails to submit water use data required by a state agency or fails to verify the accuracy of the data by including a certification by a certified operator or a professional engineer performing the duties of a certified operator shall be assessed 50 points.

(b) Community water systems that fail to send a certification to the Division stating how the consumer confidence report was distributed to its customers as required in R309-225-7(3), 10 points shall be assessed.

(c) Community water systems that fail to mail a copy of the consumer confidence report to the Division as required in R309-225-7(3), 10 points shall be assessed.

(d) A public water system that fails to submit operational reports or other reports required by the Division shall be assessed 20 points.

KEY: drinking water, environmental protection, water system rating, penalties

Date of Enactment or Last Substantive Amendment: [November 17, 2014]

Notice of Continuation: March 22, 2010

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

R309-300. Certification Rules for Water Supply Operators.

R309-300-9. Certificate Suspension and Revocation Procedures.

1. The Secretary shall inform a certificate holder, in writing, if the certificate is being considered for suspension or revocation of an Operator's or Specialist's certificate. The communication shall state the reasons for considering such action and allow the individual an opportunity for a hearing.

2. Grounds for suspending or revoking an Operator's or a Specialist's certificate shall be any of the following:

(a) demonstrated disregard for the public health and safety;

(b) misrepresentation or falsification of figures and reports, or both, submitted to the State;

(c) cheating on a certification exam.

1 **WATER RIGHTS AND RESOURCES AMENDMENTS**

2 2016 GENERAL SESSION

3 STATE OF UTAH

4 **Chief Sponsor: Joel K. Briscoe**

5 Senate Sponsor: Margaret Dayton

6

7 **LONG TITLE**

8 **General Description:**

9 This bill deals with the accuracy of water use data.

10 **Highlighted Provisions:**

11 This bill:

12 ▶ instructs the Drinking Water Board to require a certified water operator of a public
13 water supplier, or professional engineer performing the duties of an operator, to
14 verify the accuracy of water use and supply data submitted to the Division of
15 Drinking Water;

16 ▶ authorizes the Division of Water Rights to collect and validate water use data; and

17 ▶ makes technical changes.

18 **Money Appropriated in this Bill:**

19 None

20 **Other Special Clauses:**

21 None

22 **Utah Code Sections Affected:**

23 AMENDS:

24 **19-4-104**, as last amended by Laws of Utah 2012, Chapter 360

25 **73-5-8**, as last amended by Laws of Utah 2005, Chapter 215

26 **73-10-18**, as last amended by Laws of Utah 1969, Chapter 198

27 **73-10-19**, as last amended by Laws of Utah 1983, Chapter 318

28 **73-10-20**, as last amended by Laws of Utah 1977, Chapter 281

30 *Be it enacted by the Legislature of the state of Utah:*

31 Section 1. Section **19-4-104** is amended to read:

32 **19-4-104. Powers of board.**

33 (1) (a) The board may make rules in accordance with Title 63G, Chapter 3, Utah
34 Administrative Rulemaking Act:

35 (i) establishing standards that prescribe the maximum contaminant levels in any public
36 water system and provide for monitoring, record-keeping, and reporting of water quality related
37 matters;

38 (ii) governing design, construction, operation, and maintenance of public water
39 systems;

40 (iii) granting variances and exemptions to the requirements established under this
41 chapter that are not less stringent than those allowed under federal law;

42 (iv) protecting watersheds and water sources used for public water systems; and

43 (v) governing capacity development in compliance with Section 1420 of the federal
44 Safe Drinking Water Act, 42 U.S.C.[~~A.~~] Sec. 300f et seq.;

45 (b) The board may:

46 (i) order the director to:

47 (A) issue orders necessary to enforce the provisions of this chapter;

48 (B) enforce the orders by appropriate administrative and judicial proceedings; or

49 (C) institute judicial proceedings to secure compliance with this chapter;

50 (ii) (A) hold a hearing that is not an adjudicative proceeding relating to the
51 administration of this chapter; or

52 (B) appoint hearing officers to conduct a hearing that is not an adjudicative proceeding;
53 or

54 (iii) request and accept financial assistance from other public agencies, private entities,
55 and the federal government to carry out the purposes of this chapter.

56 (c) The board shall:

57 (i) require the submission to the director of plans and specifications for construction of,

58 substantial addition to, or alteration of public water systems for review and approval by the
59 board before that action begins and require any modifications or impose any conditions that
60 may be necessary to carry out the purposes of this chapter;

61 (ii) advise, consult, cooperate with, provide technical assistance to, and enter into
62 agreements, contracts, or cooperative arrangements with state, federal, or interstate agencies,
63 municipalities, local health departments, educational institutions, and others necessary to carry
64 out the purposes of this chapter and to support the laws, ordinances, rules, and regulations of
65 local jurisdictions;

66 (iii) develop and implement an emergency plan to protect the public when declining
67 drinking water quality or quantity creates a serious health risk and issue emergency orders if a
68 health risk is imminent; ~~and~~

69 (iv) require a certified operator of a public water supplier to verify by signature and
70 certification number, or a professional engineer performing the duties of a certified water
71 operator to verify by signature and stamp, the accuracy of any data on water use and water
72 supply submitted by the public water supplier to the division; and

73 ~~(iv)~~ (v) meet the requirements of federal law related or pertaining to drinking water.

74 (2) (a) The board may adopt and enforce standards and establish fees for certification
75 of operators of any public water system.

76 (b) The board may not require certification of operators for a water system serving a
77 population of 800 or less except:

78 (i) to the extent required for compliance with Section 1419 of the federal Safe Drinking
79 Water Act, 42 U.S.C. ~~[A.]~~ Sec. 300f et seq.; and

80 (ii) for a system that is required to treat its drinking water.

81 (c) The certification program shall be funded from certification and renewal fees.

82 (3) Routine extensions or repairs of existing public water systems that comply with the
83 rules and do not alter the system's ability to provide an adequate supply of water are exempt
84 from the provisions of Subsection (1)(c)(i).

85 (4) (a) The board may adopt and enforce standards and establish fees for certification

86 of persons engaged in administering cross connection control programs or backflow prevention
87 assembly training, repair, and maintenance testing.

88 (b) The certification program shall be funded from certification and renewal fees.

89 (5) A board member may not speak or act for the board unless the board member is
90 authorized by a majority of a quorum of the board in a vote taken at a meeting of the board.

91 Section 2. Section 73-5-8 is amended to read:

92 **73-5-8. Audits -- Reports by users to engineer.**

93 (1) The Division of Water Rights shall, in accordance with Title 63G, Chapter 3, Utah
94 Administrative Rulemaking Act, make rules specifying:

95 (a) what water use data a person shall report, pursuant to this section; and

96 (b) how the Division of Water Rights shall validate the data described in Subsection

97 (1)(a).

98 (2) The Division of Water Rights may collect and validate water use data.

99 (3) Every person using water from any river system or water source, when requested by
100 the state engineer, shall within 30 days after such request report to the state engineer in writing:

101 ~~(1)~~ (a) the nature of the use of any such water;

102 ~~(2)~~ (b) the area on which used;

103 ~~(3)~~ (c) the kind of crops to be grown; ~~and~~

104 ~~(4)~~ (d) water elevations on wells or tunnels; and

105 (e) quantity of ~~underground~~ water used.

106 Section 3. Section 73-10-18 is amended to read:

107 **73-10-18. Division of Water Resources -- Creation -- Power and authority.**

108 (1) There is created the Division of Water Resources, which shall be within the
109 Department of Natural Resources under the administration and general supervision of the
110 executive director of natural resources and under the policy direction of the Board of Water
111 Resources.

112 (2) The Division of Water Resources shall:

113 (a) be the water ~~resource(s)~~ resource authority for the state ~~[of Utah, shall]; and~~

114 (b) assume all of the functions, powers, duties, rights, and responsibilities of the Utah
 115 water and power board except those which are delegated to the board by this act and is vested
 116 with such other functions, powers, duties, rights and responsibilities as provided in this act and
 117 other law.

118 Section 4. Section 73-10-19 is amended to read:

119 **73-10-19. Director's power and authority.**

120 The director shall:

121 (1) be the executive and administrative head of the Division of Water Resources;

122 (2) ~~[and shall be a person]~~ be selected with special reference to ~~[his]~~ training,
 123 experience, and interest in the field of water conservation and development~~[-]~~;

124 ~~[The director of the Division of Water Resources shall]~~

125 (3) administer the Division of Water Resources ~~[and shall]~~;

126 (4) succeed to all of the powers and duties conferred upon the executive secretary of
 127 the Utah water and power board pursuant to Title 73, Chapter 10, Board of Water Resources -
 128 Division of Water Resources~~[-The director shall]~~; and

129 (5) have the power, within ~~[policies]~~ rules established by the Board of Water
 130 Resources, to:

131 ~~[(+)]~~ (a) make studies, investigations, and plans for the full development and utilization
 132 and promotion of the water and power resources of the state, including preliminary surveys,
 133 stream gauging, examinations, tests, and other estimates either separately or in consultation
 134 with federal, state, and other agencies;

135 ~~[(2)]~~ (b) initiate and conduct water resource investigations, surveys and studies,
 136 prepare plans and estimates, make reports thereon, and perform necessary work to develop an
 137 over-all state water plan;

138 ~~[(3)]~~ (c) file applications in the name of the division for the appropriation of water~~[-~~
 139 ~~All pending water applications heretofore filed in behalf of the state or any agency thereof for~~
 140 ~~the use and benefit of the state are transferred to the board, and it is authorized to take such~~
 141 ~~action thereon as it may deem proper];~~

142 ~~[(4)]~~ (d) take all action necessary to acquire or perfect water rights for projects
143 sponsored by the board; and

144 ~~[(5)]~~ (e) accept, execute, and deliver deeds and all other conveyances.

145 Section 5. Section **73-10-20** is amended to read:

146 **73-10-20. Loans for water systems -- Legislative declaration -- Authority of**
147 **Division of Water Resources to audit water data.**

148 The Legislature recognizes and declares that:

149 (1) the development, protection, and maintenance of adequate and safe water supplies
150 for human consumption is vital to public health, safety, and welfare;

151 (2) ~~[that]~~ there exists within the state a need to assist cities, towns, improvement
152 districts, and special service districts in providing an adequate and safe water supply for those
153 users from municipal and district systems; and

154 (3) ~~[that]~~ the acquisition or construction of systems and the improvement and extension
155 of existing systems, based on proper planning and sound engineering, will not only provide
156 safer water supplies, but will also serve to ensure that the water resources of the state are used
157 in an efficient manner and will avoid wasteful practices.

Agenda Item

6

PROPOSED SUBSTANTIVE CHANGES TO RULE R309-535-5

The Division of Drinking Water is requesting authorization to make substantive changes to the content and organization of Section R309-535-5, *Fluoridation*. The proposed amendment updates the requirements by incorporating information about fluoridation systems that the division has gained through plan review, facility inspections, and fluoridation training.

The current fluoridation rule basically borrows its fluoridation requirements from *Recommended Standards for Water Works* (commonly known as the Ten States' Standards). The information from the Ten States' Standards is useful but somewhat limited in its scope. Therefore, the proposed amendment retains most of the current requirements and adds other requirements to provide a more comprehensive design regulation.

Changes to the substance of the fluoridation rule include the following:

- Deleted general accuracy requirement for fluoride chemical feeding equipment
- Deleted requirements related to feed pump pumping rate and anti-siphon device construction
- Deleted the restriction of fluoride saturators to up-flow saturators
- Added requirements for secondary containment for fluoride tanks
- Added fluoride chemical storage requirements
- Added requirements for fluoride injectors and injection points
- Added requirements for fluoride secondary controls
- Added requirements for fluoride building security, heating, lighting, and ventilation
- Added cross-connection prohibitions to protect the water supply
- Updated and expanded the personal protective equipment requirements

The proposed amendment also substantially reorganizes R309-535-5 as follows:

1. *General Requirements* apply to all types of fluoridation facilities
2. *Additional Requirements for Fluorosilicic Acid Installations* apply only to facilities that use fluorosilicic acid
3. *Additional Requirements for Fluoride Saturator Installations* apply only to fluoride saturator facilities
4. *Additional Requirements for Fluoride Dry Feed Installations* apply only to fluoride dry feed facilities

Two versions of the R309-535-5 amendment are enclosed:

- **The Division of Administrative Rules (DAR) Version:** DAR maintains the official version of rules and oversees the rulemaking process. The official rulemaking document for R309-535-5 is in the format required by DAR. The DAR format has limited formatting, uses strikeouts for deleted words, and underlines added words. In this case, because the extensive reorganization, the entire current section is struck through and the new section is entirely underlined. This is the version of the rule amendment that will be published in the Utah State Bulletin.

- **The Division of Drinking Water Version:** DDW provides a separate version of the rule. The rule content of the DDW version is the same as the DAR version. However, the DDW version is formatted for easier reading and contains DDW's interpretations of the rule (in the form of guidance paragraphs). To aid in identifying the differences between the current rule and the proposed amendment, the DDW version of the current rule shows requirements that are not included in the proposed amendment as struck through and in red. The DDW version of the proposed amendment shows new requirements as underlined and in red. The DDW version is for information only and will not be published in the Utah State Bulletin.

Staff Recommendation: Because the proposed changes are substantive, the staff recommends **that the Board authorize Division staff to begin the rulemaking process to amend R309-535-5 and to file the proposed rule amendment for publication in the Utah State Bulletin on October 1, 2016.**

List of Proposed Revisions to R309-535-5. *Fluoridation.*

The below list gives deletions from the current rule, additions to the proposed rule, and changes between the two rules.

Deletions

R309-535-5: Deleted the requirement that fluoride compounds other than sodium fluoride, sodium fluorosilicate, or fluorosilicic acid be approved by the Director. Instead, R309-535-5(1)(a)(i) of the proposed amendment requires fluoridation chemicals to be certified to comply with ANSI/NSF 60.

R309-535-5(1): Deleted the requirement that unsealed storage units for fluorosilicic acid be vented to the atmosphere at a point outside any buildings because it is adequately covered in two parts of the amendment. R309-535-5(1)(b) of the proposed amendment requires fluoride chemicals to be stored in covered or sealed containers; R309-535-5(1)(j)(ii) and (iii) require ventilation in the fluoride operating area to provide a minimum of six room-air changes per hour and to be vented to the outside atmosphere.

R309-535-5(2)(a): Deleted the requirement that scales, loss-of-weight recorders or liquid level indicators for chemical feeding be accurate to within five percent of the average daily change in reading.

R309-535-5(2)(b): Deleted the requirement that fluoride feeders be accurate to within 5% of the desired feed rate.

R309-535-5(2)(e): Deleted the requirement that fluoride be supplied by a positive displacement pump providing a minimum of 20 strokes per minute.

R309-535-5(2)(f): Deleted the requirement that fluoride feed lines and water dilution lines have spring-opposed diaphragm type anti-siphon devices.

R309-535-5(2)(j): Deleted the requirement that fluoride solutions be injected at a point of continuous positive pressure or a suitable air gap be provided.

R309-535-5(2)(l): Deleted the requirement that only up-flow saturators be permitted. Therefore, the proposed amendment permits the use of up-flow and down-flow saturators.

R309-535-5(6): Deleted "Testing Equipment," which required that equipment be provided to measure the fluoride level in the water and that it be approved by the Director.

Additions

Introduction: Added an introductory statement indicating that the fluoridation rule does not require public water systems to fluoridate, but if they do, they must meet the fluoridation rule requirements.

R309-535-5(1)(iii): Added the requirement that metal parts used in fluoridation equipment or fluoridation rooms be corrosion resistant.

R309-535-5(1)(b)(i): Added the requirement that fluoride chemicals be stored away from heat.

R309-535-5(1)(b)(v): Added the requirement that solution tanks be labeled to identify their contents.

R309-535-5(1)(c): Added secondary containment requirements for tanks containing corrosive fluoride solutions.

R309-535-5(1)(d)(iii): Added the requirement that a sampling point be provided for measuring the fluoride level in treated water.

R309-535-5(1)(e)(i): Added the requirement that a fluoride feed pump be sized for operational efficiency and to prevent fluoride overfeed.

R309-535-5(1)(f)(ii): Added the prohibition that a fluoride feed pump not be plugged in to a continuously active electrical outlet, instead it must be wired so that it operates only when a well or feed pump supplying water is activated.

R309-535-5(1)(g)(i): Added the requirement that the fluoride injection line enter at a point in the lower 1/3 of the water line.

R309-535-5(1)(g)(ii): Added the requirement that the fluoride injection point allow for adequate mixing.

R309-535-5(g)(iv): Added the requirement that a fluoride injector be selected based on quantity of fluoride to be fed, water flow, back pressure, and injector operating pressure.

R309-535-5(g)(v): Added the requirement that if injecting fluoride under pressure, the injection line must be secured by a corporation stop and safety chain.

R309-535-5(h)(ii): Added the requirement that fluoridation facilities without operators on site must have a day tank or two alternative secondary controls to prevent fluoride overfeed.

R309-535-5(1)(i): Added the requirement that fluoridation equipment be housed in a secure building sized for handling and storing fluoride chemicals.

R309-535-5(1)(j): Added heating, lighting, and ventilation requirements for fluoride buildings and operating areas.

R309-535-5(1)(k): Added the requirement that cross-connection contamination of the water supply be prevented by physical separation, an air gap, or backflow prevention assembly.

R309-535-5(2)(a): Added the prohibition to diluting fluorosilicic acid on site.

R309-535-5(2)(b): Added requirements for fluorosilicic acid solution tank vents.

R309-535-5(2)(c): Added a requirement that a view window be installed between a fluoride control room and a fluoride operating area in fluorosilicic acid installations constructed after January 1, 2017.

R309-535-5(2)(e): Added a requirement that a neutralizing chemical be available for small acid spills.

R309-535-5(3)(a): Added the requirement that a water meter be installed on the make-up water line for a fluoride saturator and that it and the master meter be read daily to determine that the fluoride solution is being properly fed.

R309-535-5(3)(b): Added the requirement that minimum depth of undissolved fluoride required to produce a saturated solution be marked on the outside of a saturator tank.

R309-535-5(3)(c): Added the prohibition of operating a fluoride saturator in a manner that draws undissolved sodium fluoride into the pump suction line.

R309-535-5(3)(e)(ii): Added the requirement that a sediment filter be installed in the make-up water line between a water softener and a water meter.

R309-535-5(4)(a) and (b): Added the requirements that volumetric and gravimetric dry feeders include solution tanks and mechanical mixers.

Changes

R309-535-5(1) of the current rule requires fluoride chemicals to be isolated from other chemicals to prevent contamination. R309-535-5(1)(b)(ii) of the amendment is reworded to prohibit fluoride chemicals from being stored with incompatible chemicals.

R309-535-5(2)(a) of the current rule requires scales, loss-of-weight recorders or liquid level indicators, as appropriate, be accurate to within five percent of the average daily change in reading and be provided for chemical feeds. R309-535-5(1)(d)(ii) of the amendment simply requires that a means be provided to measure the solution level in a tank and the quantity of the chemical used.

R309-535-5(2)(k) dealing with the electrical outlet for a fluoride feed pump was reworded and moved to R309-535-5(1)(f)(i) but the requirements were not substantially changed.

R309-535-5(3), Secondary Controls, was reworded and expanded and is now found in R309-535-5(1)(h), Minimize Fluoride Overfeed, in the proposed amendment.

R309-535-5(4), Protective Equipment, in the current rule is a separate section that deals generally with protective equipment. It has been replaced by individual protective equipment sections tailored for each method of fluoridation (acid, saturator, dry) in the proposed amendment.

Current DDW Version of R309-535-5, Fluoridation

Note: The attached version of the current fluoridation rule shows the requirements that will not be included in the proposed amendment struck through and in red. In actuality, the entire current rule will be deleted and replaced by the proposed amendment.

R309-535-5. Fluoridation.

Sodium fluoride, sodium silicofluoride and fluorosilicic acid shall conform to the applicable AWWA standards and/or ANSI/NSF Standard 60. ~~Other fluoride compounds which may be available must be approved by the Director.~~ [NOT IN PROPOSED AMENDMENT]

(1) Fluoride compound storage.

Fluoride chemicals shall be isolated from other chemicals to prevent contamination. Compounds shall be stored in covered or unopened shipping containers and shall be stored inside a building. ~~Unsealed storage units for fluorosilicic acid shall be vented to the atmosphere at a point outside any building.~~ [NOT IN PROPOSED AMENDMENT]
Bags, fiber drums and steel drums shall be stored on pallets.

(2) Chemical feed equipment and methods.

In addition to the requirements in R309-525-11 "Chemical Addition", fluoride feed equipment shall meet the following requirements:

(a) ~~scales, loss of weight recorders or liquid level indicators, as appropriate, accurate to within five percent of the average daily change in reading shall be provided for chemical feeds,~~ [NOT IN PROPOSED AMENDMENT]

(b) ~~feeders shall be accurate to within five percent of any desired feed rate,~~ [NOT IN PROPOSED AMENDMENT]

(c) fluoride compound shall not be added before lime-soda softening or ion exchange softening,

(d) the point of application of fluorosilicic acid, if into a horizontal pipe, shall be in the lower half of the pipe,

(e) ~~a fluoride solution shall be applied by a positive displacement pump having a stroke rate not less than 20 strokes per minute,~~ [NOT IN PROPOSED AMENDMENT]

(f) ~~a spring opposed diaphragm type anti-siphon device shall be provided for all fluoride feed lines and dilution water lines,~~ [NOT IN PROPOSED AMENDMENT]

(g) a device to measure the flow of water to be treated is required,

(h) the dilution water pipe shall terminate at least two pipe diameters above the solution tank,

(i) water used for sodium fluoride dissolution shall be softened if hardness exceeds 75 mg/l as calcium carbonate,

~~(j) fluoride solutions shall be injected at a point of continuous positive pressure or a suitable air gap provided, [NOT IN PROPOSED AMENDMENT]~~

(k) the electrical outlet used for the fluoride feed pump shall have a nonstandard receptacle and shall be interconnected with the well or service pump,

~~(l) saturators shall be of the upflow type and be provided with a meter and backflow protection on the makeup water line. [NOT IN PROPOSED AMENDMENT]~~

(m) lead weights shall not be used in fluoride chemical solutions to keep pump suction lines at the bottom of a day or bulk storage tank.

(3) Secondary controls.

Secondary control systems for fluoride chemical feed devices shall be provided as a means of reducing the possibility for overfeed; these may include flow or pressure switches or other devices.

(4) Protective equipment.

Personal protective equipment as outlined in R309-525-11(10) shall be provided for operators handling fluoride compounds. Deluge showers and eye wash devices shall be provided at all fluorosilicic acid installations.

(5) Dust control.

(a) Provision must be made for the transfer of dry fluoride compounds from shipping containers to storage bins or hoppers in such a way as to minimize the quantity of fluoride dust which may enter the room in which the equipment is installed. The enclosure shall be provided with an exhaust fan and dust filter which place the hopper under a negative pressure. Air exhausted from fluoride handling equipment shall discharge through a dust filter to the outside atmosphere of the building.

(b) Provision shall be made for disposing of empty bags, drums or barrels in a manner which will minimize exposure to fluoride dusts. A floor drain shall be provided to facilitate the hosing of floors.

(6) Testing equipment.

~~Equipment shall be provided for measuring the quantity of fluoride in the water. Such equipment shall be subject to the approval of the Director.~~ [NOT IN PROPOSED AMENDMENT]

DDW Version of Proposed Amendment to R309-535-5,
Fluoridation

Note: The attached version of the proposed amendment to the fluoridation rule shows new requirements that are not in the current rule but will be included in the proposed amendment underlined and in red. In actuality, the entire proposed amendment will be adopted and will replace the current rule.

R309-535-5. Fluoridation.

This rule does not require the addition of fluoride to drinking water by a public water system. A public water system that chooses to add fluoride to drinking water shall comply with the fluoridation facility design and construction requirements of this rule. [NEW]

Guidance:

A public water system may not exceed the primary maximum contaminant level for fluoride of 4.0 mg/L per R309-200-5(1)(c). A public water system that exceeds the secondary maximum contaminant level of 2.0 mg/L must issue the public notification required by R309-220-11.

A public water system that chooses to add fluoride to drinking water should comply with the testing, monitoring and reporting requirements established by the local health department.

In Salt Lake and Davis counties, the local health departments have established the optimal level of fluoride in drinking water and the fluoridation monitoring and reporting requirements. Currently, the U.S. Department of Health and Human Services recommends an optimal fluoride concentration of 0.7 mg/L in drinking water to reduce cavities and tooth decay.

(1) General Requirements for all Fluoridation Installations.

The following requirements apply to all types of fluoridation.

(a) Chemicals and Materials.

(i) All chemicals used for fluoridation shall be certified to comply with ANSI/NSF Standard 60.

(ii) Materials used for fluoridation equipment shall be compatible with chemicals used in the fluoridation process.

(iii) Metal parts used in fluoridation equipment and present in the fluoridation room shall be corrosion resistant.[NEW]

(iv) Lead weights shall not be used in fluoride chemical solutions to keep pump suction lines at the bottom of a day or bulk storage tank.

Guidance: Acid-resistant floor coating or a containment structure should be provided for areas likely to have acid spills.

(b) Chemical Storage.

(i) Fluoride chemicals shall be stored in covered or sealed containers, inside a building, and away from heat.[NEW]

- (ii) Fluoride chemicals shall not be stored with incompatible chemicals.
- (iii) Bags or other containers for dry materials shall be stored on pallets.
- (iv) Fiber drums for storing dry materials shall be kept closed to keep out moisture.
- (v) A solution tank shall be labeled to identify the contents of the tank.[NEW]

(c) Secondary Containment.[NEW]

- (i) Secondary containment shall be provided for tanks containing corrosive fluoride solutions.[NEW]
- (ii) Secondary containment shall be sized to contain the quantity of solution handled.[NEW]
- (iii) Secondary containment shall be designed to be acid resistant.[NEW]

Guidance: Secondary containment may consist of curbs, sumps, double-walled tanks, etc.

(d) Means to Measure.

- (i) A means to measure the flow of treated water shall be provided.
- (ii) A means shall be provided to measure the solution level in a tank and the quantity of the chemical used.

Guidance: The means to measure the solution level in a tank may include a liquid level indicator, a calibrated level gauge on the side of a translucent tank, weight scales, etc.

- (iii) A sampling point shall be provided downstream of the fluoridation facility for measuring the fluoride level of treated water.[NEW]

(e) Fluoride Feed Pump

- (i) Sizing of fluoride feed pumps shall consider prevention of fluoride overfeed and operation efficiency.[NEW]
- (ii) A fluoride feed pump shall have an anti-siphon device.

(f) Electrical Outlet for Fluoride Feed Pump

(i) The electrical outlet used for a fluoride feed pump shall have interlock protection by being wired electrically in series with the well or service pump, such that the feed pump is only activated when the well or service pump is on.

(ii) The fluoride feed pump shall not be plugged into a continuously active ("hot") electrical outlet.[NEW]

(g) Fluoride Injection

(i) The fluoride injection line shall enter at a point in the lower one-third of the water pipe[NEW], and the end of the injection line shall be in the lower half of the water pipe.

(ii) The fluoride injection point shall allow adequate mixing.[NEW]

(iii) The fluoride injection point shall not be located upstream of lime softening, ion exchange, or other processes that affect the fluoride level.

(iv) Each injector shall be selected based on the quantity of fluoride to be added, water flow, back pressure, and injector operating pressure.[NEW]

Guidance: The design should minimize localized corrosion near the injection point.

(v) If injecting fluoride under pressure, a corporation stop and a safety chain shall be used at the fluoride injection point to secure the injection line.[NEW]

(vi) An anti-siphon device shall be provided for all fluoride feed lines at the injection point.

(h) Minimize Fluoride Overfeed

(i) In addition to the feed pump control, a secondary control mechanism shall be provided to minimize the possibility of fluoride overfeed. It may be a day tank, liquid level sensor, SCADA control, a flow switch, etc.

Guidance: The intent of the day tank is to limit the fluoride supply to the feed pump, especially if a large-size bulk tank is present. It is recommended that the day tank be sized to hold no more than 3 days of supply.

(ii) For fluoridation facilities that do not have operators on site, a day tank is required to minimize fluoride overfeed, unless two alternative secondary controls are provided.[NEW]

Guidance: For example, a fluoridation facility without operators on site may use both the bulk tank liquid level sensor and the treated water fluoride level SCADA data as secondary controls.

Guidance: To avoid fluoride overfeed, a flooded suction line should be avoided for the fluoride feed pump. The elevation of a fluoride feed pump should be based on pump priming requirements and suction head limitations.

(i) Housing

Fluoridation equipment shall be housed in a secure building that is adequately sized for handling and storing fluoride chemicals.[NEW]

(j) Heating, Lighting, Ventilation[NEW]

(i) The fluoridation building shall be heated, lighted and ventilated to assure proper operation of the equipment and safety of operator.[NEW]

(ii) The ventilation in the fluoride operating area shall provide at least six complete room-air changes per hour.[NEW]

(iii) The fluoride operating area shall be vented to outside atmosphere and away from air intakes.[NEW]

(iv) Separate switches for fans and lights in the fluoride operating area shall be provided. The switches shall be located outside of, or near, the entrance to the fluoride operating area, and shall be protected from vandalism.[NEW]

(k) Cross Connection Control

Cross connection shall be eliminated by physical separation, an air gap, or an approved and properly operating backflow prevention assembly.[NEW]

(2) Additional Requirements for Fluorosilicic Acid Installations.

(a) Fluorosilicic acid shall not be diluted manually on site before injection.[NEW]

(b) Solution Tank Vents.[NEW]

- (i) A solution tank shall be adequately vented to the outside atmosphere away from air intakes, above grade, and where least susceptible to contamination.[NEW]
- (ii) A bulk tank shall not share a vent with a day tank if there is a risk of solution overflow from the bulk tank to the day tank.[NEW]
- (iii) A non-corrodible fine mesh (No. 14 or finer) screen shall be placed over the discharge end of a vent.[NEW]
- (c) If separate rooms are provided in a fluoride building constructed after January 1, 2017, the design shall include a view window between the control room and the fluorosilicic acid operating area.[NEW]

Guidance: It is recommended to have a separate room for the fluoride operating area due to possible damage from fluoride chemicals and vapors to other equipment.

- (d) Emergency eyewash stations and showers shall be provided.
- (e) A neutralizing chemical shall be available on site to handle small quantity accidental acid spills.[NEW]

Guidance: The immediate use of a neutralizing chemical to handle an accidental acid spill is only suitable for small quantity spills during operation or maintenance, for example, minor spillage from the quick connect during unloading. For large quantity acid spills, the secondary containment is the primary means of containing the acid to allow proper handling of the acid later on.

- (f) The use of personal protective equipment (PPE) is required when handling fluorosilicic acid, and shall include the following:
 - (i) Full-face shield and splash-proof safety goggles
 - (ii) Long gauntlet acid-resistant rubber or neoprene gloves with cuffs
 - (iii) Acid-resistant rubber or neoprene aprons
 - (iv) Rubber boots

(3) Additional Requirements for Fluoride Saturator Installations.

- (a) A water meter shall be provided on the make-up water line for a saturator so that calculations can be made to confirm that the proper amounts of fluoride

solution are being fed. This meter and the master meter shall be read daily and the results recorded.[NEW]

(b) The minimum depth of undissolved fluoride chemical required to maintain a saturated solution shall be marked on the outside of the saturator tank.[NEW]

Guidance: Sodium fluorosilicate should not be used in saturators due to its poor solubility.

(c) The saturator shall not be operated in a manner that undissolved chemical is drawn into the pump suction line.[NEW]

(d) The make-up water supply line shall, at a minimum, terminate at least two pipe diameters above the solution tank or have backflow protection.

(e) Make-up Water Softening

(i) The make-up water used for sodium fluoride saturators shall be softened whenever the hardness exceeds 75 mg/L.

(ii) A sediment filter (20 mesh) shall be installed in the make-up water line going to the saturator. The filter shall be placed between the softener and the water meter.[NEW]

(f) Dust Control.

Provisions shall be made to minimize the creation of fluoride dust during the transfer of dry fluoride compounds.

(i) Air exhausted from fluoride handling equipment shall discharge through a dust filter to the outside atmosphere of the building.

(ii) Provisions shall be made to minimize dust when disposing of empty bags, drums or barrels.

(iii) A floor drain shall be provided to facilitate floor cleaning.

(g) Emergency eyewash shall be provided.

(h) The use of personal protective equipment (PPE) is required when handling dry chemicals and shall include the following:

(i) National Institute for Occupational Safety and Health (NIOSH) approved particulate respirator with a soft rubber face-to-mask seal and replaceable cartridges

- (ii) Chemical dust-resistant safety goggles
- (iii) Acid-resistant gloves
- (iv) Acid-resistant rubber or neoprene aprons
- (v) Rubber boots

(4) Additional Requirements for Fluoride Dry Feed Installations.

- (a) Volumetric and gravimetric dry feeders shall include a solution tank.[NEW]
- (b) A mechanical mixer shall be installed in the solution tank.[NEW]
- (c) Dust Control.

Provisions shall be made to minimize the creation of fluoride dust during the transfer of dry fluoride compounds.

- (i) If a hopper is provided, it shall be equipped with a dust filter and an exhaust fan that places the hopper under negative pressure.
 - (ii) Air exhausted from fluoride handling equipment shall discharge through a dust filter to the outside atmosphere of the building.
 - (iii) Provisions shall be made to minimize dust when disposing of empty bags, drums or barrels.
 - (iv) A floor drain shall be provided to facilitate floor cleaning.
- (d) Emergency eyewash shall be provided.
 - (e) The use of personal protective equipment (PPE) is required when handling dry chemicals and shall include the following:
 - (i) National Institute for Occupational Safety and Health (NIOSH) approved particulate respirator with a soft rubber face-to-mask seal and replaceable cartridges
 - (ii) Chemical dust-resistant safety goggles
 - (iii) Acid-resistant gloves
 - (iv) Acid-resistant rubber or neoprene aprons
 - (v) Rubber boots

Rule R309-535. Facility Design and Operation: Miscellaneous Treatment Methods.

R309-535-5. Fluoridation.

~~[Sodium fluoride, sodium silicofluoride and fluorosilicic acid shall conform to the applicable AWWA standards and/or ANSI/NSF Standard 60. Other fluoride compounds which may be available must be approved by the Director.~~

~~(1) Fluoride compound storage.~~

~~Fluoride chemicals shall be isolated from other chemicals to prevent contamination. Compounds shall be stored in covered or unopened shipping containers and shall be stored inside a building. Unsealed storage units for fluorosilicic acid shall be vented to the atmosphere at a point outside any building. Bags, fiber drums and steel drums shall be stored on pallets.~~

~~(2) Chemical feed equipment and methods.~~

~~In addition to the requirements in R309-525-11 "Chemical Addition", fluoride feed equipment shall meet the following requirements:~~

~~(a) scales, loss-of-weight recorders or liquid level indicators, as appropriate, accurate to within five percent of the average daily change in reading shall be provided for chemical feeds,~~

~~(b) feeders shall be accurate to within five percent of any desired feed rate,~~

~~(c) fluoride compound shall not be added before lime-soda softening or ion exchange softening,~~

~~(d) the point of application of fluorosilicic acid, if into a horizontal pipe, shall be in the lower half of the pipe,~~

~~(e) a fluoride solution shall be applied by a positive displacement pump having a stroke rate not less than 20 strokes per minute,~~

~~(f) a spring opposed diaphragm type anti-siphon device shall be provided for all fluoride feed lines and dilution water lines,~~

~~(g) a device to measure the flow of water to be treated is required,~~

~~(h) the dilution water pipe shall terminate at least two pipe diameters above the solution tank,~~

~~(i) water used for sodium fluoride dissolution shall be softened if hardness exceeds 75 mg/l as calcium carbonate,~~

~~(j) fluoride solutions shall be injected at a point of continuous positive pressure or a suitable air gap provided,~~

~~_____ (k) the electrical outlet used for the fluoride feed pump shall have a nonstandard receptacle and shall be interconnected with the well or service pump,~~

~~_____ (l) saturators shall be of the upflow type and be provided with a meter and backflow protection on the makeup water line.~~

~~_____ (m) lead weights shall not be used in fluoride chemical solutions to keep pump suction lines at the bottom of a day or bulk storage tank.~~

~~_____ (3) Secondary controls.~~

~~_____ Secondary control systems for fluoride chemical feed devices shall be provided as a means of reducing the possibility for overfeed; these may include flow or pressure switches or other devices.~~

~~_____ (4) Protective equipment.~~

~~_____ Personal protective equipment as outlined in R309-525-11(10) shall be provided for operators handling fluoride compounds. Deluge showers and eye wash devices shall be provided at all fluorosilicic acid installations.~~

~~_____ (5) Dust control.~~

~~_____ (a) Provision must be made for the transfer of dry fluoride compounds from shipping containers to storage bins or hoppers in such a way as to minimize the quantity of fluoride dust which may enter the room in which the equipment is installed. The enclosure shall be provided with an exhaust fan and dust filter which place the hopper under a negative pressure. Air exhausted from fluoride handling equipment shall discharge through a dust filter to the outside atmosphere of the building.~~

~~_____ (b) Provision shall be made for disposing of empty bags, drums or barrels in a manner which will minimize exposure to fluoride dusts. A floor drain shall be provided to facilitate the hosing of floors.~~

~~_____ (6) Testing equipment.~~

~~_____ Equipment shall be provided for measuring the quantity of fluoride in the water. Such equipment shall be subject to the approval of the Director.]~~

This rule does not require the addition of fluoride to drinking water by a public water system. A public water system that chooses to add fluoride to drinking water shall comply with the fluoridation facility design and construction requirements of this rule.

(1) General Requirements for all Fluoridation Installations. The following requirements apply to all types of fluoridation.

(a) Chemicals and Materials.

(i) All chemicals used for fluoridation shall be certified to comply with ANSI/NSF Standard 60.

(ii) Materials used for fluoridation equipment shall be compatible with chemicals used in the fluoridation process.

(iii) Metal parts used in fluoridation equipment and present in the fluoridation room shall be corrosion resistant.

(iv) Lead weights shall not be used in fluoride chemical solutions to keep pump suction lines at the bottom of a day or bulk storage tank.

(b) Chemical Storage.

(i) Fluoride chemicals shall be stored in covered or sealed containers, inside a building, and away from heat.

(ii) Fluoride chemicals shall not be stored with incompatible chemicals.

(iii) Bags or other containers for dry materials shall be stored on pallets.

(iv) Fiber drums for storing dry materials shall be kept closed to keep out moisture.

(v) A solution tank shall be labeled to identify the contents of the tank.

(c) Secondary Containment.

(i) Secondary containment shall be provided for tanks containing corrosive fluoride solutions.

(ii) Secondary containment shall be sized to contain the quantity of solution handled.

(iii) Secondary containment shall be designed to be acid resistant.

(d) Means to Measure.

(i) A means to measure the flow of treated water shall be provided.

(ii) A means shall be provided to measure the solution level in a tank and the quantity of the chemical used.

(iii) A sampling point shall be provided downstream of the fluoridation facility for measuring the fluoride level of treated water.

(e) Fluoride Feed Pump

(i) Sizing of fluoride feed pumps shall consider prevention of fluoride overfeed and operation efficiency.

(ii) A fluoride feed pump shall have an anti-siphon device.

(f) Electrical Outlet for Fluoride Feed Pump

(i) The electrical outlet used for a fluoride feed pump shall have interlock protection by being wired electrically in series with the well or service pump, such that the feed pump is only activated when the well or service pump is on.

(ii) The fluoride feed pump shall not be plugged into a continuously active ("hot") electrical outlet.

(g) Fluoride Injection

(i) The fluoride injection line shall enter at a point in the lower one-third of the water pipe, and the end of the injection line shall be in the lower half of the water pipe.

(ii) The fluoride injection point shall allow adequate mixing.

(iii) The fluoride injection point shall not be located upstream of lime softening, ion exchange, or other processes that affect the fluoride level.

(iv) Each injector shall be selected based on the quantity of fluoride to be added, water flow, back pressure, and injector operating pressure.

(v) If injecting fluoride under pressure, a corporation stop and a safety chain shall be used at the fluoride injection point to secure the injection line.

(vi) An anti-siphon device shall be provided for all fluoride feed lines at the injection point.

(h) Minimize Fluoride Overfeed

(i) In addition to the feed pump control, a secondary control mechanism shall be provided to minimize the possibility of fluoride overfeed. It may be a day tank, liquid level sensor, SCADA control, a flow switch, etc.

(ii) For fluoridation facilities that do not have operators on site, a day tank is required to minimize fluoride overfeed, unless two alternative secondary controls are provided.

(i) Housing

Fluoridation equipment shall be housed in a secure building that is adequately sized for handling and storing fluoride chemicals.

(j) Heating, Lighting, Ventilation

(i) The fluoridation building shall be heated, lighted and ventilated to assure proper operation of the equipment and safety of operator.

(ii) The ventilation in the fluoride operating area shall provide at least six complete room-air changes per hour.

(iii) The fluoride operating area shall be vented to outside atmosphere and away from air intakes.

(iv) Separate switches for fans and lights in the fluoride operating area shall be provided. The switches shall be located outside of, or near, the entrance to the fluoride operating area, and shall be protected from vandalism.

(k) Cross Connection Control

Cross connections shall be eliminated by physical separation, an air gap, or an approved and properly operating backflow prevention assembly.

(2) Additional Requirements for Fluorosilicic Acid Installations.

(a) Fluorosilicic acid shall not be diluted manually on site before injection.

(b) Solution Tank Vents.

(i) A solution tank shall be adequately vented to the outside atmosphere away from air intakes, above grade, and where least susceptible to contamination.

(ii) A bulk tank shall not share a vent with a day tank if there is a risk of solution overflow from the bulk tank to the day tank.

(iii) A non-corrodible fine mesh (No. 14 or finer) screen shall be placed over the discharge end of a vent.

(c) If separate rooms are provided in a fluoride building constructed after January 1, 2017, the design shall include a view window between the control room and the fluorosilicic acid operating area.

(d) Emergency eyewash stations and showers shall be provided.

(e) A neutralizing chemical shall be available on site to handle small quantity accidental acid spills.

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(iv) Rubber boots

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(a) A water meter shall be provided on the make-up water line for a saturator so that calculations can be made to confirm that the proper amounts of fluoride solution are being fed. This meter and the master meter shall be read daily and the results recorded.

(b) The minimum depth of undissolved fluoride chemical required to maintain a saturated solution shall be marked on the outside of the saturator tank.

(c) The saturator shall not be operated in a manner that undissolved chemical is drawn into the pump suction line.

(d) The make-up water supply line shall, at a minimum, either terminate at least two pipe diameters above the solution tank or have backflow protection.

(e) Make-up Water Softening

(i) The make-up water used for sodium fluoride saturators shall be softened whenever the hardness exceeds 75 mg/L.

(ii) A sediment filter (20 mesh) shall be installed in the make-up water line going to the saturator. The filter shall be placed between the softener and the water meter.

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KEY: drinking water, miscellaneous treatment, stabilization, iron and manganese control

Date of Enactment or Last Substantive Amendment: ~~August 28, 2013~~

Notice of Continuation: March 22, 2010

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

Agenda Item

8(A)

<u>Section Name</u>	<u>Manager</u>	<u>Staff</u>	<u>Assignments</u>
Rules - Enforcement	Patti Fauver	John Oakeson Brandi Smith Colt Smith Jennifer Yee	GWR, IPS rule manager CCR prep, SDWIS electronic transfers Water system training and outreach, CCR's ETT tracking and Enforcement letter writing
Rules - Implementation	Rachael Cassidy	Emily Frary Sitara Frederico Brad Holdaway Janet Lee Vacant	Lead/Copper, Arsenic, Nitrate, Operating permits NOV manager, Violation retractions, SDWIS data clean-up Phase II/V, Radionuclides, Waivers RTCR, Boil water orders, GWR triggered samples, GWR source samples SWTR, DBP rule, HAB's, UDI team
<u>Acronym List</u>	<u>Definition</u>		
GWR	Groundwater Rule		
IPS	Improvement Priority System		
CCR	Consumer Confidence Rule		
SDWIS	State Drinking Water Information System		
ETT	EPA's Enforcement Tracking Tool		
NOV	Notice of Violation		
RTCR	Revised Total Coliform Rule		
SWTR	Surface Water Treatment Rule		
DBP	Disinfection Bi-Products Rule		
HAB	Harmful Algal Blooms		
UDI	Groundwater Under the Direct Influence of Surface Water		