

# Drinking Water Board Packet

June 11, 2019

# 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  
Marie E. Owens, P.E.  
Director

**Drinking Water Board**  
Betty Naylor, *Chair*  
Roger G. Fridal, *Vice-Chair*  
Kristi Bell  
Brett Chynoweth  
Jeff Coombs  
Tage Flint  
Eric Franson, P.E.  
Alan Matheson  
David Stevens, Ph.D.  
Marie E. Owens, P.E.  
*Executive Secretary*

DRINKING WATER BOARD MEETING  
June 11, 2019 – 1:00 pm  
Multi Agency State Office Building – Board Room 1015  
195 North 1950 West  
Salt Lake City, Utah 84116

Marie Owens' Cell Phone #: (801) 505-1973

1. Call to Order
2. Roll Call – Marie Owens
3. Approval of the Minutes:
  - A. [April 9, 2019](#)
4. Financial Assistance Committee Report
  - A. [Status Report – Michael Grange](#)
  - B. [Project Priority List – Michael Grange](#)
  - C. SRF Applications
    - i. STATE:
      - a) [Twin Oaks – Heather Pattee](#)
      - b) [Mexican Hat SSD – Lisa Nelson](#)
      - c) [Tropic Town – Heather Pattee](#)
    - ii. FEDERAL:
      - a) [Hildale City – Heather Pattee](#)
      - b) [Greenwich – Lisa Nelson](#)
      - c) [Bluffdale – Lisa Nelson](#)
      - d) [Kearns Improvement District – Heather Pattee](#)
    - iii. Other:
      - a) [Intended Use Plan \(IUP\) – Michael Grange](#)
5. Rulemaking Activities
  - A. Current Rulemaking Activities (Board Action Needed)
    - i. [Authorization to Begin Public Comment on the Improvement Priority System \(IPS\) Program – Rachael Cassady](#)
6. Public Comment Period

7. Rural Water Association Report – Dale Pierson
8. Open Board Discussion – Betty Naylor
9. Directors Report
  - A. New Division Staff Introductions
    - i. Michael Newberry, Permitting
    - ii. Chris Martin, Permitting
    - iii. Hongmin (Jessica) Jin, Administrative Services
    - iv. Lucas Truetel, Rules
  - B. Enforcement Report
  - C. Board Member Years of Service Awards
  - D. Other
10. Other
11. Next Board Meeting:

Date: Tuesday, August 27, 2019  
Time: 1:30 p.m.  
Place: Davis Conference Center  
Meridian B Room  
1651 North 700 West  
Layton, Utah 84041

12. Adjourn

*In compliance with the American Disabilities Act, individuals with special needs (including auxiliary communicative aids and services) should contact Larene Wyss, Office of Human Resources, at: (801) 297-3828, 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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DRINKING WATER BOARD MEETING  
April 9, 2019 – 1:00 pm  
Multi Agency State Office Building – Board Room 1015  
195 North 1950 West  
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### DRAFT MINUTES

#### 1. Call to Order

Betty Naylor, Board Chairman called the meeting to order at 1:00 p.m.

#### 2. Roll Call

Board Members present: Betty Naylor, Roger Fridal, Kristi Bell, David Stevens, Jeff Coombs, Tage Flint and Brad Johnson.

Division Staff present: Marie Owens, Hayley Shaffer, Ying Ying Macauley, Michael Grange, Jennifer Yee, Heather Pattee, Lisa Nelson, Jessica Jin, Sandy Pett, Janet Lee, Rachael Cassady, and Colt Smith.

#### 3. Approval of the Minutes:

##### A. February 28, 2019

- Roger Fridal moved to approve the February 28, 2019 minutes as presented. David Stevens seconded. The motion was carried unanimously by the Board.

#### 4. Financial Assistance Committee Report

##### A. Status Report – Michael Grange

Michael Grange, Technical Assistance Section Manager with the Division of Drinking Water (DDW, the Division) reported there is currently a balance of just over \$3 million in the State SRF fund. Over the course of the next year, the Division is expecting an additional \$4.5 million to come into the fund, for a total of approximately \$7.5 million for

project allocation through February 2020.

Michael then reported currently there is approximately \$43 million in the Federal SRF fund. Over the course of the next year, the Division is expecting about \$20 million to come into the fund, for a total of approximately \$63.2 million for project allocation through February 2020. Michael stated these figures could alter depending on the congressional appropriations for the 2019/2020 fiscal year grant cycles.

Michael reviewed the changes encompassed in the 2018 America's Water Infrastructure Act (AWIA) that will directly impact the federal SRF program:

1. In regard to disadvantaged communities, the principal forgiveness was previously limited to no more than 30% of the annual capitalization grant, however are now allowed to go up to 35%, with at least 6% of the annual capitalization grant. There is also a substitute congressional authority that can be implemented on a case by case basis allowing additional subsidy. For fiscal year 2019, congress has allocated an additional 20% to be used for principal forgiveness on the state SRF program. Therefore, allowing anywhere between 26% - 55% of the annual capitalization grant amount that can be authorized as principal forgiveness or subsidy to disadvantaged communities in the state.
2. Funds previously dispersed had a repayment schedule beginning within 1 year of substantial completion of the project. This has now been extended to 18 months before repayment begins.
3. All project requests are now eligible for a 30 year amortization, and disadvantaged communities are eligible for a 40 year amortization schedule. The 20 year schedule can also still be implemented if it makes the most sense. In all instances, the amortization schedule cannot be extended longer than the expected life of the infrastructure.
4. Programmatic financing will be divided up into programmatic financing – a single loan in one year for several projects, and portfolio financing – a loan for multiple years' worth of projects.
5. Division staff will need to create a program to encourage and incentivize systems applying for funding to have an asset development and management plan in place to account for reasonable future growth and aging infrastructure.
6. Funders must follow and implement EPA's best practices plan for SRF programs that is being developed in the next 3-5 years.

Marie added this does not indicate there are additional funds, but the allowance to apply them differently. Michael agreed, stating staff will be discerning with the new funding allowances.

## **B. Project Priority List – Michael Grange**

Betty asked if any member of the Board has any conflicts of interest, or potential conflicts of interest needing disclosure prior to the start of the following agenda items. There were no reported conflicts of interest disclosed.

Michael reported there are three new projects recommended to be added to the Project Priority List this month including: Circleville with 23.9 points, Marysville with 20.3 points, and Pinion Forest SSD with 16.1 points. The Financial Assistance Committee recommends

the Board approve the updated Project Priority List as presented, with the addition of these three projects.

- David Stevens moved to approve the updated Project Priority List. Kristi Bell seconded. The motion was carried unanimously by the Board.

Betty asked about the status of “potential projects” list. Michael informed the Board these projects are carryovers from 2009-2010, and will be removed from the list in the near future.

### **C. SRF Applications**

#### **i. FEDERAL:**

##### **a) Circleville – Lisa Nelson**

Lisa Nelson informed the Board that Circleville has formally withdrawn their application for SRF funding at this time.

##### **b) Cove Special Service District – Lisa Nelson**

Representing Cove Special Service District was Kelly Crane and Randell Obray.

Lisa Nelson informed the Board Cove Special Service District is requesting a revised amount of \$1,484,000 in financial assistance for well exploration/development, upgrade/repair to an existing well, construction of a new 300,000 gallon tank and the installation of 1000-ft of 6-inch PVC transmission water lines and 16,000 feet of 8-inch PVC distribution water lines.

She explained that on March 2, 2017, the Drinking Water Board authorized funding for this project; however, bids were recently opened and came in higher than estimated. There were three bidders and the bids were all within 1.25% of each other. Some of the reasons for the increased costs were related to the delays associated with the purchase of the land where the tank will be sited, a change in the well location, addition of a mainline booster pump station to the design scope, and the current construction environment.

Cove SSD has value engineered some of the project scope, but a \$399,000 funding shortfall still remains. In addition, the top two bidders have indicated they will not be able to honor their bids for longer than 60 days.

The local MAGI for Cove SSD is \$29,622 which is 69% of the State MAGI \$45,895 and therefore they do qualify as a disadvantaged community. In addition, the proposed funding package would result in an average water bill of \$46.46 per month, which would be 1.82% of the local MAGI. Staff’s recommendation is based on a proportional increase of loan and grant from the original authorization.

Those present to represent the system expressed their appreciation for the funding consideration, and provided a brief background on the need for the projects.

- Jeff Coombs moved to authorize a revised loan of \$1,484,000 at 0.00% interest with \$668,000 in principal forgiveness for 30 years with a repayable amount of \$816,000 to Cove Special Service District for the project as described. Roger Fridal seconded. The motion was carried unanimously by the Board.

**c) Marysvale – Heather Pattee**

Representing Marysvale was Janet Fautin, Jeff Albrecht, and Nathan Marshall.

Heather Pattee informed the Board Marysvale Town is requesting financial assistance in the amount of \$3,665,000. Their project includes improvements and upgrades to their existing well, a new line to the well, a chlorination building, booster pumps for the upper zones, distribution line, service laterals and misc. appurtenances.

The local MAGI for Marysvale Town is approximately \$31,145 (70% of the state MAGI), their after project water bill at a full loan would be \$89.94 which is 3.47% of the local MAGI. Therefore they do qualify for additional subsidy.

Those present to represent the system expressed their appreciation for the funding consideration, and provided a brief background on the need for the projects.

There was discussion between the Board and system representatives regarding the system source, available water rights, and various components related to the logistics of the project.

- Tage Flint moved to authorize a loan of \$3,665,000 at 0.00% interest with 20% principal forgiveness for 30 years to Marysvale for the project as described. Roger Fridal seconded. The motion was carried unanimously by the Board.

**d) Tridell-Lapoint (De-authorization) – Lisa Nelson**

Lisa Nelson informed members the Board previously authorized a loan of \$1,037,500 at 1.75% hardship grant assessment fee for 30 years with \$260,500 in Principal Forgiveness to Tridell Lapoint WID on January 15, 2019.

She explained staff has since received correspondence from Tridell Lapoint WID indicating that they no longer require the funding package and have declined. Staff's recommendation is the Drinking Water Board de-authorizes the loan as described above.

- Roger Fridal moved to de-authorize the loan of \$1,037,500 at 1.75% hardship grant assessment fee for 30 years with \$260,500 in Principal Forgiveness to Tridell Lapoint. David Stevens seconded. The motion was carried unanimously by the Board.

**5. Rulemaking Activities**

**A. Current Rulemaking Activities (Board Action Needed)**

**i. Authorization to Begin to Amend Water System Rating Criteria – Jennifer Yee**

### **a. R309-400: Water System Rating Criteria**

Jennifer Yee, Environmental Coordinator with DDW handed members a substitute version of the rule amendment from what was originally placed in the Board packet that no longer included the associated IPS policy document. She reviewed the existing rule language, proposed ruled language, outreach activities and efforts over the last two years to engage stakeholder feedback, and explained the revisions to the rule are to ensure the priority of protecting public health.

She then reviewed the informal comments the Division has received in regard to the proposed point value amendments.

The question was asked how many systems would be considered “not approved” under the proposed rule amendment. Jennifer replied it would be about 15% of all water systems in the state. She explained the goal is to allow systems through the end of the year to fix relevant deficiencies on their report and have the rule go into effect on January 1, 2020.

- Tage Flint made a motion to authorize to begin rulemaking to amend R309-400: Water System Rating Criteria, and to file the proposed rule amendment with the Office of Administrative Rules for publication in the Utah State Bulletin. David Stevens seconded. The motion was carried unanimously by the Board.

### **6. Rural Water Association Report – Dale Pierson**

Dale Pierson with Rural Water Association of Utah (RWAU) informed the Board they are beginning to work on the planning phase of events for the coming year including the upcoming 2019 Fall Conference (held in August), the Training Needs Workshop on May 29, and the 2020 Annual Conference (held in February) on July 10 and 11.

He explained RWAU staff is working closely with Michael Grange from the Division to explore more efficient ways of tracking conference attendee CEUs.

Both Marie and Betty expressed appreciation for the RWAU staff involvement with IPS 2020 at the 2019 Annual Conference in St. George, and for allowing the Drinking Water Board to hold the February meeting at the conference.

### **7. Open Board Discussion – Betty Naylor**

The issue of current Board member’s expiring terms was discussed, including that of Betty Naylor – representative of a non-governmental organization, David Stevens – from an institution of higher education with expertise in water research, Brett Chynoweth – elected municipal official involved in management of a public water system, and Tage Flint – representative of a water district.

Marie informed members she has received applications for the various vacancies and is currently reviewing their qualifications. With the overlap in time before the new Board members are confirmed, she asked the members with expiring terms for their willingness to remain active on the Board for the 90 day post expiration term deadline. This would include

their presence at the next meeting in June. All agreed to extended their term by 90 days with the exception of Brett Chynoweth who was not in attendance at the meeting.

## **8. Director's Report**

### **A. Legislative Updates**

Marie reviewed the 2019 General Session including the passing of The Utah Safe Drinking Water Act for 5 years, the Extraterritorial Jurisdiction Amendments, and the Surplus Water Amendments. She explained the Constitutional Amendment was also authorized, however will not be on the ballot until 2020. The Surplus Water Amendments is contingent upon the passing of the Constitutional Amendments.

Those Bills that did not pass include the Department of Environmental Quality's request for legislative funding to offset in full the state salary/benefits, the WIIN Community Grant match for disadvantaged communities – there may be alternatives to secure this money, and the lead in schools/childcare facilities testing. Marie informed the Board there is still money available from EPA for mitigation purposes related to lead in schools.

### **B. ASDWA Updates**

Marie reviewed her recent trip to Virginia for the ASDWA State Administrators Member meeting. Some of the topics discussed included:

1. A revised lead and copper rule will be release in late 2019 to include pipe material inventories. While the implementation of this was not decided, the Division will begin communicating with water systems to inform them of this upcoming requirement.
2. Hypochlorite standard will be expected in May 2019.
3. Review and awareness of the emerging contaminants related to PFAS. EPA still determining if an MCL is needed.
4. The amount of funding Utah will receive related to the WIIN lead in school testing grant should be announced in the next month.
5. New EPA performance measures that were rolled out last year are to be no more than 25% non-compliance by 2022. By cleaning up data and implementing the changes to the IPS, the Division should be in compliance with this requirement.
6. There is a high occurrence of manganese in drinking water around the nation and was included in the UCMR4. EPA has also released a health advisory related to contaminant levels. Manganese removal may eventually need to be a part of the treatment process.
7. Data tracking software is underway to transition from SDWIS to the newly revised version called Prime.
8. Other AWIA related implications including the requirement of water systems serving over 10,000 to complete a CCR every six months as opposed to the current annual requirement beginning in 2020, as well as every water system serving over 3,300 to recertify their risk assessment and emergency response plans. This will be a phased implementation based on population served.

### **C. Other**

Marie Owens had no other items for discussion.

### **9. Other**

Betty thanked the Division for continuing to put the current drinking water related news articles in the Board packets.

### **10. Public Comment Period**

There were no public comments at this time.

### **11. Next Board Meeting:**

Date: Tuesday, June 11, 2019  
Time: 1:00 pm  
Place: Multi Agency State Office Building  
Board Room 1015  
195 North 1950 West  
Salt Lake City, Utah 84116

### **12. Adjourn**

- Kristi Bell moved to adjourn the meeting. Jeff Coombs seconded. The motion was carried unanimously by the Board.

**The meeting adjourned at 2:32 p.m.**

# Agenda Item

4(A)

DIVISION OF DRINKING WATER  
**STATE LOAN FUNDS**  
AS OF April 30, 2019

SUMMARY		
	Total State Fund:	\$15,088,372
	Total State Hardship Fund:	\$2,149,999
	Subtotal:	\$17,238,371
<b>LESS AUTHORIZED</b>	Less:	
	Authorized Loans & Closed loans in construction:	\$12,727,000
	Authorized Hardship:	\$804,869
	Subtotal:	\$13,531,869
	<b>Total available after Authorized deducted</b>	<b>\$3,706,502</b>
<b>PROPOSED</b>	Proposed Loan Project(s):	\$1,010,576
	Proposed Hardship Project(s):	\$299,000
	Subtotal:	\$1,309,576
<b>AS OF:</b>		
April 30, 2019	<b>TOTAL REMAINING STATE LOAN FUNDS:</b>	<b>\$1,350,796</b>
	<b>TOTAL REMAINING STATE HARDSHIP FUNDS:</b>	<b>\$1,046,130</b>

*(see Page 2 for details)*

*(see Page 2 for details)*

**Total Balance of ALL Funds:      \$2,396,926**

Projected Receipts Next Twelve Months: and Sales Tax Revenue	
<b>Annual Maximum Sales Tax Projection</b>	<b>\$3,587,500</b>
Less State Match for 2020 Federal Grant	\$0
Less State Match for 2019 Federal Grant	(\$2,200,800)
	\$0
Less Appropriation to DDW/Board	(\$1,001,950)
<b>SUBTOTAL Sales Tax Revenue including adjustments:</b>	<b>\$384,750</b>
Payment:	
Interest on Investments (Both Loan and Hardship Accounts)	\$432,000
Principal payments	\$3,060,654
Interest payments	\$738,593
Total Projections:	\$4,615,996

Total Estimated State SRF Funds Available through 4-30-2020	<b>\$7,012,922</b>
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**DIVISION OF DRINKING WATER  
STATE LOAN FUNDS  
PROJECTS AUTHORIZED BUT NOT YET CLOSED  
AS OF April 30, 2019**

Community	Loan #	Cost Estimate	Date Authorized	Date Closed/Anticipated	Authorized Funding		
					Loan	Grant	Total
Laketown 1.5% int @ 30 yrs	3S248	1,863,636	May-18	Aug-19	1,110,000	0	1,110,000
Mtn Regional-Community Wtr 2% 20 yr	3S254	2,600,000	Jul-18		2,600,000	0	2,600,000
Aurora City 0.75% int 30 yrs	3S258	4,228,000	Aug-18		3,804,000	424,000	4,228,000
Moroni 2.34% int, 20 yr	3S1705	110,000	Jan-19	Jun-19	110,000	0	110,000
Kane Co WCD .81% int 20 yrs	3S1712	210,000	Feb-19		168,000	42,000	210,000
Subtotal Loans and Grants Authorized					7,792,000	466,000	8,258,000
<b>PLANNING LOANS / GRANTS IN PROCESS</b>							
							0
							0
Enoch City	3S256P	27,500	Jul-18	Jul-18		27,500	27,500
Paragonah	3S257P	10,000	Jul-18	Aug-18		10,000	10,000
Mexican Hat SSD grant eng plans	3S1703P	25,000	Nov-18	Dec-18		18,750	18,750
Panguitch 0% 5 yr loan master plan	3S1698P	40,000	Nov-18		40,000		40,000
							0
						0	0
					40,000	56,250	96,250
<b>CLOSED LOANS (partially disbursed)</b>							
Daggett Co - Dutch John 0% int 30 yrs	3S216	1,020,000	Jan-15	Feb-16	0	55,000	55,000
Henrieville	3S241	345,000	Aug-16	Nov-16	0	95,000	95,000
Ephraim 1% int, 20 yrs	3S251	1,422,905	Mar-18	Apr-19	560,000	62,150	622,150
Mutton Hollow Imp Dist 2% int 30 yr	3S253	2,060,000	Jul-18	Sep-18	350,000		350,000
Grantsville 1.5% int, 20 yrs	3S249	3,500,000	Mar-18	Dec-18	2,035,000		2,035,000
Pleasant Grove 2% int, 20 yrs	3S255	2,300,000	May-18	Jan-19	1,950,000		1,950,000
Eastland SSD	3S1697	70,469	Jan-19	Feb-19		70,469	70,469
							0
							0
Subtotal Planning Loans/Grants Auth					4,895,000	282,619	5,177,619
<b>Total authorized or closed but not yet funded</b>					<b>\$12,727,000</b>	<b>\$804,869</b>	<b>\$13,531,869</b>
<b>PROPOSED PROJECTS for JUNE 2019</b>							
							0
Twin Oaks Local District	3S1720	161,000			80,000	81,000	161,000
Tropic Town 3.67% int, 20 yrs	3S1724	712,576			712,576		712,576
Mexican Hat SSD 0% int 30 yrs	3S1723	436,000			218,000	218,000	436,000
							0
Total Proposed Projects					1,010,576	299,000	1,309,576

**DIVISION OF DRINKING WATER  
STATE LOAN FUNDS  
AS OF April 30, 2019**

	5235	5240	
	Loan	Interest	
	Funds	(use for Grants)	Total
Cash:	\$15,088,372	\$2,149,999	\$17,238,371
Less:			
Loans & Grants authorized but not yet closed (schedule attached)	(7,832,000)	(522,250)	(8,354,250)
Loans & Grants closed but not fully disbursed (schedule attached)	(4,895,000)	(282,619)	(5,177,619)
Proposed loans & grants	(1,010,576)	(299,000)	(1,309,576)
Administrative quarterly charge for entire year	(1,001,950)		(1,001,950)
Appropriation to DDW	0		0
FY 2018 Federal SRF 20% match	0		0
FY 2019 Federal SRF 20% match	(2,200,800)		(2,200,800)
	<b>(1,851,954)</b>	<b>1,046,130</b>	<b>(805,824)</b>
Projected repayments during the next twelve months			
Thru 04-30-2020			
Principal	3,060,654		3,060,654
Interest		738,593	738,593
Projected annual investment earnings on invested cash balance		432,000	432,000
Sales Tax allocation thru Apr-30-2020	3,587,500		3,587,500
<b>Total</b>	<b>\$4,796,200</b>	<b>\$2,216,723</b>	<b>\$7,012,922</b>
* All interest is added to the Hardship Fee account.			

DIVISION OF DRINKING WATER  
**FEDERAL SRF**  
AS OF April 30, 2019

FIRST ROUND FUND		FEDERAL SECOND ROUND FUND		Hardship Fund
1997 thru 2018 SRF Grants		Principal Repayments	Earnings on Invested Cash Balance	Total:
Net Federal SRF Grants:	\$171,144,401	Principal (P):	\$60,338,477	<b>\$1,211,890</b>
Total State Matches:	\$39,050,300	Interest (I):	\$17,413,787	
Closed Loans:	-\$207,549,301	<b>Total P &amp; I:</b>	<b>\$77,752,265</b>	
<b>Total Grant Dollars:</b>	<b>\$2,645,400</b>			<b>\$1,649,301</b>

SUMMARY	
	Total Federal State Revolving Fund: \$81,609,554
	Total Federal Hardship Fund: \$1,649,301
	Subtotal: \$83,258,855
<b>LESS</b>	Less:
<b>AUTHORIZED &amp; PARTIALLY DISBURSED</b>	Authorized & Partially Disbursed Closed Loans: \$38,093,336
	Authorized Federal Hardship: \$412,110
	Subtotal: \$38,505,446
<b>PROPOSED</b>	Proposed Federal Project(s): \$27,000,000
	Proposed Federal Hardship Project(s): \$130,000
	Subtotal: \$27,130,000

(see Page 2 for details)

AS OF:	April 30, 2019	<b>TOTAL REMAINING LOAN FUNDS:</b> \$16,516,218
		<b>TOTAL REMAINING HARDSHIP FUNDS:</b> \$1,107,191

**Total Balance of ALL Funds after deducting proposed actions: \$17,623,409**

Projected Receipts thru April 30, 2020	
2019 Fed SRF Grant	\$8,100,000
2019 State Match	\$2,200,800
Interest on Investments	\$2,022,000
Principal Payments	\$7,755,203
Interest	\$1,295,317
Hardship & Technical Assistance fees	\$254,442
Fund 5215 principal payments	\$83,000
Total:	<b>\$21,710,762</b>

} Receive 60% in January

Total Estimated Federal SRF Funds Available through: 04/30/2020 **\$39,334,171**

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

**PROJECTS AUTHORIZED BUT NOT YET CLOSED  
AS OF April 30, 2019**

COMMUNITY	Project			Authorized Date	Closing Date Scheduled or Estimated	Authorized From Loan Funds (1st or 2nd Round)			Hardship Fund
	Total Project	Terms	Loan #			Loan	Forgiveness	Total	
Swiss Alpine Water Company	947,000	3.53% hgf, 25 YRS	3F300	Mar-18	Aug-19	807,000		807,000	
Twin Creeks SSD (Phase II)	3,976,000	1.87% hgf, 30 yrs	3F1716	Nov-17	Dec-19	3,395,000	300,000	3,695,000	
West Corinne Water Co	553,000	2.5% hgf, 20 yrs	3F305	Aug-18		500,000		500,000	
CU WCD - Duchesne Valley WTP	3,706,000	1.5% hgf, 30 yrs	3F307	Aug-18		3,100,000		3,100,000	
Lincoln Culinary Water Assn	2,516,000	60/40 1.25% hgf, 30 yrs	3F1696	Jan-19		1,510,000	1,006,000	2,516,000	
Virgin Town	1,200,000	50% PF 0% int, 20 yrs	3F1702	Jan-19	Aug-19	400,000	400,000	800,000	
Canyon Meadows Mutual Wtr	1,925,000	90/10 1.0% hgf, 30 yrs	3F1700	Jan-19		1,540,000	385,000	1,925,000	
Diamond Valley Acres	235,000	2.50% HGA 20 yrs	3F1706	Feb-19		235,000		235,000	
Granger Hunter ID	20,000,000	1.25% HGA 20 yrs	3F1708	Feb-19	Jun-19	20,000,000		20,000,000	
Marysvale	3,665,000	0% 30 yrs	3F1709	Apr-19		2,932,000	733,000	3,665,000	
<b>TOTAL CONSTRUCTION AUTHORIZED:</b>						<b>\$ 34,419,000</b>	<b>\$ 2,824,000</b>	<b>\$ 37,243,000</b>	<b>\$ -</b>
<b>COMMITTED ADVANCES / AGREEMENTS or PARTIALLY DISBURSED CLOSED 2ND ROUND AGREEMENTS:</b>									
					Date Closed				
								0	0
Rural Water Assn of Utah	676,000	5 yr contract for Development Specialist	Ongoing	Jan-18	Jun-18			0	44,720
Forest Glen Plat A HOA	1,438,986	0% int, 30 yrs	3F222	Feb-14	Dec-14	68,000	29,986	97,986	
Springdale	7,840,000	.5% int/hgf, 30 yrs	3F264	May-16	Oct-17	571,500	54,850	626,350	
Moab	90,000	100% pf master plan	3F292P	Aug-17	Feb-18		90,000	90,000	
Johnson Water Imp Dist	90,000	100% pf master plan & Model	3F299P	Mar-18	May-18		36,000	36,000	
Monticello	39,000	Eng study 10 yr 0% int	3F281P	Nov-16	May-18			0	39,000
Summit Culinary Water	36,600	100% pf 5 point analysis	3F1694P	Jun-18	Jul-18			0	23,140
Green River City	40,000	100% pf 5 point analysis	3F304P	Jul-18	Jul-18			0	40,000
Minersville	23,250	100% pf master plan	3F310P	Jul-18	Sep-18			0	23,250
Old Meadows	25,000	100% pf master plan	3F312P	Sep-18				0	25,000
Sigurd	40,000	100% pf master plan	3F1695P	Nov-18				0	40,000
Hildale City	40,000	100% pf master plan	3F1704P	Nov-18				0	40,000
Goshen	22,000	5 yr 0% loan master plan	3F1718P	Mar-19				0	22,000
Axtell Community Service Distribution	40,000	5 yr 0% master plan & gw well siting	3F1719P	Mar-19				0	40,000
Central Iron Co WCD	40,000	100% pf master plan	3F1727P	Apr-19				0	40,000
Hildale City	35,000	5 yr 0% loan feasibility study	3F1722P	May-19				0	35,000
<b>TOTAL PLANNING AUTHORIZED:</b>						<b>\$639,500</b>	<b>\$210,836</b>	<b>\$850,336</b>	<b>\$412,110</b>
<b>TOTAL CONSTRUCTION &amp; PLANNING:</b>								<b>\$38,093,336</b>	<b>\$412,110</b>
<b>AVAILABLE PROJECT FUNDS:</b>									<b>\$43,516,218</b>
<b>AVAILABLE HARDSHIP FUNDS:</b>									<b>\$1,237,191</b>
<b>PROPOSED PROJECTS FOR JUNE 2019:</b>									
								0	
Greenwich Water Association	130,000	50/50 0% int	3F1721					0	130,000
Kearns Improvement District	21,000,000	1.25% hgf, 20 yrs	3F1725			21,000,000		21,000,000	
Bluffdale City	6,972,000	2% hgf, 20 yrs (972K contribution)	3F1726			6,000,000		6,000,000	
<b>TOTAL PROPOSED PROJECTS FOR THIS MEETING:</b>						<b>\$27,000,000</b>	<b>\$0</b>	<b>\$27,000,000</b>	<b>\$130,000</b>
*RWau hardship grant is being disbursed monthly									
<b>TOTAL FUNDS AFTER PROPOSED PROJECTS ARE FUNDED:</b>									<b>\$16,516,218</b>
<b>TOTAL FUNDS AFTER PROPOSED HS PROJECTS ARE FUNDED:</b>									<b>\$1,107,191</b>
<b>NOTES OF LOAN CLOSINGS SINCE LAST BOARD MEETING:</b>									
<b>Total Recent Loan Closings</b>						<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**DIVISION OF DRINKING WATER**  
**FEDERAL SRF LOAN FUNDS**  
**AS OF April 30, 2019**

	Loan Funds 1st Round	Loan Payments			TOTAL
		2nd Round		Hardship Fund	
		Principal	Interest		
Federal Capitalization Grants and State 20% match thru 2015	\$210,194,701				
Earnings on Invested 1st Round Funds			1,211,890		
Repayments (including interest earnings on 2nd round receipts)		60,338,477	17,413,787	1,649,301	290,808,156
Less:					
Closed loans and grants	-207,549,301				-207,549,301
<b>SUBTOTAL of Funds Available</b>	<b>\$2,645,400</b>	<b>\$60,338,477</b>	<b>\$18,625,677</b>	<b>\$1,649,301</b>	<b>\$83,258,855</b>
Loans & Grants authorized but not yet closed or fully disbursed	-34,463,000	-3,419,500	-210,836	-412,110	-38,505,446
<b>SUBTOTAL of Funds Available less Authorized</b>	<b>-\$31,817,600</b>	<b>\$56,918,977</b>	<b>\$18,414,841</b>	<b>\$1,237,191</b>	<b>\$44,753,409</b>
Future Estimates:					
Proposed Loans/Grants for current board package	-27,000,000			-130,000	-27,130,000
<b>SUBTOTAL of Funds Available less Proposed Loans &amp; Grants</b>	<b>-\$58,817,600</b>	<b>\$56,918,977</b>	<b>\$18,414,841</b>	<b>\$1,107,191</b>	<b>\$17,623,409</b>
PROJECTIONS THRU April-2020					
2020 Fed SRF Grant & State Match	0				
2019 Fed SRF Grant	8,100,000				
2019 State Match	2,200,800				
Projected repayments & revenue during the next twelve months		7,755,203	1,295,317	254,442	9,304,962
Projected annual investment earnings on invested cash balance		1,620,000	360,000	42,000	2,022,000
<b>TOTAL</b>	<b>-\$48,516,800</b>	<b>\$66,294,180</b>	<b>\$20,070,158</b>	<b>\$1,403,633</b>	<b>\$39,251,171</b>

Agenda Item

4(B)

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

**There are three new projects being added to the project priority list**

Kearns Improvement District is being added to the Project Priority List with 28.4 points. Their project consists programmatic funding over the course of several years..

Greenwich is being added to the Project Priority List with 25.0 points. Their project consists of a chlorination building.

Bluffdale is being added to the Project Priority List with 14.4 points. Their project consists of a 4 MG tank and transmission line.

**FINANCIAL ASSISTANCE COMMITTEE RECOMMENDATION:**

**The Drinking Water Board approves the updated Project Priority List.**

April 11, 2019

# Utah Federal SRF Program

## Project Priority List

Authorized

**Total Unmet Needs:**

**\$634,231,133**

**Total Needs, incl. Recent funding**

**\$945,083,224**

**\$273,133,991**

	date	type	%Green	Priority Points	System Name	County	Pop.	ProjectTitle	Project Total	Request DWB	Funds Authorized
N				28.4	Kearns Improvement Dist	Salt Lake	51,500	Multiple tanks, booster pump station, trans line upgrade	\$21,000,000.00	21000000	
N				25	Greenwich	Piute	67	Chlorination building	\$130,000.00	130000	
N				14.4	Bluffdale	Salt Lake	15,435	4 MG tank, transmission line	\$6,900,000	\$6,900,000	

A				33.3	Granger-Hunter ID	Salt Lake	121,083	Reservoir storage, dist lines, booster station, well trmnt	\$25,950,000.00	\$20,000,000.00	\$20,000,000
A				31.6	Virgin Town	washington	596	New tank and distribution lines	\$1,200,000	\$800,000	\$800,000
A				30.7	Canyon Meadows	Wasatch	100	Trans line, Dist line, Tank, treatment plant	\$1,724,068	\$1,724,068	\$1,925,000
A				24.3	West Corrine	Box Elder	1,275	Spring redevelopment and transmission line replacement	\$533,075	\$479,767	\$500,000
A				20.3	Marysvale Town	Piute	420	Well improvement, chlorination bldg, booster pump, dist line	\$3,665,000.00	\$3,665,000.00	
A				19.5	Twin Creeks SSD	Wasatch	2,500	Treatment Plant, Storage Tank	\$4,029,650	\$3,757,000	\$3,695,000
A				18.8	Swiss Alpine	Wasatch	300	New Well and transmission line	\$955,152	\$815,152	\$807,000
A				16.6	Lincoln Culinary	Tooele	489	Well development, trans line, dist line, supply line	\$2,516,000	\$2,516,000	\$2,516,000
A			x	12.5	Cove SSD	Sevier	100	New well, storage tank and water lines	\$1,611,000	\$1,085,000	\$1,085,000
A				7.2	Diamond Valley Acres	Washington	1370	Well equipping and conn to system	\$235,000	\$235,000	\$235,000

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

### POTENTIAL PROJECTS

# Agenda Item

4(C)(i)(a)

**DRINKING WATER BOARD  
BOARD PACKET FOR CONSTRUCTION LOAN**

**APPLICANT'S REQUEST:**

Twin Oaks Local District is requesting financial assistance in the amount of \$161,000. Their project includes drilling a new well and a transmission line to connect to the system.

Total project cost is \$163,410 and Twin Oaks will be contributing \$2,410 to the project. Twin Oaks has had some estimates on the cost of the project and feel they can accomplish the project with the requested amount. They also have funds in their capital facilities account that can be used if needed.

**STAFF COMMENTS:**

The local MAGI for Twin Oaks is approximately \$38,774 (84% of the state MAGI), their after project water bill at a full loan would be \$86.03 which is 2.66% of the local MAGI. Therefore they do qualify for additional subsidy.

Option #	Description	Loan Amount	Interest Rate	Term	Grant	Monthly Water Rate	% Local MAGI
1	Full Loan	\$161,000	4.56%	30 yrs	0	\$96.75	2.99 %
2	Full Loan	\$161,000	0.00%	30 yrs	0	\$86.03	2.66%
3	50/50	\$81,000	0.00%	30 yrs	\$80,000	\$79.80	2.47%

**FINANCIAL ASSISTANCE COMMITTEE RECOMMENDATION:**

The Drinking Water Board authorize a loan of \$81,000 at 0% interest for 30 years and \$80,000 in grant. Conditions include that they resolve all issues on their compliance report.

**APPLICANT'S LOCATION:**

Twin Oaks Local District is located in Sanpete County approximately 4 miles Southeast of Mt. Pleasant.

**MAP OF APPLICANT'S LOCATION:**



**PROJECT DESCRIPTION:**

Their project includes drilling a new well and a transmission line to connect to the system. The well site for the new well is ¼ mile from well #2, which has good production. They have had some companies come out and validate the new well site and feel the location they have picked is the best option. Well #1 is a poor producer and seems to be drying up as they struggle to keep up with current demand and are drilling the new well to help with that demand. Twin Oaks currently has 45 connections, with 100 lots designated to be served by the District. As these lots are developed and connect onto the system, this will further increase the struggle to keep up with the demand.

**POPULATION GROWTH:**

Projected populations and number of connections are shown in the table below:

Year	Population	Connections
2020	170	45
2040	600	89

**IMPLEMENTATION SCHEDULE:**

DWB Funding Authorization:	June 2019
Complete Design:	May 2019
Plan Approval:	May 2019
Advertise for Bids:	June 2019
Begin Construction:	July 2019
Complete Construction:	Oct 2019

**COST ESTIMATE:**

Legal – Bonding, Admin	\$1,800
Environmental clearances, Financial	\$3,000
Engineering- Plan, Design, CMS	\$14,000
Construction – source	\$135,000
Construction – lines	\$8,000
Contingency	\$1,610
<b>Total Project Cost</b>	<b>\$163,410</b>

**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	\$81,000	49%
DWB Grant	\$80,000	48%
Applicant contribution	\$2,410	3%
Total	\$163,410	100%

**IPS SUMMARY:**

Code	Description	Physical Facilities	Quality & Monitoring	Significant Deficiency Violations
M001	Current Emergency Response Program	-10		
S022	Lack of Drain to daylight floor drain	5		
	<b>Total = -5</b>	<b>-5</b>	<b>0</b>	<b>0</b>

Twin Oaks Local District

June 11, 2019

Page 4

**CONTACT INFORMATION:**

APPLICANT: Twin Oaks Local District  
PO Box 2551  
Cedar City, Utah 84721  
435-463-3555

PRESIDING OFFICIAL &  
CONTACT PERSON: David Asay  
Administrator  
PO Box 2551  
Cedar City, Utah 84721  
435-463-3555

CONSULTING ENGINEER: Karl Rasmussen  
Pro Value Engineering  
1381 South 325 West  
Hurricane, Utah 84737  
435-896-8635  
jeff@saeutah.com

RECORDER: Bill Bowles  
435-590-0062

## DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Twin Oaks Local District  
 COUNTY: Sanpete  
 PROJECT DESCRIPTION: new well

FUNDING SOURCE: State SRF

### 50 % Loan & 50 % Grant

ESTIMATED POPULATION:	155	NO. OF CONNECTIONS:	41 *	SYSTEM RATING:	APPROVED
CURRENT AVG WATER BILL:	\$82.23 *			PROJECT TOTAL:	\$163,410
CURRENT % OF AGI:	2.54%	FINANCIAL PTS:	45	LOAN AMOUNT:	\$81,000
ESTIMATED MEDIAN AGI:	\$38,774			GRANT AMOUNT:	\$80,000
STATE AGI:	\$45,895			TOTAL REQUEST:	\$161,000
SYSTEM % OF STATE AGI:	84%				

	@ ZERO % RATE 0%	@ RBBI MKT RATE 4.56%		AFTER REPAYMENT PENALTY & POINTS 0.00%
<b><u>SYSTEM</u></b>				
ASSUMED LENGTH OF DEBT, YRS:	30	30		30
ASSUMED NET EFFECTIVE INT. RATE:	0.00%	4.56%		0.00%
REQUIRED DEBT SERVICE:	\$2,700.00	\$5,007.87		\$2,700.00
*PARTIAL COVERAGE (15%):	\$0.00	\$0.00		\$0.00
*ADD. COVERAGE AND RESERVE (10%):	\$270.00	\$500.79		\$270.00
<b>ANNUAL NEW DEBT PER CONNECTION:</b>	<b>\$72.44</b>	<b>\$134.36</b>		<b>\$72.44</b>
O & M + FUNDED DEPRECIATION:	\$24,529.00	\$24,529.00		\$24,529.00
OTHER DEBT + COVERAGE:	\$10,000.00	\$10,000.00		\$10,000.00
REPLACEMENT RESERVE ACCOUNT:	\$1,761.45	\$1,876.84		\$1,761.45
<b>ANNUAL EXPENSES PER CONNECTION:</b>	<b>\$885.13</b>	<b>\$887.95</b>		<b>\$885.13</b>
TOTAL SYSTEM EXPENSES	\$39,260.45	\$41,914.51		\$39,260.45
TAX REVENUE:	\$0.00	\$0.00		\$0.00
<b><u>RESIDENCE</u></b>				
MONTHLY NEEDED WATER BILL:	\$79.80	\$85.19		\$79.80
% OF ADJUSTED GROSS INCOME:	2.47%	2.64%		2.47%

\* Equivalent Residential Connections

Agenda Item

4(C)(i)(b)

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

**APPLICANT'S REQUEST:**

Mexican Hat Special Service District is requesting \$436,000 in funding assistance to upgrade their existing water treatment plant (upgrades to membranes, equipment, SCADA, power, etc) as well as to refinance an existing USDA loan.

**STAFF COMMENTS:**

The local MAGI for the Mexican Hat is \$19,892 which is 43% of the State MAGI and the current average water bill is \$71.76 per month, which is 4.33% of the local MAGI. Mexican Hat SSD does qualify as a disadvantaged community based on their MAGI and their current rates.

Option #	Description	Repayable Loan Amount	Interest Rate	Term	Grant	Monthly Water Rate	% Local MAGI
1	Full Loan	\$ 436,000	0%	20 yrs	0	\$86.74	5.23%
<b>2</b>	<b>50/50</b>	<b>\$ 218,000</b>	<b>0%</b>	<b>20 yrs</b>	<b>\$ 218,000</b>	<b>\$67.40</b>	<b>4.07%</b>

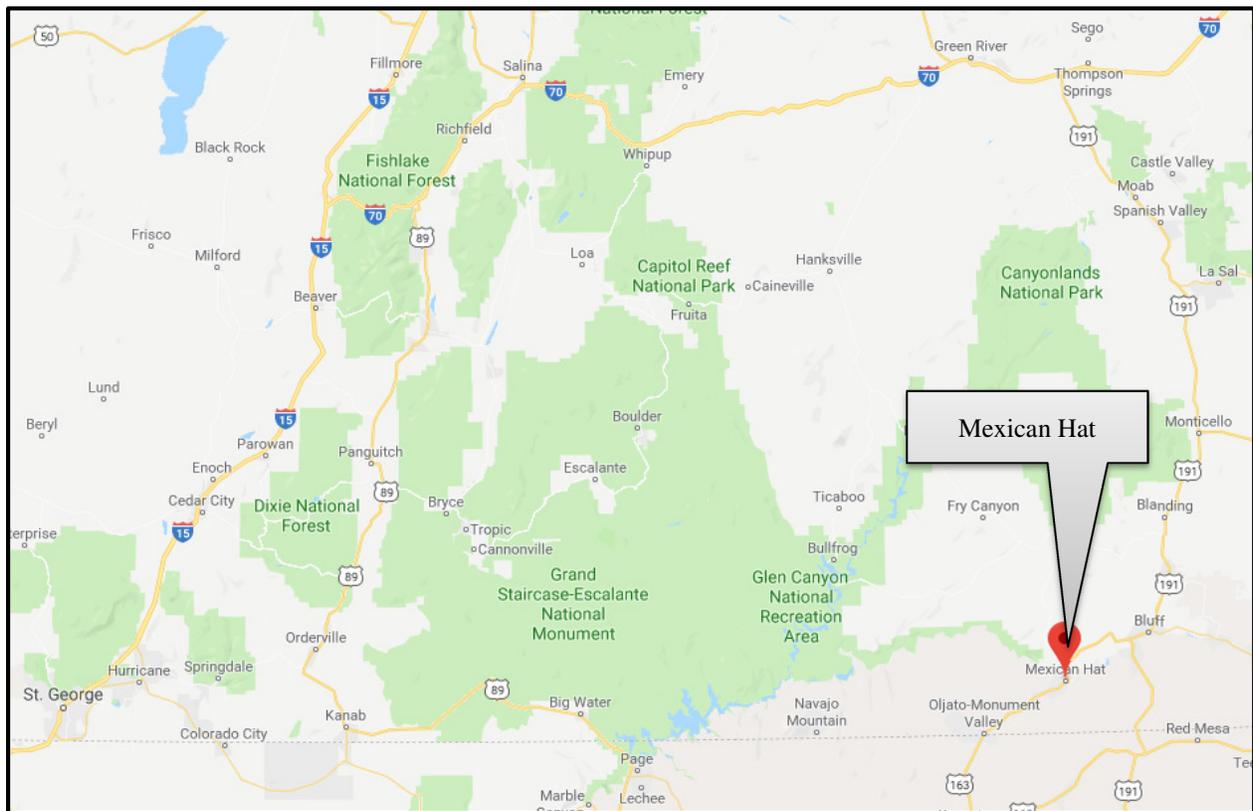
**FINANCIAL ASSISTANCE COMMITTEE RECOMMENDATION:**

**The Drinking Water Board authorize a loan of \$218,000 at 0% interest for 20 years and \$218,000 in Grant.**

**APPLICANT'S LOCATION:**

Mexican Hat SSD is located in San Juan County approximately 125 miles south of Moab, UT.

**MAP OF APPLICANT'S LOCATION:**



**PROJECT DESCRIPTION:**

Mexican Hat is seeking to make necessary upgrades to their existing water treatment system. There are several hotels and restaurants in Mexican Hat that support the nearby tourist attractions. There are 14 metered connections in the system which include hotels, restaurants, a church, a community center and 4 residential connections. Some residents live in the hotels they own and operate. There are 24 people that currently live year round in the community.

The culinary water system currently experiences frequent issues with their well pumps and motors, reverse osmosis plant, and outdated SCADA controls. Due to their rural location, it is difficult and expensive when the system experiences issues to have any personnel visit the site to make repairs.

Key instrumentation and controls in the reverse osmosis have begun to fail and require skilled labor to make the repairs. Various components need replacement in order to continue to provide clean drinking water. Equipment that will be replaced will include various sensors such as differential pH, conductivity, free chlorine with pH, and flow, also turbidity meters, pressure switch, pressure transmitters, metering pump, back pressure valve, and membranes. When a component of the antiquated instrumentation fails, the system is left without alternative means to obtain clean water.

Another critical element in need of replacement is the Programmable Logic Controller (PLC), which is currently outdated and is no longer manufactured by the supplier. If this equipment were to fail, as other equipment has, it would require someone to be present 24/7 to operate the plant. As this is impractical, the proposed SCADA updates would include replacing this control with a more robust PLC and a new main plant computer and transition to ignition switch. All other equipment in the reverse system such as the pressure vessels, piping, skid, pre-filter housing, etc. will remain.

The two wells that supply culinary water have experienced issues with incoming power from the utility. Irregular power causes damage to the well pumps and motors and, consequently, must be replaced every couple of years. There were protections in place but due to the frequency of power fluctuations they were regularly being triggered and have since been disconnected to keep water moving. Variable-Frequency Drives (VFD's) with filtering and electrical re-wiring are needed to keep balanced waveforms at the motors and provide a reliable water source.

**POPULATION GROWTH:**

	<u>Year</u>	<u>Population</u>	<u>Connections</u>
Current:	2019	31	17
Projected:	2040	33	18
<hr/>			
Annual growth rate		0.30%	0.27%

**COST ESTIMATE:**

Legal/Bonding/Admin	\$	8,000
Engineering – CMS (5%)	\$	23,000
Construction	\$	224,000
Contingency (~ 9%)	\$	20,000
Refinance balance 2003 USDA loan (40-yr 4.5%)	\$	161,000
<b>Total</b>	<b>\$</b>	<b>436,000</b>

**COST ALLOCATION:**

<u>Funding Source</u>	<u>Cost Sharing</u>	<u>Percent of Project</u>
DWB	\$ 436,000	100%
Local Contribution	\$ 0	0%
	<hr/>	
	\$ 436,000	100%

**IMPLEMENTATION SCHEDULE:**

FA Committee Conference Call:	May 8, 2019
DWB Funding Authorization:	June 11, 2019
Complete Design:	July 2019
Plan Approval:	August 2019
Advertise for Bids:	August 2019
Begin Construction:	October 2019
Complete Construction:	December 2019

**IPS SUMMARY:**

Code	Description	Physical Facilities	Quality & Monitoring	Significant Deficiency Violations
L011	Well Casing Not Vented	0		
M004	CCC-No Annual Public Education or Awareness	10		
M006	CCC-Lacks Written Records of CCC Activities	10		
M007	CCC-Lacks On-Going Enforcement Implementation	10		
S015	Well Lacks A Means to Measure Drawdown	1		
S023	No Smooth Nosed Sampling Tap on Discharge Piping	1		
S024	No Check Valve on Discharge Piping	1		
SP04	System Not Current on all DWSP Updates	10		
V030	System Lacks 10% of Required Storage Capacity	10		
	<b>Total = 53</b>	53	0	0

Mexican Hat SSD

June 11, 2019

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**CONTACT INFORMATION:**

APPLICANT: Mexican Hat Special Service District  
PO Box 535  
Mexican Hat, Utah 84531  
435-459-0947

PRESIDING OFFICIAL Danny Flemming, Water Superintendent  
351 West 400 North  
Blanding, Utah 84511  
435-459-0974  
Danielf2368@yahoo.com

CONSULTING ENGINEER: Daniel Hawley, P.E.  
Jones & DeMille Engineering  
1535 South 100 West  
Richfield, Utah 84701  
435-896-8266  
Daniel.h@jonesanddemille.com

RECORDER: Phil Kyman  
435-678-2411  
phil@mancpa.com

BOND COUNSEL: Richard Chamberlain  
Chamberlain & Associates  
225 North 100 East  
Richfield, Utah 84701  
435-896-4461  
Rchamberlain13@gmail.com

CITY ATTORNEY:

## DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Mexican Hat

FUNDING SOURCE: State SRF

COUNTY: San Juan

PROJECT DESCRIPTION: Replacement of equipment that control existing reverse osmosis treatment, rewiring of well house, SCADA and telemetry upgrades

### 50 % Loan & 50 % Grant

ESTIMATED POPULATION:	31	NO. OF CONNECTIONS:	54 *	SYSTEM RATING:	APPROVED
CURRENT AVG WATER BILL:	\$71.76 *			PROJECT TOTAL:	\$436,000
CURRENT % OF AGI:	4.33%	FINANCIAL PTS:	42	LOAN AMOUNT:	\$218,000
ESTIMATED MEDIAN AGI:	\$19,892			GRANT AMOUNT:	\$218,000
STATE AGI:	\$45,895			TOTAL REQUEST:	\$436,000
SYSTEM % OF STATE AGI:	43%				

	BASE RATE	@ RBBI MKT RATE	AFTER REPAYMENT PENALTY & POINTS
<b>SYSTEM</b>	1.50%	3.92%	0.00%
ASSUMED LENGTH OF DEBT, YRS:	20	20	20
ASSUMED NET EFFECTIVE INT. RATE:	1.50%	3.92%	0.00%
REQUIRED DEBT SERVICE:	\$12,697.57	\$15,927.40	\$10,900.00
*PARTIAL COVERAGE (15%):	\$1,904.64	\$2,389.11	\$1,635.00
*ADD. COVERAGE AND RESERVE (10%):	\$0.00	\$0.00	\$0.00
<b>ANNUAL NEW DEBT PER CONNECTION:</b>	<b>\$270.41</b>	<b>\$339.19</b>	<b>\$232.13</b>
O & M + FUNDED DEPRECIATION:	\$31,139.00	\$31,139.00	\$31,139.00
OTHER DEBT + COVERAGE:	\$0.00	\$0.00	\$0.00
REPLACEMENT RESERVE ACCOUNT:	\$0.00	\$0.00	\$0.00
<b>ANNUAL EXPENSES PER CONNECTION:</b>	<b>\$576.65</b>	<b>\$576.65</b>	<b>\$576.65</b>
TOTAL SYSTEM EXPENSES	\$45,741.21	\$49,455.50	\$43,674.00
TAX REVENUE:	\$0.00	\$0.00	\$0.00
<b>RESIDENCE</b>			
MONTHLY NEEDED WATER BILL:	\$70.59	\$76.32	\$67.40
% OF ADJUSTED GROSS INCOME:	4.26%	4.60%	4.07%

\$0.00

# Agenda Item

4(C)(i)(c)

**DRINKING WATER BOARD  
BOARD PACKET FOR CONSTRUCTION LOAN**

**APPLICANT'S REQUEST:**

Tropic Town is requesting financial assistance in the amount of \$738,000. Their project includes a spring development, water line upgrade and water meter replacement with electronic read meters.

**STAFF COMMENTS:**

The local MAGI for Tropic Town is approximately \$40,310 (88% of the state MAGI), their after project water bill at a full loan would be \$47.02 which is 1.40% of the local MAGI.

**STAFF RECOMMENDATION:**

The Financial Assistance Committee recommend the Drinking Water Board authorize a loan of \$738,000 at 3.67% interest for 20 years. Conditions include that they resolve all issues on their compliance report.

**APPLICANT'S LOCATION:**

Tropic Town is located in Garfield County approximately 28 miles Southeast of Panguitch.

**MAP OF APPLICANT'S LOCATION:**



**PROJECT DESCRIPTION:**

Their project includes a spring development, water line upgrade and water meter replacement with electronic read meters. A Master Plan was completed in February of this year and these projects are a result of the recommendations in the Master Plan.

**POPULATION GROWTH:**

Projected populations and number of connections are shown in the table below:

Year	Population	Connections
2020	601	228
2040	879	334

**IMPLEMENTATION SCHEDULE:**

DWB Funding Authorization:	June 2019
Complete Design:	Dec 2019
Plan Approval:	Jan 2020
Advertise for Bids:	Mar 2020
Begin Construction:	May 2020
Complete Construction:	Aug 2020

**COST ESTIMATE:**

Legal – Bonding, Admin	\$25,424
Engineering- Plan, Design, CMS	\$85,850
Construction – source	\$220,000
Construction – lines	\$260,900
Meters	\$57,900
Contingency	\$80,800
LOF	\$7,380
<b>Total Project Cost</b>	<b>\$738,000</b>

**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	\$738,000	100%
Total	\$738,000	100%

**IPS SUMMARY:**

Code	Description	Physical Facilities	Quality & Monitoring	Significant Deficiency Violations
M001	Current Emergency Response Program	-10		
TD06	No access to self-contained breathing apparatus	5		
TD09	Improper location for ventilating fan suction	5		
TD12	CL2 switched for fan / lights not outside CL2	2		
	<b>Total = 2</b>	<b>2</b>	<b>0</b>	<b>0</b>

**CONTACT INFORMATION:**

**APPLICANT:**

Tropic Town  
20 North Main Street  
PO Box 130  
Tropic, Utah 84776  
435-679-8713

**PRESIDING OFFICIAL &  
CONTACT PERSON:**

Walon Brinkerhoff  
Mayor  
20 North Main St  
Tropic, Utah 84776  
435-679-8713

**CONSULTING ENGINEER:**

Tyler Young  
Sunrise Engineering  
11 North 300 West  
Washington, Utah 84780  
435-652-8450  
tyoung@sunrise-eng.com

**RECORDER:**

Cassie Chynoweth  
435-679-8713

**BOND COUNSEL:**

Richard Chamberlain  
Chamberlain and Associates  
225 N 100 E  
Richfield, Utah 84701  
435-896-4461

## DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Tropic Town  
 COUNTY: Garfield  
 PROJECT DESCRIPTION: Spring development, waterline upgrade

FUNDING SOURCE: State SRF

### 100 % Loan & 0 % Grant

ESTIMATED POPULATION:	519	NO. OF CONNECTIONS:	228 *	SYSTEM RATING:	APPROVED
CURRENT AVG WATER BILL:	\$36.38 *			PROJECT TOTAL:	\$738,000
CURRENT % OF AGI:	1.08%	FINANCIAL PTS:	26	LOAN AMOUNT:	\$738,000
ESTIMATED MEDIAN AGI:	\$40,310			GRANT AMOUNT:	\$0
STATE AGI:	\$45,895			TOTAL REQUEST:	\$738,000
SYSTEM % OF STATE AGI:	88%				

	@ ZERO % RATE 0%	@ RBBI MKT RATE 4.56%		AFTER REPAYMENT PENALTY & POINTS 3.67%
<b><u>SYSTEM</u></b>				
ASSUMED LENGTH OF DEBT, YRS:	20	20		20
ASSUMED NET EFFECTIVE INT. RATE:	0.00%	4.56%		3.67%
REQUIRED DEBT SERVICE:	\$36,900.00	\$57,029.94		\$52,728.43
*PARTIAL COVERAGE (15%):	\$5,535.00	\$8,554.49		\$7,909.26
*ADD. COVERAGE AND RESERVE (10%):	\$3,690.00	\$5,702.99		\$5,272.84
<b>ANNUAL NEW DEBT PER CONNECTION:</b>	<b>\$202.30</b>	<b>\$312.66</b>		<b>\$289.08</b>
O & M + FUNDED DEPRECIATION:	\$39,894.00	\$39,894.00		\$39,894.00
OTHER DEBT + COVERAGE:	\$22,831.25	\$22,831.25		\$22,831.25
REPLACEMENT RESERVE ACCOUNT:	\$0.00	\$0.00		\$0.00
<b>ANNUAL EXPENSES PER CONNECTION:</b>	<b>\$275.11</b>	<b>\$275.11</b>		<b>\$275.11</b>
TOTAL SYSTEM EXPENSES	\$108,850.25	\$134,012.68		\$128,635.78
TAX REVENUE:	\$0.00	\$0.00		\$0.00
<b><u>RESIDENCE</u></b>				
MONTHLY NEEDED WATER BILL:	\$39.78	\$48.98		\$47.02
% OF ADJUSTED GROSS INCOME:	1.18%	1.46%		1.40%

\* Equivalent Residential Connections

Agenda Item

4(C)(ii)(a)

**DRINKING WATER BOARD  
BOARD PACKET FOR CONSTRUCTION LOAN**

**APPLICANT'S REQUEST:**

Hildale City has a project consisting of a feasibility study to determine options for radium contamination. The study will include treatment options for contaminated sources and new source development. The cost of the project is estimated at \$40,000. Hildale is contributing \$5,000 towards the project.

**STAFF COMMENTS:**

The local MAGI for Hildale City is approximately \$21,964 (48% of the state MAGI), but their after project water bill is 4.93% of the local MAGI. Therefore they do qualify as a hardship community to receive principal forgiveness.

The City has been previously authorized for funding by the Assistant Executive Secretary to perform a Master Plan in November 2018. We felt due to the close time frame of these 2 requests, it would exceed the authority, granted by the Board, of the Assistant Executive Secretary to authorize planning money up to \$40,000 without going to the full Board.

**STAFF RECOMMENDATION:**

The Drinking Water Board authorize \$35,000 in Principal Forgiveness to Hildale City.

**APPLICANT'S LOCATION:**

Hildale City is located in Washington County 25 miles South East of Hurricane.

**MAP OF APPLICANT'S LOCATION:**



**PROJECT DESCRIPTION:**

Hildale City was authorized funding to complete a Master Plan in November 2018. The Master Plan was to fill critical gaps in infrastructure knowledge, water production requirements and expected future costs. The scope of work also includes developing a long-term water quality plan to address Radium and other quality issues. During the time the City was working with their engineer to complete the Master Plan, the City was issued a Notice of Violation for Radium levels in their Power Plant Well. The Power Plant Well provides roughly 60% of the cities water production capacity, which means mending this issue will likely require a major infrastructure development. Considering the scale of this challenge, the City felt the Master Plan would not adequately address this dire situation and determined it would be advisable to request additional SRF money to fully vet possible solutions to address this Notice of Violation.

The study will include treatment options for contaminated sources and new source development.

**POPULATION GROWTH:**

Projected populations and number of connections are shown in the table below:

Year	Population	Connections
2020	7,000	1049
2025	7,500	1,145
2030	9,500	1,200
2035	12,000	2,000
2040	18,000	2,200

**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 Principal Forgiveness	\$35,000	87%
System contribution	\$5,000	13%

**CONTACT INFORMATION:**

APPLICANT:

Hildale City  
520 East Newell Avenue, PO Box 840490  
Hildale, UT 84784  
435-874-2323  
[hildale@hildalecity.com](mailto:hildale@hildalecity.com)

PRESIDING OFFICIAL &  
CONTACT PERSON:

Donia Jessop  
Mayor  
520 East Newell Avenue, PO Box 840490  
Hildale, UT 84784  
435-874-2323  
[hildale@hildalecity.com](mailto:hildale@hildalecity.com)

CONSULTING ENGINEER:

Todd Olsen  
Bowen Collins and Associates  
20 North Main St, ste 107  
St. George, Utah 84770

RECORDER:

Vincent Barlow  
435-874-2323  
[hildale@hildalecity.com](mailto:hildale@hildalecity.com)

Agenda Item

4(C)(ii)(b)

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

**APPLICANT’S REQUEST:**

The Greenwich Water Association is requesting \$130,000 in financial assistance to construct a new chlorination building.

**STAFF COMMENTS:**

Greenwich Water Association is a private water company. The local MAGI for Greenwich is \$30,719 which is 67% of the State's \$45,895 MAGI. The water bill for Greenwich is a flat \$25.00 per month, which is 0.98% of the local MAGI . An affordable water bill for Greenwich, based on 1.75% of MAGI is \$44.80/month.

On March 3, 2016, the Drinking Water Board authorized a loan of \$130,000 for 30-years at 0% with \$65,000 in Principle Forgiveness for this project. The Drinking Water Board deauthorized this funding on May 15, 2018 after Greenwich Water Association did not respond to updates on the current status of the project. The leadership of Greenwich Water Association has recently changed and they are ready to move forward with this project.

Option #	Description	Repayable Loan Amount	Interest Rate	Term	Principal Forgiveness	Monthly Water Rate	% Local MAGI
1	Full Loan	\$ 130,000	0%	30 yrs	0	\$74.13	2.90%
2	50/50 loan/PF	\$ 65,000	2.5%	30 yrs	\$ 65,000	\$73.49	2.87%
<b>3</b>	<b>50/50 loan/PF</b>	<b>\$ 65,000</b>	<b>0%</b>	<b>30 yrs</b>	<b>\$ 65,000</b>	<b>\$65.77</b>	<b>2.57%</b>

**FINANCIAL ASSISTANCE COMMITTEE RECOMMENDATION:**

**The Drinking Water Board authorize a loan of \$130,000 at 0% hardship grant assessment fee for 30 years with \$65,000 in Principal Forgiveness. The repayable amount will be \$65,000.**

**APPLICANT’S LOCATION:**

The town of Greenwich is located in Piute County approximately 30 miles north of Otter Creek Reservoir on State Highway 62.

**MAP OF APPLICANT’S LOCATION:**



**PROJECT DESCRIPTION:**

Greenwich Water Company collects its water from the Parker Springs on the East Side of Grass Valley. They currently have a chlorination building on the Southern-most spring. The existing chlorination equipment has reached the end of its service life and the location of the manhole is inaccessible during the winter and spring months of the year. Where the location of the facility is hard to access, and where the equipment doesn't work properly, the facility has been neglected. It would be beneficial for the Water Company to have a more accessible chlorination facility that was above ground if possible.

The project would consist of constructing a small building, and equipping it with a tablet chlorination system. In order to operate, the system would need to incorporate some valves to sustain enough pressure to provide a syphon for the system. The project also includes a new totalizing meter to account for water entering the system. No power is available at the site so a solar service has been included in the project. The facility could be placed within the existing fences surrounding the Company's storage tanks.

**POPULATION GROWTH:**

	<u>Year</u>	<u>Population</u>	<u>Connections</u>
Current:	2019	67	27
Projected:	2040	67	27
<hr/>			
Annual growth rate		0%	0%

**COST ESTIMATE:**

Legal/Bonding/Admin	} 16%	\$ 17,000
Engineering – Environmental		\$ 2,500
Engineering – Design		\$ 9,000
Engineering – CMS		\$ 9,000
Construction		\$ 80,100
Contingency (~ 15%)		\$ 12,400
<b>Total</b>		<b>\$ 130,000</b>

**COST ALLOCATION:**

Greenwich Water Association is not bringing a local contribution to this project

<u>Funding Source</u>	<u>Cost Sharing</u>	<u>Percent of Project</u>
DWB	\$ 130,000	100%
Local Contribution	\$ 0	0%
	<b>\$ 130,000</b>	<b>100%</b>

**IMPLEMENTATION SCHEDULE:**

FA Committee Conference Call:	May 8, 2019
DWB Funding Authorization:	June 11, 2019
Complete Design:	August 2019
Plan Approval:	September 2019
Advertise for Bids:	September 2019
Loan Closing	October 2019
Begin Construction:	October 2019
Complete Construction:	December 2019

**IPS SUMMARY:**

Code	Description	Physical Facilities	Quality & Monitoring	Significant Deficiency Violations
M001	Current Emergency Response Program	-10		
C002	Operator Not Available within 1-hr travel time	20		
SP04	System Not Current on All DWSP Updates	10		
SS02	Spring Collection Areas Not Fenced	10		
SSL2	Vent Not Present	0		
TD22	CL2 Insufficient Backup Equipment	10		
TD25	CL2 Disinfection Process Not Continuous	0		
TG63	Improper Dry Chemical Feeder	20		
TP001	Failure to Address Deficiency			35
	<b>Total = 95</b>	<b>60</b>	<b>0</b>	<b>35</b>

**CONTACT INFORMATION:**

APPLICANT:	Greenwich Water Association PO Box 550 Greenwich, Utah 84732 435-627-6735
PRESIDING OFFICIAL	Gary Delough, President PO Box 550 Greenwich, Utah 84732 435-627-6735
CONSULTING ENGINEER:	Jeff Albrecht, P.E. Savage Albrecht Engineering 1925 South Industrial Park Road Richfield, Utah 84701 435-896-8635 <a href="mailto:jeff@savagealbrechtengineering.com">jeff@savagealbrechtengineering.com</a>
RECORDER:	Mindy Talbot 435-616-7415
BOND ATTORNEY:	N/A

## DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Greenwich Water Company  
 COUNTY: Piute  
 PROJECT DESCRIPTION: New chlorination building

FUNDING SOURCE: Federal SRF

### 50 % Loan & 50 % P.F.

ESTIMATED POPULATION:	570	NO. OF CONNECTIONS:	27 *	SYSTEM RATING:	APPROVED
CURRENT AVG WATER BILL:	\$25.00 *			PROJECT TOTAL:	\$130,000
CURRENT % OF AGI:	0.98%	FINANCIAL PTS:	45	LOAN AMOUNT:	\$65,000
ESTIMATED MEDIAN AGI:	\$30,719			PRINC. FORGIVE.:	\$65,000
STATE AGI:	\$45,895			TOTAL REQUEST:	\$130,000
SYSTEM % OF STATE AGI:	67%				

	\$65,000	\$130,000	
	FULL LOAN	FULL LOAN	AFTER REPAYMENT PENALTY & POINTS
<b>SYSTEM</b>	2.50%	0.00%	0.00%
ASSUMED LENGTH OF DEBT, YRS:	20	30	30
ASSUMED NET EFFECTIVE INT. RATE:	2.50%	0.00%	0.00%
REQUIRED DEBT SERVICE:	\$4,169.56	\$4,333.33	\$2,166.67
*PARTIAL COVERAGE (15%):	\$625.43	\$650.00	\$325.00
*ADD. COVERAGE AND RESERVE (10%):	\$416.96	\$433.33	\$216.67
<b>ANNUAL NEW DEBT PER CONNECTION:</b>	<b>\$193.04</b>	<b>\$200.62</b>	<b>\$100.31</b>
O & M + FUNDED DEPRECIATION:	\$8,100.00	\$8,100.00	\$8,100.00
OTHER DEBT + COVERAGE:	\$10,500.00	\$10,500.00	\$10,500.00
REPLACEMENT RESERVE ACCOUNT:	\$0.00	\$0.00	\$0.00
<b>ANNUAL EXPENSES PER CONNECTION:</b>	<b>\$688.89</b>	<b>\$688.89</b>	<b>\$688.89</b>
TOTAL SYSTEM EXPENSES	\$23,811.95	\$24,016.67	\$21,308.33
TAX REVENUE:	\$0.00	\$0.00	\$0.00
<b>RESIDENCE</b>			
MONTHLY NEEDED WATER BILL:	\$73.49	\$74.13	\$65.77
<b>% OF ADJUSTED GROSS INCOME:</b>	<b>2.87%</b>	<b>2.90%</b>	<b>2.57%</b>

\* Equivalent Residential Connections

Agenda Item

4(C)(ii)(c)

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

**APPLICANT'S REQUEST:**

The City of Bluffdale is requesting \$6,000,000 in financial assistance to fund the construction of a new 4 million gallon storage tank and installation of 7,000-linear feet of transmission line.

**STAFF COMMENTS:**

The local MAGI for the City of Bluffdale is \$70,138 which is 153% of the State MAGI and the current average water bill is \$68.86 per month, which is 1.18% of the local MAGI. The City does not qualify as a disadvantaged community and their current rates appear to be sufficient to cover the proposed debt service. Staff's recommendation of a reduced interest rate is based on financial considerations that include cost effectiveness, funded reserve and replacement accounts, as well as a local contribution of \$972,000.

Option #	Description	Repayable Loan Amount	Interest Rate	Term	Principal Forgiveness	Monthly Water Rate	% Local MAGI
1	Full Loan	\$ 6,000,000	3.92%	20 yrs	0	\$62.62	1.07%
<b>2</b>	<b>Full Loan</b>	<b>\$ 6,000,000</b>	<b>2.00%</b>	<b>20 yrs</b>	<b>0</b>	<b>\$61.53</b>	<b>1.05%</b>

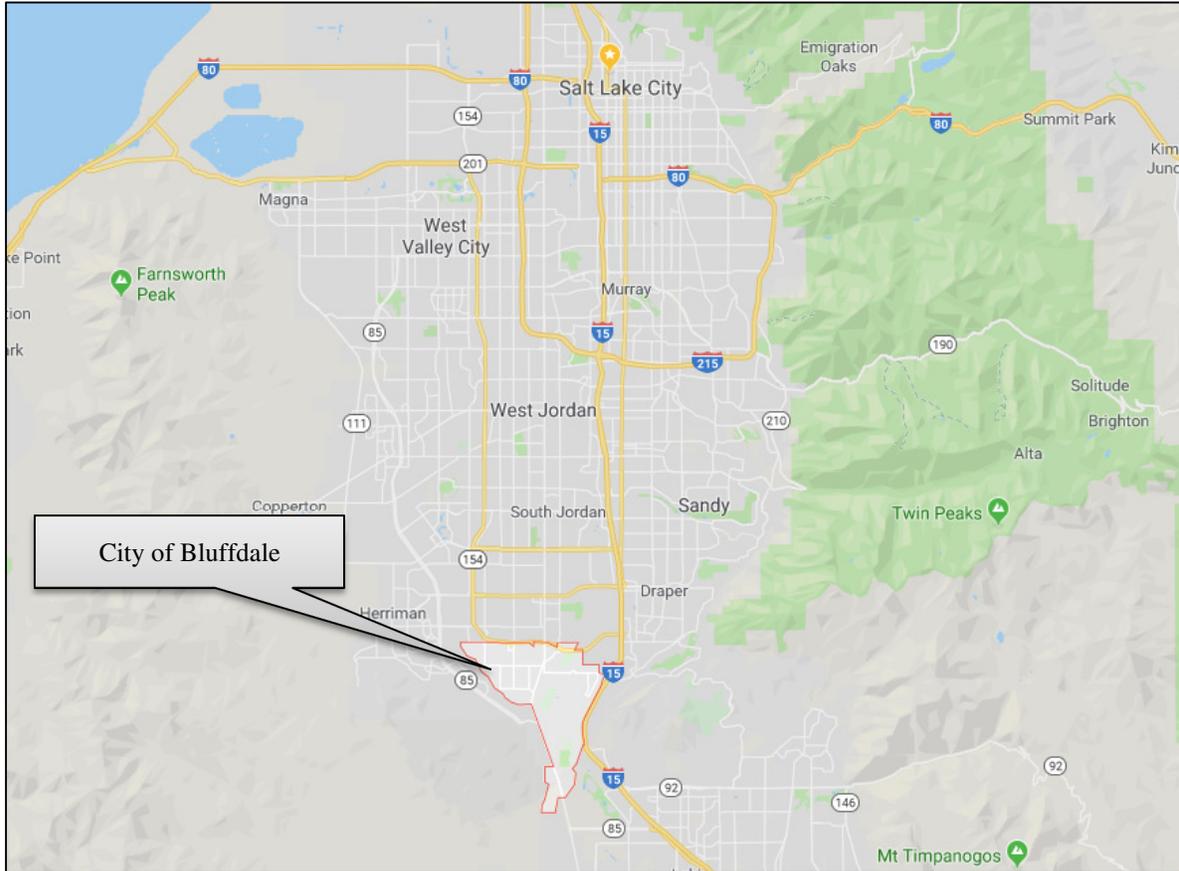
**FINANCIAL ASSISTANCE COMMITTEE RECOMMENDATION:**

**The Drinking Water Board authorize a loan of \$6,000,000 at 2.00% hardship grant assessment fee for 20 years to the City of Bluffdale.**

**APPLICANT’S LOCATION:**

The City of Bluffdale is located at the south end of Salt Lake County.

**MAP OF APPLICANT’S LOCATION:**



**PROJECT DESCRIPTION:**

The City of Bluffdale has seen significant growth in recent years and is one of the top 10 fastest growing cities in Utah for 2019. In order to accommodate this continuing demand, the City of Bluffdale intends to build a new 4-MG concrete storage tank for their 1W zone that will address increasing storage demands, fire flow and emergency storage. The City also intends to construct 7,000-linear feet of 12-inch transmission line to connect the tank to the distribution system in the 1W zone. The City is also in the process of purchasing land for the new storage tank from the Jordan Valley Water Conservancy District

**POPULATION GROWTH:**

	<u>Year</u>	<u>Population</u>	<u>Connections</u>
Current:	2019	15,435	3,907
Projected:	2040	38,844	9,834
Annual growth rate		4.5%	4.5%

**COST ESTIMATE:**

Legal/Bonding/Admin	\$ 32,000
Engineering – Planning	\$ 25,000
Engineering – Design	\$ 137,000
Engineering – CMS	\$ 50,000
Construction	\$ 5,630,000
Contingency (~ 10%)	\$ 563,000
Land Acquisition for Tank	\$ 475,000
DDW Loan Origination Fee	\$ 60,000
<b>Total</b>	<b>\$ 6,972,000</b>

**COST ALLOCATION:**

<u>Funding Source</u>	<u>Cost Sharing</u>	<u>Percent of Project</u>
DWB	\$ 6,000,000	86%
Local Contribution	\$ 972,000	14%
	\$ \$6,972,000	100%

**IMPLEMENTATION SCHEDULE:**

FA Committee Conference Call:	May 8, 2019
DWB Funding Authorization:	June 11, 2019
Complete Design:	June 2019
Plan Approval:	July 2019
Advertise for Bids:	July 2019
Begin Construction:	October 2019
Complete Construction:	October 2020

**IPS SUMMARY:**

Code	Description	Physical Facilities	Quality & Monitoring	Significant Deficiency Violations
M001	Current Emergency Response Program	-10		
	<b>Total = -10</b>	-10	0	0

**CONTACT INFORMATION:**

APPLICANT:	City of Bluffdale 2222 West 14400 South Bluffdale, Utah 84065 801-254-2200
PRESIDING OFFICIAL	Mark Reid, City Manager 2222 West 14400 South Bluffdale, Utah 84065 801-849-9410 bkartchner@bluffdale.com
CONSULTING ENGINEER:	Robert Sowby, P.E. Hansen, Allen & Luce, Inc. 859 W. South Jordan Parkway, Suite 200 South Jordan, Utah 84095 801-566-5599 rob.sowby@hansenallenluce.com
RECORDER:	Bruce Kartchner 801-849-9405 bkartchner@bluffdale.com
BOND COUNSEL:	Randall Larsen Gilmore Bell 15 W. South Temple, Suite 1450 Salt Lake City, Utah 84101 801-258-2722 rlarsen@gilmorebell.com
CITY ATTORNEY:	Vaughn Pickell City of Bluffdale 2222 West 14400 South Bluffdale, Utah 84065 801-849-9415 vpickell@bluffdale.com

## DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Bluffdale  
 COUNTY: Salt Lake  
 PROJECT DESCRIPTION: New 4MG storage tank and transmission line

FUNDING SOURCE: Federal SRF

**100 % Loan & 0 % P.F.**

ESTIMATED POPULATION:	15,400	NO. OF CONNECTIONS:	6252 *	SYSTEM RATING:	APPROVED
CURRENT AVG WATER BILL:	\$68.86 *			PROJECT TOTAL:	\$6,972,000
CURRENT % OF AGI:	1.18%	FINANCIAL PTS:	55	LOAN AMOUNT:	\$6,000,000
ESTIMATED MEDIAN AGI:	\$70,138			PRINC. FORGIVE.:	\$0
STATE AGI:	\$45,895			TOTAL REQUEST:	\$6,000,000
SYSTEM % OF STATE AGI:	153%				

	BASE RATE	@ RBBI MKT RATE	AFTER REPAYMENT PENALTY & POINTS
<b>SYSTEM</b>	1.50%	3.92%	2.00%
ASSUMED LENGTH OF DEBT, YRS:	20	20	20
ASSUMED NET EFFECTIVE INT. RATE:	1.50%	3.92%	2.00%
REQUIRED DEBT SERVICE:	\$349,474.42	\$438,368.68	\$366,940.31
*PARTIAL COVERAGE (15%):	\$52,421.16	\$65,755.30	\$55,041.05
*ADD. COVERAGE AND RESERVE (10%):	\$0.00	\$0.00	\$0.00
<b>ANNUAL NEW DEBT PER CONNECTION:</b>	<b>\$64.28</b>	<b>\$80.63</b>	<b>\$67.50</b>
O & M + FUNDED DEPRECIATION:	\$3,713,000.00	\$3,713,000.00	\$3,713,000.00
OTHER DEBT + COVERAGE:	\$481,250.00	\$481,250.00	\$481,250.00
REPLACEMENT RESERVE ACCOUNT:	\$0.00	\$0.00	\$0.00
<b>ANNUAL EXPENSES PER CONNECTION:</b>	<b>\$670.87</b>	<b>\$670.87</b>	<b>\$670.87</b>
TOTAL SYSTEM EXPENSES	\$4,596,145.58	\$4,698,373.98	\$4,616,231.36
TAX REVENUE:	\$0.00	\$0.00	\$0.00
<b>RESIDENCE</b>			
MONTHLY NEEDED WATER BILL:	\$61.26	\$62.62	\$61.53
<b>% OF ADJUSTED GROSS INCOME:</b>	<b>1.05%</b>	<b>1.07%</b>	<b>1.05%</b>

\$5,165,000.00

Agenda Item

4(C)(ii)(d)

**DRINKING WATER BOARD  
BOARD PACKET FOR CONSTRUCTION LOAN**

**APPLICANT’S REQUEST:**

Kearns Improvement District is requesting \$21,000,000 in financial assistance to fund numerous system improvements from their Capital Improvements Plan that will occur over the course of several years. These improvements include new storage tanks, two pump stations, installation of a water line and upsizing transmission line.

**STAFF COMMENTS:**

The local MAGI for Kearns Improvement District is approximately \$36,337 (79% of the state MAGI), their after project water bill is 1.51% of the local MAGI. Therefore they do qualify as a hardship community to receive additional subsidy.

Kearns Improvement District is also contributing \$1,935,600 towards the project for a project total of \$22,935,600. Staff is recommending a reduced interest rate (-0.5%) as additional subsidy and as an incentive for participating in the Federal Program’s “Programmatic Financing” option.

Option #	Description	Repayable Loan Amount	Interest Rate	Term	Principal Forgiveness	Monthly Water Rate	% Local MAGI
1	Full Loan	\$ 21,000,000	3.92%	20 yrs	0	\$46.95	1.55%
2	Full Loan	\$ 21,000,000	1.79%	20 yrs	0	\$45.60	1.51%
<b>3</b>	<b>Full Loan</b>	<b>\$ 21,000,000</b>	<b>1.25%</b>	<b>20 yrs</b>	<b>0</b>	<b>\$45.28</b>	<b>1.50%</b>

**FINANCIAL ASSISTANCE COMMITTEE RECOMMENDATION:**

The Drinking Water Board authorize a loan of \$21,000,000 to Kearns Improvement District at 1.25% Interest / Fee for 20 years. Conditions include they resolve all issues on their compliance report.

**APPLICANT’S LOCATION:**

Kearns Improvement District is located in Salt Lake County approximately 13 miles Southwest of Salt Lake City.

**MAP OF APPLICANT’S LOCATION:**



**PROJECT DESCRIPTION:**

Programmatic financing to fund multiple projects from their capital improvement plan, including new storage tanks, two pump stations, installation of a water line and upsizing transmission line

Kearns Improvement District					
Water Projects - Draw Timing Summary					
Project Description	Category	2019	2020	2021	Total
2 MG Tank	Storage Tanks	\$ 2,766,000			\$ 2,766,000
6200 S 5300 W Booster Pump Station	Pump Stations	\$ 320,600	\$ 5,340,000		\$ 5,660,600
4 MG Tank - Zone D	Storage Tanks	\$ 300,000	\$ 5,000,000		\$ 5,300,000
Zone D Existing Pump Station	Pump Stations		\$ 300,000		\$ 300,000
12" Waterline looped from Zone D Pump Station	Pump Stations		\$ 75,000	\$ 1,111,000	\$ 1,186,000
1.5 MG Tank Zone E and Water Line	Storage Tanks	\$ 2,785,000			\$ 2,785,000
Pump Stations Zone E	Storage Tanks	\$ 1,729,000			\$ 1,729,000
30" Waterline Zone D	Transmission Lines	\$ 2,339,000			\$ 2,339,000
					\$ -
Financing Costs	Financing Costs	\$ 870,000			\$ 870,000
<b>Total</b>		<b>\$ 11,109,600</b>	<b>\$ 10,715,000</b>	<b>\$ 1,111,000</b>	<b>\$ 22,935,600</b>

**POPULATION GROWTH:**

Projected populations and number of connections are shown in the table below:

Year	Population	Connections
2019	51,500	13,981
2040	70,403	19,145

**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	\$21,000,000	92%
System contribution	\$1,935,600	8%
Total:	\$22,935,600	100%

**IPS SUMMARY:**

Code	Description	Physical Facilities	Quality & Monitoring	Significant Deficiency Violations
M001	Current Emergency Response Program	-10		
PS04	No flow measuring device on discharge piping	1		
PS32	Electrical rotating equip lacks protective guards	2		
SO23	No smooth nosed sampling tap on discharge piping	1		
SO32	Electrical rotating equip lacks protective guards	2		
TD79	No means of measuring water treated w/chlorine	2		
TF11	No means to measure flow of water to be treated	2		
TF13	Insufficient or improper safety equipment	10		
TF14	No means to measure calc quantity used	2		
TF20	No calculations/records of chem dose of water qual/quan	2		
TF26	Inadequate spill containment provisions	2		
TF28	Improper storage of chemicals	10		
TG06	Solution tank lacks backflow protection	2		
TG19	Incompatible chemicals not stored separately	2		
TG59	Inadequate spill containment provisions	2		
	<b>Total = 32</b>	<b>32</b>	<b>0</b>	<b>0</b>

**CONTACT INFORMATION:**

APPLICANT:

Kearns Improvement District  
5350 West 5400 South  
Kearns, UT 84118  
801-968-1011

PRESIDING OFFICIAL &  
CONTACT PERSON:

Pam Gill  
General Manager  
5350 West 5400 South  
Kearns, UT 84118  
801-968-1011  
[pgill@kearnsid.org](mailto:pgill@kearnsid.org)

CONSULTING ENGINEER:

Marv Allen  
Hansen Allen & Luce  
859 S Jordan Parkway  
South Jordan, Utah 84095  
801-566-5599  
[mallen@hansenallenuce.com](mailto:mallen@hansenallenuce.com)

FINANCIAL CONSULTANT:

Alex Buxton  
Zions Public Finance  
One South Main St 18<sup>th</sup> floor  
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## DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Kearns Improvement Dist  
 COUNTY: Salt Lake  
 PROJECT DESCRIPTION: Programatic financing

FUNDING SOURCE: Federal SRF

### 100 % Loan & 0 % P.F.

ESTIMATED POPULATION:	51,500	NO. OF CONNECTIONS:	19511 *	SYSTEM RATING:	APPROVED
CURRENT AVG WATER BILL:	\$45.20 *			PROJECT TOTAL:	\$22,935,600
CURRENT % OF AGI:	1.49%	FINANCIAL PTS:	62	LOAN AMOUNT:	\$21,000,000
ESTIMATED MEDIAN AGI:	\$36,337			PRINC. FORGIVE.:	\$0
STATE AGI:	\$45,895			TOTAL REQUEST:	\$21,000,000
SYSTEM % OF STATE AGI:	79%				

	@ ZERO % RATE 0%	@ RBBI MKT RATE 3.92%	AFTER REPAYMENT PENALTY & POINTS 1.25%
<b><u>SYSTEM</u></b>			
ASSUMED LENGTH OF DEBT, YRS:	20	20	20
ASSUMED NET EFFECTIVE INT. RATE:	0.00%	3.92%	1.25%
REQUIRED DEBT SERVICE:	\$1,050,000.00	\$1,534,290.37	\$1,193,228.18
*PARTIAL COVERAGE (15%):	\$0.00	\$0.00	\$0.00
*ADD. COVERAGE AND RESERVE (10%):	\$105,000.00	\$153,429.04	\$119,322.82
<b>ANNUAL NEW DEBT PER CONNECTION:</b>	<b>\$59.20</b>	<b>\$86.50</b>	<b>\$67.27</b>
O & M + FUNDED DEPRECIATION:	\$8,789,301.00	\$8,789,301.00	\$8,789,301.00
OTHER DEBT + COVERAGE:	\$0.00	\$0.00	\$0.00
REPLACEMENT RESERVE ACCOUNT:	\$491,965.05	\$516,179.57	\$499,126.46
<b>ANNUAL EXPENSES PER CONNECTION:</b>	<b>\$475.69</b>	<b>\$476.94</b>	<b>\$476.06</b>
TOTAL SYSTEM EXPENSES	\$10,436,266.05	\$10,993,199.98	\$10,600,978.46
TAX REVENUE:	\$1,027,876.00	\$1,027,876.00	\$1,027,876.00
<b><u>RESIDENCE</u></b>			
MONTHLY NEEDED WATER BILL:	\$44.57	\$46.95	\$45.28
% OF ADJUSTED GROSS INCOME:	1.47%	1.55%	1.50%

\* Equivalent Residential Connections

Agenda Item

4(C)(iii)(a)

2019 Drinking Water State Revolving Fund Intended Use Plan  
Presented to the Drinking Water Board  
June 11, 2019

**DRINKING WATER BOARD PACKET**  
**2019 Drinking Water State Revolving Fund Intended Use Plan**  
**(2019 IUP)**

# 2019 DRINKING WATER STATE REVOLVING FUND INTENDED USE PLAN

## Safe Drinking Water Act - Protecting America's Public Health



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## SECTION A: Drinking Water State Revolving Fund (DWSRF)

### A-1 Plan Introduction

The national Drinking Water State Revolving Fund (DWSRF) program established by the Safe Drinking Water Act (SDWA) Amendments of 1996, authorizes the U.S. Environmental Protection Agency (EPA) to award capitalization grants to states, which in turn may provide low-cost loans and other types of assistance to eligible public water systems to finance the costs of infrastructure projects needed to achieve or maintain compliance with SDWA requirements. States are also authorized to set-aside a portion of their capitalization grants to fund a range of activities including administration, technical assistance, source water protection, capacity development, and operator certification.

In recent years, two congressional acts have made changes affecting the DWSRF program. The Water Infrastructure Improvement for the Nation Act (WIIN) which passed in December 2016 and the America's Water Infrastructure Act (AWIA) of 2018 which was signed into law on October 23, 2018. Both of these acts have direct impact on how the DWSRF program operates and will be mentioned through-out this report when changes are directly related to the section.

The Utah Legislature enacted Utah Code Annotated (UCA) 19-4-101 et seq. establishing the Utah Safe Drinking Water Board (Board). UCA 19-4-104 empowers the Board with rule making authority to meet the requirements of federal law governing drinking water. UCA 19-1-105(1)(b) establishes the Division of Drinking Water (DDW) which is tasked with the responsibility to administer UCA 19-4-101 et seq. The Board has promulgated rules for making loans incorporating the requirements of the Federal Safe Drinking Water Act at Utah Administrative Code (UAC) R309-705. Additionally, the Board is authorized by UCA 19-4-104(1)(a)(v) and 19-4-104(2) to promulgate rules for certification of operators and governing capacity development in compliance with Section 1419 and 1420 of the Federal Safe Drinking Water Act.

The responsibility of the Board is to develop policies and procedures for program implementation and to authorize loans in the DWSRF program. The Utah Department of Environmental Quality (DEQ) through DDW directly administers the DWSRF program. The DDW's primary DWSRF activities include administering loans and managing and coordinating the fund.

DDW receives assistance and support from the DEQ's Office of Support Services, the State Division of Finance, the State Attorney General's Office and the State Treasurer's Office. The salaries and benefits of the employees, as well as indirect costs based on direct salary costs, are charged to the DWSRF program. Employees charging time to the DWSRF program are covered by the State of Utah personnel benefits plan. The DWSRF program is charged a loan administration fee by the Division of Finance.

The DWSRF program requires the states to deposit to the loan fund an amount equal to at least 20 percent of the capitalization grant. Loan repayments made by assistance recipients return to the loan fund and provide a continuing source of financing. The following table summarizes awards received by DDW, the allocation between loan and set-aside funds and the required state 20% match.

**Table 1 DWSRF Grants Summary**

Table 1 Summary of DWSRF Grants June 30, 2018								
Federal Fiscal Year	Award Dated	Award Allocation						State 20% Match
		Total		Loan Fund		Set-Aside Funds		
		Amount	%	Amount	%	Amount	%	
1997	February 9, 1998	\$ 12,558,800	100%	\$ 9,755,575	77.679%	\$ 2,803,225	22.321%	\$ 2,511,760
1998	September 20, 1999	\$ 7,121,300	100%	5,633,563	79.109%	1,487,737	20.891%	1,424,260
1999	May 1, 2000	\$ 7,463,800	100%	6,019,720	80.652%	1,444,080	19.348%	1,492,760
2000	August 21, 2000	\$ 7,732,000	100%	6,515,880	84.272%	1,216,120	15.728%	1,551,400
2001	September 7, 2001	\$ 7,789,100	100%	6,542,844	84.000%	1,246,256	16.000%	1,557,820
2002	July 30, 2002	\$ 8,052,500	100%	6,384,100	79.281%	1,668,400	20.719%	1,610,500
2003	August 11, 2003	\$ 8,004,100	100%	6,473,444	80.877%	1,530,656	19.123%	1,600,820
2004	July 8, 2004	\$ 8,303,100	100%	6,724,604	80.989%	1,578,496	19.011%	1,660,620
2005	June 16, 2005	\$ 8,285,500	100%	6,709,820	80.983%	1,575,680	19.017%	1,657,100
2006	June 29, 2006	\$ 8,228,900	100%	6,583,120	80.000%	1,645,780	20.000%	1,645,780
2007	June 27, 2007	\$ 8,229,400	100%	6,562,696	79.747%	1,666,704	20.253%	1,645,880
2008	July 31, 2008	\$ 8,146,000	100%	6,516,800	80.000%	1,629,200	20.000%	1,629,200
2009	May 18, 2009	\$ 19,500,000	100%	18,915,000	97.000%	585,000	3.000%	0
2009	June 22, 2009	\$ 8,146,000	100%	6,822,275	83.750%	1,323,725	16.250%	1,629,200
2010	June 9, 2010	\$ 13,573,000	100%	11,401,320	84.000%	2,171,680	16.000%	2,714,600
2011	July 1, 2011	\$ 9,418,000	100%	7,440,220	79.000%	1,977,780	21.000%	1,883,600
2012	June 12, 2012	\$ 8,975,000	100%	6,590,250	73.429%	2,384,750	26.571%	1,795,000
2013	June 26, 2013	\$ 8,421,000	100%	6,224,890	73.921%	2,196,110	26.079%	1,684,200
2014	June 9, 2014	\$ 9,229,000	100%	6,779,460	73.458%	2,449,540	26.542%	1,845,800
2015	June 8, 2015	\$ 9,169,000	100%	6,645,060	72.473%	2,523,940	27.527%	1,833,800
2016	May 19, 2016	\$ 8,674,000	100%	5,485,060	63.236%	3,188,940	36.764%	1,734,800
2017	September 28, 2017	\$ 8,600,000	100%	5,800,000	67.442%	2,800,000	32.558%	1,720,000
2018	September 26, 2018	\$ 11,107,000	100%	8,200,000	73.827%	2,907,000	26.173%	2,221,400
	<b>Total</b>	<b>\$214,726,500</b>	<b>100%</b>	<b>\$170,725,701</b>	<b>79.508%</b>	<b>\$44,000,799</b>	<b>20.492%</b>	<b>\$39,050,300</b>

## Utah's DWSRF program results through SFY18

- ✓ Utah's DWSRF Fund Use Rate at the end of SFY18 was 75%. From the beginning of the program thru FY 2018 the DWSRF fund has provided drinking water assistance to communities of approximately \$229.9 million, \$308 million was available.
- ✓ In SFY18, Utah entered into twelve binding commitments for a total of \$16,002,075. As of March 1, 2019, DWSRF had eleven projects authorized by the Drinking Water Board totaling \$35,700,500, with five more loans which have already closed during the first half of FY 2019 totaling \$5,884,273.
- ✓ The calculation of the use rate as of February 28, 2019 was maintained at a use rate of 75%. DDW anticipates closing about fifty million in new shovel ready loans in fiscal year 2020, which should increase the current use rate.
- ✓ The allotment between states is based on state needs surveys. DDW was allocated one hundredth percent for the federal fiscal years 2018 through 2021. It is anticipated that the needs survey process will begin once again soon for the years 2022 through 2025.

- ✓ DDW will continue to contract with Rural Water Association of Utah (RWAU) to assist small public water systems. They anticipate assisting approximately 300 water systems with capacity development or technical assistance.
- ✓ The State Auditor, in compliance with the provisions of the Single Audit Act, audits the DWSRF accounts. DWSRF accounts are also subject to review and audit by USEPA, the Office of the Inspector General. DWSRF Funds are included in Utah's Comprehensive Annual Financial Report (CAFR), which uses the modified accrual bases of accounting. Because funds are combined the DWSRF assets, liabilities, and net assets are not identifiable in Utah's CAFR.
- ✓ The State is required to submit an annual Intended Use Plan (IUP) to EPA as long as the Fund or set-aside accounts remain in operation.
- ✓ DDW under the direction of the Board administers the loan and set-aside programs.
- ✓ The DWSRF program and procedures are expected to primarily continue similarly as is described in the Operating Agreement.

## A-2 DWSRF Loan Program

The loan program funds low-cost loans and other types of financial assistance to publicly owned and privately owned community water systems and non-profit non-transient water systems to finance the costs of infrastructure projects. States are responsible for developing a priority system that identifies how projects will be ranked for funding and a list of projects, in priority order, that are eligible for funding. A description of the criteria and the method used for distribution of loan funds is outlined in Utah Administrative Code R309-705. AWIA extended both the length of years eligible for water systems to repay the debt and the maximum time period allowed before requiring the first payment due on the outstanding principal balance.

### Loans Program Eligibility Requirements

1. Repayment must begin no later than 18 months (previously 12 months change was part of AWIA Act) after completion of the project.
2. Loan repayment must be completed no later than 30 years (previously 20, the change was due to AWIA Act) after the completion of the project. A disadvantaged community loan may have up to 40 years (previously 30, the change was due to AWIA Act) as long as the period of the loan does not exceed the expected design life of the project.
3. A minimum of 15% of all dollars credited to the loan fund must provide loans to small systems, those that serve fewer than 10,000 persons.
4. Funding can be used for principal forgiveness for communities meeting the State's "Disadvantaged" criteria. The Board has defined disadvantaged communities as those communities located in an area which has a median adjusted gross income which is less than or equal to 80% of the State's median adjusted gross income, as determined by the Utah State Tax Commission from federal individual income tax returns excluding zero

exemption returns or where the established annual cost of drinking water service to the average residential user exceeds 1.75% of the median adjusted gross income.

5. The 2019 DWSRF capitalization grant may require a percentage of federal funds to be used for additional subsidization in the form of principal forgiveness, negative interest loans, or grants, or any combination of these. This will be defined in the programmatic conditions of the award and will be followed as defined.
6. It is anticipated the American Iron and Steel (AIS) provision will be included in the federal FY19 appropriation bill for the 2019 DWSRF capitalization grant. The AIS provision requires iron and steel products used during the construction of drinking water projects be produced in the United States. DDW intends to follow this requirement and request a waiver for an exception when necessary.
7. It is not anticipated the 2019 capitalization grant will require “Green Infrastructure Projects”.
8. Construction bids are required to use Davis-Bacon Act wage rules.

### **Interest and Fees**

1. Federal rules section 1452 allows the state to assess interest and/or fees. Fees are calculated and paid in the same manner as interest. Fees have fewer restrictions than interest. The Board has authorized by Rule the establishment of a fund (or account) into which the proceeds of annual fees are placed.
2. Interest payments are deposited to the same loan fund as principal payments and have the same restrictions.
3. Hardship fees are deposited to a separate fund authorized for providing grants to water systems through a state revolving fund (SRF) loan program.
4. Technical Assistance fees are to finance technical assistance for eligible water systems or other purposes as allowed by section 1452. This fee is part of the “effective rate” calculated using Table 2, R309-705-6. UAC R309-705-3 defines a SRF Technical Assistance Fund which means a fund (or account) that will be established for the express purpose of providing “Technical Assistance” to eligible drinking water systems. These fees are deposited into the hardship fee fund and are tracked separately. The Technical Assistance Fund will also provide low interest loans for technical assistance, and any other eligible purpose as defined by Section 1452 of the SDWA Amendments of 1996, to water systems that are eligible for Federal SRF loans. Repayment of these loans may be waived in whole or in part (grant funds) by the Board whether or not the borrower is disadvantaged.

5. **Origination Fee:** The Utah State Legislature established an origination fee to be charged to all new loans to fund the administration of the DWSRF program in accordance with UCA 73-10c-10. The set fee of 1% continues to be the rate charged by the Board. It is reviewed annually and may change based on the needs of the program. The origination fee amount is assessed to the loan recipient as a percentage of the principal balance of the loan. It is generally paid at closing as a one-time fee, but the loan recipient may choose to pay separately or with their first pay request from the loan proceeds. All proceeds are deposited into a separate fund. Since fees will be deposited into an account outside of the Fund, they will only be used for program administration or other purposes for which capitalization grants can be awarded under section 1452. Currently, these fees will not be used for any state match requirements. In addition, this fee will not be charged to any disadvantaged community which receives a loan subsidy provided from DWSRF funding.

### **State fund Drinking Water Loan Program**

The Division of Drinking Water also operates a State funded Drinking Water Assistance Program also known as the Water Development Security Fund UCA 73-10c-5. The state program provides Utah the flexibility to put together loan packages without the restrictions that accompany the DWSRF program. The DWSRF program requires a 20% state match which is generated from the state SRF loan program.

### **A-3 Set-Asides**

In addition to loan assistance to eligible public water systems, the DWSRF program also emphasizes the prevention of drinking water contamination by allowing states to reserve a portion of their grant to fund activities that encourage enhanced water system management and source water protection. The funded activities are referred to as set-aside funds.

The Water Infrastructure Improvements for the Nation (WIIN) Act which passed in December 2016; revised two set-asides. The WIIN Act removed the state 1:1 match for the ten percent set-aside and provided three options to choose from for the four percent set-aside. DDW will comply with all programmatic and administrative conditions as required for this grant award.

Set-aside activities include:

1. The four percent set-aside provides an allotment to administer the DWSRF and provide technical assistance to public water systems. The calculation for the four percent administrative set-aside consists of choosing the greatest one of three options: 1) \$400,000; 2) 1/5 percent of the current valuation of the fund (must be an audited fund); or 3) an amount equal to four percent of all grant awards in the fund under this section for the fiscal year.
2. Up to ten percent of the allotment for state program management activities, including administration of the state public water system supervision program, administration of the source water protection program, development and implementation of the capacity development and operator certification programs. Prior to the WIIN Act of 2016, the

10% set-aside required a dollar-for-dollar state match; this is no longer required. Along with the 1:1 state match requirement change, the 1993 state match credit of \$855,668 per 40 CRF 35.3535 (d) (2) is also no longer necessary as it was a credit applied to the 1:1 state match.

3. Up to two percent of the allotment to provide technical assistance to small public water systems.
4. Up to 15 percent of the capitalization grants to assist in the development and implementation of local drinking water protection initiatives, including capacity development, wellhead protection and other state programs.

## SECTION B - Intended Use Plan

### B-1 Summary, Financial Status and Goals

An Intended Use Plan (IUP) explains how the State will use all funds available from the capitalization grant, including funds that will be allocated to the set-asides. Specifically, the IUP describes how DDW plans to use available funds. Funds are received from the federal capitalization grants, the state match, loan repayments including interest and fee payments, and investment earnings.

The State is applying for the 2019 DWSRF appropriation based on the 2018 amount of \$11,107,000. DDW is requesting \$8,100,000 to be added to the loan fund and \$3,007,000 to the set-aside program. The federally mandated 20% state match of \$2,221,400 will be funded from the Drinking Water State loan program and will be available to transfer into the DWSRF fund within 90 days of the award date. However, DDW anticipates amounts will be adjusted according to actual budget as Congress provides.

The Intended Use Plan (IUP) is for the 2019 DWSRF appropriations and will include:

1. Specifics on how the Board proposes to use the appropriations;
2. A description of the goals of the DWSRF program;
3. A list of projects eligible to receive DWSRF funding, which identifies those serving less than 10,000 people;
4. Cost estimates for listed projects;
5. An estimate of funds anticipated to be available for financial assistance;
6. Criteria for selecting projects to receive financial assistance;
7. Criteria for determining which communities qualify for hardship status;
8. The project scoring and ranking system;
9. Projects authorized for funding and those anticipated to be closed in FFY2019 and the 1<sup>st</sup> or 2<sup>nd</sup> quarter of FFY2020.

## Short and Long-Term DWSRF Goals

The DWSRF program will help ensure Utah’s drinking water supplies remain safe and affordable, and drinking water systems are properly operated and maintained. The objectives of the DWSRF program include ensuring the public health, achieving compliance with SDWA, and assisting systems to provide affordable drinking water.

### Short-Term Loan Program Goals

1. Seek the award of the FFY 2019 Capitalization Grant to secure federal funding for the DWSRF program and follow all the grant requirements.
2. Engage in a more aggressive marketing process to reach water systems in need of capital improvements, willing and able to meet DWSRF requirements.
3. Work diligently with borrowers to secure authorization of funding from the Board and closing loans in a timely and efficient manner to DWSRF loan applicants.
4. To maintain a permanent and solvent source of funding to assist communities with financing water systems’ capital improvements thereby assisting them to maintain compliance with USEPA standards and promote public health.
5. Develop better cross/legacy training to improve employee development and to help with employee transitions.
6. Improve DDW relationships with drinking water stakeholders and others.

### Long-Term Goals and the Set-Aside Goals

1. To help public water suppliers achieve and maintain compliance with Federal and State drinking water standards.
2. Continue outreach activities to ensure systems understand DWSRF assistance options and the need to develop managerial, technically and financially sound water systems.
3. Continue to educate and support water suppliers with their water protection (counter-terrorism) efforts.
4. Continue to expand and automate the Operator Certification program. Create an online “Backflow 101” screencast training course.
5. Improve on-boarding process for new hires
6. Continue identifying noncompliant water systems using the ETT (Enforcement Target Tool) to assist them to provide safe drinking water to the public.

### Transfer and Cross-Collateralization of Funds between the DWSRF and CWSRF

Section 302 of the SDWA authorizes the transfer up to 33 percent of the amount of a fiscal year’s DWSRF program capitalization grant to the CWSRF program or an equivalent amount from the CWSRF program to the DWSRF program. There has been no transfer of funds and no transfers are anticipated.

## Withholding of Funds

EPA has the ability to withhold funds under certain provisions, but the DWB/DDW has complied with the following:

1. The State has authority to ensure all new community water systems and new non-transient, non-community water systems commencing operation after October 1, 1999, demonstrate technical, managerial, and financial capacity with respect to each drinking water regulation in effect. Utah Code Annotated 19-4-104 empowers DDW with rule making authority to meet the requirements of Federal law governing drinking water.
2. The State has developed and is implementing a strategy to assist public water systems in acquiring and maintaining technical, managerial, and financial capacity.
3. The State has adopted and is implementing a program for certifying operators of community and non-transient, non-community public water systems.

EPA has approved the State's capacity development and operator certification programs.

## Public Review of the IUP

A draft IUP will be published on the Drinking Water web site, [www.drinkingwater.utah.gov](http://www.drinkingwater.utah.gov) in April, 2019. Notice of the posting and request for public comment will be included in the DW Board's June 11, 2019 meeting. Minutes will be e-mailed to individuals and agencies asking for review and comments in May 2019. Comments may be made in writing addressed to the Board at 195 North 1950 West, PO Box 144830, Salt Lake City, Utah 84114-4830 or in person at a regular scheduled Board meeting. Comments received will be reviewed and incorporated as deemed necessary into the set-aside work plan (due to EPA 90 days from grant award date); however no comments are anticipated to be received.

## Financial status

Initial capitalization for the Utah DWSRF program was provided from the 1997 Federal Capitalization Grant and state matching dollars. For the 21 years, 1997 through 2018, DWSRF capitalization grants totaled \$214,726,500. \$171,144,401 was the total loan program portion and \$43,582,099 was used in the set-aside programs. The State 20% match for the same period was \$39,050,300 was added to the loan program.

Through April 30, 2019 the Board has authorized about 226 projects totaling approximately \$322,980,277. A total of 150 projects totaling \$240,433,654 have been closed (committed) thru the end of fiscal year 2018. So far another six projects have closed in fiscal year 2019 totaling \$7,368,273. Total of 156 closed projects equal \$247,801,927. DDW anticipates the Granger Hunter Improvement District project of \$20,000,000 to close by the end of June 2019, using the 2018 AWIA provision for programmatic financing. Revenue, disbursements and balances are shown in the financial statements thru June 30<sup>th</sup>, 2018.

DDW is applying for \$11,004,000 using the 1% allocation and based on the continuing

resolution as adopted by Congress in fiscal year 2019. When funding is finalized, amounts may be changed to reflect the authorized amounts. It is anticipated \$8,100,000 will be provided to the loan fund and \$2,904,000 to set-asides. The state 20% match of \$2,200,800 will be transferred to the loan fund within 90 days of the award date. The WIIN Act passed in December 2016 – removed the 1:1 state match required for the 10% set-aside for all grant awards issued thereafter. Table 2 identifies the maximum set-asides which could be requested if every possible set-aside percentage and all reserves were requested to be awarded for in the 2019 capitalization grant.

**Table 2 Maximum Available Set-Asides**

<b>TABLE 2</b>				
<b>MAXIMUM AVAILABLE SET-ASIDE AWARDS W/STATE MATCH</b>				
<b>IF ALL RESERVES WERE USED THIS YEAR</b>				
ACTIVITY	PROG ELEM	BEG RESERVE BALANCE	2019 max with 20% State Match	
Loan Fund	19DA		5,765,520	2,200,800
Combined Loan w/state match		-		<b>7,966,320</b>
4% Administrative Set-Aside	19DD		440,160	4%
4% Reserve Amount		848,760		
Maximum 4% w/max reserves		848,760	440,160	<b>1,288,920</b>
2% Small Sys Tech Asst Max	19DE		220,080	2%
2% Reserve Amount		173,480		
		173,480	220,080	<b>393,560</b>
10% Reserve Amount	19DF	805,000		
PWS Supervision full 10%			1,100,400	10%
Capacity Development Oversight				
Source Water Protection				
Operator Certification				
TOTAL State Program Set-Aside		805,000	1,100,400	<b>1,905,400</b>
15% Local Assistance Set-Aside Max	19DG	no reserve	1,650,600	15%
TOTAL Local Assistance Set-Aside		-	1,650,600	<b>1,650,600</b>
(No more than 10% in one category)				
<b>TOTALS</b>				
TOTAL LOANS W/STATE MATCH			5,765,520	2,200,800
TOTAL SET-ASIDES AVAILABLE		1,827,240	3,411,240	
TOTAL CAPITALIZATION GRANT		1,827,240	9,176,760	<b>13,204,800</b>

**Table 3 Sources and Uses**

SOURCES AND USES TABLE 3				
	Cumulative Total thru 6/30/2018		7/1/18 - 6/30/19	Cumulative Total thru 6/30/2019
<b>SOURCES:</b>				
Federal Capitalization Grants	203,619,500	a	11,107,000	214,726,500
State Match				-
20% Capitalization Grant Match	36,828,900	b	2,221,400	39,050,300
10% Set-Aside 1:1 Match	18,041,630		-	18,041,630
Principal Repayments on Assistance Provided	87,243,124		6,228,600	93,471,724
Interest Repayments on Assistance Provided	14,832,417		1,379,758	16,212,175
Investment Earnings	6,211,078		1,904,226	8,115,304
Funds from Leveraging	-		-	-
Fees Deposited into the DWSRF	-		-	-
Funds Transferred from (to) CWSRF	-		-	-
<b>Sources Total</b>	<b>366,776,649</b>		<b>22,840,984</b>	<b>389,617,633</b>
<b>USES:</b>				
Loan/Grant Agreements Entered:				
Large Systems (>10,000 population)	56,163,595		-	56,163,595
Small Systems (≤10,000 population)	183,125,055		5,974,273	189,099,328
Additional Subsidy	39,915,725		5,335,273	45,250,998
Projects w/loans pending (shovel ready projects)	-		21,892,000	21,892,000
Projects authorized w/loans pending	5,974,273		13,808,500	19,782,773
Proposed Projects not yet authorized	-		5,064,000	5,064,000
Projects not yet submitted (available 2nd round)	-		35,987,168	35,987,168
<b>Set-Asides:</b>				-
<b>4% Administration</b>	7,352,914		444,280	7,797,194
<b>2% Small System Technical Assistance</b>	3,900,787		227,180	4,127,967
<b>10% State Program Management- 1:1 match</b>	18,041,630		-	18,041,630
PWSS Program Augmentation	15,999,164		825,700	16,824,864
Source Water Administration	1,448,825		70,000	1,518,825
Operator Certification	1,042,395		50,000	1,092,395
Capacity Development Program Oversight	365,778		15,000	380,778
PD Database	620,000		-	620,000
State Program Management Total	37,517,792		960,700	38,478,492
<b>15% Local Assistance/Other State Programs</b>				-
Local Assistance & Capacity Development Outreach	7,751,006		1,110,700	8,861,706
Capacity Development Project in 1998	997,537		-	997,537
Source Water Assessments	352,978		-	352,978
Wellhead and GIS tracking	843,715		169,180	1,012,895
LA/Other State Program Subtotal	9,945,236		1,279,880	11,225,116
<b>Uses Total</b>	<b>303,979,652</b>		<b>85,637,981</b>	<b>389,617,633</b>

- a. Total federal appropriation thru FFY 2018 Capitalization Grant. DDW uses a FIFO methodology for Unliquidated Obligations which can be found in Table 7 "2019 and 2020 Cash Flows and Cash Draw Proportionality" Page 17. (Grant award for 2018 was not awarded until Sept 2018.)
- b. 20% State Match came from Water Development State Revolving Fund thru FY 2017.
- c. DDW does not leverage any of their SRF funds.
- d. 20% State match for 2018 & 2019 Capitalization Grants will be deposited to fund within 90 days of award date.
- e. Any award entered after December 16, 2016, no longer requires the 1:1 State Match in accordance with the 2017 WIIN Act.
- f. 2019 repayments, interest and investment earnings are estimated.

## B-2 Loan Program

UAC R309-705 establishes criteria for financial assistance to public drinking water systems in accordance with the Federal SDWA. A copy of UAC R309-705 can be found at <http://www.rules.utah.gov/publicat/code/r309/r309-705.htm>. The 2019 DWSRF capitalization grant along with carry forward funds from previous grant awards, repayments, interest and fee payments, and investment earnings provides the funds the Division has available to help public water systems finance needed drinking water projects.

### Description of Criteria and Method Used for Distribution of Loan Funds

The complete description of the criteria and method used for distribution of funds is outlined in Utah Administrative Code (UAC) R309-705-6. As described in R309-705-6, the priority system assigns points to systems showing a deficiency in source, storage, treatment, and/or the distribution system. Points are assigned based on the relative risk of each deficiency, and are divided as applicable between health risk and compliance with SDWA. The applicant's priority points are modified by a financial factor, known as the Rate Factor, and the AGI Factor. Their calculation is shown below:

**Priority rating** = (Average number of points received) X (Rate Factor) X (AGI Factor)

**Where: Rate Factor** = (Average System Water Bill / Average State Water Bill)

**AGI Factor** = (State Median AGI / System Median AGI)

The priority points for demonstrated deficiencies are multiplied by the Rate Factor and AGI Factor to arrive at a final priority rating. This method addresses financial hardships present in less affluent communities and in those already experiencing higher water rates.

Upon arriving at a final priority rating for each applicant, each application is rated and added to the priority list. The Board may, at its option, modify a project's priority rating based on the conditions described in R309-705. The Board sets the effective interest, hardship fee and/or technical assistance fee rate and decides the amounts allowed for principal forgiveness or grants. The most current Revenue Bond Buyer Index (RBBI) is used as the base rate. Table 2 in UAC R309-705-6 is used to determine the reduction of the interest rate (or other rate) which potentially may be reduced to zero percent.

### Project Priority List (PPL)

DDW operates with a continuous project priority list. When applications are received throughout the year, they are reviewed to ensure compliance with federal and state drinking water regulations and scored based on the rating factors indicated in the previous paragraph. Currently, all applications meeting requirements are prepared to be taken to the Board for authorization. (The Board is required by Utah law to meet at least quarterly.) Since the applications are submitted throughout the year and may be scored and closed quickly, on occasion a water system project may not have been included in any intended use plan.

However, the continually updated PPL is posted on the division website and additions or changes are approved by the Board.

The PPL will be used for the 2019 DWSRF capitalization grant and any other funds used for loan projects. Projects authorized by the Board but which have not been closed are entered in the section titled “Authorized Funding”. Staff is working with these systems to meet EPA requirements to close the loans. A list of authorized and proposed projects requiring funding is listed next in Table 4.

**Table 4 Authorized Funding**

TABLE 4. AUTHORIZED FUNDING as of 4/30/2019				
Community	Loan #	Loan Amt	Forgiveness	Total
Swiss Alpine Water Company	3F300	807,000		807,000
Twin Creeks SSD (Phase II)	3F1716	3,395,000	300,000	3,695,000
West Corinne Water Co	3F305	500,000		500,000
Lincoln Culinary Water Assn	3F1696	1,510,000	1,006,000	2,516,000
Virgin Town	3F1702	400,000	400,000	800,000
Canyon Meadows Mutual Wtr	3F1700	1,540,000	385,000	1,925,000
Diamond Valley Acres	3F1706	235,000		235,000
Granger Hunter ID	3F1708	20,000,000		20,000,000
Marysvale	3F1709	2,932,000	733,000	3,665,000
PROPOSED AND POTENTIAL PROJECTS				
Community	Loan #	Loan Amt	Forgiveness	Total
Kearns Improvement District	3F1725	21,000,000		21,000,000
Bluffdale City	3F1726	6,000,000		6,000,000
Ogden Municipal	?	16,000,000		16,000,000
Boulder Farmstead	?	?		0
		74,319,000	2,824,000	77,143,000

### Green Infrastructure

The 2019 capitalization grant does **not** require projects to meet a minimum percentage to be used for water efficiency, energy efficiency, green infrastructure, or other environmentally innovative activities. However, DDW is always pursuing green projects including technological innovations to enhance green development.

### Delayed Authorized Projects

Table 5 identifies and explains water system projects which were scored and included in previously submitted project priority lists or were previously included in the 2018 Intended Use Plan. Some of these projects have merely been substantially delayed while others have

withdrawn their request or their funding has changed and the project will not be funded with federal DWSRF funds for a variety of reasons.

**Table 5 Water System Projects**

TABLE 5 - DELAYS			
Community	Loan #	Amt of Loan	Reason not funded
Juab County	3F259	21,210,000	Deauthorized - County was unable to make project work.
Virgin Town	3F272	800,000	Revised project authorized in 2018 to reduce scope and was re-authorized Jan 2019.
Cove SSD	3F285	\$1,085,000	Bids came in higher than anticipated, needed more funds - loan closing was delayed but project was closed in April 2019.
Community Water Company	3F291	3,662,000	Project was deauthorized and redesigned. Mountain Regional SSD was authorized from DDW State Funds for a revised project in July 2018.
Twin Creeks SSD	3F295	5,338,000	Phase I was closed in Dec 2018 of \$1,643,000 and is currently under construction. Phase II is anticipated to close in Dec 2019.
Swiss Alpine Water	3F300	807,000	Well and distribution system. ???
Storm Haven	on PPL	2,041,414	Never authorized. Project had flaws?
Greenwich	3F258	130,000	New Chlorination Bldg was deauthorized due to lack of cooperation with the community

### Current status and shovel ready loans

DDW staff routinely promotes the program and encourages water systems to apply for financial assistance at conferences, in presentations and training sessions, and through letters written to both water system administrative contacts and consulting engineers. Although DDW is aware of the need for drinking water system infrastructure improvement projects at systems throughout the state, to date these efforts have produced limited results. DDW will continue to explore ways to better market the DWSRF loan program with drinking water systems. Many water systems in Utah qualify and require substantial principal forgiveness (which is currently very limited in the Utah DWSRF Program). Therefore, if Congress were to increase principal forgiveness limits, it would likely encourage decision-makers to improve their system infrastructure and maintain compliance with regulations.

Table 7 identifies shovel ready projects from the authorized table projecting a federal draw forecast to provide federal cash flow in SFY 2019. All projects listed are either in progress or are shovel ready and should be closed in the summer of 2019 or early 2020 calendar year.

Table 6 Federal SRF program

Utah Federal SRF Program – Table 6								
	Priority Points				PPL Total Needs, incl. recently funded = \$273,133,991			
		System Name	County	Pop.	Project Title	Project Total	Request DWB	Funds Authorized
N	28.40	Kearns Improvement Dist	Salt Lake	51,500	Multiple tanks, booster pump station, trans line upgrade	\$21,000,000	\$21,000,000	
N	25.00	Greenwich	Piute	67	Chlorination building	\$130,000	\$130,000	
N	14.40	Bluffdale	Salt Lake	15,435	4 MG tank, transmission line	\$6,900,000	\$6,900,000	
A	33.30	Granger-Hunter ID	Salt Lake	121,083	Reservoir storage, dist lines, booster station, well trmnt	\$25,950,000	\$20,000,000	\$20,000,000
A	31.60	Virgin Town	washington	596	New tank and distribution lines	\$1,200,000	\$800,000	\$800,000
A	30.70	Canyon Meadows	Wasatch	100	Trans line, Dist line, Tank, treatment plant	\$1,724,068	\$1,724,068	\$1,925,000
A	24.30	West Corrine	Box Elder	1,275	Spring redevelopment and transmission line replacement	\$533,075	\$479,767	\$500,000
A	20.30	Marysvale Town	Piute	420	Well improvement, chlorination bldg, booster pump, dist line	\$3,665,000	\$3,665,000	\$3,665,000
A	19.50	Twin Creeks SSD	Wasatch	2,500	Treatment Plant, Storage Tank	\$4,029,650	\$3,757,000	\$3,695,000
A	18.80	Swiss Alpine	Wasatch	300	New Well and transmission line	\$955,152	\$815,152	\$807,000
A	16.60	Lincoln Culinary	Tooele	489	Well development, trans line, dist line, supply line	\$2,516,000	\$2,516,000	\$2,516,000
A	7.20	Diamond Valley Acres	Washington	1,370	Well equipping and conn to system	\$235,000	\$235,000	\$235,000
		<b>TOTAL AUTHORIZED</b>						<b>\$34,143,000</b>
<i>N = New Application</i>								
<i>A = Authorization</i>								
<i>P = Potential Project – No authorization</i>								

**Table 7 Federal Cash flows and Draw Forecast**

TABLE 7 – 2019 and 2020 FEDERAL CASH FLOWS AND DRAW FORECAST											
SUBRECIENT	LOAN NO	BINDING CLOSED DATE	STRT DATE	TOTAL ULO's and new loan amounts	FFY 2019 Ending 9/30/19				SFY 2020 Ending 6/30/20		
					QTR 1 (O-D 18)	QTR 2 (J-M 19)	QTR 3 (A-J 19)	QTR 4 (J-S 19)	QTR 1 (O-D 19)	QTR 2 (J-M 20)	QTR 3 (A-J 20)
Closed loans fed funds not fully disbursed as of 6/30/2018											
<b>2018 Closed loans</b>											
Springdale	3F264	Oct-17	Oct-17	1,217,000	1,217,000						
Cedarview Montwell SSD	2F188	Mar-18	Mar-18	252,875	252,875						
Big Plains Water & Sewer	3F290	May-18	May-18	517,125	517,125						
Rocky Ridge	3F286A	Jun-18	Jun-18	405,000	405,000						
Winchester Hills Water Company	3F277A	Jul-18	Jul-18	450,000	450,000						
Torrey Town	3F287	May-18	May-18	596,400	596,400						
Torrey Town	3F287	May-18	May-18	993,600	500,000	493,600					
Twin Creeks SSD	3F295	Dec-18	Dec-18	1,343,000	1,343,000						
San Juan Spanish Valley WCD	3F275	Jan-19	Jan-09	2,550,000		600,000	1,000,000	950,000			
Cove SSD	3F285		Jun-19	668,000			668,000				
<b>2019-2020 loans based on projected start dates</b>											
Granger Hunter ID - split	3F1708		Jun-19					600,000			
Granger Hunter ID = split	3F1708		Jun-19	4,000,000					500,000	500,000	2,400,000
Swiss Alpine Water	3F300		Jul-19	807,000				807,000			
Virgin Town	3F1702		Aug-19	800,000				793,800			
Twin Creeks SSD	3F1716		Dec-19	2,713,400					900,000	1,200,000	613,400
Lincoln Culinary Water Assn	3F1696			2,516,000						1,000,000	1,516,000
Cany on Meadows Mutual Wtr	3F1700			1,925,000						1,000,000	925,000
West Corinne Water Co	3F305			500,000							500,000
Marysvale	3F1709			3,665,000							3,665,000
<b>2019-2020 potential projects</b>											
Kearns Improvement District	3F1725			4,000,000					1,245,400	954,600	1,800,000
Bluffdale	3F1726			6,000,000							6,000,000
<b>TOTALS</b>				\$ 35,919,400	\$ 5,281,400	\$ 1,093,600	\$ 1,668,000	\$ 3,150,800	\$ 2,645,400	\$ 4,654,600	\$ 17,419,400
2017 SRF AWARD #FS 99878417 Balance 100% federal				\$ 1,217,000	\$ 1,217,000						
State Match was fully trnsfrd to loans by Oct 2016.				\$ 1,217,000	\$ 1,217,000	\$ -	\$ -	\$ -	\$ -	\$ -	
2018 SRF AWARD #FS 99878418 \$11,107,000 fed				\$ 8,200,000	\$ 1,843,000	\$ 1,093,600	\$ 1,668,000	\$ 950,000	\$ 2,645,400		
State Match was 100% trnsfrd to loans by Aug 18 state				\$ 2,221,400	\$ 2,221,400						
				\$ 10,421,400	\$ 4,064,400	\$ 1,093,600	\$ 1,668,000	\$ 950,000	\$ 2,645,400	\$ -	
2019 SRF AWARD #FS 99878419 \$11,004,000 fed				\$ 8,100,000						\$ 4,654,600	\$ 3,445,400
State Match will be fully trnsfrd prior to any fed \$ being disb state				\$ 2,200,800				\$ 2,200,800			
				\$ 10,300,800	\$ -	\$ -	\$ -	\$ 2,200,800	\$ -	\$ 4,654,600	\$ 3,445,400
2020 SRF AWARD				\$ 13,974,000							\$ 13,974,000
<b>Total of all grants</b>				\$ 35,913,200	\$ 5,281,400	\$ 1,093,600	\$ 1,668,000	\$ 3,150,800	\$ 2,645,400	\$ 4,654,600	\$ 17,419,400

Additional information: 1. The 20% state match is transferred 100% into the DWSRF fund when the DWSRF grant is awarded (within 90 days).  
 2. All federal funds are disbursed using a FIFO method (first in first out)

## **Assistance for Disadvantaged Communities**

Section 1452 (d) changed in the 2009 to require states to provide a minimum of 20 percent additional loan subsidies in the form of negative interest, grants or principal forgiveness to benefit communities meeting the State’s definition of “disadvantaged”. Since then there has been a variety of changes as to how much subsidization have been required each year or that may have been permitted with a ceiling percentage as high as 50 percent of the annual DWSRF capitalization award amount. The 2019 allotments from the Consolidated Appropriations Act of 2019 now mandates the states use at least six percent but not more than 35 percent for additional subsidization of the 2019 allotment of the DWSRF capitalization grant. Additional authority was authorized in the America’s Water Infrastructure Act (AWIA) of 2018. In AWIA’s authority, States must use 20 percent of the funds made available in the 2019 DWSRF capitalization grant to provide additional subsidization to eligible disadvantaged recipients. Therefore, a minimum of 26 percent to a ceiling amount of 55 percent will be included with the 2019 – 2020 loans closed to provide subsidization to any DWSRF eligible applicant based on the definition adopted the State’s definition. DDW will comply with the programmatic conditions of the grant award to match the 2019 subsidization requirements.

The Board defines disadvantaged communities as those communities located in an area which has a median adjusted gross income which is less than or equal to 80% of the State’s median adjusted gross income, as determined by the Utah State Tax Commission (USTC) from federal individual income tax returns excluding zero exemption returns, or where the estimated annual cost, including loan repayment costs of drinking water service for the average residential user exceeds 1.75% of the median adjusted gross income. If, in the judgment of the Board, the USTC data is insufficient, the Board may accept other measurements of the water users income (i.e. local income survey or questionnaire when there is significant difference between the number of service connections for a system and the number of tax filing for a given zip code or city, or when the water system claims that the MAGI (incomes) of its users is lower than the MAGI (incomes) of the larger community covered by the USTC data).

The amount and type of financial assistance offered by the Board will be based upon the criteria shown in UAC R309-705-6 (2). Disadvantaged communities may receive zero-percent loans, negative interest rate loans, principal-forgiveness loans or grants. Terms for each method of financial assistance shall be determined by a Board resolution.

The Board has not set any pre-determined amount of DWSRF funds that may be used for principal forgiveness to disadvantaged communities. It is the Board’s intention to authorize additional subsidization only to communities that meet the “disadvantage criteria”.

## **Costs Incurred After Application and Prior to Execution of the Loan Agreement**

Eligible project costs incurred after application to the Board and prior to execution of the loan agreement are eligible for reimbursement. Reimbursement will only be made after the loan closing.

## **Municipal Bond Legal Fees**

The Board may purchase bonds of the applicant only if the bonds are accompanied by a legal opinion of a recognized municipal bond counsel selected by the Board UAC (R309-705-8 (2)). The loan recipient is responsible for the legal costs. Legal costs may be paid from the loan proceeds.

## **Capacity Development Requirements**

Eligible Systems - The SDWA allows DWSRF assistance to publicly and privately owned community water systems and nonprofit, non-community water systems other than systems owned by Federal agencies. Federal Regulations also set forth certain circumstances under which systems that will become community water systems upon completion of a project may be eligible for assistance. UAC R309-705 Financial Assistance: Federal Drinking Water Project Revolving Loan Program (Effective July 1, 2011) establishes criteria for financial assistance to public drinking water systems in accordance with a federal grant 42 U.S.C. 300j et seq., Federal Safe Drinking Water Act. The SDWA requires that loan recipients must demonstrate the technical, managerial, and financial capacity (TMF) to comply with the SDWA and not be in significant noncompliance with any requirement of a national primary drinking water standard or variance. The State will assess TMF and compliance in accordance with UAC R309-800 Capacity Development Program after loan applications have been received. Those systems lacking in TMF or compliance may still be eligible for a loan if the loan will address the non-compliance or the system agrees to undertake feasible and appropriate changes in operations. In accordance with the AWIA changes, DDW will include in the state capacity development triennial report to the Governor a description of how the state will implement procedures to encourage the development of technical, managerial, financial and an asset management plan program with provisions of technical assistance. It is DDW's intention to encourage water systems to implement asset management plans that include best practices in any training or technical assistance into the division's capacity development methodologies.

## **Environmental Reviews and Categorical Exclusions**

The State Environmental Review Process (SERP) is described in the Operating Agreement.

The Grantee, the State of Utah, may elect to partition an environmental review or Categorical Exclusion (Cat Ex) from environmental review. The procedures listed below will be followed by the State in order to evaluate if partitioning a project from environmental review is appropriate.

### **A. Authority**

The authority for including these procedures in the Division's Intended Use Plan (IUP) and State Environmental Review Process (SERP) is contained in the SDWA Amendments of 1996 (Pub. L. 104-182) and the guidance provided by the EPA DWSRF Program Guidelines, document # 816-R-97-005 (February 1997). In particular, see Section IV. STATE/PROJECT LEVEL AUTHORITIES, Subsection B. Environmental Reviews.

1. Procedures for Making Determination Cat Ex:
2. If the Division has reason to believe that the project falls within one of the categories listed under paragraph “C” and thereby may qualify for a Cat Ex from environmental review, the State will make a preliminary survey of the proposed project site(s).
3. During this survey the State will evaluate whether or not the project meets the criteria for a Cat Ex from environmental review.
4. If the State determines the site qualifies for Cat Ex from environmental review, it will document the justification of this determination, including a listing of the dates of activities, which led to this determination, and a statement of relevant findings.
5. Even if the project qualifies for Cat Ex from environmental review according to the criteria listed under paragraph “C”, the State may require an environmental review if the State determines that an environmental review is warranted or appropriate because of conditions found at the site or because the project is controversial.

### **Criteria for Categorical Exclusion from Environmental Review**

In order for a project to qualify for an environmental determination of Cat Ex from environmental review, the general location of the project should have been previously disturbed. Site conditions which will be evaluated in making this determination include a) how urbanized the location is, b) whether wildlife has previously been displaced, and c) whether the wildlife habitat has been previously destroyed or replaced. The project site shall meet at least one of the following criteria:

1. A proposed water line will be placed in a roadway(s) and/or rights-of-ways where existing pipes, telephone wires, cables, or other facilities have previously been installed.
2. A proposed tank site will be located on a site with other previously constructed utility facilities on a previously disturbed site.
3. The proposed facilities will be located at a site with other existing community infrastructure; e.g. a booster station, pump house, water treatment plant, or similar facility within a previously disturbed area and which will not extend into sensitive areas in the ground or adjacent to the previously disturbed area.

### **Public Notice and Participation**

The State will provide public notice when a Cat Ex is issued or rescinded. However, no formal public comment period need be provided prior to the Cat Ex becoming effective.

### **B-3 Set-Asides**

Substantial set-aside changes were implemented with the “Water Infrastructure Improvements for the Nation (WIIN) Act passing in December 2016. The Act removed the overmatch (1:1) for the ten percent set-aside and provided calculation options for the four percent set-aside. DDW will comply with all programmatic and administrative conditions as required for the 2019 grant award.

*Set-aside funding is used to:*

- ✓ Fund established programs
- ✓ Fund continuing growth
- ✓ Fund increasing operating costs
- ✓ And to the extent set-aside funds are available, assist in funding the additional staff needed to implement new Federal rules regarding regulation of drinking water contaminants

The state will not use set-aside funds for those projects or project-related costs that are eligible or explicitly ineligible for assistance from the DWSRF except DDW may use set-aside funds for: 1) project planning on design costs for small systems, and 2) for costs associated with restructuring a system as part of a capacity development strategy.

Set-aside funds have been used on first in first out (FIFO) basis and will continue to be so. Usage is accounted for by set-aside. Unused funds are carried forward to the next fiscal year.

Final reports have been submitted to USEPA for DWSRF capitalization grants through 2015. 2016 and 2017 grant years are fully spent, and the final reports are being prepared. DDW is currently spending 2018 grant year. In anticipation of the 2019 grant year being delayed in being awarded, DDW respectfully requests authorization to receive pre-award ability to cover set-aside expenses for the period of July 1, 2019 through September 30, 2019. The loan funds are also treated on the FIFO basis.

**Intended use of set-aside funds**

Maintain the staff (FTEs) hired with set-aside funds including benefits, costs allocated as a percent of personal services, and other related costs.

Continue our contract with the Rural Water Association of Utah (RWAU) to implement portions of the expanded operator certification, wellhead protection and capacity development programs. RWAU has also been assisting the DWSRF program with capacity development outreach program.

**Table 8 Set-Aside and State match Requests**

<b>TABLE 8</b>				
<b>SET-ASIDE AND STATE MATCH REQUESTS</b>				
<b>ACTIVITY</b>				<b>TOTAL</b>
Loan Fund & 20% State Match Requirement	19DA	8,100,000	2,200,800	10,300,800
4% Administrative Set-Aside max =	19DD	440,160	4%	
Plus \$ from prior grant years reserve (see Table 9)		9,840		450,000
2% Small Sys.Tech. Asst. max =	19DE	220,080	2%	
Less \$ which will be added to reserve bank (See Table 9)		(130,080)		90,000
10% State Program Set-Aside max =	19DF			
PWS Supervision		1,025,400	9.3%	
Plus/(less) reserves from prior grants		0	0.0%	
Capacity Development Oversight		15,000	0.1%	
Source Water Protection		60,000	0.5%	
Operator Certification		0	0.0%	
TOTAL State Program Set-Aside		1,100,400	10.0%	1,100,400
15% Local Assistance Set-Aside max=	19DG			
Local Assistance and			0.0%	
Capacity Development Outreach		1,100,400	10.0%	
Source Water Assessment		0	0.0%	
Wellhead Protection		163,200	1.4%	
TOTAL Local Assistance Set-Aside		1,263,600	11.4%	1,263,600
			15.0%	
TOTAL CAPITALIZATION GRANT =		11,004,000	2,200,800	13,204,800

**Table 9 Set-Aside Reserves**

<b>Table 9</b>			
<b>Set-Aside Reserve after grant year 2019</b>			
<b>Reserves</b>	<b>Beg Balance</b>	<b>grant year 2019</b>	<b>End Balance</b>
4% Administrative Fund	848,760	(9,840)	838,920
2% Small System Tech Assistance	173,480	130,080	303,560
10% State Program	805,000	-	805,000
TOTAL	1,827,240	120,240	1,947,480

## Set-aside requests and intended use

### Administration set-aside

The calculation for the four percent administrative set-aside in accordance with the 2016 WIIN law, consists of an amount equal to the sum of any state fees collected (i.e. Loan Origination Fees) plus the greatest one of three options: 1. \$400,000, 2. 1/5% of the current fund value if the fund has been audited from an outside agency (DDW's fund is not audited from an outside agency) or 3. Four percent of all grants awarded to the fund under this section for the fiscal year ( $\$11,004,000 \times 4\% = \$440,160$ ).

Of the three options, DDW chooses option three of \$440,160 for the four percent administration set-aside. The administrative set-aside also has reserve available of \$848,760 accumulated from previous grant years (1997-2017) which have been reserved for future use. DDW requests \$9,840 to be added to \$440,160 to equal \$450,000 for the administrative set-aside. The total reserve account will have a balance of \$848,920 in the account for future use (beg reserve balance of \$848,760 less \$9,840) as illustrated on Table 9. DDW anticipates having some carry-over funds available from grant year 2018 to provide adequate funding for fiscal year 2020.

The administration set-aside will fund five to six full-time equivalents (FTEs) positions to operate the program in SFY 2020. The budget estimate will fund salary, benefits, office space, equipment, travel, training, supplies, and an indirect allocation for SFY 2020, currently budgeted at \$545,000. A web based database called "Loan Tracker" has been created in DDW's Web Link (the web-based SDWIS app). The old access database "CASPER" is being fully retired.

### State Programs set-aside

The state programs set-aside total amount request is \$1,100,400. DDW is requesting the maximum amount ( $10\% \times \$11,004,000$ ) divided into the sub-categories as listed in Table 8. The sub-categories include PWS Supervision, Capacity Development, and Source Protection. In the past, DDW has requested a subcategory of funding for its Operator Certification Program. DDW has increased the Operator Certification and the Cross Connection fees and is working toward both programs being self-sufficient by fee revenue collected for each program, respectively. Budgeting, disbursements and draws are also accounted for by sub-categories. The total reserve account will have a balance of \$805,000 left in the account for future use.

The WIIN Act of 2016 removed the dollar for dollar match requirement for the 10% set-aside on any grant awarded after December 16, 2016. DDW is in the process of submitting final close-out forms from all grants prior to the WIIN Act. An annual State Appropriation from the State Water Development Security Fund was appropriated of \$990,000+ providing sufficient state match for prior grant years.

## **PWS Supervision (augmentation) set-aside**

DDW is requesting \$1,025,400 from the 2019. Reserve funds are equal to \$805,000, but DDW will not request any reserve funds for the PWSS augmentation set-aside.

The PWS Supervision set-aside is primarily used to support DDW's Engineering Section. Approximately six engineers charge to this set-aside and two other employees for program support. Federal expenditures for SFY 2020 are estimated at \$944,000, an additional amount of approximately \$989,800 appropriated from the state legislature and \$850,000 of the PWSS grant will also be expended for division related activities. The budget estimate will fund salary, benefits, office space, equipment, travel, training, supplies, and an indirect allocation for SFY 2020.

Engineering tasks include water system plans and specification reviews, operating permits, waivers, water treatment plant inspections, witnessing well grouting, and proactive recommendations to help water systems ensure the public receive safe drinking water. DDW's engineers also receive training to keep their skills diverse with new technologies in solving water system issues. Growth impacts in the state combined with the stricter EPA standard levels SDWA amendments and associated State and Federal regulations create a tremendous workload.

## **Capacity Development Program**

DDW is requesting \$15,000 from the 2019 grant for oversight of the capacity development program. The estimated carry-forward to SFY 2020 is \$8,200. The amount budgeted for SFY 2020 is \$19,000. If expenses exceed the grant funds available in SFY 2019, a request to move funds from the PWS Supervision sub-category will be requested.

The State of Utah has statutory authority for a capacity development program (Section 19-4-104 of the Utah SDWA). Time of one FTE, as needed, will oversee and maintain the program. The Division is current with all reports due to the Governor and USEPA. The Division will add the language to encourage the development of technical, managerial, financial and an asset management plans to the Governor's Triennial Report as required in the Amendments in America's Water Infrastructure Act (AWIA) of 2018.

## **Operator Certification Program**

The State has an Operator Certification program that has been mandatory since 1985. Prior to 1997 the program required community water systems serving more than 800 population and any public water systems treating surface water to have a certified operator. The statutory authority to reduce the threshold population from 800 to 25 was enacted by the 1997 Legislature. The Safe Drinking Water Act requires all community and non-transient, non-community water systems and all public water systems that treat surface water to have a certified operator.

USEPA published final Guidance (EPA-816-R-98-006) in July 1998 establishing national policy regarding the implementation of the operator certification related provisions of the SDWA including how EPA would assess State operator certification program for purposes of making withholding decisions.

In 2019, a 50% increase was legislated for various fees in the Operator Certification program. The operator certification program requires an operator to pay a fee to become certified. It is the Division's intention to oversee this program wholly by fees charged to the water systems and/or operators.

The budget estimate will fund salary, benefits, office space, equipment, travel, training, and supplies to run the Operator Certification Program. Expenses connected to the Operator Certification fees are budgeted at \$162,900.

The time of about two FTE's, coordinate and administer the program. The division contracts with the Rural Water Association annually to assist with operator certification training.

### **Source Protection Administration**

The SDWA Amendments of 1996 require each state to maintain a source water quality assessment program for all public water systems. The time of less than one FTE is dedicated to developing, implementing, and coordinating this program.

We are requesting \$60,000 from the 2019 grant for the source water program. An estimated amount of \$15,000 will be available to be carry forward to FY 2020. Estimate expenditures for FY 2020 were budgeted at \$70,000. The budget estimate will fund salary, benefits, office space, equipment, travel, training, supplies, and an indirect allocation for SFY 2020.

### **Small Systems Technical Assistance**

DDW is requesting \$90,000 (\$11,004,000 x 2% less \$130,080 which will be added to the reserve bank on Table 9) for the 2% set-aside. A carry forward balance of approximately \$80,000 will be available for 2019 with estimated expenses of \$177,000. This set-aside is only used to fund our contract with the Rural Water Association of Utah (RWAU) which is primarily assisting public water systems serving 10,000 people or fewer (section 1452(g) (2)) to maintain viable water systems.

DDW created an energy cost saving handbook in 2016 which provided water system operators and managers with multiple strategies to reduce their energy costs. Some water systems have identified energy efficiency improvement opportunities in both operations and infrastructure. RWAU is encouraging all drinking water systems to investigate energy efficiency options to identify cost savings where possible. The small and very small water systems are often unable to take full advantage of such initiatives due to lack of knowledge, lack of money, and/or lack of proper equipment.

RWAU is a critical partner assisting DDW in responding to water system inquiries and taking action to assist water systems to be technically, managerially, and financially sound.

Such assistance includes, but not limited to:

- a. Water rates & fees analysis
- b. Applying for and obtaining funding for projects
- c. Locating and securing consulting engineering services

- d. Developing ordinances, resolutions and by-laws
- e. System security
- f. Preparing management, conservation, financial, capital improvement, sampling, and cross connection control plans
- g. Train system boards and or councils in subjects related to capacity development
- h. Perform Financial/Management audits with water systems as requested by the system or DDW
- i. Encouraging and assisting public water systems listed on the ETT (enforcement targeting tool) with application for financial assistance where such assistance would help the water system return to compliance with drinking water rules
- j. Assisting water systems which have borrowed funds from the Drinking Water Board during the construction and start-up phases of the project

### **Local Assistance, Capacity Development, Source Water Assessment, Wellhead Protection and Other State Programs (15% set-aside)**

We are requesting \$1,263,600 which is approximately 11.4% of the grant total. A carry forward balance of approximately \$370,000 is anticipated for FY 2019, making a total estimated balance available of \$1,633,600 for this set-aside. The FY 2019 budget was estimated at \$1,279,100. It is divided into two sub-categories, local assistance/capacity development outreach and wellhead protection. Budgeting, disbursements, and draws are each accounted for by the two sub-categories separately.

### **Capacity Development Out-reach/Local Assistance with Public Water Systems Sub-Category**

We are requesting \$1,100,400 from the 2019 grant for capacity development, out-reach, local assistance. (10% of 11,004,000 the maximum allowed in one subcategory.) The estimated carry-forward to FY 2020 will be about \$240,000, for a combined amount available of \$1,340,400. The amount budgeted for FY 2020 is \$1,070,000.

Some of the activities DDW employees will provide and charge to this set-aside include the following:

1. Math calculations to determine dosing, volumes, flows and horsepower, etc.
2. Minor repairs on pumps, as well as, knowledge of pump curves, monitory well levels, troubleshooting, hydraulics, motor maintenance and metering, etc.
3. Teach proper techniques for unidirectional flushing of fire hydrants, pipeline maintenance, pressure zones, valve maintenance (exercising and annual maintenance, instrumentation, tank inspections, distribution system and treatment plants.
4. Proper disinfection techniques, and correct handling and use of various disinfection chemicals, properties of chemicals, emergency disinfection techniques, and monitoring of residuals.
5. Safety- proper use of equipment and how to follow proper procedures, MSDS.
6. Security- proper procedures to interact with law enforcement and mitigation.
7. Provide technical training on existing and new rules, proper sampling techniques, proper monitoring, and an understanding of sample results, reporting procedures.

8. Emergency Response- training on the Incident Command System (ICS) and how they would fit into that system. Train systems with the National Incident Management System (NIMS), response protocols, mitigation, setting-up table top exercises, maintaining a plan, flushing and disinfection.
9. Cross Connection Control assistance to help the water system properly assemble, avoid hazards, resolve physical deficiencies during a sanitary survey and follow State guidelines on managing a program.

DDW understands all charges by employees need to have direct interaction with the water systems with some form of training or technical assistance. Rural Water Association of Utah also has some tasks relating to direct interaction with the water systems and has been allocated \$65,000 in their contract for this specific purpose.

### **Wellhead Protection Sub-Category**

DDW is requesting \$163,200 in funding for this category from the 2019 grant. DDW estimates carry forward funds of \$120,000 will be available in fiscal year 2019. Total available funds in FY 2019 should be about \$283,200. The budgeted expenses of \$200,800 for SFY 2020 will cover expenses for salary, benefits, office space, equipment, interactive map upgrades and an indirect allocation. One employee will oversee the implementation and maintenance of GIS activities and will prepare ground water source protection plan updates for the water systems as review is required. This sub-category budget will continue to cover expenses to address a backlog of wellheads that need to be entered and/or updated. Maintenance of the source protection zone geodatabase is an on-going project as new water sources are developed and existing source protection zones are modified. An ongoing nitrate study is also being funded being conducted by the Division of Water Quality.

### **Attachments**

Attorney General Enabling Legislation Opinion Letter for FY2019 base program

Organization Chart

### **Utah Administrative Code Rule R309-705**

The Rule for Projects Receiving Assistance from the Federal DWSRF can be found at the website <http://www.rules.utah.gov/publicat/code/r309/r309-705.htm>

Construction Loan Program information is available at the website [http://www.deq.utah.gov/FeesGrants/funds/drinkingwater/federal\\_srf.htm#loans](http://www.deq.utah.gov/FeesGrants/funds/drinkingwater/federal_srf.htm#loans)

# Agenda Item

5(A)(i)

## **Proposed Improvement Priority System Program**

### **PROPOSAL:**

We propose to begin public comment on the Improvement Priority System (IPS) Program:

- 1) This IPS Program removes the individual violations and deficiencies from the R309-400 rule to be a separate IPS program. This IPS program will require a separate approval from the Drinking Water Board for substantive revisions.

### **HISTORY/CONTEXT:**

The IPS rule was first finalized in 1996 as a tool for water systems to track compliance with violations and physical deficiencies. It helps systems understand the severity of any issues and maintain compliance. Since its inception in 1996, the IPS rule has had only minor changes. The purpose of this proposed rule revision is to emphasize the importance of significant deficiencies, align better with federal regulations, and ensure that risk to public health is the driving force behind the rule.

### **DIVISION STAFF/DIRECTOR RECOMMENDATION:**

Division staff recommends that the Board authorize DDW to begin a 30 day public comment period on the Improvement Priority System Program.

### **IMPLEMENTATION SCHEDULE:**

The Division anticipates making the IPS Program effective August 27, 2019 with an implementation start date of January 1, 2020. The schedule for starting the rulemaking process is as follows:

1. Drinking Water Board Authorizes Public Comment Period on IPS Program – June 11, 2019
2. End 30-Day Comment Period on IPS Program – July 7, 2019
3. Return to Drinking Water Board for final approval of IPS Program – August 27, 2019
4. Drinking Water Board Authorizes Rulemaking to Amend Rule – August 27, 2019
5. File Proposed Rule Amendment with Office of Administrative Rules – August 30, 2019
6. Begin 30-Day Comment Period (Utah State Bulletin Publication) – September 15, 2019
7. End 30-Day Comment Period – October 15, 2019
8. Return to Drinking Water Board for final Rule adoption – November 8, 2019

### **COST ESTIMATE:**

The proposed amendment is not expected to result in costs or savings to the state budget, local governments, or small businesses. R309-400 does not add any new requirements to the existing rules, it only enforces them.

# Utah Division of Drinking Water Improvement Priority System (IPS) Program

## I. Introduction

The Improvement Priority System (IPS) program is used by the Division of Drinking Water (the Division) to evaluate public water system compliance with Title R309 of the Utah Administrative Code, and to prioritize noncompliance for enforcement action. Under IPS, the Division assesses points for noncompliance or public health risk and assigns ratings to public water systems.

Three documents affect how the Division implements the IPS program:

### **IPS Program**

The IPS program, which is this document, identifies the points associated with noncompliance and the point thresholds for assigning public water system ratings. Substantive changes to the IPS program must be approved by the Drinking Water Board.

### **Utah Administrative Code R309-400, Improvement Priority System and Public Water System Ratings**

The IPS rule establishes the IPS program, the Division's and the Director's authority, and a public water system's responsibility. Changes to the rule must go through the official rulemaking process. The Division plans to revise R309-400 in 2019. The implementation of the revised R309-400 starts January 1, 2020.

### **IPS Implementation Standard Operating Procedure (SOP)**

The IPS SOP outlines the Division's internal procedures for implementing the IPS program. The SOP may be modified as needed by the Division.

## II. Assessment of Points

1. The Division will assess points based on noncompliance with Title R309 of the Utah Administrative Code, noncompliance with a directive or order issued by the director, or operational practices or performance that may result in a threat to public health.
2. In general, the Points assessed for each category of health threat are as follows:
  - a) Low health risk – 5 points
  - b) Minor potential to cause harm – 15 points
  - c) Moderate potential to cause harm; chronic monitoring violations – 25 points
  - d) Significant potential to cause harm – 50 points
  - e) Acute monitoring violations – 100 points
  - f) Imminent health threat (automatic not-approved status) – 200 Points

3. **Appendix A** of the IPS program contains a table specifying the number of points associated with each instance of noncompliance with a drinking water rule requirement and noncompliance with a directive or order issued by the Director.
4. **Appendix B** of the IPS program contains a table specifying the number of points associated with each instance of noncompliance with a drinking water rule requirement when a violation is issued.
5. The Division may remove points when a water system submits written documentation of correction of a deficiency and/or violation with supporting evidence or when the noncompliance is resolved. In some cases, a site inspection by the Division staff may be required.

### III. Public Water System Rating Thresholds

1. The Division will rate a public water system based on the point thresholds shown below or based on a written agreement with the Director.
2. The point thresholds for rating a public water system as Approved or Not Approved are different for each type of water system and are given below:
  - Community Water System – 150 points
  - Non-transient Non-community Water System – 120 points
  - Transient Non-community Water System – 100 points
3. The Division will assign Ratings to water systems in accordance with R309-400 as follows:
  - **Approved** – the total number of points is below the point threshold
  - **Not Approved** – the total number of points is equal to or greater than the point threshold or the Director finds a threat to public health
  - **Corrective Action** – a water system has entered into a written agreement with the Director to resolve its deficiencies according to a compliance schedule

### IV. Changes to the IPS Program

1. Substantive changes to the IPS program must be reviewed and approved by the Drinking Water Board.
2. The Division may make non-substantive changes to the IPS Program.

**Date of Approval by Drinking Water Board:** [Anticipated to be August 27, 2019](#)

# Appendix A

*Utah Division of Drinking Water R309-400 Rule - IPS Program Deficiency Points Table*

Deficiency Code	Deficiency Description (Proposed)	Deficiency Type (Proposed)	Points (Proposed)	Rule Reference
<b>General</b>				
G004	INSUFFICIENT SYSTEM OWNERSHIP INFORMATION	MIN	15	R309-100-4(3)
A025	ADMINISTRATIVE ISSUES - SEE R309-400 FOR DETAILS	MIN	15	R309-400-11
A050	ADMINISTRATIVE ISSUES - SEE R309-400 FOR DETAILS	SIG	25	R309-400-11
A075	ADMINISTRATIVE ISSUES - SEE R309-400 FOR DETAILS	SIG	50	R309-400-11
A100	ADMINISTRATIVE ISSUES - SEE R309-400 FOR DETAILS	SIG	100	R309-400-11
A150	ADMINISTRATIVE ISSUES - SEE R309-400 FOR DETAILS	SIG	200	R309-400-11
A226	AFTER THE FACT OP ISSUED FOR FACILITY THAT DID NOT FOLLOW APPROVAL PROCESS. CODE REMAINS UNTIL FACILITY IS REPLACED OR UPDATED.	REC	0	R309-500-6
<b>Management (Cross Connection Control, Operator Certification, Emergency Response, etc.)</b>				
M020	CROSS CONNECTION EXISTS IN WATER SYSTEM	SIG	50	R309-105-12(1)
M003	CCC-LACKS LOCAL AUTHORITY	MIN	15	R309-105-12(2)
M004	CCC-NO ANNUAL PUBLIC EDUCATION OR AWARENESS	MIN	15	R309-105-12(2)
M005	CCC-LACKS OPERATOR TRAINING	MIN	15	R309-105-12(2)
M006	CCC-LACKS WRITTEN RECORDS OF CCC ACTIVITIES	MIN	15	R309-105-12(2)
M007	CCC-LACKS ON-GOING ENFORCEMENT IMPLEMENTATION	MIN	15	R309-105-12(2)
M008	SERVICE CONNECTIONS IN DISTRIBUTION SYSTEM RELY ON INDIVIDUAL HOME BOOSTER PUMP DUE TO INADEQUATE PRESSURE	SIG	50	R309-550-11(3)
M009	IMPROPER BACTERIOLOGICAL SAMPLE COLLECTING AND HANDLING	MIN	15	R309-215-4(3)
M014	CONFIRMED PATTERN OF UNSATISFACTORY DRINKING WATER QUALITY SAMPLES	SIG	25	R309-200-6, R309-105-18, R309-215-4(3)
M015	CONFIRMED WATER BORNE ILLNESS AS A RESULT OF PUBLIC DRINKING WATER CONTAMINATION	SIG	50	R309-105-18(f), R309-215-11
M016	HISTORY OF VERIFIED CUSTOMER COMPLAINTS REGARDING DRINKING WATER QUALITY OR QUANTITY	SIG	50	R309-105-18(f), R309-215-11
M017	WATER STAGNATION, BIOFILM OR SEDIMENTS CONTRIBUTES TO DRINKING WATER CONTAMINATION	SIG	50	R309-200-6, R309-105-18, R309-215-4(3)
M018	INTERRUPTION OF TREATMENT PROCESS CONTRIBUTES TO DRINKING WATER CONTAMINATION	SIG	50	R309-200-6, R309-105-18, R309-215-5, R309-215-4(3)
C001	SYSTEM DIRECT RESPONSIBLE CHARGE OPERATORS NOT CERTIFIED AT THE REQUIRED LEVEL	SIG	50	R309-105-11, R309-300-5(3)
C011	TREATMENT PLANT NOT OPERATED BY OPERATOR CERTIFIED TO THE REQUIRED LEVEL	SIG	50	R309-525-7(3)
M019	FAILURE TO SUBMIT REQUIRED WATER USE DATA ANNUALLY OR VERIFY DATA ACCURACY	MIN	15	R309-105-15(1)
G001	UNAPPROVED FACILITY IN SERVICE	SIG	50	R309-100-5(2), R309-500-6, R309-500-9, R309-500-9(2) and (3)
G006	USING UNAPPROVED TREATMENT PROCESS OR CHEMICAL	SIG	50	R309-105-6(1)(a), R309-500-6
G007	CONSTRUCTION WITHOUT PRIOR APPROVAL	SIG	50	R309-100-5(1), R309-105-6(1)(a), R309-500-6, R309-500-9, R309-500-9(3)
S001	UNAPPROVED SOURCE IN SERVICE	SIG	200	R309-515-6(1)(5), R309-515-7(7), R309-550-9(2) and (3)
M025	UNAPPROVED INTERCONNECTION WITH ANOTHER WATER SYSTEM	SIG	50	R309-550-9(3)

Deficiency Code	Deficiency Description (Proposed)	Deficiency Type (Proposed)	Points (Proposed)	Rule Reference
<b>Minimum Sizing</b>				
V031	SYSTEM LACKS UP TO 20% OF REQUIRED STORAGE CAPACITY (FIRE DEMAND NOT INCLUDED)	MIN	15	R309-510-8(1)(a)
V034	SYSTEM LACKS MORE THAN 20% OF REQUIRED STORAGE CAPACITY (FIRE DEMAND NOT INCLUDED)	SIG	50	R309-510-8(1)(a)
VF34	SYSTEM LACKS REQUIRED STORAGE CAPACITY DUE TO FIRE DEMAND BUT HAS SOP FOR FOLLOWING FIRE INCIDENT	MIN	15	R309-510-8(1)(b)
VF35	SYSTEM LACKS REQUIRED STORAGE CAPACITY DUE TO FIRE DEMAND AND LACKS SOP FOR FOLLOWING FIRE INCIDENT	SIG	25	R309-105-8(3), R309-510-8(1)(b)
S091	SYSTEM LACKS UP TO 20% OF REQUIRED SOURCE CAPACITY	MIN	15	R309-510-7(1)
S094	SYSTEM LACKS MORE THAN 20% OF REQUIRED SOURCE CAPACITY	SIG	50	R309-510-7(1)
<b>Source Development</b>				
TGR 7	COM SYSTEM SERVING 100 OR MORE CONNECTIONS LACKS REDUNDANT SOURCE	SIG	50	R309-515-4(3)
S033	COM SYSTEM WITHOUT NATURALLY FLOWING SOURCES LACKS BACKUP POWER FOR AT LEAST ONE WATER SOURCE	SIG	25	R309-515-6(2)(a)
S013	WELL LACKS THE REQUIRED WELL SEAL	SIG	50	R309-515-6(6)(i)
S005	WELL WITH PITLESS ADAPTOR NOT WATER TIGHT OR NOT PROTECTED AGAINST VANDALISM	SIG	50	R309-515-6(12)(c)
S006	END OF WELL CASING VENT LACKS NO. 14 SCREEN	SIG	25	R309-515-6(12)(d)(iii)
S007	WELL CASING VENT NOT DOWNTURNED			R309-515-6(12)(d)(iii)
S008	WELL CASING VENT LACKS AIR GAP AGAINST CONTAMINATION			R309-515-6(12)(d)(iii)
S028	AIR RELEASE VACUUM RELIEF VALVE PIPING NOT DOWNTURNED			R309-515-6(12)(d)(v)
S029	END OF AIR RELEASE VACUUM RELIEF VALVE PIPING LACKS NO. 14 SCREEN			R309-515-6(12)(d)(v)
S030	END OF AIR RELEASE VACUUM RELIEF VALVE PIPING LACKS A CLEARANCE OF AT LEAST 6 INCHES			R309-515-6(12)(d)(v)
SL01	WELL THAT PUMPS DIRECTLY TO DISTRIBUTION LACKS A MEANS TO RELEASE TRAPPED AIR	MIN	5	R309-515-6(12)(d)(v)
S003	WELL CASING TERMINATES LESS THAN 12 INCHES ABOVE FLOOR OR LESS THAN 18 INCHES ABOVE GROUND SURFACE	SIG	25	R309-515-6(6)(b)(vi), R309-515-6(12)(c)(ii), R309-515-6(13)(a)
S095	UNFINISHED WELL NOT CAPPED SECURELY	SIG	50	R309-515-6(8)(a), R655-4-14.1
S009	WELL PUMP-TO-WASTE LINE LACKS A CLEARANCE OF AT LEAST 12 INCHES	SIG	25	R309-515-6(12)(d)(ix)
S010	END OF WELL PUMP-TO-WASTE LINE LACKS NO. 4 SCREEN	SIG	25	R309-515-6(12)(d)(ix)
S011	WELL PUMP-TO-WASTE LINE NOT DOWNTURNED	SIG	25	R309-515-6(12)(d)(ix)
S015	WELL LACKS A MEANS TO MEASURE WATER LEVELS PERIODICALLY	MIN	5	R309-515-6(12)(e), R309-515-6(12)(c)(vi)
S002	WELL HOUSE NOT PROTECTED AGAINST VANDALISM	SIG	25	R309-105-10(5)
S020	WELL HEAD OR WELL HOUSE NOT PROTECTED FROM FLOODING	SIG	25	R309-515-6(6)(b)(vi), R309-515-6(12)(d)(iii), R309-515-6(13)(a) to (d)
S021	CROSS CONN EXISTS IN WELL HOUSE OR AT WELL HEAD	SIG	50	R309-105-12(1), R309-515-6(12)(d)(iii)
S022	WELL HOUSE LACKS A MEANS OF PROVIDING DRAINAGE	MIN	5	R309-515-6(13)(b)
S023	NO SMOOTH NOSED SAMPLING TAP ON WELL DISCHARGE PIPING	MIN	5	R309-515-6(12)(d)(iv)
S024	NO CHECK VALVE ON WELL DISCHARGE PIPING	MIN	5	R309-515-6(12)(d)(iv)
S025	NO PRESSURE GAUGE ON WELL DISCHARGE PIPING	MIN	5	R309-515-6(12)(d)(iv)
S026	NO FLOW METER ON WELL DISCHARGE PIPING	MIN	5	R309-515-6(12)(d)(iv)
S027	NO SHUTOFF VALVE ON WELL DISCHARGE PIPING	MIN	5	R309-515-6(12)(d)(iv)
S031	PUMP LUBRICANTS NOT ANSI/NSF 60 CERTIFIED MINERAL OIL	SIG	25	R309-105-10(7), R309-515-6(6)(a)

Deficiency Code	Deficiency Description (Proposed)	Deficiency Type (Proposed)	Points (Proposed)	Rule Reference
S150	GWUDI OR SURFACE WATER SOURCE LACKS SURFACE WATER TREATMENT	SIG	200	R309-505-5(1)(a) to (d), R309-505-7(1), R515-7(3), R309-520-6(3)(a) and (4)
SS19	SPRING IMPERMEABLE LINER INADEQUATE OR NOT INTACT	SIG	50	R309-515-7(7)(b)
SS22	SPRING IMPERVIOUS SOIL COVER INADEQUATE OR NOT INTACT	SIG	50	R309-515-7(7)(b)
L014	SPRING COLLECITON BOX NOT PRESENT	MIN	5	R309-515-7(7)(c)
SS13	SPRING BOX LID NOT LOCKED	SIG	25	R309-515-7(7)(d), R309-545-14 (3)
SS09	SPRING BOX LID NOT SHOEBOX STYLE			R309-515-7(7)(d), R309-545-14 (2)
SS10	SPRING BOX LID LACKS A GASKET			R309-515-7(7)(d), R309-545-14 (2)
SS20	UNSEALED OPENINGS IN SPRING COLLECTION BOX	SIG	50	R309-515-7(7)(d), R309-545-14 (1)
SS12	SPRING BOX ENTRY NOT ELEVATED AT LEAST 18 INCHES ABOVE EARTHEN COVER	MIN	15	R309-515-7(7)(d), R309-545-14 (1),
SS11	SPRING BOX LACKS A MEANS OF VENTING	MIN	5	R309-515-7(7)(d), R309-545-15
SS16	SPRING BOX VENT NOT DOWNTURNED	SIG	25	R309-515-7(7)(d), R309-545-15(1)
SS17	SPRING BOX VENT LACKS NO. 14 SCREEN			R309-515-7(7)(d), R309-545-15(4)
SS18	END OF SPRING BOX VENT IS AT LEAST 24 INCHES ABOVE EARTHEN COVER			R309-515-7(7)(d), R309-545-15(23)
SS15	HEIGHT OF SPRING BOX VENT NOT SIZED TO PREVENT BLOCKAGE IN WINTER			R309-515-7(7)(d), R309-545-15(3)
SS23	SPRING BOX LACKS A MEANS OF PROVIDING OVERFLOW	MIN	15	R309-515-7(7)(d), R309-545-13(1)
SS14	SPRING BOX OVERFLOW OR DRAIN LACKS A FREE FALL OF 12 TO 24 INCHES	SIG	25	R309-515-7(7)(d), R309-545-13
SS04	SPRING BOX OVERFLOW LACKS NO. 4 SCREEN			R309-515-7(7)(d), R309-545-10(1)(d), R309-545-13(3)
SS02	SPRING COLLECTION AREA NOT FENCED	MIN	15	R309-515-7(7)(e)
SS03	SPRING LACKS A DIVERSION CHANNEL OR BERM TO DIVERT RUNOFF AWAY FROM SPRING COLLECTION AREA	MIN	15	R309-515-7(7)(g)
SS01	LACKS A PERMANENT DEVICE FOR MEASURING SPRING FLOW	MIN	5	R309-515-7(7)(h)
SS06	PONDING WITHIN SPRING COLLECTION AREA	SIG	25	R309-515-7(7)(i)
SS07	DEEP ROOTED VEGETATION IN SPRING COLLECTION AREA	SIG	25	R309-515-7(7)(f)
SS08	ROOTS IN SPRING COLLECTION PIPES	SIG	25	R309-105-10(4)(a)
SS24	HERBICIDE, PESTICIDES OR ALGICIDES APPLIED ARE NOT ANSI NSF 60 CERTIFIED AND WITHOUT APPROVAL	SIG	50	R309-105-10(4)(b), R309-515-8(1)(b) and (3)
<b>Disinfection Methods</b>				
TD75	LACKS SPARE PARTS OR BACKUP EQUIPMENT FOR CHLORINATOR	MIN	15	R309-520-7(1)(k)(i and ii), R309-520-6(1)(a) and (c)
TD41	CLEANING CHEMICALS DO NOT MEET ANSI NSF 60 STANDARD	SIG	50	R309-520-8(3)(j)
TD90	ADDING CHEMICALS THAT DO NOT MEET ANSI NSF 60 STANDARD			R309-520-6(2)
TD47	QUENCHING CHEMICALS DO NOT MEET ANSI NSF 60 STANDARD			R309-520-9(4)(h)
TD78	LACKS EQUIPMENT FOR CHLORINE RESIDUAL TESTING	MIN	15	R309-520-7(1)(j)
TD22	LACKS BACKUP POWER SUPPLY FOR REQUIRED DISINFECTION	SIG	25	R309-520-7(1)(k)(iii)
TD42	UNABLE TO ISOLATE UV REACTOR FOR MANTENANCE	MIN	15	R309-520-8(3)(g)
TD43	LACKS BACKUP POWER SUPPLY FOR REQUIRED UV DISINFECTION	SIG	25	R309-520-8(3)(l)
TD44	LACKS REDUNDANT PRIMARY DISINFECTION METHOD IF UV REACTOR IS OFF SPEC	SIG	25	R309-520-8(3)(m)
TD25	DISINFECTION IS REQUIRED BUT DISINFECTION IS INTERMITTENT OR NOT CONTINUOUS	SIG	50	R309-520-6(1)(a)
TD39	UV FACILITY LACKS STANDARD OPERATING PROCEDURES	MIN	15	R309-520-8(4)(b)
TD97	INSUFFICIENT UV DOSE FOR REQUIRED TREATMENT	SIG	25	R309-525-8(1)(b)(iv), R309-215-15(19)(d)

Deficiency Code	Deficiency Description (Proposed)	Deficiency Type (Proposed)	Points (Proposed)	Rule Reference
TD08	CHLORINATOR BUILDING NOT HEATED, LIGHTED OR VENTILATED	MIN	15	R309-520-7(1)(l)
TD69	INCOMPATIBLE CHEMICALS STORED IN CHLORINE ROOM	SIG	25	R309-520-7(1)(m)
TD91	CHLORINATOR LACKS A MEANS TO MEASURE FLOW OF TREATED WATER	SIG	25	R309-520-7(1)(i)
TD01	CONTINUOUS DISINFECTION IS REQUIRED BUT CHLORINATOR LACKS AUTOMATIC SWITCHOVER	MIN	15	R309-520-7(2)(a), R309-520-6(1)
TD09	CHLORINE ROOM EXHAUST FAN SUCTION NOT LOCATED NEAR FLOOR	MIN	15	R309-520-7(2)(d)(iii)
TD10	CHLORINE ROOM AIR INLET NOT LOCATED NEAR CEILING THROUGH WALL LOUVERS	MIN	15	R309-520-7(2)(d)(iv)
TD12	LACK SEPARATE SWITCHES FOR FAN AND LIGHTS NEAR CHLORINE ROOM ENTRANCE	MIN	15	R309-520-7(2)(d)(v)
TD13	CHLORINE VENT LINE NOT DISCHARGED OUTSIDE ABOVE GRADE OR LACKS NO. 14 SCREEN	SIG	25	R309-520-7(2)(e)
TD17	CHLORINE CYLINDERS ARE EXPOSED TO DIRECT SUN OR EXCESSIVE HEAT	SIG	25	R309-520-7(2)(f)(ii)
TD92	GAS CHLORINATION EQUIPMENT NOT SECURE OR LACKING PROPER HOUSING	SIG	25	R309-520-7(2)(f)(i)
TD15	CHLORINE CYLINDERS NOT RESTRAINED	SIG	25	R309-520-7(2)(h)
TD16	INADEQUATE DISINFECTION FOR GROUND WATER SOURCE REQUIRED TO DISINFECT	SIG	200	R309-520-6(3)(b) and (4)
TD02	LACKS EQUIPMENT TO MEASURE CHLORINE FEED RATE	SIG	25	R309-520-7(1)(c ), R309-520-7(2)(i)
TD21	CROSS CONNECTION EXISTS IN CHLORINE MAKEUP WATER SUPPLY LINE	SIG	25	R309-520-7(1)(h)(i)
TD14	NO AMMONIA HYDROXIDE SOLUTION FOR CHLORINE LEAK DETECTION	MIN	15	R309-520-7(2)(l)(i)
TD04	150-POUND CYLINDER FACILITY LACKS IMMEDIATE ACCESS TO NIOSH RESPIRATOR	SIG	25	R309-520-7(2)(k)(ii)
TD06	1-TON CYLINDER FACILITY LACKS IMMEDIATE ACCESS TO NIOSH SELF-CONTAINED BREATHING APPARATUS	SIG	25	R309-520-7(2)(k)(i)
TD05	1-TON CYLINDER FACILITY LACKS A LEAK REPAIR KIT APPROVED BY CHLORINE INSTITUTE	SIG	25	R309-520-7(2)(l)(ii)
TD19	1-TON CYLINDER FACILITY LACKS CONTINUOUS CHLORINE LEAK DETECTION EQUIPMENT	SIG	25	R309-520-7(2)(l)(iii)
TD23	1-TON CYLINDER FACILITY LACKS ALARMS ON CONTINUOUS CHLORINE LEAK DETECTOR	SIG	25	R309-520-7(2)(l)(iv)
TD93	1-TON CYLINDER OPERATING AREA LACKS GAS SCRUBBER	SIG	25	R309-520-7(2)(b)
TD18	1-TON CYLINDER CHLORINE ROOM VENTILATION NOT INDEPENDENT OR SEPARATE FROM VENTILATION FOR THE REST OF THE TREATMENT PLANT	SIG	25	R309-520-7(2)(d)(iv)
TD66	HYPOCHLORITE FACILITY LACKS A MEANS OF EMERGENCY EYEWASH	SIG	25	R309-520-7(3)(a)(i)
TD67	HYPOCHLORITE LIQUID NOT PROTECTED FROM EXCESSIVE HEAT OR DIRECT SUNLIGHT	MIN	5	R309-520-7(3)(a)(ii)
TD68	NO RECORDS KEPT TO MINIMIZE USE OF DECAYED HYPOCHLORITE SOLUTION	MIN	5	R309-520-7(3)(b)
TD24	HYPOCHLORITE TANK LACKS A LIQUID LEVEL INDICATOR	MIN	5	R309-525-11(6)(a)(iv)(A)
TD29	HYPOCHLORITE FACILITY DOES NOT HAVE ADEQUATE SPILL CONTAINMENT	MIN	5	R309-525-11(6)(a)(iv)(B)
TD70	CHLORINE SOLUTION MAKEUP WATER NOT OF DRINKING WATER QUALITY	SIG	25	R309-520-7(1)(h)(i), R309-520-7(3)(c)(iii)

Deficiency Code	Deficiency Description (Proposed)	Deficiency Type (Proposed)	Points (Proposed)	Rule Reference
TD71	HYDROGEN GAS FROM ONSITE HYPOCHLORITE GENERATION ELECTROLYTIC CELL NOT VENTED UPWARD TO OUTSIDE	SIG	50	R309-520-7(3)(c)(iv)
TD72	HYPOCHLORITE TABLETS NOT STORED IN COOL, DRY AND VENTED AREA	MIN	5	R309-520-7(3)(d)(iii)
TD73	HYPOCHLORITE TABLETS STORED WITH COMBUSTIBLE MATERIALS OR ACIDS	SIG	25	R309-520-7(3)(d)(iii)
TD26	FAIL TO PROVIDE DISINFECTION CT OR REPORT INACCURATE CT FOR REQUIRED TREATMENT	SIG	50	R309-505-5(3), R309-505-7(2), R309-520-4 and 6(4)
TD46	OZONE FACILITY LACKS ADEQUATE OZONE RESIDUAL ANALYZERS FOR CT DETERMINATION	MIN	15	R309-520-9(7)(c)
TD48	OZONE OFFGAS BLOWERS NOT FUNCTIONING	MIN	15	R309-520-9(5)(b)
TD49	OZONE OFFGAS DISTRUCTION UNITS NOT PROVIDED OR NOT FUNCTIONING	MIN	15	R309-520-9(5)(a)
TD31	CHLORINE DIOXIDE FACILITY LACKS EMERGENCY EYEWASH AND SAFETY SHOWER	SIG	25	R309-520-10(3)(b)(viii)
TD32	NO EMERGENCY SHUTOFF FOR CHLORINE DIOXIDE GENERATOR	SIG	25	R309-520-10(3)(b)(ix)
TD34	NO AMBIENT CHLORINE DIOXIDE SENSOR OR ALARM OR WARNING LIGHT	SIG	25	R309-520-10(3)(b)(v)
TD35	CHLORINE DIOXIDE OPERATING AREA LACKS WASH DOWN WATER	MIN	15	R309-520-10(3)(b)(xvi)
TD28	COMBUSTIBLE OR REACTIVE MATERIALS STORED IN CHLORINE DIOXIDE OPERATING AREA	SIG	50	R309-520-10(5)(a)
TD30	PERSONAL PROTECTIVE EQUIPMENT NOT AVAILABLE NEAR AND OUTSIDE OF CHLORINE DIOXIDE OPERATING AREA	SIG	25	R309-520-10(5)(c)
TD33	CHLORINE DIOXIDE OPERATING AREA AND SOLUTION TANKS NOT PROPERLY VENTED	MIN	15	R309-520-10(5)(k), R309-525-11(8)(b)(vi)
TD36	CHLORINE DIOXIDE OPERATING AREA TEMPRATURES NOT MAINTAINED BETWEEN 60 AND 100 DEGREES F	MIN	15	R309-520-10(5)(d)
TD37	CHLORINE DIOXIDE FACILITY LACKS SAFETY AND EMERGENCY MANUAL OR OPERATORS LACKS SAFETY AND EMERGENCY TRAINING	SIG	25	R309-520-10(5)(f)
<b>Surface Water Treatment and Miscellaneous Treatment Methods</b>				
TD58	STANDBY POWER NOT AVAILABLE FOR PRIMARY TREATMENT PROCESS FOR SURFACE WATER TREATMENT	SIG	25	R309-525-7(5), R309-525-11(7)(b)(iii)
TD59	BACKUP EQUIPMENT OR SPARE PARTS NOT AVAILABLE FOR CRITICAL TREATMENT ITEMS	SIG	25	R309-525-7(6), R309-525-11(7)(b)(i) and (iii)
TC15	PIPING NOT COLOR CODED OR LABELED TO INDICATE CONTAINED LIQUID AND FLOW DIRECTION	MIN	5	R309-525-8
TD79	NO MEANS TO MEASURE FLOW RATE OF WATER TREATED	SIG	25	R309-525-11(7)(d)(iii)
TD99	NO MEANS TO MEASURE QUANTITIES OF CHEMICALS USED	SIG	25	R309-525-11(7)(d)(iv)
TD62	NO SAMPLE TAP FOR EACH UNIT OPERATION OF TREATMENT	MIN	15	R309-525-18
TD74	PERSONAL PROTECTIVE EQUIPMENT, SAFETY SHOWER OR EYEWASH NOT PROVIDED	SIG	25	R309-525-11(10)(b)
TD76	INADEQUATE MEANS TO MAINTAIN DISINFECTANT RESIDUAL IN THE WATER ENTERING THE DISTRIBUTION SYSTEM	SIG	25	R309-215-10(2), R309-520-7(1)(c)(iii)
TG31	NO SAMPLE TAP FOR TESTING FINISHED WATER	MIN	15	R309-525-18, R309-525-25(4)
TG35	CROSS CONNECTION BETWEEN UNTREATED WATER AND FINISHED WATER	SIG	50	R309-520-7(1)(h), R309-525-11(9)(a) and (b)
TG53	NO BACKFLOW PROTECTION ON IN-PLANT WATER SUPPLY LINE	SIG	50	R309-525-11(9)(a)
TX07	NO BACKFLOW PROTECTION ON CHEMICAL MAKEUP WATER SUPPLY LINE	SIG	50	R309-525-11(2)(c), R309-525-11(9)(b)(i) to (iv)

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TX08	SOLUTION TANK OVERFLW PIPE NOT DOWNTURNED OR LACKING A CLEARANCE OF 6 INCHES OR MORE	SIG	50	R309-525-11(8)(b)(v), R309-525-11(9)(b)(iii)
TG64	IN-PLANT WATER SUPPLY LACKS CROSS CONNECTION CONTROL	SIG	50	R309-525-11(9)(a)(iii) and (b)
T027	IN-PLANT WATER SUPPLY TO LABORATORY AND SANITARY FACILITIES NOT OF FINISHED WATER QUALITY	SIG	25	R309-525-16, R309-525-17(3)
TD94	PRESEDIMENTATION BASINS NOT EQUIPPED FOR SLUDGE REMOVAL	MIN	15	R309-525-10(1)
T001	PLANT LACKS PROVISION FOR BYPASSING PRESEDIMENTATION BASINS	MIN	15	R309-525-10(3)
TC07	ACTIVATED CARBON APPLICATION POINT NOT APPROPRIATE (BEFORE OXIDANT ADDITION)	MIN	15	R309-525-11(2)(a) and (d)
TC10	ACTIVATED CARBON NOT STORED SEPARTELY OR AWAY FROM IMCOMPATIBLE CHEMICALS	SIG	25	R309-525-11(7)(a)(iv), R309-105-10
TC17	ACTIVATED CARBON STORAGE AND OPERATION AREA NOT CLEAN, DRY OR SAFE FOR OPERATOR SAFETY	SIG	25	R309-525-11(6)(a)(i)(C), R309-525-11(6)(c), R309-525-19, R309-105-10, R309-525-15(d)
TX09	BACKUP OR STANDBY CHEMICAL FEEDER NOT AVAILABLE	MIN	15	R309-525-11(7)(b)(i) and (ii)
TG21	CHEMICAL FEEDER NOT ACCURATE, CALIBRATED OR FUNCTIONING	SIG	25	R309-525-11(7)(a)(i) and (x)
T080	CHEMICALS USED FOR DRINKING WATER TREATMENT NOT ANSI NSF 60 CERTIFIED	SIG	25	R309-525-11(5), R309-525-25(1), R309-535-11(5)(d)
TG05	SAFETY DATA SHEET INFO INCLUDING CHEMICAL NAME, PURITY, CONCENTRATION AND SUPPLIER, NOT AVAILABLE FOR ALL CHEMS	MIN	15	R309-525-11(5)(a), R309-525-11(6)(b)(i)
TD98	LACKS OPERATIONAL RECORDS FOR CHEMICAL DOSING	MIN	15	R309-105-14(3)
TG19	INCOMPATIBLE CHEMICALS ARE FED, STORED OR HANDLED TOGETHER	SIG	25	R309-525-11(7)(a)(iv)
TG09	NO MEANS TO MEASURE LIQUID LEVEL IN SOLUTION TANK	MIN	15	R309-525-11(6)(a)(iv)(A), R309-525-11(8)(b)(ii), R309-525-11(8)(c)(iv)
TG59	LACKS CONTAINMENT PROVISIONS TO HANDLE SOLUTION TANK SPILLS OR OVERFLOWS	MIN	15	R309-525-11(6)(a)(iv)(B), R309-525-11(8)(b)(viii)
TG10	SOLUTION TANK LACKS AN INVERTED J VENT OR A MEANS OF VENTING	MIN	5	R309-525-11(6)(a)(iv)(C)
TG13	ACID SOLUTION NOT KEPT IN CLOSED ACID-RESISTANT CONTAINERS	MIN	15	R309-525-11(6)(a)(v)
TG17	DUST CONTORL AND VENTILATION NOT ADEQUATE FOR HANDLING DRY CHEMICALS	MIN	15	R309-525-11(6)(c)
TG60	ACID TANK NOT VENTED TO OUTSIDE	MIN	15	R309-525-11(8)(b)(vi)
TG03	SOLUTION TANKS AND CHEMICAL REFILL LINES NOT LABELED	MIN	15	R309-525-11(8)(c)(vii)
TG18	SOLUTION TANK NOT PROTECTED AGAINST BACKFLOW OR NOT PROVIDED WITH A VALVED DRAIN	SIG	50	R309-525-11(8)(b)(vii)
TD64	CHEMICAL SOLUTION NOT COVERED OR TANK ACCESS OPENINGS NOT COVERED	MIN	5	R309-525-11(8)(b)(iii)
T081	FLASH MIX PROCESS FUNCTIONS IMPROPERLY OR CHEMICAL FOR FLASH MIXING ADDED IMPROPERLY	MIN	15	R309-525-12(1)
T082	FLOCCULATION PROCESS FUNCTIONS IMPROPERLY	MIN	15	R309-525-12(2)
T083	NO MEANS TO DETERMINE ANTICIPATED COAGULANT DOSE	MIN	15	R309-525-11(2)(a) and (d)
T043	FILTER OR MEDIA NOT CLEANED, INSPECTED, MAINTAINED OR PROPERLY FUNCTIONING	SIG	25	R309-105-10, R309-525-19, R309-525-15(4)(a), R309-525-15(4)(b)(ii to v), R309-525-15(4)(c)(ii to vi)
T021	INTRUMENTATION AND CONTROLS IN TREATMENT PLANT NOT MAINTAINED, OPERABLE OR FUNCTIONING PROPERLY	SIG	25	R309-525-25(4)
T004	FILTRATION BASINS LACK SAFETY HANDRAILS	SIG	25	R309-525-15(6)(n)
T074	NO FILTER-TO-WASTE PROVISION FOR EACH FILTER	SIG	25	R309-525-15(6)(p)
TT01	TURBIDIMETER NOT CALIBRATED OR MAINTAINED FOR ACCURATE CONTINUOUS MONITORING OF TREATMENT PROCESSES	SIG	50	R309-525-25(4)

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T002	PRIMARY COAGULANT NOT USED PROPERLY	SIG	50	R309-525-11(1)(a)
T084	REQUIRED DISINFECTANT NOT ADDED TO FINISHED WATER	SIG	50	R309-525-11(1)(b)
T005	MULTI-MEDIA FILTER NOT PROVIDED WITH CONTINUOUS TURBIDITY MONITORING	SIG	50	R309-525-15(4)(b)(vi), R309-525-15(4)(c)(vii)
T085	MULTI-MEDIA FILTER NOT EQUIPPED TO INITIATE AUTOMATIC SHUTDOWN OR BACKWASH	SIG	50	R309-525-15(4)(b)(vi), R309-525-15(4)(c)(vii)
T006	NO SAMPLE TAP OR A MEANS TO SAMPLE RAW WATER OR FINISHED WATER	SIG	25	R309-525-15(10)(a)(i)
T007	NO MEANS TO MONITOR MEDIA FILTER HEAD LOSS	SIG	25	R309-525-15(10)(a)(ii)
T008	NO MEANS TO MONITOR OR RECORD FLOW RATE OF EACH FILTER	MIN	15	R309-525-15(10)(a)(iii), R309-525-15(2)
T076	INADEQUATE WATER SUPPLY OR FLOW RATE TO MEET FILTER BACKWASH NEEDS	MIN	15	R309-525-15(7)(a)(iv)
T075	BACKWASH WATER SUPPLY NOT OF FINISHED DRINKING WATER QUALITY	SIG	50	R309-525-15(7)(a)(ix)
T009	SLOW SAND PROCESS DOES NOT HAVE AT LEAST 3 FILTER UNITS	MIN	15	R309-530-6(5)(a)
T086	SLOW SAND FILTERS ARE NOT PROTECTED TO PREVENT FREEZING	MIN	15	R309-530-6(5)(b)
T087	SLOW SAND FILTERS DO NOT HAVE AT LEAST 24 INCHES OF SAND THAT MEETS RULE REQUIREMENTS	MIN	15	R309-530-6(5)(e ) and (f)
T089	SLOW SAND FILTERS DOES NOT HAVE FILTER-TO-WASTE PROVISION	SIG	25	R309-530-6(5)(k)
T088	SLOW SAND FILTERS ARE NOT MAINTAINED OR OPERATED PROPERLY	MIN	15	R309-530-6(4)
T090	SOURCE WATER QUALITY OR TURBIDITY UNSUITABLE FOR SLOW SAND TREATMENT	SIG	50	R309-530-6(2)(a)
T091	INADEQUATE DIRECT INTEGRITY TESTING TO MONITOR MEMBRANE INTEGRITY FOR EACH MEMBRANE UNIT	SIG	50	R309-215-15(18)(b)(iii)
T092	INADEQUATE CONTINUOUS INDIRECT INTEGRITY TESTING TO MONITOR MEMBRANE INTEGRITY FOR EACH UNIT	SIG	50	R309-215-15(18)(b)(iv)
T093	INCORRECT CONTROL LIMIT OF MEMBRANE DIRECT INTEGRITY TEST SENSITIVITY TO INDICATE LOG REMOVAL	SIG	50	R309-215-15(18)(b)(iii)c
T094	INCORRECT TRIGGER FOR MEMBRANE CONTINUOUS INDIRECT INTEGRITY TESTING	SIG	50	R309-215-15(18)(b)(iv)
T095	INSUFFICIENT BACKWASH WATER SUPPLY TO ALLOW BACKWASHING 2 MEMBRANE UNITS CONSECUTIVELY	MIN	15	R309-525-15(7)(a)(iv)
TD95	GAS CHLORINE ROOM IN TREATMENT PLANT LACKS OUTWARD-OPENING EXIT DOOR WITH PANIC BAR	SIG	25	R309-520-7(2)(g)(iii)
TD96	GAS CHLORINE ROOM IN TREATMENT PLANT HAS FLOOR DRAINS THAT CONNECT TO OTHER DRAINS IN THE PLANT	SIG	25	R309-520-7(2)(g)(iv)
TD56	GAS CHLORINE ROOM IN TREATMENT PLANT LACKS SHATTER RESISTANT INSPECTION WINDOW(S)	SIG	25	R309-520-7(2)(g)(i)
TD07	GAS CHLORINE AREA IN TREATMENT PLANT NOT SEPARATE FROM OTHER AREAS	SIG	25	R309-520-7(2)(g)(v)
T096	CLEAR WELL INADEQUATELY DESIGNED TO PROVIDE REQUIRED DISINFECTION CT	SIG	25	R309-525-16(b) and (b)(i)
T018	CLEAR WELL LACKS AN OVERFLOW AND VENT	SIG	25	R309-525-16(1)(b)(iii), R309-545
T019	LACKS SUFFICIENT LABORATORY EQUIPMENT FOR PROPER O&M OF THE PLANT	SIG	25	R309-525-17(1)
TG20	DAILY RECORDS DO NOT REFLECT DOSAGES ACCURATELY	SIG	25	R309-105-14(3)(a)
T033	MEDIA DEPTHS NOT MEETING REQUIREMENTS	SIG	25	R309-525-15(4)
TGR2	TRIGGER FOR BACKWASH RECYCLING REVIEW	MIN	15	R309-215-8 (4)
TGR3	TRIGGER FOR UNDOCUMENTED FACILITY OR PROCESS	MIN	15	R309-105-6
T097	LACKS MONITORING OR RECORDS OF RECYCLED WATER	MIN	15	R309-215-8(1)

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TGR9	TRIGGER FOR REGULATORY FOLLOWUP TO ADDRESS CONCERNS	MIN	15	R309-105-8, R309-100 through 605
T098	FAIL TO MEET GIARDIA, VIRUS OR CRYPTOSPORIDIUM TREATMENT REQUIREMENTS	SIG	100	R309-505-5(1)(d), R309-215
T099	INCORRECT SURFACE WATER TREATMENT COMPLIANCE WATER QUALITY SAMPLING LOCATION	SIG	25	R309-215
T028	INCORRECT COMPAINCE CLORINE RESIDUAL SAMPLING LOCATION	SIG	25	R309-216
T029	CHEMICAL DOSING NOT PROPORTIONAL TO FLOW CHANGES	MIN	15	R309-525-11(7)(d)(ii)
T032	OPERATING FILTER ABOVE APPROVED LOADING RATE	MIN	15	R309-105, R309-525-15(2), R309-525-15(4)(a), R309-525-15(4)(b)(v), R309-525-15(4)(c)(vi), R309-525-15(2), R309-530
TF04	FL CHEMICAL LACKS ANSI NSF 60 CERTIFICATION	SIG	25	R309-535-5(2)(a)(i)
TF06	FL CHEMICAL CONTAINER NOT COVERED OR UNOPENED	MIN	15	R390-535-5(2)(b)(i)
TF01	FL DOSING NOT CALCULATED OR RECORDED DAILY	MIN	15	R309-105-14(3)
TF02	FL MONITORING AND REPORTING NOT MEETING HEALTH DEPARTMENT REQUIREMENTS	MIN	15	R309-105-14(3), R309-535-5(1)
TF03	FL FACILITY LACKS SECONDARY CONTROL MECHNISM TO PREVENT OVERFEED	SIG	50	R309-535-5(2)(h)
TF28	FL IMPROPER STORAGE OF CHEMICALS	MIN	15	R309-535-5(2)(b)(ii), (iii) and (iv)
TF36	FL DRY CHEMICALS NOT STORED ON PALLETS	MIN	5	R309-535-5(2)(b)(iii)
TF41	FL INADEQUATE DISPOSAL OF BAGS, DRUMS OR BARRELS	MIN	15	R309-535-5(5)(c)(i)
TF18	FL IMPROPER OVERFLOW FROM BULK TANK OR DAY TANK	MIN	15	R309-525-11(6)(a)(i)(B) and (iv)(B), R309-535
TF20	FL LACKS OPERATIONAL RECORDS OF CHEM DOSE AND QUANTITY USED	MIN	15	R309-105-14(3)
TF26	FL ACID RESISTANT SPILL CONTAINMENT INADEQUATE OR NOT PROVIDED	SIG	25	R309-535-5(2)(c)(i), (ii) and (iii)
TF14	FL NO MEANS TO MEASURE CHEMICAL QUANTITY USED	SIG	25	R309-535-5(2)(d)(ii)
TF10	EMERGENCY EYEWASH NOT PROVIDED FOR FL SATURATOR OR DRY FEEDER	SIG	25	R309-535-5(4)(g), R309-535-5(5)(d)
TF11	FL NO MEANS TO MEASURE FLOW OF WATER TO BE TREATED	SIG	25	R309-535-5(2)(d)(i)
TF22	FL FEED PUMP STARTS WITHOUT WELL OR SERVICE PUMP RUNNING AND WATER FLOWING IN THE PIPE	SIG	100	R309-535-5(2)(f)
TF16	FLUORIDE INJECTION LINE DOES NOT ENTER IN THE LOWER 1/3 OF WATER PIPE	MIN	5	R309-535-5(2)(g)(i)
TF50	INJECTING FLUORIDE UPSTREAM OF LIME SODA SOFTENING, ION EXCHANGE OR OTHER SOFTENING PROCESS	MIN	15	R309-525-25(4)
TF23	FLUORIDATION EQUIPMENT NOT HOUSED IN SECURE BUILDING	SIG	25	R309-535-5(2)(h)(i)
TF24	FL ACID STORAGE OR INJECTION AREA LACKS VENTING TO OUTSIDE AND AWAY FROM AIR INTAKES	MIN	15	R309-535-5(2)(j)(iii)
TF25	NO SEPERATE SWITCHES FOR FANS AND LIGHTS IN FLUORIDE AREA	MIN	15	R309-535-5(2)(j)(iv)
TF27	MAKEUP WATER SUPPLY FOR FL FACILITY LACKS BACKFLOW PROTECTION	SIG	50	R309-535-5(2)(k), R309-535-5(4)(d)
TF42	FL NEUTRALIZING CHEMICAL IS NOT AVAILABLE FOR IMMEDIATE USE FOR ACID SPILLS	SIG	25	R309-535-5(3)(e)
TF29	FL VENTS DO NOT DISCHARGE OUTSIDE ABOVE GRADE	MIN	15	R309-535-5(3)(b)(ii)
TF21	FL TEST EQUIPMENT NOT VERIFIED OR CALIBRATED	MIN	15	R309-525-25(4)
TF31	FL ACID BULK AND DAY TANKS DO NOT HAVE SEPARATE VENTS WHEN BULK TANK OVERFLOW RISK EXISTS	MIN	15	R309-535-5(3)(b)(iii)
TF30	FL ACID FACILITY CONSTRUCTED AFTER JAN 1, 2017 LACKS A VIEW WINDOW BETWEEN OPERATING AREA AND CONTROL ROOM	MIN	15	R309-535-5(3)(c)

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TF15	FL ACID FACILITY LACKS SAFETY SHOWERS AND EYEWASH	SIG	25	R309-535-5(3)(d)
TF13	FL FACILITY INADEQUATE PERSONAL PROTECTIVE EQUIPMENT PROVIDED	SIG	25	R309-535-5(3)(f), R309-535-5(4)(h), R309-535-5(5)(e)
TF32	FL ACID FACILITY LACKS A MEANS TO STOP TRANSFER PUMP TRANSFERING ACID FROM BULK TANK TO DAY TANK	REC	0	recommendation
TF33	FL ACID FACILITY LACKS AN EMERGENCY SHUTOFF FOR FL FEED PUMP OR TRANSFER PUMP	REC	0	recommendation
TF34	FL ACID FACILITY LACKS MEANS TO HANDLE CATASTROPHIC FAILURE OF ACID BULK TANK	REC	0	recommendation
TF35	FL ACID FACILITY LACKS SEISMIC RESTRAINT FOR ACID BULK TANK	REC	0	recommendation
TF43	FL SATURATOR LACKS A MEANS OF MEASURING QUANTITY OF CHEMICAL SOLUTION USED	SIG	25	R309-535-5(4)(a)
TF44	NO SAMPLE TAP AVAILABLE FOR TESTING FL LEVEL IN TREATED WATER	MIN	15	R309-535-5(2)(d)(iii)
TF12	INSUFFICIENT FL CRYSTAL AMOUNT IN FL SATURATOR TANK (BELOWED MINIMUM LEVEL MARKED ON OUTSIDE OF SATURATOR TANK)	MIN	15	R309-535-5(4)(b)
TF37	FL DISSOLUTION WATER NOT TREATED TO HARDNESS LESS THAN 75 MG/L	MIN	15	R309-535-5(4)(e)(i)
TF39	FL DRY FEED FACILITY LACKS EXHAUST FAN AND DUST FILTER FOR TRANSFER OF DRY CHEMICALS	MIN	15	R309-535-5(5)(c)(ii)
TF47	FL DRY FEED SOLUTION TANK LACKS MECHANICAL MIXER	MIN	15	R309-535-5(5)(a) and (b)
TF40	FL DRY FEED FACILITY DICHARGES EXHAUST AIR TO ATMOSPHERE WITHOUT THROUGH DUST FILTER	MIN	15	R309-535-5(5)(c)(iii)
TI05	POLYPHOSPHATE SEQUESTRATION USED FOR IRON MANGANESE CONTROL WHEN IRON OR MANGANESE OR COMBINATION EXCEEDS 1 MG/L	MIN	15	R309-535-11(5)
TQ06	TOTAL PHOSPHATE APPLIED EXCEEDS 10 MG/L AS PO4 FOR IRON MANGANESE CONTROL	MIN	15	R309-535-11(5)
TQ08	LACKS CHLORINE RESIDUAL IN DISTRIBUTION SYSTEM WHEN USING POLYPHOSPHATE SEQUESTRATION FOR IRON MANGANESE CONTROL	MIN	15	R309-535-11(5)
TQ04	APPLY POLYPHOSPHATE PRIOR TO IRON MANGANESE TREATMENT OR AFTER AERATION, OXIDATION OR DISINFECTION	MIN	15	R309-535-11(5)(c )
<b>Pump Stations</b>				
PS13	PUMP STATION BUILDING FLOOR ELEVATION NOT PROTECTED FROM FLOODING OR LESS THAN 6 INCHES ABOVE FINISH GRADE	MIN	15	R309-540-5(1)(a)(ii), R309-540-5(2)(a)(iii)
PS01	PUMP FACILITY NOT PROTECTED FROM FLOODING OR SURFACE RUNOFF	MIN	15	R309-540-5(1)(a)(ii) and (iv)
PS33	PUMP FACILITY NOT PROTECTED FROM VANDLISM OR UNAUTHORIZED ENTRY	MIN	15	R309-540-5(1)(a)(v)
PS18	IN-LINE BOOSTER PUMP STATION LACKS REDUNDANCY TO MEET PEAK DEMAND WITH ONE PUMP OUT OF SERVICE	SIG	25	R309-540-5(4)(b)
PS19	PUMP FACILITY LACKS CAPACITY TO MEET DEMAND	SIG	25	R309-540-3(a)
PS07	PUMP ELECTIRCAL CONTORLS NOT PROTECTED AGAINST FLOODING	SIG	25	R309-540-5(6)(e)
PS05	PUMP FACILITY LACKS SHUTOFF VALVES FOR O&M AND REPAIR	MIN	15	R309-540-5(6)(a)
PS14	PUMP STATION BUILDING NOT PROPERLY HEATED, LIGHTED OR VENTILATED	MIN	5	R309-540-5(2)(e ), (f) and (g)
PS06	PUMP STATION BUILDING INTERIOR FLOOR NOT DRAINED OR NOT SLOPED TO DRAIN	MIN	15	R309-540-5(2)(a)(v)
PS03	PUPM FACILITY LACKS PRESSURE GAUGE ON DISCHARGE LINE	MIN	15	R309-540-5 (6)(c)(i)
PS34	COM SYSTEM RELIES ON DIAPHRAGM OR AIR PRESSURE TANKS FOR FINISHED WATER STORAGE OR FIRE PROTECTION	MIN	15	R309-540-6(1)
PT14	HYDROPNEUMATIC TANK NOT PROTECTED FROM FLOODING	MIN	15	R309-540-6(2)
PT08	HYDROPNEUMATIC TANK LACKS PRESSURE GAUGE	MIN	15	R309-540-6(3)

Deficiency Code	Deficiency Description (Proposed)	Deficiency Type (Proposed)	Points (Proposed)	Rule Reference
PT13	PUMP STATION/HYDROPNEUMATIC TANK AND CONTROLS NOT PROTECTED AGAINST HAZARD	SIG	25	R309-540-5(1)(a)(i)
PS31	IMPROPER LUBRICATION OIL USED FOR DRINKING WATER PUMP FACILITY	SIG	25	R309-105-10(7)
PS15	PUMP FACILITY HAS CROSS CONNECTION OR SUBJECT TO CONTAMINATION	SIG	50	R309-105-12(1)
PS12	PUMP STATION OR HYDROPNEUMATIC TANK A/V VALVE RELIEF PIPING NOT DOWNTURNED	SIG	25	R309-550-6(6)(b), R309-540-6(2)
PS10	PUMP STATION OR HYDROPNEUMATIC TANK A/V VALVE RELIEF PIPING LACKS NO. 14 SCREEN			
PS11	A/V VALVE RELIEF PIPING OF PUMP STATION OR HYDROPNEUMATIC TANK NOT PROTECTED FROM CONTAMINATION OR NOT AT LEAST 6 INCHES ABOVE FLOOR			
<b>Drinking Water Storage Tanks</b>				
V025	STORAGE TANK WITHIN 50 FEET OF SEWERS OR CONTAMINATION SOURCES	SIG	25	R309-545-7(3)
V001	STORAGE TANK SURROUNDING AREA NOT GRADED TO PREVENT STANDING WATER WITHIN 50 FEET OF THE TANK	SIG	25	R309-545-7(4)
V026	NO MEANS TO ISOLATE STORAGE TANK FOR O&M	SIG	25	R309-545-7(5)
V021	STORAGE TANK ROOF OR SIDEWALLS SHOW SIGNS OF MILD OR MODERATE DETERIORATION	MIN	15	R309-545-6(1) and 545-9(1)
V022	STORAGE TANK ROOF OR SIDEWALLS SHOW SIGNS OF SEVERE DETERIORATION	SIG	50	R309-545-6(1) and 545-9(1)
V017	STORAGE TANK SUBJECT TO CONTAMINATION DUE TO UNSEALED OPENING ON TANK ROOF OR SIDEWALLS	SIG	100	R309-545-6(1) and 545-9(1)
V027	DRINKING WATER STORAGE TANK SEPERATED FROM WASTEWATER COMPARTMENT BY A SINGLE WALL	SIG	50	R309-545-9(3)
V003	WATER PONDING ON STORAGE TANK ROOF OR TANK ROOF NOT SLOPED TO DRAIN	MIN	15	R309-545-9(4)
V028	SYSTEM RUNS OUT OF WATER DUE TO STORAGE TANK LACKING LEVEL CONTROL MECHANISM	SIG	25	R309-545-17
V042	NO MEANS TO DRAIN A STORAGE TANK FOR O&M	SIG	25	R309-545-10(1)
V036	TANK DRAIN IS CONNECTED TO OR DISCHARGES TO SANITARY SEWER	SIG	50	R309-545-10(1)(c)
V016	END OF TANK DRAIN LINE LACKS A CLEARANCE OF AT LEAST 12 INCHES	SIG	25	R309-545-10(1)(d)
V037	STORAGE TANK INTERNAL CATWALKS NOT DESIGNED WITH A SOLID FLOOR AND RAISED EDGES	SIG	25	R309-545-10(2)
VL01	STORAGE TANK LACKS AN OVERFLOW	SIG	25	R309-545-13
V011	END OF STORAGE TANK OVERFLOW LACKS A CLEARANCE OF BETWEEN 12 AND 24 INCHES FROM GROUND SURFACE	SIG	25	R309-545-13
V038	STORAGE TANK OVERFLOW DISCHARGE ARE NOT DIRECTED AWAY FROM TANK TO PROTECT TANK FOUNDATION			R309-545-13
V012	END OF STORAGE TANK OVERFLOW PIPE LACKS NO. 4 SCREEN			R309-545-13(3)
V013	STORAGE TANK OVERFLOW PIPE IS CONNECTED TO OR DISCHARGES TO SANITARY SEWER	SIG	50	R309-545-13(5)
VL03	STORAGE TANK LACKS AN ACCESS OPENING LOCATED ABOVE THE LEVEL OF THE OVERFLOW FOR TANK O&M	MIN	15	R309-545-14 and 14(1)
V008	TANK ACCESS HEIGHT LESS THAN 4 INCHES ABOVE TANK ROOF OR LESS THAN 18 INCHES ABOVE EARTHEN COVER	MIN	15	R309-545-14(1)
V039	STORAGE TANK ACCESS NOT WATERTIGHT OR NOT SEALED TO PREVENT CONTAMINATION	SIG	50	R309-545-14(1) and (2)

Deficiency Code	Deficiency Description (Proposed)	Deficiency Type (Proposed)	Points (Proposed)	Rule Reference
V010	STORAGE TANK LID NOT SHOEBOX STYLE	SIG	25	R309-545-14(2)
V009	STORAGE TANK LID LACKS A FUNCTIONING GASKET BETWEEN THE LID AND FRAME			R309-545-14(2)
V029	STORAGE TANK ACCESS OPENING LACKS A LOCK			R309-545-14(3)
VL02	STORAGE TANK LACKS A AIR VENT	SIG	25	R309-545-15
VL05	STORAGE TANK VENT INADEQUATELY SIZED	SIG	25	R309-545-15
V040	STORAGE TANK VENT NOT SIZED OR LOCATED TO PREVENT BLOCKAGE DURING WINTER	MIN	15	R309-545-15(3)
V006	END OF STORAGE TANK VENT LACKS A CLEARANCE OF AT LEAST 24 INCHES FROM EARTHEN COVER	MIN	15	R309-545-15(2)
V005	STORAGE FACILITY VENT NOT DOWNTURNED AT LEAST 2 INCHES BELOW ANY OPENING	SIG	25	R309-545-15(1)
V007	STORAGE TANK VENT LACKS NO. 14 SCREEN			R309-545-15(4)
V035	STORAGE TANK VENT LARGER THAN 6 INCHES IN DIAMETER LACKS PROTECTIVE SCREEN	MIN	5	R309-545-15(5)
V004	STORAGE TANK LADDERS IN EXCESS OF 20 FEET LACK SAFETY FEATURE SUCH AS SAFE CAGE, HARNESS OR PLATFORM	MIN	15	R309-545-18(2)
V041	ELEVATED STORAGE TANK LACKS RAILINGS OR HANDHOLDS	SIG	25	R309-545-18(3)
V014	STORAGE TANK INTERIOR COATINGS LACK ANSI NSF 61 CERTIFICATION	SIG	25	R309-545-21(2)
<b>Transmission and Distribution Pipelines</b>				
D019	UNDERSIZED WATER MAIN SERVING FIRE HYDRANTS	MIN	15	R309-550-5(4) & (5)
D009	WATER MAINS SUSCEPTIBLE TO NEARBY CONTAMINATION SOURCES	SIG	50	R309-550-5(11)
INFO	ASBESTOS CEMENT PIPE IN USE	SIG	25	R30-550-6(2)(a)
D014	DIST PIPING AND FITTINGS INSTALLED AFTER JAN 2014 NOT LEAD FREE OR NOT ANSI NSF 372 OR 61G CERTIFIED	MIN	15	R30-550-6(2)(b)
D001	DIST PIPING, FITTINGS OR MATERIAL NOT ANSI NSF 61 CERTIFIED	SIG	25	R309-550-6(1) & R309-550-6(3)
D002	WATER LINES LACK REQUIRED MINIMUM SEPARATION FROM SEWER	SIG	25	R309-550-7
D004	AIR RELIEF VALVE PIPE LACKS NO. 14 SCREEN	SIG	25	R309-550-6(6)(b)
D006	AIR RELIEF VALVE PIPE NOT DOWNTURNED			R309-550-6(6)(b)
D007	AIR RELIEF VALVE OR CHAMBER SUBJECT TO FLOODING			R309-550-6(6)(b) and (7)(b)
D013	DIST BLOWOFFS, FIRE HYDRANT, AIR RELIEF VALVE PIPING OR CHAMBER CONNECTED TO STORM DRAIN OR SANITARY SEWER	SIG	50	R309-550-6(5)(a), R309-550-6(6)(c) and (7)(a)
D011	INADEQUATE PROTECTION FOR DIST LINE CROSSING UNDER A SURFACE WATER BODY	SIG	25	R309-550-8(8)(b)
D018	FAIL TO FOLLOW AWWA C651 FOR WATER LINE DISINFECTION	SIG	25	R309-550-8(10)
D003	DIST SYSTEM UNABLE TO PROVIDE 20 PSI MIN PRESSURE FOR WATER LINES CONSTRUCTED BEFORE JAN 1, 2007	SIG	50	R309-105-9, R309-550-5(1)
D010	DIST SYSTEM UNABLE TO PROVIDE 40 PSI DURING PEAK DAY AND 20 PSI DURING FIRE FLOW FOR WATER LINES INSTALLED AFTER JAN 2017			
D016	DIST WATER LINE CONNECTED TO OR SUBJECT TO CONTAMINATION	SIG	50	R309-550-9(1) and (2), R309-550-13(2)
M011	UNAPPROVED WATER HAULING AS WATER SOURCE FOR COM SYSTEM	SIG	200	R309-550-10(1)
M021	INDIVIDUAL HOME BOOSTER PUMPS CONNECTED TO WATER MAIN DIRECTLY	SIG	50	R309-540-5(4)(c), R309-550-11(3)
<b>Source Protection</b>				
SP02	PER FOR ACTIVE SOURCE NOT UPGRADED TO FULL DWSP	SIG	25	R309-600-13(6) & R309-605-9(3)
SP04	ACTIVE SOURCE LACKS APPROVED UPDATES TO DWSP PLAN	MIN	5	R309-600-7(2)(e) & R309-605-7(c)(v)
SP06	NEW WATER SOURCE LACKS APPROVED PER	SIG	50	R309-600-13 & R309-605-9
SP07	ACTIVE SOURCE LACKS AN APPROVED DWSP PLAN	SIG	25	R309-600-7(2) & R309-605-7(1)(c)
SP09	REDEVELOPED SOURCE LACKS A REVISED DWSP PLAN	MIN	15	R309-600-7(2)(f) & R309-605-7(1)(c)(vi)
SP03	DWSP PLAN NOT IMPLEMENTED ACCORDING TO MANAGEMENT STRATEGIES IN DWSP	SIG	25	R309-600-7(2)(d) & R309-605-7(1)(c)(iv)

# Appendix B

## Utah Division of Drinking Water R309-400 – IPS Program Violation Points Table

Violation Code (Current)	Violation Description (Current)	Rule-Analyte	Violation Type (Proposed)	Points (Proposed)	Rule Reference
01	MCL, SINGLE SAMPLE	0100 TURBIDITY	Acute	50	R309-205-8, 215-9
01	MCL, SINGLE SAMPLE	ALL OTHER ANALYTES	Acute	50	R309-205, 215
01	MCL, SINGLE SAMPLE	1038 NITRATE-NITRITE	Acute	100	R309-205-5(4)
01	MCL, SINGLE SAMPLE	1040 NITRATE	Acute	100	R309-205-5(4)
01	MCL, SINGLE SAMPLE	1041 NITRITE	Acute	100	R309-205-5(5)
01	MCL, SINGLE SAMPLE	3008 GIARDIA LAMBLIA	Acute	50	R309-215-7, R505-6(2)(a) and (b)
02	MCL, AVERAGE	ALL OTHER ANALYTES	Acute	50	R309-205/215
02	MCL, AVERAGE	1040 NITRATE or 1038 NITRATE-NITRITE or Nitrite 1041	Acute	100	R309-205-5
03	MONITORING, ROUTINE MAJOR	ALL OTHER ANALYTES	Monitoring	25	R309-205 and 215
03	MONITORING, ROUTINE MAJOR	1040 NITRATE or 1038 NITRATE-NITRITE or Nitrite 1041	Monitoring	50	R309-205-5
03	LT24 MAJOR	3014 ECOLI	Monitoring	25	R309-215-15
03	LT24 MINOR	3014 ECOLI	Monitoring	5	R309-215-15
10	OPERATIONS REPORT	0200 SWTR	Reporting	50	R309-215-8
11	MRDL (CHLORINE/CHLORAMINE)	0400 DBP STAGE 1	Chronic	50	R309-215-12
12	QUALIFIED OPERATOR FAILURE	0400 DBP STAGE 1	Acute	50	R309-215
13	MRDL, ACUTE (CHL. DIOXIDE)	1008 Chlorine Dioxide	Acute	50	R309-210
19	MONITOR GWR ASSESSMENT, MAJOR	3014 TCR	Monitoring	5	R309-215-16
1A	MCL, E. COLI, POS E COLI	3014 RTCR	Acute	50	R309-211-9
1A	MCL, E. COLI, POS E COLI	8000 RTCR	Acute	50	R309-211-9
27	MONITORING, ROUTINE (DBP), MAJOR	0999 CHLORINE, 1006, 1008	Reporting	15	R309-215-12
27	MONITORING, ROUTINE (DBP), MAJOR	DBP2	Monitoring	15	R309-215-12
28	SANITARY SURVEY COOPERATION FAILURE	SS	Acute	50	R309-100-6
29	FAILURE TO PRODUCE FILTER ASSESSMENT	0300 IESWTR/LT1	Monitoring	25	R309-215-9
2A	LEVEL 1 ASSESS, MULTIPLE TC POS	8000 RTCR	Chronic	50	R309-211-9
2A	LEVEL 1 ASSESS, TC POS RT NO RPT	8000 RTCR	Chronic	50	R309-211-9
2B	LEVEL 2 ASSESS, MULTIPLE LV1 triggered	8000 RTCR	Acute	100	R309-211-9?
2B	LEVEL 2 ASSESS, CONFIRMED ECOLI	8000 RTCR	Acute	100	R309-211-9?
2C	FAILURE TO TAKE CORRECTIVE ACTION FOR SANITARY DEFECTS	8000 RTCR	Acute	50	R209-215-16(3)(a)(iii) - need new
2D	STARTUP PROCEDURES TT	8000 RTCR	Reporting	50	R309-211-9 and 11

Violation Code (Current)	Violation Description (Current)	Rule-Analyte	Violation Type (Proposed)	Points (Proposed)	Rule Reference
34	MONITOR GWR TRIGGERED/ADDITIONAL, MAJOR	0700 GROUNDWATER RULE	Monitoring	25	R309-215-16
35	FAILURE TO SUBMIT OEL REPORT FOR HAA5	2456 HAA5	Reporting	15	309-210-10 (7)
35	FAILURE TO SUBMIT OEL REPORT FOR TTHM	2950 TTHM	Reporting	15	309-210-10 (7)
36	MONITORING, RTN/RPT MAJOR (SWTR-FILTER)	0999 CHLORINE, 1006, 1008	Reporting	15	R309-215-8
37	FAILURE TO PROFILE/CONSULT	TT	Reporting	15	R309-215
3A	MONITORING, ROUTINE, MAJOR	3014 RTCR	Monitoring	25	R309-211-9
3A	MONITORING, ROUTINE, MINOR	3014 RTCR	Monitoring	15	R309-211-9
3C	MONITORING, COLIFORM TURBIDITY TRIGGER	3014 RTCR	Monitoring	15	R309-211-9?
40	FAILURE TO PROPERLY RECYCLE (FBR)	0500 FILTER BACKWASH RULE	Acute	50	R309-215
41	MONTHLY COMB. FILTER EFFLUENT (SWTR	0100 TURBIDITY	Acute	100	R309-215-9
41	MONTHLY COMB. FILTER EFFLUENT (SWTR	0200 SWTR	Acute	100	R309-215-10
41	RES DISINFECT CONCENTRATION (SWTR)	0999 CHLORINE	Acute	100	R309-215-10
42	FAILURE TO FILTER (SWTR)	0200 SWTR	Chronic	100	R309-215-7
43	SINGLE COMB FLTR EFFLUENT (IESWTR/LT1)	0300 IESWTR	Acute	100	R309-215-9
44	MONTHLY COMB FLTR EFFLUENT (IESWTR/LT1)	0300 IESWTR	Acute	100	R309-215-9
45	FAILURE ADDRESS DEFICIENCY (GWR)	0700 GROUNDWATER RULE	Chronic	50	R209-215-16
45	FAILURE ADDRESS DEFICIENCY (IESWTR)	0300 IESWTR/LT1	Chronic	50	R209-215-16
45	FAILURE ADDRESS DEFICIENCY (EPA SURVEY)	0800 LT2ESWTR	Chronic	50	R209-215-16
46	INADEQUATE DBP PRECURSOR REMOVAL	2920 DBP Stage 1	Chronic	50	R309-215-12
4A	REPORTING, ASSESSMENT FORMS	8000 RTCR	Reporting	15	R309-211-11
4B	REPORT SAMPLE RESULT/FAIL MONITOR	8000 RTCR	Reporting	5	R309-211-9
4C	REPORT STARTUP PROCEDURES CERT FORM	8000 RTCR	Reporting	15	R309-211-11
4D	NOTIFICATION, E COLI POSITIVE	8000 RTCR	Reporting	25	R309-211-11
51	INITIAL TAP SAMPLING (LCR)	5000 LEAD & COPPER RULE	Monitoring	25	R309-210-6
52	FOLLOW-UP OR ROUTINE TAP M/R (LCR)	5000 LEAD & COPPER RULE	Monitoring	25	R309-210-6
53	WATER QUALITY PARAMETER M/R	5000 LEAD & COPPER RULE	Monitoring	25	R309-210-6
57	OCCT/SOWT RECOMMENDATION/STUDY (LCR)	5000 LEAD & COPPER RULE	Chronic	50	R309-210-6
5A	SAMPLE SITING PLAN ERRORS	8000 RTCR	Reporting	5	R309-211-9
64	LEAD SERVICE LINE REPLACEMENT (LCR)	5000 LEAD & COPPER RULE	Chronic	50	R309-210-6
65	PUBLIC EDUCATION (LCR)	5000 LEAD & COPPER RULE	Chronic	50	R309-210-6
66	LEAD CONSUMER NOTIFICATION	5000 LEAD & COPPER RULE	Reporting	15-25	R309-210-6
71	CCR REPORT	7000 CONSUMER CONFIDENCE RULE	Reporting	25	R309-225-4
72	CCR ADEQUACY/AVAILABILITY/CONTENT	7000 CONSUMER CONFIDENCE RULE	Reporting	25	R309-225-7
73	FAILURE TO NOTIFY OTHER PWS	0700 GROUNDWATER RULE	Reporting	15	R309-220-4
75	PUBLIC NOTICE RULE LINKED TO VIOLATION	ALL ANALYTES	Reporting	5	R309-220
75	PUBLIC NOTICE RULE LINKED TO VIOLATION	ALL ANALYTES	Reporting	5	R309-220
75	PUBLIC NOTICE RULE LINKED TO VIOLATION	ALL ANALYTES	Reporting	25	R309-220
76	OTHER NON-NPDWR POTENTIAL HEALTH RISKS	7500 PUBLIC NOTICE	Reporting	50	R309-220
MR	STATE MONITORING AND REPORTING	ALL ANALYTES	Reporting	5	R309-215-6
PN	FAILURE TO NOTIFY PUBLIC ENFORCEMENT	7600 PUBLIC NOTICE FOR IPS	Reporting	5	R309-220

Improvement Priority System Program  
Presented to the Drinking Water Board  
June 11, 2019

**DRINKING WATER BOARD PACKET**

**R309-400 Proposed Rule (to be presented at August Board meeting)**

## **R309-400. Improvement Priority System and Public Water System Ratings.**

### ***R309-400-1. Purpose.***

The purpose of this rule is to establish the Improvement Priority System used by the division to assign compliance ratings to public water systems and to prioritize enforcement action based on points assessed for noncompliance with drinking water rules.

### ***R309-400-2. Authority.***

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

### ***R309-400-3. Definitions.***

“Improvement Priority System (IPS)” is a point system used by the division to evaluate a public water system’s performance and compliance with the drinking water rules in Title 309, *Environmental Quality, Drinking Water*.

“Public Water System Rating” is assigned to a public water system by the director to characterize the water system’s compliance with drinking water rules and overall operation and performance.

### ***R309-400-4. Improvement Priority System – Assessment of Points.***

1. The division shall:
  - a. maintain and make public an [improvement priority system \(IPS\) program](#) that includes:
    - i. a table specifying the number of points associated with each instance of noncompliance with a drinking water rule requirement and noncompliance with a directive or order issued by the director, and
    - ii. the point thresholds for assigning an Approved or Not Approved rating to each type of public water system; and
  - b. obtain approval from the Drinking Water Board for substantive revisions to the [IPS program](#).
2. The division incorporates by reference the [IPS program dated August 27, 2019](#).

3. Implementation of the IPS program approved by Drinking Water Board starts on January 1, 2020.
4. The director may assess points to a public water system and take enforcement action in accordance with the implementation policy and the table of points based on:
  - a. noncompliance with Title R309 of the Utah Administrative Code;
  - b. noncompliance with a directive or order issued by the director; or
  - c. operational practices or performance that may result in a threat to public health.

### ***R309-400-5. Public Water System Ratings.***

1. The director may assign a rating to a public water system of:
  - a. Approved based on the total number of points assessed for noncompliance;
  - b. Not Approved based on:
    - i. the total number of points assessed for noncompliance, or
    - ii. an immediate public health threat; or
  - c. Corrective Action based on a current, written agreement with the division to resolve underlying noncompliance according to a compliance schedule.
2. A public water system shall maintain an Approved rating.
3. A public water system with a Not Approved rating shall:
  - a. take immediate action to resolve the noncompliance that resulted in the Not Approved rating; or
  - b. enter into a written agreement with the division to resolve the noncompliance that resulted in the Not Approved rating according to a compliance schedule.

### ***R309-400-6. Administrative Appeals.***

1. The assessment of points does not constitute a permit order per R305-7-102(1)(l) and may not be appealed pursuant to R305-7.
2. The assignment of a rating to a public water system constitutes an initial order per R305-7-102(1)(g) and may be appealed by submitting, filing, and serving a written Request for Agency Action pursuant to R305-7-303 within 30 days of the date of the order issued by the director.

**KEY: drinking water, environmental protection, penalties**

**Date of Enactment or Last Substantive Amendment:**

**Notice of Continuation: March 22, 2010**

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

Improvement Priority System Program  
Presented to the Drinking Water Board  
June 11, 2019

**DRINKING WATER BOARD PACKET**

**Original Deficiency and Violation tables with “Current” and “Proposed” columns.**

**Utah Division of Drinking Water R309-400 Rule - IPS Program Deficiencies**

Deficiency Code (Current)	Deficiency Description (Current)	Deficiency Type (Current)	Points (Current)	Deficiency Code (Current)	Deficiency Description (Proposed)	Deficiency Type (Proposed)	Points (Proposed)	Rule Reference
<b>General</b>								
G004	INSUFFICIENT SYSTEM OWNERSHIP INFORMATION	MIN	10	G004	INSUFFICIENT SYSTEM OWNERSHIP INFORMATION	Min	15	R309-100-4(3)
A025	ADMINISTRATIVE ISSUES - SEE NOTES FOR SPECIFIC DETAILS	MIN	25	A025	Administrative Issues - see R309-400 for details	Min	15	R309-400-11
A050	ADMINISTRATIVE ISSUES - SEE NOTES FOR SPECIFIC DETAILS	SIG	50	A050	Administrative Issues - see R309-400 for details	Sig	25	R309-400-11
A075	ADMINISTRATIVE ISSUES - SEE NOTES FOR SPECIFIC DETAILS	SIG	75	A075	Administrative Issues - see R309-400 for details	Sig	50	R309-400-11
A100	ADMINISTRATIVE ISSUES - SEE NOTES FOR SPECIFIC DETAILS	SIG	100	A100	Administrative Issues - see R309-400 for details	Sig	100	R309-400-11
A150	ADMINISTRATIVE ISSUES - SEE NOTES FOR SPECIFIC DETAILS	SIG	200	A150	Administrative Issues - see R309-400 for details	Sig	200	R309-400-11
A226	PWS DID NOT FOLLOW TYPICAL PLAN APPROVAL PROCESS FOR THIS FACILITY. AFTER THE FACT OP ISSUED. THIS CODE REMAINS UNTIL THE FACILITY IS REPLACED OR BROUGHT UP TO DATE.	REC	0	A226	AFTER THE FACT OP ISSUED FOR FACILITY THAT DID NOT FOLLOW APPROVAL PROCESS. CODE REMAINS UNTIL FACILITY IS REPLACED OR UPDATED.	Rec	0	R309-500-6
<b>Management (Cross Connection Control, Operator Certification, Emergency Response, etc.)</b>								
M020	UNPROTECTED CROSS CONN PRESENT IN DIST SYSTEM	SIG	50	M020	CROSS CONNECTION EXISTS IN WATER SYSTEM	Sig	50	R309-105-12(1)
M003	CCC-LACKS LOCAL AUTHORITY	MIN	10	M003	CCC-LACKS LOCAL AUTHORITY	MIN	15	R309-105-12(2)
M004	CCC-NO ANNUAL PUBLIC EDUCATION OR AWARENESS	MIN	10	M004	CCC-NO ANNUAL PUBLIC EDUCATION OR AWARENESS	MIN	15	R309-105-12(2)
M005	CCC-LACKS OPERATOR TRAINING	MIN	10	M005	CCC-LACKS OPERATOR TRAINING	MIN	15	R309-105-12(2)
M006	CCC-LACKS WRITTEN RECORDS OF CCC ACTIVITIES	MIN	10	M006	CCC-LACKS WRITTEN RECORDS OF CCC ACTIVITIES	MIN	15	R309-105-12(2)
M007	CCC-LACKS ON-GOING ENFORCEMENT IMPLEMENTATION	MIN	10	M007	CCC-LACKS ON-GOING ENFORCEMENT IMPLEMENTATION	MIN	15	R309-105-12(2)
M008	SERVICE CONNECTION RELIES ON INDIVIDUAL HOME BOOSTER PUMP DUE TO INADEQUATE PRESSURE	SIG	50	M008	SERVICE CONNECTIONS IN DISTRIBUTION SYSTEM RELY ON INDIVIDUAL HOME BOOSTER PUMP DUE TO INADEQUATE PRESSURE	Sig	50	R309-550-11(3)
				M009	IMPROPER BACTERIOLOGICAL SAMPLE COLLECTING AND HANDLING	Min	15	R309-215-4(3)
				M014	CONFIRMED PATTERN OF UNSATISFACTORY DRINKING WATER QUALITY SAMPLES	Sig	25	R309-200-6, R309-105-18, R309-215-4(3)
				M015	CONFIRMED WATER BORNE ILLNESS AS A RESULT OF PUBLIC DRINKING WATER CONTAMINATION	Sig	50	R309-105-18(f), R309-215-11
				M016	HISTORY OF VERIFIED CUSTOMER COMPLAINTS REGARDING DRINKING WATER QUALITY OR QUANTITY	Sig	50	R309-105-18(f), R309-215-11

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				M017	WATER STAGNATION, BIOFILM OR SEDIMENTS CONTRIBUTES TO DRINKING WATER CONTAMINATION	Sig	50	R309-200-6, R309-105-18, R309-215-4(3)
				M018	INTERRUPTION OF TREATMENT PROCESS CONTRIBUTES TO DRINKING WATER CONTAMINATION	Sig	50	R309-200-6, R309-105-18, R309-215-5, R309-215-4(3)
M001	CURRENT EMERGENCY RESPONSE PROGRAM	REC	-10					
C001	NO CERTIFIED OPERATOR WHEN REQUIRED FOR SYSTEM	SIG	30	C001	SYSTEM DIRECT RESPONSIBLE CHARGE OPERATORS NOT CERTIFIED AT THE REQUIRED LEVEL	Sig	50	R309-105-11, R309-300-5(3)
				M019	FAILURE TO SUBMIT REQUIRED WATER USE DATA ANNUALLY OR VERIFY DATA ACCURACY	Min	15	R309-105-15(1)
C002	OPERATOR NOT AVAILABLE WITHIN 1-HOUR TRAVEL TIME	MIN	20					
C004	OPERATOR CERTIFIED AT A HIGHER-LEVEL THAN REQUIRED	REC	-20					
M002	CURRENT FINANCIAL CAPACITY PLAN IN PLACE	REC	-10					
G001	WATER SYSTEM FACILITY LACKS PLAN APPROVAL	SIG	50	G001	UNAPPROVED FACILITY IN SERVICE	Sig	50	R309-100-5(2), R309-500-6, R309-500-9, R309-500-9(2) and (3)
B001	UNAPPROVED TREATMENT PROCESS			G006	USING UNAPPROVED TREATMENT PROCESS OR CHEMICAL	SIG	50	R309-105-6(1)(a), R309-500-6
				G007	CONSTRUCTION WITHOUT PRIOR APPROVAL	Sig	50	R309-100-5(1), R309-105-6(1)(a), R309-500-6, R309-500-9, R309-500-9(3)
S001	SOURCE LACKS PLAN APPROVAL	SIG	200	S001	UNAPPROVED SOURCE IN SERVICE	Sig	200	R309-515-6(1)(5), R309-515-7(7), R309-550-9(2) and (3)
M025	UNAPPROVED SYSTEM INTERCONNECTION	SIG	200	M025	UNAPPROVED INTERCONNECTION WITH ANOTHER WATER SYSTEM	Sig	50	R309-550-9(3)
<b>Minimum Sizing</b>								
V030	SYSTEM LACKS 10% OF REQUIRED STORAGE CAPACITY	MIN	10	V031	SYSTEM LACKS UP TO 20% OF REQUIRED STORAGE CAPACITY (FIRE DEMAND NOT INCLUDED)	Min	15	R309-510-8(1)(a)
V031	SYSTEM LACKS 20% OF REQUIRED STORAGE CAPACITY	SIG	20					
V032	SYSTEM LACKS 30% OF REQUIRED STORAGE CAPACITY	SIG	30					

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V033	SYSTEM LACKS 40% OF REQUIRED STORAGE CAPACITY	SIG	40	V034	SYSTEM LACKS MORE THAN 20% OF REQUIRED STORAGE CAPACITY (FIRE DEMAND NOT INCLUDED)	Sig	50	
V034	SYSTEM LACKS >40% OF REQUIRED STORAGE CAPACITY	SIG	50					
VF30	SYSTEM LACKS 10% OF REQUIRED STORAGE FOR FIRE SUPPRESSION	MIN	10	VF34	SYSTEM LACKS REQUIRED STORAGE CAPACITY DUE TO FIRE DEMAND BUT HAS SOP FOR FOLLOWING FIRE INCIDENT	Min	15	R309-510-8(1)(b)
VF31	SYSTEM LACKS 20% OF REQUIRED STORAGE FOR FIRE SUPPRESSION	MIN	20					
VF32	SYSTEM LACKS 30% OF REQUIRED STORAGE FOR FIRE SUPPRESSION	MIN	30					
VF33	SYSTEM LACKS 40% OF REQUIRED STORAGE FOR FIRE SUPPRESSION	MIN	40					
VF34	SYSTEM LACKS >40% OF REQUIRED STORAGE FOR FIRE SUPPRESSION	MIN	50					
VF30	SYSTEM LACKS 10% OF REQUIRED STORAGE FOR FIRE SUPPRESSION	MIN	10					
VF31	SYSTEM LACKS 20% OF REQUIRED STORAGE FOR FIRE SUPPRESSION	MIN	20					
VF32	SYSTEM LACKS 30% OF REQUIRED STORAGE FOR FIRE SUPPRESSION	MIN	30					
VF33	SYSTEM LACKS 40% OF REQUIRED STORAGE FOR FIRE SUPPRESSION	MIN	40					
VF34	SYSTEM LACKS >40% OF REQUIRED STORAGE FOR FIRE SUPPRESSION	MIN	50					
S090	SYSTEM LACKS 10% OF REQUIRED SOURCE CAPACITY	MIN	10	S091	SYSTEM LACKS UP TO 20% OF REQUIRED SOURCE CAPACITY	Min	15	
S091	SYSTEM LACKS 20% OF REQUIRED SOURCE CAPACITY	SIG	20					
S092	SYSTEM LACKS 30% OF REQUIRED SOURCE CAPACITY	SIG	30	S094	SYSTEM LACKS MORE THAN 20% OF REQUIRED SOURCE CAPACITY	Sig	50	R309-510-7(1)
S093	SYSTEM LACKS 40% OF REQUIRED SOURCE CAPACITY	SIG	40					
S094	SYSTEM LACKS >40% OF REQUIRED SOURCE CAPACITY	SIG	50					
<b>Source Development</b>								
TGR 7	SYSTEM LACK AT LEAST 2 SOURCES FOR 100 CONNECTIONS	NON	0	TGR 7	COM SYSTEM SERVING 100 OR MORE CONNECTIONS LACKS REDUNDANT SOURCE	Sig	50	R309-515-4(3)
S033	NO BACKUP POWER FOR COM SYSTEM WO FREE FLOWING SOURCE	SIG	25	S033	COM SYSTEM WITHOUT NATURALLY FLOWING SOURCES LACKS BACKUP POWER FOR AT LEAST ONE WATER SOURCE	Sig	25	R309-515-6(2)(a)
S003	ELEVATION OF WELL CASING INADEQUATE	SIG	20	S003	WELL CASING TERMINATES LESS THAN 12 INCHES ABOVE FLOOR OR LESS THAN 18 INCHES ABOVE GROUND SURFACE	Sig	25	R309-515-6(6)(b)(vi), R309-515-6(12)(c)(ii), R309-515-6(13)(a)

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S013	WELL LACKS PROPER SANITARY SEAL	SIG	50	S013	WELL LACKS THE REQUIRED WELL SEAL	Sig	50	R309-515-6(6)(i)
S095				S095	UNFINISHED WELL NOT CAPPED SECURELY	Sig	50	R309-515-6(8)(a), R655-4-14.1
S005	PITLESS ADAPTER NOT WATERTIGHT LACKS PROPER SEALING	SIG	50	S005	WELL WITH PITLESS ADAPTOR NOT WATER TIGHT OR NOT PROTECTED AGAINST VANDALISM	Sig	50	R309-515-6(12)(c)
S006	WELL CASING VENT NOT PROPERLY SCREENED	SIG	2	S006	END OF WELL CASING VENT LACKS NO. 14 SCREEN	Sig	25	R309-515-6(12)(d)(iii)
S007	WELL CASING VENT IS NOT DOWNTURNED	MIN	2	S007	WELL CASING VENT NOT DOWNTURNED			R309-515-6(12)(d)(iii)
S008	WELL CASING VENT DOES NOT HAVE AN PROPER AIR GAP	MIN	2	S008	WELL CASING VENT LACKS AIR GAP AGAINST CONTAMINATION			R309-515-6(12)(d)(iii)
S028	A/V RELEASE VALVE IS NOT DOWNTURNED	MIN	2	S028	AIR RELEASE VACUUM RELIEF VALVE PIPING NOT DOWNTURNED			R309-515-6(12)(d)(v)
S029	A/V RELEASE VALVE LACKS PROPER SCREEN	SIG	2	S029	END OF AIR RELEASE VACUUM RELIEF VALVE PIPING LACKS NO. 14 SCREEN			R309-515-6(12)(d)(v)
S030	A/V RELEASE VALVE LACKS PROPER AIRGAP	MIN	2	S030	END OF AIR RELEASE VACUUM RELIEF VALVE PIPING LACKS A CLEARANCE OF AT LEAST 6 INCHES			R309-515-6(12)(d)(v)
SL01	NO MEANS TO RELEASE TRAPPED AIR FROM SOURCE PUMP	MIN	5	SL01	WELL THAT PUMPS DIRECTLY TO DISTRIBUTION LACKS A MEANS TO RELEASE TRAPPED AIR	Min	5	R309-515-6(12)(d)(v)
S009	PUMP TO WASTE LINE LACKS PROPER AIR GAP	SIG	20	S009	WELL PUMP-TO-WASTE LINE LACKS A CLEARANCE OF AT LEAST 12 INCHES	Sig	25	R309-515-6(12)(d)(ix)
S010	PUMP TO WASTE LINE LACKS #4 MESH NON-CORROD SCREEN	SIG	5	S010	END OF WELL PUMP-TO-WASTE LINE LACKS NO. 4 SCREEN	Sig	25	R309-515-6(12)(d)(ix)
S011	PUMP TO WASTE LINE DISCHARGE POINT IMPROPER	SIG	2	S011	WELL PUMP-TO-WASTE LINE NOT DOWNTURNED	Sig	25	R309-515-6(12)(d)(ix)
S015	WELL LACKS A MEANS TO MEASURE DRAWDOWN	MIN	2	S015	WELL LACKS A MEANS TO MEASURE WATER LEVELS PERIODICALLY	Min	5	R309-515-6(12)(e ), R309-515-6(12)(c)(vi)
S002	WELL HOUSE NOT SECURE	SIG	20	S002	WELL HOUSE NOT PROTECTED AGAINST VANDALISM	Sig	25	R309-105-10(5)
S020	WELL HOUSE STATION NOT PROTECTED FROM FLOODING	MIN	5	S020	WELL HEAD OR WELL HOUSE NOT PROTECTED FROM FLOODING	Sig	25	R309-515-6(6)(b)(vi), R309-515-6(12)(d)(iii), R309-515-6(13)(a) to (d)
S021	UNPROTECTED CROSS CONN PRESENT IN WELL HOUSE	SIG	20	S021	CROSS CONN EXISTS IN WELL HOUSE OR AT WELL HEAD	Sig	50	R309-105-12(1), R309-515-6(12)(d)(iii)
S022	LACK OF DRAIN TO DAYLIGHT FLOOR DRAIN	MIN	5	S022	WELL HOUSE LACKS A MEANS OF PROVIDING DRAINAGE	Min	5	R309-515-6(13)(b)
TGR5	TOXIC / HAZARDOUS MATERIALS STORED IN PUMPING STATION	NON	0	TGR5				

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S023	NO SMOOTH NOSED SAMPLING TAP ON DISCHARGE PIPING	MIN	1	S023	NO SMOOTH NOSED SAMPLING TAP ON WELL DISCHARGE PIPING	Min	5	R309-515-6(12)(d)(iv)
S024	NO CHECK VALVE ON DISCHARGE PIPING	MIN	1	S024	NO CHECK VALVE ON WELL DISCHARGE PIPING	Min	5	R309-515-6(12)(d)(iv)
S025	NO PRESSURE GAUGE ON DISCHARGE PIPING	MIN	1	S025	NO PRESSURE GAUGE ON WELL DISCHARGE PIPING	Min	5	R309-515-6(12)(d)(iv)
S026	NO FLOW MEASURING DEVICE ON DISCHARGE PIPING	MIN	1	S026	NO FLOW METER ON WELL DISCHARGE PIPING	Min	5	R309-515-6(12)(d)(iv)
S027	NO SHUT OFF VALVE ON DISCHARGE PIPING	MIN	1	S027	NO SHUTOFF VALVE ON WELL DISCHARGE PIPING	Min	5	R309-515-6(12)(d)(iv)
S031	IMPROPER LUBRICATION OIL	SIG	25	S031	PUMP LUBRICANTS NOT ANSI/NSF 60 CERTIFIED MINERAL OIL	Sig	25	R309-105-10(7), R309-515-6(6)(a)
S150	SOURCE DETERMINED AS UDI	SIG	150	S150	GWUDI OR SURFACE WATER SOURCE LACKS SURFACE WATER TREATMENT	Sig	200	R309-505-5(1)(a) to (d), R309-505-7(1), R515-7(3), R309-520-6(3)(a) and (4)
S097	see S150			S097	SURFACE WATER/UDI SOURCE LACKS SURFACE WATER TREATMENT	Sig	200	R309-515-5(1) & 7(1)
SS19	LACK OF ACCEPTABLE LINER	MIN	10	SS19	SPRING IMPERMEABLE LINER INADEQUATE OR NOT INTACT	Sig	50	R309-515-7(7)(b)
SS22	LACK OF IMPERVIOUS SOIL COVER	MIN	10	SS22	SPRING IMPERVIOUS SOIL COVER INADEQUATE OR NOT INTACT	Sig	50	R309-515-7(7)(b)
L014	NO SPRING COLLECITON BOX PRESENT	REC	0	L014	SPRING COLLECITON BOX NOT PRESENT	Min	5	R309-515-7(7)(c)
SS20	UNSEALED OPENINGS IN SPRING COLLECTION BOX	SIG	50	SS20	UNSEALED OPENINGS IN SPRING COLLECTION BOX	Sig	50	R309-515-7(7)(d), R309-545-14 (1)
SS13	SPRING BOX IS NOT SECURE	SIG	20	SS13	SPRING BOX LID NOT LOCKED	Sig	25	R309-515-7(7)(d), R309-545-14 (3)
SS09	SPRING BOX LACKS SHOE BOX LID	MIN	5	SS09	SPRING BOX LID NOT SHOEBOX STYLE			R309-515-7(7)(d), R309-545-14 (2)
SS10	SPRING BOX LACKS A GASKET ON LID	SIG	5	SS10	SPRING BOX LID LACKS A GASKET			R309-515-7(7)(d), R309-545-14 (2)
SS12	SPRING BOX LACKS RAISED ACCESS ENTRY	MIN	5	SS12	SPRING BOX ENTRY NOT ELEVATED AT LEAST 18 INCHES ABOVE EARTHEN COVER	Min	15	R309-515-7(7)(d), R309-545-14 (1),
SS11	SPRING BOX LACKS AN ADEQUATE AIR VENT	MIN	5	SS11	SPRING BOX LACKS A MEANS OF VENTING	Min	5	R309-515-7(7)(d), R309-545-15
SS16	SPRING COLLECTION BOX VENT NOT DOWN-TURNED	MIN	2	SS16	SPRING BOX VENT NOT DOWNTURNED	Sig	25	R309-515-7(7)(d), R309-545-15(1)
SS17	SPRING COLLECTION BOX VENT NOT PROPERLY SCREENED	SIG	2	SS17	SPRING BOX VENT LACKS NO. 14 SCREEN			R309-515-7(7)(d), R309-545-15(4)
SS18	SPRING COLLECTION BOX VENT NOT AIR GAPPED	MIN	2	SS18	END OF SPRING BOX VENT IS AT LEAST 24 INCHES ABOVE EARTHEN COVER			R309-515-7(7)(d), R309-545-15(23)
SS12	VENT NOT PRESENT BUT RECOMMENDED	REC	0	SS15	HEIGHT OF SPRING BOX VENT NOT SIZED TO PREVENT BLOCKAGE IN WINTER			R309-515-7(7)(d), R309-545-15(3)

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SS23				SS23	SPRING BOX LACKS A MEANS OF PROVIDING OVERFLOW	Min	15	R309-515-7(7)(d), R309-545-13(1)
SS14	SPRING BOX DRAIN/OVERFLOW LACKS PROPER FREE FALL	SIG	5	SS14	SPRING BOX OVERFLOW OR DRAIN LACKS A FREE FALL OF 12 TO 24 INCHES	Sig	25	R309-515-7(7)(d), R309-545-13
SS04	SPRING BOX LACKS PROPER OVERFLOW/DRAIN LACKS PROPER SCREEN	SIG	5	SS04	SPRING BOX OVERFLOW LACKS NO. 4 SCREEN			R309-515-7(7)(d), R309-545-10(1)(d), R309-545-13(3)
SS21	<del>DRAIN LINE DOES NOT HAVE ADEQUATE AIR GAP NOT COVERED IN IPS</del>	REC	0	SS21				
SS02	SPRING COLLECTION AREA NOT FENCED	Min	10	SS02	SPRING COLLECTION AREA NOT FENCED	Min	15	R309-515-7(7)(e)
SS03	SPRING COLLECTION AREA LACKS A DIVERSION CHANNEL	MIN	5	SS03	SPRING LACKS A DIVERSION CHANNEL OR BERM TO DIVERT RUNOFF AWAY FROM SPRING COLLECTION AREA	Min	15	R309-515-7(7)(g)
SS01	SPRING LACKS A PERMANENT FLOW MEASURING DEVICE	MIN	5	SS01	LACKS A PERMANENT DEVICE FOR MEASURING SPRING FLOW	Min	5	R309-515-7(7)(h)
SS06	MAJOR PONDING ON SPRING COLLECTION AREA	SIG	20	SS06	PONDING WITHIN SPRING COLLECTION AREA	Sig	25	R309-515-7(7)(i)
SS07	DEEP ROOTED VEGETATION IN SPRING COLLECTION AREA	MIN	10	SS07	DEEP ROOTED VEGETATION IN SPRING COLLECTION AREA	Sig	25	R309-515-7(7)(f)
SS08	ROOTS IN COLLECTION PIPES	MIN	10	SS08	ROOTS IN SPRING COLLECTION PIPES	Sig	25	R309-105-10(4)(a)
SS24				SS24	HERBICIDE, PESTICIDES OR ALGICIDES APPLIED ARE NOT ANSI NSF 60 CERTIFIED AND WITHOUT APPROVAL	Sig	50	R309-105-10(4)(b), R309-515-8(1)(b) and (3)
<b>Disinfection Methods</b>								
TD41	CLEANING MATERIALS DO NOT MEET ANSI/NSF 60 STANDARDS	SIG	25	TD41	CLEANING CHEMICALS DO NOT MEET ANSI NSF 60 STANDARD	Sig	50	R309-520-8(3)(j)
TD90	CHLORINE CHEMICALS DO NOT MEET ANSI/NSF 60 STANDARD	SIG	25	TD90	ADDING CHEMICALS THAT DO NOT MEET ANSI NSF 60 STANDARD			R309-520-6(2)
TD47	QUENCHING CHEMICALS DO NOT MEET ANSI/NSF 60 STANDARDS	SIG	25	TD47	QUENCHING CHEMICALS DO NOT MEET ANSI NSF 60 STANDARD			R309-520-9(4)(h)
TD78	INSUFFICIENT SAMPLING FOR CHLORINE RESIDUAL TESTING	MIN	2	TD78	LACKS EQUIPMENT FOR CHLORINE RESIDUAL TESTING	Min	15	R309-520-7(1)(j)
TD75	CL2 SYSTEM LACKS SPARE PARTS FOR HYPOCHLORINATOR	MIN	2	TD75	LACKS SPARE PARTS OR BACKUP EQUIPMENT FOR CHLORINATOR	Min	15	R309-520-7(1)(k)(i and ii), R309-520-6(1)(a) and (c)
<del>TD22</del>	<del>CL2 INSUFFICIENT BACK-UP EQUIPMENT</del>	<del>MIN</del>	<del>10</del>	<del>TD22</del>	LACKS BACKUP POWER SUPPLY FOR REQUIRED DISINFECTION	Sig	25	R309-520-7(1)(k)(iii)
TD42	UNABLE TO ISOLATE UV DISINFECTION SYSTEM FOR MAINTENANCE	MIN	2	TD42	UNABLE TO ISOLATE UV REACTOR FOR MAINTENANCE	Min	15	R309-520-8(3)(g)

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TD43	NO BACKUP POWER SOURCE	MIN	2	TD43	LACKS BACKUP POWER SUPPLY FOR REQUIRED UV DISINFECTION	Sig	25	R309-520-8(3)(l)
TD44	NO REDUNDANT PRIMARY DISINFECTION MECHANISM	MIN	5	TD44	LACKS REDUNDANT PRIMARY DISINFECTION METHOD IF UV REACTOR IS OFF SPEC	Sig	25	R309-520-8(3)(m)
TD25	CL2 DISINFECTION PROCESS NOT CONTINUOUS	SIG	2	TD25	DISINFECTION IS REQUIRED BUT DISINFECTION IS INTERMITTENT OR NOT CONTINUOUS	Sig	50	R309-520-6(1)(a)
TD39	LACKS ADEQUATE OPERATING PROCEDURES FOR UV	MIN	2	TD39	UV FACILITY LACKS STANDARD OPERATING PROCEDURES	Min	15	R309-520-8(4)(b)
				TD97	INSUFFICIENT UV DOSE FOR REQUIRED TREATMENT	Sig	25	R309-525-8(1)(b)(iv), R309-215-15(19)(d)
TD08	CL2 BUILDING IMPROPER HEAT LIGHT OR VENTILATION	MIN	2	TD08	CHLORINATOR BUILDING NOT HEATED, LIGHTED OR VENTILATED	Min	15	R309-520-7(1)(l)
TD69	CHLORINATOR BUILDING LACKS ADEQUATE VENTILATION	REC	0	TD69	INCOMPATIBLE CHEMICALS STORED IN CHLORINE ROOM	Sig	25	R309-520-7(1)(m)
TD91				TD91	CHLORINATOR LACKS A MEANS TO MEASURE FLOW OF TREATED WATER	Sig	25	R309-520-7(1)(i)
TD01	CL2 - NO AUTOMATIC CL CYLINDER SWITCH OVER	MIN	2	TD01	CONTINUOUS DISINFECTION IS REQUIRED BUT CHLORINATOR LACKS AUTOMATIC SWITCHOVER	Min	15	R309-520-7(2)(a), R309-520-6(1)
TD09	CL2 IMPROPER LOCATION FOR VENTILATING FAN SUCTION	MIN	5	TD09	CHLORINE ROOM EXHAUST FAN SUCTION NOT LOCATED NEAR FLOOR	Min	15	R309-520-7(2)(d)(iii)
TD10	CL2 AIR INLETS NOT LOCATED NEAR CEILING W/LOUVERS	MIN	2	TD10	CHLORINE ROOM AIR INLET NOT LOCATED NEAR CEILING THROUGH WALL LOUVERS	Min	15	R309-520-7(2)(d)(iv)
TD12	CL2 SWITCHED FOR FAN / LIGHTS NOT OUTSIDE CL2 ROOM	MIN	2	TD12	LACK SEPARATE SWITCHES FOR FAN AND LIGHTS NEAR CHLORINE ROOM ENTRANCE	Min	15	R309-520-7(2)(d)(v)
TD13	CL2 FEED VENT IMPROPERLY VENTED OR SCREENED	MIN	2	TD13	CHLORINE VENT LINE NOT DISCHARGED OUTSIDE ABOVE GRADE OR LACKS NO. 14 SCREEN	Sig	25	R309-520-7(2)(e)
TD17	CL2 CYLINDERS EXPOSED TO DIRECT SUN OR EXCESS HEAT	MIN	2	TD17	CHLORINE CYLINDERS ARE EXPOSED TO DIRECT SUN OR EXCESSIVE HEAT	Sig	25	R309-520-7(2)(f)(ii)
TD92				TD92	GAS CHLORINATION EQUIPMENT NOT SECURE OR LACKING PROPER HOUSING	Sig	25	R309-520-7(2)(f)(i)
TD15	CHLORINE CYLINDERS IMPROPERLY RESTRAINED	MIN	2	TD15	CHLORINE CYLINDERS NOT RESTRAINED	Sig	25	R309-520-7(2)(h)
TD16	CL2 CYLINDERS NOT STORED SEPARATE FROM AMMONIA	SIG	2	TD16	INADEQUATE DISINFECTION FOR GROUND WATER SOURCE REQUIRED TO DISINFECT	Sig	200	R309-520-6(3)(b) and (4)
TD02	LACKS EQUIPMENT TO MEASURE CHLORINE FEED RATE	MIN	2	TD02	LACKS EQUIPMENT TO MEASURE CHLORINE FEED RATE	Sig	25	R309-520-7(1)(c), R309-520-7(2)(i)
TD21	CL2 UNPROTECTED CROSS CONN PRESENT IN FEED LINE	MIN	5	TD21	CROSS CONNECTION EXISTS IN CHLORINE MAKEUP WATER SUPPLY LINE	Sig	25	R309-520-7(1)(h)(i)
TD14	CL2 LACKS A MEANS OF LEAK DETECTION 150 LB	MIN	2	TD14	NO AMMONIA HYDROXIDE SOLUTION FOR CHLORINE LEAK DETECTION	Min	15	R309-520-7(2)(l)(i)
TD04	CL2 LACKS A 150 LB CHLORINE CYLINDER REPAIR KIT	REC	0	TD04	150-POUND CYLINDER FACILITY LACKS IMMEDIATE ACCESS TO NIOSH RESPIRATOR	Sig	25	R309-520-7(2)(k)(ii)

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TD06	CL2NO ACCESS TO SELF CONTAINED BREATHING APPARATUS	MIN	5	TD06	1-TON CYLINDER FACILITY LACKS IMMEDIATE ACCESS TO NIOSH SELF-CONTAINED BREATHING APPARATUS	Sig	25	R309-520-7(2)(k)(i)
TD05	CL2 LACKS A 1 TON CHLORINE CYLINDER REPAIR KIT	SIG	15	TD05	1-TON CYLINDER FACILITY LACKS A LEAK REPAIR KIT APPROVED BY CHLORINE INSTITUTE	Sig	25	R309-520-7(2)(l)(ii)
TD19	CL2 LACKS A MEANS OF LEAK DETECTION 1 TON	MIN	15	TD19	1-TON CYLINDER FACILITY LACKS CONTINUOUS CHLORINE LEAK DETECTION EQUIPMENT	Sig	25	R309-520-7(2)(l)(iii)
TD23	CL2 NO ALARMS ON CONT LEAK DETECT EQUIP	MIN	5	TD23	1-TON CYLINDER FACILITY LACKS ALARMS ON CONTINUOUS CHLORINE LEAK DETECTOR	Sig	25	R309-520-7(2)(l)(iv)
TD93				TD93	1-TON CYLINDER OPERATING AREA LACKS GAS SCRUBBER	Sig	25	R309-520-7(2)(b)
TD18	CL2 ROOM NOT SEALED FROM REST OF FACILITY	MIN	2	TD18	1-TON CYLINDER CHLORINE ROOM VENTILATION NOT INDEPENDENT OR SEPARATE FROM VENTILATION FOR THE REST OF THE TREATMENT PLANT	Sig	25	R309-520-7(2)(d)(iv)
TD66	FACILITY DOES NOT PROVIDE SOME METHOD OF EMERGENCY EYEWASH	REC	0	TD66	HYPOCHLORITE FACILITY LACKS A MEANS OF EMERGENCY EYEWASH	Sig	25	R309-520-7(3)(a)(i)
TD67	HYPOCHLORITE NOT PROTECTED FROM EXCESSIVE HEAT OR DIRECT SUN LIGHT	REC	0	TD67	HYPOCHLORITE LIQUID NOT PROTECTED FROM EXCESSIVE HEAT OR DIRECT SUNLIGHT	Min	5	R309-520-7(3)(a)(ii)
TD68	NO RECORDS KEPT TO MINIMIZE USE OF DECAYED HYPOCHLORITE SOLUTION	REC	0	TD68	NO RECORDS KEPT TO MINIMIZE USE OF DECAYED HYPOCHLORITE SOLUTION	Min	5	R309-520-7(3)(b)
TD24				TD24	HYPOCHLORITE TANK LACKS A LIQUID LEVEL INDICATOR	Min	5	R309-525-11(6)(a)(iv)(A)
TD29				TD29	HYPOCHLORITE FACILITY DOES NOT HAVE ADEQUATE SPILL CONTAINMENT	Min	5	R309-525-11(6)(a)(iv)(B)
TD70	MAKE UP WATER NOT DRINKING WATER QUALITY	REC	0	TD70	CHLORINE SOLUTION MAKEUP WATER NOT OF DRINKING WATER QUALITY	Sig	25	R309-520-7(1)(h)(i), R309-520-7(3)(c)(iii)
TD71	HYDROGEN GAS FROM ELECTROLYTIC CELL NOT PROPERLY VENTED	REC	0	TD71	HYDROGEN GAS FROM ONSITE HYPOCHLORITE GENERATION ELECTROLYTIC CELL NOT VENTED UPWARD TO OUTSIDE	Sig	50	R309-520-7(3)(c)(iv)
TD72	HYPOCHLORINE TABLETS NOT STORED IN COOL, DRY, VENTED AREA	REC	0	TD72	HYPOCHLORITE TABLETS NOT STORED IN COOL, DRY AND VENTED AREA	Min	5	R309-520-7(3)(d)(iii)
TD73	HYPOCHLORITE TABLETS STORED WITH COMBUSTIBLE MAT. OR ACIDS	REC	0	TD73	HYPOCHLORITE TABLETS STORED WITH COMBUSTIBLE MATERIALS OR ACIDS	Sig	25	R309-520-7(3)(d)(iii)
TD26	CL2 CONTACT TIME IS INSUFFICIENT	SIG	35	TD26	FAIL TO PROVIDE DISINFECTION CT OR REPORT INACCURATE CT FOR REQUIRED TREATMENT	Sig	50	R309-505-5(3), R309-
TD40	UV INTENSITY SENSOR NOT CORRECTLY CALIBRATED	MIN	2	TD40				
TD46	INADEQUATE OZONE RESIDUAL ANALYZERS	MIN	2	TD46	OZONE FACILITY LACKS ADEQUATE OZONE RESIDUAL ANALYZERS FOR CT DETERMINATION	Min	15	R309-520-9(7)(c)
TD48	OZONE OFF-GAS BLOWERS NOT PROPERLY FUNCTIONING	MIN	2	TD48	OZONE OFFGAS BLOWERS NOT FUNCTIONING	Min	15	R309-520-9(5)(b)

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TD49	OZONE OFF-GAS DISTRUCTION UNITS NOT PROVIDED / PROPERLY FUNCTIONING PROPERLY	MIN	2	TD49	OZONE OFFGAS DISTRUCTION UNITS NOT PROVIDED OR NOT FUNCTIONING	Min	15	R309-520-9(5)(a)
TD31	EMERGENCY EYEWASH AND SHOWER NOT AVAILABLE	MIN	2	TD31	CHLORINE DIOXIDE FACILITY LACKS EMERGENCY EYEWASH AND SAFETY SHOWER	Sig	25	R309-520-10(3)(b)(viii)
TD32	NO EMERGENCY SHUT OFF FOR CHLORINE DIOXIDE GENERATOR	MIN	2	TD32	NO EMERGENCY SHUTOFF FOR CHLORINE DIOXIDE GENERATOR	Sig	25	R309-520-10(3)(b)(ix)
TD34	NO CHLORINE DIOXIDE SENSOR ALARM AVAILABLE	MIN	2	TD34	NO AMBIENT CHLORINE DIOXIDE SENSOR OR ALARM OR WARNING LIGHT	Sig	25	R309-520-10(3)(b)(v)
TD35	NO WASH DOWN WATER AVAILABLE	MIN	2	TD35	CHLORINE DIOXIDE OPERATING AREA LACKS WASH DOWN WATER	Min	15	R309-520-10(3)(b)(xvi)
TD28	COMBUSTIBLE OR REACTIVE MATERIALS IMPROPERLY STORED	MIN	2	TD28	COMBUSTIBLE OR REACTIVE MATERIALS STORED IN CHLORINE DIOXIDE OPERATING AREA	Sig	50	R309-520-10(5)(a)
TD30	PERSONAL PROTECTIVE EQUIPMENT NOT AVAILABLE	MIN	5	TD30	PERSONAL PROTECTIVE EQUIPMENT NOT AVAILABLE NEAR AND OUTSIDE OF CHLORINE DIOXIDE OPERATING AREA	Sig	25	R309-520-10(5)(c)
TD33	CHLORINE AND CHLORINE DIOXIDE TANKS IMPROPERLY VENTED	MIN	2	TD33	CHLORINE DIOXIDE OPERATING AREA AND SOLUTION TANKS NOT PROPERLY VENTED	Min	15	R309-520-10(5)(k), R309-525-11(8)(b)(vi)
TD36	OPERATING AREA TEMPRATURES NOT BETWEEN 60 AND 100 DEGREES F	MIN	2	TD36	CHLORINE DIOXIDE OPERATING AREA TEMPRATURES NOT MAINTAINED BETWEEN 60 AND 100 DEGREES F	Min	15	R309-520-10(5)(d)
TD37	O/M MANUAL DOES NOT INCLUDE SAFETY AND EMERGENCY RESPONSE PROCEDURES	MIN	2	TD37	CHLORINE DIOXIDE FACILITY LACKS SAFETY AND EMERGENCY MANUAL OR OPERATORS LACKS SAFETY AND EMERGENCY TRAINING	Sig	25	R309-520-10(5)(f)
TD38	NO SAFETY AND EMERGENCY-TRAINING	REC	0	TD38				
<b>Surface Water Treatment and Miscellaneous Treatment Methods</b>								
TG32	INADEQUATE PROCESS CONTROL TESTING	MIN	30	TG32				
TC19	ACTIVATED CARBON UNTRAINED OPERATORS ON PROCESS	REC	0	TC19				
TD58				TD58	STANDBY POWER NOT AVAILABLE FOR PRIMARY TREATMENT PROCESS FOR SURFACE WATER TREATMENT	Sig	25	R309-525-7(5), R309-525-11(7)(b)(iii)
TD59				TD59	BACKUP EQUIPMENT OR SPARE PARTS NOT AVAILABLE FOR CRITICAL TREATMENT ITEMS	Sig	25	R309-525-7(6), R309-525-11(7)(b)(i) and (iii)
				<b>C011</b>	TREATMENT PLANT NOT OPERATED BY OPERATOR CERTIFIED TO THE REQUIRED LEVEL	Sig	50	R309-525-7(3)
TC15	ACTIVATED CARBON FEED LINES NOT LABELED OR CODED	MIN	2	TC15	PIPING NOT COLOR CODED OR LABELED TO INDICATE CONTAINED LIQUID AND FLOW DIRECTION	Min	5	R309-525-8
TD79	NO MEANS OF MEASURING WATER TREATED WITH CHLORINE	MIN	10	TD79	NO MEANS TO MEASURE FLOW RATE OF WATER TREATED	Sig	25	R309-525-11(7)(d)(iii)

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TD99	TREATMENT PLANT IS NOT SECURE	SIG	20	TD99	NO MEANS TO MEASURE QUANTITIES OF CHEMICALS USED	Sig	25	R309-525-11(7)(d)(iv)
TD62				TD62	NO SAMPLE TAP FOR EACH UNIT OPERATION OF TREATMENT	Min	15	R309-525-18
TD74				TD74	PERSONAL PROTECTIVE EQUIPMENT, SAFETY SHOWER OR EYEWASH NOT PROVIDED	Sig	25	R309-525-11(10)(b)
TD76	INADEQUATE RESIDUAL MAINTAINED IN DIST SYSTEM	MIN	0	TD76	INADEQUATE MEANS TO MAINTAIN DISINFECTANT RESIDUAL IN THE WATER ENTERING THE DISTRIBUTION SYSTEM	Sig	25	R309-215-10(2), R309-520-7(1)(c)(iii)
TG31	NO FINISHED WATER SAMPLE TAP	MIN	2	TG31	NO SAMPLE TAP FOR TESTING FINISHED WATER	Min	15	R309-525-18, R309-525-25(4)
TG35	XCONN BETWEEN RAW SW AND FINISHED VIA CL2 SYSTEM	SIG	50	TG35	CROSS CONNECTION BETWEEN UNTREATED WATER AND FINISHED WATER	Sig	50	R309-520-7(1)(h), R309-525-11(9)(a) and (b)
TG53	NO BACKFLOW PROTECTION ON SERVICE LINE TO TANKS	SIG	10	TG53	NO BACKFLOW PROTECTION ON IN-PLANT WATER SUPPLY LINE	Sig	50	R309-525-11(9)(a)
TX07	NO BACKFLOW PROTECTION ON MAKE-UP WATER INLET	MIN	2	TX07	NO BACKFLOW PROTECTION ON CHEMICAL MAKEUP WATER SUPPLY LINE	Sig	50	R309-525-11(2)(c), R309-525-11(9)(b)(i) to (iv)
TX08	OVERFLW PIPE NOT TURNED DOWN/SCREENED W/AIR GAP	SIG	10	TX08	SOLUTION TANK OVERFLW PIPE NOT DOWNTURNED OR LACKING A CLEARANCE OF 6 INCHES OR MORE	Sig	50	R309-525-11(8)(b)(v), R309-525-11(9)(b)(iii)
TG64	NO CROSS-CONNECTION CONTROL ON IN-PLANT WATER SUPPLY	SIG	10	TG64	IN-PLANT WATER SUPPLY LACKS CROSS CONNECTION CONTROL	Sig	50	R309-525-11(9)(a)(iii) and (b)
T027	PLANT DOESN'T PROVIDE FINISHED DW IN LAVATORY AND TOILET FACILITIES			T027	IN-PLANT WATER SUPPLY TO LABORATORY AND SANITARY FACILITIES NOT OF FINISHED WATER QUALITY	Sig	25	R309-525-16, R309-525-17(3)
TG06	SOLUTION TANK LACKS BACKFLOW PROTECTION	SIG	10	TG06	see TG18			
TD52	CL2 UNPROTECTED CROSS CONN- PRESENT IN FEED LINE	SIG	10	TD52	already covered in the chlorination questions	Sig	50	R309-520-7(1)(h), R309-525-11(9)(a)(iii)
TD94				TD94	PRESEDIMENTATION BASINS NOT EQUIPPED FOR SLUDGE REMOVAL	Min	15	R309-525-10(1)
T001	NO PROVISIONS FOR PRESSED BYPASS	MIN	0	T001	PLANT LACKS PROVISION FOR BYPASSING PRESEDIMENTATION BASINS	Min	15	R309-525-10(3)
INFO		NON	0	INFO		Non	0	
TC05	ACTIVATED CARBON - PAC IS NOT ADDED AS EARLY AS POSS	REC	0	TC05	Missing Group ID??? INADEQUATE CARBON PAC PROCEDURES	Non		
TC07	ACTIVATED CARBON - PAC IS NOT ADDED BEFORE OXIDANT	REC	0	TC07	ACTIVATED CARBON APPLICATION POINT NOT APPROPRIATE (BEFORE OXIDANT ADDITION)	Min	15	R309-525-11(2)(a) and (d)
TC08	ACTIVATED CARBON - PAC ADD IS NOT AT MULTIPLE PTS	REC	0	TC08				

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TC10	ACTIVATED CARBON - PAC NOT STORED SEPARTE	REC	0	TC10	ACTIVATED CARBON NOT STORED SEPARTELY OR AWAY FROM INCOMPATIBLE CHEMICALS	Sig	25	R309-525-11(7)(a)(iv), R309-105-10
TC17	ACTIVATED CARBON - CHEM STORAGE NOT CLEAN AND DRY	REC	0	TC17	ACTIVATED CARBON STORAGE AND OPERATION AREA NOT CLEAN, DRY OR SAFE FOR OPERATOR SAFETY	Sig	25	R309-525-11(6)(a)(i)(C), R309-525-11(6)(c), R309-525-19, R309-105-10, R309-525-15(d)
<del>L017</del>		<del>NON</del>	<del>0</del>	<del>L017</del>	<del>CHEMICAL ADDITON INVENTORY MISSING</del>	<del>Non</del>	<del>0</del>	<del>R309-525-11</del>
TG63	IMPROPER DRY CHEMICAL FEEDER	MIN	20		see TG19			
TX09	NO MEANS TO METER DILUTION OF BRINE	MIN	2	TX09	BACKUP OR STANDBY CHEMICAL FEEDER NOT AVAILABLE	Min	15	R309-525-11(7)(b)(i) and (ii)
TG21	CHEMICAL FEEDERS IMPROPERLY CALIBRATED	MIN	2	TG21	CHEMICAL FEEDER NOT ACCURATE, CALIBRATED OR FUNCTIONING	Sig	25	R309-525-11(7)(a)(i) and (x)
T080	NOT USING ANSI/NSF 60 APPROVED MATERIALS	SIG	25	T080	CHEMICALS USED FOR DRINKING WATER TREATMENT NOT ANSI NSF 60 CERTIFIED	Sig	25	R309-525-11(5), R309-525-25(1), R309-535-11(5)(d)
TG27	CHEMICALS DO NOT COMPLY WITH ANSI/NSF STANDARD	SIG	25					
TX05	BRINE SALT NO APPROVED BY ANSI/NSF	SIG	25					
TQ10	SEQ - POLY SEQUEST CHEMICALS DOES NOT MEET ANSI/NSF STAND	SIG	25					
TG05	CHEMICAL NAME, PURITY AND CONCENTRATION NOT AVAILABLE FOR ALL CHEMS			TG05	SAFETY DATA SHEET INFO INCLUDING CHEMICAL NAME, PURITY, CONCENTRATION AND SUPPLIER, NOT AVAILABLE FOR ALL CHEMS	Min	15	R309-525-11(5)(a), R309-525-11(6)(b)(i)
				TD98	LACKS OPERATIONAL RECORDS FOR CHEMICAL DOSING	MIN	15	R309-105-14(3)
TG19	INCOMPATIBLE CHEMICALS NOT STORED SEPARATELY	MIN	2	TG19	INCOMPATIBLE CHEMICALS ARE FED, STORED OR HANDLED TOGETHER	Sig	25	R309-525-11(7)(a)(iv)
TG09				TG09	NO MEANS TO MEASURE LIQUID LEVEL IN SOLUTION TANK	Min	15	R309-525-11(6)(a)(iv)(A), R309-525-11(8)(b)(ii), R309-525-11(8)(c)(iv)
TG59	INADEQUATE SPILL CONTAINMENT PROVISIONS	MIN	2	TG59	LACKS CONTAINMENT PROVISIONS TO HANDLE SOLUTION TANK SPILLS OR OVERFLOWS	Min	15	R309-525-11(6)(a)(iv)(B), R309-525-11(8)(b)(viii)
TG10				TG10	SOLUTION TANK LACKS AN INVERTED J VENT OR A MEANS OF VENTING	Min	5	R309-525-11(6)(a)(iv)(C)
TG13				TG13	ACID SOLUTION NOT KEPT IN CLOSED ACID-RESISTANT CONTAINERS	Min	15	R309-525-11(6)(a)(v)

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TG17				TG17	DUST CONTROL AND VENTILATION NOT ADEQUATE FOR HANDLING DRY CHEMICALS	Min	15	R309-525-11(6)(c)
TG60	ACID TANK VENTS NO SCREEN OR OUTSIDE BLDG	MIN	2	TG60	ACID TANK NOT VENTED TO OUTSIDE	Min	15	R309-525-11(8)(b)(vi)
TG03	TANKS AND REFILL LINES LACK PROPER LABELING	MIN	2	TG03	SOLUTION TANKS AND CHEMICAL REFILL LINES NOT LABELED	Min	15	R309-525-11(8)(c)(vii)
TG18				TG18	SOLUTION TANK NOT PROTECTED AGAINST BACKFLOW OR NOT PROVIDED WITH A VALVED DRAIN	Sig	50	R309-525-11(8)(b)(vii)
TD64	CL2 NO COVER ON STORAGE TANK	MIN	2	TD64	CHEMICAL SOLUTION NOT COVERED OR TANK ACCESS OPENINGS NOT COVERED	Min	5	R309-525-11(8)(b)(iii)
				<b>T081</b>	FLASH MIX PROCESS FUNCTIONS IMPROPERLY OR CHEMICAL FOR FLASH MIXING ADDED IMPROPERLY	Min	15	R309-525-12(1)
				<b>T082</b>	FLOCCULATION PROCESS FUNCTIONS IMPROPERLY	Min	15	R309-525-12(2)
INFO	PRIMARY COAGULANT NOT USED AT ALL TIMES	NON	0	INFO	see T002	Non	0	R309-525-12
INFO	NO PLAN TO DETERMINE COAGULANT DOSAGE	NON	0	<b>T083</b>	NO MEANS TO DETERMINE ANTICIPATED COAGULANT DOSE	Min	15	R309-525-11(2)(a) and (d)
T043	FILTER SEPTUM NOT PERIODICALLY INSPECTED	NON	0	T043	FILTER OR MEDIA NOT CLEANED, INSPECTED, MAINTAINED OR PROPERLY FUNCTIONING	Sig	25	R309-105-10, R309-525-19, R309-525-15(4)(a), R309-525-15(4)(b)(ii to v), R309-525-15(4)(c)(ii to vi)
<del>T044</del>	<del>FILTER SEPTUM NOT REGULARLY CLEANED</del>	<del>NON</del>	<del>0</del>	<del>T044</del>	see T043			
T021	INTRUMENTATION AND CONTROLS NOT OPERABLE	MIN	2	T021	INTRUMENTATION AND CONTROLS IN TREATMENT PLANT NOT MAINTAINED, OPERABLE OR FUNCTIONING PROPERLY	Sig	25	R309-525-25(4)
T004				T004	FILTRATION BASINS LACK SAFETY HANDRAILS	Sig	25	R309-525-15(6)(n)
T074	NO FILTER TO WASTE LINE ON EACH FILTER	MIN	20	T074	NO FILTER-TO-WASTE PROVISION FOR EACH FILTER	Sig	25	R309-525-15(6)(p)
TT01	FAILURE TO HAVE WORKING TURBIDIMETER WHEN CONTINUOUS MONITORING IS REQUIRED	SIG	100	TT01	TURBIDIMETER NOT CALIBRATED OR MAINTAINED FOR ACCURATE CONTINUOUS MONITORING OF TREATMENT PROCESSES	Sig	50	R309-525-25(4)
T002	PRIMARY COAGULANT NOT USED AT ALL TIMES	MIN	0	T002	PRIMARY COAGULANT NOT USED PROPERLY	Sig	50	R309-525-11(1)(a)
				<b>T084</b>	REQUIRED DISINFECTANT NOT ADDED TO FINISHED WATER	Sig	50	R309-525-11(1)(b)
T005	FILTER NOT PROVIDED WITH ALARM FOR TURBIDITY EXCEEDANCE			T005	MULTI-MEDIA FILTER NOT PROVIDED WITH CONTINUOUS TURBIDITY MONITORING	Sig	50	R309-525-15(4)(b)(vi), R309-525-15(4)(c)(vii)
				<b>T085</b>	MULTI-MEDIA FILTER NOT EQUIPPED TO INITIATE AUTOMATIC SHUTDOWN OR BACKWASH	Sig	50	R309-525-15(4)(b)(vi), R309-525-15(4)(c)(vii)

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T006	NO SAMPLE TAP OR MEANS TO OBTAIN SAMPLES FROM INFLUENT OR EFFLUENT			T006	NO SAMPLE TAP OR A MEANS TO SAMPLE RAW WATER OR FINISHED WATER	Sig	25	R309-525-15(10)(a)(i)
T007	PRESSURE GUAGES FOR HEAD LOSS NOT PROVIDED			T007	NO MEANS TO MONITOR MEDIA FILTER HEAD LOSS	Sig	25	R309-525-15(10)(a)(ii)
T008	NO METER INDICATING RATE OF FLOW FOR FILTERS			T008	NO MEANS TO MONITOR OR RECORD FLOW RATE OF EACH FILTER	Min	15	R309-525-15(10)(a)(iii), R309-525-15(2)
<del>T062</del>		<del>NON</del>	<del>0</del>	<del>T062</del>		<del>Non</del>	<del>0</del>	<del>R309-525-16(6)</del>
T076	INSUFFICIENT STORAGE TANK VOLUME	MIN	20	T076	INADEQUATE WATER SUPPLY OR FLOW RATE TO MEET FILTER BACKWASH NEEDS	Min	15	R309-525-15(7)(a)(iv)
T075	BACKWASH TANK DOES NOT PROVIDE FINISHED DRINKING WATER	SIG	20	T075	BACKWASH WATER SUPPLY NOT OF FINISHED DRINKING WATER QUALITY	Sig	50	R309-525-15(7)(a)(ix)
<del>T077</del>	<del>BACKWASH TANK DOES NOT PERFORM IN CONJUNCTION WITH FILTER TO WASTE SYSTEM</del>	<del>REC</del>	<del>0</del>					
T009	AT LEAST 3 FILTER UNITS NOT PROVIDED			T009	SLOW SAND PROCESS DOES NOT HAVE AT LEAST 3 FILTER UNITS	Min	15	R309-530-6(5)(a)
				<b>T086</b>	SLOW SAND FILTERS ARE NOT PROTECTED TO PREVENT FREEZING	Min	15	R309-530-6(5)(b)
				<b>T087</b>	SLOW SAND FILTERS DO NOT HAVE AT LEAST 24 INCHES OF SAND THAT MEETS RULE REQUIREMENTS	Min	15	R309-530-6(5)(e) and (f)
				<b>T089</b>	SLOW SAND FILTERS DOES NOT HAVE FILTER-TO-WASTE PROVISION	SIG	25	R309-530-6(5)(k)
				<b>T088</b>	SLOW SAND FILTERS ARE NOT MAINTAINED OR OPERATED PROPERLY	Min	15	R309-530-6(4)
				<b>T090</b>	SOURCE WATER QUALITY OR TURBIDITY UNSUITABLE FOR SLOW SAND TREATMENT	SIG	50	R309-530-6(2)(a)
				<b>T091</b>	INADEQUATE DIRECT INTEGRITY TESTING TO MONITOR MEMBRANE INTEGRITY FOR EACH MEMBRANE UNIT	SIG	50	R309-215-15(18)(b)(iii)
				<b>T092</b>	INADEQUATE CONTINUOUS INDIRECT INTEGRITY TESTING TO MONITOR MEMBRANE INTEGRITY FOR EACH UNIT	SIG	50	R309-215-15(18)(b)(iv)
				<b>T093</b>	INCORRECT CONTROL LIMIT OF MEMBRANE DIRECT INTEGRITY TEST SENSITIVITY TO INDICATE LOG REMOVAL	SIG	50	R309-215-15(18)(b)(iii)©
				<b>T094</b>	INCORRECT TRIGGER FOR MEMBRANE CONTINUOUS INDIRECT INTEGRITY TESTING	SIG	50	R309-215-15(18)(b)(iv)
				<b>T095</b>	INSUFFICIENT BACKWASH WATER SUPPLY TO ALLOW BACKWASHING 2 MEMBRANE UNITS CONSECUTIVELY	MIN	15	R309-525-15(7)(a)(iv)
<del>TD57</del>	<del>VENTILATION NOT SEPARATE FROM REST OF TREATMENT PLANT</del>	<del>REC</del>	<del>0</del>	<del>TD57</del>	<del>see TD18</del>			
TD95	EXIT DOORS DO NOT SWING OUTWARD WITH PANIC BARS	MIN	2	TD95	GAS CHLORINE ROOM IN TREATMENT PLANT LACKS OUTWARD-OPENING EXIT DOOR WITH PANIC BAR	Sig	25	R309-520-7(2)(g)(iii)

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TD96	INADEQUATE FLOOR DRAINAGE	MIN	5	TD96	GAS CHLORINE ROOM IN TREATMENT PLANT HAS FLOOR DRAINS THAT CONNECT TO OTHER DRAINS IN THE PLANT	Sig	25	R309-520-7(2)(g)(iv)
TD56	CLORINE ROOM LACKS SHATTER RESISTANT INSPECTION WINDOW(S)	REC	0	TD56	GAS CHLORINE ROOM IN TREATMENT PLANT LACKS SHATTER RESISTANT INSPECTION WINDOW(S)	Sig	25	R309-520-7(2)(g)(i)
TD07	CL2 GAS FED/STORAGE NOT SEPARATE FROM OTHER AREAS	MIN	2	TD07	GAS CHLORINE AREA IN TREATMENT PLANT NOT SEPARATE FROM OTHER AREAS	Sig	25	R309-520-7(2)(g)(v)
				<b>T096</b>	<b>CLEAR WELL INADEQUATELY DESIGNED TO PROVIDE REQUIRED DISINFECTION CT</b>	Sig	25	R309-525-16(b) and (b)(i)
T018	CLEAR WELL DOES NOT HAVE AN OVERFLOW AND VENT			T018	CLEAR WELL LACKS AN OVERFLOW AND VENT	Sig	25	R309-525-16(1)(b)(iii), R309-545
T019	CONVENTIONAL TREATMENT LABORATORY NOT LOCATED ON SITE TO PROVIDE O&M			T019	LACKS SUFFICIENT LABORATORY EQUIPMENT FOR PROPER O&M OF THE PLANT	Sig	25	R309-525-17(1)
<del>TG20</del>	<del>DAILY RECORDS DO NOT REFLECT DOSAGES &amp; TOTALS</del>	<del>SIG</del>	<del>2</del>	TG20	DAILY RECORDS DO NOT REFLECT DOSAGES ACCURATELY	Sig	25	R309-105-14(3)(a)
				<b>T033</b>	<b>MEDIA DEPTHS NOT MEETING REQUIREMENTS</b>	Sig	25	R309-525-15(4)
INFO	ACTIVATED CARBON SYSTEM STARTS ON DIRTY FILTERS	REC	0					
TC18	ACTIVATED CARBON PLANT EQUIP-VENTING INADEQUATE	REC	0					
INFO	CL2 CONTACT TIME IS INSUFFICIENT	NON	0					
				TGR2	TRIGGER FOR BACKWASH RECYCLING REVIEW	Min	15	R309-215-8 (4)
TRG3				TGR3	TRIGGER FOR UNDOCUMENTED FACILITY OR PROCESS	MIN	15	R309-105-6
				<b>T097</b>	<b>LACKS MONITORING OR RECORDS OF RECYCLED WATER</b>	MIN	15	R309-215-8(1)
				<b>TGR9</b>	<b>TRIGGER FOR REGULATORY FOLLOWUP TO ADDRESS CONCERNS</b>	MIN	15	R309-105-8, R309-100 through 605
				<b>T098</b>	<b>FAIL TO MEET GIARDIA, VIRUS OR CRYPTOSPORIDIUM TREATMENT REQUIREMENTS</b>	SIG	100	R309-505-5(1)(d), R309-215
				<b>T099</b>	<b>INCORRECT SURFACE WATER TREATMENT COMPLIANCE WATER QUALITY SAMPLING LOCATION</b>	SIG	25	R309-215
				<b>T028</b>	<b>INCORRECT COMPAINCE CLORINE RESIDUAL SAMPLING LOCATION</b>	SIG	25	R309-216
				<b>T029</b>	<b>CHEMICAL DOSING NOT PROPORTIONAL TO FLOW CHANGES</b>	MIN	15	R309-525-11(7)(d)(ii)

Deficiency Code (Current)	Deficiency Description (Current)	Deficiency Type (Current)	Points (Current)	Deficiency Code (Current)	Deficiency Description (Proposed)	Deficiency Type (Proposed)	Points (Proposed)	Rule Reference
				T032	OPERATING FILTER ABOVE APPROVED LOADING RATE	MIN	15	R309-105, R309-525-15(2), R309-525-15(4)(a), R309-525-15(4)(b)(v), R309-525-15(4)(c)(vi), R309-525-15(2), R309-530
TF04	FL DOES NOT COMPLY WITH ANSI/NSF STANDARD	SIG	25	TF04	FL CHEMICAL LACKS ANSI NSF 60 CERTIFICATION	Sig	25	R309-535-5(2)(a)(i)
TF06	FL CHEMICAL CONTAINER NOT COVERED OR UNOPENED	MIN	2	TF06	FL CHEMICAL CONTAINER NOT COVERED OR UNOPENED	Min	15	R390-535-5(2)(b)(i)
TF01	FL CONC ARE NOT CALCULATED DAILY	MIN	2	TF01	FL DOSING NOT CALCULATED OR RECORDED DAILY	Min	15	R309-105-14(3)
TF02	FL CONC ARE NOT TESTED AS PER LOCAL RULES	REC	0	TF02	FL MONITORING AND REPORTING NOT MEETING HEALTH DEPARTMENT REQUIREMENTS	Min	15	R309-105-14(3), R309-535-5(1)
TF03	FL NO FAIL-SAFE DEVICE TO PREVENT OVERFEED	MIN	2	TF03	FL FACILITY LACKS SECONDARY CONTROL MECHNSM TO PREVENT OVERFEED	Sig	50	R309-535-5(2)(h)
TF28	FL IMPROPER STORAGE OF CHEMICALS	MIN	10	TF28	FL IMPROPER STORAGE OF CHEMICALS	Min	15	R309-535-5(2)(b)(ii), (iii) and (iv)
TF36	FL CHEMICALS NOT STORED ON PALLETS	MIN	2	TF36	FL DRY CHEMICALS NOT STORED ON PALLETS	Min	5	R309-535-5(2)(b)(iii)
TF41	FL INADEQUATE DISPOSAL OF BAGS, DRUMS OR BARRELS	MIN	10	TF41	FL INADEQUATE DISPOSAL OF BAGS, DRUMS OR BARRELS	Min	15	R309-535-5(5)(c)(i)
TF18	FL IMPROPER OVERFLOW FROM DAY TANK	MIN	2	TF18	FL IMPROPER OVERFLOW FROM BULK TANK OR DAY TANK	Min	15	R309-525-11(6)(a)(i)(B) and (iv)(B), R309-535
TF20	NO CALCULATIONS/RECORDS OF CHEM DOSE OF WATER QUAL/QUAN	MIN	2	TF20	FL LACKS OPERATIONAL RECORDS OF CHEM DOSE AND QUANTITY USED	Min	15	R309-105-14(3)
TF26	FL INADEQUATE SPILL CONTAINMENT PROVISIONS	MIN	2	TF26	FL ACID RESISTANT SPILL CONTAINMENT INADEQUATE OR NOT PROVIDED	Sig	25	R309-535-5(2)(c)(i), (ii) and (iii)
TF14	FL NO MEANS TO MEASURE CALC QUANTITY USED	MIN	2	TF14	FL NO MEANS TO MEASURE CHEMICAL QUANTITY USED	Sig	25	R309-535-5(2)(d)(ii)
TF10	EMERGENCY EYEWASH NOT PROVIDED FOR SATURATOR	SIG	10	TF10	EMERGENCY EYEWASH NOT PROVIDED FOR FL SATURATOR OR DRY FEEDER	Sig	25	R309-535-5(4)(g), R309-535-5(5)(d)
TF11	FL NO MEANS TO MEASURE FLOW OF WATER TO BE TREATED	MIN	2	TF11	FL NO MEANS TO MEASURE FLOW OF WATER TO BE TREATED	Sig	25	R309-535-5(2)(d)(i)
TF22	FL PUMP STARTS WITHOUT WELL OR SERVICE PUMP RUNNING	MIN	30	TF22	FL FEED PUMP STARTS WITHOUT WELL OR SERVICE PUMP RUNNING AND WATER FLOWING IN THE PIPE	Sig	100	R309-535-5(2)(f)
TF16				TF16	FLUORIDE INJECTION LINE DOES NOT ENTER IN THE LOWER 1/3 OF WATER PIPE	Min	5	R309-535-5(2)(g)(i)

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				TF50	INJECTING FLUORIDE UPSTREAM OF LIME SODA SOFTENING, ION EXCHANGE OR OTHER SOFTENING PROCESS	Min	15	R309-525-25(4)
TF23				TF23	FLUORIDATION EQUIPMENT NOT HOUSED IN SECURE BUILDING	Sig	25	R309-535-5(2)(h)(i)
TF24	CHEMICAL STORAGE ROOM LACKS VENT TO OUTSIDE AND AWAY FROM AIR INTAKES	MIN	2	TF24	FL ACID STORAGE OR INJECTION AREA LACKS VENTING TO OUTSIDE AND AWAY FROM AIR INTAKES	Min	15	R309-535-5(2)(j)(iii)
TF25				TF25	NO SEPERATE SWITCHES FOR FANS AND LIGHTS IN FLUORIDE AREA	Min	15	R309-535-5(2)(j)(iv)
TF27	FL INADEQUATE CROSS-CONNECTION PROTECTION	SIG	10	TF27	MAKEUP WATER SUPPLY FOR FL FACILITY LACKS BACKFLOW PROTECTION	Sig	50	R309-535-5(2)(k), R309-535-5(4)(d)
TF42	FL NEUTRALIZING CHEMICAL IS NOT AVAILABLE FOR IMMEDIATE USE FOR ACID SPILLS	MIIN	2	TF42	FL NEUTRALIZING CHEMICAL IS NOT AVAILABLE FOR IMMEDIATE USE FOR ACID SPILLS	Sig	25	R309-535-5(3)(e)
TF29	FL VENTS DO NOT DISCHARGE OUTSIDE ABOVE GRADE	MIN	2	TF29	FL VENTS DO NOT DISCHARGE OUTSIDE ABOVE GRADE	Min	15	R309-535-5(3)(b)(ii)
TF21	FL TEST EQUIPMENT NOT VERIFIED OR CALIBRATED	MIN	2	TF21	FL TEST EQUIPMENT NOT VERIFIED OR CALIBRATED	Min	15	R309-525-25(4)
TF31	FL STORAGE AND DAY TANKS DO NOT HAVE SEPARATE VENTS	MIN	2	TF31	FL ACID BULK AND DAY TANKS DO NOT HAVE SEPARATE VENTS WHEN BULK TANK OVERFLOW RISK EXISTS	Min	15	R309-535-5(3)(b)(iii)
TF30				TF30	FL ACID FACILITY CONSTRUCTED AFTER JAN 1, 2017 LACKS A VIEW WINDOW BETWEEN OPERATING AREA AND CONTROL ROOM	Min	15	R309-535-5(3)(c)
TF15	FL ACID NO DELUGE SHOWERS AND EYEWASH AVAILABLE	MIN	10	TF15	FL ACID FACILITY LACKS SAFETY SHOWERS AND EYEWASH	Sig	25	R309-535-5(3)(d)
TF38	see TF42	REC	0	TF38	FL NO NEUTRALIZING CHEMICAL ON SITE	Min	15	R309-535-5(3)(e)
TF13	FL INSUFFICIENT OR IMPROPER SAFETY EQUIPMENT	MIN	10	TF13	FL FACILITY INADEQUATE PERSONAL PROTECTIVE EQUIPMENT PROVIDED	Sig	25	R309-535-5(3)(f), R309-535-5(4)(h), R309-535-5(5)(e)
TF32	NO MEANS TO STOP TRANSFER PUMP	REC	0	TF32	FL ACID FACILITY LACKS A MEANS TO STOP TRANSFER PUMP TRANSFERING ACID FROM BULK TANK TO DAY TANK	REC	0	recommendation
TF33	NO EMERGENCY SHUT OFF	REC	0	TF33	FL ACID FACILITY LACKS AN EMERGENCY SHUTOFF FOR FL FEED PUMP OR TRANSFER PUMP	REC	0	recommendation
TF34	NO PROVISIONS FOR FAILURE OF ACID BULK TANK	REC	0	TF34	FL ACID FACILITY LACKS MEANS TO HANDLE CATASTROPHIC FAILURE OF ACID BULK TANK	REC	0	recommendation
TF35	NO SEISMIC RESTRAIT FOR ACID BULK STORAGE TANK	REC	0	TF35	FL ACID FACILITY LACKS SEISMIC RESTRAIT FOR ACID BULK TANK	REC	0	recommendation
TF19	SATURATORS NOT UP FLOW TYPE	MIN	2	TF19				Not in the rule
TF43	FL NO FLOW MEASURING DEVICE ON INLET OR OUTLET OF SATURATOR	MIN	2	TF43	FL SATURATOR LACKS A MEANS OF MEASURING QUANTITY OF CHEMICAL SOLUTION USED	Sig	25	R309-535-5(4)(a)
TF44	NO SAMPLE TAP AVAILABLE FOR FL TESTING	MIN	2	TF44	NO SAMPLE TAP AVAILABLE FOR TESTING FL LEVEL IN TREATED WATER	Min	15	R309-535-5(2)(d)(iii)

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TF12	FL LEVEL OF FLUORIDE CRYSTALS INADEQUATE	MIN	2	TF12	INSUFFICIENT FL CRYSTAL AMOUNT IN FL SATURATOR TANK (BELOWED MINIMUM LEVEL MARKED ON OUTSIDE OF SATURATOR TANK)	Min	15	R309-535-5(4)(b)
<del>TF37</del>	<del>FL DISSOLUTION WATER NOT PROPERLY TREATED FOR HARDNESS</del>	<del>MIN</del>	<del>2</del>	TF37	FL DISSOLUTION WATER NOT TREATED TO HARDNESS LESS THAN 75 MG/L	Min	15	R309-535-5(4)(e)(i)
TF45	see TF10			TF45	FLUORIDE SATURATOR FACILITY LACKS EMERGENCY EYEWASH	Sig	25	R309-535-5(4)(g)
TF46	see TF13			TF46	FL SATURATOR PERSONAL PROTECTIVE EQUIPMENT NOT PROVIDED	Sig	25	R309-535-5(4)(h)
TF39	FL NO EXHAUST FAN AND DUST FILTER FOR TRANSFER OF DRY CHEMICALS	MIN	10	TF39	FL DRY FEED FACILITY LACKS EXHAUST FAN AND DUST FILTER FOR TRANSFER OF DRY CHEMICALS	Min	15	R309-535-5(5)(c)(ii)
TF47	FL DRY FEED NO SOLUTION TANK WITH MECHANICAL MIXER INSTALLED	MIN	15	TF47	FL DRY FEED SOLUTION TANK LACKS MECHANICAL MIXER	Min	15	R309-535-5(5)(a) and (b)
TF40	IMPROPER DISCHARGE OF AIR FROM FLUORIDE HANDLING EQUIPMENT	MIN	10	TF40	FL DRY FEED FACILITY DICHARGES EXHAUST AIR TO ATMOSPHERE WITHOUT THROUGH DUST FILTER	Min	15	R309-535-5(5)(c)(iii)
TF48	see TF10			TF48	FL DRY FEED FACILITY LACKS EMERGENCY EYEWASH	Sig	25	R309-535-5(5)(d)
TF49	see TF13			TF49	FL DRY FEED PERSONAL PROTECTIVE EQUIPMENT NOT PROVIDED	Sig	25	R309-535-5(5)(e)
TI05	INHIBITOR ADD - PHOSPHATE TESTS NOT DONE	NON	0	TI05	POLYPHOSPHATE SEQUESTRATION USED FOR IRON MANGANESE CONTROL WHEN IRON OR MANGANESE OR COMBINATION EXCEEDS 1 MG/L	Min	15	R309-535-11(5)
TQ06	SEQ - TOTAL PHOSPHATE APPLIED EXCEEDS 10 MG/L	MIN	2	TQ06	TOTAL PHOSPHATE APPLIED EXCEEDS 10 MG/L AS PO4 FOR IRON MANGANESE CONTROL	Min	15	R309-535-11(5)
TQ08	SEQ - IMPROPER PHOSPHATE TEST EQUIPMENT	MIN	2	TQ08	LACKS CHLORINE RESIDUAL IN DISTRIBUTION SYSTEM WHEN USING POLYPHOSPHATE SEQUESTRATION FOR IRON MANGANESE CONTROL	Min	15	R309-535-11(5)
				TQ04	APPLY POLYPHOSPHATE PRIOR TO IRON MANGANESE TREATMENT OR AFTER AERATION, OXIDATION OR DISINFECTION	Min	15	R309-535-11(5)(c)
<b>Pump Stations</b>								
PS13	PS SHOWS EVIDENCE OF OR NOT PROTECTED FROM FLOODING	SIG	5	PS13	PUMP STATION BUILDING FLOOR ELEVATION NOT PROTECTED FROM FLOODING OR LESS THAN 6 INCHES ABOVE FINISH GRADE	Min	15	R309-540-5(1)(a)(ii), R309-540-5(2)(a)(iii)
PS01				PS01	PUMP FACILITY NOT PROTECTED FROM FLOODING OR SURFACE RUNOFF	Min	15	R309-540-5(1)(a)(ii) and (iv)
PS33	PUMP HOUSE NOT SECURE	SIG	5	PS33	PUMP FACILITY NOT PROTECTED FROM VANDLISM OR UNAUTHORIZED ENTRY	Min	15	R309-540-5(1)(a)(v)
PS18	PUMP STATION LACKS REDUNDANT PUMP UNIT	SIG	20	PS18	IN-LINE BOOSTER PUMP STATION LACKS REDUNDANCY TO MEET PEAK DEMAND WITH ONE PUMP OUT OF SERVICE	Sig	25	R309-540-5(4)(b)
PS19	PUMP STATION LACKS CAPACITY TO MEET DEMAND	SIG	20	PS19	PUMP FACILITY LACKS CAPACITY TO MEET DEMAND	Sig	25	R309-540-3(a)
PS07				PS07	PUMP ELECTRICAL CONTROLS NOT PROTECTED AGAINST FLOODING	Sig	25	R309-540-5(6)(e)

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PS05	PS - NO SHUT OFF VALVE ON DISCHARGE PIPING	MIN	1	PS05	PUMP FACILITY LACKS SHUTOFF VALVES FOR O&M AND REPAIR	Min	15	R309-540-5(6)(a)
PS14	PS NOT PROPERLY HEATED LIGHTED OR VENTILATED	MIN	5	PS14	PUMP STATION BUILDING NOT PROPERLY HEATED, LIGHTED OR VENTILATED	Min	5	R309-540-5(2)(e), (f) and (g)
PS06	PS - LACK OF DRAIN TO DAYLIGHT FLOOR DRAIN	MIN	1	PS06	PUMP STATION BUILDING INTERIOR FLOOR NOT DRAINED OR NOT SLOPED TO DRAIN	Min	15	R309-540-5(2)(a)(v)
PS03	PS - NO PRESSURE GAUGE ON DISCHARGE PIPING	MIN	1	PS03	PUMP FACILITY LACKS PRESSURE GAUGE ON DISCHARGE LINE	Min	15	R309-540-5 (6)(c)(i)
<del>PS02</del>	<del>PS - NO CHECK VALVE ON DISCHARGE PIPING</del>	<del>MIN</del>	<del>1</del>	<del>PS02</del>		<del>Min</del>	<del>15</del>	<del>R309-540</del>
				<b>PS34</b>	COM SYSTEM RELIES ON DIAPHRAGM OR AIR PRESSURE TANKS FOR FINISHED WATER STORAGE OR FIRE PROTECTION	Min	15	R309-540-6(1)
PT14	HYDROPNEUMATIC TANK LACKS PROVISIONS FOR FLOOD PROTECTION	MIN	10	PT14	HYDROPNEUMATIC TANK NOT PROTECTED FROM FLOODING	Min	15	R309-540-6(2)
PT08	HYDROPNEUMATIC TANK NO DESIGNED WITH PRESSURE GAUGE ON PRESSURE TANK			PT08	HYDROPNEUMATIC TANK LACKS PRESSURE GAUGE	Min	15	R309-540-6(3)
PT13	HYDROPNEUMATIC TANK AND CONTROLS NOT SECURE	SIG	20	PT13	PUMP STATION/HYDROPNEUMATIC TANK AND CONTROLS NOT PROTECTED AGAINST HAZARD	Sig	25	R309-540-5(1)(a)(i)
PS31	IMPROPER LUBRICATION OIL	MIN	25	PS31	IMPROPER LUBRICATION OIL USED FOR DRINKING WATER PUMP FACILITY	Sig	25	R309-105-10(7)
PS15	UNPROTECTED CROSS CONN PRESENT IN PUMP STATION	SIG	20	PS15	PUMP FACILITY HAS CROSS CONNECTION OR SUBJECT TO CONTAMINATION	Sig	50	R309-105-12(1)
PS12	A/V RELEASE VALVE LACKS A DOWN-TURNED DISCHARGE	MIN	2	PS12	PUMP STATION OR HYDROPNEUMATIC TANK A/V VALVE RELIEF PIPING NOT DOWNTURNED	Sig	25	R309-550-6(6)(b), R309-540-6(2)
PS10	A/V RELEASE VALVE LACKS A PROPER SCREEN	SIG	2	PS10	PUMP STATION OR HYDROPNEUMATIC TANK A/V VALVE RELIEF PIPING LACKS NO. 14 SCREEN			
PS11	A/V RELEASE VALVE LACKS A PROPER AIRGAP	MIN	2	PS11	A/V VALVE RELIEF PIPING OF PUMP STATION OR HYDROPNEUMATIC TANK NOT PROTECTED FROM CONTAMINATION OR NOT AT LEAST 6 INCHES ABOVE FLOOR			
PS32	ELECTRICAL ROTATING EQUIP LACKS PROTECTIVE GUARDS	MIN	2					
PS17	PS - PIPING OR APPURTENANCES LEAKING	REC	0					
<b>Drinking Water Storage Tanks</b>								
V018	<del>see V21</del>			<del>V018</del>	<del>STORAGE TANK EXTERIOR OR INTERIOR PEELING OR CRACKED</del>	<del>Sig</del>	<del>25</del>	<del>R309-545-6(1)</del>
V025				V025	STORAGE TANK WITHIN 50 FEET OF SEWERS OR CONTAMINATION SOURCES	Sig	25	R309-545-7(3)
V001	STORAGE FACILITY SITE NOT GRADED - PROPER DRAINAGE	MIN	5	V001	STORAGE TANK SURROUNDING AREA NOT GRADED TO PREVENT STANDING WATER WITHIN 50 FEET OF THE TANK	Sig	25	R309-545-7(4)
V026				V026	NO MEANS TO ISOLATE STORAGE TANK FOR O&M	Sig	25	R309-545-7(5)

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V020	STORAGE FACILITY SHOWS MILD DETERIORATION	REC	0	V021	STORAGE TANK ROOF OR SIDEWALLS SHOW SIGNS OF MILD OR MODERATE DETERIORATION	Min	15	R309-545-6(1) and 545-9(1)
V021	STORAGE FACILITY SHOWS MODERATE DETERIORATION	MIN	20					
V022	STORAGE FACILITY SHOWS EVIDENCE OF LEAKAGE	SIG	30	V022	STORAGE TANK ROOF OR SIDEWALLS SHOW SIGNS OF SEVERE DETERIORATION	Sig	50	R309-545-6(1) and 545-9(1)
V023	STORAGE FACILITY IS LEAKING AT TIME OF INSPECTION	SIG	40					
V024	STORAGE FACILITY SHOWS EVIDENCE OF WATER INTRUSION	SIG	50					
V002	UNCOVERED FINISHED WATER STORAGE	SIG	150	V017	STORAGE TANK SUBJECT TO CONTAMINATION DUE TO UNSEALED OPENING ON TANK ROOF OR SIDEWALLS	Sig	100	R309-545-6(1) and 545-9(1)
V017	STORAGE FACILITY HAS UNSEALED ROOF PENETRATIONS	SIG	50					
V027				V027	DRINKING WATER STORAGE TANK SEPERATED FROM WASTEWATER COMPARTMENT BY A SINGLE WALL	Sig	50	R309-545-9(3)
V003	STORAGE FACILITY COVER NOT SLOPED FOR DRAINAGE	REC	0	V003	WATER PONDING ON STORAGE TANK ROOF OR TANK ROOF NOT SLOPED TO DRAIN	Min	15	R309-545-9(4)
V028				V028	SYSTEM RUNS OUT OF WATER DUE TO STORAGE TANK LACKING LEVEL CONTROL MECHANISM	Sig	25	R309-545-17
V036				V042	NO MEANS TO DRAIN A STORAGE TANK FOR O&M	Sig	25	R309-545-10(1)
V036				V036	TANK DRAIN IS CONNECTED TO OR DISCHARGES TO SANITARY SEWER	Sig	50	R309-545-10(1)(c)
V016	DRAIN LINE DOES NOT HAVE ADEQUATE AIR GAP	MIN	5	V016	END OF TANK DRAIN LINE LACKS A CLEARANCE OF AT LEAST 12 INCHES	Sig	25	R309-545-10(1)(d)
V037				V037	STORAGE TANK INTERNAL CATWALKS NOT DESIGNED WITH A SOLID FLOOR AND RAISED EDGES	Sig	25	R309-545-10(2)
VL01	STORAGE STRUCTURE MISSING A PROPER OVERFLOW	SIG	15	VL01	STORAGE TANK LACKS AN OVERFLOW	Sig	25	R309-545-13
V011	STORAGE FACILITY OVERFLOW PIPE LACKS FREEFALL	MIN	5	V011	END OF STORAGE TANK OVERFLOW LACKS A CLEARANCE OF BETWEEN 12 AND 24 INCHES FROM GROUND SURFACE	Sig	25	R309-545-13
V038				V038	STORAGE TANK OVERFLOW DISCHARGE ARE NOT DIRECTED AWAY FROM TANK TO PROTECT TANK FOUNDATION			R309-545-13
V012	STORAGE FACILITY OVERFLOW PIPE IMPROPER SCREEN	SIG	5	V012	END OF STORAGE TANK OVERFLOW PIPE LACKS NO. 4 SCREEN			R309-545-13(3)
V013	STORAGE FACILITY OVERFLOW CONNECTED TO SEWER	MIN	5	V013	STORAGE TANK OVERFLOW PIPE IS CONNECTED TO OR DISCHARGES TO SANITARY SEWER	Sig	50	R309-545-13(5)
VL03	STORAGE STRUCTURE MISSING A PROPER ACCESS HATCH	MIN	9	VL03	STORAGE TANK LACKS AN ACCESS OPENING LOCATED ABOVE THE LEVEL OF THE OVERFLOW FOR TANK O&M	Min	15	R309-545-14 and 14(1)
VL04	STORAGE FACILITY NOT DESIGNED WITH AT LEAST ONE ROOF ACCESS OPENING	MIN	9					

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V008	STORAGE ACCESS NOT A Min. OF 4 IN ABOVE SURFACE	MIN	3	V008	TANK ACCESS HEIGHT LESS THAN 4 INCHES ABOVE TANK ROOF OR LESS THAN 18 INCHES ABOVE EARTHEN COVER	Min	15	R309-545-14(1)
V039				V039	STORAGE TANK ACCESS NOT WATERTIGHT OR NOT SEALED TO PREVENT CONTAMINATION	Sig	50	R309-545-14(1) and (2)
V010	STORAGE FACILITY LACKS PROPER SHOEBOX ACCESS	MIN	3	V010	STORAGE TANK LID NOT SHOEBOX STYLE	Sig	25	R309-545-14(2)
V009	STORAGE FACILITY ACCESS LACKS PROPER GASKET	SIG	3	V009	STORAGE TANK LID LACKS A FUNCTIONING GASKET BETWEEN THE LID AND FRAME			R309-545-14(2)
V029	STORAGE FACILITY IS NOT SECURE	SIG	20	V029	STORAGE TANK ACCESS OPENING LACKS A LOCK			R309-545-14(3)
VL02	STORAGE STRUCTURE MISSING A PROPER AIR VENT	SIG	6	VL02	STORAGE TANK LACKS A AIR VENT	Sig	25	R309-545-15
VL05	STORAGE FACILITY VENT CAPACITY DOES NOT EXCEED WATER INFLOW/OUTFLOW	SIG	6	VL05	STORAGE TANK VENT INADEQUATELY SIZED	Sig	25	R309-545-15
V040				V040	STORAGE TANK VENT NOT SIZED OR LOCATED TO PREVENT BLOCKAGE DURING WINTER	Min	15	R309-545-15(3)
V006	STORAGE FACILITY VENT NOT 24-36 IN. ABOVE SURFACE	MIN	2	V006	END OF STORAGE TANK VENT LACKS A CLEARANCE OF AT LEAST 24 INCHES FROM EARTHEN COVER	Min	15	R309-545-15(2)
V005	STORAGE FACILITY VENT NOT TURNED DOWN	MIN	2	V005	STORAGE FACILITY VENT NOT DOWNTURNED AT LEAST 2 INCHES BELOW ANY OPENING	Sig	25	R309-545-15(1)
V007	STORAGE FACILITY VENT NOT PROPERLY SCREENED	SIG	2	V007	STORAGE TANK VENT LACKS NO. 14 SCREEN			R309-545-15(4)
V035	AIR VENT LACKS LARGER PROTECTIVE SCREEN	REC	0	V035	STORAGE TANK VENT LARGER THAN 6 INCHES IN DIAMETER LACKS PROTECTIVE SCREEN	Min	5	R309-545-15(5)
V004	STORAGE FACILITY INADEQUATE LADDERS OR RAILINGS	MIN	2	V004	STORAGE TANK LADDERS IN EXCESS OF 20 FEET LACK SAFETY FEATURE SUCH AS SAFE CAGE, HARNESS OR PLATFORM	Min	15	R309-545-18(2)
V041	ELEVATED STORAGE FACILITY NOT DESIGNED WITH RAILING TO ACCESS TANK			V041	ELEVATED STORAGE TANK LACKS RAILINGS OR HANDHOLDS	Sig	25	R309-545-18(3)
V014	STORAGE FACILITY INTERIOR COATINGS DONT MEET ANSI/NSF 61	SIG	30	V014	STORAGE TANK INTERIOR COATINGS LACK ANSI NSF 61 CERTIFICATION	Sig	25	R309-545-21(2)
<b>Transmission and Distribution Pipelines</b>								
D019	INADEQUATE DISTRIBUTION CAPACITY FOR FIREFLOW	MIN	5	D019	UNDERSIZED WATER MAIN SERVING FIRE HYDRANTS	Min	15	R309-550-5(4) & (5)
D009				D009	WATER MAINS SUSCEPTIBLE TO NEARBY CONTAMINATION SOURCES	Sig	50	R309-550-5(11)
INFO		NON	0	INFO	ASBESTOS CEMENT PIPE IN USE	Sig	25	R30-550-6(2)(a)
D014	DIST PIPING NOT FREE OF LEAD PIPES/FITTING			D014	DIST PIPING AND FITTINGS INSTALLED AFTER JAN 2014 NOT LEAD FREE OR NOT ANSI NSF 372 OR 61G CERTIFIED	Min	15	R30-550-6(2)(b)
D001	SYSTEM USES UNAPPROVED PIPE, FITTINGS OR MATERIAL	SIG	30	D001	DIST PIPING, FITTINGS OR MATERIAL NOT ANSI NSF 61 CERTIFIED	Sig	25	R309-550-6(1) & R309-550-6(3)
D002	WATER LINES LACK REQUIRED SEPARATION FROM SEWER	SIG	30	D002	WATER LINES LACK REQUIRED MINIMUM SEPARATION FROM SEWER	Sig	25	R309-550-7

Deficiency Code (Current)	Deficiency Description (Current)	Deficiency Type (Current)	Points (Current)	Deficiency Code (Current)	Deficiency Description (Proposed)	Deficiency Type (Proposed)	Points (Proposed)	Rule Reference
D004	AIR OR VACUUM RELEASE VALVES NOT PROPERLY SCREENED	SIG	10	D004	AIR RELIEF VALVE PIPE LACKS NO. 14 SCREEN	Sig	25	R309-550-6(6)(b)
D006	A/V RELEASE VALVE PIPING NOT EXTEND ABOVE GRADE	SIG	10	D006	AIR RELIEF VALVE PIPE NOT DOWNTURNED			R309-550-6(6)(b)
D007	AIR OR VACUUM RELEASE VALVES SUBJECT TO FLOODING	SIG	30	D007	AIR RELIEF VALVE OR CHAMBER SUBJECT TO FLOODING			R309-550-6(6)(b) and (7)(b)
D008	AIR OR VACUUM RELEASE VALVES FLOODED AT INSPECTION	SIG	50	<del>D008</del>	see D007			
D013	DIST BLOW OFFS CONNECTED TO SEWER OR W/NO AIR GAPS	SIG	20	D013	DIST BLOWOFFS, FIRE HYDRANT, AIR RELIEF VALVE PIPING OR CHAMBER CONNECTED TO STORM DRAIN OR SANITARY SEWER	Sig	50	R309-550-6(5)(a), R309-550-6(6)(c) and (7)(a)
D011	DIST LINE CROSS A SW BODY W/ INADEQUATE PROTECTION	SIG	50	D011	INADEQUATE PROTECTION FOR DIST LINE CROSSING UNDER A SURFACE WATER BODY	Sig	25	R309-550-8(8)(b)
<del>D012</del>	<del>REC - FIRE HYDRANT USE POLICY- INADEQUATE</del>	REC	0					
D018	DOES NOT USE AWWA DISINFECTION STANDARDS	SIG	10	D018	FAIL TO FOLLOW AWWA C651 FOR WATER LINE DISINFECTION	Sig	25	R309-550-8(10)
D003	SYSTEM FAILS TO PROVIDE 20 PSI TO ALL CONNECTIONS	SIG	50	D003	DIST SYSTEM UNABLE TO PROVIDE 20 PSI MIN PRESSURE FOR WATER LINES CONSTRUCTED BEFORE JAN 1, 2007	Sig	50	R309-105-9, R309-550-5(1)
D010	INADEQUATE PRESSURE PROVIDED TO SYSTEM POST 2006	SIG	50	D010	DIST SYSTEM UNABLE TO PROVIDE 40 PSI DURING PEAK DAY AND 20 PSI DURING FIRE FLOW FOR WATER LINES INSTALLED AFTER JAN 2017			
D016				D016	DIST WATER LINE CONNECTED TO OR SUBJECT TO CONTAMINATION	Sig	50	R309-550-9(1) and (2), R309-550-13(2)
M011	WATER HAULING NOT ALLOWD IF OTHER OPTION AVAILABLE	SIG	150	M011	UNAPPROVED WATER HAULING AS WATER SOURCE FOR COM SYSTEM	Sig	200	R309-550-10(1)
<del>M012</del>	<del>REC - WATER HAULING GUIDELINES- MUST BE UTILIZED</del>	SIG	50	M012				
INFO		NON	0	M021	INDIVIDUAL HOME BOOSTER PUMPS CONNECTED TO WATER MAIN DIRECTLY	Sig	50	R309-540-5(4)(c), R309-550-11(3)
<b>Source Protection</b>								
<del>SP01</del>	<del>NO DESIGNATED CONTACT FOR- SOURCE PROTECTION</del>	MIN	5					
SP02	PER NOT UPGRADED TO FULL DWSP PLAN	SIG	30	SP02	PER FOR ACTIVE SOURCE NOT UPGRADED TO FULL DWSP	Sig	25	R309-600-13(6) & R309-605-9(3)
SP04	SYSTEM NOT CURRENT ON ALL DWSP UPDATES	MIN	10	SP04	ACTIVE SOURCE LACKS APPROVED UPDATES TO DWSP PLAN	Min	5	R309-600-7(2)(e) & R309-605-7(c)(v)
SP06	NO PER FOR NEW ACTIVE SOURCE	SIG	150	SP06	NEW WATER SOURCE LACKS APPROVED PER	Sig	50	R309-600-13 & R309-605-9
SP07	SYSTEM HAS DISAPPROVED PLAN, UPDATE OR PER	SIG	20	SP07	ACTIVE SOURCE LACKS AN APPROVED DWSP PLAN	Sig	25	R309-600-7(2) & R309-605-7(1)(c)
<del>SP08</del>	<del>OLD SOURCE LACKS A DWSP PLAN</del>	SIG	30					

Deficiency Code (Current)	Deficiency Description (Current)	Deficiency Type (Current)	Points (Current)	Deficiency Code (Current)	Deficiency Description (Proposed)	Deficiency Type (Proposed)	Points (Proposed)	Rule Reference
SP09	NO DWSP REVISION SUBMITTED AFTER REDEV OF SOURC	MIN	20	SP09	REDEVELOPED SOURCE LACKS A REVISED DWSP PLAN	Min	15	R309-600-7(2)(f) & R309-605-7(1)(c)(vi)
SP03				SP03	DWSP PLAN NOT IMPLEMENTED ACCORDING TO MANAGEMENT STRATEGIES IN DWSP	Sig	25	R309-600-7(2)(d) & R309-605-7(1)(c)(iv)

Violation Code (Current)	Violation Description (Current)	Rule-Analyte	Points (Current)	Violation Description (Proposed)	Violation Type (Proposed)	Points (Proposed)	Rule Reference
01	MCL, SINGLE SAMPLE	0100 TURBIDITY	10	Turbidity MCL Exceedance	Acute	50	R309-205-8, 215-9
01	MCL, SINGLE SAMPLE	ALL OTHER ANALYTES	50	MCL Exceedance	Acute	50	R309-205, 215
01	MCL, SINGLE SAMPLE	1038 NITRATE-NITRITE	60	Nitrate-Nitrite MCL Exceedance	Acute	100	R309-205-5(4)
01	MCL, SINGLE SAMPLE	1040 NITRATE	60	Nitrate MCL Exceedance	Acute	100	R309-205-5(4)
01	MCL, SINGLE SAMPLE	1041 NITRITE	50	Nitrite MCL Exceedance	Acute	100	R309-205-5(5)
01	MCL, SINGLE SAMPLE	3008 GIARDIA LAMBLIA	50	Log removal/inactivation of Giardia Lamblia not achieved	Acute	50	R309-215-7, R505-6(2)(a) and (b)
02	MCL, AVERAGE	ALL OTHER ANALYTES	10	Running Annual Average MCL Exceedance	Acute	50	R309-205/215
02	MCL, AVERAGE	1040 NITRATE or 1038 NITRATE-NITRITE or Nitrite 1041	35	Nitrate Running Annual Average MCL Exceedance	Acute	100	R309-205-5
03	MONITORING, ROUTINE MAJOR	ALL OTHER ANALYTES	35	Chem Monitoring Violation	Monitoring	25	R309-205 and 215
03	MONITORING, ROUTINE MAJOR	1040 NITRATE or 1038 NITRATE-NITRITE or Nitrite 1041	50	Nitrate Monitoring Violation	Monitoring	50	R309-205-5
03	LT24 MAJOR	3014 ECOLI	25	FTM and Report all LT2 required samples for a month	Monitoring	25	R309-215-15
03	LT24 MINOR	3014 ECOLI	5	FTM and Report some LT2 required samples for a month	Monitoring	5	R309-215-15
10	OPERATIONS REPORT	0200 SWTR	100	Monthly SWTR Report	Reporting	50	R309-215-8
11	MRDL (CHLORINE/CHLORAMINE)	0400 DBP STAGE 1	10	Residuals exceed 4 mg running annual average	Chronic	50	R309-215-12
12	QUALIFIED OPERATOR FAILURE	0400 DBP STAGE 1		Treatment water operator failure	Acute	50	R309-215
13	MRDL, ACUTE (CHL. DIOXIDE)	1008 Chlorine Dioxide		Exceeds MCL for chlorine dioxide residual	Acute	50	R309-210
19	MONITOR GWR ASSESSMENT, MAJOR	3014 TCR	5	Failure to submit GWR Assessment Source Sample	Monitoring	5	R309-215-16
1A	MCL, E. COLI, POS E COLI	3014 RTCR	50	Confirmed Positive E. coli Sample	Acute	50	R309-211-9
1A	MCL, E. COLI, POS E COLI	8000 RTCR	50	Confirmed Positive E. coli Sample	Acute	50	R309-211-9
27	MONITORING, ROUTINE (DBP), MAJOR	0999 CHLORINE, 1006, 1008	10	Failure to collect distribution system residuals	Reporting	15	R309-215-12
27	MONITORING, ROUTINE (DBP), MAJOR	DBP2	20	Monitoring & reporting Stage 1 DBP should be Stage 2	Monitoring	15	R309-215-12
28	SANITARY SURVEY COOPERATION FAILURE	SS		Failure to cooperate with required sanitary survey	Acute	50	R309-100-6
29	FAILURE TO PRODUCE FILTER ASSESSMENT	0300 IESWTR/LT1	35	Failure to perform filter assessment	Monitoring	25	R309-215-9
2A	LEVEL 1 ASSESS, MULTIPLE TC POS	8000 RTCR	40	Failure to complete a Level One Assessment for Multiple TC Pos	Chronic	50	R309-211-9
2A	LEVEL 1 ASSESS, TC POS RT NO RPT	8000 RTCR	40	Failure to complete a Level One Assessment for TC Pos with no repeats	Chronic	50	R309-211-9
2B	LEVEL 2 ASSESS, MULTIPLE LV1 triggered	8000 RTCR	40	Failure to complete a Level Two Assessment for Multiple Level 1 triggers	Acute	100	R309-211-9?
2B	LEVEL 2 ASSESS, CONFIRMED ECOLI	8000 RTCR	40	Failure to complete a Level Two Assessment for Confirmed E coli results	Acute	100	R309-211-9?
2C	FAILURE TO TAKE CORRECTIVE ACTION FOR SANITARY DEFECTS	8000 RTCR	35	Failure to address significant deficiency found in an assessment (30 Days)	Acute	50	R209-215-16(3)(a)(iii) - need new
2D	STARTUP PROCEDURES TT	8000 RTCR	50	Failure to complete a Seasonal Start Up Form	Reporting	50	R309-211-9 and 11
34	MONITOR GWR TRIGGERED/ADDITIONAL, MAJOR	0700 GROUNDWATER RULE	40	Failure to take Triggered Source sample after monthly Routine TC+ sample	Monitoring	25	R309-215-16
35	FAILURE TO SUBMIT OEL REPORT FOR HAA5	2456 HAA5		Failure to submit required OEL for HAA5	Reporting	15	309-210-10 (7)
35	FAILURE TO SUBMIT OEL REPORT FOR TTHM	2950 TTHM		Failure to submit required OEL for TTHM	Reporting	15	309-210-10 (7)
36	MONITORING, RTN/RPT MAJOR (SWTR-FILTER)	0999 CHLORINE, 1006, 1008	10	FTM and Report distribution residuals for SW PWS	Reporting	15	R309-215-8
37	FAILURE TO PROFILE/CONSULT	TT		Failure to submit filter profile and consult with DDW	Reporting	15	R309-215

Violation Code (Current)	Violation Description (Current)	Rule-Analyte	Points (Current)	Violation Description (Proposed)	Violation Type (Proposed)	Points (Proposed)	Rule Reference
3A	MONITORING, ROUTINE, MAJOR	3014 RTCR	35	Failure to complete all the required monthly RTCR sampling	Monitoring	25	R309-211-9
3A	MONITORING, ROUTINE, MINOR	3014 RTCR	10	Failure to complete some of the required monthly RTCR sampling	Monitoring	15	R309-211-9
3C	MONITORING, COLIFORM TURBIDITY TRIGGER	3014 RTCR	10	Failure to complete the required TCR sampling TRIGGERED BY HIGH TURBIDITY RESULTS	Monitoring	15	R309-211-9?
40	FAILURE TO PROPERLY RECYCLE (FBR)	0500 FILTER BACKWASH RULE		Failure to properly recycle filter media	Acute	50	R309-215
41	MONTHLY COMB. FILTER EFFLUENT (SWTR)	0100 TURBIDITY	25	Failure to meet NTU standards	Acute	100	R309-215-9
41	MONTHLY COMB. FILTER EFFLUENT (SWTR)	0200 SWTR	25	Failure to provide disinfection	Acute	100	R309-215-10
41	RES DISINFECT CONCENTRATION (SWTR)	0999 CHLORINE	25	Failure to maintain disinfection	Acute	100	R309-215-10
42	FAILURE TO FILTER (SWTR)	0200 SWTR	50	Failure to provide treatment	Chronic	100	R309-215-7
43	SINGLE COMB FLTR EFFLUENT (IESWTR/LT1)	0300 IESWTR	50	Exceeds Turb 1 NTU	Acute	100	R309-215-9
44	MONTHLY COMB FLTR EFFLUENT (IESWTR/LT1)	0300 IESWTR	50	Exceeds Turb 0.3 NTU	Acute	100	R309-215-9
45	FAILURE ADDRESS DEFICIENCY (GWR)	0700 GROUNDWATER RULE	35	Failure to address significant deficiencies GW PWS (120 Days)	Chronic	50	R209-215-16
45	FAILURE ADDRESS DEFICIENCY (IESWTR)	0300 IESWTR/LT1	35	Failure to address significant deficiency SW PWS (30 Days)	Chronic	50	R209-215-16
45	FAILURE ADDRESS DEFICIENCY (EPA SURVEY)	0800 LT2ESWTR	35	Failure to address significant deficiency (30 Days)	Chronic	50	R209-215-16
46	INADEQUATE DBP PRECURSOR REMOVAL	2920 DBP Stage 1	20	Precursor removal	Chronic	50	R309-215-12
4A	REPORTING, ASSESSMENT FORMS	8000 RTCR		Failure to Timely Submit Level 1 Assessment Forms	Reporting	15	R309-211-11
4B	REPORT SAMPLE RESULT/FAIL MONITOR	8000 RTCR	1	Failure to submit RTCR monthly sample results on time	Reporting	5	R309-211-9
4C	REPORT STARTUP PROCEDURES CERT FORM	8000 RTCR	15	Failure to Timely Submit Seasonal Start-up Certification Form for Properly Conducted Start-up Procedures	Reporting	15	R309-211-11
4D	NOTIFICATION, E COLI POSITIVE	8000 RTCR		Failure to notify DDW of Ecoli positive	Reporting	25	R309-211-11
51	INITIAL TAP SAMPLING (LCR)	5000 LEAD & COPPER RULE	20	Failure to sample on 6 month monitoring for Lead and Copper	Monitoring	25	R309-210-6
52	FOLLOW-UP OR ROUTINE TAP M/R (LCR)	5000 LEAD & COPPER RULE	20	Failure to sample for Lead and Copper	Monitoring	25	R309-210-6
53	WATER QUALITY PARAMETER M/R	5000 LEAD & COPPER RULE		Failure to monitoring and report water quality parameters.	Monitoring	25	R309-210-6
57	OCCT/SOWT RECOMMENDATION/STUDY (LCR)	5000 LEAD & COPPER RULE	35	Failure to submit Corrosion Control Recommendation/Study	Chronic	50	R309-210-6
5A	SAMPLE SITING PLAN ERRORS	8000 RTCR	0	Failure to submit RTCR Sample Site Plan	Reporting	5	R309-211-9
64	LEAD SERVICE LINE REPLACEMENT (LCR)	5000 LEAD & COPPER RULE		Failure to replace lead service lines	Chronic	50	R309-210-6
65	PUBLIC EDUCATION (LCR)	5000 LEAD & COPPER RULE	10	Failure to submit LCR action level exceedance public notice	Chronic	50	R309-210-6
66	LEAD CONSUMER NOTIFICATION	5000 LEAD & COPPER RULE	0	Failure to submit lead consumer notification	Reporting	15-25	R309-210-6
71	CCR REPORT	7000 CONSUMER CONFIDENCE RULE	10	Failure to submit CCR	Reporting	25	R309-225-4
72	CCR ADEQUACY/AVAILABILITY/CONTENT	7000 CONSUMER CONFIDENCE RULE	10	Failure to submit proof of CCR delivery notification	Reporting	25	R309-225-7
73	FAILURE TO NOTIFY OTHER PWS	0700 GROUNDWATER RULE		Failure to notify consecutive systems of GWR violation(s)	Reporting	15	R309-220-4
75	PUBLIC NOTICE RULE LINKED TO VIOLATION	ALL ANALYTES	5	Failure to submit Tier 3 PN	Reporting	5	R309-220
75	PUBLIC NOTICE RULE LINKED TO VIOLATION	ALL ANALYTES	2	Failure to submit Tier 2 PN	Reporting	5	R309-220
75	PUBLIC NOTICE RULE LINKED TO VIOLATION	ALL ANALYTES	10	Failure to submit Tier 1 PN	Reporting	25	R309-220
76	OTHER NON-NPDWR POTENTIAL HEALTH RISKS	7500 PUBLIC NOTICE		Other Non-NPDWR Potential Health Risks	Reporting	50	R309-220

Violation Code (Current)	Violation Description (Current)	Rule-Analyte	Points (Current)	Violation Description (Proposed)	Violation Type (Proposed)	Points (Proposed)	Rule Reference
MR	STATE MONITORING AND REPORTING	ALL ANALYTES		Failure to submit quarterly reports for treatment	Reporting	5	R309-215-6
PN	FAILURE TO NOTIFY PUBLIC ENFORCEMENT	7600 PUBLIC NOTICE FOR IPS		Not approved order/shut down order public notice	Reporting	5	R309-220

# Agenda Item

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**DRINKING WATER BOARD PACKET**  
**Rural Water Association Report**

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Brian Pattee – Compliance Circuit Rider .....3

Curt Ludvigson – Development Specialist .....5

# Rural Water Association of Utah

## Drinking Water Board Report, Activities Overview

Employee/Position: Terry Smith - Management Technician

Report Date Range: 3/22/2019 - 5/17/2019

### **March -**

Onsite: 26th, attended Goshen City board meeting. Advised on funding and water rate options.  
28th, EPA training, "Resilience to Extreme Weather Events".  
29th, Proctor 3 Op-Cert tests, St. George location.

Offsite:

### **April -**

Onsite: 2nd - 4th, training/instructing at Op-Cert, North Salt Lake.  
16th, met with new owners of Shooting Star RV to instruct on water treatment/iron removal, bacti sampling, other rules.  
18th - 19th, working at Water Rights certification training, Cedar City.  
25th, Virgin Town, met with mayor and town employees to go over water rate options to fund budget and capital improvements.

Offsite: Created budgeting/rate evaluation spreadsheet for Virgin Town.  
Cedarview-Montewell, the town clerk contacted me about huge discrepancies when trying to account for water supply/sales. Taking the numbers she had collected for the last three years, I created a spreadsheet for them that will organize those numbers monthly, and allow them to quickly see when they are not matching up, and investigate Promptly.

### **May -**

Onsite: 1st, met with the manager of Goosenest to tour site and advise on expansion plans for storage and transmission line upsizing, funding and rate structure options.  
4th, Angell Springs, met with the new operator to loan equipment and train on system flushing, hydrant O&M.  
15th, met with the administrators and personnel of Annabella Town to go over rate model I had created for them, discuss funding options, capital

Offsite: Annabella Town, created a spreadsheet to allow them to explore budgeting options, adjust rates to cover the future loan payment they have taken on, etc.  
Milford City, began working on a rate/budgeting spreadsheet to help them adjust rates to allow them to bring in additional revenue to meet loan payment and planning for future growth, etc.

# Rural Water Association of Utah

## Drinking Water Board Report - Activities Overview

Employee/Position: BRIAN PATTEE, Compliance Circuit Rider/Training Supervisor

Report Date Range: March 26 2019—May 23 2019

### **March 26 thru March 30**

#### Onsite:

- Willard City – Cross Connection Control Program Assistance
- Willard Bay State Park – Cross Connection Control Hazard Assessment of entire System.

#### Offsite or Direct Contact w/ Operator:

- Hyrum City – Lead & Copper Sampling.
- Springville – Cross Connection Program Assistance

DDW- Cross Connection Control Certification Program Rule Change, Training Planning & Preparation.

Groundwater/source protection workshop planning /Security Defense Forum Planning  
Secondary Irrigation Metering Forum Assistance, 31 systems

### **April 1<sup>st</sup> thru April 30<sup>th</sup>**

#### Onsite:

- Springville City – Cross Connection Program Instruction & Assistance
- Cottonwood Coves ( Murray ) – New System Compliance/Sampling/ Reporting

#### Offsite: or direct Contact with Operator:

- Croydan- DDW request for sample site plan
- Peoa Pipeline –CCR review
- Roosevelt- Cross Connection Training Request
- Eastland – IPS violation issues DDW
- Lila Canyon Mine – question on source water samples
- Zion Under Canvas- Operator Certification Question
- Cove Water works- Funding Questions

DDW- Cross Connection Control Certification Program Rule Change, Training Planning & Preparation. DDW CCC Committee Work

Groundwater/source protection workshop planning /Security Defense Forum Planning  
Training Needs Workshop Planning and preparation  
Water Rights Certification Training Forum Assistance  
DDW Fluoride Training Workshop

### **May 1<sup>st</sup> thru May 23<sup>rd</sup>**

#### Onsite:

- Deer Creek Park – IPS Violation Survey , System Assistance , W/ DDW

- Cottonwood Coves ( Murray ) – New System Compliance/Sampling/ Reporting
- Erda Center – CCC New operator, Sampling.
- Wasatch Wings & Clay – onsite Verification of Operation

Offsite: or direct Contact with Operator:

- Garden City- PRV Training request
- North Valley Ranches- Violation contact
- Wasatch Wing & Clay – contact for Bac T sampling
- Eastland – IPS violation issues DDW
- Skoots Creek – IPS violation Clean work with DEQ Engineer
- Pine Valley Irrigation – Question on Sampling, Chlorinators
- Daniels Summit – Source Protection Zone Question
- South Duchesne Culinary Water – Compliance Issues/advising Jake

DDW- Cross Connection Control Certification Program Rule Change, Training Planning  
& Preparation. DDW CCC Committee Work  
Groundwater/source protection workshop planning /Security Defense Forum Planning  
Training Needs Workshop Planning and preparation

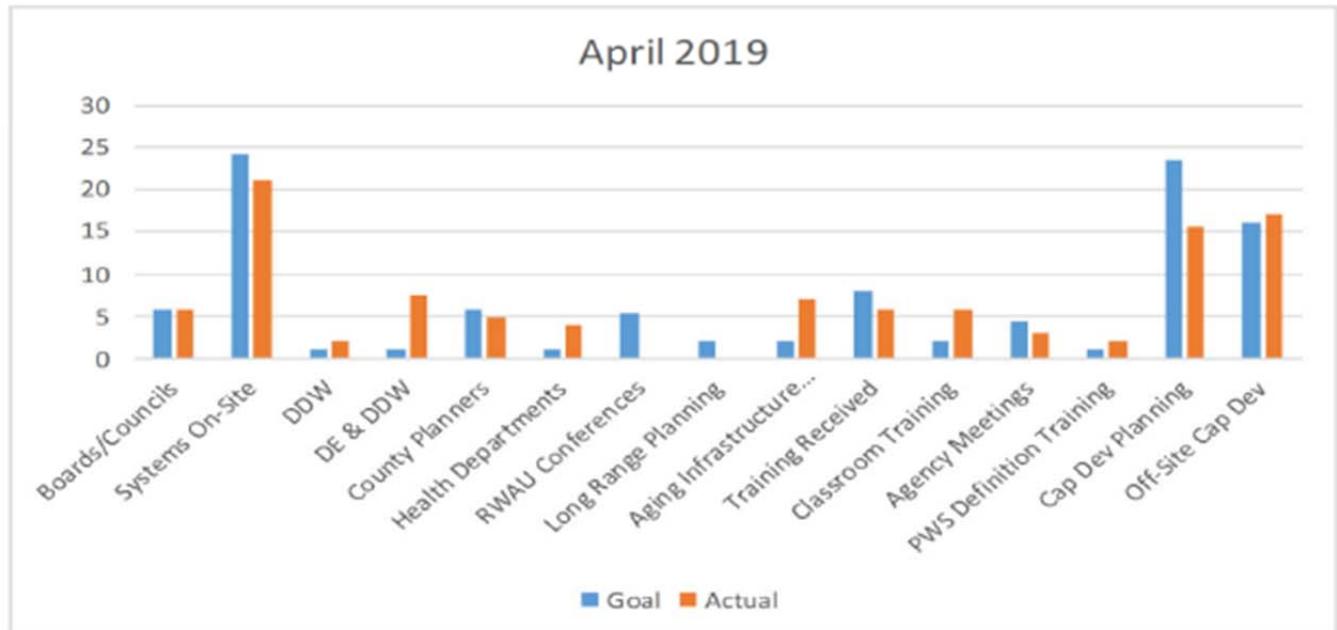


# RURAL WATER ASSOCIATION OF UTAH

76 Red Pine Drive • Alpine, UT 84004 • Phone: 801-756-5123 • Fax: 801-756

## Drinking Water Board Report Development Contract June 2018 - May 2023

RWAU Employee: Curtis Ludvigson



<u>Work Performed</u>	<u>Goal</u>	<u>Actual</u>
Boards/Councils	6	6
Systems On-Site	24	21
DDW	1	2
DE & DDW	1	7.5
County Planners	6	5
Health Departments	1	4
RWAU Conferences	5.33	0
Long Range Planning	2	0
Aging Infrastructure Planning	2	7
Training Received	8	6
Classroom Training	2	6
Agency Meetings	4.5	3
PWS Definition Training	1	2
Cap Dev Planning	23.5	15.5
Off-Site Cap Dev	16	17
<b>Total</b>	<b>103</b>	<b>102</b>

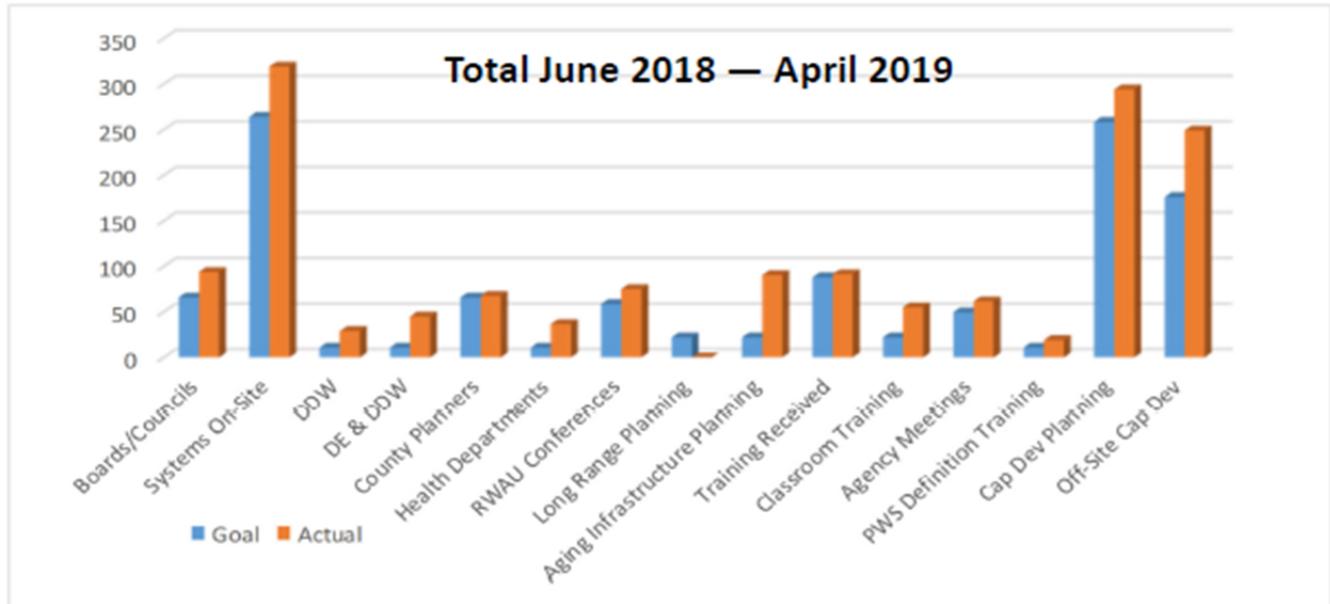


# RURAL WATER ASSOCIATION OF UTAH

76 Red Pine Drive • Alpine, UT 84004 • Phone: 801-756-5128 • Fax: 801-756

## Drinking Water Board Report Development Contract June 2018 – May 2023

RWAU Employee: Curtis Ludvigson



Work Performed	Goal	Actual
Boards/Councils	66	94
Systems On-Site	264	319.25
DDW	11	29
DE & DDW	11	45
County Planners	66	67.75
Health Departments	11	36.75
RWAU Conferences	58.63	75
Long Range Planning	22	0
Aging Infrastructure Planning	22	90.5
Training Received	88	91.5
Classroom Training	22	55
Agency Meetings	49.5	61.75
PWS Definition Training	11	19
Cap Dev Planning	258.5	294.25
Off-Site Cap Dev	176	249.25
<b>Total</b>	<b>1136.6</b>	<b>1528</b>



# RURAL WATER ASSOCIATION OF UTAH

76 Red Pine Drive • Alpine, UT 84004 • Phone: 801-756-5128 • Fax: 801-756

## On-Site Assistance & Work Performed

Jensen WID	Training on Aging Infrastructure
Axtell SSD	Bureau of Reclamation Applications
Bear River WCD	Aging Infrastructure, working with new Director on various systems training
Moroni	Progress in project and additional training on Aging Infrastructure
Annabella	Budget and Rates Review
Kanosh	Training on Aging Infrastructure and the process of getting a project done
Ephraim	Follow up on progress being made on projects
Tropic	Household Income Survey
Henrieville	Household Income Survey
Skyline Mountain SSD	System Expansion Discussions, Source Protection issues and training
Beaver	Aging Infrastructure training and meter replacement project
Green River	Master Planning Training and Rates Resolution
Indian Ridge	Training on system expansion and projects needed

## Agency & Other Meetings

Entity	Hours
DDW	2.0
Rural Development	1.0

Agenda Item

9(B)

## Active Enforcement Actions

PWS ID	PWS Name	PWS Type	Pop Served	IPS Pts	Rating	Rating Date
<b>Finalized AO</b>						
UTAH07039	Camper World Lakeside Park	Non-Community	28	110	Not Approved	11/03/2016
UTAH09034	Bear Paw Lakeview Resort	Non-Community	80	241	Not Approved	03/31/2016
UTAH11043	Old Meadows	Community	48	359	Not Approved	04/18/2017
UTAH10033	Sorrel River Ranch	NTNC	260	10	Not Approved	07/26/2017
UTAH18028	Sandy City	Community	99750	67	Approved	03/11/1980
UTAH25124	Alpine Cove SSD	Community	230	165	Not Approved	3/4/2019
<b>Corrective Action Systems</b>						
UTAH25013	GOSHEN TOWN WATER SYSTEM	Community	925	206	Corrective Action	3/8/2016
UTAH21050	LIZARD BENCH WATER	Community	63	30	Corrective Action	11/8/2018
UTAH22149	OAKRIDGE	Community	73	89	Corrective Action	2/1/2019
UTAH26073	DIAMOND HILLS ASSOCIATION	Non-Community	125	295	Not Approved	1/14/2010
UTAH25077	RIVERBEND GROVE, INC.	Non-Community	25	468	Corrective Action	12/13/2016
UTAH15038	TAGGARTS GRILL	Non-Community	60	151	Corrective Action	2/6/2018
UTAH09077	BRISTLECONE	Non-Community	180	1	Corrective Action	1/1/2019
UTAH25179	RIGTRUP EGG FARM	Non-Transient	35	314	Corrective Action	8/21/2018
UTAH26049	SWISS ALPINE	Community	300	75	Corrective Action	4/14/2016
UTAH12020	YOUNG LIVING FARMS	NTNC	250	25	Corrective Action	4/10/2019
<b>Not Approved Systems</b>						
UTAH07061	VALLE DEL PADRES SUBDIV	Non-Transient	98	217	Not Approved	6/10/1999
UTAH09084	JNB MARINE	Non-Community	36	56	Not Approved	9/17/2002
UTAH11091	SUMMIT CHATEAU IN BRIAN HEAD	Community	80	100	Not Approved	3/1/2008
UTAH09053	SKOOTS CREEK SUBDIVISION	Non-Community	69	341	Not Approved	12/15/2004
UTAH02069	SUNSET PARK WATER CO.	Community	44	65	Not Approved	5/29/2013
UTAH22019	WANSHIP COTTAGES	Community	79	205	Not Approved	4/11/2019
UTAH26074	SOAPSTONE SUMMER HOMES	Non-Community	110	38	Not Approved	4/3/2014
UTAH23028	DELLE AUTO TRUCK STOP	Non-Community	138	138	Not Approved	6/29/2015
UTAH15001	CROYDON PIPELINE CORPORATION	Community	92	10	Not Approved	7/7/2015
UTAH12004	EUREKA TOWN	Community	760	-7	Not Approved	3/31/2016
UTAH06008	WEBER BASIN JOB CORPS	Community	230	45	Not Approved	6/15/2016
UTAH03076	SHERWOOD HILLS RESORT	Non-Transient	50	443	Not Approved	11/3/2016
UTAH10034	SUN ARCHVIEW LLC	Non-Community	506	0	Not Approved	4/18/2017
UTAH18140	CARDIFF A.P.O.	Non-Community	83	70	Not Approved	5/11/2017
UTAH26042	LITTLE DEER CREEK CAMP	Non-Community	60	90	Not Approved	11/1/2017
UTAH13032	BRYCE-ZION CAMPGROUND	Non-Community	170	55	Not Approved	3/15/2018
UTAH26061	CAMP ROGER YMCA	Non-Community	210	65	Not Approved	3/15/2018
UTAH28026	HOLLOW MOUNTAIN	Non-Community	102	1	Not Approved	3/15/2018
UTAH09074	LAKE FRONT ESTATES	Non-Community	25	46	Not Approved	3/15/2018
UTAH25035	WILDWOOD SUBDIVISION	Non-Community	162	152	Not Approved	3/15/2018
UTAH13039	ZION FRONTIER RESORT	Non-Community	25	57	Not Approved	6/4/2018
UTAH09069	PARADISE RV PARK	Non-Community	120	206	Not Approved	6/14/2018
UTAH02078	M & J TRAILER HOME COMMUNITY	Community	27	520	Not Approved	8/20/2018

UTAH25023	BRICKERHAVEN SUBDIVISION	Non-Community	150	131	Not Approved	9/5/2018
UTAH03005	CORNISH TOWN WATER SYSTEM	Community	270	51	Not Approved	9/27/2018
UTAH22025	CAMP STEINER	Non-Community	300	23	Not Approved	9/27/2018
UTAH22072	ECHO RESORT	Non-Community	915	72	Not Approved	9/27/2018
UTAH07017	IRON MINE CAMPGROUND	Non-Community	90	102	Not Approved	9/27/2018
UTAH25133	JEHOVAHS WITNESS CHURCH	Non-Community	100	143	Not Approved	9/27/2018
UTAH07055	UPPER STILLWATER CAMPGROUND	Non-Community	320	145	Not Approved	9/27/2018
UTAH19037	WIND WHISTLE CAMPGROUND	Non-Community	39	60	Not Approved	9/27/2018
UTAH07023	YELLOWSTONE CAMPGROUND	Non-Community	25	230	Not Approved	9/27/2018
UTAH25129	LINCOLN BEACH	Non-Community	32	30	Not Approved	3/4/2019
UTAH02051	CEDAR RIDGE	Community	100	91	Not Approved	3/15/2019
UTAH09078	BARKER REC	Non-Community	30	105	Not Approved	3/18/2019
UTAH22036	BRIDGER LAKE CG	Non-Community	65	98	Not Approved	3/18/2019
UTAH07054	YELLOWPINE CG	Non-Community	346	120	Not Approved	3/18/2019
UTAH07067	SOUTH DUCHESNE	Community	128	65	Not Approved	4/24/2019

## Pending Orders Update

### Pending Administrative Orders

System	System Type	Population Served	ETT	IPS	Rating & Date
UTAH09069 Paradise Park	Community	120	16	206	Not Approved 06/2018
UTAH25023 Brickerhaven	Non-Community	150	16	131	Not Approved 09/2018
UTAH22019 Wanship Cottage Sites	Community	79	3	205	Not Approved 04/2019
UTAH09084 JNB Marine	Transient	36	3	56	Not Approved 09/2002
UTAH12002 Mona	Community	1400	3	58	Approved 11/2018
UTAH26042 Little Deer Creek	Non-Community	60	10	90	Not Approved 11/2017
UTAH13039 Zion Frontier Resort	Non-Community	25	9	57	Not Approved 06/2018

### Pending CA/EO

System	System Type	Population Served	ETT	IPS	Rating & Date
UTAH02078 M&J	Community	27	4	520	Not Approved 08/2018
UTAH03006 Cove Waterwork	Community	52	6	183	Approved 07/2016
UTAH22009 Weber-Meadow View Ranch	Non-Community	65	10	238	Approved 08/1996
UTAH18140 Cardiff APO	Non-Community	83	10	70	Not Approved 05/2017
UTAH25133 Jehova's Witness Church	Non-Community	100	8	143	Not Approved 9/2018
UTAH18009 Danise Water Company	Community	40	13	296	Not Approved 09/2018
UTAH09053 Skoots Creek	Non-Community	69	5	181	Not Approved 12/2004
UTAH26026 Bryant's Fork Summer Homes	Non-Community	50	0	25	Approved 11/2007
UTAH02051 Cedar Ridge	Community	100	11	91	Not Approved 03/2019
UTAH23044 BCI-LP Holdings	Community	200	10	25	Approved 01/1986
UTAH15038 Taggarts Grill	Non-Community	60	6	66	Corrective Action 02/2018
UTAH13032 Bryce Zion	Non-Community	170	2	55	Not Approved 03/2018

### Failure to Comply

System	System Type	Population Served	ETT	IPS	Rating & Date
UTAH26073 Diamond Hills Association	Non-Community	125	1	245	Not Approved 4/2019
UTAH11043 Old Meadows	Community	50	3	359	Not Approved 04/2017

# Current News

**DRINKING WATER BOARD PACKET**  
**Current News**

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# Residents of small Utah town advised to boil water after storage tank break-in

By: Ashley Imlay, Deseret News; April 1, 2019; [deseretnews.com](http://deseretnews.com)

<https://www.deseretnews.com/article/900063438/small-utah-town-advised-to-boil-water-after-storage-tank-break-in.html>

MOUNTAIN GREEN, Morgan County — Residents in the small Morgan County town of Mountain Green are being advised to boil their drinking water after someone broke into a water storage tank.

Cottonwood Water Mutual Co. distributed notices warning customers that sometime between Feb. 6 and this Monday, "someone broke and removed the lock securing one of our lower storage tank access lids."

The company noticed the security breach on Monday and contacted the state Division of Drinking Water, according to the notice.

Ryan Dearing, with Utah Division of Drinking Water, confirmed the information in the advisory and said officials hope to receive water testing results by Tuesday.

Cottonwood Water Mutual Co. cautions people in the town that until testing results are confirmed on Wednesday, they should boil their drinking water for one minute before using it.

According to the notice, bottled water is also available at the water office, 4000 W. Old Highway Road in Mountain Green.

# Preliminary test shows no bacteria in Cottonwood Mutual Water supply; boil advisory continues

By: Amanda Gerry, Fox 13 Now; April 2, 2019; fox13now.com

<https://fox13now.com/2019/04/02/preliminary-test-shows-no-bacteria-in-cottonwood-mutual-water-supply-boil-advisory-continues/>

MORGAN COUNTY, Utah — Hundreds of Cottonwood Mutual Water Company customers in Morgan County were rightfully concerned when they found a flyer posted on their door Monday telling them their community was in a boil advisory after one of their drinking water tanks was compromised.

Preliminary testing of the company's water supply showed negative results for bacteria. Results of a second test, called a confirmation test, are expected Wednesday. Until those results come in, Cottonwood Mutual Water Company recommends affected residents continue to follow the boil advisory.

On the Cottonwood Mutual Water Company website, they explain the possible drinking water contamination is the result of a lock securing one of their storage tanks being broken off, but the main question is, how did this happen?

"We're not sure. I hate to suppose. We have been in contact with the Morgan County Sheriff's Department, who are reporting, and we just have to wait and see," said Doug Dingman, Cottonwood Mutual Water Company Board Member.

The company says the breach could have occurred anytime between February 6th and Monday. They say they check their tanks every month, but did not see anything unusual. The company has also been supplying bottles of water to affected residents.

"Maybe I'm just laid-back, but it's just been so long. It's just been so long and none of us are sick, so I think we're good." said Liz Polad, a customer affected by the boil advisory.

Polad said some of her neighbors are taking the issue very seriously, while others are not overly concerned.

"My mom who lives around the corner, she is full-on boiling," Polad said. "They're not brushing their teeth with the water."

"We will be working as a board and meeting as a board to see what steps we have to do to make sure this doesn't happen again," Dingman said.

As for Liz, she is impressed by how transparent and time sensitive the company has been, but as for her family and pets, she's not taking any chances.

# Boil advisory lifted after Mountain Green water tests clean a second day

By: Mark Shenefelt, Standard-Examiner; April 3, 2019; standard.net

[https://www.standard.net/news/environment/boil-advisory-lifted-after-mountain-green-water-tests-clean-a/article\\_95594607-45c1-5407-90b5-80403a335cb7.html](https://www.standard.net/news/environment/boil-advisory-lifted-after-mountain-green-water-tests-clean-a/article_95594607-45c1-5407-90b5-80403a335cb7.html)

MOUNTAIN GREEN — A second set of tests confirmed there are no contaminants in the Cottonwood Mutual Water Co. system, prompting officials to end a boil advisory.

The system's 2,100 users were advised Monday to boil water before drinking it after someone broke into a water storage tank.

But tests Tuesday and Wednesday found no contaminants and the boil warning is no longer necessary, said Doug Dingman, a Cottonwood board member.

A routine check determined that between Feb. 6 and Monday, someone broke and removed a lock on a storage tank access lid.

The company alerted the Utah Division of Drinking Water, and samples were tested for bacteria. Technicians also performed a water chemistry analysis in the tank and throughout the system, according to a Cottonwood news release.

The break-in is being investigated by the Morgan County Sheriff's Office. Cottonwood said anyone with information about the incident can call the sheriff's office at 801 629-8221 or 801 629-6866.

Cottonwood said it replaced the tank lock and is getting bids for fencing to protect critical infrastructure that's not already safeguarded.

# **DEP: \$25,000 Penalty In Settlement Dealing With Overfeed Of Fluoride In City Of Franklin Water System**

By: David E. Hess, PA Environment Digest Blog; April 9, 2019;  
paenvironmentdaily.blogspot.com

<https://paenvironmentdaily.blogspot.com/2019/04/dep-25000-penalty-in-settlement-dealing.html>

On April 9, the Department of Environmental Protection announced a settlement agreement with the City of Franklin and the City's General Authority for violations of the state Safe Drinking Water Act associated with an overfeed of fluoride in the Franklin water system in February 2018.

The agreement requires the City and the General Authority to take actions to update operational procedures, provide public notice of certain conditions, submit records, and obtain permits for equipment changes at their water plants.

The agreement includes a \$25,000 civil penalty for violations associated with the 2018 fluoride overfeed and irregularities in the City and General Authority's reporting of disinfection treatment levels.

Additionally, the City of Franklin's designated operator-in-charge of the drinking water system, Fred Leyda, signed a consent order and agreement with the DEP in which he surrendered his operator's certification and paid a \$2,500 civil penalty for the violations.

As a result of the fluoride overfeed, the City had to take several emergency actions, including extensive flushing of the water distribution system and providing alternate sources of water to its customers for nearly two weeks in February 2018.

Since that time, however, the water system has been providing water to customers without incident.

“Under Pennsylvania law, public water suppliers are required to report to DEP within an hour of discovering an issue that could adversely impact the drinking water which, upon our investigation, the City and General Authority failed to do,” said DEP Northwest Regional Director James Miller. “This settlement reflects the City's and General Authority's cooperation with DEP's investigation and DEP's commitment to ensuring that customers of water supplies are protected and that violations are addressed promptly.”

# Public on guard after recent drinking water incidents

By: Emma Penrod, April 10, 2019

We've heard quite a lot about disrupted drinking water service in recent weeks.

Last week, residents in Mountain Green were asked to boil their water before drinking after officials discovered someone had broken the lock securing one of the town's storage tanks. In March, mysterious vapors in Layton homes were linked to contaminated groundwater.

But the reason the public heard so much about either incident, according to Marie Owens, director of the Utah Division of Drinking Water, goes back to February's news out of Sandy, where a release of excessive fluoride potentially contaminated drinking water in some 1,500 homes.

What happened in Mountain Green and Layton wasn't all that unusual, Owens said. Utah typically issues about a dozen boil orders each year for various reasons; most only last a few days. Similarly, it's not terribly uncommon for the Utah Department of Environmental Quality to be tracking down leaks contaminating groundwater. But the Sandy incident, she said, was unique because it impacted so many residents.

The scale of the incident was also extraordinary in terms of the amount of fluoride that entered the water—nearly 40 times the maximum amount allowed by the Division of Drinking Water, according to Owens.

The massive dose of fluoride dropped the pH of the water in the city's system—a relatively rare occurrence in Utah—and the acidic water began to eat away at metal pipes throughout the city, releasing lead and copper into the drinking water. Although the cause of the acidity differed, the incident was similar to what occurred in Flint, Michigan.

And not unlike Flint, what happened in Sandy seems to have Utah residents on edge about their drinking water, Owens said.

Based on the latest test results, Owens doesn't believe the February incident caused permanent damage to the city's water system.

Tap water in less than a dozen homes contained high levels of lead and copper even after the incident. The Division of Drinking Water continues to work with those residents to locate and resolve the source of the metals, which can harm children if consumed. Lead, in particular, is known for damaging the brain.

It's not clear whether the contamination predates the fluoride release. These homes were not tested before the incident, Owens said, and old, corroded pipes can leach lead into a home's drinking water.

Water tests in the other homes have returned to normal, but Owens said her staff will re-test the area's water for lead and copper next year to be sure there is no lasting damage.

# Rain barrels made available to help local residents save money and water

By: Hunter Geisel, KUTV; April 14, 2019; kutv.com

<https://kutv.com/news/local/rain-barrels-made-available-to-help-local-residents-save-money-and-water>

SALT LAKE CITY (KUTV) — The Utah Rivers Council is bringing back rain-harvesting barrels to Salt Lake County.

The Utah Rivers Council announced Thursday the return of its RainHarvest program with Millcreek, Murray and the Salt Lake County Watershed Program, where Millcreek, Murray and Salt Lake County residents can purchase rain barrels for \$50 and \$75 to those outside of those areas to help save money and water.

“This program is an important step toward conserving and protecting clean water in our community because it offers an inexpensive and proven option to help people make a difference in their own backyards,” stated Millcreek Mayor Jeff Silvestrini in a Thursday press release.

Utah urbanites have some of the highest water use per person in the country and rain barrels are one of the many tools Utahns use to reduce the high water use, according to the press release.

About 4,000 barrels were purchased through the RainHarvest program, which in turn will save about 200,000 gallons of water every time it rains when filling up the 50-gallon barrels.

According to the press release, capturing rainwater also improves water quality by storing it onsite and preventing urban runoff from flowing through streets and gutters, washing pollutants into streams and lakes. Rain harvesting is legal in Utah.

“Installing rain barrels on downspouts that are draining to driveways, alleys, and other areas which flow into storm drains, can greatly reduce the amount of runoff entering local streams,” stated Bob Thompson, Salt Lake County Watershed Section Manager. “Storm drains flow directly into our streams and rivers. No filters. No treatment, so reducing runoff improves water quality.”

Nick Schou, Conservation Director for Utah Rivers Council, added that rain harvesting also helps people appreciate water conservation and helps them become more conscientious about their water use.

“Once someone starts capturing the rain, they grow passionate about conserving water and more conscious of how our water use is connected to our rivers and the fish and wildlife species they support,” he stated in the press release.

After ordered online, people can pick up their barrels at a designated date and location, where volunteers will be there to teach participants about the importance of rain harvesting and other water conservation strategies. To purchase your rain barrel, visit [utahrivers.org](http://utahrivers.org).

# West Valley residents warned of unauthorized 'water testers'

By: David Wells, Fox 13; April 16, 2019; fox13now.com

<https://fox13now.com/2019/04/16/west-valley-residents-warned-of-unauthorized-water-testers/>

WEST VALLEY CITY — The water district in West Valley is issuing a warning after a door-to-door sales pitch happening across the valley is leading to concerns from water district customers.

It's not exactly a sales pitch-- because the people knocking on the doors claim not to be selling anything. It's what they ask to do, that has residents feeling uneasy.

Anyone who has a doorbell camera can see who comes and goes. What Greg Carlson saw on his doorbell camera on Saturday-- a woman approach the porch, then promptly leave.

"You could tell it was shady," he said.

In a video captured on Carlson's doorbell camera, a woman covers her face and leaves behind a note with a number that asks to test Carlson's water.

He said the paper was, "blue and white. Kind of looked like the Granger-Hunter paperwork."

Carlson lives in the Granger-Hunter Improvement District. Thinking it might be the city trying to test his water, he called the number. He said it went straight to voicemail and asked him to leave his information.

"Anybody that wants my information-- I ain't giving it to them. So I just hung up," he said. Greg got suspicious, and so did others who either saw the note or answered their door.

They called Granger-Hunter to find out if the city was sending out people to test the water.

"All we know for sure is that they're saying they represent the water company, which they really do not. They're not representing us," said Granger-Hunter Improvement District general manager Clint Jensen.

They posted an alert on their website for residents.

"Rarely would we ever come knocking at your door and want to make entry, that just does not make sense to us," he said.

They do test the water at 150 testing sites around the city every month. He said all the sites are outside and don't require entry into homes.

Jensen said he heard of similar door-to-door people knocking on homes in Riverton, and that other water districts have been fielding complaints.

What are these non-city water testers up to?

"Maybe to sell them a product. We're not sure," Jensen said.

Fox 13 called the number both Jensen and Carlson provided. A woman answered the phone for "Quality Water."

When asked if they were selling any products like water softeners, the woman said, "no."

"What that is, is just an informational survey, but the water is free testing [sic]," the woman said.

"After somebody gets their water tested, what happens with it after that?" Fox 13 asked.

"Well that, I don't know. Because I'm not the one testing the water," the woman replied.

She then said a supervisor would call us, but no one called back.

An internet search for Quality Water and the phone number turned up with nothing.

Greg still wonders what this is all about.

"I kind of figured it was a scam," he said.

Scam or not, for him-- certainly strange.

Jensen said if any resident has concerns about their water quality, they can call Granger-Hunter Improvement District at 801-968-3551 and request water testing at their home.

# Report shows 239 people sickened in Utah fluoride overfeed; investigation continuing

By: Amy Joi O'Donoghue, Deseret News; April 20, 2019; [deseretnews.com](http://deseretnews.com)

<https://www.deseretnews.com/article/900066840/sandy-utah-fluoride-report-shows-239-people-sickened-in-overfeed-investigation-continuing.html>

SANDY — A state-required report documenting the health impacts of an accidental release of fluoride concentrate in Sandy said there were 239 cases of human exposure in which people experienced gastrointestinal symptoms such as vomiting and headaches.

That number is substantially higher than early reports of the Feb. 5 incident, which sent undiluted hydrofluorosilicic acid from a malfunctioning pump into part of the city's drinking water system, affecting 1,500 households, schools and businesses.

The concentrate in its undiluted form is classified as a hazardous, poisonous material that, while it contains fluoride, also contains arsenic, lead, copper, manganese, iron and aluminum. It is a byproduct from phosphate mining operations.

Fluoride was detected at 40 times the federal limit after the release, and two weeks of free blood testing for lead showed one person with elevated levels, according to Salt Lake County health officials.

The release happened as a result of a power surge during a snowstorm.

Evelyn Everton, Sandy's deputy mayor, said the concentrate was stored in a well house, with some of the substance hooked up to a pump injector that had not been in use since 2016.

Everton said city officials believe a contractor may have left the pump on and the surge triggered it to release the concentrate that entered the system. By the next day people started reporting foul-tasting water and physical symptoms.

The city flushed its system and advised impacted residents to do the same. So far, Everton said the city has reimbursed affected households \$2,600 for the water use.

At the request of the city, Parsons Behle & Latimer is doing an independent investigation on the city's operational and regulatory response to the event, which prompted the Utah Division of Drinking Water to issue a trio of violations in an administrative order.

That document, on file with the U.S. Environmental Protection Agency, includes violations for exceeding the fluoride level and not meeting public notification requirements. The city can appeal.

In the aftermath of the event, the city's director of public utilities, Tom Ward, was placed on administrative leave. Everton says he remains on leave pending the outcome of the independent investigation.

The city, she added, addressed the issues with the well houses.

"We have taken several steps to ensure that this kind of event can never happen again," she said, including unplugging all fluoride pumps not in use from a power source and closing the valves on discharge lines when the wells are not operational.

The city has 11 fluoride injectors.

In the initial aftermath of the release, city officials thought the area of contamination was confined to 50 homes and did door to door announcements to warn people. However, the area expanded twice as more people continued to report symptoms well after the release.

Utah Poison Control records contained in the state summary show it handled 316 cases possibly linked to the fluoride overfeed, with 163 of those cases followed to a known outcome.

Salt Lake County health records in that same report say 16 households reported symptoms impacting 40 people. The city of Sandy itself reported 11 known cases.

Officials say many of the entities' records could include duplicate cases.

Marie Owens, director of the Utah Division of Drinking Water, said her staff's analysis puts the number at 239 potential human exposure cases.

The city has been reimbursing residents for any medical claims associated with the incident, Everton said.

# Utah is gradually complying with 2017 water guidelines

By: Emma Penrod, April 23, 2019

The authors of the state's official water strategy say that despite initial skepticism, they're impressed by how far Utah has come in recent years.

Created in 2017 by a governor-appointed water task force, the strategy outlined Utah's top concerns and priorities regarding the state's scarce water supply and made 93 policy recommendations. In the two years since, the document has spurred multiple reforms and won over some who initially criticized its creation.

"Quite honestly, when I looked at the other stakeholders that were part of the group, 41 other stakeholders from all over the state, I just thought, there's only a handful of conservationists here, we'll never get anything done," said Lynn de Freitas, executive director of Friends of Great Salt Lake. "And actually, I really feel good about this document."

De Freitas was among several members of the task force who disagreed with the co-chairs' decision to hold some meetings in secret. An early draft of the water strategy was initially withheld from public view until it was leaked to the press. And the final document still recommends the construction of the Lake Powell Pipeline, and development on the Bear River—inclusions de Freitas described as "problematic."

Although there is no indication that state legislators intend to cancel either of these projects, neither has made much progress in recent months. But the water strategy seems to have inspired several positive reforms, de Freitas said, particularly in the state legislature.

De Freitas credited the strategy for "breaking the sound barrier" on water banking, a practice allowing water right holders to bank their water in exchange for payment, rather than forcing them to use or lose their allocations. Though water banking is legal elsewhere in the US, it has remained a controversial topic in Utah. There is also movement, she said, on the creation of localized watershed councils.

"I continue to see results," de Freitas said. "I continue to hear conversations that have come out of that framework addressing key policy questions. So I would say, I think it's being actualized."

Timothy Hawkes, one of the three officials who chaired the water strategy task force, agreed.

"Unlike most reports, strategies and the like, which get written up and then filed away, this one continues to have life and to actively shape policy in a positive and constructive way," Hawkes said. "I heard it invoked numerous times during the past session in support of various pieces of legislation."

Among his fellow legislators, Hawkes said he believes the strategy document has built a greater understanding of impacts—both positive and negative—of water efficiency in Utah. Concern for

the health of the Great Salt Lake continues to grow, he added, and discussions about water use and diversion in Utah are “maturing.”

“All of those themes were emphasized strongly in the State Water Strategy,” Hawkes said. “It seems to me that over time, they continue to shape the narrative and the debate in positive ways.”

There is still progress to be made, Hawkes said, pointing to the “watered down” metering bill that passed the legislature this past March. On the positive side, he said, the final bill requires water meters on all new construction in Utah, which will prevent the number of unmetered water connections from growing. But the original bill laid out a plan for installing meters on all Utah residences.

“We can and should do more as a state,” Hawkes said, “but water policy moves slowly.”

# Water restrictions at an assisted living facility after 2 contract Legionnaires' disease

By: Matt Rason, KSL; April 26, 2019; ksl.com

<https://www.ksl.com/article/46539630/water-restrictions-at-an-assisted-living-facility-after-2-contract-legionnaires-disease>

TAYLORSVILLE — An assisted living facility in Taylorsville has implemented a no tap water policy at the recommendation of the health department after two of its residents contracted legionnaire's disease.

"The last month has been ... very unsettling," said Norma Soderborg Harris, a resident at Legacy House of Taylorsville.

There's no question living without running tap water can make life difficult. Yet, Harris can think of no better place to be than at the facility.

"I love it here," she said. "It is to me the perfect place. If you have to be in a facility, it's here." On Thursday, signs were hung in rooms, bathrooms and above drinking fountains to warn residents not to use the water. For more than a week, the staff has provided water bottles to residents to drink, wash and bathe.

"We can't shower," Harris said. "We can't do anything that uses water."

"We've had to ask for a lot of patience from them," Executive Director Nathan Cluff said. "This is their home. This is where they live."

In early April, Cluff said one of his 80 assisted living residents contracted Legionnaires' disease.

Then last Tuesday, the Salt Lake County Health Department notified Cluff that a second resident had contracted the disease. That's when the facility was advised to stop all tap water use.

"We want to make sure that all of our residents are safe, that they aren't showering first and foremost in water that could be contaminated and breathing in that vaporized air," Cluff said.

According to the Centers for Disease Control and Prevention, the disease comes from the bacterium *Legionella*, which is found in water but can only spread by breathing in mist that's contaminated with the bacteria. Symptoms include coughing, shortness of breath and a fever.

"It basically shuts down your lungs so you can't breathe," said Steve Madsen, owner of Legionella Specialties. Legacy House hired the company last week to remediate the *Legionella* bacterium from its facility.

"We're looking for spots where the water would be turned into aerosol, like a shower head, a fountain, a hot tub. It can even be a drinking fountain or a sink in a room," Madsen said.

Seven other residents have been tested for the disease out of an abundance of caution, but the results have come back negative.

“Out of an abundance of precaution we’re going to implement these water restrictions just to make sure we keep people safe until the problem’s been remediated,” Cluff said.

Until then, it’s an inconvenience that Harris seems willing to live with.

“Hope it’s over with soon,” she said.

She said she has warmed up water bottles in the microwave in order to take a shower.

“I can’t say it’s been happy experiences, but it’s been a learning experience,” she said. “They’ve done everything they can to help us to do it.”

Health officials said the case at Legacy House of Taylorsville is not unusual for these type of facilities. Madsen said he expects the facility will be completely disinfected by Friday morning.

# Evidence found, prosecutors seek freeze in Flint water case

By: Ed White, abcNEWS; April 26, 2019; abcnews.go.com

<https://abcnews.go.com/US/wireStory/evidence-found-prosecutors-seek-freeze-flint-water-case-62666481>

Prosecutors on Friday asked a judge for a six-month timeout in the criminal case against Michigan's former health director after finding a "trove of documents" related to the Flint water crisis in the basement of a state building.

The 23 boxes included a file titled "phones/wiped" with the names of eight state employees, prosecutors said.

"Only within the past few weeks did the People learn of a trove of documents and other materials that should have been, but was not, provided to it months or even years ago," the attorney general's office said in a court filing.

It's unclear what connection, if any, the boxes have to former health Chief Nick Lyon, who is charged with involuntary manslaughter in an outbreak of Legionnaires' disease. He's accused of failing to timely warn the public about the disease while Flint was using water from the Flint River in 2014-15. The water wasn't properly treated, which caused lead to leach from old pipes, among other problems.

Lyon has been ordered to trial, but Genesee County Judge Joseph Farah is considering an appeal. He planned to release a decision no later than May 17, more than three months after hearing arguments.

"We were in full overdrive working to get this done," the judge told The Associated Press. But prosecutors now want him to suspend the case for six months. Farah said he'll hold a hearing on May 3.

"We will vigorously oppose it. This is another stall tactic by the prosecution," said Lyon's attorney, Chip Chamberlain.

Prosecutors didn't suddenly stumble upon the documents and computer hard drives. They said they were informed in February by Peter Manning, a division chief in the attorney general's office, that the boxes "were languishing in the basement of a state-owned building."

Other attorneys in the office were aware of the records because they were defending state officials in civil lawsuits related to the Flint water scandal, Assistant Attorney General Daniel Ping said.

They indicated that the records were duplicates of what already had been given to prosecutors, but investigators said that wasn't true, Ping wrote.

The criminal investigation was led by a special prosecutor, Todd Flood, until earlier this year when Dana Nessel, the new attorney general, brought the cases into her office and formed a new team. Flood charged 15 people; so far seven have pleaded no contest to misdemeanors.

This week was the fifth anniversary of Flint's switch to the Flint River. The city used the river for 18 months until fall 2015.

# Executive director of Utah Department of Natural Resources retiring June 1

Deseret News; April 26, 2019; deseretnews.com

<https://www.deseretnews.com/article/900067874/executive-director-of-utah-department-of-natural-resources-retiring-june-1.html>

SALT LAKE CITY — Mike Styler, executive director of the Utah Department of Natural Resources, is retiring after more than 14 years of service with the department.

Styler, the agency's longest serving executive director, will step down June 1. Deputy Director Darin Bird will serve as interim executive director.

"Mike's leadership has been invaluable both to the Department of Natural Resources and to our state," Gov. Gary Herbert said in a statement Friday. "I will greatly miss having him as part of my cabinet, and I wish him the very best."

Under Styler's leadership, the department launched the Watershed Restoration Initiative, a statewide effort to improve ecosystem health and biological diversity, water quality and yield, as well as sustainable uses of Utah watersheds. To date, nearly 2,000 projects and 1.6 million acres of land have been restored.

Among other accomplishments, Styler was instrumental in forming the Utah Water Task Force, the creation of the state's water rights adjudication process, and in the signing of two hunter access agreements with the state's School and Institutional Trust Lands Administration.

"My opportunities to serve took unanticipated paths, but it has been incredibly rewarding to work with Gov. Herbert, the good people of Utah and over 1,300 DNR employees that work so hard to meet the natural resource needs of our state," Styler said in the statement.

"Utah faces a number of difficult opportunities moving forward with water, wildlife, recreation and fire particularly. DNR has amazing and dedicated people. They are up to the task of meeting those challenges."

Styler served in the Utah House of Representatives before joining the department. In the Legislature he served as chairman of both the Legislative Water Task Force and Natural Resources Appropriations Committee. He also served as a member of the Executive Appropriations Committee and the Legislative Management Committee.

A farmer from Oasis, Millard County, he also served as a Millard County commissioner and an eighth-grade U.S. history teacher at Delta Middle School before being elected to the Legislature. He still farms 400 acres of irrigated land on his family farm.

# Plan to store underground water backfires, forces Utah town to upgrade to costly sewer system

By: Brian Maffley, SL Tribune; April 29, 2019; sltrib.com

<https://www.sltrib.com/news/environment/2019/04/29/plan-store-underground/>

**Millville** • All year long, a perennial spring discharges water through the Cache Valley city of Millville, providing what could be a steady source of pristine drinking water from under the Bear River Mountains.

The bucolic hamlet a few miles south of Logan, however, cannot tap the water from Garr Spring in summer because farmers have first dibs on it. Yet the town cannot store it in winter because it lacks a reservoir. So this water runs out to the Blacksmith Fork River for part of the year, rather than benefiting the town of 2,000 which holds rights to it.

The Utah Geological Survey offered a seemingly ideal solution. Inject up to 35 million gallons of the Garr Spring water underground in the winter, when no one needs it, then pull it out in summer, when water supplies become depleted.

Millville was to be a test case for a practice called “aquifer storage and recovery,” or ASR, seen as a partial solution to Utah’s uncertain water future. But the plan went awry last month after the Utah Department of Environmental Quality rejected the town’s groundwater injection permit because it appeared the well selected for the project would push nitrate contamination downhill to wells used by the neighboring town of Providence.

The DEQ identified Millville’s septic systems as a source of the nitrates and ramped up pressure on the town to connect to a sewer system as neighboring towns, including Providence, Hyrum and Nibley, did 15 years ago. The Bear River Health Department jumped in and imposed a moratorium on new septic systems.

Nitrate pollution associated with septic systems can degrade aquatic ecosystems and be toxic to humans by disrupting the ability of hemoglobin to move oxygen, according to Richard Worley, the health department’s environmental health deputy director.

“For infants under 6 months of age, if they drink water contaminated with nitrates above 10 [milligrams per liter], they could get severely ill,” he said at the Board of Health meeting where the moratorium was approved. “It affects the oxygen in their system. It’s called blue baby syndrome. If not treated, they could die.”

What these actions mean for Millville, a strictly residential community of modest homes, is a quadruple whammy with dire financial implications.

“Because of the moratorium, retired families can’t sell their land. It really hurts these young couples who just bought a lot they can’t build on,” Mayor David Hair said. “I feel bad about how the whole thing happened. To just put on a moratorium is very hard. They didn’t do it right.” Many of the 54 lots that had been identified for new homes cannot get developed until Millville gets linked into Logan’s wastewater-treatment system.

Town officials had hoped that the spring water injection program would salvage Millville’s Glenridge well, which has long registered nitrate levels just below the drinking water standard of 10 milligrams per liter. The goal was to dilute the groundwater there with pure spring water to extend the life of the well. But according to the Utah Division of Water Quality, injections didn’t do much for pushing down nitrate levels over time.

“The city failed to show that the project would not have a detrimental effect on the aquifer, including on the drinking water wells of neighboring communities such as Providence,” said division Director Erica Gaddis. “The nitrate in the aquifer below Millville City is at least partially sourced from septic system effluent generated by homes in the city.”

A study by the Utah Geological Survey also noted the rise in nitrates in Providence well but argued that geochemical modeling and groundwater travel times indicated it was not connected with Millville’s ASR activities.

Gaddis concluded otherwise and argued it would be unfair to jeopardize a water source used by a town that had invested in sewer. Soils around Millville can safely support one septic system per three acres, yet the town’s residential density is about six times that, according to her division.

“Millville should first eliminate any additional contribution to the nitrate contamination in the Cache Valley principal aquifer by connecting to a sanitary sewer for new development and connect existing systems to sewer to the maximum extent practical,” Gaddis wrote the mayor in a letter announcing her intention to reject the permit.

Besides, an analysis of the water in Millville’s injection well indicated trace amounts of an antibiotic, ingested by humans as medicine, and caffeine, offering evidence that septic systems are at least partly to blame.

“This case is an important example for other growing communities that as density increases,” Gaddis said, “communities should reevaluate the feasibility of sanitary sewer to protect local aquifers for drinking water.”

Still the rejection blindsided town officials, who say they were led to believe they would get approval for the ASR project until the last minute, and after they invested heavily in engineering studies and tests.

“The beauty of doing ASR here is the infrastructure is in. All we have to do is turn a valve,” said City Recorder Corey Twedt. “It’s really a perfect fit for our city. You don’t need to put new pipes in or anything else.”

The Health Department did ease its moratorium to allow 20 more septic systems. But these systems will be rendered useless in a few years when all of Millville’s 630 homes get connected

to sewer. In the meantime, the city's streets and residents' landscaping will be torn up as pipes are put in the ground. The exact cost, which is unknown at this time, will be at least several million dollars.

Residents voted against a sewer system in 2002, but the town did install a trunk line west to Nibley, whose sewer is linked to Logan's treatment plant, in anticipation of getting connected. But with sewer, Millville residents will see their property taxes rise to pay for it, their yards trenched, and monthly bills for wastewater treatments.

"It's a shame we had to do water and sewer at the same time," Twedt said. "With our tax base, it's going to be difficult."

Meanwhile, Hair is not so sure septic systems are responsible. Nitrate contamination also can come from fertilizer and cattle excrement, and there's plenty of the latter in Millville, a historic agricultural haven associated with dairying.

"They are blaming it on septic," Hair said, "to make us go to sewer."

# No Increase In Retirement Home Legionnaires' Disease Cases, Residents Await Water Testing

By: Erik Neuman, KUER; April 29, 2019; kuer.org

<https://www.kuer.org/post/no-increase-retirement-home-legionnaires-disease-cases-residents-await-water-testing#stream/0>

There have been no new cases of Legionnaires' disease at a Taylorsville senior living home but residents are still waiting to find out if their water is clean enough to drink.

Two residents of the assisted living and memory care home Legacy House tested positive for the disease.

The Legionella bacteria can be fatal for individuals who are older or those who have other health issues. 'Legionnaires' disease is a type of pneumonia caused by the Legionella bacteria.

The disease was named after the first known outbreak in 1976, at an American Legion convention in Philadelphia, Pennsylvania. 200 people were hospitalized after the bacteria was spread through a hotel's air conditioning system. Each year about 30 cases of the disease are diagnosed in Utah.

Outbreaks often happen in senior living homes because the bacteria thrives in warm water.

Assisted living facilities have regulations that prevent water from being too hot for residents.

"We do tend to see Legionella in those facilities a little more often because their water heaters are sometimes low enough that legionella can grow more easily," said Nicholas Rupp, a representative of the Salt Lake County Health Department.

Since the initial two Legionnaires cases were discovered, the health department has approved residents of Legacy House to use designated showers with Legionella filters, according to Executive Director Nathan Cluff. He said no new cases have been discovered since last week.

The Salt Lake County Health Department took water samples on Friday and are awaiting the results of lab testing. In the meantime residents of Legacy House are still drinking bottled water.

# Two senior center residents contract Legionnaires' disease from tap water

By: Emma Johnson, abc4; May 2, 2019; abc4.com

<https://www.abc4.com/news/local-news/two-senior-center-residents-contrast-legionnaires-disease-from-tap-water/1973789628>

TAYLORSVILLE, Utah (ABC4 News) – The Salt Lake County Health Department has asked staff members at a senior living center in Taylorsville to stop using tap water after two residents contacted Legionnaires' disease.

Legionnaires' disease is caused by a bacterium known as legionella. Health officials say most people who are exposed to Legionella do not get sick, however, people who are age 50 or older, current or former smokers or people with weak immune systems are at an increased risk of catching legionella.

According to the Centers for Disease Control and Prevention, Legionnaires' disease is a severe form of pneumonia. It is contracted when people breathe in mist or accidentally swallow water containing Legionella.

Staff members at Legacy House provided bottled water for drinking, washing, and bathing with Legionella filters on showers.

Water sampling has been done and officials report that seven out of nine water samples did not detect legionella.

The Salt Lake County Board discussed the outbreak in a meeting Thursday. The contamination was originally reported throughout the facility.

Officials in Thursday's meeting reported that two vacant rooms remain contaminated and the rest of the center will go back to normal.

# Boil order in place in area of Payson, officials say

By Cara MacDonald, KSL.com | Updated - May 9th, 2019 @ 11:59pm | Posted - May 9th, 2019 @ 9:57pm

<https://www.ksl.com/article/46549324/boil-order-in-place-in-area-of-payson-officials-say>

PAYSON — Water service has been restored but a boil order remains in effect Friday morning due to a water main break in Payson, officials said.

A water main break near the 700 North Arrowhead Trail in Payson caused about 200 residents to lose water on Thursday and is necessitating some to boil their water until told otherwise, according to Payson Fire Rescue.

The break was repaired and water turned back on about 2 a.m. Friday.

Payson City Water Department informed residents Thursday night that if they were without water due to the water main break and live between 400 North to 900 North and 300 East to 750 East, they will need to boil their water until further notice

The boil order is primarily a precaution, but residents are urged to pass the message along to their neighbors in case they didn't receive the notice, according to Payson Fire Rescue.

Payson City's water department is actively working to solve the problem. Residents can contact the water department at 801-465-5217 if they have any question about the boil order.

## Payson boil order lifted

Carley Porter Daily Herald May 11, 2019

[https://www.heraldextra.com/news/local/south/payson/payson-boil-order-lifted/article\\_18bc9153-05ff-5e7d-8b01-3501299f525d.html](https://www.heraldextra.com/news/local/south/payson/payson-boil-order-lifted/article_18bc9153-05ff-5e7d-8b01-3501299f525d.html)

Chief Scott Spencer with the Payson Fire Department confirmed at noon Saturday that the boil order for a portion of Payson residents, which was in place through Friday night after a water main break, has been lifted.

The boil order was originally put into place Friday morning as a precautionary measure, after a group performing some drilling accidentally hit a water main, Spencer said. The pipe that was accidentally bored into had to be replaced, and water samples were sent to the Utah Division of Water Quality for testing.

Spencer said the water samples came back as safe to drink for residents

# Water Watch: How the Weber Basin Water Conservancy District carries out flood control for rivers

By Jon Parry Special to the Standard-Examiner

[https://www.standard.net/news/environment/water-watch-how-the-weber-basin-water-conservancy-district-carries/article\\_be2b5c57-dd07-58f8-9b46-623b9515796f.html](https://www.standard.net/news/environment/water-watch-how-the-weber-basin-water-conservancy-district-carries/article_be2b5c57-dd07-58f8-9b46-623b9515796f.html)

Weber Basin Water Conservancy District is Northern Utah's regional water supplier for treated municipal water, wholesale irrigation water, retail secondary irrigation water, untreated industrial water, and groundwater replacement water.

Many of us that live in Northern Utah enjoy the benefits provided by the construction of the Weber Basin Project and the subsequent operation and maintenance of this project carried out by the District. The most noticeable and impactful benefit is the annual delivery of hundreds of thousands of acre feet of water for irrigation and municipal and industrial use. This water allows us to turn the faucets on in our homes, or the outdoor irrigation spigot, and have flowing water. Several other benefits that are also provided, but not as readily noticeable, include flood control, recreation, reservoir and stream fisheries, and waterfowl refuges near the Great Salt Lake.

Recognizing this year's above average snowpack and consequent increased interest in the flooding potential along the Ogden and Weber rivers, let's discuss the flood control responsibilities of the District and the complex planning and operations that go into this conversation.

The District has the primary flood control responsibilities for the Ogden and Weber rivers. Reservoirs located along the Ogden River (Causey and Pineview) and the Weber River (Smith and Morehouse, Wanship, Echo, Lost Creek and East Canyon) allow the District to manage flows within the rivers by either storing water, releasing water, or a combination of the two. Leveraging multiple sources of information and expertise, the District decides when to store snowmelt runoff, when to release water, and how much to store or release. All of these decisions are made with the expectation that the reservoirs will fill, river channel capacity will not be exceeded, and no flooding will occur. Sound like a lot to digest and be monitoring? It is.

How do we know how much and when the water will come down the Ogden and Weber rivers? Great question. One tool is the data provided by snow telemetry (SNOTEL) sites. These sites provide snowpack information that helps determine how much runoff we can expect. Another tool is the Colorado Basin River Forecast Center. This center provides official forecasts of expected runoff volumes every two weeks. These forecasts are tracked on Army Corp of Engineer flood control diagrams that allow the District to evaluate available reservoir storage along both river systems with the forecasted April through July runoff volumes. The most important tool is the expertise of District staff, especially when you take into consideration the fact that all data and forecasts can dramatically change as a result of a single storm. Drawing on past experience and the above referenced information, the District decides how to operate the reservoirs in order to maximize storage potential and prevent downstream flooding.

Flood control operations on the Ogden River began in late March when the District began releasing water from Causey Reservoir. Releases from Pineview followed shortly thereafter and have continued to date.

The District continues to monitor the flood control situation daily and anticipates being able to fill all of our reservoirs while mitigating flooding risks along the Weber and Ogden rivers.

Even while entering the irrigation season with full reservoirs, wasteful watering habits result in the drawing down of much needed water storage much sooner than necessary. Please wait to water, and visit the District's conservation website <http://weberbasin.com/conservation> to learn more about how all of our outdoor watering habits can help conserve and efficiently use this limited resource.

Jon Parry is the assistant general manager/strategic initiatives at the Weber Basin Water Conservancy District.

# Sandy water main break causes a mess but doesn't damage any homes

Deseret News

Published: May 10, 2019 11:56 am

<https://www.deseretnews.com/article/900070038/sandy-water-main-break-causes-a-mess-but-doesnt-damage-any-homes.html>

A water main broke in the River Oaks neighborhood in Sandy Friday morning. According to Scott Ellis, operations manager for Sandy Public Utilities, no homes were damaged due to the break. He noted the pipes are only 10 years old but sit in really "hot" or corrosive soil, which has made it a "particularly problematic" area. Ellis said the city is in the middle of a repair and replacement project just feet away from Friday's break. The neighborhood's iron pipes are slowly being replaced with plastic because it's not susceptible to corrosion.

# From hate crimes to drinking while riding an e-scooter, new laws taking effect in Utah (Excerpt)

By [Lisa Riley Roche](#) [Emily Ashcraft](#)

Published: May 12, 2019 5:54 pm

<https://www.deseretnews.com/article/900070381/from-hate-crimes-to-drinking-while-riding-an-e-scooter-new-laws-taking-effect-in-utah.html>

SALT LAKE CITY — On Tuesday, the bulk of the record 574 bills passed by the 2019 Utah Legislature will go into effect. Here's a look at how changes made to state laws will affect you

- Metering of new secondary water connections and planning to do the same for existing connections will be required under SB52, which also makes \$10 million available in loans to help water delivery systems make the transition.

# Alan Matheson will leave Utah's DEQ to oversee development of the Draper prison site

By Tony Semerad

<https://www.sltrib.com/news/2019/05/15/member-governors-cabinet/>

Utah's Point of the Mountain Authority Board has hired a member of Gov. Gary Herbert's Cabinet for a major role in what one official called "one of the largest economic development opportunities in our state's history."

The 10-member panel voted unanimously late Tuesday to offer the job of executive director to Alan Matheson, who is now the executive director of the Utah Department of Environmental Quality (DEQ). After two days of negotiations, he accepted the job Thursday and will assume the post July 1.

Matheson has headed the state DEQ, an agency with nearly 390 employees and a yearly budget of about \$56 million, since June 2015 and has served as Herbert's senior environmental adviser since October 2011.

In a statement, Herbert called Matheson "an invaluable asset" to his administration. "I have appreciated his firm focus on improving our air quality, as well as all aspects of the environment," the Republican governor said. "He has been and will continue to be a trusted adviser, and I wish him all the best as he accepts this new position guiding important land development projects at the Point of the Mountain."

The job will make Matheson, 57, a key overseer of development of nearly 700 acres of prime real estate set to open up when the Utah State Prison is relocated from Draper to a site west of the Salt Lake City International Airport, which officials say is likely to happen in the next three years.

Lt. Gov. Spencer Cox, who also is co-chairman of the Point of the Mountain Authority Board, said Matheson's hiring comes "at a decisive moment in Utah's history. Wise planning will make all the difference in helping us build the future we want for our kids and our grandkids."

Cox, who on Tuesday announced his candidacy for Utah governor in 2020, said in a statement he was "grateful to have found an invested, experienced leader to guide the Point of the Mountain Authority Board through this crucial phase of investment and development."

Board Co-chairman and state Rep. Lowry Snow, R-St. George, called Matheson an "excellent candidate" and said that his resume, wealth of experience and focus on strategic planning for the prison site made him the top choice.

Among other relevant skills, Matheson is trained as a lawyer and has a background in land-use planning, having overseen the Envision Utah regional planning agency before joining state government in 2011.

He led the development of a 2013 vision of outdoor recreation in Utah that eventually spurred creation of the country's first state Office of Outdoor Recreation. And at DEQ, Matheson has been the state's point person on high-profile environmental issues, including efforts to improve air quality.

Matheson also headed a four-year process to craft the state's latest 50-year water use strategy, released in 2017.

In an email sent Thursday to DEQ staffers announcing the move, Matheson said he hoped "to create something truly outstanding in this important part of our region. We want to make this area an international model for solving thorny problems in a way that is visionary, practical, inclusive and transparent."

"Working with all of you to protect public health and Utah's environment has been an unparalleled professional honor," Matheson wrote.

The Point of the Mountain Authority Board has been assigned by the Utah Legislature to plan for what comes after the prison moves as well as direct development of the vacated acreage in the midst of Utah's Silicon Slopes at the south end of Salt Lake County.

Cox has called the executive director's position "a once-in-a-lifetime opportunity." He said Tuesday the board would negotiate with state lawmakers on a final salary for the job.

Kirsten Rapple, Cox's chief of staff, said the board received 69 applications for the position as part of a national search conducted by Herbert's Office of Economic Development, with a short list of eight candidates interviewed by members of the board earlier this year.

Matheson and runner-up Muriel Xochimitl, founder and president of X-Factor Strategic Communications, an Eagle Mountain communications firm, were then interviewed by the full board Tuesday in closed sessions.

In the job, Matheson will develop a strategy for use and sale of the land, which will open up at a time when undeveloped acreage in Utah's most populous county is at a premium and the area is growing rapidly.

Snow has said that with the position filled, the board would seek broad public input, particularly from residents in Draper and surrounding communities, on developing the prison property.

State officials involved in the prison move have consulted Envision Utah in past years to garner input from city governments in southern Salt Lake and northern Utah counties potentially affected by the Point of the Mountain development.

Matheson also has a bachelor's degree in international relations from Stanford University and a law degree from UCLA's law school.

# Moab looks at water assessment, future planning

Ashley Bunton Moab Sun News May 16, 2019

[http://www.moabsunnews.com/news/article\\_7608f0e4-7802-11e9-8e48-13124b637a0c.html](http://www.moabsunnews.com/news/article_7608f0e4-7802-11e9-8e48-13124b637a0c.html)

Can the City of Moab take water out of the Colorado River if its springs and wells become depleted? Is climate change data being factored into water use planning in Moab and in the State of Utah?

These were two questions raised on Tuesday, May 14, at the Moab City Council workshop discussing an assessment and recent report detailing surface and groundwater resources in and around Moab.

Moab City Engineer Chuck Williams delivered the hour-long workshop presentation along with the authors of the report, Kenneth Kolm and Paul K.M. van der Heijde. Kolm works at Hydrologic Systems Analysis LLC in Golden, Colorado, while van der Heijde works at Heath Hydrology Inc. based in Boulder, Colorado.

The report contains a three-phase plan for Moab's springs and wells. The first phase, to use mapping and data to perform a Hydrologic and Environmental System Analysis (HESA) of Moab's springs and wells to develop a comprehensive and updated understanding of the groundwater system, has been completed. The second phase, collecting hydrological and hydrogeological data currently available to use in a water budget, has also been completed.

The third phase, which has not yet been completed, aims to update the Water Protections Plans for the city's springs and wells.

The city's plans are not the same as the Groundwater Management Plan currently under development, and spearheaded by, the Utah Department of Natural Resources Division of Water Rights for Moab and Spanish Valley. The report presented at the workshop explained surface water and groundwater flows and how the geologic rock formations influence the flow, storage, distribution of water, and did not talk about water rights.

However, the city's data from the assessment and its plans will be considered in the development of the Groundwater Management Plan, said Marc Stilson, the southeastern regional engineer for the Division of Water Rights, along with data from his agency's work on water rights adjudication in the valley and a recent U.S. Geological Survey (USGS) study.

Moab City Council member Rani Derasary asked during the workshop if climate change data is reflected in the assessment and planning.

"In terms of climate change, is there a standard, either percentage or formula, that, if you wanted a community to plan out 40 years, does the state allow you to calculate that in?" Derasary asked. "Is that all based on the engineer calculating anyway, then it would be based on consultation

from a hydrologist on how you should help calculate that? Just cause it seems like that's something we're facing. I don't know how it's going to affect these numbers."

Van der Heijde responded by saying that climate change data has not been included and explained that a change would mean either more snow and precipitation or less, which would create a "major change" in the use of water by plants and the in-flow of water from Mill Creek from the La Sal Mountains.

"I would say in this right now, we don't have it," he said. we didn't locate it right now, because there was not this question," he said. "If you are concerned for a 40-year plan, I think that there are already studies that give some indication for this area ... not certain what those predictions are, we (have not) looked into that... I'm not certain where to find it, but it is possible."

Climate data, including data pertaining to land and water resources, is mandated by law to be reported to Congress and the U.S. President through the enactment of the Global Change Research Act of 1990.

To fulfill the mandate, the National Oceanic and Atmospheric Administration took the lead on developing the Fourth National Climate Assessment released in November (available at [nca2018.globalchange.gov](http://nca2018.globalchange.gov) or at [climate.gov](http://climate.gov)).

Data from that assessment generated a report, "National Climate Assessment map shows uneven impact of future global warming on U.S. energy spending," showing that Grand County, and to a somewhat lesser extent San Juan County, will be disproportionately affected by climate change in the coming years. Grand County is one of a handful of Utah counties that will see the greatest change with an estimated 10 to 15 percent increase in energy expenditures. The report notes that all sectors of energy will be impacted, and says there is "groundwater depletion exacerbating drought risk in many part of the U.S., particularly in the southwest."

"Water management strategies that account for changing climate conditions can help reduce present and future risks to water security, but implementation of such practices remains limited," the report states.

The city has hired an attorney who specializes in water, Jeff Gittins, who was also present at the workshop.

"When it comes to those 40-year plans, usually those are prepared by engineers who look at the city's expected growth, growth patterns and also look at concurrent flow in terms of volume," he said.

Data that is still being assessed — including the final USGS study, which has not been released but is expected to be formally shared later this year. The USGS study includes data from the few gages it has in the area to monitor surface water. Stilson said the nearest river gage on the Colorado River to Moab is located in Cisco, and another is located in the valley at Mill Creek near Sheley Tunnel.

City council discussed if there is a need to install and operate more water gages or monitoring systems in the area.

“One of my questions for Chuck (Williams) and Joel (Linares) and the council was, is that built into our budget, is that something we need to add? Is that something we’re interested in doing?” Derasary asked.

“Monitoring stations, no we do not have that built into our budget right now,” Williams said.

“It’s something we need to review,” said Moab City Manager Joel Linares.

Moab City Mayor Emily Niehaus shared during the workshop that she has heard from people in the community that the City of Moab could, at some distant time in the future, tap into the Colorado River as a water resource.

The City of Moab does not have water rights to draw from the Colorado River, Stilson said in a previous interview with the Moab Sun News. Officials at the workshop also confirmed that point.

Groundwater is being estimated for the area in the assessments and reports, Stilson said, but not “measured specifically,” and he said estimating groundwater is performed by “electrical resistivity,” an electrical current measured by probes.

According to a draft final report from the USGS, the Moab valley has between 7,200- to 11,800-acre-feet in groundwater. Stilson said those figures may be different once adjusted in the final report to be shared later this year.

“Once cities hit the limit on groundwater, they use surface level,” Stilson said.

That’s if there is surface water available — climate data shows a 2% decrease in the relative amount of rain that falls as heavy rain in Utah occurring between 1901 and 2016.

“Climate change could reduce the availability of a steady supply of water in some areas,” a U.S. Global Change Research Program report states.

At the conclusion of Tuesday’s workshop, city officials said they have additional work to do in analyzing water resources in the valley and how to protect it from overuse.

# Safeguarding Utah's water systems against threats

By Lauren Bennett@laurmarben

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<https://www.deseretnews.com/article/900071753/safeguarding-utahs-water-systems-against-threats.html>

PROVO — When it comes to water, technology isn't the first thing that comes to most people's minds.

But as Richard Gardner, with the U.S. Department of Homeland Security, discussed Tuesday at the third annual Central Utah Water Symposium on safeguarding water, extreme threats and risks exist for water systems if poor cybersecurity is implemented.

Even basic security such as two-factor authentication, strong passwords and cutting all access from former employees can help mitigate the risk of hacking, he said.

"The more difficult it is for you to ultimately access something, it's harder for someone else to do that," he said.

Gardner is the cybersecurity adviser for the region that includes Utah, Colorado, Montana, Wyoming, North Dakota and South Dakota. In addition to his lecture on cybersecurity, others spoke on wildfire mitigation, natural disaster impacts on water and funding a resilient water future.

During his presentation to about 200 people in attendance at the Utah Valley Convention Center, Gardner urged those who rely on computer systems in their jobs to use Homeland Security's free cybersecurity assessments.

In the digital age, most workplaces implement best practices when it comes to cybersecurity. However, in the water industry, the consequences of a hack could be far more detrimental than losing a few files.

"We're worried about contamination all the time," said Kathryn McMullin, another presenter with the Division of Emergency Management in Utah's Department of Public Safety. "We're all learning how fast and furious we are vulnerable to a contamination event."

In 2006, a water treatment plant in Harrisburg, Pennsylvania, was compromised by foreign hackers, Gardner said. While it appeared the attack wasn't targeted, he said the intruder still planted malicious software capable of affecting the plant's water treatment operations.

The security threat was caused through the internet on an employee's laptop. Lessons learned from this incident include the need to secure remote computers, create firewalls and patches to fix system errors, and to update and check systems regularly, he said.

"The less overall access that people have to your systems, the better," Gardner advised.

While the recent water scandal in Sandy — where fluoride was accidentally pumped into the city's water supply, contaminating over 1,000 households, schools and businesses — wasn't due to a cyber issue, it shows the impact a water mishap can have on a community.

Gardner mentioned employees should be wary of phishing scams but he also warned of the more undetectable spear-phishing scams where instead of spamming several people, hackers will do research on one person through social media and use their information to target them for the scam.

Ransomware, where hackers hold a website hostage, are usually masked as system updates and a common scam, Gardner said. The city website for Baltimore, Maryland, was recently seized by hackers who demanded payment before they released the site back.

Gardner advised people to only download system updates from the vendor directly and regularly test backup and recovery procedures.

Ransomware is one thing that especially scares Jason Hoyt, electrical group manager for Central Utah Water Conservancy District. He's in charge of the supervisory control and data acquisition, which is an industrial computer that operates water systems such as dams or wells.

"We're very concerned about (hacking) and we work hard to make sure that doesn't happen," he said. "We're very concerned about being hacked. But in the same sense we're not real concerned because we feel like we've taken the appropriate steps to protect ourselves."

Their supervisory control and data acquisition system operates sites such as the Jordanelle Dam and Olmstead Diversion Dam and the district sells irrigation and drinking water that impacts about 80 percent of Utah's population, he said.

Another potential threat to water systems, brought up by McMullin during her presentation was low public education and awareness. Mainly, when it comes to reporting suspicious behavior and proper safe water practices in the event of a natural disaster.

She discussed a study completed by the Environmental Protection Agency to determine if backflow water contamination through fire hydrants could be successful.

"So what they did was they connected a service connection pump backed to a fire hydrant," she explained. The study was completed with law enforcement and the local water district's knowledge.

She said a team of people wearing plain clothes in an unmarked van completed the experiment where they pumped non-toxic food grain solution of potassium chloride in a fire hydrant for more than eight hours in a community neighborhood.

"They were highly successful, it went all the way through the system," she said. "The concerning things about this is one — it was unmarked (van), right? — nobody said a word. They spent less than \$200, and not one resident ever questioned what they were doing."

Had their intentions been malicious, they would have gotten away with contaminating an entire water system in a public place. McMullin urged attendees who work in water districts to participate in community outreach to raise awareness and education about suspicious activities.

"Do you do any outreach within your community, your customers, that they're watching for suspicious activity that they can feel free to contact you if they see something strange?" she asked the audience.

McMullin said she's currently working with Utah Department of Health to qualify critical utility workers for vaccination prioritization, which she said is currently reserved for hospital personnel such as surgeons.

"Because I need you guys to be able to go to work and protect your families and keep us up and running," she said. "That hospital doesn't have anything if they don't have water and wastewater."

McMullin talked about the significant impact of an earthquake along the Wasatch fault line will have on the state, including liquefaction, building damage, waste disposal issues and damaged water systems.

She used the 2010 Haiti earthquake as an example of the importance of proper water use in a disaster, noting that because of improper waste disposal, 1.1 million people were infected with cholera and 4,500 died as a result.

# What can be done to protect Utah's water quality after wildfires?

Katie England Daily Herald

[https://www.heraldextra.com/news/local/what-can-be-done-to-protect-utah-s-water-quality/article\\_1efdf0d3-92c5-553d-8dda-a485157367f6.html](https://www.heraldextra.com/news/local/what-can-be-done-to-protect-utah-s-water-quality/article_1efdf0d3-92c5-553d-8dda-a485157367f6.html)

Wildfires that burn in watersheds can have impacts on the water people depend on for everyday use.

With 2018 being one of the worst wildfire years in recent memory, both forest service and water district officials are looking at ways to reduce those wildfire impacts on water supplies.

Fire is a natural part of the landscape, and Utah will continue to see wildfires every year, said David Whittekiend, forest supervisor for the Uinta Wasatch Cache National Forest.

“(Fires) are not something we can completely eliminate,” Whittekiend said Monday at the Central Utah Water Symposium held by the Central Utah Water Conservancy District. The symposium is held annually to help researchers, elected officials, water industry experts and resource managers. This year’s symposium dealt with topics including cyber security, and providing water after large-scale emergency situations such as earthquakes.

Mike Rau, with the Central Utah Water Conservancy District, which moves water “from forest to faucet,” said wildfires have a dramatic impact on water quality.

“Basically, they increase the chance for erosion and putting sediment into water bodies,” Rau said.

Anytime a wildfire occurs in a watershed area, the water quality will be effected.

“And these events, wildfire and flood events, are a threat to drinking water systems,” Rau said. “We’ve seen this in Utah.”

Even the Cascade Springs Fire in 2003 is still having impacts on water quality today, with Little Deer Creek continuing to be the biggest contributor of sediment into the lower Provo River.

Two fires last year in particular had water quality impacts locally, including a small 300-acre fire and the huge, 70,000-acre Dollar Ridge fire.

When rain washed sediment from the burn scar into Deer Creek, the water arriving at the treatment plant was well over 100 times more turbid than normal.

Rau said staff was able to adjust chemical doses and operations to treat the water and produce the same quality of treated water as normal.

With the Dollar Ridge fire, the terrain burned was too steep to even perform preventative measures. Resulting floods, mudslides and debris flows severely impacted the Strawberry River, which feeds into Starvation Reservoir, Rau said.

Rau said that was a “game changer” at the Duchesne Valley Water Treatment Plant, and a threat to the water supply because the treatment plant wasn’t designed to treat water with that level of turbidity.

Those factors resulted in the implementation of a project to add a sedimentation process to the Duchesne Valley Water Treatment Plant so it can handle new water quality challenges and continue to deliver high-quality drinking water. The project cost is expected to be at least \$16 million, Rau said.

“It’s very expensive to deal with this water quality change,” Rau said.

Rau said he would much rather work on preventing catastrophic fires in watersheds, which is where the forest service comes in.

Some ways the forest service is working to prevent large-scale fires in water sheds include reducing the amount of dead trees, breaking up the landscape so that it’s not continuous, even forest all the way through.

“We have a lot of tools to make that happen,” Whittekiend said. “We need all the tools in our toolbox to be successful.”

Proposed projects in the forest to prevent wildfires or keep wildfires from spreading rapidly and becoming massive include controlled burns, fuel reduction and the building of fuel breaks.

Whittekiend encouraged those attending the symposium to reach out to their local forest supervisor and be engaged in projects being worked on to protect watersheds.

“We are always willing to partner with cash or equipment on the projects we are working on,” Whittekiend said.

# Commentary: A chance to change directions on Utah water policy

By Nick Schou | Special to The Tribune

<https://www.sltrib.com/opinion/commentary/2019/05/19/commentary-chance-change/>

Longtime Department of Natural Resources Director Mike Styler is retiring at the end of the month, opening up a great opportunity for Utah to change course on its wasteful and expensive water management practices.

Styler has been an ardent supporter of the proposed \$3.2 billion Lake Powell Pipeline, which is the largest new proposed diversion of the Colorado River and by far the most expensive state spending proposal on the table. One of Styler's agencies, the Division of Water Resources, has spent a staggering \$38 million pushing the pipeline, regardless of the fact that there is no data showing any need for the water in southwestern Utah.

Economists from the University of Utah have studied the pipeline's repayment economics and concluded the project will drown local residents in debt from increased water rates, property taxes and impact fees. A scathing legislative audit of the division, which occurred on Styler's watch, blasted the agency for having unreliable water data, not trying very hard to conserve water and for ignoring massive quantities of surplus agricultural water in favor of pursuing billions in spending for new water development projects.

The division is also proposing the largest new river diversion in North America, the \$2.4 billion Bear River Development Project. The project would include building at least three new dams and a 90-mile pipeline to divert the river's flows away from the Great Salt Lake to lawns along the Wasatch Front. It would lower the lake several feet, drying up tens of thousands of acres of wetlands and exposing vast tracts of lakebed creating toxic dust storms as prevailing winds sweep in.

The project would also create problems around resources that Styler's other divisions manage, including mining, wildlife, water rights and sovereign lands. However, the Division of Water Resources doesn't seem to care, and neither has Styler.

Utah should be heading in the other direction pursuing a sustainable water future rather than a legacy of destruction. Additionally, it could avoid the billions of dollars of debt that these projects will place upon the backs of Utah taxpayers.

Last but not least, the new DNR boss, Brian Steed, would do well to insist the division mimic the actions of water managers in other western states, who are aggressively pursuing demand management strategies, or water conservation, which is the cheapest and least destructive new source of water to support growing communities.

State water managers outside Utah are also carefully studying climate change in order to prepare for a diminished water supply as air temperatures rise. The Utah Division of Water Resources under Styler's direction has only given lip service to conservation, as evidenced by Utah's nation-leading per capita water use. The agency has also refused to study climate change impacts preferring to keep their head in the sand.

New leadership at DNR will hopefully bring new thinking on water resource issues that will benefit aquatic ecosystems and taxpayers alike.

# EPA taking 1st big steps to clean up leaking Colorado mines

By The Associated Press

<https://www.sltrib.com/news/nation-world/2019/05/24/epa-taking-st-big-steps/>

Denver • The U.S. Environmental Protection Agency will take the first major steps this summer to clean up wastewater flowing from dozens of old mines at a Superfund site in southwestern Colorado, officials said Thursday.

The work includes dredging contaminated sediment from streams and ponds, diverting water away from tainted mine waste piles and covering contaminated soil at campgrounds.

The agency first outlined the plan last June and finalized it Thursday.

This summer's work is aimed at reducing the volume of toxic heavy metals that escape from mining sites and into rivers while the EPA searches for a more comprehensive solution under the Superfund program.

The Superfund cleanup was prompted by a 2015 blowout at the inactive Gold King mine near Silverton. An EPA-led contractor crew was excavating at a mine entrance when it inadvertently punctured a debris pile holding back a flood of wastewater inside the mine. About 3 million gallons of water poured out, contaminating rivers in Colorado, New Mexico and Utah.

The spill worsened a decades-old problem in the region, where millions of gallons of wastewater drains out of old mines every year.

The Gold King is not on the list of 23 sites chosen for this summer's work. The EPA installed a temporary treatment plant below the Gold King two months after the spill, and it's still cleaning up wastewater flowing from the mine.

Two of the 23 sites are campgrounds, and three are parking areas or places where people meet for tours. The EPA plans to cover contaminated rocks and soil at those sites with gravel or plant vegetation to reduce the chance of human exposure and keep contaminants from being kicked into the air.

Besides the dredging work, the EPA will dig ditches and berms to keep rain, melting snow and mine wastewater from reaching piles of contaminated waste rock and carrying pollutants into streams.

The initial project will cost about \$10 million and take up to five years, the agency said.

