



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

Water Quality Board
Myron E. Bateman, *Chair*
Clyde L. Bunker, *Vice Chair*
Merritt K. Frey
Gregg A. Galecki
Jennifer M. Grant
Leland J. Myers
Shane E. Pace
Hugo E. Rodier
Amanda Smith
Walter L. Baker
Executive Secretary

Utah Water Quality Board Meeting
DEQ Building Board Room #1015
195 North 1950 West
Salt Lake City, Utah 84116
March 26, 2014

Work Meeting Begins @ 8:30 a.m.

Discussion of the Impacts of EPA's New Ammonia CriteriaChris Bittner & Nick von Stackelberg

Board Meeting Begins @ 9:30 a.m.

AGENDA

- A. **Water Quality Board Meeting – Roll Call**
- B. (Tab 1) **Minutes:**
Approval of Minutes for January 22, 2014 & February 26, 2014
Conference Call.....Myron Bateman
- C. **Introduction of new staff** Dan Hall, John Kennington & Jeff Studenka
- D. **Executive Secretary's Report** Walt Baker
- E. (Tab 2) **SRF FY13 Annual Report**Emily Canton
- F. (Tab 3) **Rulemaking:**
 - 1. Request to adopt changes on R317-5, *Large Underground Wastewater Disposal (LUWD) Systems*.....David Snyder
 - 2. Request to initiate rulemaking R317-550, *Rules for Liquid Waste Operations*David Snyder
 - 3. Request to initiate rulemaking R317-1-7.62 *Echo Reservoir and R317-1-7.63 Rockport Reservoir*Kari Lundeen
 - 4. Request to adopt rulemaking on Colorado River TMDL into R317-1-7Carl Adams
- G. (Tab 4) **News Articles:**

Next Meeting April 30, 2014
Dixie Convention Center
Entrada B & C
1835 S Convention Center Dr.
St. George, Utah 84790

Revised 03/19/2014

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MINUTES

UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY

UTAH WATER QUALITY BOARD

Conference Call

195 North 1950 West-3rd floor GSL Conf Rm

Salt Lake City, Utah 84116

February 26, 2014

UTAH WATER QUALITY BOARD MEMBERS PRESENT IN CALL

Myron Bateman	Jennifer Grant	Shane Pace
Merritt Frey	Gregg Galecki	
Hugo Rodier	Clyde Bunker	

Excused: Amanda Smith, Leland Myers

DIVISION OF WATER QUALITY STAFF MEMBERS PRESENT

Walt Baker (Called in), Leah Ann Lamb, Faye Bell and Chris Bittner

Myron Bateman called the Board meeting to order at 9:35 a.m.

Appointment as Loan Program Signatory: Ms. Lamb explained to the Board that John Mackey has been asked to be the Acting Engineering Section Manager replacing Ed Macauley, who resigned from the Division of Water Quality. John will be responsible for closing loans and executing hardship grant agreements in behalf of the Water Quality Board. This request is for the Water Quality board to designate John Mackey as a signatory for official documents associated with the Utah Wastewater Project Assistance Program until which time a Manager for the Engineering Section is selected.

Motion: It was moved by Mr. Bunker and seconded by Mr. Pace designate John Mackey as a signatory for official documents associated with the Utah Wastewater Project Assistance Program until which time a manager for the Engineering Section is selected. The motion was unanimously approved.

Note: Mr. Baker called in to the meeting at this point.

Invitation for a Board member to serve as hearing officer for two upcoming public hearings: Mr. Bittner explained to the Board there are two public hearings coming up, on March 3rd and March 5th for the Triennial Review and Site-specific standard for Blue Creek. He asked if any of the Board members would like to act as hearing officer for either of these meetings. Mr. Bateman volunteered to be the hearing office for the March 3rd meeting. None of the Board members could be the hearing officer for the March 5th meeting, so Mr. Bittner said he will ask one of the staff to take care of that meeting.

February 26, 2014

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Appointment of Sudweeks Award Committee: Mr. Baker explained to the Board that each year a person is selected to receive the "Sudweeks Award", which is in recognition of someone in the State who has shown leadership and achievement in the field of water pollution control and/or water quality improvement in the State of Utah. Staff is asking three members of the board to serve on the selection committee. Mr. Pace, Mr. Bunker and Mr. Bateman offered to serve on the committee.

Other: Mr. Baker gave the Board a heads up, explaining to the Board that he received a letter from the mayors of the six communities, outside of Logan City, that are served by Logan City's wastewater treatment plant (WWTP). The mayors state that the replacement of Logan City's WWTP presents a unique opportunity for a service district to be created which would provide their six communities with a place at the table and a vote in wastewater issues that has not been in place since Logan City began treating the wastewater of neighboring communities over 20 years ago. The mayors further request that the Board's final approval for the funding of Logan City's project be delayed until this issue is resolved or that the Board condition its funding on the formation of a district. He explained the matter will be discussed in depth at upcoming meeting of the Board.

**Next Meeting – March 26, 2014 @ 9:30 a.m.
DEQ Building Board Room #1015
195 North 1950 West
Salt Lake City, Utah 84116**

Myron Bateman, Chair
Utah Water Quality Board



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MINUTES
UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
UTAH WATER QUALITY BOARD
DEQ Building Board Room #1015
195 North 1950 West
Salt Lake City, Utah 84116
January 22, 2014

UTAH WATER QUALITY BOARD MEMBERS PRESENT

Myron Bateman	Jennifer Grant	Shane Pace
Leland Myers	Merritt Frey	Gregg Galecki
Hugo Rodier	Clyde Bunker	

Excused: Amanda Smith

DIVISION OF WATER QUALITY STAFF MEMBERS PRESENT

Walt Baker, Leah Ann Lamb, John Whitehead, Faye Bell, Jenny Nicholas, Ed Macauley, Lisa Nelson, Bill Damery, Paul Krauth, John Mackey, Svetlana Kopyikovskiy, Beth Wondimu, Mark Stanger, Carl Adams, David Snyder, Mike Allred, Mike Stanger, Judy Etherington, Jim Harris, Lonnie Shull, Matt Garn, Kim Shelly, Jeff Studenka, Carl Adams, Chris Bittner, David Snyder, John Cook, Jennifer Robinson, Emily Bartusek, Dan Hall, Dan Griffin

OTHERS PRESENT

<u>Name</u>	<u>Organization Representing</u>
Jim Harps	Logan City
Lyle Hillyard	Logan City
Jim Hurper	Logan City
Alexandra Rasband	Logan City
Issa Hamud	Logan City
Craig Ashcroft	Carollo Engineers
Gary Vance	JUB Engineers
Blair Palmer	ATK
Rob Dubuc	Western Resource Advocates
Jim Olson	Water Works Engineers
Laura Lockhart	Attorney General Office w/DEQ
Heather Shilton	Attorney Gen Office w/Parks & Rec.
Jay Olson	UDAF
Melissa Ure	UDAF
Ed Redd	House of Representatives District 4
Melissa Hubbell	Attorney General Office w/DEQ
Veronique Jarrell-King	Attorney General Office w/DEQ

Steve Jones	Holland & Hart/Chevron
Jeff Rasmussen	Utah State Parks & Recreation
David Harris	Utah State Parks & Recreation
Jack Draxler	House of Representatives
Douglas Neilsen	Sunrise Engineering

Myron Bateman called the Board meeting to order at 9:35 a.m. and invited the members of the audience to introduce themselves.

APPROVAL OF MINUTES OF THE DECEMBER 5, 2013 MEETING

Ms. Frey noted a correction under Funding Request, Logan City. It should read "Logan City Funding Request" not, "Logan City Introduction".

Motion: It was moved by Mr. Pace and seconded by Mr. Myers to approve the minutes of the December 5, 2013 meeting with the recommended correction. The motion was approved with Mr. Bunker abstaining.

Executive Secretary's Report: Mr. Baker reported that DWQ issued a ground water permit for Red Leaf Oil Shale. Following a public comment period and the review of comments received, DWQ issued the permit. On January 21, 2014 the division received a request for agency action from Western Resource Advocates, resulting in the appointment of an administrative law judge to hear the appeal.

He indicated staff will be talking about the Chevron spill today. As staff has looked over the enabling statutes relative to pollution events there is a gap that needs to be filled regarding pipeline spills or oil spills. The existing authority is strong, but it was originally established for other kinds of pollution events such as discharges from an industrial facility or a wastewater treatment plant and is not specific to oil spills. We stated the statute should be enhanced. Draft legislation has been prepared for consideration by the Governor's office. Representative Handy will be sponsoring a bill which will increase the fines associated with oil spills and speaks specifically to discharges from an unpermitted authority rather than a "permitted" entity.

A new Ground Water Section Manager has been hired to replace Rob Herbert. Dan Hall from DWQ's staff has accepted the position. Mr. Hall introduced himself to the board.

Request for approval of the Chevron Willard Bay Settlement Agreement: Mr. Whitehead explained that recent modifications to the Utah Water Quality Act (UCA 19-5-104(3)(h)(i, ii)) http://le.utah.gov/code/TITLE19/htm/19_05_010400.htm include a requirement that any settlement agreement negotiated by the director in excess of \$25,000 must be reviewed and approved or disapproved by the Board. Terms of the proposed agreement include a financial settlement as follows: Monetary Penalty paid to the general fund - \$350,000; Mitigation Projects (future) - \$3,131,000; Mitigation Projects (completed or in progress at Willard Bay State Park) - \$1,319,000; State Parks Lost Use - \$550,000. The total settlement proposed is \$5,350,000.

Motion: It was moved by Mr. Myers and seconded by Mr. Bunker to approve the Chevron Settlement Agreement for the Willard Bay Diesel spill. The motion was approved with Ms. Frey recusing herself due to a conflict of interest.

Operator Certification Council Appointments: Ms. Etherington explained to the Board that the terms of service for two members of the Wastewater Operator Certification Council will expire. Staff proposed to replace Dr. Ramesh Goel, representing Utah Universities Engineering Dept., with Dr. Michael McFarland

from Utah State University and reappoint Dr. James Callison to another term representing vocational training.

Motion: It was moved by Mr. Myers and seconded by Mr. Galecki to approve staff's recommendation. The motion was unanimously approved.

FUNDING REQUEST

Financial Assistance Status Report: Mr. Macauley updated the Board on the "Summary of Assistance Program Funds", as shown on page 4.1 of the Board packet.

Logan City Funding Request: Mr. Baker explained the process and the amount of time that Logan City has dedicated to this project. He explained why staff recommended a 0.75% interest rate instead of 0.5%. Ms. Nelson introduced Logan City's new Mayor, Dr. Craig Peterson. She also introduced Issa A. Hamud (Logan City) and Senator Lyle Hillyard (a citizen of Logan City). Ms. Nelson explained that staff is recommending an interest rate of 0.75% and that staff has also added a new recommendation allowing the Board to revisit the loan terms should the financial terms of the project financing change. Mr. Baker pointed out that this is a new recommendation that has been added to the loan conditions. Mayor Peterson reviewed with the Board the implications a loan with an increased interest rate would have on Logan City in general. Logan requested the Board take into consideration that the MAGI of the residents of Logan is lower than most cities in Utah of similar size and allow the loan to remain at 0.0%.

Motion: It was moved by Mr. Myers and seconded by Mr. Pace to approve the loan to Logan City in the amount of \$70,000,000 at 0.75% including the special conditions. The motion was unanimously approved.

RULEMAKING

Request to proceed with rulemaking on 317-5, *Large Underground Wastewater Disposal System*: Mr. Snyder explained to the Board that the purpose of this action item is to obtain approval from the Water Quality Board to proceed to rulemaking by seeking public comment on the attached draft rule.

Motion: It was moved by Mr. Myers and seconded by Ms. Grant to initiate Rulemaking to R317-5, *Large Underground Wastewater Disposal System*. The motion was unanimously approved.

Request to commence rulemaking R317-2, *Standards of Quality for Waters of The State, for site-specific total dissolved solids standard for Blue Creek, Box Elder County*. Mr. Bittner explained that the purpose of this action item is to obtain approval from the Water Quality Board to proceed with rulemaking for the proposed site-specific total dissolved solids for Blue Creek Reservoir and Blue Creek. The proposed changes, as presented in the Board package, were discussed.

Motion: It was moved by Mr. Bunker and seconded by Mr. Myers to initiate Rulemaking to R317-2, *Standards of Quality for Waters of The State, for site-specific total dissolved solids standard for Blue Creek, Box Elder County*. The motion was unanimously approved.

Proposed Legislation to Modify Title 19-5 for the UDAF ACES program: Mr. Studenka and Ms. Lockhart explained that over the course of the last few months DWQ staff has been negotiating with the Department of Agriculture and Food (UDAF) on the proposed legislation that will help govern the

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Agriculture Certification of Environmental Stewardship program (ACES) program. This was an informational item only; no action was required by the Board.

**Next Meeting – February 26, 2014 @ 9:30 a.m.
DEQ Building Board Room #1015
195 North 1950 West
Salt Lake City, Utah 84116**

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MEMORANDUM

TO: Utah Water Quality Board

THROUGH: Walter L. Baker, Director

FROM: Emily Cantón, Contract/Grant Analyst

DATE: March 13, 2014

SUBJECT: FY13 State Revolving Fund (SRF) Annual Report

As part of fulfilling requirements for the Clean Water State Revolving Fund (SRF) program, an Annual Report, including financial statements, must be submitted to EPA Region 8. Highlights from the Fiscal Year 2013 Annual Report include:

- One hundred and eleven (111) loans have been closed, with one hundred and five (105) of those projects having completed construction.
- As of June 30, 2013, total loans receivable totaled \$187,539,918.
- During FY13, a total of \$5,213,364 was drawn from the federal LOC for projects under construction as well as an additional \$356,104 for administrative costs.
- During FY13, state match of \$2,190,636 was provided for projects under construction.
- The SRF activity included loan disbursements of \$9,697,080; principal forgiveness disbursements of \$445,164; principal loan repayments of \$17,887,366; and, loan interest payments of \$845,453.
- The Federal Hardship fund activity included advance disbursements of \$30,000; hardship grant disbursements of \$963,614; advance and grant repayments of \$519,781; and, hardship assessment fee payments of \$2,066,462.

2.1

STATE OF UTAH
WATER QUALITY STATE REVOLVING FUND



(Granger-Hunter Improvement District – Project #193)

ANNUAL REPORT AND
FINANCIAL STATEMENTS
State Fiscal Year 2013

Executive Summary

The State of Utah's Water Quality Revolving Fund (the SRF) was established pursuant to Title VI of the Federal Clean Water Act of 1987. The SRF provides low interest rate loans to finance the construction of publicly owned water quality preservation and protection facilities.

The Utah Department of Environmental Quality (DEQ) administers the SRF through the Division of Water Quality. The Utah Water Quality Board (the Board) is comprised of nine members who are appointed by the Governor. The Board develops administrative rules for program implementation and authorizes loans under the SRF. Primary SRF activities of the Division of Water Quality include: administering loans for water quality, assisting communities to properly treat and dispose of wastewater, and managing fund transactions.

The Division of Water Quality serves as staff for the Board and manages the day-to-day operations of the SRF. The Division of Water Quality receives assistance and support from the Department of Environmental Quality - Office of Support Services, the Department of Administrative Services - Division of Finance, the Utah Attorney General's Office, and the State Treasurer's Office. The salaries and benefits of DEQ employees, as well as indirect costs based on direct salary costs, are charged to the SRF. Employees who charge time to the SRF are covered by the State of Utah personnel benefits plan. State indirect costs for general state expenses are also charged to the SRF through a cost allocation plan.

With approval from the Environmental Protection Agency, the State of Utah established a Hardship Grant Program during State Fiscal Year 1993. This grant program was partially funded by hardship assessment fees that were charged in lieu of interest on loans awarded through the SRF. Hardship grant assessment payments are deposited into a Federal Hardship Grant Fund, which is separate from the SRF. The Federal Hardship Grant Fund is used to award grants to communities that are otherwise financially unable to participate in the SRF loan program. The SRF financial statements included in this report account for hardship grant assessments, grant awards, and Federal Hardship Grant Fund interest earnings. For loans closed after July 1, 1999, federal hardship grant assessments are used in accordance with the EPA policies and regulations.

Utah also operates a State loan program, which provides Utah the flexibility to fund needed water quality projects without certain restrictions that accompany the SRF program. State match funds for the SRF have been generated from the State loan program.

Mission Statement

The mission of the Department of Environmental Quality is to safeguard human health and quality of life by protecting and enhancing the environment.

Goals, Objectives, and Implementation Plans

Projects which preserve and protect water quality within the State of Utah will be considered for financial assistance. Projects will not be limited to the treatment of municipal waste.

Short-Term Program Goals

1. To authorize funding for projects listed in the Intended Use Plan by assisting communities during facility planning and throughout the application and award process.
 - Each community in the IUP receives facility planning and funding application preparation assistance.
2. To secure funding through the federal EPA Capitalization Grant for wastewater treatment projects.
 - Water Quality prepares the Intended Use Plan, Project Priority List, and Capitalization Grant application on an annual basis.
3. To partner with other granting agencies in order to sufficiently fund unusually large projects.
 - Water Quality assists each community from the beginning stages of application, planning, and design in order to help coordinate funding large projects with multiple funding partners.

Long-Term Program Goals

1. To finance water quality construction projects by providing a permanent funding source which supplements a community's own resources and/or other funding sources.
 - All projects that have been or will be funded from the SRF will receive loans, which require an annual repayment of principal. Since its inception, the fund balance has been increasing steadily. Cash flow projections indicate that the fund will continue to generate a repayment stream for the funding of future projects.
2. To distribute SRF funds to the most environmentally needy projects by evaluating and prioritizing water quality construction needs and environmental needs of proposed projects throughout the state.
 - All projects that have received or are planning to receive loans from the SRF are high priority projects that meet a critical need as defined by the Utah State Project Priority System.

3. To provide sufficient and affordable project funding, which supports EPA's Sustainability Policy, for water quality construction projects by evaluating the economic and environmental needs of a community as well as the use and perpetuity of the SRF.

- The SRF balances the environmental and economic need for individual projects, which support EPA's Sustainability Policy. A financial feasibility review is performed before a project is authorized for a SRF loan. This review evaluates the rate of interest that an entity can afford to pay and its ability to repay a loan. Unless the entity is determined capable of repaying the loan, an authorization is not made.
- The Hardship Grant Program was created specifically to provide funding for projects that would not be able to secure sufficient loan funds due to financial restraints.

4. To assist a community receiving SRF financing throughout construction and beyond.

- The Water Quality Board assists communities addressing needs for adequate wastewater facilities and recognizes that these facilities must be sized for future growth. When helping communities provide wastewater infrastructure for existing and future users, the Board should be satisfied that proper and adequate planning has taken place so that environmental and quality of life problems associated with sprawl are not fostered by its funded projects.

Details of Accomplishments

Financial Status of the SRF

The State Revolving Fund receives Capitalization Grants from the EPA and 20% state match funds for obligated grants.

The fund increases with revenues from interest on loans and interest earned on investment funds. The net income from fund activities continues to increase and the fund balance is increasing steadily.

Assistance Activity

As of June 30, 2013, one hundred and eleven (111) loans have been closed, with all projects having had begun construction. A total of one hundred and five (105) of those projects have completed construction (see Table 1 for details).

Provisions of the Operating Agreement/Conditions of the Grant

The State of Utah agreed to twenty-four conditions in the Operating Agreement. Twelve conditions have been met and need no further description and are as follows:

1. Agreement to Accept Payments

2. State Laws and Procedures
3. State Accounting and Auditing Procedures
4. Recipient Accounting and Auditing Procedures
5. Use of the LOC
6. Repayments
7. Annual Audit
8. Annual Report
9. Annual Review
10. Anti-lobbying
11. Drug Free Workplace
12. Rural Area Business Enterprise Development Plan

The remaining eleven conditions described in the Operating Agreement have also been met and are described below:

13. Provide State Match - State matching funds have either been added to the fund or committed to the SRF in the amount required by the Clean Water Act. State match funds are available from the Utah Wastewater Project Assistance Program.
14. Repayment Begins within One Year of Construction End – Principal and interest repayments of the Utah State Revolving Fund begin within one year of construction completion. This allotted time allows revenue accumulation for one annual loan payment.
15. Extended Term Financing – Utah ensures that the long-term revolving nature of the fund is protected. Based on Clean Water NIMS data, the three-year rolling average for 2011, 2012, and 2013 is \$14,601,800, which is above the established baseline of \$10,770,155.
16. Expeditious and Timely Expenditure - Utah has disbursed all cash draws in a timely and expeditious manner. Construction has begun on all SRF projects within a short period after loans are closed. (See Table 1 & Table 2 for details.)
17. First Use for Enforceable Requirements - Prior to receiving the Capitalization Grant, Utah had met the requirements of Section 1382(b) (5) of the Clean Water Act. This section requires that all Capitalization Grant funds be used first in order to assure maintenance of progress toward compliance with enforceable deadlines, goals, and requirements of the Clean Water Act.
18. Eligible Activities of the Fund - All projects that have received SRF loans have either expended loan proceeds for eligible costs or used “banked equivalency.”
19. Compliance with Title II Requirements - In accordance with Section 1382 (b) (6) of the Clean Water Act, the SRF is required to meet sixteen specific Title II “equivalency” requirements for wastewater treatment projects under Section 212 which have been constructed, in whole or part, before October 1, 1994, with funds “directly made available by the Capitalization Grant.” The State has met equivalency requirements up to October 1,

1994 and documented that compliance in previous annual reports. Since there was no requirement under this statute beyond the October 1, 1994 date, there has been no additional reporting for equivalency in this report.

20. MBE/WBE Requirements - The State negotiated fair share utilization goals with Region VIII for participation on activities financed by the SRF. During the state fiscal year, the SRF program has met or exceeded the minimum Disadvantaged Business Enterprise (DBE) utilization program requirements. Construction projects have either implemented fair share utilization goals for DBE participation or have demonstrated that a good faith effort was made to provide opportunity for qualified DBE involvement.
21. Other Federal Authorities - The State and all recipients of SRF funds, which were made available directly by the Capitalization Grant, have complied with applicable federal authorities. Recipients of SRF assistance agreed to this as a condition of the bond agreement between the loan recipient and the State.
22. State Environmental Review Process - During the fiscal year, the State was actively involved in assisting potential SRF projects with planning. Environmental impacts are being carefully considered with each plan. No loans are closed with a community until a Categorical Exclusion, Finding of No Significant Impact, or Environmental Impact Statement is issued.
23. Cash Draw Procedures - Table 2 of this report includes the amount of funds drawn from the federal Letter of Credit (LOC) and from the state match for loan projects and administration during the fiscal year.
24. Outlay Projections - The FY13 Intended Use Plan (IUP) projected draws for loans from the federal LOC equal to \$6,795,838. During SFY 2013 a total of \$5,213,364 was actually drawn, which is approximately 77% of the projected amount.

Additional Subsidization

The 2013 Capitalization Grant requires that not less than \$330,013 of assistance provided is in the form of additional subsidies. The maximum amount of additional subsidy assistance that can be authorized is \$495,019. The State of Utah is working to meet this objective by providing principal forgiveness to Echo Sewer SSD and Francis City during SFY 2014.

Green Project Reserve

The 2013 Capitalization Grant requires that at least 10% of the funds, equal to \$700,600, be utilized for water or energy efficiency, green infrastructure, or other environmentally innovative activities. The State of Utah is working to meet this objective by funding Echo Sewer SSD and Francis City during SFY 2014.

Current Status and Proposed Improvements

Since its inception, the State Revolving Fund has been steadily increasing and has grown into a permanent source of financial assistance for the construction of water quality projects throughout the State of Utah.

Each year, there are water quality projects in Utah that do not receive funding directly from the SRF. Utah encourages community self-reliance through prudent planning and cooperative efforts to utilize other sources of available financial assistance.

Many of the larger wastewater treatment facilities located in high population areas of the State have developed their own sources of financing construction without the utilization of the State Revolving Fund. Medium-sized communities heavily rely on the SRF to provide additional assistance in order to make wastewater treatment affordable to their citizens. To allow affordability, communities with small populations use the Rural Development Administration in combination with the Utah Wastewater Project Assistance Program for loans and grants to finance their wastewater projects. The Community Impact Board funding is used by communities located within impacted communities.

Management

The Utah Water Quality Board governs the State Revolving Fund, sets policy, and authorizes assistance. The Division of Water Quality, Engineering Section manages the State Revolving Fund.

**TABLE 1
UTAH STATE REVOLVING FUND
ACCOMPLISHMENTS TO JUNE 30, 2013**

PROJECT	IDENTIFICATION				Hardship			Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	
	Recipient Name	Project Number	E	NE	Type	%	Assmt									Term
Smithfield City	101	+		L	0.00%		20 yrs	IVa&b	3,630,300	3,630,300	May-88	Aug-88	Jun-88	Aug-88	Oct-89	Aug-90
South Davis SID - North	102	+		L	3.00%		20 yrs	I	4,498,440	4,498,000	Jan-89	Jan-89	May-88	Sep-88	Oct-90	Oct-91
Central Davis SID - Ph 4	103a	+		L	3.00%		20 yrs	I	1,250,000	1,250,000	Aug-88	Feb-89	Aug-88	Feb-89	Feb-90	Aug-91
Providence City	104	+		L	0.00%		18 yrs	IVa & b	3,500,000	3,500,000	Sep-89	Sep-89	Sep-89	Nov-90	Nov-90	Jan-91
Solitude ID Phase I	105	+		L	0.00%		20 yrs	IVb	3,200,000	2,993,000	Sep-89	Mar-90	Sep-89	Apr-90	Jan-93	Jan-92
Central Davis SID - Ph 5&6	103b	+		L	3.00%		20 yrs	I	1,150,000	1,150,000	Aug-88	Apr-90	Aug-88	Feb-89	Feb-90	Aug-91
Central Davis SID - Ph 5&6	108	+		L	5.00%		20 yrs	I	500,000	850,000	Mar-90	Apr-90	Feb-90	Jan-00	Mar-91	Jun-91
South Davis SID - North	107	+		L	5.00%		20 yrs	I	4,300,000	4,205,000	Feb-90	Aug-90	Aug-88	Feb-89	Sep-91	Nov-92
Solitude ID (phase II & III)	112	+		L	0.00%		20 yrs	IVb&IVa	1,300,000	2,376,716	Mar-91	May-91	Apr-90	Jan-90	Jan-93	May-91
Hyde Park City	106	+		L	0.00%		18 yrs	IV b	1,750,000	800,000	Dec-91	Dec-91	Sep-91	Jan-92	Jun-93	Mar-95
South Weber City	114	+		L	0.00%		20 yrs	IVb&IVa	3,006,000	3,056,000	Mar-92	May-92	Jun-92	Jul-92	Sep-95	Oct-95
South Davis SID - South	115	+		L	4.00%		20 yrs	I	3,441,000	4,475,000	Sep-92	Sep-92	Aug-92	Oct-92	Sep-94	Oct-95
Aurora City	119	+		L	0.00%		20 yrs	IVb, IVa&I	965,000	965,000	May-93	Apr-93	Jul-93	Nov-93	Dec-95	Sep-94
Timpanogos SD (sludge)	125	+		L	3.50%		10 yrs	II	1,300,000	1,300,000	Jun-93	Jun-93	Jul-93	Jun-93	Jul-94	Dec-93
St George City	123	+		L	3.50%		20 yrs	I	4,000,000	4,000,000	Dec-93	Dec-93	Feb-94	Nov-94	Sep-97	Oct-98
Sanlaquin City	109	+		L	0.00%		20 yrs	IVb, IVa&I	2,307,000	1,307,000	Dec-93	Feb-94	May-94	Apr-94	Jan-96	Dec-93
Orem City	128	+		L	0.00%	3.50%	20 yrs	I	3,500,000	3,500,000	Feb-94	Apr-94	Mar-94	Aug-94	Sep-95	Jun-97
North Davis Co. SID	126	+		L	0.00%	3.50%	20 yrs	II	4,000,000	4,000,000	Dec-93	Jun-94	Jan-94	Aug-94	Jan-96	Apr-96
Snyderville Basin SID	122	+		L	0.00%		20 yrs	I	2,500,000	2,500,000	Mar-94	Jun-94	Oct-95	Aug-94	Jan-96	Jun-97
Magna ID	132	+		L	0.00%	3.50%	20 yrs	IVb, I	2,320,000	2,320,000	Feb-94	Jun-94	Mar-94	Jul-94	Sep-95	Jul-95
Timpanogos SD	135	+		L	0.00%	4.00%	20 yrs	II	2,900,000	2,900,000		Jul-94		Jul-94	Oct-95	Apr-96
Cedar City	117	+		L	0.00%	2.75%	20 yrs	I, II & IVb	12,010,000	12,010,000	Aug-94	Aug-94	Apr-94	Sep-94	Dec-96	Jun-97
Provo City	131	+		L	0.00%	3.50%	7 yrs	II	1,185,000	1,185,000	Dec-94	Apr-95	Jul-95	Apr-95	Feb-96	Oct-96
Jordanella SAD	130	+		L	0.00%	3.00%	10 yrs	IVb	2,137,000	2,736,000	Dec-94	May-95	May-94	May-95	Jul-97	Dec-01
Midway Sanitation District	113	+		L	0.00%	3.00%	10 yrs	IVb	0	151,000	Dec-94	May-95	May-94	May-95	Jul-97	Dec-01
Mapleton City	116	+		L	0.00%		20 yrs	IVa & IVb	4,320,500	6,330,000	May-94	Jun-95	Mar-94	Jul-95	Dec-96	Dec-96
Snyderville Basin SID	134	+		L	5.00%		15 yrs	II	1,500,000	1,500,000	Jul-95	Jul-95	Jul-96	Aug-95	Aug-97	Apr-97
Grantsville City	124	+		L	0.00%		20 yrs	I	3,287,000	3,278,000	Jul-95	Aug-95	Sep-94	Sep-95	Dec-96	Oct-96
Moab City	129	+		L	0.00%	4.50%	10 yrs	I	1,821,000	1,821,000	Apr-96	Sep-96	May-96	Oct-96	May-98	Mar-98
Highland City	144	+		L	0.00%	4.00%	20 yrs	IVa & b	2,500,000	2,176,000	Apr-97	May-97	Apr-97	Apr-97	Apr-98	Apr-98
Central Davis Co. SD	140	+		L	0.00%	4.50%	20 yrs	I	5,100,000	5,100,000	Jul-97	Jul-97	Aug-97	Aug-97	Sep-98	Oct-99
Nibley City	142	+		L	0.00%		30 yrs	IVa & b	6,054,000	6,104,000	Jul-01	Jul-01	Aug-01	Aug-01	Sep-02	May-04
St. George City	138	+		L	0.00%	1.00%	20 yrs	I & II	12,000,000	12,000,000	Sep-97	Sep-97	Oct-97	Oct-97	Sep-99	Aug-02
Mapleton City	143	+		L	0.00%		20 yrs	IVa&b	0	3,070,000		Dec-97		Jul-95		Dec-96
Tooele City	111	+		L	0.00%	3.50%	20 yrs	I & II	7,570,000	7,570,000	Sep-97	Dec-97	Oct-97	Jan-98	Sep-99	Apr-01
Washington City	213	+		L	0.00%	2.00%	20 yrs	IVb&IIIa	3,356,000	3,356,000	May-99	May-99	Jun-99	Jun-99	Jun-01	Jul-03
Ephraim City	212	+		L	0.00%	3.60%	20yrs	I	2,100,000	2,100,000	Sep-99	Sep-99	Oct-99	Oct-99	Dec-00	Jul-00
Minersville City	209	+		L	0.00%	1.00%	20 yrs	I	525,000	525,000	Sep-99	Sep-99	Oct-99	Oct-99	Mar-00	Mar-00
Escalante City	214	+		L	0.00%	2.00%	20yrs	I	563,000	563,000	Oct-99	Oct-99	Oct-99	Oct-99	Mar-00	Mar-00
Richfield City	204	+		L	0.00%	4.00%	20yrs	IIIb	4,000,000	4,000,000	Nov-99	Nov-99	Jan-99	Jan-99	Dec-00	Aug-02
Price River WID	145	+		L	4.00%		20yrs	I	1,000,000	1,000,000	May-00	May-00	Jun-00	Jun-00	Jun-01	Mar-01
Green River City	110	+		L	0.00%		20yrs	IIIb	870,000	870,000	Jun-00	Jun-00	Jul-00	Jul-00	Jun-01	May-02
Salina City	211	+		L	1.00%		20yrs	IIIb & IVb	2,750,000	2,725,000	Mar-00	Aug-00	Apr-00	Sep-00	Feb-02	Nov-03
Salina City (Increase)	218	+		L	1.00%		20yrs	IIIb & IVb		400,000	Mar-00	Mar-00	Apr-00	Sep-00	Feb-02	Nov-03
Snyderville Basin (PR)	146	+		L	2.00%		10yrs	I	4,000,000	4,190,000	May-00	Dec-00	Nov-00	Feb-01	Mar-02	Aug-03
Sunnyside City	154	+		L	0.00%		20yrs	IIIb	635,000	635,000	Apr-01	Apr-01	Apr-01	May-01	Apr-02	Oct-02
West Haven SD	152	+		L	0.00%		20yrs	IVb	6,536,000	6,536,000	Sep-00	Apr-01	Nov-99	May-01	Feb-00	Nov-03
Hildale City	118	+		L	0.00%		20 yrs	I & IVb	1,585,000	1,585,000	Jul-01	Aug-01	Aug-01	Sep-01	Nov-02	Nov-02
Payson City	148	+		L	4.00%		20yrs	I	8,479,000	7,479,000	May-01	Aug-01	May-01	Sep-01	Feb-02	Oct-04
Bear Lake SSD	220	+		L	0.00%		25yrs	I	2,230,000	2,230,000	Jul-02	Jul-03	Jul-02	Aug-03	Dec-03	Jul-07
Beaver City	217	+		L	0.00%	4.00%	20yrs	I & IVb	2,950,000	2,050,000	Oct-01	Dec-01	Oct-01	Feb-02	Apr-03	Jul-03
Oakley City	221	+		L	0.00%		20yrs	I	400,000	400,000	Jun-02	Jul-02	Jul-02	Aug-02	Sep-03	Jun-03
South Salt Lake City	202	+		L	0.00%		20yrs	I	1,200,000	1,230,000	Jun-02	Aug-02	Jun-02	Non-02	Jun-02	Dec-99
Mapleton City	160	+		L	0.00%	2.00%	20yrs	I	1,100,000	1,100,000	Sep-03	Feb-04	Jul-04	Jul-04	Feb-04	Jun-04
Nibley City (Increase)	142	+		L	0.00%		30yrs	IIIa & IVb	6,054,000	1,360,000	Jul-01	Feb-03	Aug-01	Mar-03	May-03	May-04
Nibley City (increase)	142	+		L	0.00%		30yrs	IIIa & IVb	6,054,000	275,000	Jul-01	Jan-04	Aug-01	Mar-03	May-03	May-04
Hyrum City	209	+		L	0.00%	1.30%	20yrs	I	4,220,000	4,220,000	Aug-03	Dec-03	Aug-03	Aug-03	Dec-05	Feb-06

TABLE 1 (continued)
UTAH STATE REVOLVING FUND
ACCOMPLISHMENTS TO JUNE 30, 2013

PROJECT	Recipient Name	E	NE	Type	%	Assmt	Term	Need	Loan Amount	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Fairview City	120	+		L	0.00%		30yrs	IVa, IVb, I	1,600,000	2,400,000		Feb-04	Jan-04	Mar-04	Feb-04	Mar-04	Jul-05
Gubler	NPS002		+	L	0.00%		12yrs	NPS	43,838	43,838		Jan-04	Feb-04	Jul-03	Feb-03	Jan-04	Jan-04
North Davis Sewer District	157		+	L		2.74%	20yrs	I, II	20,000,000	20,000,000		Jun-03	Jun-04	Oct-03	Jul-04	Oct-05	Feb-06
North Davis Sewer District (Increase)	157		+	L		2.32%	20yrs	I, II	20,000,000	900,000		Jun-03	Mar-05	Oct-03	Jul-04	Oct-05	Jul-09
North Davis Sewer District (Increase)	157		+	L		2.32%	20yrs	I, II	20,000,000	750,000		Jun-03	Mar-05	Oct-03	Jul-04	Oct-05	Jul-09
Central Davis County SD	156	+		L	1.90%		20yrs	IVa & b, I	2,700,000	2,700,000		May-03	May-03	Mar-03	Jun-03	Jun-05	Jun-03
Central Davis County SD (Increase)	156	+		L	0.50%		20yrs	IVa & b, I	2,700,000	405,000		May-03	Apr-05	Mar-03	Jun-03	Jun-05	Nov-08
Central Valley WRF	158		+	L		3.00%	20yrs	IIIb	36,100,000	35,000,000		Jul-04	Apr-05	Aug-04	Apr-05	Dec-05	Mar-10
Moroni City	150	+		L	0.50%		20yrs	II	2,635,000	3,700,000		Sep-03	Jun-05	Oct-03	Jun-05	Dec-04	Jul-07
Parowan City	151	+		L	2.75%		20yrs	IVb	3,772,000	3,772,000			Aug-05	Mar-02	Aug-05	Mar-06	Dec-06
Hooper City	136	+		L	0.00%		30yrs	IVa	7,874,000	12,000,000		Apr-04	Jun-06	Mar-05	Jun-06	Apr-06	Apr-08
Gardner	NPS003		+	L	0.00%		20yrs	NPS	83,200	83,200		May-07	May-07	May-07	May-07	May-07	May-07
Waldron	NPS001		+	L	0.00%		20yrs	NPS	80,000	94,640		Jul-06	Jul-06	Jul-06	Jul-06	Jul-06	Jul-06
Jensen	NPS004		+	L	0.00%		20yrs	NPS	41,600	41,600		Mar-07	Mar-07	Mar-07	Mar-07	Mar-07	Mar-07
North Fork SSD	227	+		L	3.00%		20yrs	I & II	1,640,000	3,810,000		Nov-06	Nov-06	Nov-06	Nov-06	Nov-07	Oct-08
Ward	NPS005		+	L	0.00%		20yrs	NPS	31,200	31,200		Jun-07	Jun-07	Jun-07	Jun-07	Jun-07	Jun-07
Ward	NPS006		+	L	0.00%		20yrs	NPS	23,920	23,920		Jun-07	Jun-07	Jun-07	Jun-07	Jun-07	Jun-07
Wolf Creek	837		+	L		3.00%	20yrs	I	5,300,000	5,300,000		Jun-07	Jun-07	Jun-07	Jun-07	Jun-07	Jun-07
Magna Water Co.	838	+		L				II	5,000,000	5,000,000		Aug-07	Aug-07	Aug-07	Aug-07	Jan-09	Dec-09
Beckstead	NPS007		+	L	0.00%		20yrs	NPS	47,320	47,320		Dec-07	Dec-07	Dec-07	Dec-07	Dec-07	Dec-07
Anhder	NPS008		+	L	0.00%		20yrs	NPS	20,800	20,800		Jan-08	Jan-08	Jan-08	Jan-08	Jan-08	Jan-08
South Valley WRF	162		+	L		2.30%	20yrs	II	20,100,000	20,100,000		Apr-08	Apr-08	Apr-08	Apr-08	Mar-10	Jan-11
South Valley WRF	NPS162		+	L		2.30%	20yrs	NPS	2,010,000	2,010,000		Apr-08	Apr-08	Apr-08	Apr-08	Mar-10	
Richmond City	241	+		L	0.00%		20yrs	I & II	3,316,000	3,316,000		Apr-08	Apr-08	Apr-08	Apr-08	Jun-09	Mar-10
Central Weber SID	242		+	L		2.30%	20yrs	II	20,100,000	10,050,000		Apr-08	Apr-08	Apr-08	Dec-08	Jun-11	Mar-10
Central Weber SID	NPS242		+	L		2.30%	20yrs	II	2,010,000	1,005,000		Apr-08	Apr-08	Apr-08	Dec-08	Jun-11	Dec-11
Wayment	NPS010		+	L	0.00%		20yrs	NPS	114,026	114,026		Sep-08	Sep-08	Sep-08	Sep-08	Sep-08	Sep-08
Eagle Mountain City	234	+		L	1.00%		20yrs	II	6,665,000	6,665,000		Apr-06	Jul-08	Apr-06	Jul-08	Oct-06	Jan-10
Hooper City (Increase)	136	+		L	0.00%		30yrs	IVa	1,000,000	1,000,000		Dec-08	Dec-08	Jun-06	Dec-08	Apr-06	Apr-08
Perry City	244		+	L		3.00%	20yrs	II & IVb	11,350,000	5,675,000		Dec-08	Dec-08	Dec-08	Dec-08	Feb-09	Aug-10
Stockton Town	171	+		L	0.00%		30yrs	I & IVa	7,400,000	7,400,000		Sep-09	Sep-09	Sep-09	Sep-09	Sep-10	Oct-11
Riverdale City	178		+	L		3.00%	20yrs	IIIb	1,502,000	1,502,000		Oct-09	Oct-09	Oct-09	Oct-09	Dec-10	Nov-11
Salt Lake City Corporation	173	+		L	0.00%		20yrs	I	6,450,000	6,450,000		Nov-09	Nov-09	Nov-09	Nov-09	Dec-11	
Kearns Improvement District	174	+		L	0.00%		20yrs	IIIb	5,025,000	5,025,000		Dec-09	Dec-09	Dec-09	Dec-09	Aug-10	Dec-11
Price City	177	+		L	0.00%		20yrs	IIIb	850,000	850,000		Dec-09	Dec-09	Dec-09	Dec-09	Sep-10	Jan-11
Roosevelt City	175	+		L	0.00%		20yrs	I & IIIb	2,882,000	2,882,000		Dec-09	Dec-09	Dec-09	Dec-09	Dec-10	Nov-12
Salt Lake County	183	+		PF	0.00%		n/a	VII-K	484,200	484,200		Aug-09	Aug-09	Aug-09	Aug-09	Dec-10	Nov-10
Orem City	172	+		L	0.00%		20yrs	I	11,889,000	11,889,000		Feb-10	Feb-10	Feb-10	Feb-10	Apr-12	Dec-12
Parowan City	176	+		L	0.00%		20yrs	II	512,000	512,000		Feb-10	Feb-10	Feb-10	Feb-10	Nov-10	Aug-10
Utah State University Research Foundation	180	+		PF	0.00%		n/a	II	500,000	500,000		Aug-09	Aug-09	Aug-09	Aug-09	Jan-10	May-10
Snyderville Basin WRD	181	+		PF	0.00%		n/a	VII-K	300,000	300,000		Aug-09	Aug-09	Aug-09	Aug-09	Dec-10	Aug-12
Ogden City	184	+		PF	0.00%		n/a	VII-K	1,150,000	1,150,000		Sep-09	Sep-09	Sep-09	Sep-09	Sep-10	Dec-12
Salt Lake City Corporation - Green	182	+		PF	0.00%		n/a	VII-K	577,500	577,500		Aug-09	Aug-09	Aug-09	Aug-09	Dec-10	Nov-10
Utah Division of Wildlife Resources	179	+		PF	0.00%		n/a	VII-K	540,788	540,788		Aug-09	Aug-09	Aug-09	Aug-09	Dec-10	Nov-11
Mona City	166	+		L & PF	0.00%		30yrs	I	11,668,000	11,668,000		Oct-10	Oct-10	Oct-10	Oct-10	Apr-12	May-12
Mona City	C042	+		PF	0.00%		n/a	I & IVa	610,000	610,000		Sep-11	Sep-11	Oct-10	Oct-10	Apr-12	May-12
Washington Terrace	187		+	L	2.50%		20yrs	IIIb	835,000	835,000		Dec-10	Dec-10	Dec-10	Apr-11	Apr-12	
Stansbury Park	186		+	L	2.50%		20yrs	I	3,000,000	3,000,000		Dec-10	Dec-10	Dec-10	Aug-11	Dec-12	Mar-12
Ogden City	184-B	+		PF	0.00%		n/a	VII-K	1,000,000	1,000,000		Dec-10	Dec-10	Dec-10	Dec-10	Dec-11	Dec-12
Lindon City	188		+	L	2.50%		20yrs	IIIb	3,000,000	3,000,000		Apr-11	Apr-11	Apr-11	Apr-11	Apr-12	Apr-13
Elwood Town	168	+		L & PF	0.00%		30yrs	I & IVa/b	2,941,399	2,941,399		Oct-11	Oct-11	Nov-11	Nov-11	Nov-12	Nov-12
Kearns Improvement District	192		+	L		3.00%	20yrs	IIIb	6,555,000	6,555,000		Dec-11	Dec-11	Jan-12	Jan-12	Jun-14	
Granger-Hunter Improvement District	193		+	L	2.50%		20yrs	IIIb	6,202,000	6,202,000		Jan-12	Jan-12	Feb-12	Feb-12	Mar-13	
Santaquin City	169	+		L	1.00%		20yrs	II	6,934,000	6,934,000		Feb-12	Feb-12	Mar-12	Mar-12	Aug-13	
TOTAL LOANS										398,302,447							
Total Admin Costs thru CS49000113										7,825,775							
Total Binding Commitments										406,128,222							

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**TABLE 2
UTAH STATE REVOLVING FUND
CASH DRAW SCHEDULE FOR STATE FISCAL YEAR 2013**

Recipient Name	Project Number	Source of Draws		Total Funding Amount	Previously Disbursed	SFY	SFY	SFY	SFY	SFY	*Balance of Funding
		Cap Grant ◆	Second Round ●			2013 July - Sept 1st Qtr	2013 Oct - Dec 2nd Qtr	2013 Jan - Mar 3rd Qtr	2013 Apr - June 4th Qtr	2013 Total	
Elwood Town	167	◆		3,904,882	2,742,000	0	950,000	0	0	950,000	212,882
Granger-Hunter Improvement District	193		●	6,202,000	1,750,000	0	2,000,000	1,750,000	0	3,750,000	702,000
Keams Improvement District	192	◆	●	7,615,000	1,060,000	650,000	720,000	0	500,000	1,870,000	4,685,000
Santaquin City	169	◆		6,934,000	1,700,000	0	2,500,000	2,129,520	604,480	5,234,000	0
South Valley WRF	162		●	22,110,000	21,555,000	250,000	0	0		250,000	305,000
DWC Administrative Costs						80,579	97,040	112,397	66,121	356,137	
TOTAL				46,765,882	28,807,000	980,579	6,267,040	3,991,917	1,170,601	12,410,137	5,904,882
Federal LOC						80,579	3,548,132	479,645.4	86,121	4,174,477	
State Match						0	718,908	1,762,272	1,104,480	3,585,660	
SRF Repayment Fund						650,000	2,250,000	1,750,000	0	4,650,000	

*Please Note: Balance of Funding may be paid from sources other than the SRF, including Utah Wastewater Loan Funds and Hardship Grant Funds.

**UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY - STATE REVOLVING FUND
UNAUDITED STATEMENT OF NET ASSETS
June 30, 2013**

ASSETS

CURRENT ASSETS

Cash & Cash Equivalents	\$ 68,162,513
Receivables:	
Amount due from EPA	-
Loan interest	667,180
Hardship assessments	582,867
Loans Receivable	<u>14,480,676</u>
Total current assets	<u>83,893,236</u>

NONCURRENT ASSETS

Loans receivable	<u>173,059,242</u>
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TOTAL ASSETS

256,952,478

LIABILITIES AND NET ASSETS

LIABILITIES

CURRENT LIABILITIES

Deposits	27,367
Due to State	637
Due to Other Funds	61,091
Accounts Payable	<u>76,454</u>

TOTAL LIABILITIES

165,549

NET ASSETS

Unrestricted	<u>256,786,929</u>
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TOTAL NET ASSETS

\$ 256,786,929

The accompanying notes are an integral part of the financial statements.

**UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY - STATE REVOLVING FUND
UNAUDITED STATEMENT OF REVENUES, EXPENSES AND
CHANGES IN FUND NET ASSETS
June 30, 2013**

	Total
OPERATING REVENUES	
Loan interest	\$ 736,693
Hardship assessments	1,987,222
Late Fees	460
EPA Program Administration Fees	72,561
Loan Origination Fees	-
Total Operating Revenues	2,796,936
OPERATING EXPENSES	
Hardship grants	412,896
Principal Forgiveness	950,000
EPA Program Administration	143,747
Total Operating Expenses	1,506,643
OPERATING INCOME (LOSS)	1,290,293
NONOPERATING REVENUES (EXPENSES)	
Investment income	422,093
EPA capitalization grants - Loans	4,263,364
EPA capitalization grants - Principal Forgiveness	950,000
State match	2,190,636
Transfers in	71,186
Transfers out	(71,186)
Total nonoperating revenues(expenses)	7,826,093
CHANGE IN NET ASSETS	9,116,386
NET ASSETS, BEGINNING OF YEAR	247,670,543
NET ASSETS, END OF YEAR	\$256,786,929

The accompanying notes are an integral part of the financial statements.

**UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY - STATE REVOLVING FUND
UNAUDITED STATEMENT OF CASH FLOWS
June 30, 2013**

	Total
CASH FLOWS FROM OPERATING ACTIVITIES	
Cash received from loan interest and penalties	\$ 845,453
Cash received from hardship assessments	2,066,462
Loan origination fees received	-
Loans disbursed	(9,727,080)
Hardship grants disbursed	(963,614)
Principal received on loans receivable	18,407,147
Principal forgiveness disbursed	(445,164)
Grant awards	120,149
Program administration	(187,848)
Origination Fees	-
Net cash (required) by operating activities	10,115,505
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES	
Funds received from EPA capitalization grants - Loans	4,427,144
Funds received from EPA capitalization grants - Principal Forgiveness	786,220
Transfers in	71,186
Transfers out	(71,186)
Funds received from State of Utah	2,190,636
Net cash provided by noncapital financing activities	7,404,000
CASH FLOWS FROM INVESTING ACTIVITIES	
Net investment income received	422,093
Net cash provided by investing activities	422,093
NET INCREASE IN CASH AND CASH EQUIVALENTS	17,941,598
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	50,220,915
CASH AND CASH EQUIVALENTS, END OF YEAR	\$ 68,162,513
RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES	
Operating income (loss)	\$ 1,290,293
Changes in assets and liabilities related to operations:	
(Increase)/Decrease in loan interest receivable	108,301
(Increase)/Decrease in hardship assessments receivable	1,639
(Increase)/Decrease in amount due from EPA	1,956,494
(Decrease)/Increase in amount due from State	-
(Decrease)/Increase accounts payable	41,388
(Decrease)/Increase in amount deposits	27,367
(Decrease)/Increase in amount due to State	(44,102)
(Decrease)/Increase in amount due to Other Funds	36,740
(Increase)/Decrease accounts receivable	-
(Increase)/Decrease loans receivable	6,697,385
Net cash (required) by operating activities	\$ 10,115,505

The accompanying notes are an integral part of the financial statements.

**UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY – STATE REVOLVING FUND
NOTES TO FINANCIAL STATEMENTS
June 30, 2013
Unaudited**

NOTE 1 – DEFINITION OF REPORTING ENTITY

The Utah Department of Environmental Quality, Division of Water Quality - State Revolving Fund (SRF or Fund) program was established pursuant to federal action in order to assist public water systems by providing low interest rate loans for preservation and protection projects that meet eligibility requirements. The United States Environmental Protection Agency (EPA) allows up to four percent (4%) of the Capitalization Grant award for the administrative costs of the program. Funding from the 4% administration portion of the capitalization grant and from the collection of loan origination fees allows for both the supervision of the SRF program and for management oversight for individual projects.

The Water Quality Board (the Board) is comprised of nine members appointed by the Governor. The Board develops policies and procedures for program implementation and authorizes loans under the SRF program. The Utah Department of Environmental Quality (DEQ) and the Board jointly manage the SRF program. The DEQ, Division of Water Quality reviews loan applications for eligibility, prioritizes eligible projects, monitors loan disbursements and repayments, and conducts project inspections. Through the Utah Code, the legislature has given the Board rule making authority that meets federal law requirements. The Board reviews each loan applicant to determine its ability to repay the loan, its readiness to proceed with the project, and its ability to complete the project.

The SRF program receives assistance and support from the Department of Environmental Quality - Office of Support Services, the Department of Administrative Services - Division of Finance, the Utah Attorney General's Office, and the State Treasurer's Office. Salaries and benefits of employees, as well as indirect costs based on direct salary costs, are accumulated in the state's general fund and charged to the SRF based on actual time spent on SRF activities. Employees who charge time to the SRF are covered by the State of Utah personnel benefits plan.

The SRF program is funded by a series of capitalization grant awards from EPA. Grant conditions require States to provide twenty percent (20%) matching funds to the federal Capitalization Grant.

The Fund follow the Governmental Accounting Standards Board (GASB) accounting pronouncements which provide guidance for determining which governmental activities, organizations and functions should be included within the financial reporting entity. GASB pronouncements set forth the financial accountability of a governmental organization's elected governing body as the basic criterion for including a possible component governmental organization in a primary government's legal entity. Financial accountability includes, but is not limited to, appointment of a voting majority of the organization's governing body, ability to impose its will on the organization a potential for the organization to provide specific financial benefits or burdens and fiscal dependency.

**UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY – STATE REVOLVING FUND
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June 30, 2013

Unaudited

The SRF program and activities are included in the Utah Comprehensive Annual Financial Report (CAFR) as part of the Proprietary Funds (Water Loan Programs). The SRF assets, liabilities, and net assets are combined with other state programs and are not separately identifiable.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accounting policies of the Fund conform to generally accepted accounting principles as applicable to a governmental unit accounted for as a proprietary enterprise fund. The enterprise fund is used since the Fund's powers are related to those operated in a manner similar to a for profit business where an increase in net assets is an appropriate determination of accountability.

Basis of Accounting

The SRF financial statements are presented as an enterprise fund. Revenues are recorded when earned and expenses are recorded when the related liability is incurred, regardless of the timing of the cash flows. All assets and liabilities associated with the operation of the SRF are included in the statement of net assets. The SRF has elected to follow the accounting pronouncements of the Governmental Accounting Standards Board (GASB), as well as statements issued by the Financial Accounting Standards Board (FASB) on or before November 30, 1989, unless the pronouncements conflict with or contradict GASB pronouncements.

Cash and Cash Equivalents

In accordance with the Money Management Act, Section 51-7 of the Utah Code, the State Treasurer administers cash and manages investments in the State. The Money Management Act specifies the investments that may be made, which are only high-grade securities. Investments include variable rate corporate notes and obligations of U.S. government agencies that base their rates on standard quoted money market indexes that have a direct correlation to the federal funds rate. Therefore, there is very little market risk because the investments follow the normal swings of interest rates. Cash equivalents are generally considered short-term highly liquid investments with maturity of three months or less from the purchase date.

All funds deposited with the treasurer are considered to be cash or cash equivalents regardless of the actual maturities of the underlying investments in the statement of cash flows. Investments in debt and equity securities are reported at fair value in the statement of net assets, and all investment income, including changes in the fair value, are reported in the statement of revenue, expenses, and changes in fund net assets.

**UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY – STATE REVOLVING FUND
NOTES TO FINANCIAL STATEMENTS**

June 30, 2013

Unaudited

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Operating Revenues and Expenses

The SRF distinguishes between operating revenues and expenses and non-operating items in the statements of revenues, expenses and changes in net assets. Operating revenues and expenses generally result from carrying out the purpose of the SRF of providing low interest loans to communities and providing assistance for prevention programs and administration. Operating revenues consist of loan interest repayments from borrowers. Operating expenses include allocated direct salary costs and benefits, allocated indirect costs and allowance for bad debt. All revenues and expenses not meeting this definition are reported as non-operating revenues and expenses or capital contributions.

The EPA capitalization grant and the associated State match are recorded as capital contributions, except for principal forgiveness which is reported as non-operating revenue, and the 4% administrative match which is reflected as operating revenue.

When both restricted and unrestricted resources are available for use, it is the Fund's policy to follow the State of Utah's policy as defined in the State of Utah Comprehensive Annual Financial Report.

Hardship Assessments

The Board has the option to charge a hardship assessment in lieu of interest on reuse loans. Hardship assessments are calculated and paid in the same manner as interest. The restriction for the use of hardship assessments differs from the restriction for the use of interest. Hardship assessments can be used for purposes other than loans, including grants to disadvantaged communities. As of June 30, 2013, accumulated unspent hardship assessments total \$10,774,400.

Loan Origination Fee

The Water Quality Board may charge a Loan Origination Fee up to 1% of the principal loan amount. This fee may be used for any allocable activities under the Act and administration of the loan program. As of June 30, 2013, accumulated unspent loan origination fees total \$523,730.

Budgets

The SRF, as an enterprise fund of the State, does not require appropriation, and therefore, the SRF is not included in Utah's annual appropriation.

**UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY – STATE REVOLVING FUND
NOTES TO FINANCIAL STATEMENTS**

June 30, 2013

Unaudited

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Use of Estimates in Preparing Financial Statements

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues, expenses, gains, losses and other changes during the reporting period. Actual results could differ from those estimates.

Loans Receivable

Loans are funded by capitalization grants from the EPA, State matching funds, loan repayments and fund earnings. Interest is calculated from the date that funds are advanced. After the final disbursement has been made, the loan agreement is adjusted for the actual amounts disbursed. Loans are amortized over periods up to 30 years. Loan repayments must begin within one year of construction completion or one year from the initial loan disbursement, depending upon the type of loan agreement, and are made on an annual basis.

Loans funded by principal forgiveness grants are advanced to local agencies and forgiven as each disbursement occurs. Loan agreements require repayment of the forgiven loan if all program requirements are not met.

Allowance for Bad Debts

The allowance for bad debts is established as losses are estimated to have occurred through a provision for bad debts charged to earnings. Loans receivable are charged against the allowance for bad debts when management believes that the uncollectibility of the principal is probable. The allowance for bad debts was \$0 at June 30, 2013.

NOTE 3 – CASH AND INVESTMENTS

All monies of the SRF are deposited with the Utah State Treasurer and are considered cash and cash equivalents. All cash deposited with the State Treasurer is maintained by the Treasurer in various pooled investment funds. The State Treasurer invests the deposited cash, including the cash float, in short term securities and other investments.

The Utah State Treasurer's Office operates the Public Treasurer's Investment Fund (PTIF) investment pool. The PTIF is available for investment of funds administered by any Utah public treasurer. Participation is not required and no minimum balance or minimum/maximum transaction is required. State agencies and funds that are authorized to earn interest also invest in

**UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY – STATE REVOLVING FUND
NOTES TO FINANCIAL STATEMENTS**

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the PTIF as an internal investment pool. No separate report as an external investment pool has been issued for the PTIF. Details of the investments of the PTIF can be obtained from the State Treasurer.

The PTIF is not registered with the SEC as an investment company and is not rated. The PTIF is authorized and regulated by the Utah Money Management Act, (Utah Code Title 51, Chapter 7). The Act establishes the Money Management Council, which oversees the activities of the State Treasurer and the PTIF. The Act lists the investments that are authorized which are high-grade securities which minimizes credit risk except in the most unusual and unforeseen circumstances.

Deposits in the PTIF are not insured or otherwise guaranteed by the State of Utah, and participants share proportionally in any realized gains or losses on investments.

Income, gains, and losses, net of administration fees, of the PTIF are allocated to participants on the ratio of the participants' share of the total funds in the PTIF based on the participant's average daily balance. The PTIF allocates income and issues statements on a monthly basis. Twice a year, at June 30 and December 31, the investments are valued at fair value. The SRF has adjusted the PTIF funds to fair value as of June 30, 2013.

Investments in PTIF are not categorized because they are not evidenced by securities that exist in physical or book entry form. Cash and cash equivalents are presented below:

Pooled cash held by State Treasurer	\$ 256,966
Public Treasurer's Investment Fund	<u>67,905,547</u>
Total cash and cash equivalents	\$68,162,513

NOTE 4 – LOANS RECEIVABLE

Loans are made to qualifying entities for projects that meet eligibility criteria. The SRF loan awards are comprised of the following funding sources: (1) the federal EPA Capitalization Grants; (2) State match funds; (3) loan repayments; (4) interest payments; and (5) SRF interest earnings. Projects are funded through the purchase of an incremental disbursement bonds and proceeds are deposited into an escrow account based on a quarterly schedule of anticipated costs. Loan interest begins accruing when funds are deposited in the escrow account. Principal repayment must begin no later than one year after the completion of the project. Effective interest rates and hardship assessments on loans vary between 0.0 and 5.0 percent and are generally repaid over 20-30 years. The interest rates on the loans are generally lower than market rates and, in some cases, are non-interest bearing. Loans mature at various intervals and recipients make annual payments.

**UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY – STATE REVOLVING FUND
NOTES TO FINANCIAL STATEMENTS**

June 30, 2013

Unaudited

NOTE 4 – LOANS RECEIVABLE (CONTINUED)

Loans mature at various intervals through June 30, 2043 and the scheduled principal repayments on loans follows:

Year Ending June 30,	Amount
2014	\$14,480,676
2015	10,451,172
2016	11,228,776
2017	11,408,949
2018	11,175,188
2019 – 2023	53,645,386
2024 – 2028	43,027,018
2029 – 2033	25,173,753
2034 – 2038	4,706,000
2039 – 2043	2,243,000
	\$187,539,918

Loans to Major Local Agencies

The Fund has made loans to the following major local agencies. The aggregate outstanding loan balances for each of these agencies exceed 5 percent of total loans receivable. The combined outstanding loan balances at June 30, 2013 of these major local agencies represent approximately 44 percent of the total loans receivable and are as follows:

Borrower	Authorized Loan Amount	Outstanding Loan Balance
Central Valley Water Reclamation	\$ 35,000,000	\$ 9,756,000
Central Weber Sewer Improvement	\$ 11,055,000	\$ 10,159,676
Hooper City	12,665,000	11,305,000
North Davis County Sewer	21,650,000	18,816,000
Orem City	15,389,000	11,762,757
South Valley Water Reclamation	22,110,000	20,019,000
Total	\$ 117,869,000	\$ 85,944,486

**UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY – STATE REVOLVING FUND
NOTES TO FINANCIAL STATEMENTS**

June 30, 2013

Unaudited

NOTE 5 – DUE TO STATE OF UTAH

Due to State of Utah balances are an aggregation of amounts due to employees for salaries and benefits and/or vendors and miscellaneous suppliers paid by the state.

NOTE 6 – CAPITAL CONTRIBUTIONS

The following table summarized the activity of the State’s Clean Water Revolving Loan Fund by award year:

Year	Grant Award	Funds Drawn as of June 30, 2012	Funds Drawn During Year Ended June 30, 2013	Total Funds Drawn as of June 30, 2013	Available Funds as of June 30, 2013
1988 – 2005	\$135,393,094	\$135,393,094	\$ -	\$135,393,094	\$ -
2006	4,560,700	4,560,700	-	4,560,700	-
2007	5,596,300	5,596,300	-	5,596,300	-
2008	3,521,700	3,521,700	-	3,521,700	-
2009	3,521,600	3,521,600	-	3,521,600	-
2009 ARRA	20,649,900	20,649,900	-	20,649,900	-
2010	10,736,000	10,736,000	-	10,736,000	-
2011	7,759,000	7,475,457	283,543	7,759,000	-
2012	7,422,000	1,911,756	5,285,925	7,197,681	224,319
2013	7,006,000	-	-	-	7,006,000
Totals	\$206,166,294	\$193,366,507	\$5,569,468	\$198,935,975	\$7,230,319

The following table summarizes the amount of state contributions made to meet match requirements of the EPA grant:

State match paid as of June 30, 2012	\$35,627,888
State match paid during the year ended June 30, 2013	<u>2,190,636</u>
State match paid as of June 30, 2013	\$37,818,524

NOTE 7 – RISK MANAGEMENT

The SRF is included in Utah’s Risk Management Fund, which provides insurance in case of loss or claims against the SRF. The State has elected, with a few exceptions, to be self-insured against loss or liability. There have been no significant reductions in insurance coverage from the prior year. In addition, settled claims have not exceeded insurance coverage in the last three fiscal

**UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
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years. Refer to the State's Risk Management disclosure in the June 30, 2012 Comprehensive Annual Financial Reports.

NOTE 8 – CONTINGENCIES AND SUBSEQUENT EVENTS

Authorized Projects

As of June 30, 2013, the total remaining draws for SRF projects with closed loans was \$4,685,000. Draws will be completed during future fiscal years in order to complete wastewater projects in these communities. As of June 30, 2013, the Board had authorized an additional \$8,371,000 for wastewater projects in four communities. However, loan closing had not been completed for these projects.

NOTE 9 – NET ASSETS

Governmental Accounting Standards Board Statement No. 34 provides for three components of net assets: invested in capital assets, net of related debt, restricted and unrestricted. As of June 30, 2013, the Fund had no restricted net assets or net assets invested in capital assets, net of related debt. Unrestricted net assets consists of net assets that do not meet the definition of invested in capital assets, net of related debt or restricted. Although the Fund reports unrestricted net assets on the face of the statements of net assets, unrestricted net assets are to be used by the Fund for the payment of obligations incurred by the Fund in carrying out its statutory powers and duties and are to remain in the Fund.

**UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY - STATE REVOLVING FUND
UNAUDITED COMBINING STATEMENT OF NET ASSETS
June 30, 2013**

	SRF Fund	Loan Origination Fee Fund	Hardship Fund	Total
ASSETS				
CURRENT ASSETS				
Cash & Cash Equivalents	\$ 56,864,383	\$ 523,730	\$ 10,774,400	\$ 68,162,513
Receivables:				
Amount due from EPA	-	-	-	-
Amount due from State	-	-	-	-
Loan interest	667,180	-	-	667,180
Hardship assessments	-	-	582,867	582,867
Loans Receivable	14,444,999	-	35,677	14,480,676
Total current assets	71,976,562	523,730	11,392,944	83,893,236
NONCURRENT ASSETS				
Loans receivable	171,358,937	-	1,700,305	173,059,242
TOTAL ASSETS	243,335,499	523,730	13,093,249	256,952,478
LIABILITIES AND NET ASSETS				
LIABILITIES				
CURRENT LIABILITIES				
Deposits	-	-	27,367	27,367
Due to State	637	-	-	637
Due to Other Funds	-	-	61,091	61,091
Accounts Payable	2,849	-	73,605	76,454
TOTAL LIABILITIES	3,486	-	162,063	165,549
NET ASSETS				
Unrestricted	243,332,013	523,730	12,931,186	256,786,929
TOTAL NET ASSETS	\$ 243,332,013	\$ 523,730	\$ 12,931,186	\$ 256,786,929

The accompanying notes are an integral part of the financial statements.

**UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY - STATE REVOLVING FUND
UNAUDITED COMBINING STATEMENT OF REVENUES, EXPENSES AND
CHANGES IN FUND NET ASSETS
June 30, 2013**

	SRF Loan Fund	Loan Origination Fee Fund	Hardship Fund	Total
OPERATING REVENUES				
Loan interest	\$ 736,693	\$ -	\$ -	\$ 736,693
Hardship assessments	-	-	1,987,222	1,987,222
Late Fees	460	-	-	460
EPA Program Administration Fees	72,561	-	-	72,561
Loan Origination Fees	-	-	-	-
Total Operating Revenues	<u>809,714</u>	<u>0</u>	<u>1,987,222</u>	<u>2,796,936</u>
OPERATING EXPENSES				
Hardship grants	-	-	412,896	412,896
Principal Forgiveness	950,000	-	-	950,000
EPA Program Administration	143,747	-	-	143,747
Total Operating Expenses	<u>1,093,747</u>	<u>-</u>	<u>412,896</u>	<u>1,506,643</u>
OPERATING INCOME (LOSS)	<u>(284,033)</u>	<u>0</u>	<u>1,574,326</u>	<u>1,290,293</u>
NONOPERATING REVENUES (EXPENSES)				
Investment income	355,403	-	66,690	422,093
EPA capitalization grants - Loans	4,263,364	-	-	4,263,364
EPA capitalization grants - Principal Forgiveness	950,000	-	-	950,000
State match	2,190,636	-	-	2,190,636
Transfers in	71,186	-	-	71,186
Transfers out	-	(71,186)	-	(71,186)
Total nonoperating revenues(expenses)	<u>7,830,589</u>	<u>(71,186)</u>	<u>66,690</u>	<u>7,826,093</u>
CHANGE IN NET ASSETS	<u>7,546,556</u>	<u>(71,186)</u>	<u>1,641,016</u>	<u>9,116,386</u>
NET ASSETS, BEGINNING OF YEAR	<u>235,785,457</u>	<u>594,916</u>	<u>11,290,170</u>	<u>247,670,543</u>
NET ASSETS, END OF YEAR	<u>\$243,332,013</u>	<u>\$523,730</u>	<u>\$12,931,186</u>	<u>\$256,786,929</u>

The accompanying notes are an integral part of the financial statements.

**UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY - STATE REVOLVING FUND
UNAUDITED COMBINING STATEMENT OF CASH FLOWS
June 30, 2013**

	SRF Loan Fund	Loan Origination Fee Fund	Hardship Fund	Total
CASH FLOWS FROM OPERATING ACTIVITIES				
Cash received from loan interest and penalties	\$ 845,453	\$ -	\$ -	\$ 845,453
Cash received from hardship assessments	-	-	2,066,462	2,066,462
Loan origination fees received	-	-	-	-
Loans disbursed	(9,697,080)	-	(30,000)	(9,727,080)
Hardship grants disbursed	-	-	(963,614)	(963,614)
Principal received on loans receivable	17,887,366	-	519,781	18,407,147
Principal forgiveness disbursed	(445,164)	-	-	(445,164)
Grant awards	120,149	-	-	120,149
Program administration	(187,848)	-	-	(187,848)
Origination Fees	-	-	-	-
Charges for services	-	-	-	-
Project administration	-	-	-	-
Net cash (required) by operating activities	<u>8,522,876</u>	<u>-</u>	<u>1,592,629</u>	<u>10,115,505</u>
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES				
Funds received from EPA capitalization grants - Loans	4,427,144	-	-	4,427,144
Funds received from EPA capitalization grants - Principal Forgiveness	786,220	-	-	786,220
Transfers in	71,186	-	-	71,186
Transfers out	-	(71,186)	-	(71,186)
Funds received from State of Utah	2,190,636	-	-	2,190,636
Net cash provided by noncapital financing activities	<u>7,475,186</u>	<u>(71,186)</u>	<u>-</u>	<u>7,404,000</u>
CASH FLOWS FROM INVESTING ACTIVITIES				
Net investment income received	355,403	-	66,690	422,093
Net cash provided by investing activities	<u>355,403</u>	<u>-</u>	<u>66,690</u>	<u>422,093</u>
NET INCREASE IN CASH AND CASH EQUIVALENTS CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	16,353,465	(71,186)	1,659,319	17,941,598
	<u>40,510,918</u>	<u>594,916</u>	<u>9,115,081</u>	<u>50,220,915</u>
CASH AND CASH EQUIVALENTS, END OF YEAR	<u>\$ 56,864,383</u>	<u>\$ 523,730</u>	<u>\$ 10,774,400</u>	<u>\$ 68,162,513</u>
RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES				
Operating income (loss)	\$ (284,033)	\$ -	\$ 1,574,326	\$ 1,290,293
Changes in assets and liabilities related to operations:				
(Increase)/Decrease in loan interest receivable	108,301	-	-	108,301
(Increase)/Decrease in hardship assessments receivable	-	-	1,639	1,639
(Increase)/Decrease in amount due from EPA	1,956,494	-	-	1,956,494
(Decrease)/Increase in amount due from State	-	-	-	0
(Decrease)/Increase accounts payable	2,849	-	38,539	41,388
(Decrease)/Increase in deposits	-	-	27,367	27,367
(Decrease)/Increase in amount due to State	(44,102)	-	-	(44,102)
(Decrease)/Increase in amount due to Other Funds	-	-	36,740	36,740
(Increase)/Decrease accounts receivable	-	-	-	-
(Increase)/Decrease loans receivable	6,783,367	-	(85,982)	6,697,385
Net cash (required) by operating activities	<u>\$ 8,522,876</u>	<u>\$ -</u>	<u>\$ 1,592,629</u>	<u>\$ 10,115,505</u>

The accompanying notes are an integral part of the financial statements.



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

Water Quality Board
Myron E. Bateman, Chair
Clyde L. Bunker, Vice-Chair
Merritt K. Frey
Jennifer M. Grant
Hugh E. Rodier
Gregg Alan Galecki
Leland J. Myers
Shane Emerson Pace
Amanda Smith
Walter L. Baker
Executive Secretary

MEMORANDUM

TO: Utah Water Quality Board

THROUGH: Walter L. Baker, P.E.
Director

FROM: David Snyder, Environmental Scientist
Engineering Section

DATE: March 26, 2014

SUBJECT: Following Public Comment Period and Request to Adopt the Proposed Repeal and Reenactment of R317-5, Large Underground Wastewater Disposal Systems

Purpose of Action Item

The purpose of this action item is to request adoption of the attached draft rule R317-5, Large Underground Wastewater Systems, which incorporates a full revision to the current rule as reviewed by the CLEHA Onsite Wastewater Partnership (COWP) and a stakeholder group organized for this purpose.

Public Comment Period Results

The draft amendment to the rule was posted for public comment from February 14, 2014 through March 17, 2014. Only one comment was received, and it was delivered via e-mail in the afternoon of March 17, 2014. This comment was from Glen Eurick of Rio Tinto Kennecott. He requested that we consider changing the definition of "suitable soil" to include the use of fill material and allow it to be used for wastewater disposal, using textural or percolation tests.

Fill material had been accepted for the smaller onsite disposal systems in R317-4, until removed from rule, for the following reasons:

- Fill systems had a history in Utah and other states of causing more pre-mature failures than other types of soil.
- Fill material varies depending on the amount of sand, silt and clay. Simple percolation tests and soil texturing fail to fully assess the properties for treatment and drainage of wastewater.
- Fill material lacks natural structure, soil zones, drainage and air channels and established root growth.

If a property is deemed not feasible for design or construction of an onsite wastewater system because of lack of 'suitable soil', a variance can be applied for, and following the variance rule, may be found acceptable and approved.

In draft rule R317-5, Large Underground Waste Water Disposal Systems, waivers allowing disposal in fill can be obtained using 'site-specific consideration and justification' submitted by an engineer. In the past the Division of Water Quality has approved and issued construction permits on several projects at Kennecott. It is obvious that native, undisturbed soil is generally absent at the Kennecott complex, but with alternative design methods, fill soils can be used and are used for wastewater disposal.

Staff Recommendation

Staff discussed with Mr. Eurick his comments and he expressed that he was satisfied with the recommendation to leave the rule as proposed in the original draft. It is not necessary to make a definition change of 'suitable soil' to include fill material, as the use of fill material could be approved if it meets the conditions for obtaining a waiver.

Request for Action

The Division recommends that the Water Quality Board adopt the proposed changes to *Utah Administrative Code, R317-5* and that it be made effective immediately.

Attachments:

- 1- Letter of comment from Rio Tinto Kennecott, Glen Eurick.
- 2- Draft revision *Utah Administrative Code R317-5* "Large Underground Wastewater Disposal (LUWD) Systems"

Rio Tinto Kennecott
4700 Daybreak Parkway
South Jordan, Utah 84095
USA
Chris Kaiser, Manager Environment
T 801-204-2128
F 801-204-2898

March 17, 2014

Ms. Judy Etherington
Division of Water Quality
Utah Department of Environmental Quality
Third Floor
195 N 1950 W
Salt Lake City, UT 84116

Dear Ms. Etherington:

Subject: Environmental Quality, Water Quality R317-5
Large Underground Wastewater Disposal (LUWD) Systems
NPRM (Repeal and Reenact) DAR FILE NO.: 38271

Dear Ms. Etherington:

Rio Tinto Kennecott (Kennecott) wishes to take this opportunity to comment on the above noted rulemaking. Via this electronic submittal, Kennecott submits the following written comments on DAR FILE NO. 38271. Attached is a PDF with comments indicated via sticky note that reflects the comments presented below.

Kennecott supports the intent of the rulemaking effort to improve Rule R317-5 through the integration of newer concepts and technologies to protect the public health and the environment from potential adverse effects from large underground wastewater disposal systems within the boundaries of Utah.

Kennecott submits the following clarifying comments:

R317-5-2. Definitions

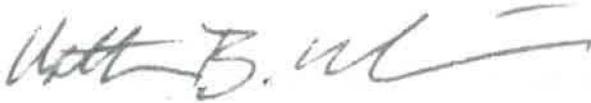
- Provide a definition of “suitable soil” that allows for the acceptance of fill for installation of LUWD systems with adequate engineering design.
 - The following definition is suggested: “Suitable soil” means undisturbed soil or fill that through textural and structural analysis or percolation rate meets the requirements for placement of an absorption system.
- Provide a definition of “fill” that allows for the acceptance of this material for installation of LUWD systems with adequate engineering design.
 - The following definition of “fill” is suggested: “Fill” means soil or other earthen material that has been mechanically placed and that through textural and structural analysis or percolation rate meets the requirements for placement of an absorption system.

- This clarification is necessary to remove any uncertainty or interpretation that could be present in a waiver or variance process as identified in NPRM R317-5-1.5
- While Kennecott supports the Division's approach in this NPRM to permitting LUWD systems, we remain concerned that without a specific inclusion of fill as soil, certain technically viable, protective systems could be subject to permitting uncertainty?

Please feel free to contact Glenn Eurick (801.541.3577; Glenn.Eurick@riotinto.com) with any questions.

Kennecott appreciates the opportunity to comment on these proposed rules.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Chris Kaiser", with a stylized flourish at the end.

Chris Kaiser

R317. Environmental Quality, Water Quality.

[R317-5. Large Underground Wastewater Disposal Systems.

R317-5-1. General.

1.1 SCOPE: These rules shall apply to large underground disposal systems for domestic wastewater discharges which exceed 5,000 gallons per day (gpd) and all other domestic wastewater discharges not covered under the definition of an "Onsite wastewater disposal system" in R317-1-1.13. Usually these systems should not be designed for over 15,000 gpd. In general, it is not acceptable to dispose of industrial wastewater in an underground disposal system.

1.2 ENGINEERING REPORT: An engineering report shall be submitted which shall contain design criteria along with all other information necessary to clearly describe the proposed project and demonstrate project feasibility.

1.3 SUBMISSION OF PLANS FOR REVIEW: Plans for new large underground wastewater disposal systems or extensions of existing systems shall be submitted to the Director for review as required by R317-1. All designs shall be prepared and submitted under the supervision of a registered professional engineer licensed to practice in the State of Utah and certified pursuant to R317-11. A construction permit must be issued by the Director prior to construction of the wastewater disposal system or the building(s) to be served by the wastewater system. The system designer must, following construction of the system, certify in writing that the system was installed in accordance with the approved plans and specifications.

A. Local Health Department Requirements - it is the applicant's responsibility to ensure that the Large Underground Wastewater Disposal System (LUWDS) application to the Division is in compliance with local health department requirements regarding the location, design, construction and maintenance of an LUWDS prior to the applicant submitting a request for a construction permit to the Director. Local Health Departments may petition the Director to require local review for compliance with local requirements prior to DWQ initiating its review. Where the petition has been approved by the Director, the applicant is required to submit documentation that the local health department has approved the proposed LUWDS prior to issuance of a construction permit.

1.4 OPERATION AND MAINTENANCE: Operation and maintenance shall be provided by the owner to ensure the disposal system is functioning properly at all times. An operating permit will be required for all large underground wastewater disposal systems to monitor that proper operation and maintenance is occurring for the protection of the environment and public health. The operating permit shall be issued by the Director or, by delegated authority, by the local health department having jurisdiction, and shall be effective for a period not to exceed 5 years from the issuance date.

A. Operating Permit Required: The owner of a large underground wastewater disposal system shall provide a written notice of intent (NOI) to the Division of Water Quality and the local health department having jurisdiction of its intent to operate a large underground wastewater disposal facility. Those systems currently in operation must submit the NOI no later than January 1, 2010. New systems permitted under this rule must submit the NOI prior to final inspection. The notice of intent shall be specific for the operating

permit and shall include the following information:

1. Facility name and address; owner name, address, and phone number.

2. List of Facility Components, e.g., septic tank, pump tank, gravel drainfield trench, gravelless chambers, pressure drainfield, etc.

3. Design flow (gallons per day) and number and type of connections.

4. Type of waste treated and disposed, i.e., residential, restaurant, other commercial establishment, etc.

5. Sketch plan of existing system showing major facility components.

B. Local Health Department Authority to Issue Operating Permits:

1. A local health department that currently has approval from the Director to administer an alternative systems program may obtain authority within its jurisdiction to administer operating permits for large underground wastewater disposal systems by submitting a written request to administer this program. The request must include an agreement to implement and enforce inspection, servicing, monitoring, and reporting requirements of this rule.

2. Local health departments that have been delegated authority to administer the operating permit program must submit an annual report on or before September 1 of the calendar year, to the Division of Water Quality containing:

(a) A list of LUWD systems under delegation.

(b) A summary listing the compliance status of each system, showing those systems that are currently failing, and those systems that have been repaired.

(c) A summary of any enforcement actions taken, identifying those actions that are still pending, and those that been resolved.

C. Annual Report. The owner shall submit an annual covering the period of July 1 to June 30 (the "reporting year") to the permitting agency no later than August 1 of each year. In this report, the owner shall report the following items:

1. All information required to be submitted in the NOI.

2. Checklist of inspections performed including the date of the inspection and a list of findings.

3. Packed Bed media system sampling results.

4. Signature of owner or certified operator, and date.

D. Owner Responsibility to Maintain System: The owner is responsible for maintaining its large underground wastewater disposal system and for performing periodic inspections and servicing of its system. Inspections of conventional systems (gravity, or pump to gravity) shall be not less than once each reporting year, and inspections of at-grade, pressure, mound and packed bed media systems shall be not less than twice each reporting year. At a minimum, the owner is responsible for inspecting these components of the various type of system:

1. Community septic tank or treatment unit - measure sludge and scum levels, and pump when necessary.

2. Effluent filter - clean when necessary.

3. Inspect distribution box.

4. Inspect pump, floats, alarm and control panel, and record flow or hour meter reading.

~~5. Disposal field - inspect for ponding or surfacing in disposal area. Flush, clean, re-adjust to equal pressure in laterals.~~

~~E. Operation and Maintenance Manual Required: New systems must have a written operation and maintenance document describing the treatment and disposal system and outlining routine maintenance procedures, including checklists and maintenance logs needed for proper operation of the system. This document must be available at the time of the final inspection on all new systems.~~

~~F. Packed Bed Media System Sampling and Monitoring Requirements:~~

~~The owner of a packed bed media system is responsible for sampling and monitoring for COD (Chemical Oxygen Demand), TSS (Total Suspended Solids) and TIN (Total Inorganic Nitrogen) at an interval not exceeding six calendar months. Additional sampling and monitoring may be required if it has been determined that there is a potential for groundwater impacts. Effluent quality of a grab sample, before discharge to a disposal method, shall not exceed 75 mg/L COD or 25 mg/L TSS.~~

~~1. Effluent COD exceeding 75 mg/L or TSS exceeding 25 mg/L shall be followed up with weekly sampling commencing within 30 days until such time as two successive results are obtained that are within these limits. Any two successive samples resulting in exceedence of either 75 mg/L COD or 25 mg/L TSS shall result in the system being deemed non-compliant requiring further evaluation and a corrective action plan.~~

~~2. For non-complying systems, the permitting agency shall require the order:~~

~~(a) all necessary steps such as maintenance servicing, repairs, and/or replacement of system components to correct the system;~~

~~(b) effluent quality testing for COD and TSS shall continue every week until two successive samples of COD and TSS are found to be in compliance;~~

~~(c) payment of fees for additional inspections, reviews and testing;~~

~~(d) evaluation of the system design including non-approved changes to the system, the wastewater flow, and biological and chemical loading to the system;~~

~~(e) investigation of household practices related to the discharge of chemicals into the system, such as photo-finishing chemicals, laboratory chemicals, excessive amount of cleaners or detergents, etc.; and~~

~~(f) additional tests or samples to troubleshoot the system malfunction.~~

~~1.5 LARGE UNDERGROUND WASTEWATER DISPOSAL SYSTEM REQUIRED:~~

~~The drainage system of any building or establishment covered herein shall receive all wastewater as required by R309-100, the Utah Plumbing Code and shall have a connection to a public sewer except when such sewer is not available for use, in which case connection shall be made as follows:~~

~~A. To an underground wastewater disposal system found to be adequate and constructed in accordance with requirements stated herein.~~

~~B. To any other type of disposal system acceptable under R317-3.~~

~~1.6 MULTIPLE UNITS UNDER SEPARATE OWNERSHIP: Multiple Units Under Separate Ownership shall not be served by a common large~~

underground disposal system except when, based upon sound engineering judgment, other alternatives are determined infeasible. In such cases, a common subsurface system may be used provided the following requirements are met:

A. The common subsurface disposal system and conveyance sewers shall be under the sponsorship of a body politic.

B. The subsurface absorption system shall be designed and constructed to provide duplicate capacity (two independent systems). Each system shall be designed to accommodate the total anticipated maximum daily flow. The duplicate systems shall be designed with appropriate valving, etc., to allow for periodic alternation of the use of each system.

C. Sufficient land area with suitable characteristics shall be available to provide for a third absorption system capable of handling the total maximum daily wastewater flow. This area shall be kept free of permanent structures, traffic or soil modification (See Section R317-5-3.1(L)).

D. The subsurface absorption system should be used only until a more permanent system becomes available.

1.7 NEW PROCESSES AND METHODS OF DISPOSAL: Where unusual conditions exist, other methods of disposal not described herein may be employed if approved by the Director and by the local health authority having jurisdiction. The approval will be based on evidence of adequacy to meet water quality standards and other requirements of the Code.

1.8 UNITS REQUIRED IN A LARGE UNDERGROUND WASTEWATER DISPOSAL SYSTEM: The large underground wastewater disposal system shall typically consist of the following:

A. A building sewer with cleanout.

B. A septic tank.

C. An effluent filter.

D. A pressurized subsurface disposal system. This may be an absorption field, deep wall trenches, absorption beds, or, for packed bed media applications, drip irrigation dispersal, depending on location, topography, soil conditions and maximum ground water level.

E. Accessibility components to insure proper maintenance and servicing. These may include risers on tanks to the surface of the ground, with firmly secured lids; and absorption field inspection ports.

F. Pressurized systems typically require a dosing chamber or dosing tank and cleanouts at the end of pressurized laterals.

G. Additional components may also be required depending on the waste stream characteristics and the need to provide adequate protection to groundwater. These components may include pretreatment devices such as grease traps, or may involve secondary treatment using packed bed media systems.

1.9 LOCATION AND INSTALLATION: Location and installation of the wastewater disposal system shall be such that with reasonable maintenance it will function properly and will not create a nuisance, health hazard or endanger the quality of any waters of the State. Due consideration shall be given to the size and shape of the area in which the system is installed, slope of natural and finished grade, soil characteristics, maximum ground water elevation, proximity of existing or future water supplies or water courses, possible flooding

and expansion potential of the disposal system.

1.10 ISOLATION: The system shall be isolated as shown in Table 5-1.

TABLE 5-1

MINIMUM HORIZONTAL SEPARATION IN FEET
(Undisturbed Earth)

	Building Sewer	Septic Tank	Absorption Field Trench	Seepage Pit or trench	Absorption Bed
Drinking Water Supply Source					
Deep Well	(a) 100	100	100	100	100
Shallow Well or Spring	(b)	(b)	(b)	(b)	(b)
Domestic Water Supply Lines	(c)	10	10	10	10
Ponds, Lakes, Reservoirs and Water Courses					
	---	25	(d)	(d)	(d)
Foundation Walls	3	5	25	25	25
Land Drain					
Located upslope	---	10	20	20	20
Located downslope	---	25	100	100	100
Property Line	5	5	5	15	10
Seepage Pits (Trenches)					
	---	5	10	12 (e)	10
Absorption beds	---	5	10	10	10
Absorption fields	---	5	(f)	10	10

Footnotes:

(a) Sewers may be constructed within the 100 foot protective zone, provided the sewer construction meets the requirements of R309-106-2.3.4.

(b) It is recommended that the listed concentrated sources of pollution be located at least 1,500 feet from shallow wells and springs. Any proposal to locate closer than 1,500 feet will be reviewed on a case-by-case basis, taking into account geology, topography, existing land use agreements, designated use of water system (public or non-public) and potential for pollution of water sources. It is the responsibility of the water supply owner to establish an adequate protection zone in accordance with the applicable

drinking water rules. Even separation of 1500 feet or greater from concentrated sources of pollution will not guarantee suitability of the water supply system.

~~_____ (c) The requirements stated in R317-5-1.13(F) must be met.~~

~~_____ (d) A minimum of 100 feet is desirable, but may be modified to a lesser or greater distance, depending on soil conditions or mitigating measures such as lining the water course with impervious material.~~

~~_____ (e) Seepage pits or seepage trenches must be installed within an established absorption zone. The absorption zone will be sized based on the ratio of ground surface area "GSA" to the required sidewall area "SWA". The GSA/SWA ratio must be at least 2.5. The trenches and pits shall be installed within the absorption zone such that the spacing between trenches will be equal. Spacing of 12 feet (sidewall to sidewall) shall be a minimum. Distance to the edge or boundary of the established absorption zone shall be a minimum of 15 feet. The system must also conform to all other separation requirements identified in Table 5-1.~~

~~_____ The required sidewall area "SWA" shall be computed based on the design application rate with the associated soil type depicted in Table 5-8. The ground surface area identified within the absorption zone will be a minimum of 2.5 times the required sidewall area. An example of a typical seepage trench design with variation is available from the Division.~~

~~_____ (f) See Table 5-4.~~

~~_____ 1.11 CONSTRUCTION INSPECTION: Approval to operate the constructed/installed facilities shall be issued following a final inspection by a representative of the Department of Health. The facilities must be inspected after installation but prior to backfilling.~~

~~_____ 1.12 CONSTRUCTION MATERIALS: Materials used in construction of the system shall be durable, sound, and not unduly subject to corrosion. Pipe, pipe fittings and similar materials shall comply with the requirements of R309-100.~~

~~_____ 1.13 WASTEWATER DRAINAGE LINE OR BUILDING SEWER: Wastewater drainage lines (or building sewers) shall comply with R309-100, the Utah Plumbing Code, or meet the following requirements, whichever is more restrictive.~~

~~_____ A. Any generally accepted material will be given consideration, but material selected shall be suitable for local conditions to include soil characteristics, external loadings, abrasions and similar problems.~~

~~_____ B. The lines shall have a minimum inside diameter of 4 inches, in which case they shall be laid on a minimum slope of 1.25 percent. For sewer lines serving more than one dwelling unit, it is recommended that the line be sized greater than 4 inches in diameter. Lines of greater sizes should be designed for a minimum velocity of 2 feet per second based on the pipe flowing full. See R317-3 for calculation of flow velocities.~~

~~_____ C. The lines shall have cleanouts every 50 feet and at all changes in direction or grade, except where manholes are installed every 400~~

feet and at every change in direction or grade.

D. On 4-inch and 6-inch lines, two 45 degree bends with cleanout will be acceptable in lieu of a manhole, and 90 degree ells are not recommended.

E. The design of wastewater pump stations shall comply with the requirements contained in R317-3.

F. Lines shall be separated from water service pipes in separate trenches and by at least 10 feet horizontally. If the local conditions prevent a 10 foot separation, or when sewer lines must cross water lines, the two lines may be placed within the 10 feet of each other, provided:

1. The bottom of the water service pipe, at all points, shall be at least 18 inches above the top of the wastewater drainage line at its highest point.

2. The water service pipe shall be placed in a separate trench or the line should be placed on a shelf of undisturbed soil to one side of the sewer line trench.

3. The number of joints in the service pipe shall be kept to a minimum and the materials and joints of both the sewer line and water service line shall be of a strength and durability to prevent leakage under known adverse conditions. The joints between the two lines shall be staggered to the extent possible.

4. When it is impossible to obtain the proper horizontal and vertical separation as stipulated above, both the water and sewer line shall be constructed in accordance with the requirements of R309-112.2.

1.14 ESTIMATES OF WASTEWATER QUANTITY: The maximum daily wastewater flow to be disposed of should be determined as accurately as possible, preferably by actual measurement. Where this is not possible, Table 5-2 may be used to estimate the flow.

TABLE 5-2

ESTIMATED QUANTITY OF DOMESTIC WASTEWATER

TYPE OF ESTABLISHMENT	GALLONS PER DAY
Construction/work camps (semi-permanent)	60 per person
Resort camps with limited plumbing	60 per person
Country Clubs	25 per person
Dwellings	
a. Boarding house	60 per person
Additional kitchen waste for	
non-resident boarder	10 per person
b. Boarding schools	75-100 per person
c. Condominium	400 per unit
d. Mobile home	400 per unit
e. Single family dwelling	400 per day
f. Rooming House	40 per person
Highway Rest Areas (improved with	
restroom facilities)	5 per vehicle
Hospitals	250 per bed
Nursing Homes	200 per Bed
Institutions other than Hospitals	
and Nursing Homes	75-125 per person

Motels and Hotels	62 per person
Industrial Buildings (exclusive of — industrial waste)	15-35 per person
Launderette (self-service)	50 per load
Office Buildings	
— a. With cafeteria	25 per employee
— b. Without cafeteria	15 per employee
Recreational Vehicle Parks/ — Campgrounds	
— a. Sanitary stations for — self-contained Vehicles	50 per space
— b. Independent spaces (temporary — or transient with sewer — connections)	125 per space
— c. Dependent spaces (temporary — or transient with no sewer — connections) — with service building — including showers	125 per space 35 per person (Campground)
— (1) with service building — but no showers	85 per space 25 per person (Campground)
— d. Campground with no flush — toilets	5 per person
Restaurants	35 per seat
— a. Additional for bars and — cocktail lounges	2 per person
Schools	
— a. Boarding	75 per person
— b. Day, without cafeteria, — gymnasiums or showers	15 per person
— c. Day, with cafeteria, but — no gymnasium or shower	20 per person
— d. Day, with cafeteria, gymnasium — and shower	25 per person
Service Station (per vehicle served)	5 per vehicle
Ski Areas and Visitor Centers	5 per visitor

~~R317-5-2. Septic Tanks.~~

~~2.1 GENERAL REQUIREMENTS: Septic tanks shall be constructed of durable materials designed to withstand expected physical loads and corrosive forces. They shall be watertight and designed to provide settling of solids, accumulation of sludge and scum, and access for cleaning, as specified in the following paragraphs.~~

~~2.2 TANK CAPACITY: Septic tanks shall be sized on the following basis:~~

~~(1) $V = 1.5Q$ for Q less than or equal to 1500~~

~~(2) $V = 1125 + 0.75 Q$ for Q greater than 1500~~

~~V = liquid volume of tank in gallons~~

~~Q = (Maximum anticipated) wastewater discharge in gallons per day~~

~~2.3 TANK DIMENSIONS: In general, tank length should be at least~~

2 or 3 times the width. Liquid depth of tanks shall be at least 30 inches. A liquid depth greater than 6 feet shall not be considered in determining tank capacity.

2.4 TANK COMPARTMENTS: Septic tanks may be divided into compartments, or separate tanks may be installed in series, up to a maximum of 3, provided the following requirements are met:

A. The volume of the first compartment or tank must equal or exceed the volume of any other compartment.

B. No compartment or tank shall have an inside horizontal dimension less than 24 inches.

C. Inlets and outlets shall be designed as specified for tanks, except when a partition wall is used to form a multi-compartment tank. Under such conditions, an opening in the partition may be used to allow for flow between compartments, provided the minimum dimension of the opening is 4 inches, the cross-sectional area is not less than 30 square inches, and the mid-point is below the liquid surface a distance approximately equal to 40% of the liquid depth of the tank.

2.5 INLETS AND OUTLETS:

A. Inlets and outlets of tanks or compartments shall be submerged or baffled to divert incoming flow toward the tank bottom and minimize the discharge of sludge or scum in the effluent.

B. Sanitary Tees may be used in lieu of baffled inlet or outlet structures.

C. All outlet baffles shall extend below the liquid surface a distance equal to approximately 40% of the liquid depth. Space between the baffle top and the underside of the tank cover shall be at least 1 inch.

D. Scum storage volume shall consist of 15% or more of the required liquid capacity of the tank and shall be provided in the space between liquid surface and top of inlet devices, which shall be set at least 1 inch below the underside of the tank cover.

E. Inlets and outlets shall allow free venting of tank gases back through the drainage system.

F. The inlet invert shall be at least 1 inch above outlet invert.

2.6 ACCESS TO TANK:

A. Access to inlet and outlet devices shall be provided through properly placed openings not less than 18 inches in minimum horizontal dimension.

B. The top of the tank shall be at least 6 inches below finished grade.

C. If the top of the tank is located more than 18 inches below finished grade, all access openings required by sub-section (1) above, shall be extended to within 18 inches of the finished grade.

2.7 ABANDONED SEPTIC TANKS: Septic tanks, cesspools and seepage pits which are no longer in use shall be completely pumped and filled with sand or soil.

2.8 DISCHARGE TO ABSORPTION SYSTEM: Septic tank effluent shall be conducted to the absorption system through a watertight sewer line meeting the requirements for wastewater drainage lines as contained in R317-5-1.13(A), (B), and (F). Tees, wyes, or other distributing devices may be used as needed. If a distribution box is used, it shall be of sufficient size to accommodate the necessary distribution line connections. Outlet inverts shall be at the same elevation and at least 1 inch below the inlet invert. Conveyance to the absorption

system must be adequately sized to handle peak hydraulic flow.

R317-5-3. Absorption Systems.

3.1 GENERAL REQUIREMENTS:

A. Suitable soil exploration, to a depth of about 10 feet, or at least 4 feet below the bottom of the proposed absorption systems and percolation tests, shall be made to provide information on subsoil conditions. Percolation tests and soil exploration reports shall be completed and submitted as part of the engineering report for the disposal facility. After January 1, 2002, the soil evaluation and percolation tests must be done in accordance with certification requirements in R317-11. A minimum of 5 percolation tests must be conducted at different sites for each disposal system. Additional tests may be required, where necessary to adequately evaluate the total absorption system or where there is significant variability in test results. In general, the system will be sized based on the slowest stabilized percolation test rate. Soil logs should be prepared in accordance with the Unified Soil Classification System by a qualified individual. Requirements outlined in R317-5-4.1 and Table 5-8 will be helpful in developing this information.

B. Absorption devices, including seepage pits or trenches, placed in sloping ground should be so constructed that the horizontal distance between the distribution line and the ground surface is at least 10 feet.

C. Soil having excessively high permeability, such as gravel with large voids, affords little filtering and is unsuitable for absorption systems. Percolation rates (R317-5-4.1) of approximately 5 minutes per inch or less usually will not be acceptable.

The extremely fine-grained "blow sand" found in some parts of Utah is generally unsuitable for absorption systems and should be avoided. If no choice is available, systems may be constructed in such material, provided it is within the required percolation range specified in this code, and the required area is calculated on the minimum percolation rate (60 minutes per inch for absorption fields and 30 minutes per inch for absorption beds).

D. Absorption system excavations may be made by machinery provided that the soil in the bottom and sides of the excavation is not compacted. Strict attention shall be given to the protection of the natural absorption properties of the soil. Absorption systems shall not be excavated when the soil is wet enough to smear or compact easily. All smeared or compacted surfaces should be raked to a depth of one inch, and loose material removed before the filter material is placed in the absorption system excavation.

E. Effluent distribution lines or pipe shall be perforated and should consist of 4-inch diameter pipe of appropriate material which has demonstrated satisfactory results for the given application. The distribution pipe shall be bedded true to line and grade, uniformly and continuously supported on firm, stable material.

F. The coarse material in the absorption system shall consist of crushed stone, gravel, or similar material of equivalent strength and durability. It shall be free from fines, dust, sand or clay. The top of the stone or gravel shall be covered with a pervious material such as an acceptable synthetic filter fabric, a 2-inch compacted layer of straw, or similar material before being covered with earth

backfill to prevent infiltration of backfill into the stone or gravel.

G. Distribution pipes placed under driveways or other areas subjected to heavy loads shall receive special design considerations to insure against crushing or disruption of alignment. Absorption area under driveways or pavement shall not be considered in determining the minimum required absorption area.

H. Absorption systems shall be backfilled with earth that is free from debris and large rocks. The first 4 to 6 inches of soil backfill should be hand placed. Distribution pipes shall not be crushed or misaligned during backfilling. When backfilling, the earth should be mounded slightly above the surface of the ground to allow for settlement.

I. Heavy equipment shall not be driven in or over absorption systems during backfilling or after completion.

J. That portion of absorption system below the top of distribution pipes shall be in natural soil. Under unusual circumstances the Director may allow installation in acceptably stabilized earth fill. The earth fill and location will have to be evaluated on a case-by-case basis, taking into consideration the soil characteristics and degree of consolidation of the fill material.

K. Soil and Ground Water Requirements. In areas where absorption systems are to be constructed, soil cover must be adequate to insure at least 4 feet of soil between bedrock or any other impervious formation, and the bottom of absorption systems. Maximum ground water elevation must be at least 2 feet below the bottom of absorption systems and at least 4 feet below finished grade.

L. Replacement Area for Absorption System. Adequate and suitable land shall be reserved and kept free of permanent structures, traffic, or adverse soil modification for replacement of the absorption system. Suitability must be demonstrated through soil exploration and percolation tests results.

3.2 ABSORPTION FIELDS: Absorption fields are the preferred type of absorption system. They consist of a series of gravel-filled trenches provided with perforated pipes designed to distribute septic tank effluent into the gravel fill, from which it percolates through the trench walls and bottom into the surrounding sub-surface soil.

A. Design of absorption fields shall be as outlined in Tables 5-3 and 5-4.

TABLE 5-3
ABSORPTION FIELD CONSTRUCTION DETAILS

ITEMS	UNITS	MINIMUM	MAXIMUM
Number of lateral trenches		2	-
Length of trenches	Feet	-	100
Width of trenches	Inches	12	36
Slope of pipe (bottom)	In./100 ft.	Level	Level
Depth of coarse material:			
Under pipe	Inches	6	-
Under pipe located within			
10 ft. of trees	Inches	12	-
Over pipe	Inches	2	-
Size of coarse material	Inches	3/4	2-1/2

Depth of backfill over
coarse material _____ Inches _____ 6 _____

TABLE 5-4
SIZE AND MINIMUM SPACING FOR ABSORPTION FIELD TRENCHES

Minimum Spacing of Trenches Width of trench at bottom (inches)	wall to wall (ft.)
12 to 18	6.0
18 to 24	6.5
24 to 30	7.0
30 to 36	7.5

B. The minimum absorption area (total bottom area of trenches) of the absorption field shall be determined from the following equation but in no case the maximum allowable application rate shall exceed 2.2 gallons per square foot per day

$$Q = 5 / \text{square root of } t$$

Where Q = maximum rate of effluent application to the soil in gallons per square foot per day

t = stabilized percolation rate in minutes per inch

Percolation tests shall be performed as specified in R317-5-4.1. Rates in excess of 60 minutes per inch indicate a soil unsuitable for absorption field construction.

C. Wherever possible all trench bottoms should be constructed at the same elevation. Distribution pipes and trenches should be level and should be connected at both ends to provide a continuous system. If ground surface slope is too steep to permit a level installation, then a system of serial trenches following land contours should be used, with each trench and distribution pipe being constructed level but at a different elevation. A schematic diagram showing the recommended layout of trenches and distribution systems is available from the Director.

1. The system should include drop boxes which should generally conform to the detail in Appendix 1 and should operate in such a manner that a trench will be filled with wastewater to the depth of the gravel fill before the wastewater flows to the next lower trench. The drop boxes shall be watertight and should be provided with a means of access at the top.

2. The lines between the drop boxes should be a minimum of 4 inches in diameter and should be watertight with direct connections to the distribution box. They should be laid in a trench excavated through undisturbed earth to the exact depth required. Backfill should be carefully tamped.

3.3 ABSORPTION BEDS: Absorption beds consist of large excavated areas provided with gravel fill in which effluent distribution lines are laid. They may be used in place of absorption fields when trenches are not considered desirable, and shall conform to requirements applying to absorption fields, except for the following:

A. They shall comply with construction details specified in

Table 5-5.

TABLE 5-5 ABSORPTION BED CONSTRUCTION DETAILS			
ITEM	UNIT	MINIMUM	MAXIMUM
Distance between distribution lines	Feet	-	6
Distance between distribution lines and wall	Feet	-	3
Depth to bottom of bed	Feet	1-1/2	-
Size of coarse material	Inches	3/4	2-1/2
Depth of coarse material			
Under pipe	Inches	6	-
In bed within 10 ft. of trees	Inches	12	-
Over pipe	Inches	2	-
Depth of backfill over coarse material	Inches	6	-

B. Required absorption area (total bottom area of bed) shall be determined from the following equation, but in no case shall it exceed 1.1 gallons per square foot per day.

$$Q = 2.5/\text{square root of } t$$

Where Q = maximum rate of effluent application to the soil in gallons per square foot per day.

t = stabilized percolation rate in minutes per inch.

Percolation tests shall be performed as specified in R317-5-4.1. Rates in excess of 30 minutes per inch indicate a soil unsuitable for absorption bed construction.

3.3 SEEPAGE PITS: If absorption fields or beds are not feasible, seepage pits will be considered. These consist of deep pits which receive septic tank effluent and allow it to seep through sidewalls into the adjacent subsurface soil. Seepage pits may be either hollow lined or filled with clean coarse material. They shall conform to the following requirements:

A. Number and size of seepage pits required shall be determined by calculation of seepage rate into each stratum of soil encountered in pit sidewall by reference to Table 5-8. Only pervious side-wall area below the inlet shall be considered. In order to calculate a sidewall seepage rate a representative number of soil explorations shall be evaluated to adequately identify the type and depth of each soil stratum expected throughout the absorption area. In general, a minimum of 5 explorations will be evaluated. This information shall be provided in the engineering report.

B. For the purposes of confirming an appropriate sidewall seepage rate, the owner shall submit a statement describing the character

and thickness of each stratum of soil encountered during pit construction. Soil classification and assumed seepage rates shall be as specified in Table 5-8 except when valid seepage measurements are available.

C. The lining may be brick, stone, block or similar materials, at least 4 inches thick, laid in cement mortar above the inlet and with tight butted joints below the inlet. The annular space between the lining and the earth wall shall be filled with crushed rock or gravel varying in diameter from 3/4 inch to 2-1/2 inches.

D. A structurally sound and otherwise suitable top shall be provided. Structural design and materials used throughout shall assure a durable safe structure.

E. If more than one seepage pit is provided, the installation may be operated in series or parallel with distribution of effluent as specified in R317-5-2.1(G).

F. For hollow lined pits, the inlet pipe should extend horizontally at least 1 foot into the pit with a tee to divert flow downward and prevent washing and eroding the sidewall.

G. For filled pits a thin layer of crushed rock or gravel ranging from 3/4 to 2-1/2 inches in diameter, free from fines, sand, clay or organic material shall cover the coarse material to permit leveling of the distribution pipe.

TABLE 5-6
SEEPAGE PITS CONSTRUCTION DETAILS

ITEM	UNIT	MINIMUM	MAXIMUM
Generals			
Distance between seepage pits	feet	12 (a)	-
Diameter of distribution pipe	inches	4	-
Size of coarse material	inches	3/4	12
Bottom of pit to maximum ground water	feet	2	-
Bottom of Pit in unsuitable soil or bedrock formations	feet	4	-
Hollow-lined Pits:			
Width of annular space between lining and sidewall containing crushed rock (3/4 to 2-1/2 inches in diameter)	inches	6	-
Thickness of brick, or block linings	inches	4 (b)	-
Filled Pits:			
Depth of coarse material: Under pipe	feet	4	-

Over distribution pipe	inches	2
Depth of backfill over material	inches	6

Footnotes:

- (a) See Table 5-1
- (b) Pre-manufactured linings may be approved with thicknesses less than 4 inches.

3.5 SEEPAGE TRENCHES (MODIFIED SEEPAGE PITS):

Seepage trenches are considered as modified seepage pits and consist of deep trenches filled with clean, coarse material. They shall conform to the requirements applying to seepage pits except for the following:

A. The effective sidewall absorption area shall be considered as the outside surface of the seepage trench (vertical sidewall area) calculated below the inlet or distribution pipe. Only pervious sidewall area below the inlet shall be considered.

TABLE 5-7
SEEPAGE TRENCH DETAIL

ITEM	UNIT	MINIMUM	MAXIMUM
Seepage trench width	feet	2	-
Seepage trench length	feet	-	100
Effluent Distribution pipe			
Diameter	inches	4	-
Slope	percent	level	level
Distance between seepage trenches	feet	12(a)	-

Footnote:

- (a) See Table 5-1.

TABLE 5-8
SEEPAGE TRENCHES AND PITS
ALLOWABLE SIDEWALL SEEPAGE RATES

SYMBOL AND CHARACTER OF SOIL BY UNIFIED SOIL CLASSIFICATION SYSTEM	GALLONS/ DAY/ SQ. FT.
Hardpan or bedrock (including fractured bedrock with little or no fines).	0
GW Well graded gravels, gravel-sand mixtures little or no fines.	1.55
GP Poorly graded gravels or gravel-sand mixtures, little or no fines.	1.55

SW	Well graded sands, gravelly sand, little or no fines.	1.20
SP	Poorly graded sands or gravelly sands, little or no fines.	1.20
SM	Silty sand, sand-silt mixtures.	0.8
GM	Silty gravels, poorly graded gravel-sand-silt mixtures.	1.0
GC	Clayey gravels, gravelly-sand-clay mixtures.	0.45(a)
SC	Clayey sands, sand-clay mixtures.	0.45(a)
ML	Inorganic silts and very fine sand, rock flour, silt or clayey fine sands or clayey silts with slight plasticity.	0.45(a)
MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.	0.45(a)(b)
CL	Inorganic clays or low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.	0.45(a)(b)
CH	Inorganic clays of high plasticity, fat clays.	0
OL	Organic silts and organic silty clays of low plasticity.	0
OH	Organic clays of medium to high plasticity, organic silts.	0
PT	Peat and other highly organic silts.	0
Other	Impervious formations.	0

Footnotes:

(a) For the purpose of this table, whenever there are reasonable doubts regarding the suitability and estimated absorption capacities of soils, percolation tests shall be conducted in those soils in accordance with R317-4-1. Soils within the same classification may exhibit extreme variability in permeability, depending on the amount and type of clay and silt present. The following soils categories, SC, GC, and ML, MH and CL

soils, may prove unsatisfactory for absorption systems, depending upon the percentage and type of fines present.

(b) These soils are usually considered unsuitable for absorption systems, but may be suitable, depending upon the percentage and type of fines in coarse-grained porous soils, and the percentage of sand and gravels in fine-grained soils.

R317-5-4. Percolation Tests.

A. General Requirements.

1. A percolation test measures the rate which subsurface soil absorbs water for the purpose of identifying porous soil strata and site suitability for absorption systems, and is also a basis for estimating the design criteria of such systems to insure a reasonably long lifespan.

2. While percolation tests constitute a valuable guide for successful operation of disposal systems, considerable judgment must be used in applying the results. Percolation test results shall not be presumptive, prima facie, or conclusive evidence as to the suitability for absorption systems. Such percolation tests may be considered and analyzed as one of many criteria in determining soil suitability for absorption systems. There is no need for conducting percolation tests when the soil or other site conditions are clearly unsuitable.

3. When percolation tests are made, such tests shall be made at points and elevations selected as typical of the area in which the absorption system will be located. Consideration should be given to the finished grades of building sites so that test results will represent the percolation rate of the soil in which absorption systems will be constructed. After the suitability of any area to be used for absorption systems has been evaluated and approved for construction, no grade changes shall be made to this area unless the health authority is notified and a reevaluation of the area's suitability is made prior to the initiation of construction.

B. Required Test Procedures.

1. Test results when required shall be considered an essential part of plans for absorption systems and shall be submitted on a signed "Percolation Test Certificate" or equivalent, certifying that the tests were conducted in accordance with these requirements, and indicating the depth and rate of each test in minutes per inch, the date of the tests, the logs of the soil exploration pits, a statement of the present and maximum ground water table, and all other factors affecting percolation test results. Percolation tests shall be conducted at the owner's expense by or under the supervision of a registered sanitarian, registered engineer, or other qualified person approved by the health authority in accordance with the following:

(a) Conditions Prohibited for Test Holes.

Percolation tests shall not be conducted in test holes which extend into ground water, bedrock, or frozen ground. Where a fissured soil formation is encountered, tests shall be made under the direction of the health authority.

(b) Number and Location of Percolation Tests.

One or more tests shall be made in separate test holes on the proposed absorption system site to assure that the results are representative of the soil conditions present.

Where questionable or poor soil conditions exist, the number of percolation tests and soil explorations necessary to yield accurate, representative information shall be determined by the health authority and may be accepted only if conducted with an authorized representative present.

(c) Type, Depth, and Dimensions of Test Holes.

Test holes shall be dug or bored, preferably with hand tools such as shovels or augers, etc., and shall have horizontal dimensions ranging from 4 to 18 inches (preferably 8 to 12 inches). The vertical sides shall be at least 12 inches deep, terminating in the soil at an elevation 6 inches below the bottom of the proposed absorption system.

2. Test Procedure for Sandy or Granular Soils

For tests in sandy or granular soils containing little or no clay, the hole shall be carefully filled with clear water to a minimum depth of 12 inches over the gravel and the time for this amount of water to seep away shall be determined. The procedure shall be repeated and if the water from the second filling of the hole at least 12 inches above the gravel seeps away in 10 minutes, or less, the test may proceed immediately as follows:

(a) Water shall be added to a point not more than 6 inches above the gravel.

(b) Thereupon, from the fixed reference point, water levels shall be measured at 10 minute intervals for a period of 1 hour.

(c) If 6 inches of water seeps away in less than 10 minutes a shorter time interval between measurements shall be used, but in no case shall the water depth exceed 6 inches.

(d) The final water level drop shall be used to calculate the percolation rate.

3. Test Procedure for Other Soils Not Meeting the Above Requirements.

The hole shall be carefully filled with clear water and a minimum depth of 12 inches shall be maintained above the gravel for at least a 4-hour period by refilling whenever necessary. Water remaining in the hole after 4 hours shall not be removed. Immediately following the saturation period, the soil shall be allowed to swell not less than 16 hours or more than 30 hours. Immediately following the soil swelling period, the percolation rate measurements shall be made as follows:

(a) Any soil which has sloughed into the hole shall be removed and water shall be adjusted to 6 inches over the gravel.

(b) Thereupon, from the fixed reference point, the water level shall be measured and recorded at approximately 30 minute intervals for a period of 4 hours unless 2 successive water level drops do not vary more than 1/16 of an inch and indicate that an approximate stabilized rate has been obtained.

(c) The hole shall be filled with clear water to a point not more than 6 inches above the gravel whenever it becomes nearly empty.

(d) Adjustments of the water level shall not be made during the last 3 measurement periods except to the limits of the last water level drop.

(e) When the first 6 inches of water seeps away in less than 30 minutes, the time interval between measurements shall be 10 minutes, and the test run for 1 hour.

~~_____ (f) The water depth shall not exceed 6 inches at any time during the measurement period.~~

~~_____ (g) The drop that occurs during the final measurement period shall be used in calculating the percolation rate.~~

~~_____ 4. Calculation of Percolation Rate.~~

~~_____ The percolation rate is equal to the time elapsed in minutes for the water column to drop, divided by the distance the water dropped in inches or fractions thereof.~~

~~_____ 5. Using Percolation Rate to Determine Absorption Area.~~

~~_____ The minimum or slowest percolation rate shall be used in calculating the required absorption area.~~

~~_____ C. Recommendations to Enhance Test Procedures.~~

~~_____ 1. Soil Exploration Pit Prerequisite to Percolation Tests.~~

~~_____ Since the appropriate percolation test depth depends on the soil conditions at a specific site, the percolation test should be conducted only after the soil exploration pit has been dug and examined for suitable and porous strata and ground water table information. Percolation test results should be related to the soil conditions found.~~

~~_____ 2. Test Holes to Commence in Specially Prepared Excavations.~~

~~_____ All percolation test holes should commence in specially prepared larger excavations (preferably made with a backhoe) of sufficient size which extend to a depth approximately 6 inches above the strata to be tested.~~

~~_____ 3. Preparation of Percolation Test Hole. Carefully roughen or scratch the bottom and sides of the hole with a knife blade or other sharp pointed instrument in order to remove any smeared soil surfaces and to provide an open, natural soil interface into which water may percolate. Nails driven into a board will provide a good instrument to scarify the sides of the hole. Remove all loose soil from the bottom of the hole. Add up to 3 inches of clean coarse sand or pea-sized gravel to protect the bottom from scouring or sealing with sediment when water is added.~~

~~_____ Caving or sloughing in some test holes can be prevented by placing in the test hole a wire cylinder or perforated pipe surrounded by clean coarse gravel.~~

~~_____ 4. Saturation and Swelling of the Soil. It is important to distinguish between saturation and swelling. Saturation means that the void spaces between soil particles are full of water. This can be accomplished in a relatively short period of time. Swelling is a soil volume increase caused by increase intrusion of water into the individual soil particles. This is a slow process, especially in clay-type soil, and is the reason for requiring a prolonged swelling period.~~

~~_____ 5. Placing Water in Test Holes.~~

~~_____ Water should be placed carefully into the test holes by means of a small-diameter siphon hose or other suitable method to prevent washing down the side of the hole.~~

~~_____ 6. Percolation Rate Measurement, General.~~

~~_____ Necessary equipment should consist of a tape measure (with at least 1/16-inch calibration) or float gauge and a time piece or other suitable equipment. All measurements shall be made from a fixed reference point near the top of the test hole to the surface of the water.~~

]R317-5. Large Underground Wastewater Disposal (LUWD) Systems.

R317-5-1. Authority, Purpose, Scope, Jurisdiction, Waiver Approval and Administrative Requirements.

1.1. Authority.

Construction and operating permits and approvals are issued pursuant to the provisions of Utah Water Quality Act Sections 19-5-104, 19-5-106, 19-5-107 and 19-5-108. Violation of these permits or approvals including compliance with the conditions thereof, or beginning construction, or modification without the director's approval, is subject to the penalties provided in Section 19-5-115.

1.2. Purpose.

A. The purpose of this rule is to protect the public health and the environment from potential adverse effects from large underground wastewater disposal systems within the boundaries of Utah.

B. This rule incorporates specific provisions contained in Rule R317-4 that are referenced herein, and pertinent to large underground wastewater disposal (LUWD) systems for the purpose of providing minimum design standards. Where the engineered design includes information supporting a deviation from the minimum requirements within this rule or referenced to in Rule R317-4, then the engineer may request a waiver. This rule also establishes the administrative requirements for obtaining from the division a LUWD system:

1. approval-in-concept;
2. construction permit;
3. authorization to use; and
4. operating permit

1.3 Scope.

This rule applies to large underground wastewater disposal systems designed to handle more than 5,000 gallons per day of domestic wastewater, or wastewater that originates in multiple units under separate ownership (except condominiums), or any other underground wastewater disposal system not covered under the definition of an onsite wastewater system per Rule R317-4.

A. The engineer shall use recognized practice standards for wastewater treatment to increase long term performance and lessen potential impacts to public health and the environment. Depending on site-specific characteristics, the division may require a LUWD system to pretreat effluent prior to disposal in the absorption system. In general, systems with high waste strength or flows over 15,000 gpd should consider pretreatment. Factors that should be evaluated include, but are not limited to, the following:

1. design flow (gpd)
2. highly variable flows, including seasonal fluctuations;
3. wastewater strength characteristics;
4. site characteristics.
5. proximity to ground water table, considering various soil types and separation distance;
6. ground water classification;
7. proximity to nearby drinking water sources, or location within a drinking water source protection zone; and
8. anticipated system life expectancy.

1.4. Jurisdiction. Large underground wastewater disposal systems are under the jurisdiction of the Division of Water Quality. Local Health Departments may petition the division to require local review for compliance with local requirements prior to the division initiating its review.

1.5 Waiver.

The director may grant a waiver from the minimum requirements stated in this rule, subject to site-specific consideration and justification, but not overriding the safeguarding of public health, protection of water quality or engineering practice. The intent of the waiver is to allow the engineer to utilize site specific information, recognized practice standards, or other acceptable justification while designing an appropriate LUWD system for the property. The engineer is encouraged to discuss waivers with the division staff prior to formal application for feasibility determination review.

R317-5-2. Definitions.

2.1. Definitions found in Rules R317-1 and R317-4 apply to large underground wastewater disposal systems except where specifically replaced by the following definitions:

"Alternative system" means a LUWD system that is not a conventional system.

"Building sewer" means the pipe that carries wastewater from the building to a public sewer, a LUWD system, or other point of dispersal. It sometimes is synonymous with "house sewer".

"Conventional system" means a LUWD system typically consisting of a building sewer, septic tank, and an absorption system utilizing absorption trenches, absorption beds, or deep wall trenches.

"Curtain drain" means any ground water interceptor or drainage system that is backfilled with gravel or other suitable material and is intended to interrupt or divert the course of shallow ground water or surface water away from the LUWD system.

"Malfunctioning or failing system" means a LUWD system that is not functioning in compliance with the requirements of this rule and may include:

1. absorption systems that seep or flow to the surface of the ground or into waters of the state;
2. systems that overflow from any of their components;
3. systems that cause backflow into any portion of a building drainage system;
4. systems discharging effluent that does not comply with applicable effluent discharge standards of its operating permit;
5. leaking septic tanks; or
6. noncompliance with standards stipulated in or by the construction permit, operating permit, or both.

"Maximum ground water table" means the highest elevation that the top of the "ground water table" or "ground water table, perched" is expected to reach for any reason over the full operating life of a LUWD system at that site.

"Mound system" means an alternative LUWD system where the bottom of the absorption system is placed above the elevation of the original site, and the absorption system is contained in a mounded fill body above that grade.

"Packed bed media system" means an alternative LUWD system that uses natural or synthetic media to treat wastewater. Biological treatment is facilitated via microbial growth on the surface of the media. The system may include a pump tank, a recirculation tank, or both.

"Public health hazard" means, for the purpose of this rule, a condition whereby there are sufficient types and amounts of biological, chemical, or physical agents relating to water or sewage that are likely to cause human illness, disorders or disability. These may include pathogenic viruses and bacteria, parasites, toxic chemicals and radioactive isotopes. A malfunctioning LUWD system constitutes a public health hazard.

"Sand lined trench system" means an alternative LUWD system consisting of a series of narrow excavated trenches utilizing sand media and pressure distribution.

"Unapproved LUWD system" means any LUWD system that is deemed by the division to be any of the following:

1. installation without the required division oversight, permits, or inspections;
2. repairs to an existing system without the required division oversight, permits, or inspections; or
3. alteration to an existing system without the required division oversight, permits, or inspections.

"Waiver" means an acceptable deviation from the requirements established within this rule or referenced rules. The waiver must be acceptable to division staff based on the engineer providing adequate design justification to demonstrate that the deviation proposed will not override the safeguarding of public health, the protection of water quality, or the protection of the receiving environment. Waiver requests should be based on acceptable engineering practice and standards.

R317-5-3. General Standards, Prohibitions, Requirements, and Enforcement.

3.1. Failure to Comply With Rules.

Any person failing to comply with this rule shall be subject to enforcement action as specified in Sections 19-5-115 and 26A-1-123.

3.2. Feasibility.

LUWD systems are not feasible in some areas and situations. If property characteristics indicate conditions that may fail in any way to meet the requirements specified herein, the use of a LUWD system shall be prohibited.

3.3. Prohibited Flows.

No ground water drainage, drainage from roofs, roads, yards, or other similar sources shall discharge into any portion of a LUWD system, but shall be disposed of so they will in no way affect the system. Non-domestic wastes such as chemicals, paints, or other substances that are detrimental to the proper functioning of a LUWD system may not be disposed of in such systems.

3.4. Increased Flows Prohibited.

Wastewater flow may not exceed the design flow of a LUWD system.

3.5. Property Lines Crossed.

Privately owned LUWD systems, including replacement areas, shall be located on the same lot as the building served unless, when approved by the division, a perpetual utility easement and right-of-way is established and recorded on an adjacent or nearby lot for the construction, operation, and continued maintenance, repair, alteration, inspection, relocation, and replacement of a LUWD system, including all rights to ingress and egress necessary or convenient for the full or complete use, occupation, and enjoyment of the granted easement. The easement shall be large enough to accommodate the proposed LUWD system and replacement area. The easement shall meet the setbacks specified in Section R317-4-13 Table 2.

3.6. Initial Absorption Area and Replacement Area.

A. All properties that utilize LUWD systems shall be required to have a replacement area.

B. The absorption area, including installed system and replacement area, may not be subject to activity that is likely to adversely affect the soil or the functioning of the system. This may include vehicular traffic, covering the area with asphalt, concrete, or structures, filling, cutting or other soil modifications.

3.7. Operation and Maintenance.

Owners of a LUWD systems shall operate, maintain, and service their systems according to the standards of this rule.

3.8. No Discharge to Surface Waters or Ground Surface.

Effluent from any LUWD system may not be discharged to surface waters or upon the surface of the ground. Wastewater may not be discharged into any abandoned or unused well, or into any crevice, sinkhole, or similar opening, either natural or artificial.

3.9. Repair of a Malfunctioning or Unapproved System.

Upon determination by the regulatory authority that a malfunctioning or unapproved LUWD wastewater system creates or contributes to any dangerous or unsanitary condition that may involve a public health hazard, or noncompliance with this rule, the regulatory authority shall order the owner to take the necessary action to cause the condition to be corrected, eliminated or otherwise come into compliance.

A. For malfunctioning systems, the regulatory authority shall require and order:

1. all necessary steps, such as maintenance, servicing, repairs, and replacement of system components to correct the malfunctioning system, to meet all rule requirements to the extent possible and may not create any new risk to the environment or public health;

2. effluent quality testing as required by Subsection R317-5-9.2.D;

3. evaluation of the system design including non-approved changes to the system, the wastewater flow, and biological and chemical loading to the system;

4. additional tests or samples to troubleshoot the system malfunction.

3.10. Procedure for Wastewater System Abandonment. Whenever the use of a LUWD system has been abandoned or discontinued, the owner of the real property on which such wastewater system is located

shall render it safe by having the septic tank, any other tanks, hollow seepage pit, or cesspool wastes pumped out or otherwise disposed of in an approved manner. Within 30 days the tanks shall be:

- A. crushed in place and the void filled;
- B. completely filled with earth, sand, or gravel; or
- C. removed and backfilled.

3.11. Septage Management.

A person shall only dispose of septage, or sewage contaminated materials in a location or manner in accordance with the requirements of the division and any local agencies having jurisdiction.

3.12. Multiple Units Under Separate Ownership (except condominiums).

The common components of the LUWD system, including the reserve absorption area, shall be under the sponsorship of a body politic.

A. The subsurface absorption system shall be designed and constructed to provide duplicate capacity, meaning two independent systems. Each system shall be designed to accommodate the total anticipated maximum daily flow. The duplicate system shall be designed with appropriate valving, etc., to allow for periodic alternation of the use of each system.

B. Sufficient land area with suitable characteristics shall be planned and available to provide for a third absorption system capable of handling the total maximum daily wastewater flow. This area shall be kept free of permanent structures, traffic or soil modification.

3.13. Underground Injection Control.

Large underground wastewater disposal (LUWD) systems with design flow rates of 5,000 gallons per day or more are co-regulated by the Utah 1422 Underground Injection Control (UIC) Program in Rule R317-7. LUWD systems are authorized-by-rule under the UIC program provided they remain in compliance with the construction and operating permits issued according to Rule R317-5. However, if any noncompliance with these permits results in the potential for or demonstration of actual exceedance of any Utah Maximum Contaminant Levels (MCLs) in a receiving ground water, the noncompliance may also be a violation of the Utah UIC administrative rules and therefore be subject to enforcement action. Owners and operators of a large underground wastewater disposal system are required to submit UIC inventory information according to Subsection R317-7-6.4(C) using the approved form for a LUWD system.

R317-5-4. Feasibility Determination and Approval-in-Concept.

4.1. General Criteria for Determining LUWD System Feasibility.

The division shall determine the feasibility of using a LUWD system. Upon favorable determination for feasibility an approval-in-concept will be granted by the division.

A. General Information. The required information shall include:

- 1. situs address if available;
- 2. name and address of the property owner and person requesting feasibility;

3. the location, type, and depth of all existing and proposed private and public drinking water wells, and other water supply sources within 1500 feet of the proposed LUWD system;

4. the location of all drinking water source protection zones delineated on the project site;

5. the location of all existing creeks, drainages, irrigation ditches, canals, and other surface and subsurface water conveyances within 1500 feet of the proposed LUWD system;

6. the location and distance to nearest sewer, owner of sewer, whether property is located within service boundary, and size of sewer; and

7. statement of proposed use if other than a single-family dwelling.

B. If the proposed LUWD system is located in aquifer recharge areas or areas of other particular geologic concern, the division may require such additional information relative to ground water movement, or possible subsurface wastewater flow.

C. Soil and Site Evaluation.

1. Soil Exploration Pit and Percolation Test.

a. A minimum of five soil exploration pits shall be excavated to allow the evaluation of the soils. The soil exploration pits shall be constructed and soil logs recorded as detailed in Section R317-4-14 Appendix C.

b. The division may require percolation tests in addition to the soil exploration pits.

c. The division may require additional pits, tests, or both where:

i. soil structure varies;

ii. limiting geologic conditions are encountered; or

iii. the division deems it necessary.

d. The percolation test shall be conducted as detailed in Section R317-4-14 Appendix D.

e. Soil exploration pits and percolation tests shall be conducted as closely as possible to the proposed absorption system site. The division shall have the option of inspecting the open soil exploration pits and monitoring the percolation test procedure.

All soil logs and percolation test results shall be submitted to the division.

f. When there is a substantial discrepancy between the percolation rate and the soil classification, it shall be resolved through additional soil exploration pits, percolation tests, or both.

g. Absorption system feasibility and sizing shall be based on Section R317-4-13 Table 5 or 6.

2. Wind-Blown Sand.

The extremely fine grained wind-blown sand found in some parts of Utah shall be deemed not feasible for LUWD systems unless pretreatment is provided, as percolation test results in wind-blown sand will generally be rapid, but experience has shown that this soil has a tendency to become sealed with minute organic particles within a short period of time.

3. Suitable Soil Depth.

For conventional systems, effective suitable soil depth shall extend at least 48 inches or more below the bottom of the dispersal system to bedrock formations, impervious strata, or excessively

permeable soil. Some alternative LUWD systems may have other requirements.

4. Ground Water Requirements.

The elevation of the anticipated maximum ground water table shall meet the separation requirements of the anticipated absorption systems.

a. Maximum Ground Water.

Maximum ground water table shall be determined where the anticipated maximum ground water table, including irrigation induced water table, might be expected to rise closer than 48 inches to the elevation of the bottom of a LUWD system. Maximum ground water table shall be determined where alternative LUWD wastewater systems may be considered based on groundwater elevations. The maximum ground water table shall be determined by the following.

i. Regular monitoring of the ground water table, or ground water table, perched, in an observation well for a period of one year, or for the period of the maximum groundwater table.

(1) Previous ground water records and climatological or other information may be consulted for each site proposed for a LUWDS system and may be used to adjust the observed maximum ground water table elevation.

ii. Direct visual observation of the maximum ground water table in a soil exploration pit for:

(1) evidence of crystals of salt left by the maximum ground water table; or

(2) chemically reduced iron in the soil, reflected by redoximorphic features i.e., a mottled coloring.

(3) Previous ground water records and climatological or other information may be consulted for each site proposed for a LUWD system and may be used to adjust the observed maximum ground water table elevation in determining the anticipated maximum ground water table elevation.

iii. In cases where the anticipated maximum ground water table is expected to rise to closer than 34 inches from the original ground surface and an alternative LUWD system would be considered, previous ground water records and climatological or other information shall be used to adjust the observed maximum ground water table in determining the anticipated maximum ground water table.

b. Curtain Drains.

A curtain drain or other effective ground water interceptor may be allowed as an attempt to lower the groundwater table to meet the requirements of this rule. The division shall require that the effectiveness of such devices in lowering the ground water table be demonstrated during the season of maximum ground water table.

5. Ground Slope.

Absorption systems may not be placed on slopes where the addition of fluids is judged to create an unstable slope.

a. Absorption systems may be placed on slopes between 0% and 25%, inclusive.

b. Absorption systems may be placed on slopes greater than 25% but not exceeding 35% if:

i. all other requirements of this rule can be met;

ii. effluent from the proposed system will not contaminate ground water or surface water, and will not surface or move off site

before it is adequately treated to protect public health and the environment;

iii. no slope will fail, and there will be no other landslide or structural failure if the system is constructed and operated adequately, even if all properties in the vicinity are developed with a LUWD system; and

iv. a report is submitted by a professional engineer or professional geologist that is licensed to practice in Utah. The report shall be imprinted with the engineer's or geologist's registration seal and signature and shall include the following.

(1) Predictions and supporting information of ground water transport from the proposed system and of expected areas of ground water mounding.

(2) A slope stability analysis that shall include information about the geology of the site and surrounding area, soil exploration and testing, and the effects of adding effluent.

(3) The cumulative effect on slope stability of added effluent if all properties in the vicinity were developed with LUWD systems.

c. Absorption systems may not be placed on slopes greater than 35%.

6. Other Factors Affecting a LUWD System Feasibility.

a. The locations of all rivers, streams, creeks, dry or ephemeral washes, lakes, canals, marshes, subsurface drains, natural storm water drains, lagoons, artificial impoundments, either existing or proposed, that will affect building sites, shall be provided.

b. Areas proposed for LUWD wastewater systems shall comply with the setbacks in Section R317-4-13 Table 2.

c. If any part of a property lies within or abuts a flood plain area, the flood plain shall be shown within a contour line and shall be clearly labeled on the plan with the words "flood plain area".

7. Unsuitable.

Where soil and other site conditions are clearly unsuitable for the placement of a LUWD system, there is no need for conducting soil exploration pits or percolation tests.

R317-5-5. Engineering Reports, Plans and Construction Permits.

All engineering reports, plans and specifications shall be prepared by a registered professional engineer licensed to practice in the State of Utah and certified Level 3 in accordance with Rule R317-11.

5.1 Engineering Report.

An engineering report shall be submitted which shall contain design criteria along with all other information necessary to clearly describe the proposed project and demonstrate project feasibility as described in feasibility determination and approval-in-concept of Section R317-5-4.

5.2. Plan Review.

Submission of plans for review. Plans for new, alterations, repairs and replacements of large underground wastewater disposal systems shall be submitted to the division for review as required by Rule R317-1 and include the following:

A. Local Health Departments Requirements.

It is the applicant's responsibility to ensure that a LUWD System application to the division is in compliance with local health department requirements regarding the location, design, construction and maintenance of a LUWD system prior to the applicant submitting a request for a construction permit to the division. Where the petition has been approved by the director, the applicant is required to submit documentation that the local health department has approved the proposed LUWD system before a construction permit may be issued.

B. Information Required.

Plans submitted for review shall be drawn to scale, 1" = 10', 20' or 30', or other scale as approved by the division. Plans shall be prepared in such a manner that the contractor can read and follow them in order to install the system properly. Depending on the individual site and circumstances, or as determined by the division, some or all of the following information may be required.

1. Applicant Information.

a. The name, current address, and telephone number of the applicant.

b. Complete address, legal description of the property, or both to be served by this LUWD system.

2. LUWD System Site Plan.

a. Submittal date of plan.

b. North arrow.

c. Lot size and dimensions.

d. Legal description of property.

e. Ground surface contours, preferably at 2 foot intervals, of both the original and proposed final grades of the property, or relative elevations using an established bench mark.

f. Location and explanation of type of dwelling(s) or structure(s) to be served by a LUWD system.

g. Location and dimensions of paved and unpaved driveways, roadways and parking areas.

h. Location and dimensions of the essential components of the wastewater system including the replacement area for the absorption system.

i. Location of all soil exploration pits and all percolation test holes.

j. Location of building sewer and water service line to serve the building.

k. Location of sewer mains, manholes, clean-outs, and other appurtenances.

l. Location of easements or drainage right-of-ways affecting the property.

m. Location of all intermittent or year-round streams, ditches, watercourses, ponds, subsurface drains, etc. within 100 feet of proposed LUWD system.

n. The location, type, and depth of all existing and proposed water supply sources

o. Delineation of all drinking water source protection zones located on the project site.

p. Distance to nearest public water main and size of main.

q. Distance to nearest public sewer, size of sewer, and whether accessible by gravity.

3. Statement with Site Plan.

Statement indicating the source of culinary water supply, whether a well, spring, non-public or public system, its location and distances from all LUWD systems.

4. Soil Evaluation.

a. Soil Logs, Percolation Test Certificates, or both.

b. Statement with supporting evidence indicating the maximum anticipated ground water table and the flooding potential for LUWD system sites.

5. Relative Elevations.

Show relative elevations of the following, using an established bench mark.

a. Building drain outlet.

b. The inlet and outlet inverts of any septic tanks.

c. Septic tank access cover, including height and diameter of riser, if used.

d. Pump tank inlet, if used, including height and diameter of riser.

e. The outlet invert of the distribution box, if provided, and the ends or corners of each distribution pipe lateral in the absorption system.

f. The final ground surface over the absorption system.

6. System Design.

Details for said site, plans, and specifications are listed in Design in Section R317-4-6.

a. Schedule or grade, material, diameter, and minimum slope of building sewer and effluent sewer.

b. Septic tank and pump tank capacity, design, cross sections, etc., materials, and dimensions. If tank is commercially manufactured, state the name and address of manufacturer.

c. Absorption system details, including the following:

i. details of drop boxes or distribution boxes, if provided;

ii. schedule or grade, material, and diameter of distribution pipes;

iii. length, slope, and spacing of each absorption system component;

iv. maximum slope across ground surface of absorption system area;

v. distance of absorption system from trees, cut banks, fills, or subsurface drains; and cross section of absorption system showing the:

(1) depth and width of absorption system excavation;

(2) depth of distribution pipe;

(3) depth of filter material;

(4) barrier material, i.e., synthetic filter fabric, straw, etc., used to separate filter material from cover; and

(5) depth of cover.

d. Pump, if provided, details as referenced in Section R317-4-14 Appendix B.

e. If an alternative LUWD system is designed, include all pertinent information to allow plan review and permitting for compliance with this rule.

C. Plans Submitted.

1. All applicants requesting plan approval for a LUWD shall submit two copies of the above required information to enable the division to retain one copy as a permanent record.

2. Applications may be rejected if proper information is not submitted.

5. 3. Construction Permit Required.

No person shall make or construct any device for treatment or discharge of wastewater without first receiving a permit to do so from the director.

R317-5- 6. Design Requirements.

6.1. Shall meet the requirements of Section R317-4-6, with these exceptions:

A. When a LUWD serves multiple single family dwellings the wastewater flow shall be estimated at 400 gpd per dwelling.

B. Minimum separation distance from the bottom of the absorption trenches to the anticipated maximum ground water table is 48 inches.

If a mound, sand lined trench, or packed bed pretreatment unit is designed and installed on the LUWD system, the horizontal separation distance may be reduced to 24 inches.

6.2. Components Required in a LUWD System:

A. A septic tank;

B. An effluent filter;

C. A pressurized subsurface disposal system.

1. This may be an absorption field, deep wall trenches, absorption beds, or, for packed bed media applications, drip irrigation dispersal, depending on location, topography, soil conditions and maximum ground water level.

2. Pressurized systems require cleanouts at the end of pressurized laterals and typically require a dosing chamber or dosing tank.

3. The Utah Guidance for Performance, Application, Design, Operation & Maintenance: Pressure Distribution Systems document shall be used for design requirements, along with the following:

a. Dosing pumps, controls and alarms shall comply with Section R317-4-14 Appendix B.

b. Pressure distribution piping.

i. All pressure transport, manifold, lateral piping, and fittings shall meet PVC Schedule 40 standards or equivalent.

ii. The ends of lateral piping shall be constructed with sweep elbows or an equivalent method to bring the end of the pipe to the final grade. The ends of the pipe shall be provided with threaded plugs, caps, or other devices acceptable to the division to allow for access and flushing of the lateral.

D. Accessibility components to insure proper maintenance and servicing. These include that all tanks shall have access risers to the surface of the ground; and absorption field inspection ports.

E. Additional components may also be required depending on the waste stream characteristics and the need to provide adequate protection to groundwater. These components may include pretreatment devices such as grease traps, or may involve secondary treatment using packed bed media systems.

R317-5-7. Construction and Installation.

Shall meet the requirements of Section R317-4-7.

R317-5-8. Final Inspection and Authorization to Use.

8.1. Final inspection.

Upon completion of construction, but before backfilling, the system designer must notify the division of completion and schedule a final inspection with the division. Where the local health department has the authority to issue operating permits they shall be included in the final inspection. The final inspection shall meet the requirements of Section R317-4-8. No wastewater may be introduced into a LUWD system until an authorization to use has been issued by the division.

8.2. Authorization to Use

The following documents, sealed by the engineer, must be provided to the division in order to receive authorization to use:

A. Written certification that the system was installed in accordance with the construction permit and any approved change orders.

B. Two record drawings of the completed system.

C. Two Operation & Maintenance Manuals. Manuals must include details of:

1. individuals of contact for the installed system;

2. list of all key components of the system;

3. maintenance and service instructions of each component;

4. schedule of maintenance inspections and servicing.

D. Written recommendation to the owner to place the facilities into service, pending issuance of the authorization to use by the division.

R317-5-9. Operation and Maintenance.

9.1. Operation and maintenance shall be provided by the owner to ensure the disposal system is functioning properly at all times.

9.2. The owner is responsible for maintaining a LUWD system and for performing periodic inspections, servicing and monitoring of its system as detailed in the issued operating permit, including the following:

A. Any new system installed after April 2009 must have a written operation and maintenance manual document describing the treatment and disposal system and outlining routine maintenance procedures, including checklists and maintenance logs needed for proper operation of the system.

B. Each LUWD Conventional System shall be assessed after the first year of operation and annually thereafter.

C. Each LUWD Pressure Distribution System shall be inspected as outlined in Section R317-4-23 Tables 7.1 and 7.2.

D. LUWD Alternative Systems.

1. Each alternative system shall be inspected as outlined in Section R317-4-13 Tables 7.1 and 7.2.

2. Each packed bed media system shall be sampled a minimum of every six months as outlined in Section R317-4-13 Table 7.3.

a. The grab sample shall be taken before discharge to an absorption system.

b. Effluent not meeting the standards of Section R317-4-13 Table 7.3, shall be followed with two successive weekly tests of the same type within a 30 day period from the first exceedance.

3. If two successive samples exceed the minimum standards, the system shall be deemed to be malfunctioning, and shall require further evaluation and a corrective action plan, see Subsection R317-5-3.9.

R317-5-10. Operating Permits and Annual Inspection Reports.

10.1. Operating Permit required.

An operating permit is required for all LUWD systems to monitor that proper operation and maintenance is occurring for the protection of the environment and public health. The operating permit shall be issued by the director or, by delegated authority, the local health department having jurisdiction, and shall be effective for a period not to exceed 5 years from the date of issuance.

10.2. Local Health Department Authority to Issue Operating Permits.

Local health departments may request delegated authority to administer the operating permit program. The request must include an agreement to implement and enforce inspection, servicing, monitoring, and reporting requirements of this rule. The local health department must submit an annual report on or before September 1 of each calendar year, to the division containing:

A. A list of LUWD systems under delegation.

B. A summary listing the compliance status of each system, showing those systems that are currently failing, and those systems that have been repaired.

C. A summary of any enforcement actions taken, identifying those actions that are still pending, and those that been resolved.

10.3. Annual Inspection Report.

The owner of a LUWD system shall submit an annual inspection report covering the period of July 1 to June 30, the "reporting year", to the permitting agency no later than August 1 of each year. In this report, the owner shall report on all requirements listed in the operating permit. As a minimum, the report shall include the following items:

A. Facility name and address; owner name, address, and phone number;

B. List of facility components, e.g., septic tank, pump tank, gravel drainfield trench, gravelless chambers, pressure drainfield, etc.;

C. Design flow in gallons per day and number and type of connections;

D. Type of waste treated and disposed, i.e., residential, restaurant, other commercial establishment, etc.;

E. Checklist of inspections performed including the date of the inspection and a list of findings. The report must include, where pertinent:

1. measured sludge and scum levels;

2. date tanks were last pumped;

3. verify pumps, floats; and control panel are operating as designed;

4. date pump filter last cleaned;

- 5. date pressure laterals last cleaned and flushed and squirt height recorded;
- 6. any surfacing in absorption field; and
- 7. any observed or suspected system malfunction;
- F. Packed Bed media system sampling results, where pertinent;
- G. Name of the certified individual per Rule R317-11 conducting the inspection;
- H. Signature of owner or certified operator, and date.

KEY: water pollution, large underground wastewater, sewerage, engineering

Date of Enactment or Last Substantive Amendment: [~~September 24, 2015~~]2014

Notice of Continuation: June 18, 2012

Authorizing, and Implemented or Interpreted Law: 19-5



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

Water Quality Board
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Shane Emerson Pace
Amanda Smith
Walter L. Baker
Executive Secretary

MEMORANDUM

TO: Utah Water Quality Board

THROUGH: Walter L. Baker, P.E.
Director *WLB*

FROM: David G. Snyder
Onsite Wastewater Program Coordinator

DATE: March 26, 2014

SUBJECT: Request To Initiate Rulemaking to make revisions to R317-550, Liquid Waste Operations, formally known as "Rules for Waste Disposal By Liquid Scavenger Operations"

Purpose of Action Item

The purpose of this action item is to obtain approval from the Water Quality Board to proceed to rulemaking and seek public comment on the attached draft rule, *R317-550, Rules for Waste Disposal By Liquid Scavenger Operations*.

Background

This proposed rule is a revision and update of the existing rule R317-550. This draft makes minor changes and deletions to the existing rule. This draft was co-revised and reviewed by the CLEHA Onsite Wastewater Partnership (COWP) group and additionally reviewed by interested stakeholders. Some of these changes include:

- Definitions; ‘Health officer’ replaced with “Regulatory authority”; “Person”, now reflects definition used in R317-4 rule; ‘Scavenger’ replaced with “Liquid Waste Operator”; “Wastewater Holding Tank” replaces ‘Sewage Holding Tank’.
- Liquid Waste Operators must now obtain a permit from the local health department (LHD), replacing old language that they were obligated to just “notify” the LHD, which resulted in various unregulated methods.
 - This new permit shall be renewed at least every 3 years (this period of

3.35

- renewal up to the discretion of the LHD, but no more than 3 years).
- All other conditions of a permit, remain the same as previous rule. i.e., name, address, description of vehicles, list of disposal sites used for disposal.
- The LHD has the discretion of requiring or not requiring a surety bond and proof of general liability insurance as part of this permit (in the old rule this was worded as “recommended”. This has been replaced with, “the regulatory authority may require...”.
- All wastewater elements, scum, sludge, and liquid waste, shall be removed from septic tanks, wastewater holding tanks, chemical toilets, and vault privies.

Request for Action

Staff requests approval to proceed to rule making and seek public comment on the attached draft rule, *R317-550, Liquid Waste Operations*.

Attachment: Draft revision to *R317-550, Liquid Waste Operations*

R317. Environmental Quality, Water Quality.

R317-550. Rules for ~~[Waste Disposal By]~~ Liquid Waste ~~[Liquid Scavenger]~~ Operations.

R317-550-1. Definitions.

The following definitions shall apply in the interpretation and enforcement of this rule. The word "shall" as used herein indicates a mandatory requirement. The term "should" is intended to mean a recommended or desirable standard.

~~[1.1—]~~ "Chemical Toilet" ~~[—]~~ means a nonflush device wherein the waste is deposited directly into a receptacle containing a solution of water and chemical. It may be housed in a permanent or portable structure.

~~[1.2—]~~ "Collection Vehicle" ~~[—]~~ means any vehicle, tank, trailer, or combination thereof, which provides commercial collection, transportation, storage, or disposal of any waste ~~[as]~~ defined ~~[in]~~ as [Section 1.14] liquid waste.

~~[1.3—]~~ "Division" ~~[—]~~ means the Utah Division of Water Quality. [

~~1.4 Health Officer - means the Director of a local health department or his authorized representative.]~~

~~[1.5—]~~ "Liquid Waste [Scavenger] Operation" ~~[—]~~ means any business activity or solicitation by which liquid wastes are collected, transported, stored, or disposed of by a collection vehicle. This shall include, but not be limited to, the cleaning out of septic tanks, ~~[sewage]~~ wastewater holding tanks, chemical toilets, and vault privies.

"Liquid Waste Operator" means any person who conducts the business of a liquid waste operation.

"Liquid Waste" means, for the purpose of this rule, domestic wastewater or sewage.

~~[1.6—]~~ "Local Health Department" ~~[—]~~ means a ~~[city-]~~ county or multi ~~[—]~~ county local health department established under Title 26A.

~~[1.7—]~~ "Person" ~~[—]~~ means an individual, trust, firm, estate, company, corporation, partnership, association, state, state or federal agency or entity, municipality, commission, or political subdivision of a state ~~[as defined in Section 19-1-103 { }].~~

~~[1.8—]~~ "Public Health Hazard" ~~[—]~~ means, for the purpose of this rule, a condition whereby there are sufficient types and amounts of biological, chemical, or physical agents relating to wastes that [which] are likely to cause human illness, disorders, or disability. These include, but are not limited to, pathogenic viruses and bacteria, parasites, and toxic chemicals.

"Regulatory Authority" means either the Utah Division of Water Quality or the local health department having jurisdiction. [

~~1.9 Scavenger Operator - means any person who conducts the business of a liquid scavenger operation.]~~

~~[1.10]~~ "Septic Tank [s]" ~~[—]~~ means a watertight receptacle which receives the discharge of a drainage system or part thereof, designed and constructed so as to retain solids, digest organic matter through a period of detention, and allow the liquids to discharge into soil outside of the tank through an underground absorption system. [

~~1.11 Sewage Holding Tank - means a watertight receptacle which receives water-carried wastes from the discharge of a drainage system and retains such wastes until removal and subsequent disposal by scavenger operation.]~~

~~[1.12]~~ "Tank" ~~[--]~~ means any container that when placed on a vehicle is used to transport wastes removed from a septic tank, wastewater~~[sewage]~~ holding tank, chemical toilet, or vault privy.

~~[1.13]~~ "Vault Privy" ~~[--]~~ means any facility wherein the waste ~~[in]~~is deposited without flushing, into a permanently-installed, watertight, vault or receptacle, which is usually installed below ground. ~~[~~

~~1.14 Wastes -- means, for the purpose of this rule, domestic wastewater or sewage which is normally deposited in or retained for disposal in septic tanks, sewage holding tank, chemical toilets, or vault toilets.]~~

"Wastewater Holding Tank" means a watertight receptacle designed to receive and store liquid wastes to facilitate treatment at another location.

R317-550-2. Authority, Purpose and Scope of Rule.

2.1. These rules are administered by the division authorized by Title 19 Chapter 5.

2.2~~[1]~~. The collection, storage, transportation, and disposal of all liquid wastes by liquid waste ~~[scavenger-]~~operators shall be accomplished in a sanitary manner which does not create a public health hazard or nuisance, or adversely affect the quality of the waters of the State.

2.3~~[2]~~. A liquid waste operator shall have a current permit issued by the local health department having jurisdiction ~~[It shall be unlawful for any person to engage in or conduct a liquid scavenger operation unless the person notifies the local health department in which the liquid scavenger operation is conducted]~~prior to ~~[commencement]~~initiating ~~[of]~~a liquid ~~[scavenger-]~~waste operation~~[and thereafter on an annual basis.~~

~~2.3 Nothing in this rule shall be constructed to require a private property owner to notify the local health department prior to his removing wastes from his own septic tank, sewage holding tank, chemical toilet, or vault privy. However, all such wastes must be collected and transported in such a manner that they will not create a nuisance or public health hazard, or will adversely affect the quality of the waters of the State, and must be disposed of in accordance with the provisions of this rule].~~

R317-550-3. ~~[Procedures for Notification of Local Health Departments] Permitting Requirements.~~

3.1. Prior to initiating ~~[operation of]~~a liquid ~~[scavenger services]~~waste operation, the liquid waste operator shall make application to the local health department having jurisdiction for a permit to operate. The application ~~[notify the local health department by filing a notification form. The notification form shall be provided by the local health department and]~~shall include~~[, but not limited to, the following]~~ :

A. Name, address, and telephone number of applicant. If applicant is a partnership, the names and addresses of the partners; ~~[7]~~ and if a corporation, the name and address of the corporation.

B. Name and address of the ~~[place(s)]~~places of business if different from above.

C. Applicant shall state the number of collection vehicles to

be used, description of vehicles (make, model, year, and license number), tank capacity, and any other related information required by the ~~[health officer]~~ local health department.

D. A list of all sites shall be provided ~~[which]~~ that are ~~[to]~~ used for disposal of wastes resulting from the liquid ~~[scavenger]~~ waste operation. Applicants may be required by the ~~[local health department]~~ regulatory authority to provide proof of permission to dispose of wastes at such sites. [

~~E. Standard notification forms are available through the Division of Water Quality.]~~

3.2. ~~[It is recommended that all applications for liquid scavenger operations be accompanied by a surety bond issued by a corporate surety company authorized to conduct business in the State of Utah, and covering the period for which the permit is issued. The bond amount should be \$5000 for all scavenger operations conducting business within the State of Utah. The health officer should be the bond obligee, and the bond should be for the benefit and purpose to protect all persons damaged by faulty workmanship resulting from scavenger operation, and to guarantee payment of monies owing incident to these rules. Such bonds should be conditioned upon their performance of the services in a workmanlike and hygienic manner.]~~ To protect all persons damaged by faulty workmanship resulting from liquid waste operations, and to guarantee payment of monies owing incident to these regulations, the regulatory authority may require a surety bond and proof of general liability insurance as part of the application.

3.3. ~~[Liquid scavenger operators shall notify the local health department in writing on an annual basis before March 1st of each year of their intent to continue operation.]~~ The operating permit shall be renewed at least every 3 years.

R317-550-4. Inspection of ~~[Scavenger]~~ Liquid Waste Operations.

4.1. ~~[Upon receipt of a notification to conduct a liquid scavenger operation, the health officer]~~ The regulatory authority may inspect all equipment and, if necessary, disposal sites to be used in connection with the liquid ~~[scavenger]~~ waste operation. ~~[Routine inspections may be made at any reasonable time by the health officer in order to insure compliance with these rules.]~~

R317-550-5. Collection Vehicle Requirements.

5.1. Collection vehicle identification requirements shall be determined by the local health department having jurisdiction.

5.2. Each collection vehicle shall conform to the following minimum specification:

A. Tanks shall be of watertight construction, fully enclosed, ~~[strong enough for all conditions of operation]~~ durable, and shall be provided with suitable covers to prevent spillage during ~~[transit]~~ transport. The capacity of the tank ~~[ø]~~ in U.S. gallons shall be determined accurately by calculation, metering, or as specified by the manufacturer, and shall be plainly, legibly, and permanently marked or stamped on the exterior of the tank.

B. The collection vehicle shall be equipped with either a positive displacement pump or other type of pump which will not allow any spillage and ~~[which]~~ will be self-priming.

C. The discharge connection of the tank shall be provided with a valve and with a threaded screw cap or other acceptable sealing device. When not in use, the valve shall be closed and the threaded screw[s] cap or sealing device shall be in place to prevent accidental leakage or discharge.

5.3. When in use, pumping equipment shall be so operated that a public health hazard or nuisance will not be created. Each collection vehicle should at all times be supplied with a pressurized wash water tank, disinfectant, and implements needed for cleanup purposes in the event of accidental spillage of waste on the ground. The operator shall ensure that such spills are cleaned and disinfected in such a manner to render them harmless to human and animals.

5.4. Sewage hoses on collection vehicles shall be thoroughly drained, capped, and stored in such a manner that they will not create a public health hazard or nuisance.

5.5. Tanks used for collection, transportation, and storage of wastes shall be so constructed that the exterior can be easily cleaned.

5.6. All collection vehicles, when parked and not in use, shall be protected and maintained in such a manner that they will not promote an odor nuisance, the breeding of insects, the attraction of rodents, or create any other public health hazard or nuisance.

R317-550-6. Conduct of Liquid Waste [Scavenger] Operations, Including Submission of Reports.

6.1. All services rendered by the liquid waste [scavenger] operation shall be conducted in a sanitary [workmanlike] manner that does not create a public health hazard or nuisance [and the property where the services are rendered shall be left in a sanitary condition]. After the services are rendered, the [scavenger] liquid waste operator shall furnish the customer with a written receipt [which] that carries the business name and address of the liquid [scavenger] waste operation.

6.2. [Recommendations for the pumping and maintenance of septic tanks and sewage holding tanks may be found in the rule for Individual Wastewater Disposal Systems.] All [three] wastewater components, consisting of scum, sludge, and liquid waste, [should] shall be removed from septic tanks, wastewater holding tanks, chemical toilets, and vault privies. See Subsection R317-4-14 Appendix E for septic tank operation and maintenance. [from these tanks to provide long-term benefit.]

6.3. The liquid [scavenger] waste operation shall submit summary data [forms] of their business activity to the [local health department having jurisdiction] regulatory authority as often as required by that agency. Summary data [from] information shall include [but not be limited to]:

A. Source of all waste pumped on each occurrence, including name and address of source. If necessary, this information may be provided in code and made available for inspection at the business address of the liquid [scavenger] waste operation.

B. Specific type of waste disposal; system services on each occurrence.

C. Quantity of wastes pumped on each occurrence.

D. Name and location of authorized disposal site where

~~[1.12] "Tank" [---] means any container that when placed on a vehicle is used to transport wastes removed from a septic tank, wastewater[sewage] holding tank, chemical toilet, or vault privy.~~

~~[1.13] "Vault Privy" [---] means any facility wherein the waste [in]is deposited without flushing, into a permanently-installed, watertight, vault or receptacle, which is usually installed below ground. [~~

~~1.14 Wastes - means, for the purpose of this rule, domestic wastewater or sewage which is normally deposited in or retained for disposal in septic tanks, sewage holding tank, chemical toilets, or vault toilets.]~~

"Wastewater Holding Tank" means a watertight receptacle designed to receive and store liquid wastes to facilitate treatment at another location.

R317-550-2. Authority, Purpose and Scope of Rule.

2.1. These rules are administered by the division authorized by Title 19 Chapter 5.

2.2[1]. The collection, storage, transportation, and disposal of all liquid wastes by liquid waste [scavenger] operators shall be accomplished in a sanitary manner which does not create a public health hazard or nuisance, or adversely affect the quality of the waters of the State.

2.3[2]. A liquid waste operator shall have a current permit issued by the local health department having jurisdiction [It shall be unlawful for any person to engage in or conduct a liquid scavenger operation unless the person notifies the local health department in which the liquid scavenger operation is conducted]prior to [commencement]initiating [-of]a liquid [scavenger]waste operation[and thereafter on an annual basis.

~~2.3 Nothing in this rule shall be constructed to require a private property owner to notify the local health department prior to his removing wastes from his own septic tank, sewage holding tank, chemical toilet, or vault privy. However, all such wastes must be collected and transported in such a manner that they will not create a nuisance or public health hazard, or will adversely affect the quality of the waters of the State, and must be disposed of in accordance with the provisions of this rule].~~

R317-550-3. [Procedures for Notification of Local Health Departments]Permitting Requirements.

3.1. Prior to initiating [operation of]a liquid [scavenger services]waste operation, the liquid waste operator shall make application to the local health department having jurisdiction for a permit to operate. The application [notify the local health department by filing a notification form. The notification form shall be provided by the local health department and]shall include [, but not limited to, the following]:

A. Name, address, and telephone number of applicant. If applicant is a partnership, the names and addresses of the partners; [7] and if a corporation, the name and address of the corporation.

B. Name and address of the [place(s)]places of business if different from above.

C. Applicant shall state the number of collection vehicles to

R317. Environmental Quality, Water Quality.

R317-550. Rules for ~~[Waste Disposal By]~~ Liquid Waste ~~[Liquid Scavenger]~~ Operations.

R317-550-1. Definitions.

The following definitions shall apply in the interpretation and enforcement of this rule. The word "shall" as used herein indicates a mandatory requirement. The term "should" is intended to mean a recommended or desirable standard.

~~[1.1—]~~ "Chemical Toilet" ~~[—]~~ means a nonflush device wherein the waste is deposited directly into a receptacle containing a solution of water and chemical. It may be housed in a permanent or portable structure.

~~[1.2—]~~ "Collection Vehicle" ~~[—]~~ means any vehicle, tank, trailer, or combination thereof, which provides commercial collection, transportation, storage, or disposal of any waste ~~[—as]~~ defined ~~[in]~~ as [Section 1.14] liquid waste.

~~[1.3—]~~ "Division" ~~[—]~~ means the Utah Division of Water Quality. [
~~1.4 Health Officer - means the Director of a local health department or his authorized representative.]~~

~~[1.5—]~~ "Liquid Waste [Scavenger] Operation" ~~[—]~~ means any business activity or solicitation by which liquid wastes are collected, transported, stored, or disposed of by a collection vehicle. This shall include, but not be limited to, the cleaning out of septic tanks, ~~[sewage]~~ wastewater holding tanks, chemical toilets, and vault privies.

"Liquid Waste Operator" means any person who conducts the business of a liquid waste operation.

"Liquid Waste" means, for the purpose of this rule, domestic wastewater or sewage.

~~[1.6—]~~ "Local Health Department" ~~[—]~~ means a ~~[city-]~~ county or multi~~[—]~~ county local health department established under Title 26A.

~~[1.7—]~~ "Person" ~~[—]~~ means an individual, trust, firm, estate, company, corporation, partnership, association, state, state or federal agency or entity, municipality, commission, or political subdivision of a state ~~[—]~~ as defined in Section 19-1-103 [—].

~~[1.8—]~~ "Public Health Hazard" ~~[—]~~ means, for the purpose of this rule, a condition whereby there are sufficient types and amounts of biological, chemical, or physical agents relating to wastes that [which] are likely to cause human illness, disorders, or disability. These include, but are not limited to, pathogenic viruses and bacteria, parasites, and toxic chemicals.

"Regulatory Authority" means either the Utah Division of Water Quality or the local health department having jurisdiction. [
~~1.9 Scavenger Operator - means any person who conducts the business of a liquid scavenger operation.]~~

~~[1.10]~~ "Septic Tank[s]" ~~[—]~~ means a watertight receptacle which receives the discharge of a drainage system or part thereof, designed and constructed so as to retain solids, digest organic matter through a period of detention, and allow the liquids to discharge into soil outside of the tank through an underground absorption system. [
~~1.11 Sewage Holding Tank - means a watertight receptacle which receives water-carried wastes from the discharge of a drainage system and retains such wastes until removal and subsequent disposal by scavenger operation.]~~

be used, description of vehicles (make, model, year, and license number), tank capacity, and any other related information required by the ~~[health officer]~~ local health department.

D. A list of all sites shall be provided ~~[which]~~ that are ~~[to]~~ used for disposal of wastes resulting from the liquid ~~[scavenger]~~ waste operation. Applicants may be required by the ~~[local health department]~~ regulatory authority to provide proof of permission to dispose of wastes at such sites. [

~~E. Standard notification forms are available through the Division of Water Quality.]~~

3.2. ~~[It is recommended that all applications for liquid scavenger operations be accompanied by a surety bond issued by a corporate surety company authorized to conduct business in the State of Utah, and covering the period for which the permit is issued. The bond amount should be \$5000 for all scavenger operations conducting business within the State of Utah. The health officer should be the bond obligee, and the bond should be for the benefit and purpose to protect all persons damaged by faulty workmanship resulting from scavenger operation, and to guarantee payment of monies owing incident to these rules. Such bonds should be conditioned upon their performance of the services in a workmanlike and hygienic manner.]~~ To protect all persons damaged by faulty workmanship resulting from liquid waste operations, and to guarantee payment of monies owing incident to these regulations, the regulatory authority may require a surety bond and proof of general liability insurance as part of the application.

3.3. ~~[Liquid scavenger operators shall notify the local health department in writing on an annual basis before March 1st of each year of their intent to continue operation.]~~ The operating permit shall be renewed at least every 3 years.

R317-550-4. Inspection of ~~[Scavenger]~~ Liquid Waste Operations.

4.1. ~~[Upon receipt of a notification to conduct a liquid scavenger operation, the health officer]~~ The regulatory authority may inspect all equipment and, if necessary, disposal sites to be used in connection with the liquid ~~[scavenger]~~ waste operation. ~~[Routine inspections may be made at any reasonable time by the health officer in order to insure compliance with these rules.]~~

R317-550-5. Collection Vehicle Requirements.

5.1. Collection vehicle identification requirements shall be determined by the local health department having jurisdiction.

5.2. Each collection vehicle shall conform to the following minimum specification:

A. Tanks shall be of watertight construction, fully enclosed, ~~[strong enough for all conditions of operation]~~ durable, and shall be provided with suitable covers to prevent spillage during ~~[transit]~~ transport. The capacity of the tank ~~[ø]~~ in U.S. gallons shall be determined accurately by calculation, metering, or as specified by the manufacturer, and shall be plainly, legibly, and permanently marked or stamped on the exterior of the tank.

B. The collection vehicle shall be equipped with either a positive displacement pump or other type of pump which will not allow any spillage and ~~[which]~~ will be self-priming.

C. The discharge connection of the tank shall be provided with a valve and with a threaded screw cap or other acceptable sealing device. When not in use, the valve shall be closed and the threaded screw[s] cap or sealing device shall be in place to prevent accidental leakage or discharge.

5.3. When in use, pumping equipment shall be so operated that a public health hazard or nuisance will not be created. Each collection vehicle should at all times be supplied with a pressurized wash water tank, disinfectant, and implements needed for cleanup purposes in the event of accidental spillage of waste on the ground. The operator shall ensure that such spills are cleaned and disinfected in such a manner to render them harmless to human and animals.

5.4. Sewage hoses on collection vehicles shall be thoroughly drained, capped, and stored in such a manner that they will not create a public health hazard or nuisance.

5.5. Tanks used for collection, transportation, and storage of wastes shall be so constructed that the exterior can be easily cleaned.

5.6. All collection vehicles, when parked and not in use, shall be protected and maintained in such a manner that they will not promote an odor nuisance, the breeding of insects, the attraction of rodents, or create any other public health hazard or nuisance.

R317-550-6. Conduct of Liquid Waste [Scavenger] Operations, Including Submission of Reports.

6.1. All services rendered by the liquid waste [scavenger] operation shall be conducted in a sanitary [workmanlike] manner that does not create a public health hazard or nuisance [and the property where the services are rendered shall be left in a sanitary condition]. After the services are rendered, the [scavenger] liquid waste operator shall furnish the customer with a written receipt [which] that carries the business name and address of the liquid [scavenger] waste operation.

6.2. ~~[Recommendations for the pumping and maintenance of septic tanks and sewage holding tanks may be found in the rule for Individual Wastewater Disposal Systems.—]~~ All ~~[three]~~ wastewater components, consisting of scum, sludge, and liquid waste, [should] shall be removed from septic tanks, wastewater holding tanks, chemical toilets, and vault privies. See Subsection R317-4-14 Appendix E for septic tank operation and maintenance. [from these tanks to provide long-term benefit.]

6.3. The liquid [scavenger] waste operation shall submit summary data ~~[forms]~~ of their business activity to the ~~[local health department having jurisdiction]~~ regulatory authority as often as required by that agency. Summary data ~~[from]~~ information shall include ~~[, but not be limited to]~~:

A. Source of all waste pumped on each occurrence, including name and address of source. If necessary, this information may be provided in code and made available for inspection at the business address of the liquid [scavenger] waste operation.

B. Specific type of waste disposal; system services on each occurrence.

C. Quantity of wastes pumped on each occurrence.

D. Name and location of authorized disposal site where

[pumpings] liquid wastes were deposited for disposal.

R317-550-7. Disposal of Wastes at Approved Locations.

7.1. All wastes collected shall be disposed [of] in accordance with the rules and regulations of the Division and the local health department having jurisdiction. Disposal shall be accomplished by one of the following methods:

A. Into a public sewer system at the place and point in the system designated and approved by the appropriate authority.

B. Into a landfill which has been approved by the Director of the Division of Solid and Hazardous Waste for disposal of such wastes and in accordance with Rules R315-301 through R315-320, and with concurrence by the local health department.

C. Land disposal, in accordance with the provisions of Subsection R317-8-1.10([9]10), if approved by the Director and with the concurrence of the local health department.

7.2. No waste shall be deposited into a sewerage [collection] system [~~a sewage~~] or treatment works [plant, or waste stabilization pond (lagoon), which] that will have a detrimental effect on the [ir] overall operation.

7.3. Under no circumstances shall dumping of wastes be permitted into any public or private lake, pond, stream, river, watercourse, or any other body of water, or onto any public or private land which has not been designated as an approved disposal site.

7.4. It shall be unlawful for any liquid waste [~~scavenger~~] operation to transport, treat, store, or dispose of hazardous wastes as defined by 19-6-102(7) without complying with all provisions of Rules R315-1 through R315-301.

R317-550-8. Failure to Comply With Rules.

Any person failing to comply with these rules shall be subject to action as specified in Section 19-5-115.

KEY: dumping of wastes, liquid waste, pollution

Date of Enactment or Last Substantive Amendment: [August 29, 2001] 2014

Notice of Continuation: June 18, 2012

Authorizing, and Implemented or Interpreted Law: 19-5-104

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State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

MEMORANDUM

TO: Water Quality Board

THROUGH: Walter L. Baker, P.E. *WLB*
Director

FROM: Kari Lundeen *KAL*
Watershed Protection Section

DATE: March 11, 2014

SUBJECT: Total Maximum Daily Load Study (TMDL) for Echo and Rockport Reservoirs, Weber River Basin: Request to submit to DAR/Legislative Subcommittee

The Division of Water Quality has completed a TMDL study to address impairments of Echo and Rockport Reservoirs in the Upper Weber River Watershed.

Because the cost of implementing this TMDL will be more than \$10M, we are required to present the study to the Natural Resources, Agriculture and Environment Interim Committee for their review. We are requesting that the Water Quality Board approve the TMDL for rulemaking according to the following schedule:

Finalization Timeline

March 26, 2014	Water Quality Board Preliminary Approval of TMDLs/Petition to initiate rulemaking
April 15 – May 15	30-day Division of Administrative Rules Public Notice
May, 2014*	Natural Resources, Agriculture, and Environment Interim Committee Hearing
June 25, 2014	Petition Water Quality Board for formal adoption of TMDLs into rule
July, 2014	Submit TMDLs to EPA for approval

* Interim Committee meetings are scheduled once per month starting in May. Our ability to get on their agenda is unknown and may delay subsequent steps.

3.42

Echo and Rockport Reservoir TMDL Summary

Echo and Rockport Reservoirs do not meet the 3A cold-water fishery criteria for Dissolved Oxygen (DO) during the critical summer season (April-September). The TMDL study has determined that this is due to excessive loading of Total Phosphorus (TP) and Total Nitrogen (TN).

Modeling Approach

The BATHTUB water quality model was used to determine the nutrient load reductions needed to meet water quality standards for DO. Dry, average, and wet conditions were evaluated under multiple scenarios of future nutrient loads and changes in reservoir operation within each reservoir.

The Soil Water Assessment Tool (SWAT) is a data-driven model that estimates watershed nutrient loading. Sources evaluated include: grazing, fertilizer, agricultural land, road corridors, Three Mile Canyon Landfill, and septic systems. SWAT was also used to identify priority areas for load reductions as described in the implementation plan.

TMDL Recommendations

The TMDL target during the critical season when the reservoirs are stratified is a 2-m layer throughout in which DO is maintained above 4 mg/L and temperature is below 20° C. Attainment of this target will require a 35% overall reduction in TP and TN.

Point Sources

Each point source discharger was assigned the same nutrient concentrations for their current capacity flows – 1.0 mg/L TP and 10.0 mg/L TN. Future growth will be accommodated by lower nutrient concentrations – 0.5 mg/L TP and 5.0 mg/L TN.

Echo Reservoir Watershed: Coalville WWTP, Silver Creek WRF, Blue Sky Resort WWTP, Park City Tunnels (Spiro and Judge).

Rockport Reservoir: Kamas WWTP, Oakley WWTP, UDWR Kamas Fish Hatchery, Francis WWTP.

Non-point Sources

Required non-point source reductions to achieve water quality goals are significant but achievable as documented in the watershed implementation plan that accompanies the TMDL:

Echo Reservoir Watershed: 70% TP, 87% TN

Rockport Reservoir Watershed: 72% TP, 68% TN

Estimated Costs

SBWRD cost attributable to nutrient removal: \$15M

NPS costs: \$29M

Government portion: \$19.5M

Private portion: \$9.7M

Public Involvement

March 2012: Kickoff Meeting and 2 watershed tours

May 23, 2012: Introduction to Water Quality Board

July 23, 2013: Model Development Report Stakeholder Meeting

September, 2013: Individual discussions of limits with point source dischargers

December 12, 2013: Draft TMDL Report Stakeholder Meeting

November 18 – December 20, 2013: Public Comment Period

Active Participants

Snyderville Basin Water Reclamation District

Weber Basin Water Conservancy District

Summit County Health Department

Park City Municipal Corporation

Kamas Valley Conservation District

Summit Conservation District

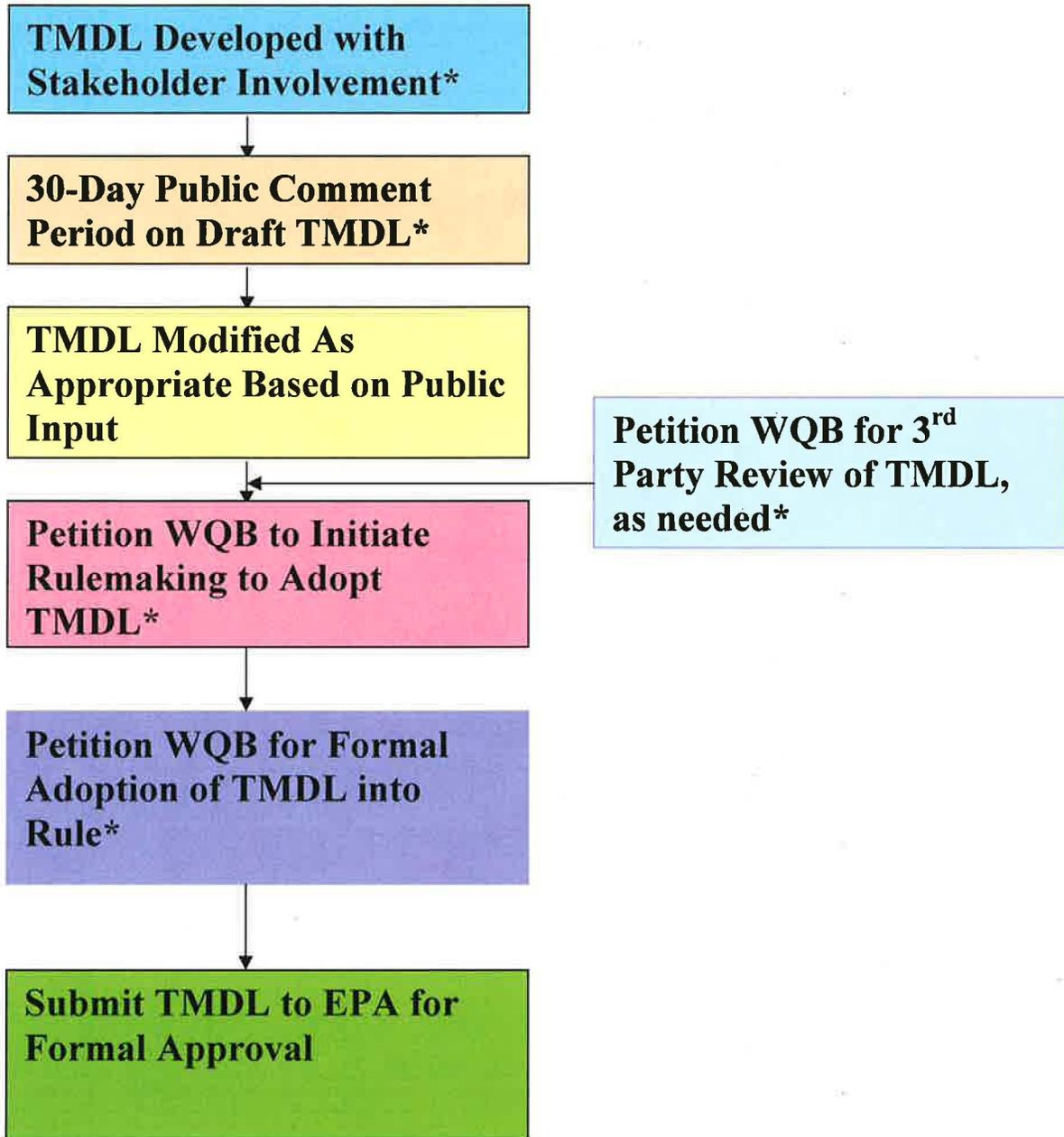
Coalville City

Nutrient Source	Recommended BMP Suite	Technical Needs	Financial Needs - Total Estimated Cost	Estimated Government Portion	Estimated Private Portion
Private flood irrigated agricultural land	Nutrient management planning, buffer strips, and sprinkler irrigation	Professional technical advisory on placement	\$ 3,430,000.00	\$ 2,286,666.67	\$ 1,143,333.33
Private non flood irrigated agricultural land	Nutrient management planning and buffer strips	Professional technical advisory on placement	\$ 230,000.00	\$ 153,333.33	\$ 76,666.67
Public grazing land	Prescribed grazing, livestock exclusion, and fencing	Professional technical advisory on critical areas	\$ 750,000.00	\$ 500,000.00	\$ 250,000.00
Private grazing land	Prescribed grazing, livestock exclusion, and fencing	Professional technical advisory on critical areas	\$ 4,350,000.00	\$ 2,900,000.00	\$ 1,450,000.00
High-density urban area	Stormwater retention	Professional technical advisory on critical areas	\$ 70,000.00	\$ 46,666.67	\$ 23,333.33
Low- and medium-density urban areas	Soil testing and fertilizer reduction	None	\$ 330,000.00	\$ 220,000.00	\$ 110,000.00
I80 and US40	Stormwater retention	Engineering, permitting, maintenance	\$ 2,400,000.00	\$ 1,600,000.00	\$ 800,000.00
Parks	Stormwater retention	Engineering, permitting, maintenance	\$ 3,440,000.00	\$ 2,293,333.33	\$ 1,146,666.67
Stream channel erosion	Streambank protection	Engineering, permitting, maintenance	Varies		
Three Mile Canyon Landfill	Pump and treat	Engineering, permitting, maintenance	Varies		
Septic systems	Upgrades	Engineering, permitting, maintenance	\$ 13,750,000.00	\$ 9,166,666.67	\$ 4,583,333.33
Internal	In-reservoir treatment	Engineering, permitting, maintenance	\$ 250,000.00	\$ 166,700.00	\$ 68,300.00
			\$ 1,000,000.00	\$ 666,700.00	\$ 333,300.00
Total			\$ 29,000,000.00	\$ 19,333,333.33	\$ 9,666,666.67
			\$ 29,750,000.00	\$ 19,833,333.33	\$ 9,916,666.67

3.45

TMDL Process

(* EPA involved in these elements)





State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

MEMORANDUM

TO: Water Quality Board Members

THROUGH: Walter L. Baker, Director 

FROM: Carl Adams, Watershed Protection Section Manager

DATE: March 11, 2014

SUBJECT: Request to adopt TMDL by reference into Rule (R317-1-7)

The Water Quality Board has previously authorized initiation of rulemaking to adopt the Colorado River Selenium TMDL Water Quality Study. The proposed rule was published in the Utah State Bulletin February 1, 2014 and the comment period closed March 3, 2014. No comments have been received on the proposed rule change. Staff is recommending that we incorporate by reference the Colorado River Selenium TMDL Water Quality Study into Rule (R317-1-7.61).

Attached is an executive summary of the TMDL proposed for adoption and a proposed version of R317-1-7 that includes the new TMDL.

3.37

Executive Summary of Colorado River Selenium TMDL

Introduction:

This study determines allowable limits for pollutant loading to meet the water quality standard and designated uses for the Colorado River from the confluence with the Green River upstream to the Utah/Colorado state line. The Colorado River was listed on Utah's 2006 303(d) list for impairment associated with excess concentrations of selenium (Se). At high concentrations selenium is toxic to aquatic life and increases the risk of deformities and decreased reproduction in fish and aquatic birds.

Approach:

Utah's chronic numeric water quality criterion for selenium was used to establish endpoints for TMDL development. The TMDL endpoint is the chronic Warm Water Aquatic Life and Waterfowl Criteria for selenium of 4.6 µg/L. The reductions specified in the TMDL to meet the chronic 4 day average water quality standard will also ensure compliance with the acute selenium water quality standard of 18.4 µg/L based upon the current data set.

The TMDL endpoint was established based on the analysis of loading capacity. The endpoint selected is the loading capacity above the confluence with the Green River under low flow conditions, less an explicit 10% Margin of Safety.

Load Capacity = 23.7 Kg/day

MOS = 2.4 Kg/day

Load Allocation (TMDL) = 21.4 Kg/day

The current loading under low flow conditions is 31.1 Kg/day. To reach the endpoint a reduction of 9.7 Kg/day is needed during low flow conditions (the lowest 10% of all flows observed).

Time frame of steps to full approval from EPA:

TMDL Process Action	Date	Completed?
30-Day Public Comment Period on Draft TMDL	September 30, 2013 to October 30, 2013	✓
TMDL Modified As Appropriate Based on Public Input	June 6, 2012	✓
If Implementation Costs Exceed Legislative Thresholds, Submit TMDL for Committee or Full Legislative Action	Costs associated with implementation of the TMDL are primarily above the UT/CO stateline.	✓
Water Quality Board Approval of TMDL / Petition to Initiate Rulemaking to Adopt TMDL into UAC R317-1-7.TMDLs.	December 5, 2014	✓
30 Day DAR Public Notice Period	February 1, 2014 - March 3, 2014	✓
Petition Water Quality Board for Formal Adoption of TMDL into Rule	March 26, 2014	
Submit TMDL to EPA for Formal Approval	March 31, 2014	
EPA approval	May 2014	

R317-1-7. TMDLs.

The following TMDLs are approved by the Board and hereby incorporated by reference into these rules:

- 7.1 Middle Bear River -- February 23, 2010
- 7.2 Chalk Creek -- December 23, 1997
- 7.3 Otter Creek -- December 23, 1997
- 7.4 Little Bear River -- May 23, 2000
- 7.5 Mantua Reservoir -- May 23, 2000
- 7.6 East Canyon Creek -- September 14, 2010
- 7.7 East Canyon Reservoir -- September 14, 2010
- 7.8 Kents Lake -- September 1, 2000
- 7.9 LaBaron Reservoir -- September 1, 2000
- 7.10 Minersville Reservoir -- September 1, 2000
- 7.11 Puffer Lake -- September 1, 2000
- 7.12 Scofield Reservoir -- September 1, 2000
- 7.13 Onion Creek (near Moab) -- July 25, 2002
- 7.14 Cottonwood Wash -- September 9, 2002
- 7.15 Deer Creek Reservoir -- September 9, 2002
- 7.16 Hyrum Reservoir -- September 9, 2002
- 7.17 Little Cottonwood Creek -- September 9, 2002
- 7.18 Lower Bear River -- September 9, 2002
- 7.19 Malad River -- September 9, 2002
- 7.20 Mill Creek (near Moab) -- September 9, 2002
- 7.21 Spring Creek -- September 9, 2002
- 7.22 Forsyth Reservoir -- September 27, 2002
- 7.23 Johnson Valley Reservoir -- September 27, 2002
- 7.24 Lower Fremont River -- September 27, 2002

- 7.25 Mill Meadow Reservoir -- September 27, 2002
- 7.26 UM Creek -- September 27, 2002
- 7.27 Upper Fremont River -- September 27, 2002
- 7.28 Deep Creek -- October 9, 2002
- 7.29 Uinta River -- October 9, 2002
- 7.30 Pineview Reservoir -- December 9, 2002
- 7.31 Browne Lake -- February 19, 2003
- 7.32 San Pitch River -- November 18, 2003
- 7.33 Newton Creek -- June 24, 2004
- 7.34 Panguitch Lake -- June 24, 2004
- 7.35 West Colorado -- August 4, 2004
- 7.36 Silver Creek -- August 4, 2004
- 7.37 Upper Sevier River -- August 4, 2004
- 7.38 Lower and Middle Sevier River -- August 17, 2004
- 7.39 Lower Colorado River -- September 20, 2004
- 7.40 Upper Bear River -- August 4, 2006
- 7.41 Echo Creek -- August 4, 2006
- 7.42 Soldier Creek -- August 4, 2006
- 7.43 East Fork Sevier River -- August 4, 2006
- 7.44 Koosharem Reservoir -- August 4, 2006
- 7.45 Lower Box Creek Reservoir -- August 4, 2006
- 7.46 Otter Creek Reservoir -- August 4, 2006
- 7.47 Thistle Creek -- July 9, 2007
- 7.48 Strawberry Reservoir -- July 9, 2007
- 7.49 Matt Warner Reservoir -- July 9, 2007
- 7.50 Calder Reservoir -- July 9, 2007

- 7.51 Lower Duchesne River -- July 9, 2007
- 7.52 Lake Fork River -- July 9, 2007
- 7.53 Brough Reservoir -- August 22, 2008
- 7.54 Steinaker Reservoir -- August 22, 2008
- 7.55 Red Fleet Reservoir -- August 22, 2008
- 7.56 Newcastle Reservoir -- August 22, 2008
- 7.57 Cutler Reservoir -- February 23, 2010
- 7.58 Pariette Draw -- September 28, 2010
- 7.59 Upper Emigration Creek -- October 26, 2011
- 7.60 Jordan River -- June 27, 2012
- 7.61 Colorado River -- March 26, 2014

Logan gets \$80 million in loans for Lagoon Wastewater Treatment Facility replacement

By Lis Stewart | Posted: Friday, February 7, 2014 8:45 pm

Logan's future project to replace the Logan Lagoon Wastewater Treatment Facility has received a commitment from two state agencies for \$80 million in loans and is looking for \$15 million more.

While construction of the new \$111.6 million mechanical facility is not due to start for at least a year, a major priority right now is obtaining funding, said Logan's mayor, Craig Petersen.

"This is something we take very seriously," Petersen said. "This is probably the largest project in the city's history, and we want to do it right."

The Permanent Community Impact Fund board (PCI), part of the Housing and Community Development division of the Department of Workforce Services, approved a \$10 million loan to the city Thursday at a 1.5 percent interest rate.

The Utah Water Quality Board authorized a \$70 million loan Jan. 22 at a 0.75 percent interest rate after a tour of the facility and presentations last October and December.

Logan Environmental Department Director Issa Hamud said he intends to ask the PCI board for an additional \$15 million in April. If they turn him down, the city will look at an open market bond; the third option is a loan from the U.S. Department of Agriculture, he said.

The city's lagoon system has cleaned the majority of Cache County's wastewater for the last 50 years. The cleaned water is used for irrigation during the growing season and is stored in Cutler Reservoir during the winter. The lagoons serve Logan, Nibley, Providence, River Heights, Utah State University, North Logan, Hyde Park and Smithfield.

Logan's lagoons are one of the biggest of their kind in the United States, covering 460 acres on the west side of the valley. However, this type of wastewater treatment is becoming outdated as environmental standards are tightened, explained Walt Baker, director of the Utah Division of Water Quality (DWQ).

"This project is the number-one-ranked project that we see in the state," he said. "Those lagoons have served the residents of Cache Valley now for almost 50 years. ... They're now not capable of meeting the water quality standards that are necessary today, and those that we see coming down the road."

Logan has a "perfect storm" of environmental issues it needs to address in the coming years, Baker said. The city has until 2019 to replace the lagoons.

A 2010 study of Cutler Reservoir found the phosphorus levels, contributed by the lagoons, were too high. Phosphorus stimulates algae growth, which can harm aquatic life.

4.1

Additionally, the Environmental Protection Agency has new standards regarding ammonia, nitrogen and phosphorus, and the DWQ will roll out standards for phosphorus and nitrogen in the coming years. The water discharged from Logan's lagoons does not meet the new standards.

Other water treatment plants in Utah will need to make changes as the standards are updated, Baker added. Wellsville, Corinne and Salem also have lagoon systems. These cities will need to look at alternatives in the future, Baker said.

Mechanical facilities will need to upgrade as well. Salt Lake City, for example, will need to make considerable changes, he added.

Baker said the changes are going to be expensive and massive, but it is an investment in the future.

"I'd just like to applaud Logan city for being forward thinking," Baker said.

While the city is adding nearly \$17 million to the project and looking for grant opportunities, much of the cost will be passed on to residents through a utility bill increase of approximately \$10 to \$15 per month, Hamud said. The current rate is \$27.31 a month.

"The rate increase is probably about — at least — minimum a year away," Hamud said.

The final rate will be voted on by the Logan Municipal Council. Petersen, who was elected Logan's mayor in November, said he will consult with the other cities who are stakeholders in the facility.

Petersen would also like to keep options open about the technology chosen for the new wastewater treatment facility.

"I still intend to pursue the questions of technology," Petersen said.

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4.2



KUER Events
Utah Broadcaster's Association
Job Fair



KUER Events
Conversation on Creativity with
Doug Fabrizio and Jeffrey Hein,
March 14th



KUER Events
Ira Glass at Kingsbury Hall on April
12th

Environment & Public Lands

3:50 PM TUE MARCH 4, 2014

Utah Supreme Court Weighs Tar Sands Project

By JUDY FAHYS (@PEOPLE/JUDY-FAHYS)

[Listen](#)

1:46

The Utah Supreme Court is considering whether a Canadian company can begin mining tar sands in the Book Cliffs in eastern Utah. If approved it would be the nation's first commercial tar sands operation.



http://an.ediac.mbl2m-podcasting.net/p/kuer/files/201403/Screen_Shot_2014-03-04_11-58-11.png

John Weisheit is conservation director for the Moab-based environmental group Living Rivers. He says the Utah Division of Water Quality should have required the mine to get a pollution permit for its tar sands mine. Regulators insist there is no water to pollute. But Weisheit says the mine site drains into the Green, White and Colorado Rivers.

The Utah Supreme Court heard oral arguments Tuesday in a case that could clear the way for the nation's first tar sands mine in Utah's Book Cliffs. Credit Kent Miles, Courtesy of the Utah State Courts

"All you have to do is get out of your car, put on a pack and hike 500 feet in any direction, and you're going to find water," he says. "In fact, the 150 feet they are going to excavate is the aquifer. They are going to take that away from the ecosystem. They are going to take away the aspens, the tree cover, the soil cover that took millennia to get there in the first place."

The court's five justices heard oral arguments from Weisheit's group on Tuesday. They also questioned attorneys representing state water quality regulators and U.S. Oil Sands, the company that has spent a decade and \$40 million to prepare the 213-acre tar sands site. U.S. Oil Sands vice president Barclay E. Cuthbert says the company is using low-impact approaches, including a citrus solvent.

"We're able to minimize our land impact, because we don't have those large tailings ponds," says Cuthbert. "We recover our water right away so that we use it while it's still warm. We're able to start our reclamation very quickly, so again you're minimizing your land footprint. And it's a very efficient extraction process so were getting as much of that bitumen from the sand that we can, because it's in our interest to do so."

4.3

The Supreme Court could take months to decide the case. They'll be looking at whether the Division of Water Quality mis-stepped. They'll also be determining whether Living Rivers waited too long to fight the state's decision

1 Comment KUER

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kumquat · 14 hours ago

Any one thinking this tar sands strip mine is not going to leave air, water and lands degraded, along with long term environmental hazards, horrible scars to look at for a long time, and probably a mess the taxpayers will have to deal with down the line, must have his hands over his eyes and his head in the sand.

Why should we trust a Canadian Co. with our precious lands? Look what they have done to their own forests, rivers and lakes in the Alberta Province. Is this what we want in the places we hunt, fish and play? Would this be something we could point at with pride? Utah, is a place we should all should be proud of and be taking care of.

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Willard Bay emerges from fuel spill in better shape

By Amy Joi O'Donoghue, Deseret News
Published: Tuesday, Feb. 4 2014 2:56 p.m. MST
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Chevron crews continue work on their petroleum pipeline clean up and testing at Willard Bay State Park Wednesday, May 1, 2013. The Utah Water Quality Board has approved the Willard Bay Settlement Agreement

Jeffrey D. Alfred, Deseret News

Summary

The Utah Water Quality Board has approved the Willard Bay Settlement Agreement between Division of Water Quality, Division of Parks and Recreation and Chevron Pipe Line Co. regarding the diesel fuel spill last year at Willard Bay State Park.

“Even though this has been obviously something that we would never want to have happen again, Chevron really stepped up to the plate and did a good job. We are better off than we were before this happened.”

Jeff Rasmussen, deputy director of the Utah Division of Parks and Recreation

SALT LAKE CITY — Utah state parks officials say they figure Willard Bay's north campground and marina lost nearly a quarter of a million visitors due to a March fuel spill last year, but a settlement agreement with Chevron puts the park in better shape than it was before.

“Even though this has been obviously something that we would never want to have happen again, Chevron really stepped up to the plate and did a good job,” said Jeff Rasmussen, deputy director of the Utah Division of Parks and Recreation. “We are better off than we were before this happened.”

A final settlement agreement between Chevron and Utah regulators was announced Tuesday and includes a payout of \$550,000 to the parks division because of the March 18 rupture of an 8-inch pipeline.

The ensuing spill of 21,000 gallons of diesel fuel swamped a beaver lodge and forced the closure of the north half of the park until late July — hampering Willard Bay's status as one of northern Utah's premier boating and fishing destinations.

Rasmussen said \$475,000 of Chevron's payment reflects compensation for the loss of future visitors as well.

“It is what the overall impact will be over the next five years from people who may decide not to go to Willard Bay because of what they have heard,” he said.

As part of the settlement, Chevron also agreed to pay \$350,000 in civil penalties to the state Division of Water

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Quality and \$4.45 million to fund mitigation projects that are above and beyond any cleanup actions by the company.

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Chevron received credit for \$719,000 in projects already completed at the state park and will also get a nod for a new \$600,000 handicapped-accessible trail that will bolster the park's amenities.

Rasmussen said park officials are excited to showcase the new trail and will host a grand "reopening" of Willard Bay over Memorial Day weekend.

The division is now soliciting proposals for mitigation projects that will enhance the natural environment and benefit Utah residents. Acceptable mitigation projects include environmental projects, infrastructure improvements, and studies or educational activities/events which serve the purpose of protecting or improving water quality and/or the ecology of natural systems.

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A two-phase process will be used to evaluate proposals and select projects for funding. Proposals must meet specified criteria and be submitted in the appropriate format. Requirements for proposals and application forms are available on the division's website.

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Amy Joi O'Donoghue

Amy Joi O'Donoghue is the environmental reporter the Deseret News, specializing in coverage of issues that affect land, air, water and energy development. She has worked here since 1998 and has been an assistant city more ..

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At a glance

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The Utah Division of Water Quality will consider mitigation projects "that will enhance the natural environment and benefit Utah citizens" through May 5.

A two-phase process will be used to evaluate proposals and select projects for funding. Proposals must meet specified criteria and be submitted in the appropriate format.

Requirements for proposals and application forms are available on DWQ's website at

www.deq.utah.gov/locations/willardbay/willardbay.htm

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will be used for mitigation projects selected by his agency and could include areas not directly impacted by the spill.

Chevron will pay a civil penalty of \$350,000 to DWQ, and \$550,000 will go to the Department of Natural Resources and Utah State Parks for the lost use of the marina and campgrounds during the spill and the cleanup.

"We appreciate the work done by DWQ and Chevron in negotiating the settlement," Fred Hayes, director of Utah State Parks, said in prepared release. "We feel the settlement adequately addresses the problems caused by the spill."

Chevron no longer owns the pipeline that runs from Salt Lake City to Spokane, Wash.

The line running through Willard Bay State Park, and not far from Interstate 15, is now owned by Tesoro Corporation.

Chevron had previously been fined \$426,600 for spills equaling 54,600 gallons on Red Butte Creek in Salt Lake City.

The company also spent about \$43 million in cleanup and mitigation in neighborhoods and at Liberty Park.

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Willard Bay oil spill settlement OKed; some skeptical

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SALT LAKE CITY – Utah's Water Quality Board has approved the \$5.35 million Willard Bay Settlement Agreement between the Division of Water Quality, Division of Parks and Recreation and Chevron Pipe Line Co.

That approval finalizes an agreement requiring Chevron to pay a \$350,000 civil penalty to DWQ, \$550,000 in damages to Parks and Recreation for lost use of Willard Bay Park last year, and \$4.45 million for mitigation projects above and beyond the fuel company's cleanup efforts.

The settlement comes in response to a March 18, 2013 fuel spill near Willard Bay that resulted in about 500 barrels of diesel fuel fouling a marshy area and causing harm to beavers and other wildlife.

That approval triggered a 120-day period for people to submit proposals for projects to be funded by the \$4.45 million.

Proposals will be accepted until 5 p.m. May 5. Utah DWQ Deputy Director John Whitehead said that proposal strength will depend on certain set criteria. "We'll evaluate all proposals and rank them, and then the strongest ones will be funded," Whitehead said.

How much of the funding stays at Willard Bay "depends on what comes in the door," Whitehead added, since proposals can come from all over Utah as long as they will "enhance and protect waterways and environmental areas that may have been affected or related to the March 2013 release of diesel in the Willard Bay State Park." a DWQ document stipulates.

Proposal criteria include improving wildlife, habitat and native vegetaton, and benefiting Utahns through infrastructure enhancements, educational and recreational opportunities.

To qualify, projects must reach completion up within four years.

Project strength will depend upon proximity to Willard Bay State Park, benefits to the natural environmnet, an increase in ecosystem services, social benefits, size, connectivity, the ability to leverage additional funds, effectiveness and administrative expenses.

For more information on proposal criteria, go to <http://tinyurl.com/m33k8h3> (<http://tinyurl.com/m33k8h3>)

During a 30-day public comment period that ended Jan. 16, DWQ received 29 responses concerning the settlement.

One comment lamented that the Wildlife Rehabilitation Center of Northern Utah was not named among the settlement's recipients. That Ogden-based center cared for six beavers injured by the spill.

The division responded that Chevron did pay the Center \$89,571, but that it could also submit a proposal to tap some of the \$4.45 million settlement.

Those comments and responses can be viewed here: <http://tinyurl.com/p4c2grm> (<http://tinyurl.com/p4c2grm>).

A recently formed nonprofit called Friends of Willard Bay State Park hopes that the funding will stay in northern Utah to improve fishing, boating, birding, camping and other recreational opportunities within the 9,900-acre park.

"A lot of people throughout the state view this as free money and want a piece of it," said Friends member Roland Roe.

Roe would prefer the dollars pay for projects directly related to water rather than funding construction of new buildings within the park itself.

For example, Friends established a 10-year plan that includes roadway upgrades on the park's south and west sides that would allow access to Willard Bay dikes.

"That's water-related because it opens up more fishing," Roe said. "But a new administration building has no relation to the water."

Roe predicts there will be disagreements and hurt feelings over how the money gets spent.

"And if they buy furniture with it, I will sue them myself," Roe said.

Whitehead declined to "prognosticate" on what kind of requests would be submitted and granted, but said that once the division has ranked proposals in terms of project strength, final approval will fall to Walt Baker, who directs Utah's Division of Water Quality.

Contact reporter Cathy McKittrick at 801-625-4214 or cmckitrick@standard.net (<mailto:cmckitrick@standard.net>). Follow her on Twitter at @catmck.

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Utah Division of Water Quality head honored

Deseret News

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Summary

The National Association of Clean Water Agencies on Monday honored Utah Division of Water Quality Director Walt Baker with the 2014 National Environmental State Public Service Award.

SALT LAKE CITY — The National Association of Clean Water Agencies on Monday honored Utah Division of Water Quality Director Walt Baker with the 2014 National Environmental State Public Service Award.

"Walt is a force for good in championing Utah's water issues," said Amanda Smith, the department's executive director. "I commend Walt's leadership both within the (Department of Environmental Quality) and nationally and join in congratulating him on being honored with this award."

During his 30 years at department, Baker has initiated and chaired various stakeholder work groups to address Utah's water issues, such as nutrient pollution in Utah's waterways, rules governing septic tank systems that serve much of rural Utah, mercury pollution and strategies to protect the Great Salt Lake's water quality.

Baker was appointed division director and executive secretary of the Utah Water Quality Board in May 2004. He has served as president of the Water Environment Association of Utah and the national Association of Clean Water Administrators. He currently serves on the Western States Water Council, the Utah Conservation Commission and the Utah Lake Commission.

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Utah oil shale mine faces new challenge

Environment » Groups are protesting groundwater permit issued to Red Leaf Resources.

By Brian Maffly | The Salt Lake Tribune

First Published Jan 23 2014 03:24 pm • Last Updated Jan 25 2014 04:48 pm

Environmental groups are challenging a key state permit that could enable a proposed Uintah County mine to become the nation's first commercial oil shale operation.

The state Division of Water Quality last year issued a groundwater permit to Red Leaf Resources, which seeks to strip mine oil shale on state land and cook it in sub-grade capsules to extract its hydrocarbons in liquid form. The permit, [Red Leaf's final regulatory](#) hurdle, allows a prototype operation, scaled back from the company's initial plan.

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But the Sierra Club and other groups contend the state neither adequately assessed the plan's threat to groundwater nor required adequate monitoring to determine whether the capsule will work as designed.

The state permit lacks provisions to see if the clay-lined capsule fractures during heating and actually prevents contaminants from leaching into groundwater, seeps and springs, according to documents the groups filed with the Department of Environmental Quality on Tuesday.

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The groups' "request for agency action" may hinge on narrow points of administrative law, but their larger goal is to keep Utah's oil shale industry from getting off the ground.

"Regardless of whether this technology proves viable, oil shale is the wrong energy path in an era of drought, waning river flows and worsening climate change," said Taylor McKinnon, an energy-policy activist with the Grand Canyon Trust, in a press statement.

Red Leaf officials have long held that their patented EcoShale retort process is the most environmentally friendly method of extracting oil from shale and that any threat it poses to groundwater can be mitigated. State and Uintah County leaders are eager to see Red Leaf and other developers tap the Green River Formation's vast oil shale reserves, believed to exceed 350 billion barrels of recoverable oil.

But decades of trying has yet to yield much fruit and environmentalists worry that success would yoke Utah to a "dirty energy" future.

"The scheme used by Red Leaf Resources is basically the same as it was for failed ventures a century ago: mine it, crush it, sort it, put it in an oven, heat it, gather the liquid into a sump, hope that it doesn't burn the facility down, and get it to a refinery before it congeals," said John Weisheit, conservation director with Moab-base Living Rivers. "It makes far more sense for an energy company to come over to my house and install solar panels on my roof."

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Towns want say in Logan wastewater plant project

By Amy Macavinta | Posted: Sunday, March 16, 2014 12:00 am

For months now, Logan city has been making plans to build a mechanical wastewater treatment plant and borrowing millions to complete the project — causing concern to some leaders in neighboring cities.

In January, North Logan Mayor Lloyd Berentzen said he acknowledged the need for the new facility. However, he is concerned about the debt that will be incurred and passed on not only to Logan citizens, but also to the citizens of North Logan and five other small communities who rely on Logan for wastewater treatment.

“There will be a substantial increase to the citizens in North Logan, and that’s just not acceptable,” Berentzen said. “We have no control and no representation.”

Until recently, North Logan, Hyde Park, Smithfield, River Heights, Providence and Nibley have had no part in the discussion to determine how to build or fund the new facility, even though their residents will be contributing to the repayment of debt through a utility bill increase of approximately \$10-\$15 per month.

“(Logan city) doesn’t have to take liability ... We don’t mind taking on more responsibility and would appreciate more standing,” said Nibley Mayor Shaun Dustin. “They own the land and the (current) facility, and they have maintained it for years. It is time for us to do our fair share.”

The lagoon system has cleaned the majority of Cache County’s wastewater for the last 50 years. The cleaned water is used for irrigation during the growing season and is

stored in Cutler Reservoir during the winter. The wastewater lagoons are one of the biggest of their kind in the United States, covering 460 acres on the west side of the valley.

As it stands, Dustin said, the Logan city wastewater treatment plant is a government monopoly that does not provide any other options to Nibley or any of the other cities.

Dustin said he would like to see the creation of a sewer district with a board to oversee the funding and operation of the wastewater treatment facility, with oversight from both Logan city and the six smaller cities.

“In Nibley, we are held hostage to whatever Logan does,” Dustin said. “Our opinions are not a lack of confidence — we are very happy with the service on a technical level. But we have no say on how it is all handled, and we are backed into a corner.”

To date, Logan city has set aside \$15 million toward construction of a new mechanical treatment facility that must be built and operational by 2017. The city has also secured \$80 million in low-

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interest loans from state agencies — leaving them about \$16 million shy of the \$111.6 million projected cost.

At one time, the project was expected to be about \$40 million.

Logan Mayor Craig Peterson said at that time, the city thought they only needed to address the phosphorus levels in the wastewater. But, he said, about 18 months ago, the city learned they would also have to treat the waste for ammonia as well.

“That is when the costs shot up; we were partially blindsided, too,” Peterson said.

A 2010 study of Cutler Reservoir found the phosphorus levels, contributed by the lagoons, were too high. Phosphorus stimulates algae growth, which can harm aquatic life.

Additionally, the Environmental Protection Agency has new standards regarding ammonia, nitrogen and phosphorus, and the Utah Division of Water Quality will roll out standards for phosphorus and nitrogen in the coming years. The water discharged from Logan’s lagoons does not meet the new standards.

Berentzen said Peterson has been open to discussions about the treatment facility and all of the cities involved are trying to come to an agreement.

“Logan has come to the table and we’re having our discussions, where before there was no significant dialogue between us,” Berentzen said Saturday. “Mayor Peterson has been very willing to cooperate with that.”

And in the meantime, Berentzen said the group of mayors has asked the state to consider what the best overall solution for waste treatment is for the valley — whether that is one large system as proposed at this time, or perhaps one facility for Logan and additional facilities for the regions north and south of Logan.

According to Peterson, there is a proposal on the table to create an advisory board, which would give the six small cities voting status.

“I support that,” Peterson said. “I think they have a legitimate issue.”

Peterson, who won the race for Logan mayor in 2013 and has only been at the helm of this project for the last three months, said the cities’ concerns are not so different from those of Logan city in terms of spending and the overall outcome of the project.

“This isn’t something Logan city has decided with in-house personnel,” Peterson said. “We are working with a very experienced engineering firm and also with the state’s Division of Water Quality Board. All along the line, they are looking at both the technology and the cost associated with this project.”

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Peterson added that the city has also employed an independent consultant who will ensure that the appropriate technology is used for the job while not spending more than necessary.

“I need the same reassurances the cities do,” Peterson said. “I certainly have no inclination to build a Rolls Royce if we can get by with a Chevy.”

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