

**LOAN FUNDS  
FINANCIAL PROJECTIONS**

	4th Qtr FY2015 Apr - June 2015	1st Qtr FY 2016 July - Sept 2015	2nd Qtr FY 2016 Oct - Dec 2015	3rd Qtr FY 2016 Jan - Mar 2016	4th Qtr FY 2016 Apr - June 2016	1st Qtr FY 2017 July - Sept 2016	2nd Qtr FY 2017 Oct - Dec 2016	3rd Qtr FY 2017 Jan - Mar 2017	4th Qtr FY 2017 Apr - June 2017	1st Qtr FY 2018 July - Sept 2017	2nd Qtr FY 2018 Oct - Dec 2017	3rd Qtr FY 2018 Jan - Mar 2018
<b>STATE REVOLVING FUND (SRF)</b>												
<b>Funds Available</b>												
SRF - 1st Round (LOC) 2014 Cap Grant	5,300,381	-	-	-	-	-	-	-	-	-	-	-
Less: 2014 Principal Forgiveness Amount	(600,934)	-	-	-	-	-	-	-	-	-	-	-
SRF - 1st Round (LOC) 2015 Cap Grant	7,067,520	-	-	-	-	-	-	-	-	-	-	-
State Match	1,472,400	-	-	-	-	-	-	-	-	-	-	-
SRF - 2nd Round	80,311,566	93,336,400	93,309,094	93,360,307	67,791,793	71,448,046	61,494,432	53,193,702	46,996,051	40,783,016	32,813,949	24,050,299
Interest Earnings at 0.6%	120,467	116,670	116,636	116,700	84,740	89,310	76,868	66,492	58,745	50,979	41,017	30,063
Loan Repayments	-	1,925,024	1,603,576	4,724,786	3,571,513	1,957,076	1,622,402	4,685,856	3,728,221	1,979,954	1,195,332	4,711,189
<b>Total Funds Available</b>	<b>93,671,400</b>	<b>95,378,094</b>	<b>95,029,307</b>	<b>98,201,793</b>	<b>71,448,046</b>	<b>73,494,432</b>	<b>63,193,702</b>	<b>57,946,051</b>	<b>50,783,016</b>	<b>42,813,949</b>	<b>34,050,299</b>	<b>28,791,551</b>
<b>Project Obligations</b>												
Eureka City	-	(400,000)	-	-	-	-	-	-	-	-	-	-
Francis City	-	(1,669,000)	(1,669,000)	-	-	-	-	-	-	-	-	-
Kearns Improvement District (2011)	(335,000)	-	-	-	-	-	-	-	-	-	-	-
<b>Loan Authorizations</b>												
*Logan City	-	-	-	-	-	(10,000,000)	(10,000,000)	(10,000,000)	(10,000,000)	(10,000,000)	(10,000,000)	(10,000,000)
<b>Anticipated Projects</b>												
Ammonia Projects	-	-	-	-	-	-	-	-	-	-	-	(13,647,000)
Phosphorus Projects	-	-	-	-	-	-	-	-	-	-	-	(23,377,500)
Bear Lake SSD	-	-	-	-	-	(2,000,000)	-	-	-	-	-	-
*Moab City	-	-	-	(10,510,000)	-	-	-	-	-	-	-	-
Payson City	-	-	-	(6,900,000)	-	-	-	-	-	-	-	-
Salem City	-	-	-	(13,000,000)	-	-	-	-	-	-	-	-
Wellington City	-	-	-	-	-	-	-	(950,000)	-	-	-	-
<b>Total Obligations</b>	<b>(335,000)</b>	<b>(2,069,000)</b>	<b>(1,669,000)</b>	<b>(30,410,000)</b>	<b>-</b>	<b>(12,000,000)</b>	<b>(10,000,000)</b>	<b>(10,950,000)</b>	<b>(10,000,000)</b>	<b>(10,000,000)</b>	<b>(10,000,000)</b>	<b>(47,024,500)</b>
<b>SRF Unobligated Funds</b>	<b>\$ 93,336,400</b>	<b>\$ 93,309,094</b>	<b>\$ 93,360,307</b>	<b>\$ 67,791,793</b>	<b>\$ 71,448,046</b>	<b>\$ 61,494,432</b>	<b>\$ 53,193,702</b>	<b>\$ 46,996,051</b>	<b>\$ 40,783,016</b>	<b>\$ 32,813,949</b>	<b>\$ 24,050,299</b>	<b>\$ (18,232,949)</b>

	4th Qtr FY 2015 Apr - June 2015	1st Qtr FY 2016 July - Sept 2015	2nd Qtr FY 2016 Oct - Dec 2015	3rd Qtr FY 2016 Jan - Mar 2016	4th Qtr FY 2016 Apr - June 2016	1st Qtr FY 2017 July - Sept 2016	2nd Qtr FY 2017 Oct - Dec 2016	3rd Qtr FY 2017 Jan - Mar 2017	4th Qtr FY 2017 Apr - June 2017	1st Qtr FY 2018 July - Sept 2017	2nd Qtr FY 2018 Oct - Dec 2017	3rd Qtr FY 2018 Jan - Mar 2018
<b>UTAH WASTEWATER LOAN FUND (UWLF)</b>												
<b>Funds Available</b>												
UWLF	\$ 13,815,560	\$ 10,893,635	\$ 9,116,185	\$ 9,925,535	\$ 11,272,270	\$ 13,050,632	\$ 14,077,315	\$ 14,886,665	\$ 16,180,095	\$ 18,112,850	\$ 19,176,633	\$ 19,985,983
Sales Tax Revenue	-	896,875	896,875	896,875	896,875	896,875	896,875	896,875	896,875	896,875	896,875	896,875
Loan Repayments	-	469,200	252,000	789,385	1,221,012	469,333	252,000	736,080	1,375,404	506,433	252,000	704,080
<b>Total Funds Available</b>	<b>13,815,560</b>	<b>12,259,710</b>	<b>10,265,060</b>	<b>11,611,795</b>	<b>13,390,157</b>	<b>14,416,840</b>	<b>15,226,190</b>	<b>16,519,620</b>	<b>18,452,375</b>	<b>19,516,158</b>	<b>20,325,508</b>	<b>21,586,938</b>
<b>General Obligations</b>												
State Match Transfer	(1,472,400)	-	-	-	-	-	-	-	-	-	-	-
DWQ Administrative Expenses	(339,525)	(339,525)	(339,525)	(339,525)	(339,525)	(339,525)	(339,525)	(339,525)	(339,525)	(339,525)	(339,525)	(339,525)
<b>Project Obligations</b>												
Murray City	(1,110,000)	-	-	-	-	-	-	-	-	-	-	-
<b>Loan Authorizations</b>												
Eagle Mountain City - White Hills	-	(490,000)	-	-	-	-	-	-	-	-	-	-
<b>Planned Projects</b>												
Helper City	-	(2,314,000)	-	-	-	-	-	-	-	-	-	-
<b>Total Obligations</b>	<b>(2,921,925)</b>	<b>(3,143,525)</b>	<b>(339,525)</b>	<b>(339,525)</b>	<b>(339,525)</b>	<b>(339,525)</b>	<b>(339,525)</b>	<b>(339,525)</b>	<b>(339,525)</b>	<b>(339,525)</b>	<b>(339,525)</b>	<b>(339,525)</b>
<b>UWLF Unobligated Funds</b>	<b>\$ 10,893,635</b>	<b>\$ 9,116,185</b>	<b>\$ 9,925,535</b>	<b>\$ 11,272,270</b>	<b>\$ 13,050,632</b>	<b>\$ 14,077,315</b>	<b>\$ 14,886,665</b>	<b>\$ 16,180,095</b>	<b>\$ 18,112,850</b>	<b>\$ 19,176,633</b>	<b>\$ 19,985,983</b>	<b>\$ 21,247,413</b>

**HARDSHIP GRANT FUNDS  
FINANCIAL PROJECTIONS**

	4th Qtr FY 2015 Apr - June 2015	1st Qtr FY 2016 July - Sept 2015	2nd Qtr FY 2016 Oct - Dec 2015	3rd Qtr FY 2016 Jan - Mar 2016	4th Qtr FY 2016 Apr - June 2016	1st Qtr FY 2017 July - Sept 2016	2nd Qtr FY 2017 Oct - Dec 2016	3rd Qtr FY 2017 Jan - Mar 2017	4th Qtr FY 2017 Apr - June 2017	1st Qtr FY 2018 July - Sept 2017	2nd Qtr FY 2018 Oct - Dec 2017	3rd Qtr FY 2018 Jan - Mar 2018
<b>HARDSHIP GRANT FUNDS (HGF)</b>												
<b>Funds Available</b>												
Beginning Balance	\$ -	\$ 4,128,655	\$ 2,403,875	\$ 2,420,725	\$ 1,656,166	\$ 1,881,444	\$ 1,355,645	\$ 1,377,106	\$ 1,642,390	\$ 2,722,687	\$ 2,176,852	\$ 2,205,434
Federal HGF Beginning Balance	5,416,240	-	-	-	-	-	-	-	-	-	-	-
State HGF Beginning Balance	478,650	-	-	-	-	-	-	-	-	-	-	-
2014 Principal Forgiveness Amount	600,934	-	-	-	-	-	-	-	-	-	-	-
Interest Earnings at 0.6%	8,842	5,161	3,005	3,026	2,070	2,352	1,695	1,721	2,053	3,403	2,721	2,757
UWLF Interest Earnings at 0.6%	20,723	13,617	11,395	12,407	14,090	16,313	17,597	18,608	20,225	22,641	23,971	24,982
Hardship Grant Assessments	363,904	424,442	-	104,451	930,197	402,201	-	201,698	860,685	379,454	-	180,346
Interest Payments	-	58,000	2,450	53,057	216,420	53,335	2,170	43,257	197,334	48,667	1,890	33,132
Advance Repayments	1,613,500	-	-	-	-	-	-	-	-	-	-	-
<b>Total Funds Available</b>	<b>8,502,794</b>	<b>4,629,875</b>	<b>2,420,725</b>	<b>2,593,666</b>	<b>2,818,944</b>	<b>2,355,645</b>	<b>1,377,106</b>	<b>1,642,390</b>	<b>2,722,687</b>	<b>3,176,852</b>	<b>2,205,434</b>	<b>2,446,650</b>
<b>Project Obligations</b>												
Blanding City - Planning Advance	(39,900)	-	-	-	-	-	-	-	-	-	-	-
DWQ-Central Utah Pulic Health Dept - Planning Grant	(50,000)	-	-	-	-	-	-	-	-	-	-	-
Eagle Mountain City - White Hills - Construction Grant	-	(580,000)	-	-	-	-	-	-	-	-	-	-
Echo Sewer SSD - Construction Grant	(251,000)	-	-	-	-	-	-	-	-	-	-	-
Eureka City - Construction Grant	-	(646,000)	-	-	-	-	-	-	-	-	-	-
Francis City - Construction Grant	-	-	-	(937,500)	(937,500)	-	-	-	-	-	-	-
Hildale City - Planning Grant	(40,000)	-	-	-	-	-	-	-	-	-	-	-
San Juan Spanish Valley - Planning Grant	(75,000)	-	-	-	-	-	-	-	-	-	-	-
TriCounty Health Dept. - Planning Grant	(45,000)	-	-	-	-	-	-	-	-	-	-	-
Virgin Town - Planning Advance	(36,000)	-	-	-	-	-	-	-	-	-	-	-
Wellington - Planning Advance	(32,000)	-	-	-	-	-	-	-	-	-	-	-
<b>Planned Projects</b>												
*Emigration Sewer Imp Dist - Planning Grant	(60,000)	-	-	-	-	-	-	-	-	-	-	-
<b>Non-Point Source Project Obligations</b>												
(FY11) Gunnison Irrigation Company	(48,587)	-	-	-	-	-	-	-	-	-	-	-
(FY11) DEQ - Willard Spur Study	(285,778)	-	-	-	-	-	-	-	-	-	-	-
(FY12) UDAF	(947,714)	-	-	-	-	-	-	-	-	-	-	-
(FY13) DEQ - Great Salt Lake Advisory Council	(400,000)	-	-	-	-	-	-	-	-	-	-	-
(FY14) UACD	(56,524)	-	-	-	-	-	-	-	-	-	-	-
(FY15) DEQ - Nitrogen Transformation Study	(150,000)	-	-	-	-	-	-	-	-	-	-	-
(FY15) North Summit Irrigation Company	(199,526)	-	-	-	-	-	-	-	-	-	-	-
(FY15) Utah Open Lands	(100,000)	-	-	-	-	-	-	-	-	-	-	-
FY 2011 - Remaining Payments	(32,178)	-	-	-	-	-	-	-	-	-	-	-
FY 2012 - Remaining Payments	(59,713)	-	-	-	-	-	-	-	-	-	-	-
FY 2013 - Remaining Payments	(232,613)	-	-	-	-	-	-	-	-	-	-	-
FY 2014 - Remaining Payments	(506,992)	-	-	-	-	-	-	-	-	-	-	-
FY 2015 - Remaining Payments	(725,613)	-	-	-	-	-	-	-	-	-	-	-
FY 2016 Allocation	-	(1,000,000)	-	-	-	-	-	-	-	-	-	-
FY 2017 Allocation	-	-	-	-	-	(1,000,000)	-	-	-	(1,000,000)	-	-
FY 2018 Allocation	-	-	-	-	-	-	-	-	-	-	-	-
<b>Non-Point Source Projects in Planning</b>												
None at this time	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligations</b>	<b>(4,374,138)</b>	<b>(2,226,000)</b>	<b>-</b>	<b>(937,500)</b>	<b>(937,500)</b>	<b>(1,000,000)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(1,000,000)</b>	<b>-</b>	<b>-</b>
<b>HGF Unobligated Funds</b>	<b>\$ 4,128,655</b>	<b>\$ 2,403,875</b>	<b>\$ 2,420,725</b>	<b>\$ 1,656,166</b>	<b>\$ 1,881,444</b>	<b>\$ 1,355,645</b>	<b>\$ 1,377,106</b>	<b>\$ 1,642,390</b>	<b>\$ 2,722,687</b>	<b>\$ 2,176,852</b>	<b>\$ 2,205,434</b>	<b>\$ 2,446,650</b>

**State of Utah  
Wastewater Project Assistance Program  
Project Priority List**

FY15 Rank	Project Name	Funding Authorized	Total Points	Point Categories				Description of Project Status
				Project Need	Potential Improvement	Population Affected	Special Consideration	
1	Logan City	x	159	50	39	10	60	Planning
2	Price River Water Improvement District	x	145	70	48	7	20	Design
3	Coalville City	x	142	40	40	2	60	Construction
4	Moab City		120	50	24	6	40	Design
5	Eureka City	x	118	50	0	8	60	Construction
6	Echo City	x	112	70	41	1	0	Construction
7	Snyderville Basin WRD	x	107	10	29	8	60	Design
8	White Hills - Eagle Mountain	x	106	40	5	1	60	Design
9 (Tie)	Kearns Improvement District	x	105	40	16	9	40	Construction
	Granger-Hunter Improvement District	x	105	35	0	10	60	Construction
11	Ephraim	x	102	40	16	6	40	Construction
12	Salem City	x	94	50	18	6	20	Planning
13	Helper City	x	83	40	0	3	40	Planning
14	Long Valley Sewer Improvement District	x	79	10	7	2	60	Construction
15 (Tie)	Murray City	x	78	10	0	8	60	Construction
	Wellington City	x	78	35	1	2	40	Planning
17	Francis City	x	72	10	0	2	60	Design
18	Payson City	x	70	10	13	7	40	Planning
19	Midvalley Improvement District	x	68	40	0	8	20	Design/Construction



State of Utah

GARY R. HERBERT  
Governor

SPENCER J. COX  
Lieutenant Governor

Department of  
Environmental Quality

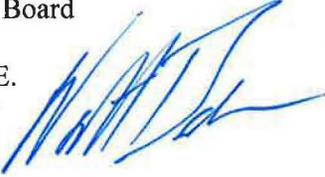
Alan Matheson Jr.  
Acting Executive Director

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

**Water Quality Board**  
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Shane E. Pace, Vice-Chair  
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Steven K. Earley  
Gregg A. Galecki  
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Michael D. Luers  
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Hugo E. Rodier  
Walter L. Baker  
Executive Secretary

**MEMORANDUM**

**TO:** Utah Water Quality Board

**THROUGH:** Walter L. Baker, P.E.  
Executive Secretary 

**FROM:** Lisa Nelson, P.E.  
Project Manager

**DATE:** June 24, 2015

**SUBJECT:** Logan Funding Update

On May 27, 2015, staff presented an update to the Water Quality Board (Board) on the status of the Interlocal Agreement negotiations between Logan City and the six communities that receive wastewater treatment service from Logan. These communities are Nibley, Hyde Park, North Logan, Smithfield, Providence, and River Heights

Since the May meeting, the communities have continued their negotiations and have reached an Agreement. Per the attached Letter of Intent, the six communities respectfully withdraw their previous request and request the Board reaffirm the financing that was approved on January 22, 2014.

At the May meeting staff also informed the Board that Nibley and Providence funded a planning effort to explore the feasibility of obtaining wastewater treatment services from Hyrum. On June 10<sup>th</sup>, Nibley and Providence submitted an application for additional planning funds to augment their existing plan to meet the technical and environmental requirements of the SRF program. This request will likely be presented to the Board for consideration at the August meeting.

**Since an agreement has been reached, staff's recommendation is that the Board reaffirm the \$70 million loan it authorized to Logan City at the same rate of 0.75% and the same term (20 years) as it did on January 22, 2014 with no additional special conditions.**

Attachment: Letter of Intent



**Letter of Intent**

Dear Members of the Water Quality Treatment Board in the State of Utah,

It is the intent of the Mayors of the following cities, contingent on ratification and appropriate approvals of the City Councils, to sign the Interlocal Agreement attached which would create a Regional Wastewater Treatment Rate Committee.

THE CITY OF LOGAN, a municipal corporation of the State of Utah (hereinafter referred to as "LOGAN"),

THE CITY OF SMITHFIELD, a municipal corporation of the State of Utah (hereinafter referred to as "SMITHFIELD"),

THE CITY OF HYDE PARK, a municipal corporation of the State of Utah (hereinafter referred to as "HYDE PARK"),

THE CITY OF NORTH LOGAN, a municipal corporation of the State of Utah (hereinafter referred to as "NORTH LOGAN"),

THE CITY OF RIVER HEIGHTS, a municipal corporation of the State of Utah (hereinafter referred to as "RIVER HEIGHTS"),

THE CITY OF PROVIDENCE, a municipal corporation of the State of Utah (hereinafter referred to as "PROVIDENCE"), and

THE CITY OF NIBLEY, a municipal corporation of the State of Utah (hereinafter referred to as "NIBLEY").

	Signature:	Date:
Craig Peterson, Mayor – Logan City		June 17, 2015
Darrell Simmons, Mayor – Smithfield City		June 17, 2015
Brian Cox, Mayor – Hyde Park City		6-17-15
Lloyd Berentzen, Mayor – North Logan City		6-17-15
Jim Brackner, Mayor – River Heights City		6/17/15
Don Calderwood, Mayor – Providence City		6-17-15
Shaun Dustin, Mayor – Nibley City		6-17-15



State of Utah

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Jennifer Grant  
Michael D. Luers  
Alan Matheson Jr.  
Hugo E. Rodier  
Walter L. Baker  
Executive Secretary

Application Number: \_\_\_\_\_

Date Received: June 4, 2015

Date to be presented to the WQB: June 24, 2014

**WATER QUALITY BOARD  
FEASIBILITY REPORT FOR WASTEWATER TREATMENT PROJECT  
INTRODUCTION**

APPLICANT: Moab City  
217 East Center Street  
Moab, Utah 84532

PRESIDING OFFICIAL: Mayor David Sakrison

TREASURER/RECORDER: Rachel Stenta, City Recorder

CONSULTING ENGINEER: Jeff Beckman  
Bowen, Collins & Associates, Inc.  
Draper, UT 84020  
Telephone: (801) 495-2224

BOND COUNSEL: Fred Philpot  
Lewis Young, Robertson & Burningham, Inc.  
41 North Rio Grande Street, Ste. 101  
Salt Lake City, UT 84101  
Telephone (801) 596-0700

**APPLICANT'S REQUEST:**

**Moab City is requesting financial assistance in the amount of a \$10,510,000 loan for the construction of its 2015 Wastewater Treatment Plant Project.**

**APPLICANT'S LOCATION:**

Moab City is located just south of the Colorado River on the Colorado Plateau, along Highway 191. It is just south of Arches National Parks and east of Canyonlands National Park and Deadhorse Point State Park

## **MAP OF APPLICANT'S LOCATION**



### **BACKGROUND:**

The current population of Moab is estimated to be 5,146 people. The City's treatment plant also receives wastewater from Grand Water and Sewer Service Agency (GWSSA), to the south of the City. The treatment plant has approximately 4,405 ERUs connected to it, of which approximately 10% are commercial. Additionally, the treatment plant receives approximately 1,500,000 gallons annually from septage haulers.

Current land use within Moab's treatment plant's service area is residential, recreational, agricultural, and commercial. GOPB projects the growth rate to average at approximately 1% per year over the next 20 years.

The existing sewer system in Moab pipes wastewater flow from Moab and GWSSA and treats it in primary clarifiers, a trickling filter, and secondary clarifiers. For the last couple of years, the treatment plant has had periods of noncompliance for BOD.

**PROJECT NEED:**

Moab's wastewater treatment plant was constructed in the 1950s and has essentially reached the end of its design life. While the plant still has some remaining hydraulic capacity, at certain times of the year, it is organically overloaded. Additionally, trickling filter treatment plants are unlikely to be able to meet the recent technology-based phosphorus limit that has been implemented by the Division (Total Phosphorus = 1 mg/L) and would also be unlikely to be able to meet any future nutrient limits or standards that the Division may adopt.

Construction of this project would result in Moab being able regain compliance with its current UPDES Permit and meet the recently adopted phosphorus discharge limit. Additionally, because the quality of the treatment plant's effluent would be improved, there is the potential that the treatment plant's effluent could be diverted through the Matheson Wetland before being discharged into the Colorado River. The feasibility of this option is still being investigated.

**ALTERNATIVES EVALUATED:**

The consulting engineers evaluated the following treatment alternatives for Moab:

1. No action.
2. Optimization of plant operations.
3. Modification and/or expansion of existing treatment plant.
4. Construction of an oxidation ditches.
5. Construction of sequencing batch reactors.

**POSITION ON PROJECT PRIORITY LIST:**

This project is ranked No. 4 of 19 projects on the Wastewater Treatment Project Priority List.

**POPULATION GROWTH:**

**Population and Connection Projections**

<b>Year</b>	<b>Residents</b>
2010	5,046
2020	5,634
2030	6,181
2040	6,644
2050	7,164

(Source: Governor's Office of Planning and Budget 2013 estimates.)

**PUBLIC PARTICIPATION AND DEMONSTRATION OF PUBLIC SUPPORT:**

Moab has held public meetings regarding the treatment plant project. Moab will need to have public meetings regarding the adoption of the facility plan, rate resolutions, and the bond resolution.

**IMPLEMENTATION SCHEDULE:**

Apply to WQB for Funding:	June 4, 2015
WQB Introduction	June 24, 2015
WQB Funding Authorization:	August 26, 2015
Facility Plan Approval:	December 2015
Issue Construction Permit	September 2016
Bid Opening	December 2016
Complete Construction	May 2018

**APPLICANT'S CURRENT USER CHARGE:**

Residential:	\$10.00 per month plus \$1.50 per 1,000 gallons of water use
Commercial:	\$13.25 per month plus \$1.30 per 1,000 gallons of water use
Industrial:	\$13.25 per month plus \$1.30 per 1,000 gallons of water use

The average sewer rate is approximately \$16.90 per month per ERU.

**COST ESTIMATE:**

Construction costs for the no action, optimization of plant operations, and modification and/or expansion of existing treatment plant alternatives were generated because none of these alternatives would be able to treat the effluent adequately for phosphorus removal.

Alternative	Construction Cost
SBR	\$8,139,000
Ox Ditch	\$8,993,000

These costs do not include contingency, engineering, legal, financial, administration, rights-of-way or property costs. In addition to the \$854,000 in capital savings over the Ox-Ditch system, the SBR is \$1,023,000 less expensive over a 20-year net present worth cost for operations and maintenance.

In the alternatives analysis, the SBR option was determined to have the lowest construction and 20-year life cycle cost. However, the Oxidation Ditch ranked equal to or higher than the SBR on all non-economic comparisons: noise, traffic, odors, appearance, environmental, familiarity and wide use in Utah, simplicity – ease of operation, maintenance and repair/replacement requirements, and implementability. The preferred alternative has not yet been determined by the City. The construction costs shown in the table below are for the more expensive of the two options.

<b>Item</b>	<b>Cost</b>
Legal/bonding	\$50,000
DWQ Loan Origination	\$105,000
Engineering - Planning	\$540,000
Engineering - Special	\$51,000
Engineering - CMS	\$540,000
Property / ROW	\$51,000
Construction	\$8,993,000
Contingency	\$1,360,000
<b>Total</b>	<b>\$11,690,000</b>

**COST SHARING:**

Moab is proposing the following cost sharing:

<u>Funding Source</u>	<u>Cost Sharing</u>	<u>Percent of Project</u>
Local Contribution	\$ 262,000	2.2%
CIB Grant	\$ 918,000	7.9%
WQB Loan	\$ 10,510,000	89.9%
<b>Total</b>	<b>\$ 11,690,000</b>	<b>100.0%</b>

**OTHER ISSUES:**

It is worth noting that Moab is the only mechanical treatment plant in the very large Southeast Utah geographic area and receives approximately 1,500,000 gallons of higher strength septage waste annually. Without the Moab plant it is unclear that the surrounding lagoon treatment plants would be capable of receiving that much septage. The Water Quality Board may wish to consider this service that Moab provides to the State when deciding upon an interest rate for when the request for authorization is made in August.

The request from Moab is for a \$10,510,000 loan. In the Utah Wastewater Loan Fund, there is approximately \$13,000,000 of unobligated funds. Moab may be willing to close its loan early, assisting DWQ in obligating these funds sooner rather than later

**STAFF RECOMMENDATIONS:**

**This feasibility report serves as an introduction of the project to the Board. Staff recommendations will be made at the August Board meeting**

**WATER QUALITY BOARD STATIC COST MODEL  
MOAB CITY REGIONAL WASTEWATER TREATMENT FACILITY**

**Project Costs**

Legal/Bonding	50,000
DWQ Loan Origination Fee	105,000
Engineering - Planning, Env. & Design	540,000
Engineering - Special	51,000
Engineering - Other	-
Engineering - CMS	540,000
Property, Easements, & R.O.W.	51,000
Construction	8,993,000
Contingency (approx 15% const. cost)	1,360,000
<b>Total Project Cost:</b>	<b>11,690,000</b>

**Project Funding**

Applicant Contribution	262,000	2.2%
CIB Grant	918,000	7.9%
Other Loan	-	
WQB Loan	10,510,000	89.9%
WQB Grant	-	
<b>Total Project Cost:</b>	<b>11,690,000</b>	

**Current Customer Base & User Charges**

Total ERUs:	4,405
MAGI:	31,141
Current Impact Fee (per ERU):	\$2,819.00
Current Monthly User Fee (per ERU):	\$16.90
Current Sewer Property Tax Total	-
Current Sewer Property Tax per Month per ERU	\$0.00
Current Monthly User Property Tax (per ERU):	\$0.00
<b>1.4% MAGI Sewer Bill:</b>	<b>\$36.33</b>
<b>Need Grant, Reduced Interest, or Dynamic Payment?</b>	<b>no</b>

Existing O&M expenses Treatment & Collection	\$0
New O&M expenses Treatment & Collection	\$1,000,000

**Sewer Debt Service**

Other Sewer Debt Service	\$0
New Sewer Debt Service	\$525,500

**Funding Conditions**

Loan Repayment Term:	20
Reserve Funding Period:	5

**ESTIMATED COST OF SEWER SERVICE**

WQB Grant Amount	WQB Loan Amount	WQB Loan Interest Rate	WQB Loan Debt Service	WQB Loan Reserve	Annual Sewer O&M Cost	Existing Sewer Debt Service	Total Annual Sewer Cost	Monthly Sewer Cost/ERU	Sewer Cost as a % of MAGI
-	10,510,000	0.00%	\$525,500.00	157,650	1,000,000	\$0	\$1,683,150.00	31.84	1.23%
-	10,510,000	0.25%	\$539,403.44	161,821	1,000,000	-	1,701,224	32.18	1.24%
-	10,510,000	0.50%	\$553,524.41	166,057	1,000,000	-	1,719,582	32.53	1.25%
-	10,510,000	0.75%	\$567,861.94	170,359	1,000,000	-	1,738,221	32.88	1.27%
-	10,510,000	1.00%	\$582,414.96	174,724	1,000,000	-	1,757,139	33.24	1.28%
-	10,510,000	1.25%	\$597,182.30	179,155	1,000,000	-	1,776,337	33.60	1.29%
-	10,510,000	1.50%	\$612,162.68	183,649	1,000,000	-	1,795,811	33.97	1.31%
-	10,510,000	1.75%	\$627,354.77	188,206	1,000,000	-	1,815,561	34.35	1.32%
-	10,510,000	2.00%	\$642,757.11	192,827	1,000,000	-	1,835,584	34.73	1.34%
-	10,510,000	2.25%	\$658,368.16	197,510	1,000,000	-	1,855,879	35.11	1.35%
-	10,510,000	2.50%	\$674,186.32	202,256	1,000,000	-	1,876,442	35.50	1.37%



State of Utah

GARY R. HERBERT  
Governor

SPENCER J. COX  
Lieutenant Governor

Department of  
Environmental Quality

Alan Matheson Jr.  
Executive Director

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

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Michael D. Luers  
Alan Matheson Jr.  
Hugo E. Rodier  
Walter L. Baker  
Executive Secretary

Project Number:

Date Received:

Date to be presented to the WQB:

May 20, 2015

June 24, 2015

**WATER QUALITY BOARD  
REQUEST FOR HARDSHIP PLANNING ADVANCE TO  
PREPARE WASTEWATER COLLECTION/TREATMENT FEASIBILITY STUDY  
AUTHORIZATION**

APPLICANT:

Emigration Improvement District  
PO Box 58945  
Salt Lake City, Utah 84108  
Telephone: 801-651-3201

PRESIDING OFFICIAL:

Chairman – Michael Hughes  
5754 Emigration Canyon Rd.  
Salt Lake City, Utah 84108  
Telephone: 435-874-2323

CONTACT PERSON:

Eric Hawkes – General Manager

TREASURER:

David Bradford - Trustee

CONSULTING ENGINEER:

Brad Rasmussen – Project Manager  
Aqua Engineering  
533 W 2600 S Suite 275  
Bountiful, UT 84010  
Telephone 801.299.1327

CITY ATTORNEY:

Jeremy Cook – District Attorney  
Cohne/Kinghorn  
111 East Broadway, 11<sup>th</sup> Floor  
Salt Lake City, UT 84111  
Telephone 801.363.4300

### APPLICANT'S REQUEST:

Emigration Improvement District (The District) requests a **hardship planning grant in the amount of \$60,000** to complete an Emigration Canyon Wastewater Master Plan (Canyon Master Plan) for evaluating alternatives for wastewater management in Emigration Canyon, where Emigration Creek has been shown to be impaired for E.coli (pathogens). The District, Salt Lake County, Salt Lake City and the Division of Water Quality believe this impairment is due, at least in part, to discharges from onsite systems.

### APPLICANT'S LOCATION

Emigration Canyon is located in Salt Lake County on the east side of Salt Lake City.



### BACKGROUND

Emigration Canyon was originally settled as a summer home community. Over time, and with improvements in transportation and culinary water services, much of the property has been transformed into full-time residential use. All of the houses and businesses use individual onsite systems for wastewater disposal. Many of the onsite systems installed would not meet today's design standards and are believed to be inadequate due to their age and location. It is believed that some of these systems contribute to the present impairment of certain segments of Emigration Creek for E.coli or pathogens, because of this inadequate treatment of their discharges.

The Emigration Improvement District was formed in 1968 by action of Salt Lake County Commission to provide water and wastewater services to residents of the Emigration Canyon. In 1970-71, the first board of trustees proposed a canyon-wide sewer system and water system, but that proposal was met with strong opposition from the community and was not feasible at the time.

The District's primary function has been to provide water supply services, however, the District is the body politic for overseeing Ruth's Diner's wastewater system and a combined drain field system located within the District's well protection zone. The District currently has no income for wastewater related projects or services that can support wastewater services to the other residences in the canyon.

### **PROJECT DESCRIPTION:**

The proposed Canyon Master Plan will provide a comprehensive study, including the following tasks, and will result in a prioritized system for wastewater management and implementation of improvements.

The study will include:

- **Review existing planning documents** – Review existing documents from previous planning exercises and other agencies such as the County and State that may have looked at the wastewater issues. The information within these reports will be summarized and updated if necessary within this planning document. This information will be used to define and establish the need and importance of implementing improvements.
- **Evaluate Treatment Alternatives** – The mode of disposal will affect the treatment requirements. Costs will be developed for each alternative. The following treatment alternatives will be studied:
  - a. **No Change alternative** – This option will establish baseline conditions and potential ramifications of taking no action.
  - b. **Investigate Feasibility of Establishing an Onsite System Management District** – Evaluate the feasibility of establishing a permanent Onsite System Management District involved in ongoing inspection or maintenance of all onsite systems in the canyon.
  - c. **Combined Septic Systems** – Evaluate the use of cluster onsite systems in problem areas, using existing individual system components where possible. Determine the feasibility to discharge to a combined drain field at various locations. These systems may be designed to utilize advanced treatment processes or alternate type drain fields to accommodate site conditions, as required.
  - d. **Full Emigration Canyon wastewater collection and treatment, with alternate disposal** – Evaluate the feasibility of installing a full canyon collection system and treatment with an alternate means of disposal, including rapid infiltration basins or an injection well. Because of the canyon's location in a Category 1 watershed area, a new surface discharge to the creek is prohibited.
  - e. **Evaluate installation of a canyon-wide sewer collection system** – Update an evaluation of the feasibility of installing a canyon-wide sewer collection system for connection to the existing Salt Lake City collection system for treatment and disposal.
- **Public Involvement** – Three public meetings will be held to explain the project need and alternatives to the public, and receive public comment on the proposals.
- **Life Cycle Costs** – The capital, and operation and maintenance costs will be evaluated, and the full life-cycle costs will be determined for each alternative.
- **Alternative Evaluation and Selection** – Based upon input from public involvement, the State, and the District, the alternatives will be evaluated. The alternatives will be ranked and a preferred alternative will be selected.
- **Implementation Plan** – An implementation plan and schedule will be developed for the preferred alternative.
- **Deliverable** – Six copies of the completed Canyon Master Plan will be delivered.

**IMPLEMENTATION SCHEDULE:**

The Canyon Master Plan is estimated to be complete by May 31, 2016.

**PROJECT PRIORITY LIST**

This is a planning effort that may result in a project being identified and recommended. This project will be ranked once a project has been identified.

**COST ESTIMATE:**

The base planning effort will cost \$60,000. This will be a time and materials, not to exceed contract.

A.	Consulting Engineer	\$	45,000
B.	Other Consultants	\$	10,000
C.	Administration	\$	2,000
D.	Legal	\$	3,500
<b>Total</b>		<b>\$</b>	<b>60,000</b>

**STAFF COMMENTS AND RECOMMENDATION:**

This project is being presented as an authorization from the Water Quality Board to receive a hardship planning grant. The reason for the grant request, as opposed to a planning advance, is that the District presently has no income from wastewater services with which to pay back the grant, as it presently only engaged in water supply services. It is, however, authorized as a wastewater agency. In addition, the type of project(s) that may result from this planning effort are a small number of cluster onsite projects involving a limited number of connections, which would make it difficult to re-pay this planning sum.

Staff recommends that the Board authorize the amount requested for a hardship planning grant to assist the Emigration Improvement District in their planning efforts.

**SPECIAL CONDITIONS:**

1. The Division of Water Quality must approve the engineering agreement and plan of study before the advance will be executed.