

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

**APPLICANT'S REQUEST:**

The Grand Water and Sewer Service Agency (Grand Water) is requesting financial assistance in the amount of \$242,323 to replace faulty transmission lines to and from their 3-million gallon storage tank.

**STAFF COMMENTS:**

The local MAGI for Grand Water is \$30,300, which is 77% of the state's \$39,325 MAGI. Additionally, the estimated water bill is \$49.84, which is 1.97% of the local MAGI. Both of these conditions qualify Grand Water for additional subsidization. Grand Water has been proactive in developing a replacement reserve account, and has some funds available. However, considering that this is an emergency situation, and that Grand Water will likely have some need for infrastructure projects once their master plan is completed, staff is proposing the full 50% grant as allowed by the state funds so as to not deplete their reserve funds.

Staff would also like the Drinking Water Board to consider that due to the unique situation of Grand Water's low cost per connection, the difference between a 30 year loan versus a 5 year loan has a minimal effect on the resulting water bill, as summarized in the table below:

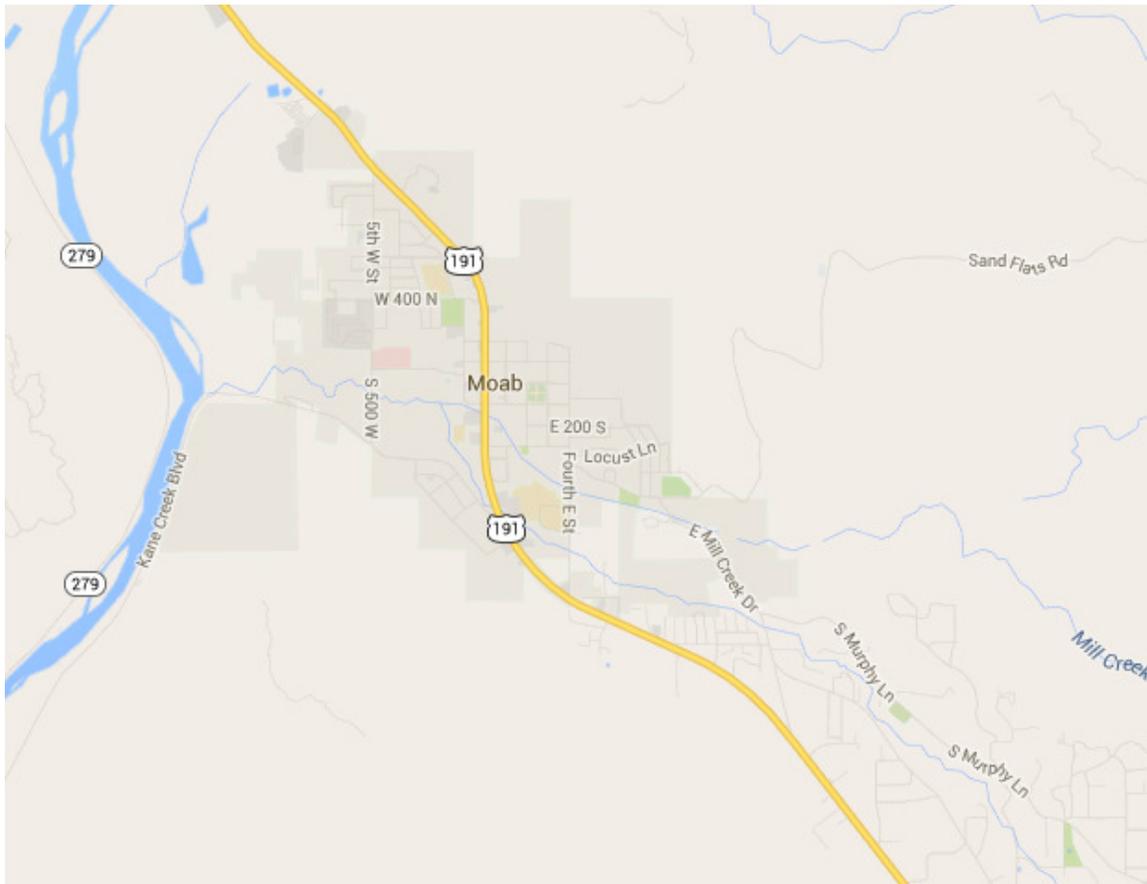
Loan term	Calculated Interest (%)	Annual Repayment	Water Bill	% of MAGI
5	1.39%	\$25,281.43	\$50.89	2.02%
10	1.68%	\$13,245.97	\$50.26	1.99%
30	2.08%	\$5,462.25	\$49.84	1.97%

**FINANCIAL ASSISTANCE COMMITTEE RECOMMENDATION:**

The Drinking Water Board authorize a construction loan of \$121,000 at 1.39% interest or fee per annum for 5 years, with an additional \$121,323 grant to the Grand Water and Sewer Service Agency.

**APPLICANT'S LOCATION:**

The Grand Water and Sewer Service Agency is located adjacent and south of Moab, UT.



**PROJECT DESCRIPTION:**

GWSSA intends to replace approximately 1,000 feet each of existing 14" and 16" culinary water line. The 14" line is the supply line that delivers water from a well to their 3 million gallon tank. The 16" line delivers water from the 3MG tank to the distribution system. In the past 18 months, the 16" line has had 2 major ruptures and the 14" line has had one. All of these ruptures have happened very near each other. It is believed that the second and third rupture likely caused due to the erosion caused around the pipe from the first rupture.

This project will replace a section of these two pipes in the area of the ruptures. In addition to installing the new pipes, the old pipes to be abandoned will be removed from the ground due to the restrictions of the existing easement with SITLA.

**POPULATION GROWTH:**

The engineer's projection for growth is slightly lower than the DEA estimate from the Governor's Office of Planning and Budget.

Year	DEA Projection	Engineer's Projection
2014	3860	3750
2020	4310	4200
2030	4728	4618
2035	4905	4795

**IMPLEMENTATION SCHEDULE:**

DWB Funding Authorization	February 2015
Commence Design	March 2015
Complete Design	April 2015
Receive DDW Plan Approval	April 2015
Advertise for Bids	April 2015
Bid Opening	April 2015
Loan Closing	May 2015
Begin Construction	May 2015
Complete Construction	June 2015
Receive DDW Operating Permit	July 2015

**COST ESTIMATE:**

Legal	\$10,00
Administrative	\$5,000
Engineering	\$39,000
Construction	\$216,000
<b>Total Project Cost</b>	<b>\$272,323</b>

**COST ALLOCATION:**

The cost allocation proposed for the project is shown below.

<u>Funding Source</u>	<u>Cost Sharing</u>	<u>Percent of Project</u>
DWB Loan ( 1.93%, 5-yr)	\$121,000	44%
DWB Grant	\$121,323	45%
Applicant Contribution	<u>\$30,000</u>	<u>11%</u>
Total Amount	\$272,323	100%

**CONTACT INFORMATION:**

**APPLICANT:**

Grand Water and Sewer Service Agency  
PO Box 1046  
Moab, UT 84532  
435-259-8121

**PRESIDING OFFICIAL &  
CONTACT PERSON:**

Mark Sovine, Manager  
PO Box 1046  
Moab, UT 84532  
435-259-8121 (phone)  
435-259-8122 (fax)  
[mark@grandwater.org](mailto:mark@grandwater.org)

**CONSULTING ENGINEER:**

Robert Worley  
Sunrise Engineering, Inc.  
25 East 500 North  
Fillmore, UT 84631  
435-743-6151  
[rworley@sunrise-eng.com](mailto:rworley@sunrise-eng.com)

## DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Grand Water  
 COUNTY: Grand  
 PROJECT DESCRIPTION: Emergency Transmission Line Repair

FUNDING SOURCE: State SRF

### 50 % Loan & 50 % Grant

ESTIMATED POPULATION:	3,750	NO. OF CONNECTIONS:	1802 *	SYSTEM RATING:	APPROVED
CURRENT AVG WATER BILL:	\$47.19 *			PROJECT TOTAL:	\$272,323
CURRENT % OF AGI:	1.87%	FINANCIAL PTS:	71	LOAN AMOUNT:	\$121,000
ESTIMATED MEDIAN AGI:	\$30,300			GRANT AMOUNT:	\$121,323
STATE AGI:	\$40,489			TOTAL REQUEST:	\$242,323
SYSTEM % OF STATE AGI:	75%				

	@ ZERO % RATE 0%	@ RBBI MKT RATE 4.79%		AFTER REPAYMENT PENALTY & POINTS 1.39%
<b><u>SYSTEM</u></b>				
ASSUMED LENGTH OF DEBT, YRS:	5	5		5
ASSUMED NET EFFECTIVE INT. RATE:	0.00%	4.79%		1.39%
REQUIRED DEBT SERVICE:	\$24,200.00	\$27,785.91		\$25,218.43
*PARTIAL COVERAGE (15%):	\$0.00	\$0.00		\$0.00
*ADD. COVERAGE AND RESERVE (10%):	\$2,420.00	\$2,778.59		\$2,521.84
<b>ANNUAL NEW DEBT PER CONNECTION:</b>	<b>\$14.77</b>	<b>\$16.96</b>		<b>\$15.39</b>
O & M + FUNDED DEPRECIATION:	\$663,242.00	\$663,242.00		\$663,242.00
OTHER DEBT + COVERAGE:	\$357,260.00	\$357,260.00		\$357,260.00
REPLACEMENT RESERVE ACCOUNT:	\$52,235.10	\$52,414.40		\$52,286.02
<b>ANNUAL EXPENSES PER CONNECTION:</b>	<b>\$595.30</b>	<b>\$595.40</b>		<b>\$595.33</b>
TOTAL SYSTEM EXPENSES	\$1,099,357.10	\$1,103,480.90		\$1,100,528.29
TAX REVENUE:	\$0.00	\$0.00		\$0.00
<b><u>RESIDENCE</u></b>				
MONTHLY NEEDED WATER BILL:	\$50.84	\$51.03		\$50.89
% OF ADJUSTED GROSS INCOME:	2.01%	2.02%		2.02%

\* Equivalent Residential Connections

# R309-700-5

Grand Water  
Grand  
January 15, 2015

## TABLE 2 FINANCIAL CONSIDERATIONS

	POINTS	
1. COST EFFECTIVENESS RATIO (SELECT ONE)		
A. Project cost \$0 to \$500 per benefitting connection	16	X
B. \$501 to \$1,500	14	
C. \$1,501 to \$2,000	11	
D. \$2,001 to \$3,000	8	
E. \$3,001 to \$5,000	4	
F. \$5,001 to \$10,000	1	
G. Over \$10,000	0	
	\$151	
2. CURRENT LOCAL MEDIAN ADJUSTED GROSS INCOME (AGI) (SELECT ONE)		
A. Less than 70% of State Median AGI	19	
B. 71 to 80% of State Median AGI	16	X
C. 81 to 95% of State Median AGI	13	
D. 96 to 110% of State Median AGI	9	
E. 111 to 130% of State Median AGI	6	
E. 131 to 150% of State Median AGI	3	
F. Greater than 150% of State Median AGI	0	
	75%	
3. PROJECT FUNDING CONTRIBUTED BY APPLICANT (SELECT ONE)		
a. Greater than 25% of project funds	17	
b. 15 to 25% of project funds	14	
c. 10 to 15% of project funds	11	X
c. 5 to 10% of project funds	8	
d. 2 to 5% of project funds	4	
e. Less than 2% of project funds	0	
	11.0%	
4. ABILITY TO REPAY LOAN		
4. WATER BILL (INCLUDING TAXES) AFTER PROJECT IS BUILT RELATIVE TO LOCAL MEDIAN ADJUSTED GROSS INCOME (SELECT ONE)		
a. Greater than 2.50% of local median AGI	16	
b. 2.01 to 2.50% of local median AGI	12	X
c. 1.51 to 2.00% of local median AGI	8	
d. 1.01 to 1.50% of local median AGI	3	
e. 0 to 1.00% of local median AGI	0	
	2.02%	
5. SPECIAL INCENTIVE POINTS Applicant: (Mark all that apply)		
A. has a replacement fund receiving annual deposits of 5% of the system's drinking water budget been established, and has already accumulated a minimum of 10% of said annual DW budget in this reserve fund.	5	X
B. Has a replacement fund equal to at least 15% or 20% of annual DW budget.	5	X
C. Is creating or enhancing a regionalization plan	16	
D. Has a rate structure encouraging conservation	6	X
<b>TOTAL POINTS FOR FINANCIAL NEED</b>	<b>71</b>	
<b>TOTAL POSSIBLE POINTS FOR FINANCIAL NEED</b>	<b>100</b>	

## Grand Water

### PROPOSED BOND REPAYMENT SCHEDULE

50 % Loan & 50 % Grant

PRINCIPAL	\$121,000.00	ANTICIPATED CLOSING DATE	15-May-15
INTEREST	1.39%	FIRST P&I PAYMENT DUE	31-Dec-15
TERM	5	REVENUE BOND	
NOMIN. PAYMENT	\$25,218.43	PRINC PREPAID:	\$0.00

YEAR	BEGINNING BALANCE	DATE OF PAYMENT	PAYMENT	PRINCIPAL	INTEREST	ENDING BALANCE	PAYM NO.
2015	\$121,000.00		\$25,681.90	\$24,000.00	\$1,681.90	\$97,000.00	1
2016	\$97,000.00		\$25,348.30	\$24,000.00	\$1,348.30	\$73,000.00	2
2017	\$73,000.00		\$25,014.70	\$24,000.00	\$1,014.70	\$49,000.00	3
2018	\$49,000.00		\$24,681.10	\$24,000.00	\$681.10	\$25,000.00	4
2019	\$25,000.00		\$25,347.50	\$25,000.00	\$347.50	\$0.00	5
			\$125,447.46	\$121,000.00	\$4,447.46		

\*Interest Only Payment

# Grand Water

## DWB Loan Terms

Local Share (total):	\$	30,000
Other Agency Funding:	\$	-
DWB Grant Amount:	\$	121,323
DWB Loan Amount:	\$	121,000
DWB Loan Term:		5
DWB Loan Interest:		1.39%
DWB Loan Payment:	\$	25,218

## DW Expenses (Estimated)

Proposed Facility Capital Cost:	\$	272,323
Existing Facility O&M Expense:	\$	663,242
Proposed Facility O&M Expense:	\$	663,242
O&M Inflation Factor:		1.0%
Existing Debt Service:	\$	357,260

## DW Revenue Sources (Projected)

Beginning Cash:	\$	-
Existing Customers (ERC):		1,802
Projected Growth Rate:		1.0%
Impact Fee/Connection Fee:	\$	2,089
Current Monthly User Charge:	\$	47.19
Needed Average Monthly User Charge:	\$	50.89

## DW Revenue Projections

Yr	Growth Rate (%)	Annual Growth (ERC)	Total Users (ERC)	User Charge Revenue	Impact Fee Revenue	Property Tax Revenue	Total Revenue	DWB Loan Repayment	DWB Loan Reserves	Remaining Principal	Principal Payment	Interest Payment	Existing			Debt Service Ratio
													DW Debt Service	O&M Expenses	Total Expenses	
1	1.0%	18	1,820	1,111,521	37,602	-	1,149,123	25,682	-	97,000	24,000	1,682	357,260	663,242	1,046,184	1.27
2	1.0%	18	1,838	1,122,514	37,602	-	1,160,116	25,348	-	73,000	24,000	1,348	357,260	669,874	1,052,483	1.28
3	1.0%	19	1,857	1,134,118	39,691	-	1,173,809	25,015	-	49,000	24,000	1,015	357,260	676,573	1,058,848	1.30
4	1.0%	18	1,875	1,145,111	37,602	-	1,182,713	24,681	-	25,000	24,000	681	357,260	683,339	1,065,280	1.31
5	1.0%	19	1,894	1,156,715	39,691	-	1,196,406	25,348	-	-	25,000	348	357,260	690,172	1,072,780	1.32
Total Paid in Debt Service =											121,000	5,074				

**Sunrise Engineering Inc.**

25 East 500 North  
Fillmore, Utah  
Tel: (435) 743-6151  
Fax: (435) 743-7900

**GWSSA**

**ENGINEER'S OPINION OF PROBABLE COST**

**14" and 16" Water Pipeline Replacement**

	Item Description	Qty.	Units	Unit Price	Amount
1	Mobilization	1	L.S.	12,000.00	\$ 12,000.00
2	Subsurface Investigation	8	Hours	150.00	\$ 1,200.00
3	Pre-Construction Video of Construction Site	1	L.S.	500.00	\$ 500.00
4	14" AWWA C905 PVC DR 18 Pipe and Fittings	1000	Ln. Ft.	50.00	\$ 50,000.00
5	16" AWWA C905 PVC DR 18 Pipe and Fittings	1000	Ln. Ft.	65.00	\$ 65,000.00
6	Import Pipe Bedding	2000	Ln. Ft.	2.00	\$ 4,000.00
7	3" Combination Air Valve	2	Each	7,400.00	\$ 14,800.00
8	Remove Existing 14" and 16" Pipe (SITLA Req.)	2000	Ln. Ft.	12.00	\$ 24,000.00
9	Imported Trench Backfill (Road Crossings)	50	Ln. Ft.	50.00	\$ 2,500.00
10	Untreated Base Course	125	Ton	20.00	\$ 2,500.00
11					
12					
13					
14					
Subtotal Construction Cost					\$ 176,500.00
Contingency					\$ 39,500.00
Total Construction Cost					\$ 216,000.00
<b>Professional Services</b>					
a	Administration / Preliminary	1	L.S.	5,000.00	\$ 5,000.00
b	Engineering Design	1	L.S.	16,000.00	\$ 16,000.00
c	Bidding Negotiating & Quality Control and Inspection	1	L.S.	23,000.00	\$ 23,000.00
d	Design Survey	1	L.S.	NA	NA
e	Cultural Survey	1	L.S.	NA	NA
f	Environmental Assessment	1	L.S.	NA	NA
g	Easement Prep/Purchase	1	L.S.	NA	NA
Total Non Construction Services Cost					\$ 44,000.00
<b>TOTAL PROJECT COST</b>					<b>\$ 260,000.00</b>

# Utah Department of Environmental Quality

## Division of Drinking Water

### Public Water System IPS Report

**UTAH10023 GRAND WATER AND SEWER AGENCY**

Run Date:  
01/20/2015 07:56 am

**PWS ID:** UTAH10023      **Name:** GRAND WATER AND SEWER AGENCY

**Legal Contact:** GRAND WATER AND SEWER SERVICE,      **Rating:** Approved  
 MARK KENT SOVINE      **Rating Date:** 06/08/1987

**Address:** PO BOX 1046      **Activity Status:** A  
 MOAB, UT 84532

**Phone Number:** 435-259-8121

**City Served (Area):**      **Consumptive Use Zone**  
**County:** GRAND COUNTY      Irrigation Zone Number: 4      02/15/2013

**System Type:** Community      **Last Inv Update:** 12/05/2013  
**Population:** 3,500      **Last Snty Srv Dt:** 08/28/2013  
    **Surveyor:** DAVID ARIOTTI  
    **Oper Period:** 1/1 to 12/31

**Total IPS Points:**    -20      **Rating Date:** 06/08/1987      **Rating:** **Approved**

**Admin & Physical Facilities:**      -10  
**\* Quality & Monitoring Violations:**      0  
**Operator Certification:**      -10

\* Total Admin & Physical Facilities demerit points may not agree with the detail section. The detail section shows all 'open' physical deficiencies; the Total Admin & Physical Facilities value adjusts for duplicate deficiencies

#### **Physical Facility, Administrative, & Source Protection Deficiencies from Site Visits**

Facility	Activity Status	Severity	Date Determined	Point Not Effective	Point Effective
<b>Code</b> <b>Description</b>					
M001    CURRENT EMERGENCY RESPONSE PROGRAM					
	REC		7/30/2001		-10
THE WATER SYSTEM IS CREDITED WITH AN EMERGENCY RESPONSE PLAN					
<b>Total Admin &amp; Physical Facility Deficiency</b>					<b>-10</b>

#### **Operator Certification Points**

	Distribution	Treatment	
Level Required	D2		
Highest Certificate on Record	D3		
<b>Points</b>	-10	0	<b>Total Points -10</b>

#### **Compliance Schedules**

Type	Required Activities	Severity	Date Created	Due Date	Achieved Date
Complete Lead Copper Notice	Submit Lead/Copper Certification Notice to DDW		06/01/2014	12/29/2014	