

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

**APPLICANT'S REQUEST**

The Town of Virgin is requesting \$1,120,000 in financial assistance from the Drinking Water Board to construct a 500,000 gallon storage tank that will replace an existing tank, and replace old undersized water lines in the distribution system. Total project cost is estimated to be \$1,120,000.

**STAFF COMMENTS:**

Based on information from the Utah State Tax commission, the 2014 Median Adjusted Gross Income (MAGI) for Virgin is \$38,532, which is 92% of the State MAGI of \$41,923. The current average monthly water bill is calculated as \$69.26, which is 2.16% of the local MAGI. Therefore Virgin qualifies as a disadvantaged community based on the average water bill being more than 1.75% of the local MAGI.

The base evaluation returned an interest rate of 2.59% for 20 years and resulted in a water bill of 3.10% of the local MAGI. The base evaluation and two other options with principle forgiveness, 30 year term and zero percent interest are outlined in the table below, with the Financial Assistance Recommendation shown in bold.

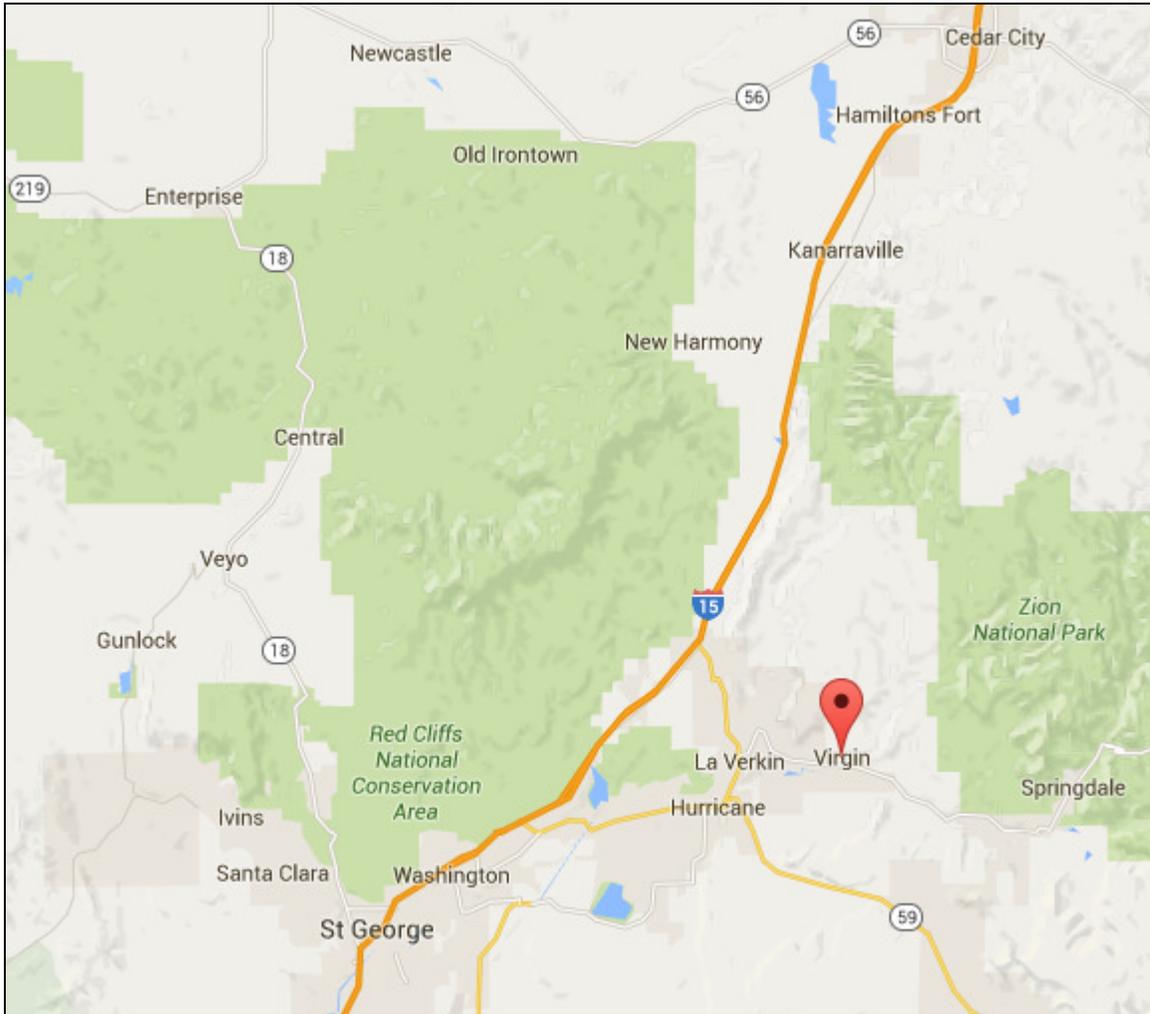
	Description	Repayable Loan Amount	Interest Rate	Term	Principal Forgiveness	Monthly Water Rate	% Local MAGI
1	Base Eval.	\$1,120,000	2.59%	20 yrs	\$0	\$99.63	3.10%
2	<b>100% Loan</b>	<b>\$1,120,000</b>	<b>0.0%</b>	<b>30 yrs</b>	<b>\$0</b>	<b>\$86.59</b>	<b>2.70%</b>
3	80 / 20	\$896,000	0.0%	30 yrs	\$224,000	\$83.81	2.61%

**FINANCIAL ASSISTANCE COMMITTEE RECOMMENDATION:**

**The Drinking Water Board authorize a \$1,120,000 construction loan at 0.0% interest for 30 years to Virgin for construction of a storage tank and water lines.**

**APPLICANT'S LOCATION:**

Virgin is located in Washington County, approximately 25 miles east of St. George.



**PROJECT DESCRIPTION:**

Construct a 500,000 gallon tank and replace old undersized water lines in the distribution system.

**POPULATION GROWTH:**

A growth rate of 1.0% is used in the population projections shown in the table below.

	Year	Population	Connections
Current	2016	750	258
Projected	2046	1062	365

**IMPLEMENTATION SCHEDULE:**

Apply to DWB for Funding:	May 2016
DWB Funding Authorization:	July 2016
Plans Submitted:	Aug 2016
Plan Approval:	Aug 2016
Advertise for Bids:	Aug 2016
Bid Opening:	Aug 2016
Loan Closing:	Sep 2016
Begin Construction:	Sep 2016
Complete Construction:	Jan 2017

**COST ESTIMATE:**

Construction:	\$1,000,000
Engineering / Const Management:	\$100,000
Legal/Bonding/Admin:	\$20,000
Total Cost:	\$1,120,000

**CONTACT INFORMATION:**

APPLICANT:	Virgin Town 114 Mill Street Virgin, UT 84779 435-635-4696 clerk@virgin.utah.gov
PRESIDING OFFICIAL & CONTACT PERSON:	Bruce Densley Mayor 114 Mill Street Virgin, UT 84779 435-635-4696 clerk@virgin.utah.gov
CONSULTING ENGINEER:	Curtis Nielson Ensign Engineering 1870 North Main, Ste 104 Cedar City, UT 84720 435-865-1453 cnielson@ensignutah.com

## DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Virgin  
 COUNTY: Washington  
 PROJECT DESCRIPTION: 500,000 gallon tank and water lines

FUNDING SOURCE: Federal SRF

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

ESTIMATED POPULATION:	750	NO. OF CONNECTIONS:	258 *	SYSTEM RATING:	APPROVED
CURRENT AVG WATER BILL:	\$69.26 *			PROJECT TOTAL:	\$1,120,000
CURRENT % OF AGI:	2.16%	FINANCIAL PTS:	39	LOAN AMOUNT:	\$1,120,000
ESTIMATED MEDIAN AGI:	\$38,532			PRINC. FORGIVE.:	\$0
STATE AGI:	\$41,923			TOTAL REQUEST:	\$1,120,000
SYSTEM % OF STATE AGI:	92%				

	@ ZERO % RATE 0%	@ RBBI MKT RATE 3.76%		AFTER REPAYMENT PENALTY & POINTS 2.59%
<b><u>SYSTEM</u></b>				
ASSUMED LENGTH OF DEBT, YRS:	20	20		20
ASSUMED NET EFFECTIVE INT. RATE:	0.00%	3.76%		2.59%
REQUIRED DEBT SERVICE:	\$56,000.00	\$80,669.71		\$72,456.99
*PARTIAL COVERAGE (15%):	\$0.00	\$0.00		\$0.00
*ADD. COVERAGE AND RESERVE (10%):	\$5,600.00	\$8,066.97		\$7,245.70
<b>ANNUAL NEW DEBT PER CONNECTION:</b>	<b>\$238.76</b>	<b>\$343.94</b>		<b>\$308.93</b>
O & M + FUNDED DEPRECIATION:	\$208,001.00	\$208,001.00		\$208,001.00
OTHER DEBT + COVERAGE:	\$6,477.50	\$6,477.50		\$6,477.50
REPLACEMENT RESERVE ACCOUNT:	\$13,459.15	\$14,692.64		\$14,282.00
<b>ANNUAL EXPENSES PER CONNECTION:</b>	<b>\$883.48</b>	<b>\$888.26</b>		<b>\$886.67</b>
TOTAL SYSTEM EXPENSES	\$289,537.65	\$317,907.82		\$308,463.19
TAX REVENUE:	\$0.00	\$0.00		\$0.00
<b><u>RESIDENCE</u></b>				
MONTHLY NEEDED WATER BILL:	\$93.52	\$102.68		\$99.63
% OF ADJUSTED GROSS INCOME:	2.91%	3.20%		3.10%

\* Equivalent Residential Connections

# R309-700-5

Virgin  
Washington  
May 19, 2016

## TABLE 2 FINANCIAL CONSIDERATIONS

	POINTS	
1. COST EFFECTIVENESS RATIO (SELECT ONE)		
A. Project cost \$0 to \$500 per benefitting connection	16	
B. \$501 to \$1,500	14	
C. \$1,501 to \$2,000	11	
D. \$2,001 to \$3,000	8	
E. \$3,001 to \$5,000	4	X
F. \$5,001 to \$10,000	1	
G. Over \$10,000	0	
	\$4,341	
2. CURRENT LOCAL MEDIAN ADJUSTED GROSS INCOME (AGI) (SELECT ONE)		
A. Less than 70% of State Median AGI	19	
B. 71 to 80% of State Median AGI	16	
C. 81 to 95% of State Median AGI	13	X
D. 96 to 110% of State Median AGI	9	
E. 111 to 130% of State Median AGI	6	
E. 131 to 150% of State Median AGI	3	
F. Greater than 150% of State Median AGI	0	
	92%	
3. PROJECT FUNDING CONTRIBUTED BY APPLICANT (SELECT ONE)		
a. Greater than 25% of project funds	17	
b. 15 to 25% of project funds	14	
c. 10 to 15% of project funds	11	
c. 5 to 10% of project funds	8	
d. 2 to 5% of project funds	4	
e. Less than 2% of project funds	0	X
	0.0%	
4. ABILITY TO REPAY LOAN		
4. WATER BILL (INCLUDING TAXES) AFTER PROJECT IS BUILT RELATIVE TO LOCAL MEDIAN ADJUSTED GROSS INCOME (SELECT ONE)		
a. Greater than 2.50% of local median AGI	16	X
b. 2.01 to 2.50% of local median AGI	12	
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	
	3.10%	
5. SPECIAL INCENTIVE POINTS Applicant: (Mark all that apply)		
A. has a replacement fund receiving annual deposits of 5% of the system's drinking water budget been established, and has already accumulated a minimum of 10% of said annual DW budget in this reserve fund.	5	
B. Has a replacement fund equal to at least 15% or 20% of annual DW budget.	5	
C. Is creating or enhancing a regionalization plan	16	
D. Has a rate structure encouraging conservation	6	X
<b>TOTAL POINTS FOR FINANCIAL NEED</b>	<b>39</b>	
<b>TOTAL POSSIBLE POINTS FOR FINANCIAL NEED</b>	<b>100</b>	

# Virgin

## PROPOSED BOND REPAYMENT SCHEDULE

100 % Loan & 0 % P.F.

PRINCIPAL	\$1,120,000.00	ANTICIPATED CLOSING DATE	15-Sep-16
INTEREST	2.59%	FIRST P&I PAYMENT DUE	01-Jan-18
TERM	20	REVENUE BOND	
NOMIN. PAYMENT	\$72,456.99	PRINC. FORGIVE.:	\$0.00

YEAR	BEGINNING BALANCE	DATE OF PAYMENT	PAYMENT	PRINCIPAL	INTEREST	ENDING BALANCE	PAYM NO.
2017	\$1,120,000.00		\$8,541.24 *	\$0.00	\$8,541.24	\$1,120,000.00	0
2018	\$1,120,000.00		\$72,008.00	\$43,000.00	\$29,008.00	\$1,077,000.00	1
2019	\$1,077,000.00		\$72,894.30	\$45,000.00	\$27,894.30	\$1,032,000.00	2
2020	\$1,032,000.00		\$72,728.80	\$46,000.00	\$26,728.80	\$986,000.00	3
2021	\$986,000.00		\$72,537.40	\$47,000.00	\$25,537.40	\$939,000.00	4
2022	\$939,000.00		\$72,320.10	\$48,000.00	\$24,320.10	\$891,000.00	5
2023	\$891,000.00		\$72,076.90	\$49,000.00	\$23,076.90	\$842,000.00	6
2024	\$842,000.00		\$72,807.80	\$51,000.00	\$21,807.80	\$791,000.00	7
2025	\$791,000.00		\$72,486.90	\$52,000.00	\$20,486.90	\$739,000.00	8
2026	\$739,000.00		\$72,140.10	\$53,000.00	\$19,140.10	\$686,000.00	9
2027	\$686,000.00		\$72,767.40	\$55,000.00	\$17,767.40	\$631,000.00	10
2028	\$631,000.00		\$72,342.90	\$56,000.00	\$16,342.90	\$575,000.00	11
2029	\$575,000.00		\$72,892.50	\$58,000.00	\$14,892.50	\$517,000.00	12
2030	\$517,000.00		\$72,390.30	\$59,000.00	\$13,390.30	\$458,000.00	13
2031	\$458,000.00		\$72,862.20	\$61,000.00	\$11,862.20	\$397,000.00	14
2032	\$397,000.00		\$72,282.30	\$62,000.00	\$10,282.30	\$335,000.00	15
2033	\$335,000.00		\$72,676.50	\$64,000.00	\$8,676.50	\$271,000.00	16
2034	\$271,000.00		\$72,018.90	\$65,000.00	\$7,018.90	\$206,000.00	17
2035	\$206,000.00		\$72,335.40	\$67,000.00	\$5,335.40	\$139,000.00	18
2036	\$139,000.00		\$72,600.10	\$69,000.00	\$3,600.10	\$70,000.00	19
2037	\$70,000.00		\$71,813.00	\$70,000.00	\$1,813.00	\$0.00	20
			\$1,457,523.04	\$1,120,000.00	\$337,523.04		

\*Interest Only Payment

# Virgin

## DWB Loan Terms

Local Share (total):	\$	-
Other Agency Funding:	\$	-
DWB Grant Amount:	\$	-
DWB Loan Amount:	\$	1,120,000
DWB Loan Term:		20
DWB Loan Interest:		2.59%
DWB Loan Payment:	\$	72,457

## DW Expenses (Estimated)

Proposed Facility Capital Cost:	#VALUE!
Existing Facility O&M Expense:	\$ 174,313
Proposed Facility O&M Expense:	\$ 174,313
O&M Inflation Factor:	1.0%
Existing Debt Service:	\$ 5,182

## DW Revenue Sources (Projected)

Beginning Cash:	\$	-
Existing Customers (ERC):		258
Projected Growth Rate:		1.0%
Impact Fee/Connection Fee:	\$	25,795
Current Monthly User Charge:	\$	69.26
Needed Average Monthly User Charge:	\$	99.63

## DW Revenue Projections

Yr	Growth Rate (%)	Annual Growth (ERC)	Total Users (ERC)	User Charge Revenue	Impact Fee Revenue	Property Tax Revenue	Total Revenue	DWB Loan Repayment	DWB Loan Reserves	Remaining Principal	Principal Payment	Interest Payment	Existing DW Debt Service	O&M Expenses	Total Expenses	Debt Service Ratio
0	1.0%	3	258	214,426	77,385	-	291,811	-	-	1,120,000	-	-	5,182	174,313	179,495	-
1	1.0%	3	261	312,050	77,385	-	389,435	72,008	7,246	1,077,000	43,000	29,008	5,182	174,313	258,749	2.79
2	1.0%	2	263	314,441	51,590	-	366,031	72,894	7,246	1,032,000	45,000	27,894	5,182	176,056	261,378	2.43
3	1.0%	3	266	318,028	77,385	-	395,413	72,729	7,246	986,000	46,000	26,729	5,182	177,817	262,973	2.79
4	1.0%	2	268	320,419	51,590	-	372,009	72,537	7,246	939,000	47,000	25,537	5,182	179,595	264,560	2.48
5	1.0%	3	271	324,006	77,385	-	401,391	72,320	7,246	891,000	48,000	24,320	5,182	181,391	266,139	2.84
6	1.0%	3	274	327,593	77,385	-	404,978	72,077	7,246	842,000	49,000	23,077	5,182	183,205	267,709	2.87
7	1.0%	3	277	331,179	77,385	-	408,564	72,808	7,246	791,000	51,000	21,808	5,182	185,037	270,272	2.87
8	1.0%	2	279	333,571	51,590	-	385,161	72,487	7,246	739,000	52,000	20,487	5,182	186,887	271,802	2.55
9	1.0%	3	282	337,157	77,385	-	414,542	72,140	7,246	686,000	53,000	19,140	5,182	188,756	273,324	2.92
10	1.0%	3	285	340,744	77,385	-	418,129	72,767	7,246	631,000	55,000	17,767	5,182	190,644	275,839	2.92
11	1.0%	3	288	344,331	77,385	-	421,716	72,343		575,000	56,000	16,343	5,182	192,550	270,075	2.96
12	1.0%	3	291	347,918	77,385	-	425,303	72,893		517,000	58,000	14,893	5,182	194,475	272,550	2.96
13	1.0%	3	294	351,505	77,385	-	428,890	72,390		458,000	59,000	13,390	5,182	196,420	273,993	3.00
14	1.0%	3	297	355,091	77,385	-	432,476	72,862		397,000	61,000	11,862	5,182	198,384	276,429	3.00
15	1.0%	3	300	358,678	77,385	-	436,063	72,282		335,000	62,000	10,282	5,182	200,368	277,833	3.04
16	1.0%	3	303	362,265	77,385	-	439,650	72,677		271,000	64,000	8,677	5,182	202,372	280,230	3.05
17	1.0%	3	306	365,852	77,385	-	443,237	72,019		206,000	65,000	7,019	5,182	204,396	281,597	3.09
18	1.0%	3	309	369,438	77,385	-	446,823	72,335		139,000	67,000	5,335	5,182	206,440	283,957	3.10
19	1.0%	3	312	373,025	77,385	-	450,410	72,600		70,000	69,000	3,600	5,182	208,504	286,286	3.11
20	1.0%	3	315	376,612	77,385	-	453,997	71,813		-	70,000	1,813	5,182	210,589	287,584	3.16

Total Paid in Debt Service = 1,120,000      328,982

## DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Virgin  
 COUNTY: Washington  
 PROJECT DESCRIPTION: 500,000 gallon tank and water lines

FUNDING SOURCE: Federal SRF

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

ESTIMATED POPULATION:	750	NO. OF CONNECTIONS:	258 *	SYSTEM RATING:	APPROVED
CURRENT AVG WATER BILL:	\$69.26 *			PROJECT TOTAL:	\$1,120,000
CURRENT % OF AGI:	2.16%	FINANCIAL PTS:	39	LOAN AMOUNT:	\$1,120,000
ESTIMATED MEDIAN AGI:	\$38,532			PRINC. FORGIVE.:	\$0
STATE AGI:	\$41,923			TOTAL REQUEST:	\$1,120,000
SYSTEM % OF STATE AGI:	92%				

	@ ZERO % RATE 0%	@ RBBI MKT RATE 3.76%		AFTER REPAYMENT PENALTY & POINTS 0.00%
<b><u>SYSTEM</u></b>				
ASSUMED LENGTH OF DEBT, YRS:	30	30		30
ASSUMED NET EFFECTIVE INT. RATE:	0.00%	3.76%		0.00%
REQUIRED DEBT SERVICE:	\$37,333.33	\$62,895.64		\$37,333.33
*PARTIAL COVERAGE (15%):	\$0.00	\$0.00		\$0.00
*ADD. COVERAGE AND RESERVE (10%):	\$3,733.33	\$6,289.56		\$3,733.33
<b>ANNUAL NEW DEBT PER CONNECTION:</b>	<b>\$159.17</b>	<b>\$268.16</b>		<b>\$159.17</b>
O & M + FUNDED DEPRECIATION:	\$208,001.00	\$208,001.00		\$208,001.00
OTHER DEBT + COVERAGE:	\$6,477.50	\$6,477.50		\$6,477.50
REPLACEMENT RESERVE ACCOUNT:	\$12,525.82	\$13,803.93		\$12,525.82
<b>ANNUAL EXPENSES PER CONNECTION:</b>	<b>\$879.86</b>	<b>\$884.82</b>		<b>\$879.86</b>
TOTAL SYSTEM EXPENSES	\$268,070.98	\$297,467.64		\$268,070.98
TAX REVENUE:	\$0.00	\$0.00		\$0.00
<b><u>RESIDENCE</u></b>				
MONTHLY NEEDED WATER BILL:	\$86.59	\$96.08		\$86.59
% OF ADJUSTED GROSS INCOME:	2.70%	2.99%		2.70%

\* Equivalent Residential Connections

Virgin

PROPOSED BOND REPAYMENT SCHEDULE

100 % Loan & 0 % P.F.

PRINCIPAL	\$1,120,000.00	ANTICIPATED CLOSING DATE	15-Sep-16
INTEREST	0.00%	FIRST P&I PAYMENT DUE	01-Jan-18
TERM	30	REVENUE BOND	
NOMIN. PAYMENT	\$37,333.33	PRINC. FORGIVE.:	\$0.00

YEAR	BEGINNING BALANCE	DATE OF PAYMENT	PAYMENT	PRINCIPAL	INTEREST	ENDING BALANCE	PAYM NO.
2017	\$1,120,000.00		\$0.00 *	\$0.00	\$0.00	\$1,120,000.00	0
2018	\$1,120,000.00		\$37,000.00	\$37,000.00	\$0.00	\$1,083,000.00	1
2019	\$1,083,000.00		\$37,000.00	\$37,000.00	\$0.00	\$1,046,000.00	2
2020	\$1,046,000.00		\$37,000.00	\$37,000.00	\$0.00	\$1,009,000.00	3
2021	\$1,009,000.00		\$37,000.00	\$37,000.00	\$0.00	\$972,000.00	4
2022	\$972,000.00		\$37,000.00	\$37,000.00	\$0.00	\$935,000.00	5
2023	\$935,000.00		\$37,000.00	\$37,000.00	\$0.00	\$898,000.00	6
2024	\$898,000.00		\$37,000.00	\$37,000.00	\$0.00	\$861,000.00	7
2025	\$861,000.00		\$37,000.00	\$37,000.00	\$0.00	\$824,000.00	8
2026	\$824,000.00		\$37,000.00	\$37,000.00	\$0.00	\$787,000.00	9
2027	\$787,000.00		\$37,000.00	\$37,000.00	\$0.00	\$750,000.00	10
2028	\$750,000.00		\$38,000.00	\$38,000.00	\$0.00	\$712,000.00	11
2029	\$712,000.00		\$37,000.00	\$37,000.00	\$0.00	\$675,000.00	12
2030	\$675,000.00		\$38,000.00	\$38,000.00	\$0.00	\$637,000.00	13
2031	\$637,000.00		\$37,000.00	\$37,000.00	\$0.00	\$600,000.00	14
2032	\$600,000.00		\$38,000.00	\$38,000.00	\$0.00	\$562,000.00	15
2033	\$562,000.00		\$37,000.00	\$37,000.00	\$0.00	\$525,000.00	16
2034	\$525,000.00		\$38,000.00	\$38,000.00	\$0.00	\$487,000.00	17
2035	\$487,000.00		\$37,000.00	\$37,000.00	\$0.00	\$450,000.00	18
2036	\$450,000.00		\$38,000.00	\$38,000.00	\$0.00	\$412,000.00	19
2037	\$412,000.00		\$37,000.00	\$37,000.00	\$0.00	\$375,000.00	20
2038	\$375,000.00		\$38,000.00	\$38,000.00	\$0.00	\$337,000.00	21
2039	\$337,000.00		\$37,000.00	\$37,000.00	\$0.00	\$300,000.00	22
2040	\$300,000.00		\$38,000.00	\$38,000.00	\$0.00	\$262,000.00	23
2041	\$262,000.00		\$37,000.00	\$37,000.00	\$0.00	\$225,000.00	24
2042	\$225,000.00		\$38,000.00	\$38,000.00	\$0.00	\$187,000.00	25
2043	\$187,000.00		\$37,000.00	\$37,000.00	\$0.00	\$150,000.00	26
2044	\$150,000.00		\$38,000.00	\$38,000.00	\$0.00	\$112,000.00	27
2045	\$112,000.00		\$37,000.00	\$37,000.00	\$0.00	\$75,000.00	28
2046	\$75,000.00		\$38,000.00	\$38,000.00	\$0.00	\$37,000.00	29
2047	\$37,000.00		\$37,000.00	\$37,000.00	\$0.00	\$0.00	30
			\$1,120,000.00	\$1,120,000.00	\$0.00		

\*Interest Only Payment

# Virgin

## DWB Loan Terms

Local Share (total):	\$	-
Other Agency Funding:	\$	-
DWB Grant Amount:	\$	-
DWB Loan Amount:	\$	1,120,000
DWB Loan Term:		30
DWB Loan Interest:		0.00%
DWB Loan Payment:	\$	37,333

## DW Expenses (Estimated)

Proposed Facility Capital Cost:	#VALUE!
Existing Facility O&M Expense:	\$ 174,313
Proposed Facility O&M Expense:	\$ 174,313
O&M Inflation Factor:	1.0%
Existing Debt Service:	\$ 5,182

## DW Revenue Sources (Projected)

Beginning Cash:	\$	-
Existing Customers (ERC):		258
Projected Growth Rate:		1.0%
Impact Fee/Connection Fee:	\$	25,795
Current Monthly User Charge:	\$	69.26
Needed Average Monthly User Charge:	\$	86.59

## DW Revenue Projections

Yr	Growth Rate (%)	Annual Growth (ERC)	Total Users (ERC)	User Charge Revenue	Impact Fee Revenue	Property Tax Revenue	Total Revenue	DWB Loan Repayment	DWB Loan Reserves	Remaining Principal	Principal Payment	Interest Payment	Existing DW Debt Service	O&M Expenses	Total Expenses	Debt Service Ratio
0	1.0%	3	258	214,426	77,385	-	291,811	-	-	1,120,000	-	-	5,182	174,313	179,495	-
1	1.0%	3	261	271,188	77,385	-	348,573	37,000	3,733	1,083,000	37,000	-	5,182	174,313	220,228	4.13
2	1.0%	2	263	273,266	51,590	-	324,856	37,000	3,733	1,046,000	37,000	-	5,182	176,056	221,971	3.53
3	1.0%	3	266	276,383	77,385	-	353,768	37,000	3,733	1,009,000	37,000	-	5,182	177,817	223,732	4.17
4	1.0%	2	268	278,461	51,590	-	330,051	37,000	3,733	972,000	37,000	-	5,182	179,595	225,510	3.57
5	1.0%	3	271	281,578	77,385	-	358,963	37,000	3,733	935,000	37,000	-	5,182	181,391	227,306	4.21
6	1.0%	3	274	284,696	77,385	-	362,081	37,000	3,733	898,000	37,000	-	5,182	183,205	229,120	4.24
7	1.0%	3	277	287,813	77,385	-	365,198	37,000	3,733	861,000	37,000	-	5,182	185,037	230,952	4.27
8	1.0%	2	279	289,891	51,590	-	341,481	37,000	3,733	824,000	37,000	-	5,182	186,887	232,802	3.66
9	1.0%	3	282	293,008	77,385	-	370,393	37,000	3,733	787,000	37,000	-	5,182	188,756	234,671	4.31
10	1.0%	3	285	296,125	77,385	-	373,510	37,000	3,733	750,000	37,000	-	5,182	190,644	236,559	4.34
11	1.0%	3	288	299,242	77,385	-	376,627	38,000		712,000	38,000	-	5,182	192,550	235,732	4.26
12	1.0%	3	291	302,359	77,385	-	379,744	37,000		675,000	37,000	-	5,182	194,475	236,657	4.39
13	1.0%	3	294	305,476	77,385	-	382,861	38,000		637,000	38,000	-	5,182	196,420	239,602	4.32
14	1.0%	3	297	308,593	77,385	-	385,978	37,000		600,000	37,000	-	5,182	198,384	240,566	4.45
15	1.0%	3	300	311,710	77,385	-	389,095	38,000		562,000	38,000	-	5,182	200,368	243,550	4.37
16	1.0%	3	303	314,828	77,385	-	392,213	37,000		525,000	37,000	-	5,182	202,372	244,554	4.50
17	1.0%	3	306	317,945	77,385	-	395,330	38,000		487,000	38,000	-	5,182	204,396	247,578	4.42
18	1.0%	3	309	321,062	77,385	-	398,447	37,000		450,000	37,000	-	5,182	206,440	248,622	4.55
19	1.0%	3	312	324,179	77,385	-	401,564	38,000		412,000	38,000	-	5,182	208,504	251,686	4.47
20	1.0%	3	315	327,296	77,385	-	404,681	37,000		375,000	37,000	-	5,182	210,589	252,771	4.60
21	1.0%	3	318	330,413	77,385	-	407,798	38,000		337,000	38,000	-	5,182	212,695	255,877	4.52
22	1.0%	3	321	333,530	77,385	-	410,915	37,000		300,000	37,000	-	5,182	214,822	257,004	4.65
23	1.0%	3	324	336,647	77,385	-	414,032	38,000		262,000	38,000	-	5,182	216,970	260,152	4.56
24	1.0%	4	328	340,803	103,180	-	443,983	37,000		225,000	37,000	-	5,182	219,140	261,322	5.33
25	1.0%	3	331	343,921	77,385	-	421,306	38,000		187,000	38,000	-	5,182	221,331	264,513	4.63
26	1.0%	3	334	347,038	77,385	-	424,423	37,000		150,000	37,000	-	5,182	223,545	265,727	4.76
27	1.0%	4	338	351,194	103,180	-	454,374	38,000		112,000	38,000	-	5,182	225,780	268,962	5.29
28	1.0%	3	341	354,311	77,385	-	431,696	37,000		75,000	37,000	-	5,182	228,038	270,220	4.83
29	1.0%	3	344	357,428	77,385	-	434,813	38,000		37,000	38,000	-	5,182	230,318	273,500	4.74
30	1.0%	4	348	361,584	103,180	-	464,764	37,000		-	37,000	-	5,182	232,621	274,803	5.50

Total Paid in Debt Service = 1,120,000

## DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Virgin  
 COUNTY: Washington  
 PROJECT DESCRIPTION: 500,000 gallon tank and water lines

FUNDING SOURCE: Federal SRF

**80 % Loan & 20 % P.F.**

ESTIMATED POPULATION:	750	NO. OF CONNECTIONS:	258 *	SYSTEM RATING:	APPROVED
CURRENT AVG WATER BILL:	\$69.26 *			PROJECT TOTAL:	\$1,120,000
CURRENT % OF AGI:	2.16%	FINANCIAL PTS:	39	LOAN AMOUNT:	\$896,000
ESTIMATED MEDIAN AGI:	\$38,532			PRINC. FORGIVE.:	\$224,000
STATE AGI:	\$41,923			TOTAL REQUEST:	\$1,120,000
SYSTEM % OF STATE AGI:	92%				

	@ ZERO % RATE 0%	@ RBBI MKT RATE 3.76%		AFTER REPAYMENT PENALTY & POINTS 0.00%
<b><u>SYSTEM</u></b>				
ASSUMED LENGTH OF DEBT, YRS:	30	30		30
ASSUMED NET EFFECTIVE INT. RATE:	0.00%	3.76%		0.00%
REQUIRED DEBT SERVICE:	\$29,866.67	\$50,316.51		\$29,866.67
*PARTIAL COVERAGE (15%):	\$0.00	\$0.00		\$0.00
*ADD. COVERAGE AND RESERVE (10%):	\$2,986.67	\$5,031.65		\$2,986.67
<b>ANNUAL NEW DEBT PER CONNECTION:</b>	<b>\$127.34</b>	<b>\$214.53</b>		<b>\$127.34</b>
O & M + FUNDED DEPRECIATION:	\$208,001.00	\$208,001.00		\$208,001.00
OTHER DEBT + COVERAGE:	\$6,477.50	\$6,477.50		\$6,477.50
REPLACEMENT RESERVE ACCOUNT:	\$12,152.48	\$13,174.98		\$12,152.48
<b>ANNUAL EXPENSES PER CONNECTION:</b>	<b>\$878.41</b>	<b>\$882.38</b>		<b>\$878.41</b>
TOTAL SYSTEM EXPENSES	\$259,484.32	\$283,001.64		\$259,484.32
TAX REVENUE:	\$0.00	\$0.00		\$0.00
<b><u>RESIDENCE</u></b>				
MONTHLY NEEDED WATER BILL:	\$83.81	\$91.41		\$83.81
% OF ADJUSTED GROSS INCOME:	2.61%	2.85%		2.61%

\* Equivalent Residential Connections

Virgin

PROPOSED BOND REPAYMENT SCHEDULE

80 % Loan & 20 % P.F.

PRINCIPAL	\$896,000.00	ANTICIPATED CLOSING DATE	15-Sep-16
INTEREST	0.00%	FIRST P&I PAYMENT DUE	01-Jan-18
TERM	30	REVENUE BOND	
NOMIN. PAYMENT	\$29,866.67	PRINC. FORGIVE.:	\$224,000.00

YEAR	BEGINNING BALANCE	DATE OF PAYMENT	PAYMENT	PRINCIPAL	INTEREST	ENDING BALANCE	PAYM NO.
2017	\$896,000.00		\$0.00 *	\$0.00	\$0.00	\$896,000.00	0
2018	\$896,000.00		\$30,000.00	\$30,000.00	\$0.00	\$866,000.00	1
2019	\$866,000.00		\$30,000.00	\$30,000.00	\$0.00	\$836,000.00	2
2020	\$836,000.00		\$30,000.00	\$30,000.00	\$0.00	\$806,000.00	3
2021	\$806,000.00		\$30,000.00	\$30,000.00	\$0.00	\$776,000.00	4
2022	\$776,000.00		\$30,000.00	\$30,000.00	\$0.00	\$746,000.00	5
2023	\$746,000.00		\$30,000.00	\$30,000.00	\$0.00	\$716,000.00	6
2024	\$716,000.00		\$30,000.00	\$30,000.00	\$0.00	\$686,000.00	7
2025	\$686,000.00		\$30,000.00	\$30,000.00	\$0.00	\$656,000.00	8
2026	\$656,000.00		\$30,000.00	\$30,000.00	\$0.00	\$626,000.00	9
2027	\$626,000.00		\$30,000.00	\$30,000.00	\$0.00	\$596,000.00	10
2028	\$596,000.00		\$30,000.00	\$30,000.00	\$0.00	\$566,000.00	11
2029	\$566,000.00		\$30,000.00	\$30,000.00	\$0.00	\$536,000.00	12
2030	\$536,000.00		\$30,000.00	\$30,000.00	\$0.00	\$506,000.00	13
2031	\$506,000.00		\$30,000.00	\$30,000.00	\$0.00	\$476,000.00	14
2032	\$476,000.00		\$30,000.00	\$30,000.00	\$0.00	\$446,000.00	15
2033	\$446,000.00		\$30,000.00	\$30,000.00	\$0.00	\$416,000.00	16
2034	\$416,000.00		\$30,000.00	\$30,000.00	\$0.00	\$386,000.00	17
2035	\$386,000.00		\$30,000.00	\$30,000.00	\$0.00	\$356,000.00	18
2036	\$356,000.00		\$30,000.00	\$30,000.00	\$0.00	\$326,000.00	19
2037	\$326,000.00		\$30,000.00	\$30,000.00	\$0.00	\$296,000.00	20
2038	\$296,000.00		\$30,000.00	\$30,000.00	\$0.00	\$266,000.00	21
2039	\$266,000.00		\$30,000.00	\$30,000.00	\$0.00	\$236,000.00	22
2040	\$236,000.00		\$30,000.00	\$30,000.00	\$0.00	\$206,000.00	23
2041	\$206,000.00		\$29,000.00	\$29,000.00	\$0.00	\$177,000.00	24
2042	\$177,000.00		\$30,000.00	\$30,000.00	\$0.00	\$147,000.00	25
2043	\$147,000.00		\$29,000.00	\$29,000.00	\$0.00	\$118,000.00	26
2044	\$118,000.00		\$30,000.00	\$30,000.00	\$0.00	\$88,000.00	27
2045	\$88,000.00		\$29,000.00	\$29,000.00	\$0.00	\$59,000.00	28
2046	\$59,000.00		\$30,000.00	\$30,000.00	\$0.00	\$29,000.00	29
2047	\$29,000.00		\$29,000.00	\$29,000.00	\$0.00	\$0.00	30
			\$896,000.00	\$896,000.00	\$0.00		

\*Interest Only Payment

# Virgin

## DWB Loan Terms

Local Share (total):	\$	-
Other Agency Funding:	\$	-
DWB Grant Amount:	\$	224,000
DWB Loan Amount:	\$	896,000
DWB Loan Term:		30
DWB Loan Interest:		0.00%
DWB Loan Payment:	\$	29,867

## DW Expenses (Estimated)

Proposed Facility Capital Cost:	#VALUE!
Existing Facility O&M Expense:	\$ 174,313
Proposed Facility O&M Expense:	\$ 174,313
O&M Inflation Factor:	1.0%
Existing Debt Service:	\$ 5,182

## DW Revenue Sources (Projected)

Beginning Cash:	\$	-
Existing Customers (ERC):		258
Projected Growth Rate:		1.0%
Impact Fee/Connection Fee:	\$	25,795
Current Monthly User Charge:	\$	69.26
Needed Average Monthly User Charge:	\$	83.81

## DW Revenue Projections

Yr	Growth Rate (%)	Annual Growth (ERC)	Total Users (ERC)	User Charge Revenue	Impact Fee Revenue	Property Tax Revenue	Total Revenue	DWB Loan Repayment	DWB Loan Reserves	Remaining Principal	Principal Payment	Interest Payment	Existing DW Debt Service	O&M Expenses	Total Expenses	Debt Service Ratio
0	1.0%	3	258	214,426	77,385	-	291,811	-	-	896,000	-	-	5,182	174,313	179,495	-
1	1.0%	3	261	262,502	77,385	-	339,887	30,000	2,987	866,000	30,000	-	5,182	174,313	212,482	4.71
2	1.0%	2	263	264,513	51,590	-	316,103	30,000	2,987	836,000	30,000	-	5,182	176,056	214,225	3.98
3	1.0%	3	266	267,530	77,385	-	344,915	30,000	2,987	806,000	30,000	-	5,182	177,817	215,985	4.75
4	1.0%	2	268	269,542	51,590	-	321,132	30,000	2,987	776,000	30,000	-	5,182	179,595	217,764	4.02
5	1.0%	3	271	272,559	77,385	-	349,944	30,000	2,987	746,000	30,000	-	5,182	181,391	219,559	4.79
6	1.0%	3	274	275,576	77,385	-	352,961	30,000	2,987	716,000	30,000	-	5,182	183,205	221,373	4.83
7	1.0%	3	277	278,594	77,385	-	355,979	30,000	2,987	686,000	30,000	-	5,182	185,037	223,205	4.86
8	1.0%	2	279	280,605	51,590	-	332,195	30,000	2,987	656,000	30,000	-	5,182	186,887	225,056	4.13
9	1.0%	3	282	283,622	77,385	-	361,007	30,000	2,987	626,000	30,000	-	5,182	188,756	226,925	4.90
10	1.0%	3	285	286,640	77,385	-	364,025	30,000	2,987	596,000	30,000	-	5,182	190,644	228,812	4.93
11	1.0%	3	288	289,657	77,385	-	367,042	30,000		566,000	30,000	-	5,182	192,550	227,732	4.96
12	1.0%	3	291	292,674	77,385	-	370,059	30,000		536,000	30,000	-	5,182	194,475	229,657	4.99
13	1.0%	3	294	295,691	77,385	-	373,076	30,000		506,000	30,000	-	5,182	196,420	231,602	5.02
14	1.0%	3	297	298,709	77,385	-	376,094	30,000		476,000	30,000	-	5,182	198,384	233,566	5.05
15	1.0%	3	300	301,726	77,385	-	379,111	30,000		446,000	30,000	-	5,182	200,368	235,550	5.08
16	1.0%	3	303	304,743	77,385	-	382,128	30,000		416,000	30,000	-	5,182	202,372	237,554	5.11
17	1.0%	3	306	307,760	77,385	-	385,145	30,000		386,000	30,000	-	5,182	204,396	239,578	5.14
18	1.0%	3	309	310,778	77,385	-	388,163	30,000		356,000	30,000	-	5,182	206,440	241,622	5.17
19	1.0%	3	312	313,795	77,385	-	391,180	30,000		326,000	30,000	-	5,182	208,504	243,686	5.19
20	1.0%	3	315	316,812	77,385	-	394,197	30,000		296,000	30,000	-	5,182	210,589	245,771	5.22
21	1.0%	3	318	319,830	77,385	-	397,215	30,000		266,000	30,000	-	5,182	212,695	247,877	5.24
22	1.0%	3	321	322,847	77,385	-	400,232	30,000		236,000	30,000	-	5,182	214,822	250,004	5.27
23	1.0%	3	324	325,864	77,385	-	403,249	30,000		206,000	30,000	-	5,182	216,970	252,152	5.29
24	1.0%	4	328	329,887	103,180	-	433,067	29,000		177,000	29,000	-	5,182	219,140	253,322	6.26
25	1.0%	3	331	332,904	77,385	-	410,289	30,000		147,000	30,000	-	5,182	221,331	256,513	5.37
26	1.0%	3	334	335,922	77,385	-	413,307	29,000		118,000	29,000	-	5,182	223,545	257,727	5.55
27	1.0%	4	338	339,945	103,180	-	443,125	30,000		88,000	30,000	-	5,182	225,780	260,962	6.18
28	1.0%	3	341	342,962	77,385	-	420,347	29,000		59,000	29,000	-	5,182	228,038	262,220	5.63
29	1.0%	3	344	345,979	77,385	-	423,364	30,000		29,000	30,000	-	5,182	230,318	265,500	5.49
30	1.0%	4	348	350,002	103,180	-	453,182	29,000		-	29,000	-	5,182	232,621	266,803	6.45

Total Paid in Debt Service = 896,000

## Utah Department Of Environmental Quality Division Of Drinking Water

<b>VIRGIN</b>	<b>PWS ID: UTAH27020 Rating: Approved</b>	<b>02/27/1987</b>	<b>Active</b>
<b>Legal Contact</b>	<b>Site Updates</b>	<b>Consumptive Use Zone</b>	
VIRGIN TOWN	Last Inventory Update: 12/17/2014	Irrigation Zone: 6	
CHRIS J HOLM	Last Surveyor Update: 12/10/2014	Date: 02/15/2013	
PO BOX 790008	Surveyor: KLINTON A FREI		
VIRGIN, UT 84779	Operating Period: 1/1 - 12/31		
Phone: 435-635-4695	Last IPS Update: 05/19/2016 12:00:00		
County: WASHINGTON COUNTY			
System Type: Community			
Population: 750			

### Admin Contacts

Name	Title	Office	Emergency	Email
HOLM, CHRIS J		435-635-4695		clerk@virgin.utah.gov

### IPS Report

#### IPS Summary

Total IPS Points	Admin & Physical Facilities	Quality & Monitoring	Operator Certification	Significant Deficiency
<b>-10</b>	<b>-10</b>	<b>0</b>	<b>0</b>	<b>0</b>

#### Physical Facility Points

Code	Description	Severity	Point Effective		
M001	CURRENT EMERGENCY RESPONSE PROGRAM REC		<b>-10</b>		
Facility	Comments	Status	Determined	Point Not Assessed	Point Assessed
	SYSTEM HAS AN EMERGENCY RESPONSE PLAN		06/09/2003		<b>-10</b>
V020	STORAGE FACILITY SHOWS MILD DETERIORATION	REC			<b>0</b>
Facility	Comments	Status	Determined	Point Not Assessed	Point Assessed
ST002 STORAGE FACILITY ST002		Active	12/10/2014		<b>0</b>

**Total Effective Points: -10**

#### Operator Certification Points

Type	Level Required	Highest Certificate	Point Effective
Distribution	Dist 1	Dist 1	<b>0</b>
Treatment			<b>0</b>

**Total Effective Points: 0**