

Drinking Water

Board Packet

November 25, 2015



## State of Utah

GARY R. HERBERT  
*Governor*

SPENCER J. COX  
*Lieutenant Governor*

## Department of Environmental Quality

Alan Matheson  
*Executive Director*

DIVISION OF DRINKING WATER  
Kenneth H. Bousfield, P.E.  
*Director*

**Drinking Water Board**  
Paul Hansen, P.E., *Chair*  
Betty Naylor, *Vice-Chair*  
Brett Chynoweth  
Tage Flint  
Roger G. Fridal  
Brad Johnson  
David L. Sakrison  
David Stevens, Ph.D.  
Mark Stevens, M.D.  
Kenneth H. Bousfield, P.E.  
*Executive Secretary*

### DRINKING WATER BOARD MEETING

November 25, 2015 – 10:00 a.m.

Teleconference Meeting

Call-in No.: 1-877-820-7831

Participant PIN: 878776#

Michael Grange's Cell Phone #: (801) 674-2563

1. Call to Order – Chairman Hansen
2. Roll Call – Michael Grange
3. Financial Assistance Committee Report
  - A. SRF Applications
    - i. **Levan Town**
4. Next Board Meeting:

Date: Friday, January 8, 2016  
Time: 1:00 pm  
Place: Multi Agency State Office Building  
Room 1015  
195 North 1950 West  
Salt Lake City, Utah 84116

5. Adjourn

*In compliance with the American Disabilities Act, individuals with special needs (including auxiliary communicative aids and services) should contact Dana Powers, Office of Human Resources, at: (801) 499-2117, TDD (801) 903-3978, at least five working days prior to the scheduled meeting.*

# Agenda Item

3(A)(i)

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

**APPLICANT'S REQUEST:**

Levan Town is requesting \$60,000 in financial assistance to redevelop its Rosebush Spring drinking water source. Source capacity has apparently been impacted by stream bank reinforcement work after fire and flooding in the adjacent watershed a few years ago. Total project cost is estimated to be \$134,000 and Levan has secured \$50,000 from the Natural Resources Conservation Service and will contribute \$24,000 of its own funds to the project. A brief outline of the project and the emergency facing Levan Town is attached to this cover sheet.

**STAFF COMMENTS:**

The local MAGI for Levan Town is \$37,693, which is 93% of the State MAGI. The average water bill is approximately \$40.12 per month, which is 1.28% of local MAGI. With a full loan of \$60,000 at 2.00% interest for 20 years, the City would need to increase their average water bill to approximately \$48.40 per connection which is 1.54% of their local MAGI.

However, a loan of \$60,000 would require the Town to complete the bonding process which could add as much as \$10,000 to the overall project cost, a 17% increase. In Staff's opinion this is an unnecessary and inefficient use of funds. Staff therefore recommends that the Drinking Water Board authorize a \$60,000 construction grant to Levan Town.

**STAFF RECOMMENDATION:**

**Due to the emergency nature of the project the Financial Assistance Committee did not review this project. Furthermore, due to the loss of source capacity from Rosebush Spring, Staff recommends the Drinking Water Board consider this request for emergency financial assistance.**

**Staff recommends that the Drinking Water Board authorize a \$60,000 construction grant to Levan Town to redevelop the Rosebush Spring drinking water source.**

## DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Levan Town  
 COUNTY: Juab  
 PROJECT DESCRIPTION: spring redevelopment

FUNDING SOURCE: State SRF

**100 % Loan & 0 % Grant**

|                         |           |                     |       |                |           |
|-------------------------|-----------|---------------------|-------|----------------|-----------|
| ESTIMATED POPULATION:   | 854       | NO. OF CONNECTIONS: | 321 * | SYSTEM RATING: | APPROVED  |
| CURRENT AVG WATER BILL: | \$40.12 * |                     |       | PROJECT TOTAL: | \$134,000 |
| CURRENT % OF AGI:       | 1.28%     | FINANCIAL PTS:      | 57    | LOAN AMOUNT:   | \$60,000  |
| ESTIMATED MEDIAN AGI:   | \$37,693  |                     |       | GRANT AMOUNT:  | \$0       |
| STATE AGI:              | \$40,489  |                     |       | TOTAL REQUEST: | \$60,000  |
| SYSTEM % OF STATE AGI:  | 93%       |                     |       |                |           |

|  | @ ZERO %<br>RATE<br>0% | @ RBBI<br>MKT RATE<br>4.04% | AFTER REPAYMENT<br>PENALTY & POINTS<br>2.00% |
|--|------------------------|-----------------------------|--|
| <b><u>SYSTEM</u></b>                   |                        |                             |  |
| ASSUMED LENGTH OF DEBT, YRS:           | 20                     | 20                          | 20   |
| ASSUMED NET EFFECTIVE INT. RATE:       | 0.00%                  | 4.04%                       | 2.00%  |
| REQUIRED DEBT SERVICE:                 | \$3,000.00             | \$4,430.56                  | \$3,669.40                                   |
| *PARTIAL COVERAGE (15%):               | \$0.00                 | \$0.00                      | \$0.00                                       |
| *ADD. COVERAGE AND RESERVE (10%):      | \$300.00               | \$443.06                    | \$366.94                                     |
| <b>ANNUAL NEW DEBT PER CONNECTION:</b> | <b>\$10.28</b>         | <b>\$15.18</b>              | <b>\$12.57</b>                               |
| <br>                                   |                        |                             |  |
| O & M + FUNDED DEPRECIATION:           | \$177,550.00           | \$177,550.00                | \$177,550.00                                 |
| OTHER DEBT + COVERAGE:                 | \$0.00                 | \$0.00                      | \$0.00                                       |
| REPLACEMENT RESERVE ACCOUNT:           | \$9,027.50             | \$9,099.03                  | \$9,060.97                                   |
| <b>ANNUAL EXPENSES PER CONNECTION:</b> | <b>\$581.24</b>        | <b>\$581.46</b>             | <b>\$581.34</b>                              |
| <br>                                   |                        |                             |  |
| TOTAL SYSTEM EXPENSES                  | \$189,877.50           | \$191,522.64                | \$190,647.31                                 |
| TAX REVENUE:                           | \$0.00                 | \$0.00                      | \$0.00                                       |
| <br>                                   |                        |                             |  |
| <b><u>RESIDENCE</u></b>                |                        |                             |  |
| <b>MONTHLY NEEDED WATER BILL:</b>      | <b>\$49.29</b>         | <b>\$49.72</b>              | <b>\$49.49</b>                               |
| <br>                                   |                        |                             |  |
| <b>% OF ADJUSTED GROSS INCOME:</b>     | <b>1.57%</b>           | <b>1.58%</b>                | <b>1.58%</b>                                 |

\* Equivalent Residential Connections

## DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Levan Town  
 COUNTY: Juab  
 PROJECT DESCRIPTION: spring redevelopment

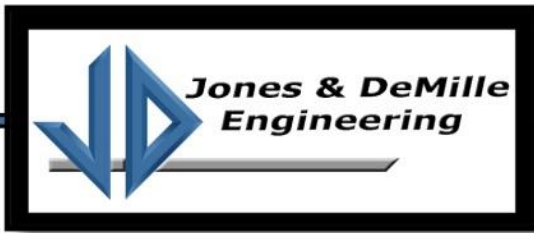
FUNDING SOURCE: State SRF

**0 % Loan & 100 % Grant**

|                         |           |                     |       |                |           |
|-------------------------|-----------|---------------------|-------|----------------|-----------|
| ESTIMATED POPULATION:   | 854       | NO. OF CONNECTIONS: | 321 * | SYSTEM RATING: | APPROVED  |
| CURRENT AVG WATER BILL: | \$40.12 * |                     |       | PROJECT TOTAL: | \$134,000 |
| CURRENT % OF AGI:       | 1.28%     | FINANCIAL PTS:      | 57    | LOAN AMOUNT:   | \$0       |
| ESTIMATED MEDIAN AGI:   | \$37,693  |                     |       | GRANT AMOUNT:  | \$60,000  |
| STATE AGI:              | \$40,489  |                     |       | TOTAL REQUEST: | \$60,000  |
| SYSTEM % OF STATE AGI:  | 93%       |                     |       |                |           |

|  | @ ZERO %<br>RATE<br>0% | @ RBBI<br>MKT RATE<br>4.04% |  | AFTER REPAYMENT<br>PENALTY & POINTS<br>2.00% |
|--|------------------------|-----------------------------|--|--|
| <b><u>SYSTEM</u></b>                   |                        |                             |  |  |
| ASSUMED LENGTH OF DEBT, YRS:           | 20                     | 20                          |  | 20   |
| ASSUMED NET EFFECTIVE INT. RATE:       | 0.00%                  | 4.04%                       |  | 2.00%  |
| REQUIRED DEBT SERVICE:                 | \$0.00                 | \$0.00                      |  | \$0.00                                       |
| *PARTIAL COVERAGE (15%):               | \$0.00                 | \$0.00                      |  | \$0.00                                       |
| *ADD. COVERAGE AND RESERVE (10%):      | \$0.00                 | \$0.00                      |  | \$0.00                                       |
| <b>ANNUAL NEW DEBT PER CONNECTION:</b> | <b>\$0.00</b>          | <b>\$0.00</b>               |  | <b>\$0.00</b>                                |
| <br>                                   |                        |                             |  |  |
| O & M + FUNDED DEPRECIATION:           | \$177,550.00           | \$177,550.00                |  | \$177,550.00                                 |
| OTHER DEBT + COVERAGE:                 | \$0.00                 | \$0.00                      |  | \$0.00                                       |
| REPLACEMENT RESERVE ACCOUNT:           | \$8,877.50             | \$8,877.50                  |  | \$8,877.50                                   |
| <b>ANNUAL EXPENSES PER CONNECTION:</b> | <b>\$580.77</b>        | <b>\$580.77</b>             |  | <b>\$580.77</b>                              |
| <br>                                   |                        |                             |  |  |
| TOTAL SYSTEM EXPENSES                  | \$186,427.50           | \$186,427.50                |  | \$186,427.50                                 |
| TAX REVENUE:                           | \$0.00                 | \$0.00                      |  | \$0.00                                       |
| <br>                                   |                        |                             |  |  |
| <b><u>RESIDENCE</u></b>                |                        |                             |  |  |
| MONTHLY NEEDED WATER BILL:             | \$48.40                | \$48.40                     |  | \$48.40                                      |
| <br>                                   |                        |                             |  |  |
| <b>% OF ADJUSTED GROSS INCOME:</b>     | <b>1.54%</b>           | <b>1.54%</b>                |  | <b>1.54%</b>                                 |

\* Equivalent Residential Connections



**CORPORATE**

1535 South 100 West  
Richfield, UT 84701  
435.896.8266

50 South Main, Suite 28  
Manti, UT 84701  
435.835.4540

1675 South Highway 10  
Price, UT 84501  
435.637.8266

45 South 200 West (45-13)  
Roosevelt, UT 84066  
435.722.8267

Broadstone Building #3  
765 East 340 South, Suite 104  
American Fork, UT 84003  
801.692.0219

435 East Tabernacle, Suite 302  
St. George, UT 84770  
435.986.3622

16 East 200 South #D  
Monticello, UT 84535  
1.800.748.5275

**Levan Town Spring Re-Development Project  
(Upper and Lower Collection Area)**

**Darin Robinson, P.E.**

**11/14/15**

**Purpose and Need:**

The culinary water springs supply the majority of the water for the Levan Town residents. Water from the Rosebud upper and lower springs has not flowed to the system since sometime after flooding from the burned watershed required emergency repairs and bank armoring to the adjacent creek about two years ago. The springs have historically provided 100 to 200 gallons per minute on average. The water is desperately needed to relieve demand on the back-up well, and provide enough water to sustain Levan town users.

**Description:**

The project includes re-development of two collection areas (Upper Rosebush (WS-002) and Lower Rosebush (WS-003)). The project will also include clay cut-off wall(s) to protect the source from the adjacent creek and reduce risk to contamination or losing the flow in the future. The springs will be developed to meet current Drinking Water Rules.

**Current Water Rates and MAGI:**

Levan Town Median Adjusted Gross Income: \$37,693

Existing Connections: 321

Water Rates Structure (recently increased July 2015):

Number of Connections: 321

Base Fee: \$25.00 for first 5,000 gallons

Overage Fees: \$0.60/1,000 gallons (up to \$9.00) 5,000-20,000 gallons

\$0.70/1,000 gallons (up to \$14.00) 20,000-40,000 gallons

\$1.00/1,000 gallons over 40,000 gallons

Average monthly bill (based on limited 4 months of data (July-Oct 2015): **\$33.87**

Levan Town Average Culinary Water system Expenses:

2014 expenses: \$104,042

2015 expenses: \$158,534

2016 Anticipated Expenses Budget: \$154,550

Approximate water bill required (Based on 2016 anticipated expenses): **\$40.12**

2016 Summary (See Below):

| <u>Current Budget</u>   |              |
|-------------------------|--------------|
| Revenue                 | \$154,550.00 |
| Operating Expense       | \$150,550.00 |
| Other Expense           | \$ 4,000.00  |
| Remaining Budget        | \$ -         |
| Required Yearly Revenue | \$154,550.00 |
| Current Connections     | 321          |
| Yearly Bill             | \$ 481.46    |
| Monthly Bill            | \$ 40.12     |

### Levan Town Budget

| Water Fund - 51-00-000               |  | Annual Budget |                |
|--------------------------------------|--|---------------|----------------|
| Acct No.                             | Account Description                      |               |                |
| <b>Operating Income:</b>             |  |               |                |
| 5140                                 | Water Sales                              | \$            | 98,000         |
| 5310                                 | Water Connection Fees                    | \$            | -              |
| 5490                                 | Water Miscellaneous                      | \$            | 56,550         |
| 5699                                 | Irrigation Co. Reimbursements            | \$            | -              |
| <b>Operating Revenues Total:</b>     |  | \$            | <b>154,550</b> |
| <b>Operating expense (6610):</b>     |  |               |                |
| 110                                  | Water Salary & Wages                     | \$            | 39,000         |
| 130                                  | Water Employee Benefits                  | \$            | 20,600         |
| 210                                  | Water Books, subscriptions & postage     | \$            | 100            |
| 230                                  | Water Travel & Training                  | \$            | 1,500          |
| 240                                  | Water Office expense, supplies & postage | \$            | 2,000          |
| 250                                  | Water Equipment, maintenance & fuel      | \$            | 35,600         |
| 269                                  | Water Equipment Rental                   | \$            | 150            |
| 280                                  | Water Utilities                          | \$            | 1,000          |
| 310                                  | Water Professional & Technical           | \$            | 1,500          |
| 312                                  | Water Audit                              | \$            | 1,700          |
| 460                                  | Water Contracted Services                | \$            | -              |
| 510                                  | Water Insurance                          | \$            | 300            |
| 610                                  | Water Miscellaneous                      | \$            | 20,100         |
| 690                                  | Water Depreciation Expense               | \$            | 27,000         |
| <b>Total Operating Expense:</b>      |  | \$            | <b>150,550</b> |
| <b>Non-Operating Items:</b>          |  |               |                |
| <b>Non-Operating income:</b>         |  |               |                |
| 5510                                 | Water Capital grants                     | \$            | -              |
| 5520                                 | Water Impact fee revenue                 | \$            | -              |
| 5610                                 | Water Interest Income                    | \$            | -              |
| 5630                                 | Water Gain/Loss on retirement of assets  | \$            | -              |
| <b>Transfers In:</b>                 |  |               |                |
| 5810                                 | Transfer from general fund               | \$            | -              |
| 5811                                 | Transfer from Electric Fund              | \$            | -              |
| <b>Total Transfers In:</b>           |  | \$            | -              |
| <b>Total Non-Operating Income:</b>   |  | \$            | -              |
| <b>Non-operating Expense (6610):</b> |  |               |                |
| 820                                  | Water Interest Expense                   | \$            | 4,000          |
| <b>Transfers out:</b>                |  |               |                |
| 9910                                 | Transfer to general fund                 | \$            | -              |
| <b>Total Non-Operating Expense:</b>  |  | \$            | <b>4,000</b>   |
| <b>Water Fund Revenue Total:</b>     |  | \$            | <b>154,550</b> |
| <b>Water Fund Expenditure Total:</b> |  | \$            | <b>154,550</b> |
| <b>Total Income or Expense:</b>      |  | \$            | <b>-</b>       |





The following opinion of cost summarizes in more detail the items of work:

| Engineers Opinion of Probable Cost            |   |        |        |             |                     |
|---|---|--------|--------|-------------|---------------------|
| Proposed Emergency Repairs to Culinary Spring |   |        |        |             |                     |
| 1   | Contractor Mobilization                           | 1      | L.S.   | \$ 5,000.00 | \$ 5,000.00         |
| 2   | Sediment Log                                      | 40.00  | L.F.   | \$8.00      | \$ 320.00           |
| 3   | Spring Exploratory Excavation                     | 170.00 | Hour   | \$140.00    | \$ 23,800.00        |
| 4   | Remove Existing Fence                             | 600.00 | L.F.   | \$3.00      | \$ 1,800.00         |
| 5   | Remove Existing Spring Collection/Junction Box    | 1.00   | Each   | \$800.00    | \$ 800.00           |
| 6   | Remove Existing Spring Pipe                       | 120.00 | L.F.   | \$5.00      | \$ 600.00           |
| 7   | Drainage Ditch                                    | 600.00 | L.F.   | \$2.00      | \$ 1,200.00         |
| 8   | Stock-Tight Fence                                 | 600.00 | L.F.   | \$8.00      | \$ 4,800.00         |
| 9   | 16' Stock-Tight Gate                              | 1.00   | Each   | \$600.00    | \$ 600.00           |
| 10  | Seeding   | 1.50   | Acre   | \$500.00    | \$ 750.00           |
| 11  | 12" Perforated PVC C900 Water Pipe                | 160.00 | L.F.   | \$30.00     | \$ 4,800.00         |
| 12  | 12" Transmission Piping                           | 400.00 | L.F.   | \$26.00     | \$ 10,400.00        |
| 13  | Type 1 Spring Junction Box                        | 0.00   | Each   | \$10,980.97 | \$ -                |
| 14  | Type 2 Spring Collection Box                      | 2.00   | Each   | \$11,000.00 | \$ 22,000.00        |
| 15  | 5-Foot Dia. Manhole Additional Height (if needed) | 8.00   | L.F.   | \$150.00    | \$ 1,200.00         |
| 16  | Washed Rock                                       | 160.00 | C.Y.   | \$38.00     | \$ 6,080.00         |
| 17  | Clay Cut-Off Wall                                 | 50.00  | C.Y.   | \$40.00     | \$ 2,000.00         |
| 18  | Geotextile Filter Fabric                          | 200.00 | S.Y.   | \$7.50      | \$ 1,500.00         |
| 19  | 60-Mil HDPE Impermeable Liner                     | 500.00 | S.Y.   | \$15.59     | \$ 7,795.00         |
| 20  | Imported Semi-Impervious Soil ?                   | 60.00  | C.Y.   | \$25.00     | \$ 1,500.00         |
| 21  | Concrete Headwall                                 | 2.00   | Each   | \$1,908.00  | \$ 3,816.00         |
| 22  | Construction Contingency (10%)                    | 1      | L.S.   | \$11,739.00 | \$ 11,739.00        |
| <b>Construction Cost</b>                      |   |        |        |             | <b>\$112,500.00</b> |
|   |   |        |        |             |                     |
| 1   | Levan Town Administrative / Legal (1.75%)         | 0      | L.S.   | \$ 2,000.00 | \$ -                |
| 2   | Environmental, Permitting,                        |        | Hourly | \$ 5,000.00 | \$ -                |
| 3   | Design Engineering, DDW Approvals, etc.           | 1      | L.S.   | \$ 7,000.00 | \$ 7,000.00         |
| 4   | Construction Engineering                          | 1      | Hourly | \$14,000.00 | \$ 14,000.00        |
| <b>Total Design &amp; Const. Engineering</b>  |   |        |        |             | <b>\$ 21,000.00</b> |
|   |   |        |        |             |                     |
| <b>Total Cost Opinion</b>                     |   |        |        |             | <b>\$133,500.00</b> |

**Project Funding:**

The funding for the project is summarized in the following table:

| Funding Source   | Amount           | Comments   |
|--|------------------|--|
| Natural Resource Conservation Service (NRCS)                           | \$50,000         | Exigency funds will be available November 30, 2015. (Must use within 30 days; by approx. Jan. 1, 2016) |
| Levan Town Emergency Funds (Cash & documented in-kind)                 | \$24,000         | Will provide some of the materials as in-kind value for some of this amount                            |
| <b>Request to the Utah Division of Drinking Water Fund Board (DDW)</b> | <b>\$59,500</b>  | Requesting Emergency finding available by Nov. 30, 2015 if possible.                                   |
| <b>TOTAL:</b>  | <b>\$133,500</b> |  |

