

**DRINKING WATER BOARD
BOARD PACKET FOR PLANNING ADVANCE**

APPLICANT'S REQUEST:

Bear River Water Conservancy District (BRWCD) is requesting \$200,000 in financial assistance to create a Water Master Plan. The cost of the Master Plan is \$215,000 and the District has committed to contributing \$15,000.

STAFF COMMENTS:

The Master Plan will include outreach activities to stakeholders and drinking water suppliers in the county, evaluation of existing water resources and demands, investigations into plans for Bear River water development, conservation planning tools, and an evaluation of the possibility of a water rights “bank.”

BRWCD has a local MAGI of \$42,006, based on their zip code, which is approximately 104% of the State’s MAGI. Currently, the average water rate is approximately \$48 per ERC which is 1.37% of the local MAGI. The District also collects a portion of the County’s property taxes that goes towards the water system expenses. A planning loan at 0% interest for 5 years would result in an average water bill of approximately \$143, based on current water related debt and operation and maintenance costs, which is 4.10% of their local MAGI. The District qualifies to be considered for a planning grant. The reason that their current water rate is much lower than what our analysis determines it should be is because they use property tax revenue to fund their water system expenses.

The Financial Assistance Committee recommends two options for the Board to explore:

| | Grant | Loan | Water Bill | % MAGI |
|----------|-----------|-------------------------|------------|--------|
| Option 1 | \$200,000 | | \$138.61 | 3.96% |
| Option 2 | \$100,000 | \$100,000 (0%,10 years) | \$139.88 | 4.00% |
| Option 3 | | \$200,000 (0%, 5 years) | \$143.66 | 4.10% |

Financial Assistance Committee Recommendation:

outreach will be used to plan the activities that are important to the District for a successful and responsive Master Plan.

Goal #2 – Outreach to Public Drinking Water Suppliers in Box Elder County

The District proposes to conduct information gathering meetings in all quadrants of Box Elder County to find out the major water supply problems and issues currently being experienced by public drinking water providers. This outreach is intended to include all interested parties in the County including municipalities, unincorporated areas, community councils, irrigators, canal companies, landowners, developers, industries, etc.

The District will collect the information provided during the outreach to prepare information regarding:

- Areas needing assistance
- Timeline of when assistance will be needed
- The nature of the assistance needed

Goal #3 – Evaluate Existing Water Resources & Demands

Using the information collected in Goal #2, an evaluation of existing water supply and demand will be made for public water agencies in the County as well as for District service areas.

The District's 2005 Master Plan included a technical analysis for each public water supplier in the County to project the population served, water demands vs supply, and additional population that could be served before additional water supplies would be needed. It is proposed that the 2015 Master Plan repeat this process to update the work done in 1999 and 2005. This evaluation will also include water rights evaluations for each supplier, as was done in 1999 and 2005.

The outcome of the evaluation will be a forecast of water needs for public water supply agencies throughout the County, including the District. The forecast will show when additional water will be needed by each public water supply agency. This forecast will be demonstrated with a map showing graphically each public water supplier's service area and when they will need additional water supplies.

Goal #4 – Develop Box Elder County's Plans for Bear River Water Development

The State of Utah has been studying Bear River water development for several decades. In the past 5 years, increased activity is being focused by the State on dam sites for water storage and transmission routes for water conveyance. The Bear River Water Conservancy District has been increasingly interested in planning future use of Box Elder

County's allotment of 60,000 acre feet of water that will ultimately be delivered from the Bear River Development project.

Topics of interest for Bear River water include:

- Where the water would likely be needed in the County
- When the County's growth would need and justify additional water supplies
- Conceptual level planning to determine how the water could be treated, stored and conveyed to the points of use

Goal #5 – Prepare Conservation Planning Tools

One of the State of Utah's important goals for water supply for the future is to achieve 25% conservation in water use by the year 2050. Water conservation in Box Elder County may not be currently be at the top of the priority list for most water providers, but in the future it will be increasingly important. The Master Planning process will include discussions with water suppliers regarding how conservation can benefit water suppliers and water users and how to make conservation a priority.

Goal #6 – Evaluate the Possibility of a Water Rights “Bank”:

The District has felt the need for many years to purchase water rights within the County, but the District has not yet acted towards that end. District staff visualizes a “water bank” where water rights and canal shares are bought, sold and managed by the District in order to put the water to beneficial use and keep the water in Box Elder County.

The District needs to consider all of the ramifications of this possibility and make a decision whether or not to pursue this goal. If the decision is made to move forward, the District will need to develop policy for the program and propose a funding mechanism.

POPULATION GROWTH:

According to the Utah State Governor's Office of Planning and Budgeting, the anticipated growth rate for Box Elder County is approximately 1.8% per year over the next 30 years

| | <u>Year</u> | <u>Population</u> |
|------------|-------------|-------------------|
| Current: | 2015 | 52,000 |
| Projected: | 2045 | 84,000 |

IMPLEMENTATION SCHEDULE:

| | |
|----------------------------------|---------------|
| Apply to DWB for Planning Funds: | November 2015 |
| Division Funding Authorization: | January 2016 |
| Completion of Planning Study: | June 2016 |

COST ESTIMATE:

| | |
|----------------------|------------------|
| Engineering Study: | \$215,000 |
| Total Planning Cost: | <u>\$215,000</u> |

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 Grant: | \$200,000 | 93% |
| System Contribution | \$15,000 | 7% |
| Total Amount: | <u>\$215,000</u> | <u>100%</u> |

APPLICANT:

Bear River WCD
102 W Forest St.
Brigham City, UT 84302
435-723-7034

PRESIDING OFFICIAL &
CONTACT PERSON:

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DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Bear River WCD
 COUNTY: Box Elder
 PROJECT DESCRIPTION: Master Plan

FUNDING SOURCE: Federal SRF

50 % Loan & 50 % P.F.

| | | | | | |
|-------------------------|-----------|---------------------|-------|------------------|-----------|
| ESTIMATED POPULATION: | 52,000 | NO. OF CONNECTIONS: | 760 * | SYSTEM RATING: | APPROVED |
| CURRENT AVG WATER BILL: | \$48.00 * | | | PROJECT TOTAL: | \$215,000 |
| CURRENT % OF AGI: | 1.37% | FINANCIAL PTS: | 81 | LOAN AMOUNT: | \$100,000 |
| ESTIMATED MEDIAN AGI: | \$42,006 | | | PRINC. FORGIVE.: | \$100,000 |
| STATE AGI: | \$40,489 | | | TOTAL REQUEST: | \$200,000 |
| SYSTEM % OF STATE AGI: | 104% | | | | |

| | @ ZERO % RATE 0% | @ RBBI MKT RATE 4.05% | | AFTER REPAYMENT PENALTY & POINTS 0.00% |
|--|------------------------|-----------------------------|--|--|
| <u>SYSTEM</u> | | | | |
| ASSUMED LENGTH OF DEBT, YRS: | 10 | 10 | | 10 |
| ASSUMED NET EFFECTIVE INT. RATE: | 0.00% | 4.05% | | 0.00% |
| REQUIRED DEBT SERVICE: | \$10,000.00 | \$12,359.80 | | \$10,000.00 |
| *PARTIAL COVERAGE (15%): | \$0.00 | \$0.00 | | \$0.00 |
| *ADD. COVERAGE AND RESERVE (10%): | \$1,000.00 | \$1,235.98 | | \$1,000.00 |
| ANNUAL NEW DEBT PER CONNECTION: | \$14.47 | \$17.89 | | \$14.47 |
| | | | | |
| O & M + FUNDED DEPRECIATION: | \$771,872.00 | \$771,872.00 | | \$771,872.00 |
| OTHER DEBT + COVERAGE: | \$436,250.00 | \$436,250.00 | | \$436,250.00 |
| REPLACEMENT RESERVE ACCOUNT: | \$56,543.60 | \$56,661.59 | | \$56,543.60 |
| ANNUAL EXPENSES PER CONNECTION: | \$1,664.03 | \$1,664.19 | | \$1,664.03 |
| | | | | |
| TOTAL SYSTEM EXPENSES | \$1,275,665.60 | \$1,278,379.37 | | \$1,275,665.60 |
| TAX REVENUE: | \$736,209.00 | \$736,209.00 | | \$736,209.00 |
| | | | | |
| <u>RESIDENCE</u> | | | | |
| MONTHLY NEEDED WATER BILL: | \$139.88 | \$140.17 | | \$139.88 |
| | | | | |
| % OF ADJUSTED GROSS INCOME: | 4.00% | 4.00% | | 4.00% |

* Equivalent Residential Connections

R309-700-5

Bear River WCD
Box Elder
December 9, 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 | |
| | \$283 | |
| 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 | |
| D. 96 to 110% of State Median AGI | 9 | X |
| 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 | |
| | 104% | |
| 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 | X |
| d. 2 to 5% of project funds | 4 | |
| e. Less than 2% of project funds | 0 | |
| | 7.0% | |
| 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 | |
| | 4.00% | |
| 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 | X |
| D. Has a rate structure encouraging conservation | 6 | X |
| TOTAL POINTS FOR FINANCIAL NEED | 81 | |
| TOTAL POSSIBLE POINTS FOR FINANCIAL NEED | 100 | |

Bear River WCD

PROPOSED BOND REPAYMENT SCHEDULE

50 % Loan & 50 % P.F.

| | | | |
|----------------|--------------|--------------------------|--------------|
| PRINCIPAL | \$100,000.00 | ANTICIPATED CLOSING DATE | 01-Jun-16 |
| INTEREST | 0.00% | FIRST P&I PAYMENT DUE | 01-Jan-17 |
| TERM | 10 | REVENUE BOND | |
| NOMIN. PAYMENT | \$10,000.00 | PRINC. FORGIVE.: | \$100,000.00 |

| YEAR | BEGINNING BALANCE | DATE OF PAYMENT | PAYMENT | PRINCIPAL | INTEREST | ENDING BALANCE | PAYM NO. |
|------|----------------------|--------------------|--------------|--------------|----------|-------------------|-------------|
| 2016 | \$100,000.00 | | \$0.00 * | \$0.00 | \$0.00 | \$100,000.00 | 0 |
| 2017 | \$100,000.00 | | \$10,000.00 | \$10,000.00 | \$0.00 | \$90,000.00 | 1 |
| 2018 | \$90,000.00 | | \$10,000.00 | \$10,000.00 | \$0.00 | \$80,000.00 | 2 |
| 2019 | \$80,000.00 | | \$10,000.00 | \$10,000.00 | \$0.00 | \$70,000.00 | 3 |
| 2020 | \$70,000.00 | | \$10,000.00 | \$10,000.00 | \$0.00 | \$60,000.00 | 4 |
| 2021 | \$60,000.00 | | \$10,000.00 | \$10,000.00 | \$0.00 | \$50,000.00 | 5 |
| 2022 | \$50,000.00 | | \$10,000.00 | \$10,000.00 | \$0.00 | \$40,000.00 | 6 |
| 2023 | \$40,000.00 | | \$10,000.00 | \$10,000.00 | \$0.00 | \$30,000.00 | 7 |
| 2024 | \$30,000.00 | | \$10,000.00 | \$10,000.00 | \$0.00 | \$20,000.00 | 8 |
| 2025 | \$20,000.00 | | \$10,000.00 | \$10,000.00 | \$0.00 | \$10,000.00 | 9 |
| 2026 | \$10,000.00 | | \$10,000.00 | \$10,000.00 | \$0.00 | \$0.00 | 10 |
| | | | \$100,000.00 | \$100,000.00 | \$0.00 | | |

*Interest Only Payment

Bear River WCD

DWB Loan Terms

| | | |
|-----------------------|----|---------|
| Local Share (total): | \$ | 15,000 |
| Other Agency Funding: | \$ | - |
| DWB Grant Amount: | \$ | 100,000 |
| DWB Loan Amount: | \$ | 100,000 |
| DWB Loan Term: | | 10 |
| DWB Loan Interest: | | 0.00% |
| DWB Loan Payment: | \$ | 10,000 |

DW Expenses (Estimated)

| | | |
|---------------------------------|----|---------|
| Proposed Facility Capital Cost: | \$ | 215,000 |
| Existing Facility O&M Expense: | \$ | 771,872 |
| Proposed Facility O&M Expense: | \$ | 771,872 |
| O&M Inflation Factor: | | 1.0% |
| Existing Debt Service: | \$ | 349,000 |

DW Revenue Sources (Projected)

| | | |
|-------------------------------------|----|--------|
| Beginning Cash: | \$ | - |
| Existing Customers (ERC): | | 760 |
| Projected Growth Rate: | | 1.0% |
| Impact Fee/Connection Fee: | \$ | 5,000 |
| Current Monthly User Charge: | \$ | 48.00 |
| Needed Average Monthly User Charge: | \$ | 139.88 |

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% | 8 | 760 | 437,760 | 40,000 | 736,209 | 1,213,969 | - | - | 100,000 | - | - | 349,000 | 771,872 | 1,120,872 | - |
| 1 | 1.0% | 8 | 768 | 1,289,094 | 40,000 | 736,209 | 2,065,303 | 10,000 | 1,000 | 90,000 | 10,000 | - | 349,000 | 771,872 | 1,131,872 | 3.60 |
| 2 | 1.0% | 7 | 775 | 1,300,843 | 35,000 | 736,209 | 2,072,052 | 10,000 | 1,000 | 80,000 | 10,000 | - | 349,000 | 779,591 | 1,139,591 | 3.60 |
| 3 | 1.0% | 8 | 783 | 1,314,271 | 40,000 | 736,209 | 2,090,480 | 10,000 | 1,000 | 70,000 | 10,000 | - | 349,000 | 787,387 | 1,147,387 | 3.63 |
| 4 | 1.0% | 8 | 791 | 1,327,699 | 40,000 | 736,209 | 2,103,908 | 10,000 | 1,000 | 60,000 | 10,000 | - | 349,000 | 795,260 | 1,155,260 | 3.65 |
| 5 | 1.0% | 8 | 799 | 1,341,127 | 40,000 | 736,209 | 2,117,336 | 10,000 | 1,000 | 50,000 | 10,000 | - | 349,000 | 803,213 | 1,163,213 | 3.66 |
| 6 | 1.0% | 8 | 807 | 1,354,555 | 40,000 | 736,209 | 2,130,764 | 10,000 | 1,000 | 40,000 | 10,000 | - | 349,000 | 811,245 | 1,171,245 | 3.68 |
| 7 | 1.0% | 8 | 815 | 1,367,984 | 40,000 | 736,209 | 2,144,193 | 10,000 | 1,000 | 30,000 | 10,000 | - | 349,000 | 819,358 | 1,179,358 | 3.69 |
| 8 | 1.0% | 8 | 823 | 1,381,412 | 40,000 | 736,209 | 2,157,621 | 10,000 | 1,000 | 20,000 | 10,000 | - | 349,000 | 827,551 | 1,187,551 | 3.70 |
| 9 | 1.0% | 8 | 831 | 1,394,840 | 40,000 | 736,209 | 2,171,049 | 10,000 | 1,000 | 10,000 | 10,000 | - | 349,000 | 835,827 | 1,195,827 | 3.72 |
| 10 | 1.0% | 9 | 840 | 1,409,946 | 45,000 | 736,209 | 2,191,155 | 10,000 | 1,000 | - | 10,000 | - | 349,000 | 844,185 | 1,204,185 | 3.75 |

Total Paid in Debt Service = 100,000 -

DRINKING WATER BOARD FINANCIAL ASSISTANCE EVALUATION

SYSTEM NAME: Bear River WCD
 COUNTY: Box Elder
 PROJECT DESCRIPTION: Master Plan

FUNDING SOURCE: Federal SRF

0 % Loan & 100 % P.F.

| | | | | | |
|-------------------------|-----------|---------------------|-------|------------------|-----------|
| ESTIMATED POPULATION: | 52,000 | NO. OF CONNECTIONS: | 760 * | SYSTEM RATING: | APPROVED |
| CURRENT AVG WATER BILL: | \$48.00 * | | | PROJECT TOTAL: | \$215,000 |
| CURRENT % OF AGI: | 1.37% | FINANCIAL PTS: | 81 | LOAN AMOUNT: | \$0 |
| ESTIMATED MEDIAN AGI: | \$42,006 | | | PRINC. FORGIVE.: | \$200,000 |
| STATE AGI: | \$40,489 | | | TOTAL REQUEST: | \$200,000 |
| SYSTEM % OF STATE AGI: | 104% | | | | |

| | @ ZERO % RATE 0% | @ RBBI MKT RATE 4.05% | AFTER REPAYMENT PENALTY & POINTS 0.00% |
|--|------------------------|-----------------------------|--|
| <u>SYSTEM</u> | | | |
| ASSUMED LENGTH OF DEBT, YRS: | 5 | 5 | 5 |
| ASSUMED NET EFFECTIVE INT. RATE: | 0.00% | 4.05% | 0.00% |
| 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 |
| ANNUAL NEW DEBT PER CONNECTION: | \$0.00 | \$0.00 | \$0.00 |
| | | | |
| O & M + FUNDED DEPRECIATION: | \$771,872.00 | \$771,872.00 | \$771,872.00 |
| OTHER DEBT + COVERAGE: | \$436,250.00 | \$436,250.00 | \$436,250.00 |
| REPLACEMENT RESERVE ACCOUNT: | \$56,043.60 | \$56,043.60 | \$56,043.60 |
| ANNUAL EXPENSES PER CONNECTION: | \$1,663.38 | \$1,663.38 | \$1,663.38 |
| | | | |
| TOTAL SYSTEM EXPENSES | \$1,264,165.60 | \$1,264,165.60 | \$1,264,165.60 |
| TAX REVENUE: | \$736,209.00 | \$736,209.00 | \$736,209.00 |
| | | | |
| <u>RESIDENCE</u> | | | |
| MONTHLY NEEDED WATER BILL: | \$138.61 | \$138.61 | \$138.61 |
| | | | |
| % OF ADJUSTED GROSS INCOME: | 3.96% | 3.96% | 3.96% |

* Equivalent Residential Connections