

**UNIFORM APPLICATION FORM
FOR MONTANA PUBLIC FACILITY PROJECTS**

(Please type or print legibly)

SECTION A - CERTIFICATION

To the best of my knowledge and belief, the information provided in this application and the attached documents is true and correct.

Name (printed): Dave Palmer

Title (printed): Chief Executive
Chief Elected Official or Authorized Representative

Signature: _____

Date: _____

SECTION B - SUMMARY INFORMATION

1. NAME OF APPLICANT(S): Butte-Silver Bow

2. TYPE OF ENTITY: Consolidated City- County Government

3. FEDERAL TAX ID NUMBER: 81-0368698

4. TYPE OF PROJECT: Water System Improvements

5. SENATE AND HOUSE DISTRICTS: SD 37, HD 73

5.a NAMES OF SENATOR(S) AND REPRESENTATIVE(S): Sen. Jon Sesso & Rep. Jim Keane

6. POPULATION SERVED BY PROJECT: 33,671

6.a NUMBER OF HOUSEHOLDS SERVED BY PROJECT: 14,798

7. DUNS Number: _____

8. CHIEF ELECTED OFFICIAL OR AUTHORIZED REPRESENTATIVE:

Dave Palmer

(Name)

Chief Executive

(Title)

155 West Granite Street

(Street/PO Box)

Butte, MT 59701

(City/State/Zip)

(406) 497-6214

(Telephone)

dpalmer@bsb.mt.gov

(E Mail address)

10. PROJECT ENGINEER/ARCHITECT:

To be Determined

(Name of Engineer)

(Name of Firm)

(Street/PO Box)

(City/State/Zip)

(Telephone)

(E Mail address)

12. LEGAL COUNSEL:

Eileen Joyce

(Name)

County Attorney

(Title)

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14. CLERK/CHIEF FINANCIAL OFFICER:

Danette Gleason

(Name)

Director, Finance & Budget Dept.

(Title)

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9. PRIMARY ENTITY CONTACT PERSON:

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(Name)

Director of Public Works

(Title)

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11. GRANT/LOAN ADMINISTRATOR:

Pat Cunneen

(Name)

Senior Operations Engineer

(Title)

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13. BOND COUNSEL:

(Name)

(Title)

(Street/PO Box)

(City/State/Zip)

(Telephone)

(E-mail address)

15. ACCOUNTANT:

Angie Mullikin

(Name of Accountant)

Public Works Budget Analyst

(Title)

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16. BRIEF PROJECT SUMMARY: (Refer to instructions and examples)

Historical Information – Basin Creek Dam #1

Basin Creek Dam #1 was built by the Butte Water Company with the intent to provide water to mining operations and secondarily to the community. It was initially completed in 1897 as a 75-foot tall curved masonry dam with a crest elevation of 5876.06 feet (NAVD88). The dam was constructed using solid granite blocks that were quarried nearby.



View of downstream dam face during construction in the 1890s

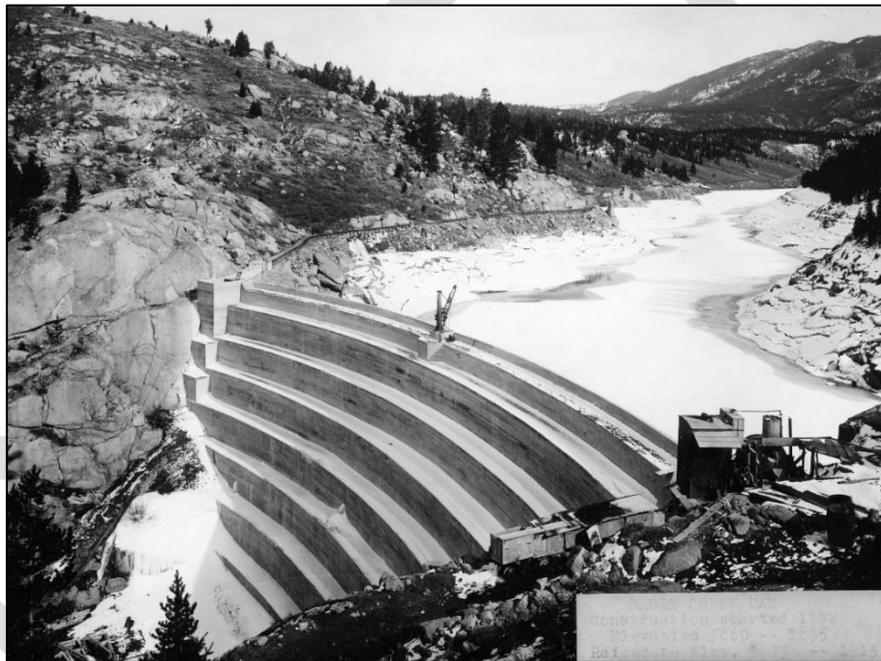
In 1901, the Anaconda Copper Mining Company purchased the Butte City Water Co. In 1913, the dam was raised 13 feet to its current top elevation of 5989.06 feet (NAVD88) by constructing a concrete cap and monolithic concrete tiers on the downstream face.



View of upstream dam face nearing completion in 1897

The dam was modified in the 1930s with earthen fill placed on the downstream side to prevent concrete deterioration. Financial difficulties forced the sale of the Anaconda Mining Company to Atlantic Richfield Co. (ARCO) in 1977. In 1979, the concrete parapet wall was repaired and increased by 1-foot in elevation. In the early-to-mid 1980s, shotcrete was applied to the upstream dam face to mitigate concrete deterioration. In 1986, Dennis Washington purchased the Anaconda Company (and Butte Water) from ARCO. In 1992, the City-County of Butte-Silver Bow (BSB) took over ownership of the potable water system as well as the Silver Lake water system. In 1999, BSB crews replaced an outlet valve on the discharge pipe. From 2005 to 2006, the spillway and outlet works underwent a major rehabilitation to perform necessary upgrades for conformance to Montana Dam Safety Regulations. The primary components of this work consisted of:

- Spillway reconstruction and installation of an Obermayer spillway crest gate;
- Slip lining the three existing 20" diameter cast iron conduits with new 16" diameter HDPE pipes;
- Installation of new butterfly gate valves at outlet and reconstruction of outlet works;
- Installation of new upstream pinch valves and a bubbler system;
- New mechanical building;
- Installation of an ultrasonic lake level gage;
- Access improvements.



Basin Creek Dam #1 in 1913 shortly after concrete cap and buttress placement

The new spillway passes approximately 203 cfs, with the gate open, which can accommodate up to the 500-year flood without the dam crest being overtopped.

Historical Information – Basin Creek Water Treatment

From the time the dam was built in 1897 until May of 2017, the Basin Creek water source was operated as an unfiltered water supply that provided up to 40% of Butte's municipal water needs. The Basin Creek watershed has provided the City of Butte with clean water for over 100 years since it was originally tapped. Originating in the high mountain peaks south of Butte, Basin Creek has remained relatively unpolluted due to its high elevation and long-standing status as Butte's most reliable source of drinking water. The only treatment required for water sourced from the Basin Creek drainage consisted of gas chlorination at the chlorination/feeder building just downstream (north) of the dam. Refer to specifics on dam (and treatment) history above in Section 3.4.1. The Basin Creek source operated under a filtration waiver from the Montana Department of Environmental Quality (MDEQ), meaning that the water

was exempt from normal filtration requirements for municipal water systems.

On August 18, 2010, the MDEQ issued BSB notice that the filtration waiver for the Basin Creek Supply was being rescinded due to tests indicating higher than allowable levels of HAA5's (Haloacetic Acids). On May 16, 2017, the new Basin Creek Water Treatment Plant (WTP) was brought online and began providing filtered water from the Basin Creek supply for the first time. With the construction of the plant, Basin Creek Reservoir now supplies approximately 60% of Butte's drinking water.

Problem

The Water System PER provides a thorough description and detailed analysis of the current condition of the dam and its associative water delivery components to (and including) the Basin Creek WTP. Specific analysis, evaluation, and description of water delivery downstream of the Basin Creek WTP is not a focus of the report. The primary deficiencies identified in PER report are as follows:

- Basin Creek Dam #1 is classified as a high hazard dam by the State of Montana. Therefore, the facility must be operated under the provisions of an Operating Permit issued by the Dam Safety Section of the Montana Department of Natural Resources and Conservation (DNRC). As a result of the high hazard designation, BSB is required to have Basin Creek Dam #1 inspected by a Professional Engineer every 5 years. The 2019 Periodic Inspection Report (September 30, 2019) prepared by Pioneer Technical Services, Inc. described numerous cracks, spalls, and signs of severe deterioration of the concrete on the upstream face of the dam including surface voids approximately 12 inches in height, 6 inches deep, and varying in width up to 6 feet. The deterioration was also evident in photos from the 2014 and 2009 Periodic Inspection Reports; however, the rate of deterioration has increased considerably in the past few years.
- The comments provided by Montana DNRC on the 2019 Draft Periodic Inspection Report expressed concern regarding the concrete deterioration and that if left unaddressed, would likely result in Montana DNRC imposing a reservoir level restriction to lower the reservoir and reduce the risk downstream of the dam from the PMF or overtopping events. This reduction in reservoir elevation would also have considerable implications to the operation of the Basin Creek WTP. Unless repairs are made, BSB will likely be forced to reduce the maximum operation level of the dam to an elevation below the deteriorated concrete—reducing the reservoir's storage capacity from nearly 1000 acre-feet to less than 460 acre-feet. The resulting loss in water volume will reduce the driving force necessary to provide gravity flow through the treatment process and the limited remaining capacity in the reservoir would be quickly depleted.



Upstream view of parapet wall condition (near spillway)

The deterioration of the concrete appears to be accelerating which could impact the ability of the dam to withstand overtopping and that the top several feet could fail in an extreme storm event. The Montana DNRC comments also indicated that further investigation into the concrete deterioration will be a permit condition and suggested that BSB consider applying for an initial study grant under the Renewable Resource Grant and Loan (RRGL) program.

In November 2019, BSB was awarded an RRGL grant to help with expenses associated with contracting a concrete deterioration expert to provide a professional assessment of the concrete condition and prepare an inspection report. This structural analysis was started in the fall of 2019 by Gannett-Fleming and submittal of the final report occurred in January 2020. The report examined the stability of the dam and the existing concrete condition and identified three retrofit alternatives to remediate the poor concrete condition along the upper dam face and provide stability during overtopping events associated with the Probable Maximum Flood (PMF) or upstream reservoir failure. An adequate bond between the mass concrete and the masonry core is necessary to ensure sliding and rotational stability. The alternatives ranged from repairs to the parapet along the upper dam face with the addition of post-tensioned anchorages to a major rehabilitation project involving fully removing the upper 13' of the dam and replacing it with a design that meets current design standards. An intermediate rehabilitation project consisting of the removal of the existing parapet and the installation of a concrete overlay on the upstream dam face with post-tensioned anchorages was also recommended.

The final Basin Creek Dam Structural Assessment Report is included in Attachment XX of this application.

Proposed Solution

Based on the alternative's analysis described in the PER, Alternative 2 is the preferred alternative and includes the following elements:

1. Full removal and replacement of the parapet wall;
2. Concrete overlay over the dam face;
3. Installation of post-tensioned anchorages through the mass concrete into the masonry core.

Replacement of the parapet wall would prevent ongoing maintenance of the freeze/thaw damage and reduce the concerns for parapet failure during the PMF. Rehabilitation of the dam face will also reduce future maintenance concerns and increase the longevity of the mass concrete section. The post-tensioned anchorages would provide additional sliding and overturning stability during the PMF to meet current standards. Gannett Fleming has indicated that based on their conceptual analysis, a total of fourteen 2" diameter post-tension anchor rods, each rated to 140 KIPS, will be required. The anticipated total length of each rod is 40 feet. The preferred alternative is shown in Figures 7-1 and 7-2 in the PER.

SECTION C - FINANCIAL INFORMATION

1. ESTIMATED TOTAL PROJECT COST: \$2,032,052

2. PROPOSED FUNDING SOURCES (List loans and grants from same funding source separately) (Refer to the instructions and examples):

Source	Type of Funds	Amount	Status of Commitment	Loan Rates and Terms
Butte-Silver Bow	Cash	\$1,405,052	Budgeted BSB fiscal year 2023 – See Appendix A	Not Applicable
TSEP	Grant	\$ 500,000	TSEP Program Manager Becky Anseth has confirmed the project's eligibility – See Appendix B – Application to be submitted on 06/12/2020	Not Applicable
DNRC	Grant	\$ 125,000	Application submitted 06/01/2020	Not Applicable

3. FUNDING STRATEGY NARRATIVE

☛ Funding Strategy Narrative (**Complete and attach**)
(Refer to the instructions. Answer each question individually.)

a. What are the conditions on the use of each source of funds?

TREASURE STATE ENDOWMENT PROGRAM (TSEP) - \$500,000 GRANT

Butte-Silver Bow (BSB) will apply to the Montana Department of Commerce for TSEP Grant in June 2020. Montana's Legislature and Governor will approve TSEP grant awards during the 2021 legislative session. A local match of 50% is required and will be met with the DNRC-RRGL grant and local funds. BSB must meet the Montana Department of Commerce (MDOC) combined water & sewer "target rates" as a condition of the grant program.

MDOC's combined target rate for BSB is \$72.23 per month. BSB's average residential combined (water & sewer) monthly user rate is currently \$80.57 or 112% of the MDOC target rate; therefore, the proposed project is eligible for a \$500,000 TSEP.

DEPARTMENT OF NATURAL RESOURCES (DNRC) RENEWABLE RESOURCE GRANT - \$125,000 GRANT

The BSB is applying for a DNRC Renewable Resource Grant in June 2020. Montana's Legislature and Governor will award DNRC funds during the 2021 legislative session. Grant contracts for successful applicants will be completed in the fourth quarter of 2021 or early in 2022. Construction activities will likely begin in 2023.

BUTTE-SILVER BOW - \$1,405,052

BSB's water utility system capital improvements budget for the fiscal year 2023 includes funding for the local contribution needed to design and construct the proposed project. A copy of BSB's Public Works, Water Division CIP is included in Appendix A.

TSEP Grant	\$500,000	24%
DNRC Grant	\$125,000	6%
Local	\$1,480,255	70%

- b. When will each source of funds listed be available (month and year)?

Butte-Silver Bow – July 1, 2022

TSEP Grant – July 1, 2021

DNRC Grant – July 1, 2021

- c. Is there any additional information on the level of commitment for each source of funds listed?

Each funding source has been contacted with regards to this project. Due to multiple sources of funding necessary to make the project financially feasible, along with the competitive nature of the programs, obtaining firm commitments from the agencies is not possible.

- d. How will funding sources be coordinated with each other?

There are no specific program requirements that require coordination. BSB's Finance & Budget Department will manage project funding to ensure the administrative rules associated with TSEP and DNRC grant funding are met, and funding is coordinated as needed.

- e. Will interim-loan funds be required as part of the project? If yes, how will they be used and coordinated with other funding sources?

No – BSB will fund the project without debt.

- f. What have other sources of funds from public and private sources been considered for this project? Explain why they are not being pursued or used for this project.

SRF & USDA RURAL DEVELOPMENT

COVID-19 has severely impacted BSB's economy, which is why the Council of Commissioners does not want to raise user rates. For that reason, BSB staff did not consider financing the project with a loan from Montana's Drinking Water State Revolving Fund (SRF). Also, the population of BSB is over 10,000, which makes the BSB ineligible for funding from USDA Rural Development.

COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG)

With a low-and-moderate income percentage of 47.51%, BSB is not eligible for an area-wide a Community Development Block Grant (CDBG) from the Montana Department of Commerce. Therefore, applying for a CDBG grant was not considered as an option for this project.

ECONOMIC DEVELOPMENT ADMINISTRATION (EDA) PUBLIC WORKS

EDA provides grant funding for projects that would directly support a private sector business and create or retain high paying jobs. Unless a project is necessary to support the location of a business, it is not eligible for EDA funding.

BSB did discuss the project with Kirk Keysor of the Economic Development Administration, but without a business directly benefitting from the proposed project, it was decided an EDA application would not be competitive.

SECTION 595 – WATER RESOURCES DEVELOPMENT ACT (WRDA)

Section 595 of the Water Resources Development Act of 1999 (WRDA) is a program managed by the United States Army Corps of Engineers. Its primary purpose is to provide design and construction assistance to non-federal entities to complete water-related environmental

infrastructure and resource protection and development projects in Montana and Idaho. BSB has received WRDA funding in the past, and the proposed project is eligible for an allocation. However, communities cannot apply directly to the Corps of Engineers for a WRDA grant. Congress awards allocations in collaboration with the Congressional delegations Montana, and Idaho. The distribution of funds is unpredictable and, therefore, for planning purposes, BSB did not include WRDA as a source of financing for the proposed budget.

- g. If a particular source of funding is not obtained, how will the applicant proceed? Explain how the funding strategy will change if a source of funding is not received.

Later this year, FEMA will release a funding opportunity announcement (FOA) for the Building Resilient Infrastructure & Communities (BRIC) Program. BRIC is a new FEMA pre-disaster hazard mitigation program that replaces the existing Pre-Disaster Mitigation (PDM) program and is a result of amendments made to Section 203 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) by Section 1234 of the Disaster Recovery Reform Act of 2018 (DRRA).

It appears the proposed project would be eligible for BRIC funding. Also, given the condition of the dam and the threat it poses to public safety, it is reasonable to assume a BRIC application for the project would be competitive. BSB will determine the feasibility of a BRIC grant once FEMA releases the FOA this fall. Ideally, BSB would use a combination of TSEP, DNRC, and local funding to provide the non-federal match to BRIC allocation.

- h. What is the level of local financial participation in the project and is that level the maximum that the applicant can reasonably provide?

BSB is contributing \$1.4-million to the proposed project, and given the condition of the economy, that is the most it can reasonably provide at this time.

4. PROJECT BUDGET FORM

- ☛ Project Budget Form (**Complete form on next page**)
(Refer to the instructions and example)

Completed By: Great West Engineering

Butte-Silver Bow Water System Imp.

5/22/2020

Administrative/ Finance Costs	Source: TSEP	Source: DNRC-RRGL	Source: Butte-Silver Bow	Total:
Personnel Costs				\$ -
Office Costs				\$ -
Professional Services			\$ 21,094	\$ 21,094
Legal Costs				\$ -
Travel & Training				\$ -
ADMIN/FINANCE COSTS:	\$ -	\$ -	\$ 21,094	\$ 21,094
Cultural Investigation		\$ 6,000		\$ 6,000
Asbestos Testing		\$ 750		\$ 750
Geotechnical Investigation		\$ 25,000		\$ 25,000
Engineering Basic Services - PreDesign, Final Design, Permitting)	\$ 237,694	\$ 75,986		\$ 313,680
Engineering - Construction Services			\$ 224,128	\$ 224,128
Construction	\$ 262,306	\$ 17,264	\$ 940,130	\$ 1,219,700
Contingency			\$ 219,700	\$ 219,700
ACTIVITY COSTS	\$ 500,000	\$ 125,000	\$ 1,383,958	\$ 2,008,958
TOTAL PROJECT COSTS	\$ 500,000	\$ 125,000	\$ 1,405,052	\$ 2,030,052

Project Budget Narrative

ADMINISTRATIVE/FINANCIAL COSTS

Professional Services - \$21,094

Grant administration services will be provided by BSB staff. Services include tasks required to meet start-up conditions for the funding program, completing funding drawdowns, maintaining the budget tracking and invoice tracking documents, completing progress reports, monitoring labor requirements, monitoring Equal Opportunity Requirements, etc. The costs will be covered with BSB funding.

TOTAL ADMINISTRATIVE/FINANCIAL COSTS - \$21,094

Administrative/Financial costs represent 1% of the total project costs.

ACTIVITY COSTS

Cultural Investigation - \$6,000

This portion of the budget will be used to conduct a cultural assessment of the project area, and an historic recordation of the dam. The costs will be covered with DNRC funding.

Asbestos Testing - \$750

BSB will use this portion to test the existing the existing concrete for the presence of asbestos. The costs will be covered with DNRC funding.

Geotechnical Investigation - \$25,000

BSB will use this portion to complete a geotechnical analysis of the project area. These costs will be covered with DNRC funding.

Engineering - Basic Services \$313,680

This portion of the budget will be used for Engineering Design and Construction Engineering Services. Engineering Design includes design surveys, design plans, specifications, contract documents, plan submittals, and agency review fees. Construction Engineering Services include bid services, construction management, and closeout& warranty services. Design services and construction engineering will be split between TSEP and DNRC.

Engineering - RPR Services \$224,128

This portion of the budget will be used for resident project representative (RPR) services for construction monitoring services to ensure the project is constructed in accordance with approved plans and specifications. BSB will pay for RPR services.

Construction \$1,219,700

This portion of the budget will cover the construction of the proposed improvements. Funds for this activity will come from TSEP, DNRC, and BSB.

Contingency \$219,700

Contingency funds represent 20% of the estimated total construction cost estimates. A 10% contingency is typically budgeted for infrastructure projects. However, because of the highly specialized nature of the proposed project and without having a geotechnical analysis of the project site BSB believes a 20% contingency is warranted. BSB is contributing the funds for the contingency budget.

TOTAL ACTIVITY COSTS - \$2,030,052

Activity costs represent roughly 99% of the total project costs

5. CURRENT DEBT (Refer to the instructions and example on pages 23-24)

Year Issued	Purpose	Type of Bond/ Security	Amount	Maturity Date (mo./yr)	Debt Holder	Coverage Requirement	Avg. Annual Payment Amount	Outstanding Balance
2011	Engineering	Revenue	\$2,296,381	January 2032	DEQ/SRF	125%	\$157,241	\$1,595,000

6. CURRENT ASSETS (Indicate if assets are obligated.) (Refer to the instructions on pages 23-24.)

Cash (Details) <u>Restricted and Unrestricted</u>	<u>\$1,334,765</u>
Investments (Details) <u>short-term & long-term state investment pool</u>	<u>\$9,519,258</u>
Certificates of Deposit (Details) _____	<u>\$0.00</u>
Accounts Receivable (Details) _____	<u>\$1,390,586</u>
Any other current assets not specifically indicated above (Details) _____	<u>\$0.00</u>

7. BALANCE SHEET (Submit if applying to RD; contact the other programs to determine if or when this information is needed.)

Balance Sheet (Check if attached)

8. INCOME AND EXPENSE STATEMENT (Submit if applying to RD; contact the other programs to determine if or when this information is needed.)

Income and Expense Statement (Check if attached)

SECTION D - CENSUS INFORMATION

Do not fill in this section. The following information will be completed by the receiving agency using data supplied by the U Bureau of the Census and the U.S. Department of Housing and Urban Development based on Census data.

1. MEDIAN HOUSEHOLD INCOME \$ _____
2. LOW TO MODERATE INCOME PERSONS: The percent of the population at or below the level designated as low to moderate income. % _____
3. POVERTY: The percent of the population characterized as at or below the level designated as poverty. % _____

SECTION E - SYSTEM INFORMATION (Refer to instructions)

Number of unimproved properties in jurisdiction: _____

- **Complete and attach the "System Information Worksheet."** The figures required for the items listed below that are denoted with an "•" are computed using the "System Information Worksheet." The letter in parenthesis following the "•" denotes the location in the worksheet to find the figure to be inserted.

	<u>Current</u>	<u>Projected</u>
1. Total System Annual Revenue	\$9,870,290	\$9,870,290
2. Total System Annual Operation and Maintenance Costs	\$5,701,376	\$5,701,376
3. Total System Equivalent Dwelling Units* • □(e) for current and (k) for projected	15,982	15,982
4. Total Residential Equivalent Dwelling Units* • □(f) for current and (m) for projected	<u>11,682</u>	<u>11,682</u>
5. Annual Revenue from Residential Hookups	<u>\$7,214,662</u>	<u>\$7,214,662</u>
6. Percent of Total Annual Revenue from Residential Hookups	<u>73%</u>	<u>73%</u>
7. Average Monthly Residential Rate □ Check box if this is a flat rate.	<u>\$52.07</u>	<u>\$52.07</u>
		<u>Projected Average Monthly Residential Rate</u> • (w) or (x)
8. <u>Other System</u> Average Monthly Residential Rate	\$28.50	\$28.50

* *If this application is for a solid waste project, see instructions.*

SYSTEM INFORMATION WORKSHEET

(Refer to instructions)

SUBSECTION 1 – Equivalent Dwelling Unit Computation

Applicants with either a water and wastewater project must complete Section I, regardless of whether the applicant is served by a central water system or is planning to charge residential users a flat user fee. If the applicant is not served by a central water system, or it has water connections that provide service to multiple mixed uses, such as commercial and residential, refer to the instructions on page 26 for information on computing the number of EDU's. *Applicants with solid waste projects are not required to complete Section I*. Service connection diameters will be converted to EDU's according to the following table, with the exception of those situations noted on page 26:

<u>Service connection inside diameter (inches)</u>	<u>EDU's</u>
¾" or smaller	1.00
1"	1.79
1-1/2"	4.00
2"	7.14
2-1/2"	11.16
3"	16.00
4"	28.57
5"	44.64
6"	64.29
7"	87.11
8"	113.78
9"	144.00
10"	177.78

PART A. CURRENT WATER HOOKUP SUMMARY

<u>Current Total Hookups*</u>				<u>Current Residential Hookups</u>			
<u>Diameter</u> <u>(inches)</u>	<u>(a)</u> <u>Total</u> <u>Number of</u> <u>Hookups</u>	<u>(b)</u> <u>Diameter</u> <u>(inches)</u>	<u>Total</u> <u>Number of</u> <u>Hookups</u> [(a)x(b)]	<u>Diameter</u> <u>(inches)</u>	<u>(c)</u> <u>Total</u> <u>Number of</u> <u>Hookups</u>	<u>(d)</u> <u>Diameter</u> <u>(inches)</u>	<u>Total</u> <u>Number of</u> <u>Hookups</u> [(c)x(d)]
<u>0.75"</u>	<u>12,218</u>	<u>1</u>	<u>12,218</u>	<u>0.75"</u>	<u>11,117</u>	<u>1</u>	<u>11,117</u>
<u>1"</u>	<u>235</u>	<u>1.79</u>	<u>420.65</u>	<u>1"</u>	<u>82</u>	<u>1.79</u>	<u>146.78</u>
<u>1.25"</u>	<u>1</u>	<u>2.78</u>	<u>2.78</u>	<u>1.25"</u>	<u>0</u>	<u>2.78</u>	<u>0</u>
<u>1.5"</u>	<u>76</u>	<u>4.00</u>	<u>304</u>	<u>1.5"</u>	<u>14</u>	<u>4.00</u>	<u>56</u>
<u>2"</u>	<u>167</u>	<u>7.14</u>	<u>1,192.38</u>	<u>2"</u>	<u>23</u>	<u>7.14</u>	<u>164.22</u>
<u>3"</u>	<u>31</u>	<u>16.00</u>	<u>496</u>	<u>3"</u>	<u>7</u>	<u>16.00</u>	<u>112</u>
<u>4"</u>	<u>15</u>	<u>28.57</u>	<u>428.55</u>	<u>4"</u>	<u>3</u>	<u>28.57</u>	<u>85.71</u>
<u>6"</u>	<u>5</u>	<u>64.29</u>	<u>321.45</u>	<u>6"</u>	<u>0</u>	<u>64.29</u>	<u>0</u>
<u>8"</u>	<u>3</u>	<u>113.78</u>	<u>341.34</u>	<u>8"</u>	<u>0</u>	<u>113.78</u>	<u>0</u>
<u>12"</u>	<u>1</u>	<u>256.61</u>	<u>256.61</u>	<u>12"</u>	<u>0</u>	<u>256.61</u>	<u>0</u>
Totals	<u>12,752</u>		<u>15,981.2(e)</u>		<u>11,246(l)</u>		<u>11,682(f)</u>

* Includes both residential and non-residential hookups

PART B. PROJECTED WATER HOOKUP SUMMARY

Projected Total Hookups*				Projected Residential Hookups			
Diameter (inches)	(g) Total Number of Hookups	(h) EDU's per Hookup (from table)	Total EDU's [(g) x (h)]	Diameter (inches)	(i) Number of Residential Hookups	(j) EDU's Per Hookup (from table)	Total Residential EDU's [(i) x (j)]
0.75"	12,218	1	12,218	0.75"	11,117	1	11,117
1"	235	1.79	420.65	1"	82	1.79	146.78
1.25"	1	2.78	2.78	1.25"	0	2.78	0
1.5"	76	4.00	304	1.5"	14	4.00	56
2"	167	7.14	1,192.38	2"	23	7.14	164.22
3"	31	16.00	496	3"	7	16.00	112
4"	15	28.57	428.55	4"	3	28.57	85.71
6"	5	64.29	321.45	6"	0	64.29	0
8"	3	113.78	341.34	8"	0	113.78	0
12"	1	256.61	256.61	12"	0	256.61	0
Totals	12,743		15,982(k)		579(l)		11,682(m)

Projected average EDU's per residential hookup: (1.04)

Provide the following information if applying to the USDA RUS/RD program

Total water system flows (sales) last twelve months _____ [gallons or cubic feet (circle one) for all connections listed in (a) above].

Total residential water flows (sales) last twelve months _____ [gallons or cubic feet (circle one) for all connections listed in (c) above].

NOTE: In some cases it is necessary to provide a detailed monthly split of the residential and non-residential sales. A sample spreadsheet is available on the Montana USDA Rural Development website at <http://www.rd.usda.gov/programs-services/water-waste-disposal-loan-grant-program/mt>.

SUBSECTION 2 – Projected Average Monthly Residential Rate Computation

Will debt be used to finance the project? Yes No If no, skip to PART E.

If yes, how will debt for the project be secured:

- A. Revenue Bond _____(complete Part A)
- B. General Obligation Bond _____(complete Part B)
- C. Rural or Special Improvement District Bond _____(complete Part C)
- D. Other (explain) _____(complete Part D)

Debt (Loan) Amount: \$0.00 Interest Rate: Terms:

PART E. CALCULATION OF THE PROJECTED AVERAGE MONTHLY RESIDENTIAL USER RATE:

1. Estimated increase in average monthly debt service (per projected EDU, monthly assessment per property for General Obligation Bond or SID, or per customer for solid waste projects) as the result of this project. Enter \$0 if no increase is projected:

\$0.00 _____(o)
[From Part A, B, C, or D]

2. Estimated increase or decrease in total monthly operation and maintenance (O&M) costs (including depreciation and replacement reserves) as the result of this project: \$0.00 _____ (p)
3. List and explain estimated increases or decreases in O&M costs, including depreciation and replacement reserves (Provide a reasonably detailed explanation regarding the reason for the increase or decrease):
- The proposed project would have no impact on monthly O&M fees.
4. Estimated increase or decrease in monthly O&M costs (including depreciation and replacement reserves) (per projected EDU, monthly assessment per property for General Obligation Bond or SID, or per customer for solid waste projects) as the result of this project: \$0.00 _____ (q)
[(p) / (k)]
5. Estimated increase or decrease in total monthly costs (per projected EDU, monthly assessment per property for General Obligation Bond or SID, or per customer for solid waste projects) as the result of this project: \$0.00 _____ (r)
[(o) + (q)]
6. Projected average EDU's per residential hookup: \$1..04 _____ (s)
[(n)]
7. Estimated increase or decrease in total monthly costs per average residential hookup/customer as the result of this project: \$0.00 _____ (t)
[(r) x (s)]
8. Existing average monthly residential debt service, including coverage and bond reserve (subtract any existing debt service if the loan will expire before the completion of the project): \$8.32 _____ (u)
9. Existing average monthly residential O&M costs and replacement and depreciation reserves: \$ 43.75 _____ (v)

Note: (u) plus (v) should equal the current average monthly residential rate as stated in Section E, Line 7. If these amounts do not equal, provide an explanation of why the numbers differ.

10. Projected average monthly residential user rate after completion of this project: \$ 52.07 _____ (w)
[(t) + (u) + (v)]
11. Projected flat user rate: \$ _____ (x)