

EXHIBIT 11  
DATE Jan 21, 2013  
HB 7

RECLAMATION AND DEVELOPMENT GRANTS PROGRAM

**Irrigation Project for Butte Acidic Mine Waters**



**Project Sponsor:**

**Butte-Silver Bow City-County Government  
Courthouse, 155 West Granite St.  
Butte, MT 59701**

**January 21, 2013**

## **PROJECT ABSTRACT**

Many areas in Butte that were degraded by mining/smelting activities have been revegetated as part of ongoing remediation and restoration efforts. These newly vegetated areas have become impractical to irrigate using municipal water, due to cost and periodic drought conditions. To ensure the sustainability of remediation and restoration efforts, an alternative source of irrigation water is needed.

A project completed in 2011 (through a public-private partnership with multiple funding sources) successfully field-tested a water treatment process that is capable of upgrading water from the flooded underground mine workings – water that is suitable for non-agricultural irrigation.

The objectives of the proposed project in this 2012 application would use the results of completed work to refine the treatment process and system and seek other opportunities to use mine water in the long term, as follows:

- Objective 1—Upgrade existing water treatment system at the Belmont Mine to make the process more efficient, economical, automated, and thus feasible for long-term operation.
- Objective 2—Operate system and irrigate the entire reclaimed area east of the Belmont headframe in 2013 and 2014.
- Objective 3—Explore the feasibility of using groundwater directly (i.e., without treatment) by analyzing existing groundwater data in Butte and identifying areas where the groundwater is not as severely impacted by mining activities.
- Objective 4—Perform a pumping test at a prioritized location in Butte that needs an alternative source of irrigation water (e.g., Mountain Con and Original mine yards) and has acceptable water quality.

Butte-Silver Bow (BSB) will implement the project with appropriate support from other entities and contracted services. This proposed Resource Indemnification Trust (RIT) Reclamation and Development Grant Program (RDGP) project at the Belmont Mine yard seeks to utilize previously damaged resources in a beneficial way while reducing the current stress on the municipal water supply and the Big Hole River which supplies 60% of Butte's municipal water.

## **PROJECT BUDGET**

In summary, the total project cost is \$386,629. Of this amount, the Sponsor requests \$275,689 through the Reclamation and Development Grant Program and pledges \$60,939 as a match through a combination in-kind services from Butte-Silver Bow and its project partners, and a match of \$50,000 from Natural Resource Damage Program Butte Area One funds.

**Project Budget Summary Form**

Category	RDGP	BSB <sup>a</sup>	BAO NRDP Funds	Contractors	Total
Administrative Costs					
Personnel Cost--Applicant	\$0	\$30,820	\$0	\$0	\$30,820
Supplies & Materials	\$3,990	\$0	\$5,000	\$0	\$8,990
Communications	\$0	\$675	\$0	\$0	\$675
Travel	\$0	\$1,250	\$0	\$0	\$1,250
Rent & Utilities--municipal water for startup and make up water	\$5,220	\$0	\$0	\$0	\$5,220
Equipment--Lime Feed System Upgrade/Sludge Handling System Upgrade	\$22,856	\$0	\$20,000	\$15,000	\$57,856
Miscellaneous--Indirect Costs at 20% of Salaries and Benefits	\$0	\$13,194	\$0	\$0	\$13,194
Total Administrative Costs	\$32,066	\$45,939	\$25,000	\$15,000	\$118,005
Activity Costs					
Personnel Cost--Applicant for Objective 1, 2, and 4	\$35,151	\$0	\$0	\$0	\$35,151
Contracted Services					
Activity <sup>b</sup> : Analytical Services based on MSE Laboratory Quote #299 Objective 2 and Objective 4	\$8,240	\$0	\$8,000	\$0	\$16,240
Activity: Drilling Objective 3	\$30,000	\$0	\$10,000	\$0	\$40,000
Activity: MBMG--300 hours @\$80/hour Objective 3 and 4	\$24,000	\$0	\$7,000	\$0	\$31,000
Activity: Hydrogeological--160 hours @ \$120/hour Objective 3 and 4	\$19,200	\$0	\$0	\$0	\$19,200
Activity: Mechanical Engineering Objective 1, 2, and 4	\$50,394	\$0	\$0	\$0	\$50,394
Activity: I&C Engineering Objective 1, 2, and 4	\$76,638	\$0	\$0	\$0	\$76,638
Total Activity Costs	\$243,623	\$0	\$25,000	\$0	\$268,623
<b>TOTAL PROJECT COSTS</b>					
<b>TOTAL</b>	<b>\$275,689</b>	<b>\$45,939</b>	<b>\$50,000</b>	<b>\$15,000</b>	<b>\$386,629</b>

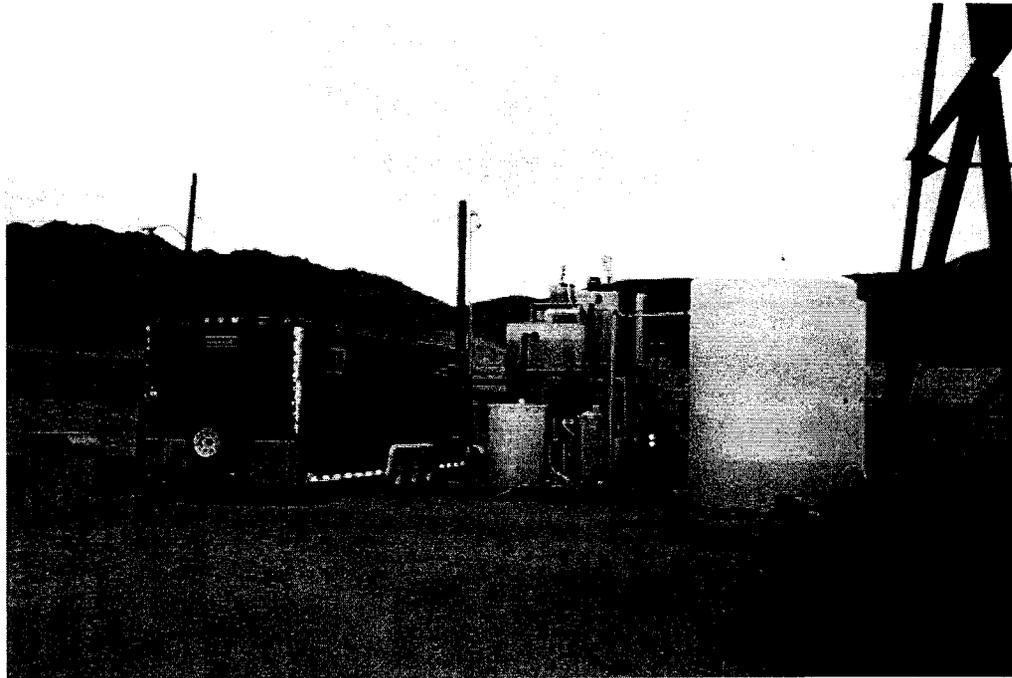
Notes:

RDGP = Reclamation and Development Grant Program

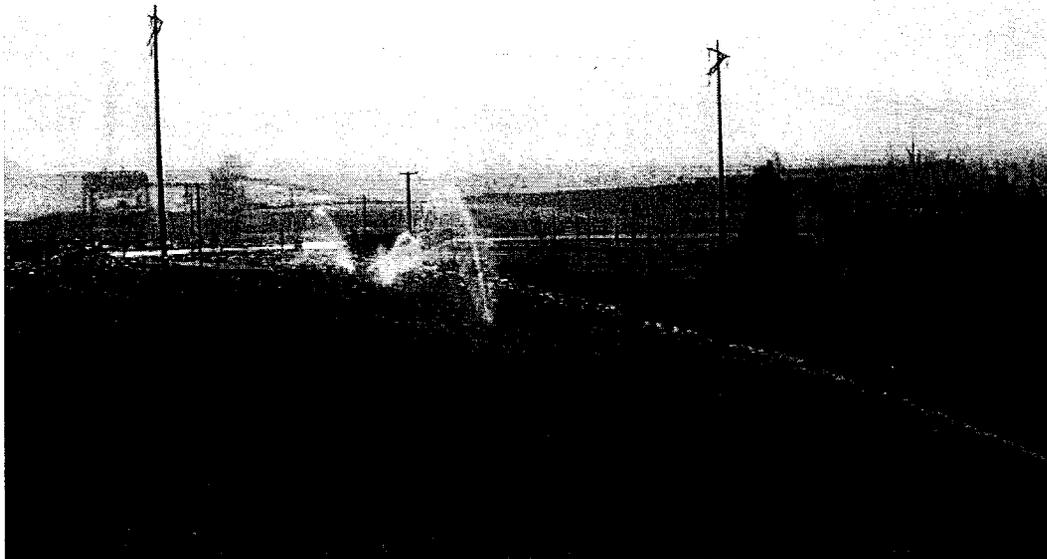
<sup>a</sup>Identify the sources of the funds (change column headings in your application)

<sup>b</sup>Identify the activities that will be performed by applicant personnel or contracted services

Chart A below provides additional detail about BSB's administrative and activity costs. In summary, the total project cost is \$386,629. Of this amount, the Sponsor requests \$275,689 through the Reclamation and Development Grant Program and pledges \$60,939 as a match through a combination in-kind services from Butte-Silver Bow and its project partners, and a match of \$50,000 from Natural Resource Damage Program Butte Area One funds.



*Figure 1. Photograph of existing Phase 1 Ground Water treatment system at Belmont Mine in Butte, Montana.*



*Figure 2. Photograph of treated water being used for irrigation at the Belmont Mine.*