

April 17, 2008

Robin Jenkinson
Bonneville Environmental Foundation
Model Watershed Program
240 SW 1st Avenue
Portland, Oregon 97204

RE: Beaver Creek Partnership, Shoshone County, Idaho

Dear Ms. Jenkinson:

We are writing in regards to the Beaver Creek Watershed in the North Fork Coeur d'Alene River Subbasin and the tremendous potential for restoration of the watershed. For more than one hundred years, human activities have severely degraded habitat and water quality in the Beaver Creek Watershed and it is now the focus of a collaborative restoration effort. Despite the impacts of mining, logging and other human activities, the watershed retains great potential for supporting native fishes, wildlife, and human uses once watershed function can be restored. We are proposing the Beaver Creek Partnership project for the Bonneville Environmental Foundation Model Watershed Program. This partnership is a project of the North Fork Coeur d'Alene Watershed Advisory Group and administrative sponsors of the grant are the Idaho Department of Environmental Quality, Shoshone County, and the Kootenai-Shoshone Soil and Water Conservation District.

Settlers began visiting the Beaver Creek area in the 1850s and settlement exploded in the 1880s when gold was discovered in nearby Prichard Creek. Mines, mills, and towns were established in what came to be known as the Coeur d'Alene Mining District, one of the nation's richest mining districts which stretched from the Prichard Creek drainage to Beaver Creek and into the South Fork Coeur d'Alene River Subbasin. Within Beaver Creek, various underground mines and placer mines were operated, peaking during the early 20th century. Most mines have since closed or been abandoned, but active mining continues today. Forest management and road construction associated with timber harvest have also been important in shaping the Beaver Creek Watershed. Additionally, large fires burned most of the Beaver Creek Watershed in the late 1800s.

Currently, the 42-square mile watershed remains rich with natural resources and consists of mixed land use and ownership. Most of the watershed's bottomlands are in private ownership while most of the upper watershed is managed by the USDA Forest Service. The Bureau of Land Management has oversight of small areas in the headwaters. The North Fork Coeur d'Alene Subbasin is an extremely popular recreational area and the Beaver Creek watershed hosts recreational visitors and streamside homes. Mining and timber harvest continue along with agricultural land uses, and an important road is located along Beaver Creek. These combinations of legacy environmental impacts, development, and current land management practices have led to impaired water quality, degraded habitat and risks from flooding and erosion.

To address water quality and watershed function in the North Fork Coeur d'Alene Subbasin, the Idaho Department of Environmental Quality (IDEQ) has convened the North Fork Coeur d'Alene River Watershed Advisory Group (WAG). The WAG is a community group consisting of multiple stakeholders, government entities, and landowners. This group has identified the Beaver Creek Watershed as a top priority in the subbasin and is working to comprehensively plan and implement watershed restoration in the Beaver Creek Watershed. This comprehensive effort is the Beaver Creek Partnership. Several watershed improvement projects in the Beaver Creek Watershed have already been implemented, including large multi-agency mining reclamation projects and smaller bank stabilization projects. These projects have been successful, but the group recognizes the need for a larger watershed-scale, strategic approach to fully restore the function of this watershed.

Beaver Creek and its tributaries are considered water quality-impaired by sediment, temperature, and metals. The watershed does not fully support its potential aquatic life communities due to these pollutants. The severe disturbances to the landscape and stream channel have resulted in highly dynamic fluvial processes due to high bedload and riparian disturbance. While channel migration, flooding and erosion are natural processes, Beaver Creek is not at a functioning equilibrium with its sediment load. Streamside property is threatened by channel migration and bank erosion, and flooding of homes and roads is a concern. Abandoned mines and mine tailings remain sources of pollution, and poor riparian areas fail to maintain cold water temperatures.

The Watershed Advisory Group is working with IDEQ to review existing total maximum daily loads (TMDLs) for sediment in the North Fork Coeur d'Alene Subbasin, we are developing TMDLs for stream temperatures in the subbasin, and we are working towards development of metals TMDLs for the Prichard and Beaver Creek drainages. The Beaver Creek Watershed will be a focal area of TMDL implementation, evaluation and adaptive management. Beaver Creek has been selected based on its severity of impairments, risks to private property, and potential for ecological restoration. Restoration techniques will be tested and field-validated here and then applied to Prichard Creek, the main North Fork Coeur d'Alene River, and other streams in the area where appropriate. Collaborative efforts are underway, gaining momentum, and will be strengthened through development and implementation of strategic restoration. The following items address key elements of the project:

1. Community support: The Beaver Creek Partnership is demonstrating extensive community support for watershed restoration. This community support is primarily generated through the North Fork Coeur d'Alene River Watershed Advisory Group (WAG). We are also coordinating with the Coeur d'Alene River Preservation Committee. Information on these community groups and their memberships is attached. The joint sponsorship of this grant among the Idaho Department of Environmental Quality, Shoshone County, and the Kootenai-Shoshone Soil and Water Conservation District further demonstrates the strength of the community partnership. Existing and planned restoration projects also show the commitment of local partners to make this happen. For example, IDEQ is working with private landowners and federal agencies to remediate the Idora mine and mill site in the Beaver Creek headwaters during summer 2008.

2. Scientific basis: We have established a strong scientific basis to prioritize and guide restoration actions, and we expect to further strengthen a scientific approach. There are many scientific resources already available for this effort. There have been extensive studies by the US Geological Survey, Idaho Geological Survey, IDEQ, US Forest Service, BLM, the Conservation District, the Watershed Professionals Network (under contract with IDEQ) and others. These data and reports have been compiled to inform our activities. We plan to incorporate further studies as needed. This is likely to include a more detailed geomorphic assessment of the Beaver Creek channel and monitoring to further identify pollutant sources, characterize loads, monitor trends and evaluate success. Inter-agency partnerships make this scientific approach rigorous and feasible, and it dovetails with IDEQ's TMDL program.

3. Watershed-scale strategy: The Beaver Creek Partnership will implement a restoration strategy to address restoration needs across the entire watershed. The project will also contribute to the subbasin and basin-wide water quality improvement actions. The restoration strategy will be built upon a comprehensive assessment of watershed conditions. We will identify legacy environmental conditions and current land management practices that need to be addressed. Rather than continue applying "band aid" approaches to the lower watershed, we want to ensure the whole watershed is evaluated. We hope to reduce and mitigate pollutants in the watershed while enhancing the natural functions of the landscape and stream. Best Management Practices education, implementation and evaluation will be carried out for mining, agriculture, forestry, and other land management. While addressing the ecological aspect, we will address community needs for sustainable natural resource management, recreation, and residential development. Our strategy will be built on a framework of adaptive management for watersheds and TMDLs: assess, set pollutant load targets, develop and implement watershed improvement activities, evaluate and repeat as needed until the watershed is fully functioning and supporting all beneficial uses.

4. Monitoring and evaluation: The project partners are committed to long-term monitoring and evaluation of this watershed restoration effort. The Beaver Creek Partnership fits into the Clean Water Act responsibilities of IDEQ and the Watershed Advisory Group (WAG), and it will be incorporated into IDEQ's schedule for TMDL review

and adaptive management. Shoshone County and the Kootenai-Shoshone Soil and Water Conservation District and other WAG members have demonstrated commitment to watershed management and we are looking to secure the needed resources to complete the project successfully.

5. Leverage: Project sponsors and the WAG are committed to making this effort successful. The group is working to complete the problem assessment, develop the restoration strategy, and leverage necessary funds and cooperators. This year, the group endorsed a Non-point Source Program Grant (Section 319) application for mine tailings removal in the Beaver Creek Headwaters which received the region's highest priority ranking by our Basin Advisory Group. We will continue to identify these opportunities and take cost-efficient actions to improve the watershed. Clear documentation of plans and responsibilities combined with strong commitment from the agencies and community members will ensure the long term success.

For further information, you may visit the North Fork Coeur d'Alene Watershed Advisory Group website at http://www.deq.idaho.gov/about/regions/north_fork_cda_river_wag/index.cfm. We would also like to invite you to visit Beaver Creek and meet with us if possible. We are impressed with the Bonneville Environmental Foundation's Model Watershed Program and are watching the progress of projects on Benewah Creek and the Lower Kootenai River. This strategic, long-term commitment is essential to success, and a foundation in science and the local community is vital. We hope you will find the Beaver Creek Partnership a good fit for the Model Watershed Program and we look forward to hearing from you.

Sincerely,

Kajsa Stromberg
Watershed Coordinator
Idaho Department Environmental Quality

Jeff Legg
Planning Administrator
Shoshone County

Robert Flagor
Environmental Scientist
District Administrator
Kootenai-Shoshone Soil and Water Conservation District

Figure 1. The Beaver Creek Watershed encompasses 42 square miles in the North Fork Coeur d’Alene River Subbasin in Shoshone County of northern Idaho. It is a major tributary to the North Fork Coeur d’Alene River and is part of the historic Coeur d’Alene Mining District. All streams within the watershed have been classified water quality impaired.

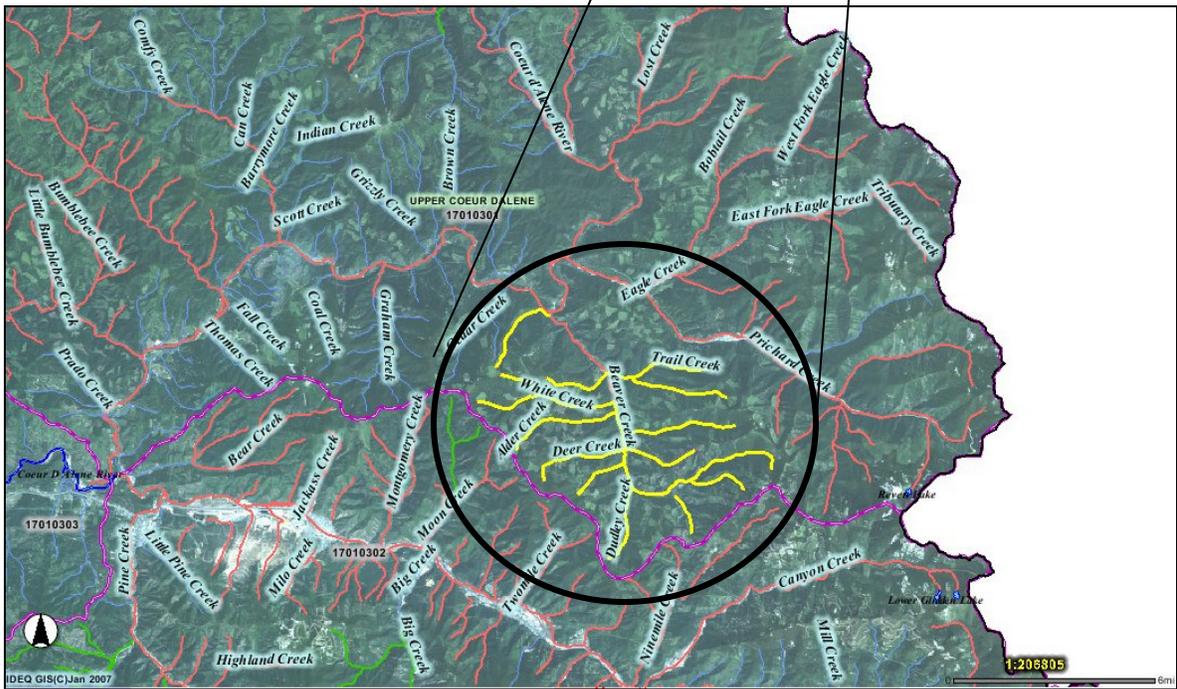
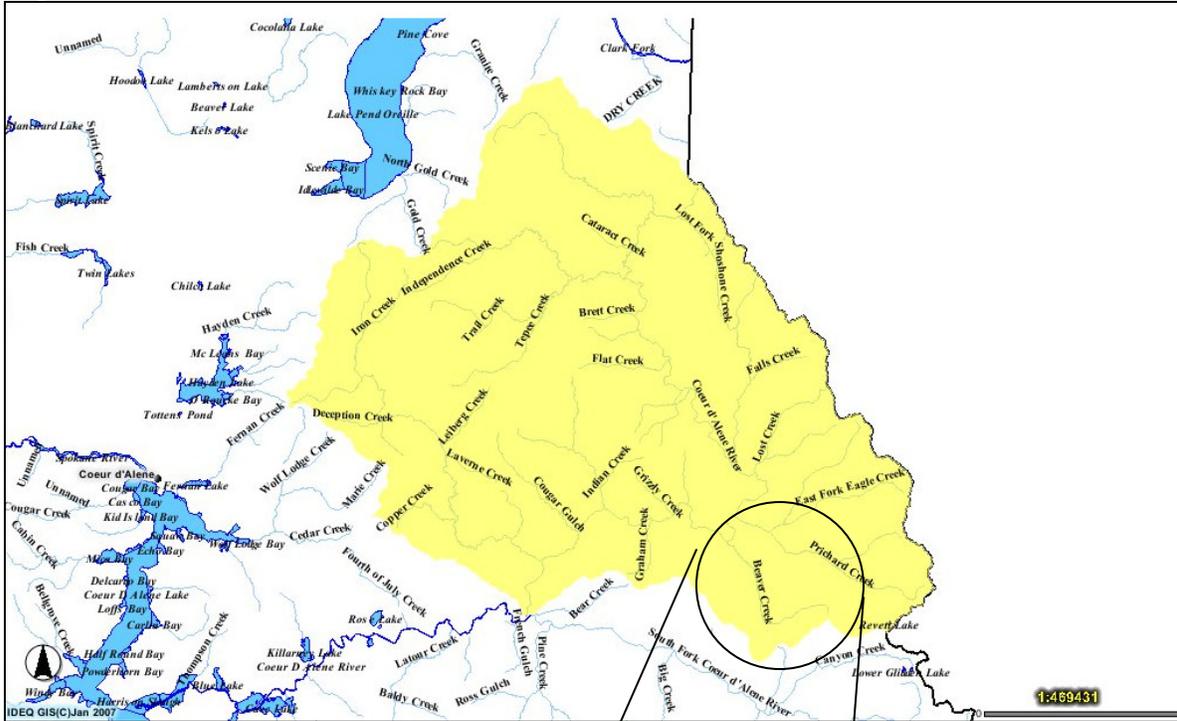


Figure 2. Land management has resulted in excess sediment and channel aggradation in many locations in Beaver Creek. At this location, the channel is largely undefined and aggraded nearly level to the nearby road.



Figure 3. Downstream bank erosion and riparian conditions are degraded.



Figure 4. Downstream landowners experience widely fluctuating channel migrations and attempt to armor the banks to prevent property loss. This photo depicts bank stabilization construction in progress.



Figure 5. Road management in the Beaver Creek floodplain creates challenges.



Figure 6. The abandoned Idora mine is located in the headwaters of the Beaver Creek watershed on US Forest Service land. Reclamation work will be conducted beginning summer 2008.



Figure 7. Mine tailings downstream from the Idora mine and mill site have been deposited on private land within the Beaver Creek floodplain. IDEQ plans to remove these tailings and take that source of pollution out of the system.



Figure 8. Beaver Creek and the North Fork Coeur d'Alene Subbasin are important core habitats for native westslope cutthroat trout. This fish was part of a radio telemetry study conducted by the US Forest Service and Idaho Department of Fish and Game. The study found westslope cutthroat trout spawning in Beaver Creek. (Photo: USFS, IDFG)



Figure 9. Trout populations support fishing throughout most of the North Fork Coeur d'Alene Subbasin and management of tributaries like Beaver Creek will help ensure healthy fisheries. (Photo: USFS, IDFG)

