2006 DRAFT
UPPER CLARK FORK RIVER BASIN RESTORATION WORK PLAN

PREPARED BY:

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List of Acronyms

ADLC	Anaconda-Deer Lodge City-County Government
Advisory Council	Upper Clark Fork River Basin Remediation and Restoration Education Advisory Council
ARCO	Atlantic Richfield Company
B-SB	Butte-Silver Bow City-County Government
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	Clark Fork River
DEQ	Montana Department of Environmental Quality
DLVCD	Deer Lodge Valley Conservation District
DNRC	Montana Department of Natural Resources and Conservation
DOI	U.S. Department of Interior
EPA	U.S. Environmental Protection Agency
FWP	Montana Fish, Wildlife and Parks
LBR	Little Blackfoot River
MOA	Memorandum of Agreement
MTNHP	Montana Natural Heritage Program
NRDP	Natural Resource Damage Program
NRIS	Montana Natural Resource Information Service
RPPC	UCFRB Restoration Plan Procedures and Criteria
ROD	Record of Decision
TRC	Trustee Restoration Council
Tribes	Confederated Salish and Kootenai Tribes
UCFRB	Upper Clark Fork River Basin
USFS	U.S. Forest Service

1.0 EXECUTIVE SUMMARY

1.1 Background

The State of Montana obtained approximately $130 million for restoration of injured natural resources in the Upper Clark Fork River Basin (UCFRB) through a partial settlement of its natural resource damage lawsuit against the Atlantic Richfield Company (ARCO) in 1999. In February 2000, the State released the *UCFRB Restoration Plan Procedures and Criteria* (*RPPC*) that provided the framework for expending these Restoration funds. The document was based on input from the UCFRB Remediation and Restoration Education Advisory Council (Advisory Council)[1] and public comment. Rather than embarking on a prescriptive process, the State elected to establish a grant process whereby various entities could apply for Restoration funds based on procedures and criteria set forth in the *RPPC*. The criteria are aimed at funding the best mix of projects that will restore or replace the natural resources that were injured, and/or services provided by those resources that were lost, due to releases of hazardous substances from ARCO and its predecessor's mining and mineral processing operations in the UCFRB. The State revised the *RPPC* in March 2002 and January 2006.

The Montana Natural Resource Damage Program (NRDP) administers the UCFRB Restoration Grant process. UCFRB Restoration Grant eligibility requirements include:

Applicant Eligibility: Governmental entities, private entities and individuals are eligible to apply for UCFRB Restoration Grants.

Project Type Eligibility: Four types of projects are eligible for funding:

- Restoration projects that will restore, rehabilitate, replace, or acquire the equivalent of injured natural resources and/or the services lost as a result of releases of hazardous substances by ARCO or its predecessors that were the subject of the Montana v. ARCO lawsuit.

- Planning projects that involve developing future grant proposals.

- Monitoring and research projects that pertain to restoration of natural resources in the UCFRB.

- Education Projects that pertain to the restoration or replacement of natural resources in the UCFRB.

Project Location Eligibility: Only projects that are located in the UCFRB are eligible for funding. Activities associated with education and research projects do not have to occur within the UCFRB, provided the proposed education or research project pertains to injured natural resources in the UCFRB.

[1] The Advisory Council consists of 12 citizen volunteers representing the public and various interest groups and 5 government representatives. A list of Advisory Council members is provided in Appendix E.

The State has awarded approximately $38 million for 56 projects since December 2000. Information on these projects can be found on the Department of Justice website at www.doj.mt.gov under "Montana Lands" or upon request from the NRDP (406-444-0205).

1.2 Work Plan Overview

This *2006 Draft UCFRB Restoration Work Plan* describes the Trustee Restoration Council's draft evaluation of the 2006 Restoration Grant applications and draft funding recommendations. The *RPPC* sets forth the process the NRDP follows in evaluating applications and recommending funding. As set forth in the *RPPC*, the NRDP is to submit a *Pre-Draft* to the Advisory Council, the U.S. Environmental Protection Agency (EPA), the U.S. Department of Interior (DOI), the Confederated Salish and Kootenai Tribes (Tribes), and any other interested parties. After considering the views of these entities, the NRDP will make appropriate revisions to the *Pre-Draft* before submitting it to the Trustee Restoration Council.[2] Based on its review of the *Pre-Draft*, the Trustee Restoration Council will give the NRDP direction on preparing a *2006 Draft UCFRB Restoration Work Plan (Draft)*.

This *Draft* is subject of a formal public comment period of 30 days that ends on October 10, 2006. Based on public comment on the *Draft* and input from various entities throughout the funding selection process, the Advisory Council and Trustee Restoration Council will make funding recommendations to the Governor. A final funding decision by the Governor is expected in December 2006.

The following summarizes the various phases of the application submittal and evaluation process and describes the sections of this *Draft* that are reflective of these phases.

- In January 2006, the NRDP distributed the 2006 grant application materials and conducted educational workshops on the application process.

- In March 2006, the NRDP received five grant applications for a total Restoration fund request of $7,266,632, with $5,392,890 requested for 2007 and $1,873,742 requested for 2008.

- In April 2006, the NRDP issued its minimum qualification determinations for the five applications. All five projects were judged as meeting all the minimum qualification criteria, as covered in Section 2.0 and copies of the minimum qualifications can be found in Appendix A.

- The NRDP evaluated the five projects according to criteria specified in the *RPPC*. Section 3.0 contains a project summary, a map, and a criteria summary table for each project. The criteria summary tables are based on the detailed criteria narratives provided in Appendix B. These evaluations were based on application review guidelines contained in Appendix F that were derived from the criteria set forth in the *RPPC*. Appendix D provides the Budget Summary Tables for each project.

[2] The Trustee Restoration Council consists of the Governor's Chief of Staff, the Attorney General, the Chairman of the Advisory Council, and the Directors of the State's three natural resource agencies.

- The NRDP received input from the Department of Interior on this year's projects that is provided in Appendix E. The Confederated Salish and Kootenai Tribes (Tribes) have not yet provided specific comments on this year's projects.

- The NRDP compared the five projects on a criterion-specific basis as provided in Appendix C. The NRDP then ranked the projects in order of preference for funding consideration based on these criteria comparisons.

- The NRDP presented the July 2006 *Pre-Draft* to the UCFRB Advisory Council at its July 11, 2006 meeting. At it August 8, 2006 meeting, the Advisory Council voted to recommend the five projects for funding in the amounts recommend by the NRDP, which are indicated below. Appendix E contains a summary of Advisory Council decisions and summary meeting minutes from three Advisory Council meetings specific to these projects.

- At its August 31, 2006 meeting, the Trustee Restoration Council considered and concurred with the recommendations of the NRDP and the Advisory Council. The Trustee Restoration Council's draft funding recommendations that are subject of public comment and presented in Section 4 are:

    - Bonner Bridge – Recommended for full funding of $975,652.
    - Butte Waterline – Year 6 recommended for full funding of $1,819,581; Year 7 not recommended for funding.
    - Little Blackfoot – Recommended for partial funding of $216,044.
    - Anaconda Waterline – Recommended for full funding of $1,964,263.
    - MTNHP Mapping – Recommended for partial funding of $71,400.

- A public meeting and hearing on this *Draft Work Plan* will be held Monday, October 2, 2006 at 7:00 p.m. at the Red Lion Inn, located at 2100 Cornell Avenue in Butte. The public may provide oral comments during this hearing or submit written comments to the NRDP on this document. Comments must be postmarked by October 10, 2006. Based on public comment on the *Draft Work Plan* and input from various entities throughout the funding selection process, the Trustee Restoration Council will make funding recommendations to the Governor. A final funding decision by the Governor is expected in December 2006.

2.0 MINIMUM QUALIFICATION DETERMINATIONS

The NRDP initially evaluated the five applications according to the following minimum qualification criteria specified in the *RPPC*:

- The application is completed fully and accurately and contains all necessary information.

- The proposed project would restore, rehabilitate, replace or acquire the equivalent of the injured natural resources that were the subject of Montana v. ARCO.

- The proposed project would be located in the UCFRB. (This requirement does not apply to research projects, provided that the proposed research pertains to restoration of natural resources located in the UCFRB.)

- The applicant has the ability, financial means, and other qualifications necessary to undertake the proposed project.

- That consideration or implementation of the proposed project would not interfere, potentially interfere, overlap, or partially overlap with the State's remaining claims in the Montana v. ARCO natural resource damage lawsuit or with the State's proposed restoration determination plans for the three sites still involved in that litigation. Those sites are Butte Area One, Smelter Hill Area Uplands and the Upper Clark Fork River. In addition, projects that are proposed for implementation at the Upper Clark Fork River or Butte Priority Soils Operable Units will not be considered prior to the issuance of EPA's Record of Decision for those sites.

The five projects met minimum qualifications and were fully evaluated for Stage 1 and 2 criteria according to the *RPPC* procedures. Appendix A contains these minimum qualification determinations.

3.0 PROJECT SUMMARIES, MAPS, and CRITERIA SUMMARY TABLES

Table 1 summarizes the five projects submitted. The total request for Restoration funds for these projects totals $7,266,632, of which $5,392,890 is requested for 2007 and $1,873,742 is requested in 2008. Project summaries, maps and criteria summary tables follow for each project. The criteria summary tables contain a summary of the detailed criteria narratives evaluations contained in Appendix B.

Table 1. 2006 Restoration Project Requests

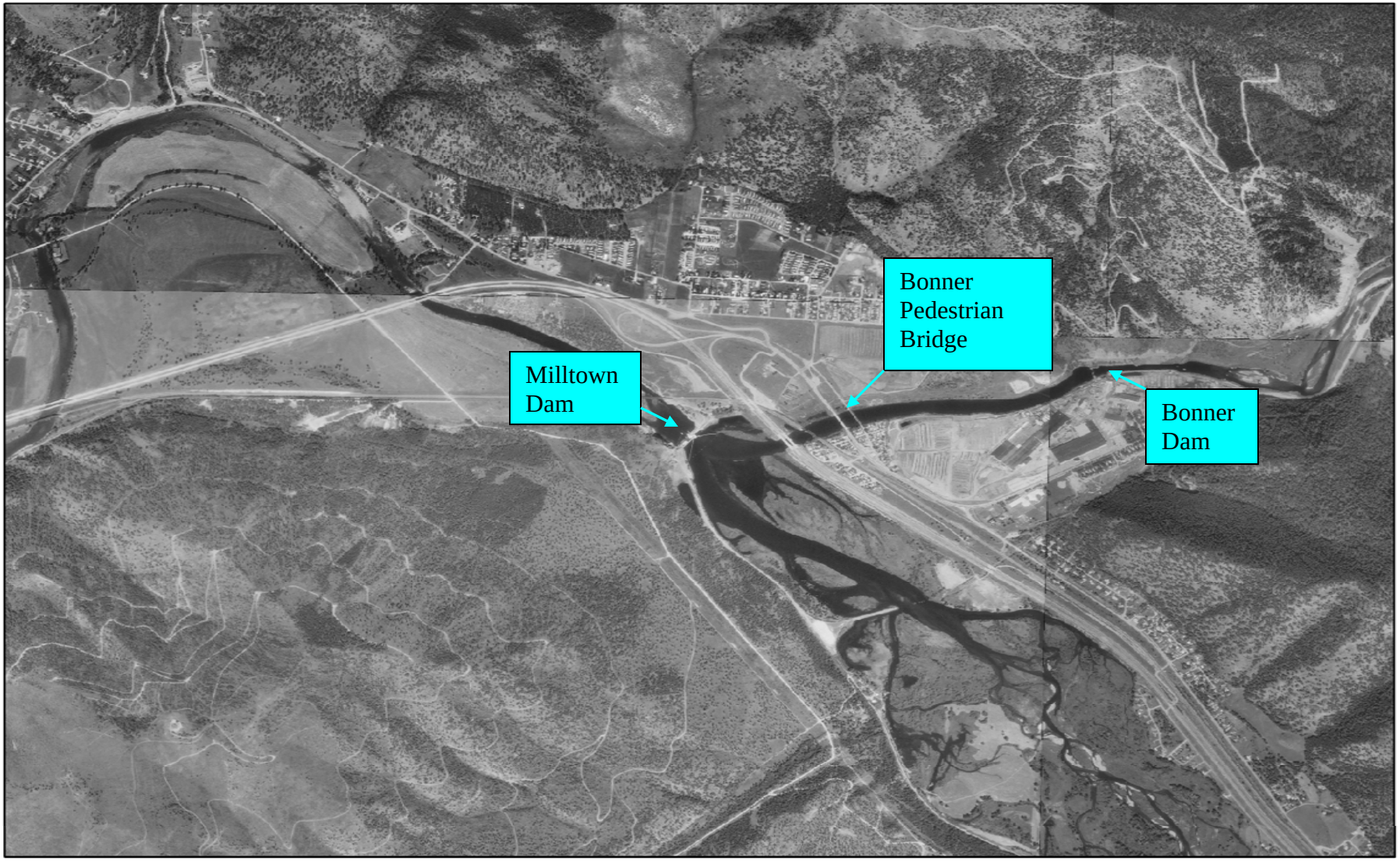
PROJECT BUDGET TABLE					
APPLICANT	**PROJECT**	**FUNDING SOURCE**	**TOTAL BUDGET**	**YEARLY BUDGET**	
				2007	2008
Anaconda-Deer Lodge County	East Third St and S. Birch Water Main Replacements	NRDP	$1,964,263	$1,964,263	
		Other	$ 64,080	$ 64,080	
		Total	$2,028,342	$2,028,342	
Butte-Silver Bow Local Government	Drinking Water Infrastructure Replacement Years 6& 7	NRDP	$3,693,323	$1,819,581	$1,873,74
		Other	$1,231,108	$ 606,527	$ 624,581
		Total	$4,924,431	$2,426,108	$2,498,323
Deer Lodge Valley Conservation District	Upper Little Blackfoot River Restoration Project	NRDP	$ 238,879	$ 238,879	
		Other	$ 74,864	$ 74,864	
		Total	$ 313,743	$ 313,743	
Missoula County	Bonner Pedestrian Bridge Replacement	NRDP	$ 975,652	$ 975,652	
		Other	$ 325,218	$ 325,218	
		Total	$1,300,870	$1,300,870	
Montana Natural Heritage Program	Basin-Wide Wetland/Riparian Mapping	NRDP	$ 394,515	$ 394,515	
		Other	$ 144,007	$ 144,007	
		Total	$ 538,523	$ 538,523	
	Total	NRDP	$7,266,632	$5,392,890	$1,873,742
		Other	$1,839,277	$1,214,696	$ 624,581
		Total	$9,105,909	$6,607,586	$2,498,323

Missoula County
Bonner Pedestrian Bridge Project

Project Summary

Missoula County (County) proposes to remove and replace the county-owned Bonner pedestrian bridge (Bonner Bridge) across the Blackfoot River within Bonner. The project will replace the existing bridge that may become unstable and unsafe after the Milltown Dam removal. The removal of the existing bridge and its associated piers and the construction of a new bridge with piers located outside the floodplain will restore aquatic and riparian resources of the Blackfoot River near the site. Removal and replacement of the Bonner Bridge will maintain the current baseline of pedestrian services for the local community. This project will replace lost recreational resources by maintaining the link between trails on the west of the Blackfoot River with those on the east. This project coordinates and integrates with the EPA Superfund actions at Milltown, the plans of the Milltown Redevelopment Working Group, and the State's Restoration planning for the Clark Fork River and Blackfoot River near the Milltown Dam. The total project costs are $1,300,870, with $325,218 in matching funds and $975,652 requested in Restoration funds.

The Bonner Bridge is located within the Milltown Reservoir area, as defined in the *UCFRB Restoration Plan Procedures and Criteria*, and within the State Milltown Restoration Plan's project area. The bridge was built in 1921 in the tail water of the Milltown Dam. The Bonner Bridge served as a State highway bridge until 1977, when it was turned over to the County after completion of the new Highway 200 Bridge.


Bonner
Pedestrian
Bridge
Milltown
Dam
Bonner
Dam

	Summary of RPPC Criteria Evaluation for Bonner Bridge Project PDG (2006) **Applicant: Missoula County**
CRITERIA	Missoula County seeks to replace the county-owned Bonner pedestrian bridge across the Blackfoot River within Bonner, which may become unstable and unsafe after the Milltown Dam removal. Removal and replacement of the bridge will maintain the current baseline of pedestrian services for the local community, including links to riverside trails, and will restore aquatic and riparian resources of the Blackfoot and Clark Fork Rivers near the site. Total project costs are $1,300,652, with $975,652 requested in Restoration funds. The NRDP recommends this project for full funding of $975,652. Overall Application Quality: Very good with no deficiencies. The County submitted a complete and detailed application explaining the proposed project and justifying the preferred alternative.
1. Technical Feasibility	Reasonably Feasible: The NRDP has a reasonable degree of confidence that this project is reasonably feasible. The success of the project is contingent on the County coordinating with the Milltown Dam removal timeframe. The County provided a detailed schedule that coordinates with the EPA remedial action at the Milltown site. The proposed pre-fabricated three span bridge appears appropriate from an engineering and restoration standpoint, with piers to be located outside the active floodplain of the Blackfoot River.
2. Costs:Benefits	Net Benefits: The project offers substantial benefits to the public. Direct benefits of the Bonner Bridge project include restoration of aquatic and riparian resources, retention and enhancement of a pedestrian and recreational route for the public. Benefits also include improved river recreation safety and links to other recreational trail systems. It constitutes restoration for the natural resources of the Clark Fork and Blackfoot rivers near the project and replacement of recreational services.
3. Cost-Effectiveness	Cost Effective: The County conducted a thorough analysis of alternatives and adequately justified the preferred alternative of replacing the bridge with a three span bridge ($1.2 million). Other alternatives analyzed included: no action, repairing the existing structure ($1.5 million), removing the bridge and constructing a pedestrian lane on Highway 200 (not feasible), or replacing the bridge with a two span bridge with new river pilings ($1.12 million) or new single span bridge ($1.9 million).
4. Environmental Impacts	Short-term Adverse Impacts with Mitigation: This project presents no significant long-term adverse impacts to the environment. It will have potentially short-term environmental adverse impacts during construction that the County appropriately plans to mitigate.
5. Human Health and Safety	Short-term Adverse Impacts with Mitigation: The project may have short-term adverse impacts related to noise and disruption of existing transportation flows during construction. The County intends to mitigate noise impacts and has appropriately planned for an alternate means of pedestrian travel.
6. Results of Response Actions	Positive Coordination: This project coordinates well with planned remedial actions at the Milltown Dam site. The replacement of the Bonner Bridge was not a component of the Milltown Consent Decree.
7. Natural Recovery Potential	Reduces Recovery Period: This project will restore the aquatic and riparian resources of the Clark Fork and Blackfoot rivers near the Bonner Bridge.

	Summary of RPPC Criteria Evaluation for Bonner Bridge Project PDG (2006) **Applicant: Missoula County**
8. Applicable Policies and Laws	Consistent/Sufficient Information Provided: The County has appropriately listed all the permits that may be needed to complete this project.
9. Resources of Special Interest	No Impact: While the project is not anticipated to have adverse impacts to resources of special interest to the Tribes and DOI, further consultation with the Tribes will be necessary for project implementation.
10. Project Location	Within UCFRB and Proximate: Within the Milltown operable unit and injured area.
11. Actual Restoration of Injured Resources	Restoration/Replacement: This is both a restoration and replacement project. The new bridge will replace recreational services and restore the aquatic resources of the Clark Fork and Blackfoot rivers and the associated riparian areas.
12. Service Loss/Restored & Service Restoration	Same: This project is a response to needed cleanup of hazardous substance releases from mining operations that occurred in the Butte and Anaconda area. The project will enhance access to riverside trails and fishing/river access sites, thus enhancing services such as hiking, boating, and fishing that were the subject of Montana v. ARCO.
13. Public Support	Nine support letter: A total of nine letters of support were received from CFRTAC, Clark Fork Coalition, NPS, Hellgate Hunters and Anglers, Bonner School #14, Bonner Development Group, Friends of Two Rivers, two individuals, and a letter signed by nine Western Montana Legislators.
14. Matching Funds	25%: The County has obtained $325,218 in cash matching funds.
15. Public Access	Increased Access: Public access will be improved with the implementation of the project.
16. Ecosystem Considerations	Positive Impacts: The removal of the old Bonner Bridge and its associated piers from the river will allow for a natural channel and floodplain to be formed, thus resulting in positive ecosystem impacts.
17. Coordination & Integration	Coordinates/Integrates: The project coordinates and integrates with other County redevelopment and State restoration plans for the Milltown Reservoir site.
18. Normal Government Functions	Augments Normal Government Functions: The county has a statutory responsibility for certain vehicular bridges, but not generally pedestrian bridges. Nor does the County have available funds for replacement of the Bonner Bridge.

Butte-Silver Bow Local Government
Drinking Water Infrastructure Replacement – Year 6 and Year 7

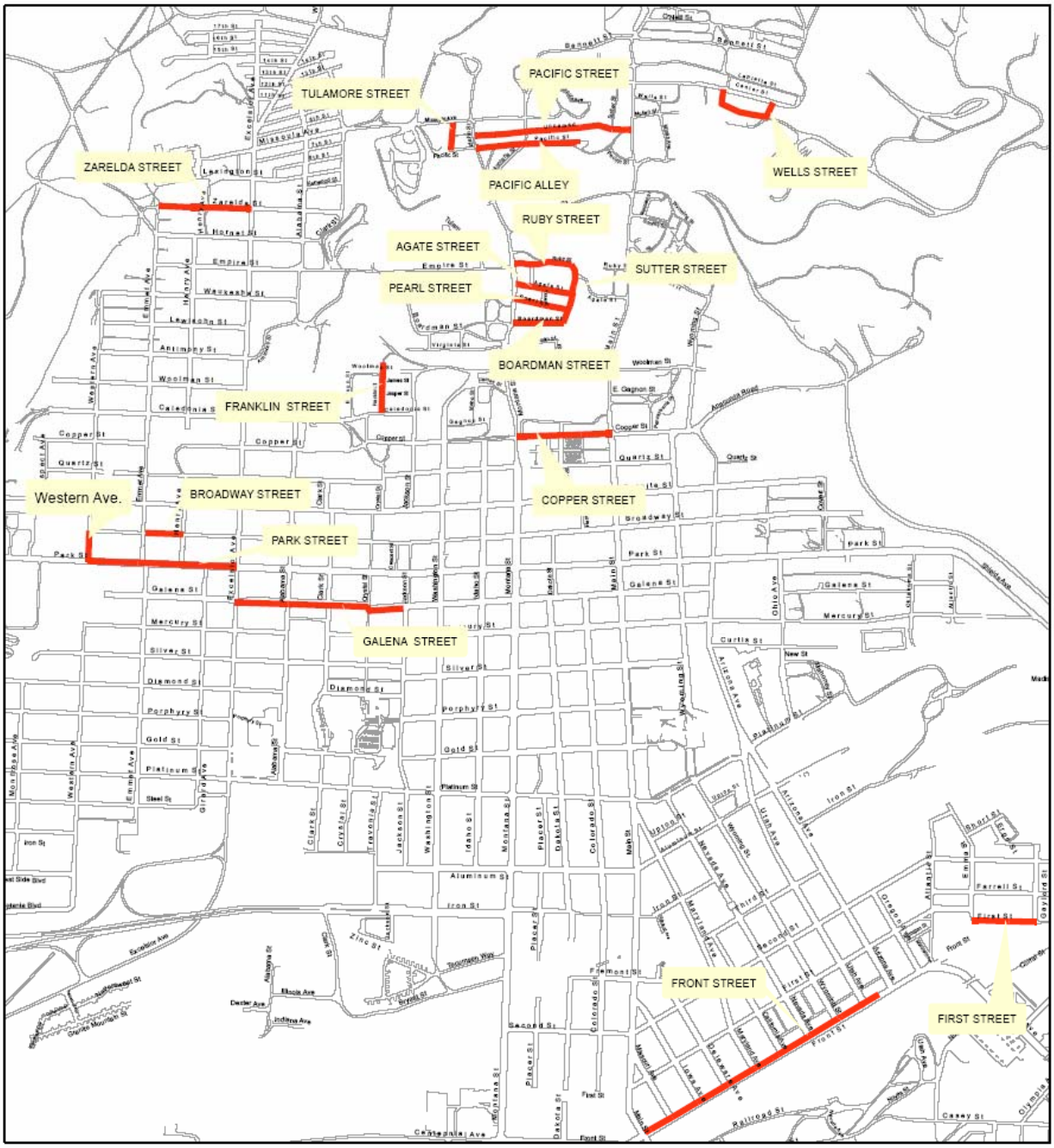
Project Summary

Butte-Silver Bow City-County (B-SB) proposes to replace inadequate water distribution lines in the city of Butte. The proposal is for a multi-year project with the expectation for two years (2007 and 2008) of construction funding. In 2007, approximately 17,000 feet of waterline is to be replaced at a cost of $2,426,108, with $1,819,581 requested in Restoration funds. In 2008, approximately 17,000 feet of waterline is to be replaced at a cost of $2,498,323, with $1,873,742 requested in Restoration funds.

Butte's bedrock aquifer is contaminated throughout a seven square mile area of the City and these distribution lines overlay that aquifer. This aquifer is so severely injured that natural recovery will not occur for thousands of years, as concluded by the State's 1995 Restoration Determination Plan and by EPA's 1994 Record of Decision. Restoration of the bedrock aquifer is infeasible, thus the aquifer's drinking water and its storage capacity and transport services have been lost for thousands of years. The State's 1995 Restoration Determination Plan considered upgrading Butte's antiquated water system as a viable restoration alternative for the bedrock groundwater injuries in Butte. Butte is asking for repair of inadequate distribution lines only in the area that has bedrock injury. This proposal will enhance the water supply from an unaffected source, thus compensating the public for some of the lost use of groundwater that Butte has suffered due to the inability to tap clean bedrock groundwater in much of the City.

This proposal totaling $3,693,323 is for years 6 and 7 of an intended 15-year funding request to the NRDP by B-SB for waterline replacement. The Governor has approved funding for Year 1 through Year 5 totaling $6,260,782. By applying a 3% rate increase to the Year 6 request, B-SB estimates the total request to the Restoration Fund for the 15-year replacement program would be $27.6 million. This evaluation does not address that long-term plan. If B-SB seeks further funding beyond the two years of funding under this proposal, it will need to do so through a separate application(s).

In its application, B-SB indicated its intent to competitively bid the engineering and construction work to be conducted for this project. Subsequently, B-SB requested consideration of an amendment to the application that would allow Butte-Silver Bow the option of performing the construction work in-house. This option could be exercised by B-SB only in the event that the competitive bids received from contractors all exceed the estimated costs of the project. The Advisory Council voted to recommend approval of this amendment and the NRDP and TRC concur in this recommendation. This amendment is considered as part of this criterion evaluation contained in this *Draft Work Plan* and thus subject of public comment on the *Draft Work Plan*.



2006 NRD Replacement Streets
City & County of Butte-Silver Bow, Montana

Summary of RPPC Criteria Evaluation for Butte Waterline Applicant: Butte-Silver Bow City County Government (B-SB) – Year 6 and Year 7	
CRITERIA	B-SB seeks funding over two years to replace approximately 17,000 feet of leaking waterline each year. Year 6 (2007) total costs are $2,462,108, with $1,819,581 requested in Restoration funds. Year 7 (2008) total costs are $2,498,323, with $1,873,742 requested in Restoration funds. Given that this project can be implemented on an annual basis and that the priority of this project over other potential projects in future grant cycles will vary, the TRC recommends only Year 6 funding of $1,819,581 be approved, subject to a funding condition that allows the waterline replacement work to be performed in-house by B-SB in the situation where the competitive bidding process indicates that all of the bids exceed the available funding. Overall Application Quality: Fair. The alternatives analysis needed more in-depth analysis, details and investigation.
1. Technical Feasibility	Reasonably Feasible: The project will replace about 17,000 feet of leaking waterlines per year using standard engineering and construction practices. B-SB has successfully conducted similar work over the last decade in Butte.
2. Costs:Benefits	Net Benefits: This project replaces services lost due to injured groundwater resources. Benefits include improved fire protection; reduced treatment, repair, and property damage costs that result from reduced leakage; a reduced potential for the distribution system becoming contaminated through leaky and failing pipes; and water conservation. This proposal will benefit and compensate a large public for some of the lost use of the groundwater.
3. Cost-Effectiveness	Cost Effective: The selected alternative of replacing pipe and the level of pipe replacement proposed by B-SB of 17,000 feet is cost effective due to the savings gained from replacing the pipes and the B-SB's successful past work replacing waterlines.
4. Adverse Environmental Impacts	No Significant Adverse Impacts: B-SB has adequately recognized and planned for potentially short-term adverse impacts that are typically associated with construction activities.
5. Human Health and Safety	No Significant Adverse Impacts: B-SB plans to implement adequate safety, noise control, and traffic control measures in order to minimize impacts during construction. The project can have beneficial impacts to human health and safety by improving fire protection, reducing road hazards caused by leaking water and ice, and increasing the availability of water otherwise lost to leakage.
6. Results of Response Actions	Consistent: The project will not interfere or duplicate the results of any known EPA Superfund actions.

Summary of RPPC Criteria Evaluation for Butte Waterline Applicant: Butte-Silver Bow City County Government (B-SB) – Year 6 and Year 7	
7. Natural Recovery Potential	No Effect on Recovery Period: This replacement project will not affect the groundwater recovery period.
8. Applicable Policies and Laws	Consistent/Sufficient Information Provided: The applicant identified and adequately planned for necessary permits.
9. Resources of Special Interest	No Impact: It is unlikely that this project will impact these resources, since work will occur on already constructed and paved streets. The DOI has commented that it does not object to funding this project. The Tribes have not commented on this project.
10. Project Location	Within Basin and Proximate: The project overlies the injured Butte Hill groundwater resource.
11. Actual Restoration of Injured Resources	No Restoration: The project replaces services of injured groundwater resources that cannot be restored and thus constitutes compensatory restoration.
12. Service Loss/Restored & Service Restoration	Same: This proposal replaces lost services to thousands of property owners and other members of the public in Butte that could use the bedrock aquifer if it was not injured.
13. Public Support	Five support letters: The NRDP received support comments on this project, from the B-SB Council of Commissioners, Mainstreet Uptown Butte, Cell Phones On The Go, Rick Griffith and Port of Montana.
14. Matching Funds	25% Match: B-SB will contribute $560,781 for construction costs and $45,745 for in-kind labor, for a total match of $606,526 for Year 6. B-SB proposes a similar 25% match for Year 7.
15. Public Access	Not Applicable
16. Ecosystem Considerations	Positive: By conserving water and reducing power needs for pumping and treating water.
17. Coordination & Integration	Coordinates: With other waterline replacement projects in the Butte area.
18. Normal Government Functions	Augments Normal Government Functions: Upgrading municipal drinking water lines is a normal responsibility of local governments that is typically accomplished via funding from grants and ratepayers. Pervasive groundwater contamination underlying Butte has caused B-SB to seek outside funding for upgrading the water system.

Deer Lodge Valley Conservation District
Upper Little Blackfoot River Restoration Project

Project Summary

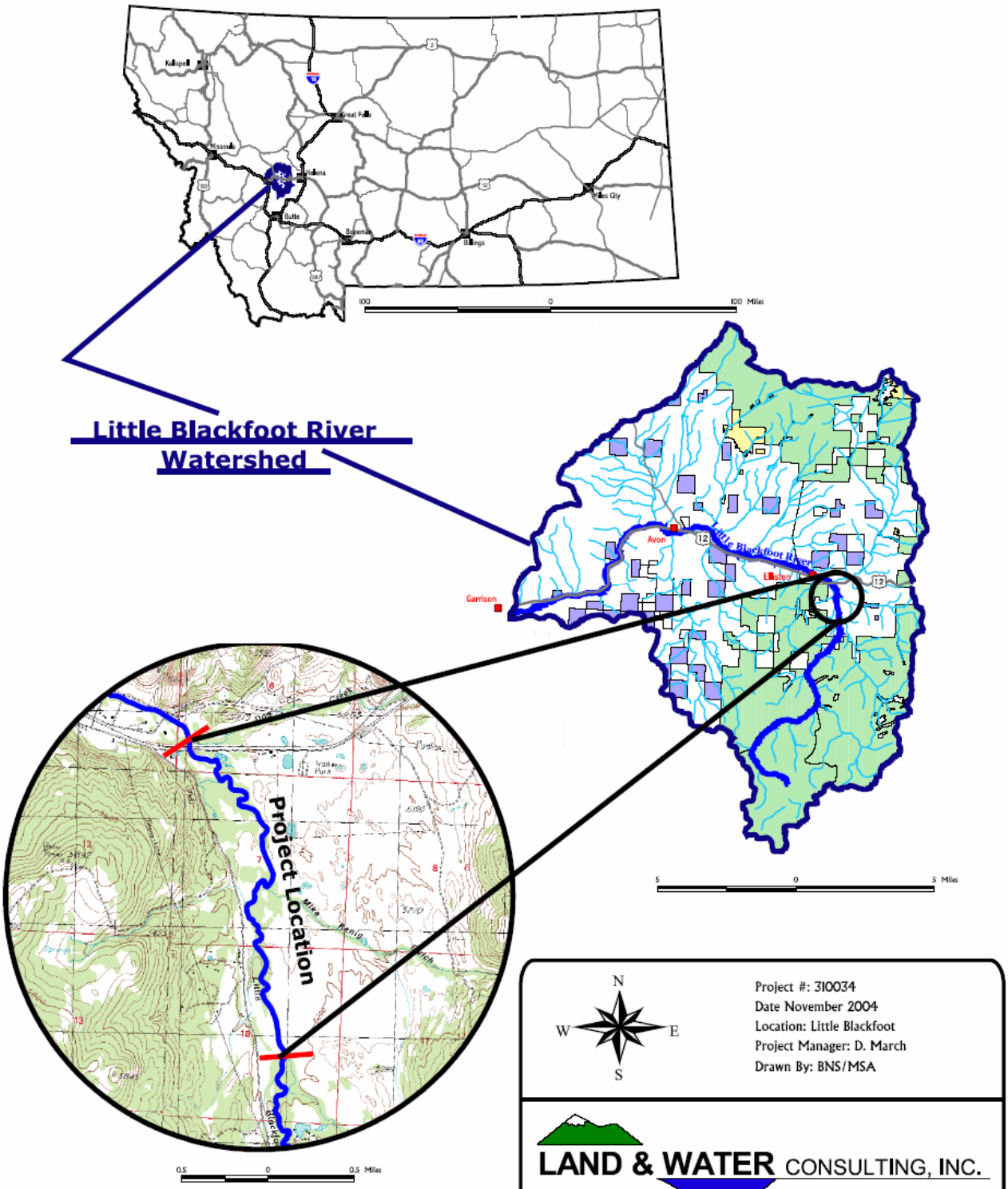
Deer Lodge Valley Conservation District (DLVCD) seeks funding to enhance and protect aquatic, riparian, and water resources in a 2.6 mile reach of the Little Blackfoot River (LBR) located between Telegraph Creek and Highway 12. To accomplish these goals, the applicant proposes to conduct stream restoration, weed control, fencing, grazing management, public tours, monitoring, and project management activities. The stream restoration activities would include revegetation, streambank stabilization, channel geometry adjustment, and fish habitat/bank structure installation. The cost of this proposal is $313,743, with $238,879 requested in Restoration funds and $74,864 in matching funds.

The DLVCD's *Little Blackfoot River Physical Features and Riparian Assessment*, dated May 2002, ranked the reach in which this project is located as one of the two highest priorities for restoration based on the severity of the problems, restoration feasibility and potential for recover.[3] This reach has eroding and non-vegetated streambanks (less than 50% of the banks have deep rooted vegetation), in-stream sedimentation, and weed problems that create poor fish habitat and negatively impact water quality. In 2003, the NRDP approved DLVCD's Project Development Grant proposal to develop the restoration design that is the basis of the current project application.

The LBR is classified as an "outstanding fisheries resource" by Montana Fish, Wildlife and Parks (MFWP) and supports more that 7,000 angler use-days each year. This project proposes to improve a section of the LBR that is not a sustaining reach of the river.

[3] *Little Blackfoot River Physical Features Inventory and Riparian Assessment*, prepared for Little Blackfoot Watershed Group and DLVCD, May 2002.

Figure 1. Upper Little Blackfoot River Restoration Project



Project Location

Summary of RPPC Criteria Evaluation for Upper Little Blackfoot River Restoration Project Applicant: Deer Lodge Valley Conservation District (DLVCD)	
CRITERIA	The proposal seeks funds to enhance and protect aquatic, riparian, and water resources in a 2.6 mile reach of the Little Blackfoot River (LBR) located between Telegraph Creek and Highway 12. The cost of this proposal is $313,743, with $238,879 requested in Restoration funds and $74,864 in matching funds. The NRDP recommends $216,044 in Restoration funds, which is $22,835 less than requested, for a total budget of $290,908. In addition to this budget modification, the NRDP recommends the following funding conditions that would increase the likelihood that the project will meet its goals: • final restoration design be subject to NRDP review and approval; • maintenance of habitat structures be included in the monitoring activities/budget; • NRCS-approved grazing management plan be completed and agreed upon before construction begins; and • the applicant develop a monitoring plan tied to the project goals that is subject to NRDP review and approval before construction begins. <u>Overall Application Quality</u>: Fair. The application was fairly complete and accurate, though the application was not well organized and it lacked an adequate level of detail in some areas.
1. Technical Feasibility	The NRDP has divided the project components into five tasks that will be evaluated separately for technical feasibility. **Task 1: Stream Restoration** – Reasonably Feasible with NRDP funding condition. The project would involve the following activities in order to restore riparian vegetation, enhance fish habitat, and increase bank stability in the project reach: install approximately 50 fish habitat/streambank improvement structures, which includes pools, undercut banks, overhanging vegetation, root wads, woody-debris jams and rock clusters; reconstruct 515 feet of streambank; plant 5,000 willow sprigs and 120 dogwood and cottonwood and willow plants; and, adjust the channel geometry. The only uncertainty regarding the success of these stream restoration activities is the lack of any recognized need and budget for maintenance of the fish habitat and streambank improvement structures in the application. The NRDP recommends that maintenance activities be included in the monitoring budget as a condition of funding. **Task 2: Weed Control, Fencing and Grazing Management** – Reasonably feasible with NRDP funding revisions/conditions. The applicant would conduct the following activities to improve and protect riparian vegetation: conduct weed control of 76 acres; install 7,000 feet of riparian fencing, and assist with the development of a grazing management plan. The NRDP recommends funding only 60 of the proposed 76 acres of weed control because the 16 acres at the south end of the project is not related specifically to the restoration construction activities. **Task 3: Tours** – Reasonably Feasible

Summary of RPPC Criteria Evaluation for Upper Little Blackfoot River Restoration Project Applicant: Deer Lodge Valley Conservation District (DLVCD)	
	Task 4: Monitoring – Reasonably feasible with the NRDP funding condition that a specific monitoring plan be developed and $5,000 in maintenance costs be a part of the budget. The proposed monitoring is not specific enough to determine project progress and success because no specific targets/goals are provided for proposed monitoring parameters. **Task 5: Project Management, Administration, Final Design and Permitting** – Reasonably Feasible
2. Costs:Benefits	Commensurate Benefits: Benefits would include improved fish habitat within a 2.6 mile reach of river, improved water quality, improved stream bank stability, restored riparian vegetation, reduced soil erosion, decreased sediment loading, improved aquatic habitat, improved fisheries upstream and downstream of the project and associated improvements to fishery-related recreational services. The NRDP recommends eliminating the funding for the tours ($8,799) and a portion of the weed control ($9,208) for a total of $18,007, which is a total of approximately 7% of the total Restoration fund request. Combined with a proportionate decrease in project management costs, the total recommended budget reduction is $22,835. The stream restoration, fencing, grazing management, and monitoring activities would likely provide net benefits to natural resources and associated recreational services compared to the costs of these activities. However, due to the relatively high weed control and project management costs and the lack of explanation regarding the increase in project costs from the 2005 design document, the NRDP considers the overall project, as revised by the NRDP, as one that would derive benefits commensurate with its costs.
3. Cost-Effectiveness	Likely Cost Effective: With the NRDP's recommended funding modifications and conditions identified under criterion #1 and #2, the project will cost effectively achieve the goals of streambank stabilization and fish habitat.
4. Adverse Environmental Impacts	Short-Term Impacts with Mitigation: Short-term turbidity will likely occur from construction activities. Mitigation measures will be required through permits for these activities to address these short-term impacts.
5. Human Health and Safety	No Significant Adverse Impacts: Tasks such as weed spraying and stream work using heavy construction equipment are expected to be safe as long as proper personal protective equipment and safe construction practices are utilized.
6. Results of Response Actions	Consistent: The project will not interfere or duplicate the results of any known EPA Superfund actions.
7. Natural Recovery Potential	May Reduce the Recovery Period: The LBR is a tributary of the Clark Fork River, therefore, the restoration of this reach of the tributary could, to a very limited degree, enhance water quality and trout populations in the Clark Fork River.
8. Applicable Policies and Laws	Consistent/Sufficient Information Provided: The applicant identified and adequately planned for necessary permits.

Summary of RPPC Criteria Evaluation for Upper Little Blackfoot River Restoration Project Applicant: Deer Lodge Valley Conservation District (DLVCD)	
9. Resources of Special Interest	Beneficial Impact: The NRDP has not received specific comments from the Tribes on this project. The DOI supports the project. The LBR has been identified as a river that contains bull trout; bull trout are listed as threatened under the Endangered Species Act.
10. Project Location	Within Basin: The project is located on the LBR, a tributary to the Clark Fork River within the Clark Fork River Basin. The project reach is about 30 miles from the Clark Fork River.
11. Actual Restoration of Injured Resources	May Contribute: The activities associated with the project will not constitute actual restoration of injured resources addressed under Montana v. ARCO, though, since the LBR is a tributary of the Clark Fork River, it may indirectly contribute towards restoration.
12. Service Loss/Restored & Service Restoration	Same: The implementation of restoration activities on the LBR will enhance resources and recreational services considered substantially equivalent to the injured resources and services covered under Montana v. ARCO such as fish and wildlife habitat, fishing, and wildlife viewing.
13. Public Support	Six Support Comments: NRDP received support comments from the LBR Watershed Group, RV Ranch Company, Montana Water Trust, UCFRB Steering Committee, Clark Fork Coalition, and Tri-State Water Quality Council.
14. Matching Funds	26% Match as modified by NRDP: The applicant has offered the following matching funds: $43,464 in NRCS funds, $20,000 in FWP Future Fisheries funds, $1,000 in Noxious Weed Trust funds and $10,400 in in-kind materials from the landowner for a total match of $74,864. The proposed 24% of matching funds has increased due to the recommended Restoration fund budget reductions.
15. Public Access	No Access Change: The applicant states that the current property landowner allows the public to access his property on a permission basis and this policy is not likely to change after completion of the project.
16. Ecosystem Considerations	Positive: The Little Blackfoot project reach is one of the two highest priorities for restoration, determined via a 2002 watershed assessment. Restoration of the proposed reach will connect the good quality reach directly upstream and the good quality reach directly downstream of the project reach, creating a seven mile stretch of good quality stream habitat.
17. Coordination & Integration	Coordinates/Integrates: The restoration project will coordinate and integrate with the watershed planning effort already established for the LBR by the DLVCD, LBR Watershed Group, and others.
18. Normal Government Functions	Outside Normal Government Function: No government entity is specifically responsible for the proposed activities at this site, nor does it receive funding for such activities in the normal course of events.

Anaconda-Deer Lodge County
East Third and South Birch Water Main Replacements

Project Summary

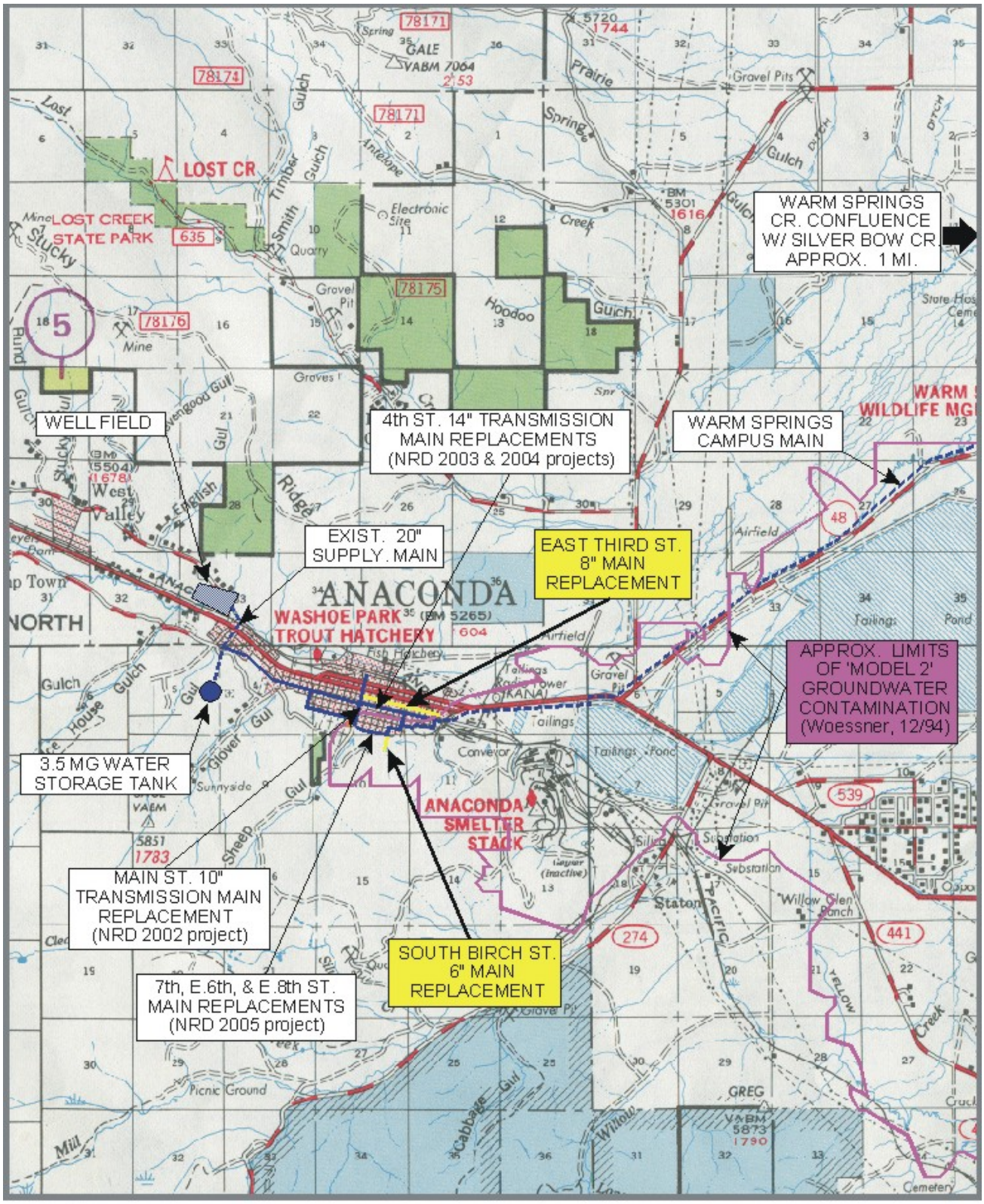
Anaconda-Deer Lodge City-County (ADLC) proposes to replace 5,670 feet of leaking, century old waterlines along East Third and South Birch Streets in the City of Anaconda. This project is a replacement project that will conserve water for the City of Anaconda by the installation of a new water main in place of a leaking water system. The total project costs are $2,028,343, with $64,080 in matching funds and $1,964,263 requested in Restoration funds.

Anaconda is located adjacent or partially within the 40 square miles of groundwater contamination associated with the Anaconda Regional Water, Waste, and Soils Operable Unit. Groundwater resources are somewhat limited because the upper portion of the alluvial groundwater aquifer east of Anaconda is contaminated with metals associated with past mining activities at levels above water quality standards. The 1995 State of Montana Anaconda Groundwater Injury Assessment Report supports this claim of groundwater contamination east of Anaconda. Also, the 1998 Anaconda Regional Water, Waste, and Soils Operable Unit Record of Decision indicates some 30 square miles of contaminated bedrock groundwater to the north and south of the City.

Currently, Anaconda's water system is losing 1.5 million gallons of water per day via leaking waterlines, which could be further reduced by 148,500 gallons per day (approximately 10%) if this project is implemented. Repairing these leaks is an alternative that will provide the city with additional water resources instead of developing a new water source.

This request is the fifth year of what ADLC has indicated will be a multi-year funding request to replace the waterline system, with $4,707,076 in Restoration funds approved for 31,874 feet of waterline replacement and 2,150 feet of new waterline installation in the past four years. With implementation of this project, 47,240 feet of waterline would remain to be addressed in future projects.[4] ADLC has identified $11.3 million of needed water system upgrades in the next six years, but has not indicated what portion of those costs would be sought in Restoration funds.

[4] The 2004 Preliminary Engineering Report (PER) for Anaconda's Municipal Water System (prepared for ADLC by HKM Engineering, August 2004) indicates 72,910 feet of waterline in need of repair. With the completion of 11,800 feet for Seventh, East Sixth, and East Eight streets approved in 2005 and 5,670 feet for this proposed project, 47,240 feet of waterline would remain to be addressed in future projects.



NORTH

ADLC East Third Street & South Birch Water Main Replacements

FIGURE 1 – PROJECT LOCATION

Summary of RPPC Criteria Evaluation for Anaconda Waterline Applicant: Anaconda Deer Lodge County (ADLC)	
CRITERIA	ADLC proposes to replace 5,670 feet of leaking century old waterlines along East Third and South Birch Streets and save up to 148,500 gallons of water per day. The total project costs are $2,028,343, with $64,080 in matching funds and $1,964,263 requested in Restoration funds. The NRDP recommends this project be funded for the requested $1,964,263 with the normal funding conditions. Overall Application Quality: Very good. The application is complete, accurate, well organized and had an appropriate level of detail.
1. Technical Feasibility	Reasonably Feasible: The waterline replacement will involve 12 blocks of East Third Street between Main Street and Monroe Street and along 1½ blocks of Birch Street south of Eight Street; booster pump station of South Birch Street; and monitoring of all of the NRDP funded projects from 2002-2006, using standard engineering practices, conforming to Montana Public Works Standards and DEQ requirements. ADLC proposes the same level of effort and approach used to complete past waterline projects. ADLC has successfully completed over 55,000 feet of waterline replacement projects since 1994.
2. Costs:Benefits	Commensurate Benefits: ADLC estimates replacement of the East Third and South Birch Street waterline will save up to 148, 500 gallons of water loss per day which is 10% of the total leaks in the system. The project offers substantial benefits to the Anaconda public by reducing water treatment, property damage and repair costs associated with leaks, reducing the need to seek additional water supplies, offering greater fire protection, and conserving water. The project constitutes compensatory restoration for extensive injuries to the aquifers surrounding Anaconda.
3. Cost-Effectiveness	Cost Effective: The costs are considered reasonable as they are based on bids from past waterline projects, preliminary draft design plans for the East Third and South Birch Streets waterline project, and ADLC's consulting engineer's knowledge and experience. The alternatives analyses demonstrated the selected approach was cost-effective.
4. Adverse Environmental Impacts	No Significant Adverse Impacts: Replacing waterline and installation of a booster pump presents no significant adverse impacts to the environment. ADLC has planned the appropriate mitigation measures for short-term impacts during construction activities. Water conservation is an environmental benefit that will likely result.
5. Human Health and Safety	No Significant Adverse Impacts: Potentially adverse impacts during construction activities include dust, noise, temporary loss of water service, restricted access to commercial facilities, worker safety, and disruption of traffic flow. The ADLC has proposed mitigation measures to alleviate these adverse impacts.
6. Results of Response Actions	Consistent: The project will not interfere or duplicate the results of any known EPA Superfund actions.

Summary of RPPC Criteria Evaluation for Anaconda Waterline Applicant: Anaconda Deer Lodge County (ADLC)	
7. Natural Recovery Potential	No Effect on the Recovery Period: This replacement project will not affect the groundwater recovery period.
8. Applicable Policies and Laws	Consistent/Sufficient Information Provided: ADLC indicates they will submit the required drawings to DEQ for review, coordinate with DEQ if contaminants are encountered, and follow Montana Public Works Specifications.
9. Resources of Special Interest	No Impact: It is not anticipated this project will have adverse impacts on resources related to the Tribes or DOI. The DOI does not object to funding this project.
10. Project Location	Within Basin and Proximate: The project will occur in Anaconda within and adjacent to injured groundwater resource areas.
11. Actual Restoration of Injured Resources	No Restoration: This project constitutes replacement of lost services because it replaces drinking water lost in the area as a result of contamination where restoration is infeasible.
12. Service Loss/Restored & Service Restoration	Same/Similar: This project replaces services lost; injured groundwater resources somewhat limit ADLC's potential sources for water development, thus making conservation of existing sources an effective means of enhancing its water resources.
13. Public Support	80 Support Comments: Eighty letters of support were received from ADLC – Council of Commissioners, Anaconda Local Development Corporation's Executive Director, Anaconda Area Chamber of Commerce's Executive Director, Anaconda Superintendent of Schools, three school principals and a Vice Principal, Anaconda Public School's Business Manager, seven business owners and 63 Anaconda residents.
14. Matching Funds	3% Match: ADLC proposes matching funds of $64,080 in in-kind services.
15. Public Access	Not Applicable
16. Ecosystem Considerations	Positive Impacts: An estimated 148,500 gallons of water per day will be conserved, reducing water treatment and energy requirements for pumping and treating. Overall, 10% of the water losses are being addressed with this request.
17. Coordination & Integration	Integrates: This waterline project is integrated with ADLC's Preliminary Engineering Report, which proposes replacement of waterlines on a priority basis.
18. Normal Government Functions	Substantially Augments Normal Government Functions: Waterline installations and repairs are part of local government responsibilities as they are the owners of the water distribution systems. The NRDP considers this project as one that substantially augments, not replaces, normal government function because communities typically rely on grant funds to assist in funding such work and also because the replacement of severely leaking waterlines is an effective way to compensate the community for extensive injuries to the Anaconda area groundwater resources that were covered under Montana v. ARCO.

Montana Natural Heritage Program
Information Resources for Restoration planning: Basin-wide Wetland/Riparian Maps, Wetland/Riparian Functional Assessment, and Comprehensive Plant Community Descriptions

Project Summary

The Montana Natural Heritage Program (MTNHP) requests $394,515 to fund a three-year riparian/wetland assessment program for the entire UCFRB. The applicant proposes to: 1) use new 2005 color infrared imagery to classify and delineate wetlands and riparian areas in the UCFRB and then produce hard copy and digital maps for about $156,400; 2) perform a landscape-level evaluation of actual and potential wetland and riparian function for about $125,000 using the maps produced under task 1; and 3) develop a community field guide describing all plant communities in the Basin for about $114,000. All materials produced would be made available to the public through the Montana State Library's Natural Resource Information Service (NRIS) and the MTNHP website. Total project costs are $538,522, with $144,007 to be provided as cash and in-kind matching funds.

Map of proposed project area

Summary of RPPC Criteria Evaluation for Information Resources for Restoration Planning: Basin-Wide Wetland/Riparian Maps, Wetland/Riparian Functional Assessment, and Comprehensive Plant Community Descriptions Applicant: Montana Natural Heritage Program (MTNHP)	
CRITERIA	The Montana Natural Heritage Program (MTNHP) requests $394,515 to fund a 3-year riparian/wetland assessment program for the entire UCFRB in order to facilitate basin-wide planning of restoration, replacement and acquisition of wetland and riparian resources. MTNHP proposes to: 1) delineate, classify and map wetlands and riparian areas in the UCFRB for $156,400; 2) perform an evaluation of actual and potential wetland and riparian function for $125,000; and 3) develop a community field guide describing plant communities for $114,000. Total project costs are $538,522, with $144,007 to be provided as cash and in-kind matching funds. The NRDP recommends only partial funding of this project for $71,400 for the wetland/riparian area mapping component of the project in about half of the UCFRB from Butte to Drummond. The NRDP does not recommend for funding of the wetland/riparian functional analysis and field guide components. The NRDP recommends a funding condition specifying that if there is a discrepancy between the remedial mapping data and the MTNHP data, the remedial mapping data would be of primary reliance. Application Quality: Fair. The application is well written and relatively clear, however, much of the application is general in nature and therefore some of the criteria statements were not adequately addressed.
1. Technical Feasibility	Reasonably Feasibility for mapping component: The mapping component is reasonably feasible and is being implemented in various locations in Montana but not in the UCFRB. Maps would be provided for wetlands and riparian areas in the basin with data summaries such as the acreage and description of the vegetation in the wetland/riparian areas. Uncertain Feasibility for the wetland/riparian function analysis and community plant guide: It is uncertain whether the information derived from these two project components would actually be helpful in facilitating/prioritizing restoration in the Basin.
2. Costs:Benefits	Net Costs for full project/ Commensurate Benefits for NRDP's revised project: The full project, as proposed by the applicant for $394,515, is a costly means of providing information about wetland and riparian resources that would be of limited benefit to restoration planning in the upper basin given that the wetland/riparian functional characterization and the plant community guide are of unknown value and not considered cost-effective and that none of the project components are needed for the restoration planning of injured areas. The NRDP recommends an alternative proposal for $71,400 that would fund the mapping component in the eastern half of the Basin where most restoration is underway or being planned instead of the whole Basin. The NRDP believes the benefits are commensurate to costs since wetlands and riparian areas provide important habitat for aquatic and wildlife resources and maps of these areas would assist the NRDP and other entities in evaluating benefits from future restoration projects that improve aquatic and wildlife resources in this area. This reduced effort can also serve as a pilot to ascertain the benefits of a larger, basin-wide mapping effort, which the NRDP believes would best be considered after resolution of the remaining NRD litigation when restoration priorities have been further established.

Summary of RPPC Criteria Evaluation for Information Resources for Restoration Planning: Basin-Wide Wetland/Riparian Maps, Wetland/Riparian Functional Assessment, and Comprehensive Plant Community Descriptions Applicant: Montana Natural Heritage Program (MTNHP)	
3. Cost-Effectiveness	Not Cost Effective for Full Project/Likely Cost Effective for NRDP's revised project: The screening level results of the proposed functional analysis would be of limited utility to restoration planning. Such an analysis is best performed in a more comprehensive manner at a local level. The community plant guide is not needed at this time. Successful revegetation has been/is being achieved at restoration sites in the UCFRB without such a guide. The NRDP's recommended alternative of mapping the riparian and wetland areas in the Basin is likely to be cost effective because it would accomplish the goal of mapping a more specific area of the UCFRB that would most likely be subject of near-future restoration and serve as a pilot for a larger mapping effort.
4. Adverse Environmental Impacts	No Adverse Impacts
5. Human Health and Safety	No Adverse Impacts
6. Results of Response Actions	Consistent: The NRDP's recommended funding condition addresses potential overlap of proposed mapping efforts with planned remedial design efforts for the Clark Fork River floodplain area between Warms Springs Ponds and Deer Lodge.
7. Natural Recovery Potential	No Effect
8. Applicable Policies and Laws	Consistent: MTNHP will follow the applicable USFWS standards for wetland and riparian mapping.
9. Resources of Special Interest	No Impact: The USDOI supports partial funding of the project, with the suggested elimination of mapping of USFS lands and the community plant guide. The project will not have any adverse impacts on resources related to the DOI or the Tribes and may benefit those resources.
10. Project Location	Within Basin: The revised project area is in the eastern half of the UCFRB from Butte to Drummond.
11. Actual Restoration of Injured Resources	No Restoration
12. Service Loss/Restored & Service Restoration	Same: The mapping component of this project may provide useful information for the preservation or restoration of wetland and riparian resources and associated services, which are substantially equivalent to those addressed in Montana v. ARCO.
14. Public Support	Two Letters of Support: From the U.S. Natural Resources Conservation Service and DEQ.
15. Matching Funds	27% Match: The revised project will have a similar match as the submitted proposal of 27%, or $26,061. Of this, ½ would be a cash match and ½ would be an in-kind match. The full proposal has a match of $144,000.
16. Public Access	Not Relevant
17. Ecosystem Considerations	Positive: MTNHP proposes to map the entire basin so that relationships between and among wetlands/riparian areas can be studied from a watershed approach. NRDP's revised alternative would be consistent with a watershed approach, but on a smaller scale.

Summary of RPPC Criteria Evaluation for Information Resources for Restoration Planning: Basin-Wide Wetland/Riparian Maps, Wetland/Riparian Functional Assessment, and Comprehensive Plant Community Descriptions Applicant: Montana Natural Heritage Program (MTNHP)	
18. Coordination & Integration	**Coordinates**: The project will provide data available via the State's Natural Resource Information System (NRIS) that may be of use to entities planning actions in the mapped areas.
19. Normal Government Functions	Within but Augments Normal Government Functions: MTNHP receives limited State funding and must seek grants for activities beyond the core of State funding. Neither the USFWS nor the USFS are currently mandated or funded to conduct the proposed efforts.
20. Overall Scientific Program	Coordinates: This project will augment and not duplicate past and on-going scientific work as it focuses on existing data gaps. The MTNHP applicant commits to coordinate with NRIS on the distribution of any products created during this project.
21. Assistance with Restoration Planning	Minor Benefits: Having a wetlands inventory in the revised project area would assist the NRDP in evaluating benefits of future restoration projects aimed at improving terrestrial and aquatic resources in this area.

4.0 PROJECT RANKING and FUNDING RECOMMENDATIONS

This section provides the Trustee Restoration Council's (TRC) draft funding recommendations and specific funding conditions. The TRC's draft funding recommendations are the same as those recommended by the UCFRB Advisory Council and by the NRDP, except for a funding condition specific to the Butte Waterline project.

This section provides the NRDP's overall ranking of projects and draft funding recommendations. The project ranking is based on the detailed criteria narratives contained in Appendix B and the project criteria comparisons contained in Appendix C. The *RPPC* does not rank criteria in terms of importance, noting that "each criterion as applied to individual projects will vary in its importance depending on the nature of the project and unique issues it raises." A project does not need to meet all of Stage 1 and Stage 2 criteria in order to be considered worth funding. A project may rank poorly compared to others for a particular criterion, but that criterion may be inapplicable or relatively unimportant for that type of project. Or, the merits of a project based on some number of criteria may significantly outweigh its deficiencies noted for a particular criterion or multiple criteria. The adequacy and quality of an application affects how well the NRDP judges that a project meets certain *RPPC* criteria and, consequently, affects the project's overall ranking as well.

Based on the NRDP's assessment of how the projects compared for the Stage 1 and 2 *RPPC* criteria, which focus on the project's anticipated benefits to the restoration or replacement of injured resources and or/lost services, the NRDP ranks the five projects in the following order of preference.

Table 2. Project Ranking

Rank	Project
1	Bonner Bridge
2	Butte Waterline
3	Little Blackfoot
4	Anaconda Waterline
5	MTNHP mapping

The following discussion also identifies the TRC's recommended project-specific funding conditions. Two funding conditions apply to all projects. First, as required by the RPPC, funding should be contingent on the NRDP's approval of the final design for various components of the projects. Second, the proportionate share of matching funds recognized by the NRDP in the project-specific criteria narrative will apply to project implementation and adequate documentation of both in-kind and cash matches will be required.

1) <u>Bonner Bridge</u>

The TRC recommends the Bonner Bridge project for the requested amount of $975,652, with no additional funding conditions.

The Bonner Bridge project is considered as one of net benefit. It offers substantial resource benefits and service benefits to nearby communities and to the general public. Direct benefits include restoration of aquatic and riparian resources, retention and enhancement of a pedestrian and recreational route for local community, and coordination with the Milltown Redevelopment Group's community plan. Without the replacement of the Bonner Bridge, the local community would not have a safe pedestrian corridor across the Blackfoot River. Other important benefits include improved river recreation safety by removal of piers from the river and links to other recreational trail systems. The links to other trail systems would provide access to riverside trails, parks, and river/fishing access sites, thus the project will enhance outdoor recreational opportunities along the Clark Fork and Blackfoot rivers.

The Bonner project is reasonably feasible and cost-effective, as determined by the application's thorough analysis of alternatives. It offers the greatest restoration benefits to injured natural resources and thus ranks higher than the other projects for the criteria that give preference to the work in injured areas (coordination with remedy, reduction of recovery period, and actual restoration of injured resources). There is a direct connection between the proposed project and services that would be lost due to the removal of the Milltown Dam, as the current bridge may become unstable and unsafe in a post-dam removal environment. It is the only project that would increase public access. It has the greatest level of coordination/integration with other plans of all the projects, and involves opportune timing with the proposed remediation/restoration of the Milltown site. The project has cash matching funds of $325,218, or 25% of total project costs, and has documented support of six groups and eleven area residents.

2) Butte Waterline – Year 6 and Year 7

The TRC recommends the Butte Waterline project be funded for Year 6 at the requested amount of $1,819,581, subject to a funding condition that allows the waterline replacement work to be performed in-house by B-SB in the situation where the competitive bidding process indicates that all of the bids exceed the available funding. The TRC does not recommend that the $1,873,742 requested for Year 7 be approved at this time. It can be subject of a future grant request.

The Butte Waterline project is considered as one of net benefit. Restoration of Butte's bedrock aquifer that is contaminated throughout a six-mile area of the city is infeasible. By fixing the proposed 17,000 feet of leaking and corroded water lines, this proposal will enhance the water supply from an uncontaminated source. It will reduce treatment, repair and property damage costs associated with leaks, improve fire protection, conserve water, and reduce the potential for the distribution system becoming contaminated through leaky and failing pipes. The project is cost-effective and reasonably feasible due to the successful water main replacement that has been ongoing in Butte since 1992. The project has cash matching funds of $606,526 for Year 6 and $624,581 for Year 7, or 25% or total project costs each year, and documented support from five entities. This proposal will benefit and compensate a large public for some of the lost use of groundwater that Butte has suffered due to the inability to use bedrock groundwater in much of the City. Although Butte-Silver Bow applied for two years of funding, the TRC recommends that only one year be funded, given that the project can be implemented on an annual basis and

given the unknowns concerning the potential cost savings as reflected in the application and effects on funding of other projects in the 2007 grant cycle that would result from funding Year 7.

The NRDP judges both the Bonner Bridge and Butte Waterline as ones of net benefits and the other three projects as ones of commensurate benefits. Both are reasonably feasible and cost effective and have comparable matching funds. The NRDP ranked the Bonner Bridge project above the Butte Waterline project primarily because the Bonner Bridge project offers the greatest benefit to restoration of injured resources and because of its opportune timing and coordination with the planned integrated remediation and restoration activities at the confluence of the Clark Fork and Blackfoot Rivers.

3) Little Blackfoot

The TRC recommends the Little Blackfoot project for $216,044 in Restoration funds, which is $22,835 less than requested, for a total budget of $290,908, subject to additional funding conditions.

Direct benefits of the Little Blackfoot project include improved fish habitat within a 2.6 mile reach of river, improved water quality, improved stream bank stability, restored riparian vegetation, reduced soil erosion, decreased sediment loading, improved aquatic habitat, improved fisheries upstream and downstream of the project and associated improvements to fishery-related recreational services. Given the good conditions that exist up and downgradient of the project reach, improving this degraded project reach will result in seven miles, or 20% of the Little Blackfoot River corridor, in good riparian condition. The TRC recommends eliminating the funding for the tours ($8,799) and a portion of the weed control ($9,208) for a total of $18,007, both of which are not considered integral to the project's success. Combined with a proportionate decrease in project management costs, the total recommended budget reduction is $22,835, or about 10% less than requested.

The stream restoration, fencing, grazing management, and monitoring activities would likely provide net benefits to natural resources and associated recreational services compared to the costs of these activities. However, due to the relatively high weed control and project management costs and the lack of adequate budget justification, the overall project, as revised by the NRDP, is considered as one that would derive benefits commensurate with its costs.

The TRC recommends the following funding conditions that would increase the likelihood that the project will meet its goals and increase its cost-effectiveness:

- final restoration design be subject to NRDP review and approval, in consultation with MFWP;
- maintenance of habitat structures be included in the monitoring activities/budget;
- NRCS-approved grazing management plan be completed and agreed upon before construction begins; and
- the applicant develop a monitoring plan tied to the project goals that is subject to NRDP review and approval before construction begins.

With the recommended budget reductions and funding conditions, the project is reasonably feasible and cost-effective. It has pending in-kind and cash matching funds of $74,864, or 26% of the revised budget, and documented support from six entities. The project is planned well from an ecosystem standpoint and it coordinates/integrates well with other efforts in the Little Blackfoot watershed.

4) Anaconda Waterline

The TRC recommends this project be funded for the requested $1,964,263 with the normal funding conditions.

Restoration of the upper portion of the shallow aquifer throughout a 40 square mile area east of Anaconda and much of the bedrock aquifer throughout a 30 square mile area north and south of Anaconda is not feasible due to contamination. By fixing the proposed 5,670 feet of leaking and corroded water lines, this proposal will enhance the water supply from an uncontaminated source. ADLC estimates replacement of the East Third and South Birch Street waterlines will save up to 148,500 gallons of water loss per day, or about 10% of the entire water system losses. Fixing the leaks will reduce water treatment, property damage and repair costs associated with leaks, reduce the need to seek additional water supplies, offer greater fire protection, and offer the opportunity to conserve more water during drought conditions. The Anaconda Waterline project is cost-effective, as determined by the application's thorough analysis of alternatives, and is reasonably feasible, since ADLC has successfully performed similar work in the past. The project received 80 support comments from 17 entities and 63 area residents, which is the greatest public support of all the projects. It has in-kind matching funds of $64,080 or 3% and substantially augments normal government function given its low cost-share. While the Anaconda project offers substantial benefits to the Anaconda public, the NRDP judged the project benefits as commensurate with costs, due to this low cost-share.

5) MTNHP mapping project

The TRC recommends partial funding of this project for $71,400, which is $323,115 less than requested, for the wetland/riparian mapping component in a reduced project area, subject to an additional funding condition specific to work in the Clark Fork River floodplain.

The MTNHP mapping project, which would cost $394,515 as proposed by the applicant, is a costly means of providing information about wetland and riparian resources. This proposal may provide some benefits to restoration planning in the upper basin, although the degree of these benefits cannot presently be ascertained. The NRDP recommends that this project be scaled down considerably, reducing its cost to $71,400, which would fund the mapping component in the eastern half of the Basin where most restoration is underway or being planned. Wetlands and riparian areas provide important habitat for aquatic and wildlife resources and maps of these areas would assist the NRDP and other entities in evaluating benefits from future restoration projects that improve aquatic and wildlife resources in this area. This reduced effort can also serve as a pilot to ascertain the benefits of a larger, basin-wide mapping effort, which the NRDP believes would best be considered after resolution of the remaining NRD litigation when

restoration priorities have been further established. The benefits of this partial mapping effort are considered as commensurate with its costs.

To address a potential overlap issue, the TRC recommends a funding condition specifying that if there is a discrepancy between the remedial mapping data and the MTNHP data for the Clark Fork River floodplain, the remedial mapping data would be of primary reliance.

The NRDP considers the Little Blackfoot, Anaconda Waterline, and MTNHP mapping project, as revised by the NRDP, as projects that offer commensurate benefits compared to costs. Thus, they rank below the Bonner Bridge and Butte Waterline projects, which are considered to be of net benefit. The NRDP ranked the Anaconda Waterline project below the Little Blackfoot project primarily because of its comparatively low matching funds contribution of 3% and because the Anaconda Waterline project substantially augments normal government function. The Little Blackfoot also ranks better than the Anaconda Waterline project for criteria that give weight to natural resource benefits compared to service benefits (e.g., recovery period, actual restoration, resources of special interest, and ecosystem considerations). The NRDP ranked the MTNHP mapping project as last because of the pilot nature of the project and because the other projects have greater certainty and magnitude of benefits to natural resources or lost services than the mapping project.

Funding Cap Considerations

In November 2005, the TRC set the funding cap for the 2006 Restoration Grant Cycle at $7.5 million.

Table 3 provides a summary of the TRC's draft funding recommendations. The total funding recommendation of $5,046,940 is about $2.5 million less than the fund cap.

Table 3. Summary of TRC Draft Funding Recommendations

Project	Requested Restoration Funds		Recommended Restoration Funds	
	Year 1	Year 2	Year 1	Year 2
Bonner Bridge	$ 975,652		$ 975,652	
Butte Waterline	$1,819,581	$1,873,742	$1,819,581	$0
Little Blackfoot	$ 238,879		$ 216,044	
Anaconda Waterline	$1,964,263		$1,964,263	
MTNHP Mapping	$ 394,515		$ 71,400	
TOTAL	$5,392,890	$1,873,742	$5,046,940	$0

APPENDIX A

MINIMUM QUALIFICATIONS

Minimum Qualifications Screening Form for Applications over $25,000

Project Applicant: Missoula County

Project Title: Bonner Pedestrian Bridge Project

1. **Application Completeness** – Is the application complete? Indicate Yes or No for each application component below

Project Summary Form	☒ Yes	☐ No
Project Abstract	☒ Yes	☐ No
Environmental and Human Health Narrative	☒ Yes	☐ No
Technical Narrative	☒ Yes	☐ No
Criteria Statements	☒ Yes	☐ No
Budget Narrative and Forms	☒ Yes	☐ No

Identify what is missing or incomplete. This determination involves evaluating whether the required information is provided and is complete enough to proceed with the next phase of evaluating how well the project meets criteria.

2. **Location threshold:**

Is the proposed project: 1) to be located within the UCFRB; or 2) a research or education project that pertains to restoration of natural resources located within the UCFRB?

☒ Yes ☐ No

3. **Legal threshold:** Is the proposed project a research or monitoring project? If so, go to (b) below.

(a) Would the project **significantly** constitute or contribute to the restoration, rehabilitation, replacement or acquisition of the equivalent of natural resources injured or services lost as a result of releases of hazardous substances by ARCO and its predecessors that were subject of Montana v. ARCO?

☒ Yes ☐ No ☐ Uncertain

Explain why or why not and indicate any assumptions made in this determination. This is both a restoration and a replacement project. The project proposes to remove the existing pedestrian bridge that has three (3) bridge piers currently located within the

Blackfoot River channel near the confluence of the Clark Fork River and the Blackfoot River upstream of the Milltown Dam. These piers are an impediment to natural river flow. Also, the stability of the existing bridge maybe in jeopardy once the drawdown of the Milltown Reservoir occurs under the approved remediation actions. The bridge will be replaced with a bridge whose piers will be located outside the State's proposed restored Blackfoot River channel. This project will allow the Blackfoot River to be restored to a naturally functioning condition, coordinating with the State's restoration plan. This project will also reduce hazardous conditions to river recreationalists caused by bridge piers located in the river. The bridge will replace lost recreational services by replacing the link between trails on both sides of the Blackfoot River.

(b) Is the proposal a research or monitoring project that would provide **significant** information regarding the restoration of injured natural resources in the UCFRB?

☐ Yes ☐ No ☐ Uncertain

Explain why or why not and identify any assumptions made in this determination.

4. **Qualifications:** Does the applicant have the ability, credit worthiness, and other qualifications necessary to undertake the proposed project?

☒ Yes ☐ No ☐ Uncertain

Explain any qualified responses, uncertainties, or deficiencies concerning the applicant's qualifications.

5. **Interference with Unresolved Litigation or Pending RODs:** Will the project interfere, potentially interfere, overlap, or partially overlap with the State's remaining three litigation claims (Uplands, Area One, CFR) or the State's proposed restoration plans for these three sites?

☐ Yes ☒ No

If yes, explain the areas of interference.

Overall Determination: Choose which applies and explain any determination based on uncertainties.

(a) Proceed with full evaluations

☒ The project meets all minimum qualification requirements; OR

☐ The uncertainties are of such a nature that the project should proceed in the process to receive full evaluation.

(b) Do not proceed with full evaluation

☐ The project does not meet one or more minimum qualification requirements and should not proceed further in the evaluation process; OR

☐ There is such a significant uncertainty as to whether the project meets minimum qualifications that the project should not proceed further in the evaluation process.

Minimum Qualifications Screening Form for Applications over $25,000

Project Applicant: Butte-Silver Bow Local Government

Project Title: Drinking Water Infrastructure Replacement Year Six and Seven

1. **Application Completeness** – Is the application complete? Indicate Yes or No for each application component below

Project Summary Form	☒ Yes	☐ No
Project Abstract	☒ Yes	☐ No
Environmental and Human Health Narrative	☒ Yes	☐ No
Technical Narrative	☒ Yes	☐ No
Criteria Statements	☒ Yes	☐ No
Budget Narrative and Forms	☒ Yes	☐ No

Identify what is missing or incomplete. This determination involves evaluating whether the required information is provided and is complete enough to proceed with the next phase of evaluating how well the project meets criteria.

2. **Location threshold:**

Is the proposed project: 1) to be located within the UCFRB; or 2) a research or education project that pertains to restoration of natural resources located within the UCFRB?

☒ Yes ☐ No

3. **Legal threshold:** Is the proposed project a research or monitoring project? If so, go to (b) below.

(a) Would the project **significantly** constitute or contribute to the restoration, rehabilitation, replacement or acquisition of the equivalent of natural resources injured or services lost as a result of releases of hazardous substances by ARCO and its predecessors that were subject of Montana v. ARCO?

☒ Yes ☐ No ☐ Uncertain

Explain why or why not and indicate any assumptions made in this determination. This proposal is a two-year request for replacement of inadequate water distribution lines in the city of Butte. In 2007, approximately 16,814 feet of waterline is to be replaced at a

cost of $2,426,108, with $1,819,581 requested in Restoration funds. In 2008, approximately 16,745 feet of waterline is to be replaced at a cost of $2,498,323, with $1,873,742 requested in Restoration funds. The requested funding is for the sixth and seventh years of waterline replacement and the applicant plans to request this type of funding for a total of 15 years.

Butte's bedrock aquifer is contaminated throughout a six square mile area of the City and these distribution lines overlay that aquifer. This aquifer is so severely injured that natural recovery will not occur for thousands to tens of thousands of years as concluded by the State's 1995 Restoration Determination Plan and by EPA's 1994 Record of Decision. Restoration of the bedrock aquifer is infeasible, thus the aquifer's drinking water storage capacity and transport services have been lost forever. This proposal constitutes replacement of lost services to some of the thousands of property owners and other members of the public in Butte that could use the aquifer if it was not injured.

The State's 1995 Restoration Determination Plan considered upgrading Butte's antiquated water system as a viable restoration alternative for the bedrock injuries in Butte. This proposal will enhance the water supply from an unaffected source, thus compensating the public for some of the lost use of groundwater that Butte has suffered due to the inability to tap clean ground water in much of the City.

(b) Is the proposal a research or monitoring project that would provide **significant** information regarding the restoration of injured natural resources in the UCFRB?

☐ Yes ☐ No ☐ Uncertain

Explain why or why not and identify any assumptions made in this determination.

4. **Qualifications:** Does the applicant have the ability, credit worthiness, and other qualifications necessary to undertake the proposed project?

☒ Yes ☐ No ☐ Uncertain

Explain any qualified responses, uncertainties, or deficiencies concerning the applicant’s qualifications.

5. **Interference with Unresolved Litigation or Pending RODs:** Will the project interfere, potentially interfere, overlap, or partially overlap with the State’s remaining three litigation claims (Uplands, Area One, CFR) or the State’s proposed restoration plans for these three sites?

☐ Yes ☒ No

If yes, explain the areas of interference.

Overall Determination: Choose which applies and explain any determination based on uncertainties.

(a) Proceed with full evaluations

☒ The project meets all minimum qualification requirements; OR

☐ The uncertainties are of such a nature that the project should proceed in the process to receive full evaluation.

(b) Do not proceed with full evaluation

☐ The project does not meet one or more minimum qualification requirements and should not proceed further in the evaluation process; OR

☐ There is such a significant uncertainty as to whether the project meets minimum qualifications that the project should not proceed further in the evaluation process.

Minimum Qualifications Screening Form for Applications over $25,000

Project Applicant: Deer Lodge Valley Conservation District

Project Title: Upper Little Blackfoot River Restoration Project

1. Application Completeness – Is the application complete? Indicate Yes or No for each application component below

Project Summary Form	☒ Yes	☐ No
Project Abstract	☒ Yes	☐ No
Environmental and Human Health Narrative	☒ Yes	☐ No
Technical Narrative	☒ Yes	☐ No
Criteria Statements	☒ Yes	☐ No
Budget Narrative and Forms	☒ Yes	☐ No

Identify what is missing or incomplete. This determination involves evaluating whether the required information is provided and is complete enough to proceed with the next phase of evaluating how well the project meets criteria.

2. Location threshold:

Is the proposed project: 1) to be located within the UCFRB; or 2) a research or education project that pertains to restoration of natural resources located within the UCFRB?

☒ Yes ☐ No

3. Legal threshold: Is the proposed project a research or monitoring project? If so, go to (b) below.

(a) Would the project **significantly** constitute or contribute to the restoration, rehabilitation, replacement or acquisition of the equivalent of natural resources injured or services lost as a result of releases of hazardous substances by ARCO and its predecessors that were subject of Montana v. ARCO?

☒ Yes ☐ No ☐ Uncertain

Explain why or why not and indicate any assumptions made in this determination. This proposal seeks to improve stream channel integrity, fish habitat, and riparian health in a 2.6 mile section of the Little Blackfoot River southeast of the town of Elliston and to

educate the public on the benefits of the project. The Deer Lodge Valley Conservation District's (DLVCD) 2001 Little Blackfoot River assessment report ranked the reach in which this project is located as one of the two highest priorities for restoration based on the severity of the problems, restoration feasiblity and potential for recovery. In 2003 NRDP approved DLVCD's Project Development Grant proposal to develop the current grant application. The cost of this proposal is $313,743, with $238,879 requested in Restoration funds.

To accomplish the objectives, the applicant proposes to:

- Adjust channel geometry, install bank structures and promote revegetation to stabilize eroding streambanks
- Install pools, undercut banks, overhanging vegetation, root wads, woody-debris jams and rock clusters to enhance fish habitat
- Conduct weed control, fencing and grazing management to improve and protect riparian vegetation
- Conduct tours of the project for landowners, stakeholders in the watershed, and the public to educate them on the benefits of the project
- Conduct maintenance and monitoring

Overall, this project involves the replacement of injured resources and lost services through improvement of substantially similar resources and services as those covered under Montana v. ARCO, namely water quality and fisheries and associated recreational fishing opportunities.

(b) Is the proposal a research or monitoring project that would provide **significant** information regarding the restoration of injured natural resources in the UCFRB?

☐ Yes ☐ No ☐ Uncertain

Explain why or why not and identify any assumptions made in this determination.

4. **Qualifications:** Does the applicant have the ability, credit worthiness, and other qualifications necessary to undertake the proposed project?

☒ Yes ☐ No ☐ Uncertain

Explain any qualified responses, uncertainties, or deficiencies concerning the applicant's qualifications.

5. **Interference with Unresolved Litigation or Pending RODs:** Will the project interfere, potentially interfere, overlap, or partially overlap with the State's remaining three litigation claims (Uplands, Area One, CFR) or the State's proposed restoration plans for these three sites?

☐ Yes ☒ No

If yes, explain the areas of interference.

Overall Determination: Choose which applies and explain any determination based on uncertainties.

(a) Proceed with full evaluations

☒ The project meets all minimum qualification requirements; OR

☐ The uncertainties are of such a nature that the project should proceed in the process to receive full evaluation.

(b) Do not proceed with full evaluation

☐ The project does not meet one or more minimum qualification requirements and should not proceed further in the evaluation process; OR

☐ There is such a significant uncertainty as to whether the project meets minimum qualifications that the project should not proceed further in the evaluation process.

Minimum Qualifications Screening Form for Applications over $25,000

Project Applicant: Anaconda Deer Lodge County

Project Title: East Third and South Birch Water Main Replacement

1. **Application Completeness** – Is the application complete? Indicate Yes or No for each application component below

Project Summary Form	☒ Yes	☐ No
Project Abstract	☒ Yes	☐ No
Environmental and Human Health Narrative	☒ Yes	☐ No
Technical Narrative	☒ Yes	☐ No
Criteria Statements	☒ Yes	☐ No
Budget Narrative and Forms	☒ Yes	☐ No

Identify what is missing or incomplete. This determination involves evaluating whether the required information is provided and is complete enough to proceed with the next phase of evaluating how well the project meets criteria.

2. **Location threshold:**

Is the proposed project: 1) to be located within the UCFRB; or 2) a research or education project that pertains to restoration of natural resources located within the UCFRB?

☒ Yes ☐ No

3. **Legal threshold:** Is the proposed project a research or monitoring project? If so, go to (b) below.

(a) Would the project **significantly** constitute or contribute to the restoration, rehabilitation, replacement or acquisition of the equivalent of natural resources injured or services lost as a result of releases of hazardous substances by ARCO and its predecessors that were subject of Montana v. ARCO?

☒ Yes ☐ No ☐ Uncertain

Explain why or why not and indicate any assumptions made in this determination. Anaconda-Deer Lodge City/County (ADLC) is requesting $1,964,263 in Restoration funds and $64,080 of matching funds for a total cost of $2,028,342, to replace 5,700 feet

of leaking water mains on East Third and South Birch streets and to install a booster station on South Birch street in Anaconda. This project is a replacement project that will conserve water for the City of Anaconda. Water conservation is achieved by installation of a new water main in place of the existing leaking water main, thus reducing the volume of treated water lost and reducing the need for pumping and treating additional water to meet the City's demand. The water conservation associated with this project is an alternative to ADLC having to establish a new source of water to fulfill its water needs. Extensive groundwater contamination, caused by hazardous substance releases from mining activities, exists in the upper portion of the alluvial aquifer east of Anaconda and the bedrock aquifer north and south of Anaconda. This contamination to some degree limits the City's available drinking water sources. This project meets the replacement criteria because it will enhance a public water supply from an unaffected source.

(b) Is the proposal a research or monitoring project that would provide **significant** information regarding the restoration of injured natural resources in the UCFRB?

☐ Yes ☐ No ☐ Uncertain

Explain why or why not and identify any assumptions made in this determination.

4. **Qualifications:** Does the applicant have the ability, credit worthiness, and other qualifications necessary to undertake the proposed project?

☒ Yes ☐ No ☐ Uncertain

Explain any qualified responses, uncertainties, or deficiencies concerning the applicant's qualifications.

5. **Interference with Unresolved Litigation or Pending RODs:** Will the project interfere, potentially interfere, overlap, or partially overlap with the State's remaining three litigation claims (Uplands, Area One, CFR) or the State's proposed restoration plans for these three sites?

☐ Yes ☒ No

If yes, explain the areas of interference.

Overall Determination: Choose which applies and explain any determination based on uncertainties.

(a) Proceed with full evaluations

☒ The project meets all minimum qualification requirements; OR

☐ The uncertainties are of such a nature that the project should proceed in the process to receive full evaluation.

(b) Do not proceed with full evaluation

☐ The project does not meet one or more minimum qualification requirements and should not proceed further in the evaluation process; OR

☐ There is such a significant uncertainty as to whether the project meets minimum qualifications that the project should not proceed further in the evaluation process.

Minimum Qualifications Screening Form for Applications over $25,000

Project Applicant: Montana Natural Heritage Program

Project Title: Information resources for restoration planning: basin-wide wetland/riparian maps, wetland/riparian functional assessment, and comprehensive plant community descriptions.

1. Application Completeness – Is the application complete? Indicate Yes or No for each application component below

Project Summary Form	☒ Yes	☐ No
Project Abstract	☒ Yes	☐ No
Environmental and Human Health Narrative	☒ Yes	☐ No
Technical Narrative	☒ Yes	☐ No
Criteria Statements	☒ Yes	☐ No
Budget Narrative and Forms	☒ Yes	☐ No

Identify what is missing or incomplete. This determination involves evaluating whether the required information is provided and is complete enough to proceed with the next phase of evaluating how well the project meets criteria.

2. Location threshold:

Is the proposed project: 1) to be located within the UCFRB; or 2) a research or education project that pertains to restoration of natural resources located within the UCFRB?

☒ Yes ☐ No

3. Legal threshold: Is the proposed project a research or monitoring project? If so, go to (b) below.

(a) Would the project **significantly** constitute or contribute to the restoration, rehabilitation, replacement or acquisition of the equivalent of natural resources injured or services lost as a result of releases of hazardous substances by ARCO and its predecessors that were subject of Montana v. ARCO?

☐ Yes ☐ No ☐ Uncertain

Explain why or why not and indicate any assumptions made in this determination.

(b) Is the proposal a research or monitoring project that would provide **significant** information regarding the restoration of injured natural resources in the UCFRB?

☐ Yes ☐ No ☒ Uncertain

Explain why or why not and identify any assumptions made in this determination.

The applicant proposes to map wetlands and riparian areas in the entire UCFRB over a three-year period. Total project costs are $538,533, with $394,515 in Restoration Funds and a 27% match of $144,007. The applicant also proposes to develop a community field guide, which would describe all plant communities in the Basin. Color infrared imagery would be used to classify and delineate wetlands and riparian areas and produce digital maps that can be used for public use. Once the wetland mapping is done, then individual riparian areas would be characterized for overall wetland and riparian function and an assessment of factors affecting the functioning in a given landscape unit. Riparian function, or ecological use, varies for wetlands and riparian areas. For example, a wetland can have emergent vegetation such as sedges, which could be good habitat for waterfowl, or a wetland could consist of submerged vegetation and be most suitable for amphibians or fish. These riparian vegetation differences can be gleamed from this effort.

At this stage of preliminary screening, it is unclear to what extent mapping wetland and riparian areas, conducting a basin-wide wetland and riparian functional assessment, and creating a community vegetation field guide, will facilitate restoration in the UCFRB. The connection appears tenuous. In its more detailed Stage 1 and Stage criteria evaluation of the application, the NRDP will focus on whether there is a strong likelihood that the proposed mapping would lead in any significant way to restoration, rehabilitation, replacement or acquisition of the equivalent of natural resources injured, or services lost, in Montana v. ARCO.

4. **Qualifications:** Does the applicant have the ability, credit worthiness, and other qualifications necessary to undertake the proposed project?

☒ Yes ☐ No ☐ Uncertain

Explain any qualified responses, uncertainties, or deficiencies concerning the applicant's qualifications.

5. **Interference with Unresolved Litigation or Pending RODs:** Will the project interfere, potentially interfere, overlap, or partially overlap with the State's remaining three litigation claims (Uplands, Area One, CFR) or the State's proposed restoration plans for these three sites?

☒ Yes ☐No

If yes, explain the areas of interference. The project will potentially interfere with restoration planning for the Clark Fork River, Anaconda Uplands and Butte Area One litigation areas. The applicant, however, has indicated its willingness to exclude these areas. If the project were recommended for funding, mapping of these areas can be excluded as a funding condition in order to resolve any potential interference.

Overall Determination: Choose which applies and explain any determination based on uncertainties.

(a) Proceed with full evaluations

☐ The project meets all minimum qualification requirements; OR

☒ The uncertainties are of such a nature that the project should proceed in the process to receive full evaluation.

(b) Do not proceed with full evaluation

☐ The project does not meet one or more minimum qualification requirements and should not proceed further in the evaluation process; OR

☐ There is such a significant uncertainty as to whether the project meets minimum qualifications that the project should not precede further in the evaluation process.

APPENDIX B

PROJECT CRITERIA NARRATIVES

Missoula County
Bonner Pedestrian Bridge Project

Project Summary

Missoula County (County) proposes to remove and replace the county-owned Bonner pedestrian bridge (Bonner Bridge) across the Blackfoot River within Bonner. The project will replace the existing bridge that may become unstable and unsafe after the Milltown Dam removal. The removal of the existing bridge and its associated piers and the construction of a new bridge with piers located outside the floodplain will restore aquatic and riparian resources of the Blackfoot River near the site. Removal and replacement of the Bonner Bridge will maintain the current baseline of pedestrian services for the local community. This project will replace lost recreational resources by maintaining the link between trails on the west of the Blackfoot River with those on the east. This project coordinates and integrates with the EPA Superfund actions at Milltown, the plans of the Milltown Redevelopment Working Group, and the State's Restoration planning for the Clark Fork River and Blackfoot River near the Milltown Dam. The total project costs are $1,300,870, with $325,218 in matching funds and $975,652 requested in Restoration funds.

The Bonner Bridge is located within the Milltown Reservoir area, as defined in the *UCFRB Restoration Plan Procedures and Criteria,* and within the State Milltown Restoration Plan's project area. The bridge was built in 1921 in the tail water of the Milltown Dam. The Bonner Bridge served as a State highway bridge until 1977, when it was turned over to the County after completion of the new Highway 200 Bridge.

Overall Application Quality: Very good. The County submitted a complete and detailed application explaining the proposed project and justifying the preferred alternative. There were no deficiencies in the application.

Stage 1 Criteria

1. Technical Feasibility – Reasonably Feasible

   The NRDP has a reasonable degree of confidence that this project is reasonably feasible and employs well-known and accepted technologies that have been proven in the engineering field.

   This project has been developed through the conceptual design phase for evaluating various bridge alternatives. A consulting civil and structural engineer assisted with the project application and developed the cost estimate. If funded, the County plans to competitively procure engineering services to finalize the project design and oversee implementation. Professional engineers with the Public Works Department with experience on county bridge and road projects and Peter Nielsen with the Environmental Health Department, who serves as the County's representative on the Milltown Reservoir Sediment Operable Unit cleanup design review team, would also assist with project implementation.

The success of the project is contingent on the County coordinating with the Milltown Dam removal timeframe. The County provided a detailed schedule that coordinates with the EPA remedial action at the Milltown site. This scheduling is critical to this project because the old bridge will need to be removed before the Milltown Dam is removed and a new bridge will need to be built before the start of school so the Bonner #14 students will have a safe route across the Blackfoot River. The application indicates the County has adequate knowledge and understanding of EPA's remedial schedule and needed coordination steps.

The proposed bridge appears appropriate from an engineering and restoration standpoint. The County proposes purchasing a pre-fabricated three span bridge. The bridge materials will be constructed of weathered steel that would not require significant maintenance. The bridge decking will either be concrete or Ipe hardwood, both surfaces requiring only minimal maintenance. The bridge piers are currently designed to be placed in locations that coordinate with the State's restoration plan for the Blackfoot River. The distance of 250 feet between the piers places them outside the active floodplain of the Blackfoot River, but within a distance that is still cost-effective (see Cost-effectiveness criteria). The piers will be installed to a depth that will maintain a stable foundation for the bridge. The County will use the information EPA will be collecting for design of needed mitigation work at two Interstate bridges and Highway 200 Bridge to assist with the Bonner bridge design. EPA has also agreed to collect borings beneath the Bonner Bridge for the County's use in the final design of the new bridge.

The revegetation plan for the project is also technically feasible and coordinates with the State's restoration plan.

2. Relationship of Expected Costs to Expected Benefits – Net Benefit

Total cost for the proposed project is projected to be $1,300,870, with $975,652 (75%) requested in Restoration funds and $325,218 (25%) to be provided in matching funds. Of the $975,652 requested in Restoration funds, all would be for contracted services, with $800,996 (82%) for construction services, $102,739 (10%) for permitting and construction oversight services, and $71,917 (7%) for engineering services.

Direct benefits of the Bonner Bridge project include restoration of aquatic and riparian resources, retention and enhancement of a pedestrian and recreational route for local community, and coordination with the Milltown Redevelopment Group's community plan. Without the replacement of the Bonner Bridge, the local community would not have a safe pedestrian corridor across the Blackfoot River. Other important benefits include improved river recreation safety by removal of piers from the river and links to other recreational trail systems. The links to other trail systems would provide access to riverside trails, parks, and river/fishing access sites, thus the project will enhance outdoor recreational opportunities along the Clark Fork and Blackfoot rivers.

The project offers substantial benefits to the nearby communities and to the general public, which, in our view, outweigh the costs involved. It would constitute restoration of the natural resources of the Blackfoot River near the project and replacement of recreational

services that would otherwise be reduced or eliminated due to Milltown Dam removal activities.

3. Cost-Effectiveness – Cost-effective

The County analyzed several alternatives before selecting the preferred alternative. The alternatives included no action, repairing the existing structure ($1.5 million), removing the bridge and constructing a pedestrian lane on Highway 200 (not feasible), replacing the bridge with a two span bridge with new river pilings ($1.12 million), replacing the bridge with a new single span bridge ($1.9 million), or the preferred alternative of replacing the bridge with a three span bridge ($1.2 million). In addition, the County evaluated several new types of bridge designs: pre-fabricated truss ($1.2 million), cable stay ($1.9 million), and suspension bridge designs.

As the existing Bonner Bridge may become unstable and unsafe following dam removal, the no action alternative is not acceptable with the implementation of the EPA remedy. Construction of a pedestrian lane on the Highway 200 Bridge was not feasible because of the narrow width of the bridge. Removal of the Bonner Bridge without replacing it would leave this area with no designated pedestrian path across the Blackfoot River. A two-span bridge would place a pier in the middle of the Blackfoot River, which would negatively impact restoration actions. The single span and suspension bridge alternatives were the most costly.

In conclusion, the county offered a thorough analysis of alternatives and adequately justified the preferred alternative of a three-span bridge as the most cost-effective, restoration-oriented alternative.

4. Environmental Impacts – Short-term Adverse Impacts with Mitigation

This project presents no significant long-term adverse impacts to the environment. It will have potentially short-term adverse impacts to surface water quality; aquatic, terrestrial and avian species and habitat; vegetation quantity, quality, and species; and unique, threatened or endangered species and habitat during construction activities when disturbance to the river channel, river banks, and floodplain would occur. There are long-term environmental benefits to the resources listed above, since the project, as proposed, will allow the improvement of the river channel, floodplain and the natural resources.

These construction impacts and the mitigation of these impacts would be addressed in the permitting process that is proposed.

5. Human Health and Safety Impacts – Short-term Adverse Impacts with Mitigation

The project may have short-term adverse impacts related to noise and disruption of existing transportation flows during construction. The County intends to mitigate noise impacts by conducting work during regular working hours and confining heavy equipment access to the less populated west bank area. The County has appropriately planned for an alternate means of pedestrian travel along the Highway 200 bridge in coordination with EPA's bridge work.

This project significantly improves human health and safety in the long-term. Without the implementation of this project, the residents for the Bonner and Milltown area would either need to use the current Bonner Bridge that may become unstable and unsafe after Milltown Dam removal or use the Highway 200 Bridge, which is not designed for pedestrian traffic. These two options would have adverse impacts on human health and safety, whereas the construction of a new bridge will provide a safe pedestrian corridor across the Blackfoot River.

6. Results of Superfund Response Actions – Positive Coordination

This project coordinates well with planned remedial actions at the Milltown Dam site. The replacement of the Bonner Bridge before the Milltown Dam is removed is necessary since the bridge was not constructed to withstand the forces of the Blackfoot River in a flowing condition. The replacement of the Bonner Bridge was not a component of the Milltown Consent Decree that outlines the responsibilities at the Milltown site. In finalizing the Decree, EPA assumed the County would be responsible for the Bonner Bridge and would use Federal Highway funds for this project. This occurred prior to the understanding that the Federal Highway funds would be shared between Missoula County and Deer Lodge County. This sharing limits the amount of funds available for the bridge mitigation and trail work the County had planned to conduct before the 2008 Milltown Dam removal date because only a limited amount of the Highway funds is available each year (see further detail under criterion #18). The County has also scheduled this project to coordinate with the Milltown Dam removal schedule so the new bridge is in place prior to complete dam removal and before Bonner school starts so students will have safe corridors to the school.

7. Recovery Period and Potential for Natural Recovery – Reduces Recovery Period

This project will restore the aquatic and riparian resources of the Clark Fork and Blackfoot rivers near the Bonner Bridge. The existing bridge would be replaced with a bridge that would not have piers within the restored floodplain, thus restoring the Blackfoot River and allowing the channel to function naturally. The removal of the existing bridge and associated piers would allow for improved fish passage and natural habitat formation that would not occur if the existing bridge were mitigated in place or replaced with bridge that would have piers in the river. This, in turn, will help restore the Clark Fork River fishery.

8. Applicable Policies, Rules and Laws – Consistent/Sufficient Information Provided

The County has appropriately listed all the permits that may be needed to complete this project. The County has initiated discussions with DNRC pertaining to the permitting process. The EPA has also indicated that, since this project is important to the associated work at the Milltown site, they may allow the County to be included in their permit exemption clause under the Superfund Law.1 The only uncertainty identified by the County is the removal of the old bridge, which will require consultation with the State Historic

[1]Communications between Doug Martin, NRDP, and EPA Project Manager Russ Forba.

Preservation Officer. The bridge was built in 1921 and is potentially considered to be a historic resource.

9. Resources of Special Interest to the Tribes and DOI – No Impact

It is not anticipated this project will have any impacts on resources related to the Tribes or DOI. The DOI has indicated it does not object to funding this proposal given the need to remove obstructions to the Blackfoot River flow and to provide communities with a river crossing. The Tribes have not indicated their position on this project. The County indicates there are no known Tribal cultural resources in the area; however, further coordination with the Tribes will be necessary if the project is funded to assure the proper measures are taken to protect such resources if they are encountered during project implementation. Both the Tribes and DOI are active in the Milltown Restoration plan development and support the planning for natural functioning channels and floodplains.

Stage 2 Criteria

10. Project Location – Within Basin and Proximate

This project is located within the Milltown Reservoir Sediment Operable Unit, the State's restoration planning project area for the Clark Fork and Blackfoot Rivers near Milltown, and the injured aquatic resources of the UCFRB.

11. Actual Restoration of Injured Resources – Restoration/Replacement

This is a restoration and replacement project. The removal of the old Bonner Bridge and the associated piers and construction of a new bridge without piers in the restored floodplain will allow the Blackfoot River and the associated riparian area to be restored to a naturally functioning stream and will also help in restoring the fishery of both rivers. The bridge will replace recreational services by replacing the link between the trails on both sides of the Blackfoot River that would have been lost due to impacts to the existing bridge that would result from the planned removal of the Milltown dam and contaminated sediments.

12. Relationship between Service Loss and Service Restoration – Same

The County correctly notes in the application that this project is a response to needed cleanup of hazardous substance releases from mining operations that occurred in the Butte and Anaconda area. Over 6.6 million cubic yards of mining contaminated sediment has accumulated behind the Milltown Dam, which was built to support the mining operations in Butte and Anaconda. Thus, there is a direct connection between the proposed project and services that would be lost due to the removal of the Milltown Dam, as the current Bonner Bridge may become unstable and unsafe in a post-dam removal environment. The project will enhance access to riverside trails and fishing/river access sites, thus enhancing services such as hiking, boating, and fishing that were the subject of Montana v. ARCO.

13. Public Support – 9 support comments

The NRDP received a total of nine letters in support of funding this proposal, including a letter signed by nine members of the Montana Legislature from western Montana, Bonner School District #14, Clark Fork River Technical Advisory Committee, the National Park Service River and Trails Program, the Clark Fork Coalition, the Friends of Two Rivers, the Hellgate Hunters and Anglers, Dale Mahlum, and the Furey family.

14. Matching Funds and Cost Sharing – 25%

Restoration Fund Request:	$ 975,652
EPA Cash Match:	$ 250,000
Federal Highway Fund:	$ 75,218
Total Project Costs:	**$1,300,870**

The County's budget for this project includes a 25% match for other funding sources. These matching funds are for purchase of the new bridge section ($311,396) and for administration, project oversight, fiscal management, and construction coordination services ($13,822 or about 1% of total project costs). The County will provide the required operation and maintenance of the Bonner Bridge once the project is completed, but did not include this cost as a match. The County also invested the money necessary for developing and selecting the proposed Bonner Bridge alternative presented in this application.

15. Public Access – Increased Access

Public access will be improved with the implementation of the project. Without this project, the existing bridge may become unsafe and the only way across the Blackfoot River would be on the Highway 200 Bridge. The Highway 200 Bridge is narrow and has a narrow pedestrian lane, thus the replacement of the Bonner Bridge is necessary to provide a safe pedestrian crossing over the Blackfoot River. This project will also provide access to a existing pedestrian and recreational corridor as well as a network of recreational trails that are proposed by the County and the Milltown Redevelopment Group.

16. Ecosystem Considerations – Positive Impacts

The removal of the old Bonner Bridge and its associated piers from the river will allow for a natural channel and floodplain to be formed, thus resulting in positive ecosystem impacts. Although some short-term environment impacts will occur during construction activities, the County has outlined permitting and mitigation that will occur to decrease the impacts.

17. Coordination and Integration – Coordinates and Integrates

This project coordinates and integrates with other County and State plans. This project also coordinates with the County's Milltown Redevelopment Group's conceptual plan for trails and park development, and with the State's restoration planning for the Clark Fork and Blackfoot Rivers. This bridge will link to approximately 16 miles of new pedestrian trails

planned by the County and the Milltown Redevelopment Group for the local communities. The County has also integrated the revegetation of the area surrounding the bridge with the State's revegetation plan for the site. The County has communicated with the current revegetation contractor to ensure the selected plant species are appropriate. The County also consulted with the State to coordinate and integrate the bridge design with the State's restoration design for the Blackfoot River. The placement of the two bridge piers 250 feet apart allows for ample channel and floodplain design.

18. Normal Government Functions – Augments Normal Government Functions

The county has a statutory responsibility for certain vehicular bridges, but generally not pedestrian bridges. Nor does the County have available funds for replacement of the Bonner Bridge. The County anticipated spending Federal Highway funds on this project; however, the Federal Highway funds were allocated to both Missoula County and Deer Lodge County, reducing the amount Missoula County could use toward the Bonner Bridge replacement. To further complicate the federal highway money, only a percentage of the money is available the first year when the Bonner Bridge work is needed, thus the County needs funds for this project at this time. The County proposes to use the federal highway dollars for completion of other aspects of its conceptual plan it has completed for the communities near the Milltown Dam.[2] The NRDP considers this project as one that augments, not replaces, normal government function because communities typically rely on grant funds to assist in funding such work and also because the replacement of this bridge is an effective way to compensate the community for extensive injuries to the resources that were covered under Montana v. ARCO. The County secured matching funds of $325,218, or 25% for this project.

Land Acquisition Criteria – Not Applicable

Monitoring and Research Criteria – Not Applicable

[2] Peter Nielsen provided backup information about the Federal Highway funds in a 6/28/06 e-mail from to Doug Martin of the NRDP. The County has $1,375,000 available in Federal Highway funds through September 2007. Of that, the County plans to use $75,000 as a match for the pedestrian bridge and $1.3 million for pedestrian trails that are needed in neighborhoods that will be affected by construction traffic associated with remediation, restoration, and interstate bridge mitigation activities. For safety purposes, these trails need to be constructed before the major dam removal construction activities occur, similar to the timing situation with the Bonner bridge replacement.

Butte-Silver Bow Local Government
Drinking Water Infrastructure Replacement – Year 6 and Year 7

Project Summary

Butte-Silver Bow City-County (B-SB) proposes to replace inadequate water distribution lines in the city of Butte. The proposal is for a multi-year project with the expectation for two years (2007 and 2008) of construction funding. In 2007, approximately 17,000 feet of waterline is to be replaced at a cost of $2,426,108, with $1,819,581 requested in Restoration funds. In 2008, approximately 17,000 feet of waterline is to be replaced at a cost of $2,498,323, with $1,873,742 requested in Restoration funds.

Butte's bedrock aquifer is contaminated throughout a seven square mile area of the City and these distribution lines overlay that aquifer. This aquifer is so severely injured that natural recovery will not occur for thousands of years, as concluded by the State's 1995 Restoration Determination Plan and by EPA's 1994 Record of Decision. Restoration of the bedrock aquifer is infeasible, thus the aquifer's drinking water and its storage capacity and transport services have been lost for thousands of years. The State's 1995 Restoration Determination Plan considered upgrading Butte's antiquated water system as a viable restoration alternative for the bedrock groundwater injuries in Butte. Butte is asking for repair of inadequate distribution lines only in the area that has bedrock injury. This proposal will enhance the water supply from an unaffected source, thus compensating the public for some of the lost use of groundwater that Butte has suffered due to the inability to tap clean bedrock groundwater in much of the City.

This proposal totaling $3,693,323 is for years 6 and 7 of an intended 15-year funding request to the NRDP by B-SB for waterline replacement. The Governor has approved funding for Year 1 through Year 5 totaling $6,260,782. By applying a 3% rate increase to the Year 6 request, B-SB estimates the total request to the Restoration Fund for the 15-year replacement program would be $27.6 million. This evaluation does not address that long-term plan. If B-SB seeks further funding beyond the two years of funding under this proposal, it will need to do so through a separate application(s).

In its application, B-SB indicated its intent to competitively bid the engineering and construction work to be conducted for this project. Subsequently, B-SB requested consideration of an amendment to the application that would allow Butte-Silver Bow the option of performing the construction work in-house. This option could be exercised by B-SB only in the event that the competitive bids received from contractors all exceed the estimated costs of the project. The Advisory Council voted to recommend approval of this amendment and the NRDP and TRC concur in this recommendation. This amendment is considered as part of this criterion evaluation contained in this *Draft Work Plan* and thus subject of public comment on the *Draft Work Plan*.

<u>Overall Application Quality</u>: Fair. The application is fairly complete though some areas were lacking. The alternatives analysis needed more in depth analysis, details and investigation. The justification for the multi-year funding was lacking. Additional information provided in this application from previously submitted applications improved its completeness, accuracy and quality.

Stage 1 Criteria

1. Technical Feasibility – Reasonably Feasible

This project involves the replacement of old (early 1900's), leaking, and, in many cases, undersized water distribution mains within the City of Butte. The lines vary in size from 6 to 12 inches. As proposed in the application, major project tasks include: 1) selecting a consulting engineer to oversee the project for the upcoming construction season; 2) confirming which water mains to replace; 3) producing designs for water main replacements and submitting the designs to DEQ for approval; 4) preparing and releasing bid packages for selection of a general contractor for the project; 5) implementing water main construction and performing oversight; 6) preparing record drawings for work completed during the construction season; and 7) updating B-SB records and database. Based on B-SB's requested amendment to the application, in the situation where the competitive bidding process indicates that all of the bids exceed the available funding, B-SB could exercise the option of performing the construction work in-house.

The NRDP has a reasonable degree of confidence that technologies proposed for water distribution main replacement can be achieved as proposed in the application or as proposed via the requested amendment. The B-SB Department of Public Works, Water Utility Division, has extensive experience with the replacement of water mains in the community, both with the use of contractors procured through the competitive bidding process and with the use of county workers. Deteriorated conditions of the water distribution system led B-SB to create procedures for water main replacement when B-SB acquired the water system in 1992. As of December 2004, B-SB has replaced approximately 285,000 feet of transmission and system upgrades that exceeded $47 million.[1] B-SB successfully implemented three years of waterline replacement projects funded by the NRDP and is currently nearing completion of the Year 4 project. After receiving the Governor's approval, B-SB has begun implementing the Year 5 project with its own crews because only one contractor competitively bid the project, and, if accepted, that bid would have resulted in a cost that exceeded the available grant funds by $1 million.

The primary logistical problems to deal with are: 1) the provision of temporary water to affected homes during the construction phase; and 2) traffic congestion and confusion due to street closures. The affected residences must be provided with an alternate source of water during the approximate two-week construction period. Standard construction procedures for water main replacement are being planned for this work and the project team has successfully conducted similar efforts since 1992 with minimal problems. Taking into account any inconvenience and annoyance to residents, B-SB has determined approximately 17,000 feet of water main replacement in the Butte Hill area as a reasonable quantity of lines for replacement per year. Both of these projects are reasonably feasible based on the information provided.

[1] The construction of Year 5 project that was initiated in 2005 has not been completed, thus the application did not include any up-to-date costs of pipe placement.

2. Relationship of Expected Costs to Expected Benefits – Net Benefits

The proposed costs for implementing Year 6 of the waterline replacement is $2,426,108, with $1,819,581 (75%) requested in Restoration funds and $606,527 (25%) from B-SB.[2] The proposed costs for implementing Year 7 of the project is $2,498,323, with $1,873,742 (75%) requested in Restoration funds and $624,581 (25%) from B-SB. The Year 6 request is $280,313 (18%) more than the Year 5 request. The Year 7 request is $54,160 (3%) more than the Year 6 request. The matching funds percentage remains the same at 25% for Years 6 and 7. The breakdown in total costs and the cost per lineal foot of pipe are detailed in Table 1 and Table 2.

Table 1

	Year 6	**Year 7**	**Funding Source**
Engineering	$ 310,482	$ 319,797	76% NRDP; 24% B-SB
Construction	$2,069,881	$2,131,977	76% NRDP; 24% B-SB
Administration	$ 45,745	$ 46,549	100% B-SB
Total	$2,426,108	$2,498,323	75% NRDP; 25% B-SB

Table 2

Cost Per Lineal Foot (lf)	**Year 6**	**Year 7**
Construction Cost[3]	$123.10/lf	$127.32/lf
Engineering Cost	$ 18.26/lf	$ 18.81/lf
Subtotal	$141.36/lf	$146.13/lf
B-SB administrative Costs	$ 2.69/lf	$ 2.73/lf
Total	$144.05/lf	$148.86/lf

This project request is for the sixth and seventh years of an intended 15-year effort, which started in 2002 replacing water lines system-wide to address the long-term maintenance problems of the system. This 15-year effort, combined with improvements made by B-SB between 1992 and 2001 (independent of NRDP requests), would replace a total of 255,000 feet of waterline, would represent about 40% of the entire water distribution system and about half of the sections in most need of replacement. The project would achieve substantial progress toward getting the community's infrastructure needs met.

The above figures indicate that the cost to the NRDP to replace 17,000 feet of waterline has once again significantly increased in this year's request compared to previous years' requests. B-SB states the increases are due to the increased costs in petroleum products. These increased costs of construction have increased the NRDP's proportionate cost, which means the project has a lower benefit:cost ratio than previous years' projects.

In past years when the cost of construction exceeded the estimated costs in the NRD grant proposal, B-SB has funded 100% of the remaining project costs that exceeded the original

[2] Subsequent to submitting the NRDP application, B-SB submitted a Montana Department of Commerce Treasury State Endowment Program grant application for $750,000 for this two year replacement project that, if awarded, would be applied to B-SB's proposed matching funds commitment of 25%.

[3] Construction costs include 10% contingency costs.

cost estimate. B-SB has stated that for the current Year 4 construction project, costs have exceeded their proposed estimates and forced them to reduce the size of the project, which resulted in 500 feet less pipe placement.[4] Since a potential exists that future bids could exceed the estimated project cost and B-SB may not have funds available for cost overruns, the project again may have to be reduced in size. Reducing the project size would result in less feet of pipe placement than B-SB's goal of approximately 17,000 feet of pipe placement.

A reduced size of the project could significantly change the scope of the project. To ensure that the scope of the project is not significantly changed without further approval process, the NRDP has placed a provision in the B-SB's Year 5 contract. The provision requires that if at least 90% of the target goal of 17,000 feet of pipeline (15,300 ft.) cannot be met, the matter must then be presented to the Advisory Council and the Trustee Resource Council (TRC) with the staff recommendations on how to proceed. As required by the TRC by-laws, the public shall be given a reasonable opportunity to review and comment on the proposed change prior to action of the TRC and a final decision by the Governor. This provision should also be placed in contracts in the future to ensure that any significant change to the Scope of Work is approved by the Governor and would require an associated modification to the grant agreement.

The NRDP agrees with B-SB that this project represents an important step in replacing services lost due to injured groundwater resources. The State's 1995 Restoration Determination Plan[5] affirmed upgrading Butte's antiquated water system as a viable replacement alternative for the injured bedrock aquifer. The benefits to the Butte residents who lost the use of groundwater include the following:

- Reduced rate of leakage, which will reduce pumping and treatment costs;
- Reduction in the potential for the distribution system becoming contaminated through leaking and failing pipes;
- Improved fire protection;
- Cost savings due to the reduction in the number of leaks per year that have to be repaired;
- Reduction in the potential for property damage and reduction in associated insurance claims from leaky pipes;
- Assurance of B-SB's continued provision of a reliable source of potable water to its residents meeting current federal and state regulations; and

[4] Tom Mostad of NRDP phone conversation with Jean Pentecost of B-SB, May 15, 2006. The lack of funds is due to other costs B-SB has incurred over the last 6 months, such as the increased cost of pumping and the cost overruns on the rehabilitation of the Basin Creek Dam.

[5] *Restoration Determination Plan Upper Clark Fork River Basin*, NRDP, October 1995.

- The opportunity to conserve more water during drought conditions as a result of reduced leakage.

In its application, B-SB estimated the cost savings associated with waterline replacement. B-SB indicates that approximately 3 to 3.2 million gallons per day (MGD) of water flows at the Metro treatment plant versus the 6 to 6.4 MGD entering the system during the winter months, leaving 3 to 3.2 million gallons unaccounted for, and that this could be because of losses due to leakage. B-SB estimates that the cost to deliver water from the Big Hole River to Butte is approximately $338.12 per million gallons. This includes chemical and pumping costs, but not labor or maintenance costs. B-SB calculates the cost of the leaks as $338.12 times 3.0 MGD of water loss to be $1,014.36 per day and $370,241 per year estimated by B-SB. The equivalent annual cost[6] of this project is $99,005 and, when compared to the cost savings of $370,241 per year, the project savings would exceed the annual cost by over 3½ to 1.[7]

Since the entire system is not metered to measure the amount of water used, the amount of water lost cannot be precisely calculated and therefore an accurate estimation of the cost of the water loss cannot be made. However, B-SB is now developing a Water Master Plan that was approved for NRDP funding in 2005 that, when completed, will provide B-SB with a water-balance for the system and also provide a better determination of the leakage in the system. Though many assumptions were made in the B-SB calculation and they cannot precisely quantify the benefit, the fact that B-SB repaired about 276 leaks in their water system in the past year, which is far more than other city water system of similar size, is a good indication that their waterline system needs to be addressed.

One of the benefits from the waterline replacement is the reduced number of leaks and associated repair costs. B-SB indicates that there were 276 leaks repaired in the distribution system in 2005 at an estimated cost of $1,000 per leak, which translates to $276,000 per year to repair leaks. The NRDP funded waterline replacement for the Year 1 through 3 projects of 51,000 feet, combined with B-SB funded waterline replacements, have resulted in B-SB's ability to reduce the number of leak crews from two to one.

Despite the lower benefit:cost ratio than that of previous years' projects due to B-SB's predicted cost increases of 18% in Year 6 and an additional 3% in Year 7, the NRDP believes the benefits gained from this replacement proposal still outweigh the costs. This proposal will benefit and compensate a large public for some of the lost use of groundwater that Butte has suffered due to inability to use bedrock groundwater in much of the City.

[6] Equivalent annual cost is the annual cost associated with owning an asset over its entire life.

[7] The NRDP did not give any weight to the other method offered by B-SB to quantify benefits. This method was based on estimating costs associated with the number of leaks and how much can be anticipated as lost due to leaks if they were neglected because the estimated leakage would have exceeded the average flow into Butte during winter months. This would mean that B-SB would not have water pressure to at least a portion of the service area during the winter months, which does not happen.

3. Cost-effectiveness – Cost-effective

B-SB considers the proposed project the most economical alternative to replace lost services from injured groundwater resources. B-SB indicates the no action alternative would eliminate one of the few viable means to replace the lost services that groundwater provides.

The second alternative proposed by B-SB is to place meters on the individual users of the water distribution system. B-SB states that this alternative is not cost-effective since the majority of the water lost is through leakage and not through misuse or waste; however, B-SB does not supply any verifiable figures to support their claim. Complete metering of the system would allow an accurate way to quantify use as well as loss due to leakage and would also promote conservation. The B-SB Water Master Plan now being prepared will investigate this alternative further. At this point, insufficient information is available to assess the cost-effectiveness of this alternative.

B-SB also considered varying the level of effort to replace the distribution system as another alternative. For example, the proposed project could replace the distribution lines at a higher or lower level of effort per year. B-SB states that the proposed level of replacement of 17,000 feet of line per year is optimum based on B-SB's experience over the last 14 years. B-SB appropriately uses safety, public health, and leakage criteria to plan the sequence of leak repairs, with the areas of greatest impact addressed first. The proposed replacement schedule is reasonable based on previous waterline replacement history in Butte. B-SB budgeted Year 6 based on an 18% increase from Year 5 budget and based the Year 7 budget on a 3% increase of Year 6 budget. The applicant has stated the Year 6 increase is due to increases in the cost of pipe, asphalt and labor and the Year 7 increase is due to inflation.

If groundwater of acceptable quality were available from wells, the cost of operating and maintaining the water system would be significantly less. Under current state and federal regulations, most ground water supplies require little or no treatment other than disinfection with chlorine or ultraviolet light. Groundwater systems typically do not have to be manned on a full-time basis. This alternative is not available due to the extensive groundwater contamination underlying Butte.

Given the successful project performance of similar pipeline replacement work with NRDP funds over the last four years, the NRDP believes that the selected alternative of replacing pipe and the level of pipe replacement proposed by B-SB of approximately 17,000 feet per year for Year 6 and Year 7 is cost-effective.

B-SB has received an NRDP Grant for a water master plan that will address the rehabilitation of existing facilities, system capacity expansion, additional water treatment capacity, and additional storage. B-SB justifies going ahead with waterline replacement despite the lack of an updated master plan given that lack of investment in major infrastructure by past owners of the system caused the county to be significantly behind the accepted rule-of-thumb for replacement of 1% per year. The NRDP believes this is a reasonable justification.

In July 2006, B-SB requested consideration of an amendment to the Year 6/7 application that would allow Butte-Silver Bow the option of performing the construction work in-house. As recommended by the Advisory Council and concurred by the TRC and NRDP, this option

could be exercised by B-SB only in the event that the competitive bids received from contractors all exceed the estimated costs of the project. Allowing this option is considered cost-effective because it would allow the project to be conducted by qualified workforce at a cost within the available budget and lower than the price offered through competitive procurement.

Multi-Year vs. One-Year Submittal Alternative

The Trustee's Multi-Year Funding Policy[8] provides the option for B-SB to submit this proposal as a multi-year request. B-SB is requesting funding for two years, Year 6 and Year 7. B-SB justified their request as cost-effective because multi-year funding would eliminate duplication of the engineering selection process, contractor selection, and water division staff time spent on grant application development and therefore, money and time would not be depleted and could be utilized on implementing these projects. Their application budget quantifies the cost savings to B-SB for Year 7 as approximately $3,000.[9] The NRDP does not consider this cost savings significant enough to solely justify funding a multi-year project since the savings is less than 0.2% of the Restoration Funds requested.

B-SB also indicates that there might be cost savings if B-SB could go out for bid earlier in the year such as in December instead of June and a lower bid could possibly be obtained.[10] NRDP recognizes that it is feasible that a contractor could bid a project lower during a slow time of the year to ensure that they have work for the coming construction season. The cost savings, if any, cannot be predicted.

These potential cost savings may be outweighed by the risk that additional administrative costs may be incurred if the second year cost estimates prove to be incorrect and B-SB is forced to return and seek an amendment to its second year grant. The more in advance B-SB estimates costs, the more likely those estimates will be incorrect.

Another consideration besides cost savings relevant to the one vs. two year funding issue is that if the 2nd year is approved for funding, the funding cap for the 2007 grant cycle would be reduced by the 2nd year funding of $1,873,742. This reduced funding cap could affect the ranking and funding projects in the 2007 grant cycle. While B-SB waterline projects have consistently ranked high in past year's grant cycles and been unanimously recommended for full funding by the Advisory and Trustee Restoration councils, the priority of this project over other potential projects in future grant cycles will vary and cannot be predicted at this time.

Each year's pipeline replacement is independent and could stand alone as a single project, as it has been done with the past projects. The public benefits to be derived (lineal feet of pipe placement) from funding these projects are the same whether the project is funded for two

[8] NRDP Funding Policy for Multi-Year Projects, approved by the Trustee Council November 14, 2000, Attachment 1 to this evaluation.

[9] This amount does not include the savings of staff time for not having to prepare an application for Year 7, so the savings could be somewhat greater.

[10] Tom Mostad, of NRDP, conversation with Jean Pentecost, of B-SB, May 15, 2006.

years or one year. Given this, and given the unknowns concerning the potential cost savings and effects on funding of other projects in the 2007 grant cycle associated with multi-year funding, the NRDP recommends funding Year 6 and not funding Year 7 at this time. This position is consistent with the greater priority given to restoration projects over replacement projects via numerous *RPPC* criteria and with background information on the derivation of the multi-year funding policy.[11]

4. Environmental Impacts – No Significant Adverse Impacts

   Replacing Butte's water mains presents no significant adverse impacts to the environment. The project will have potentially adverse impacts to aesthetics from the short-term excavation within the city streets for the installation of the mains. This impact will be mitigated, to the extent possible, by limiting public access to the disturbed areas. Actual construction activity will last about two weeks for each renewal segment. The project will have a potentially beneficial impact on conservation of water by reducing the total amount of water lost due to leaking pipes.

5. Human Health and Safety Impacts – No Significant Adverse Impacts

   Potentially adverse impacts to the human environment during construction activities include worker accidents, dust, noise, temporary loss of water service, restricted access to commercial facilities and disruption of traffic flow. The applicant has planned effective mitigation measures to alleviate these adverse impacts to the greatest extent possible, such as limiting construction to daytime hours. B-SB will follow safety guidelines of the Montana Public Works and Standard Specifications.

   In addition to bringing clean water to residences, replacing water mains will also benefit the community by reducing impacts on human health and safety that are caused by water leaks. These include road hazards from leaking water and ice, health hazards due to possible contamination of the water system via leaks, and safety hazards caused by inadequate pressure and flow for fire fighting purposes.

6. Results of Superfund Response Actions – Consistent

   The 1994 Record of Decision[12] for the Butte Mine Flooding Operable Unit declared that the bedrock aquifer and parts of the alluvial aquifer on the Butte Hill could never be used for drinking water. B-SB has adequately planned to replace water lines in areas where impacts from mine flooding decisions are applicable. This is consistent with remedy in that contaminated bedrock groundwater cannot be accessed for residential use.

[11] November 14, 2000 TRC meeting minutes.

[12] *Record of Decision, Butte Mine Flooding Operable Unit,* U.S. Environmental Protection Agency, September 1994.

7. Recovery Period and Potential for Natural Recovery – No Effect on Recovery Period

   This replacement project will not affect the bedrock aquifer's recovery period, which will not occur for thousands to tens of thousands of years.

8. Applicable Policies, Rules and Laws – Consistent/Sufficient Information Provided

   The applicant has provided sufficient information on the applicable requirements needed to complete this project. The following three standard procedures will be implemented:

   - B-SB will submit all design drawings for water main segment replacements to DEQ for review and approval prior to performing the work.

   - B-SB will coordinate all waterline replacement activities with the U.S. EPA to ensure any excavated materials that contain heavy metals in excess of remedial action levels are disposed of at the mine waste repository and clean back fill materials are used.

   - B-SB will follow Montana Public Works Specifications in the implementation of the project, including those for ditch width, pipe bury depths, safety measures, and related specifications.

9. Resources of Special Interest to the Tribes and DOI – No Impact

   Even though work will occur on already constructed and paved streets, this project could have a impact on buried cultural features if they are present below the ground surface. Since most of the project work will occur in areas that have been disturbed previously, the possibility is remote that these sites would be encountered intact. It is unlikely that any resources will be encountered that are of special interest to DOI, which commented that the agency does not object to the funding of this proposal. The Tribes have not commented on this project.

Stage 2 Criteria

10. Project Location – Within Basin and Proximate

    The project will be conducted above the injured Butte Hill bedrock aquifer area.

11. Actual Restoration of Injured Resources – No Restoration

    This is a replacement project; actual restoration of the bedrock aquifer is infeasible. The State recognized this infeasibility in its 1995 Restoration Determination Plan that selected a replacement alternative for this groundwater injury.

12. Relationship Between Service Loss and Service Restoration – Same

    Restoration of the bedrock aquifer is infeasible, thus the aquifer's drinking water and its storage capacity and transport services have been lost for thousands of years. This proposal

constitutes replacement of lost services to thousands of property owners and other members of the public in Butte that could utilize the aquifer if it was not injured. By fixing leaking and corroded water lines, this proposal will enhance the water supply from an unaffected source. Thus, there is a direct connection between lost services and services this project will replace.

13. Public Support – 5 support comments

The NRDP received support comments on this project from the B-SB Council of Commissioners, Mainstreet Uptown Butte (a non-profit group of more than 170 businesses), Cell Phones On The Go, Rick Griffith and Port of Montana.

14. Matching Funds and Cost Sharing – 25%

Restoration Fund Request Year 6:	$1,819,582 (75%)
B-SB cash match:	$ 560,781 (23%)
B-SB in-kind match:	$ 45,745 (2%)
Total Project Costs:	**$2,426,108**

Restoration Fund Request Year 7:	$1,873,742 (75%)
B-SB cash match:	$ 578,032 (23%)
B-SB in-kind match:	$ 46,549 (2%)
Total Project Costs:	**$2,498,323**

In its application, B-SB proposed matching funds of $606,526 for Year 6 and $624,581 for Year 7 of the total project costs for this year's proposal, or a 25% match each year. B-SB subsequently submitted a Montana Department of Commerce Treasury State Endowment Program (TSEF) grant application for $750,000 for this two year replacement project that, if awarded, would reduce B-SB's matching fund contribution from 25% to 10%. If the TSEF grant monies were not awarded, B-SB would still be obligated to provide the proposed 25% match. In any event, the match will remain 25% of the total project costs.

Though not considered a cost share for this specific project request, B-SB has noted the $47 million dollars already invested by Butte municipal drinking water system ratepayers over the past 12 years.

15. Public Access – Not applicable

Public access is not a component of this project, nor is it relevant to the project.

16. Ecosystem Considerations – Positive

The project will conserve water and therefore reduce power requirements for pumping and treating water.

17. Coordination and Integration – Coordinates

Coordination of this project is done with other waterline replacement projects in the Butte area.

18. Normal Government Functions – Within but Augments Normal Government Functions

Upgrading municipal drinking water lines is a normal responsibility of local governments that is typically accomplished via funding from grants and ratepayers. The costs B-SB faces to upgrade their system are greater than typical community costs due, in part, to pervasive groundwater contamination underlying Butte. In the absence of that injury, Butte may have been able to construct a simpler and less expensive nearby groundwater system than the existing system that relies on more distant uncontaminated surface water sources, as further documented in the State's 1995 NRD assessment report.[13] B-SB ratepayers' costs are significantly higher than some other similar communities. For example, for 1,300 cubic feet of water, Missoula pays 7% less, Helena pays 20% less, Kalispell pays 46% less, Bozeman pays 26% less, Billings pays 33% less and Great Falls pays 47% less than Butte. Presently only 45% of Butte's residences are metered. B-SB's rates also meet the Montana Department of Commerce's (MDOC) target rate, which is a rate MDOC uses to validate that a community requesting state grant funds is contributing to the funding of any public facility project in proportion to its financial resources.

Another consideration of this criterion is that B-SB seeks, using partial funding from NRDP, to address the water main leak problems over a 15-year period to bring annual maintenance costs in line with other similar utility systems. Over the 15 years, NRDP's funding would result in the replacement of 255,000 feet, or about 29% the total amount, which is 877,500 feet, of pipeline that needs to be replaced. After that, B-SB will be funding routine maintenance costs.

[13] *Revised Report and Rebuttal: Assessment of Damages to Groundwater and Literature Review of Water Use Values in the Upper Clark Fork River Drainage*, Duffield, October, 1995. Note: this report estimates lost use values for Butte's bedrock and alluvial aquifers.

Attachment 1

Funding Policy for Multi-Year Projects[14]

1) The Trustee shall have the flexibility to approve full or partial funding of multi-year projects. Projects would fall into one or two categories:

   Category 1 – Multi-year projects that would be approved with the expectation that they will be funded to their completion or, at least, for a certain number of years. A project in this category would not be formally reconsidered for approval in subsequent years; however, the Trustee would annually evaluate the project's funding needs and approve each subsequent year's budget for the project. As part of this evaluation, the Trustee could decide to discontinue funding.

   Category 2 – Multi-year projects that would be approved for the first year's funding with the expectation that they will be resubmitted for approval in a subsequent year. A project in this category would be generally one whose future scope or priority over other projects is uncertain. (It's possible that some projects under this category might need more than one year's funding to demonstrate effectiveness.)

2) When approving a multi-year project, the Trustee should use only the projected expenditures in the first year of the project to determine whether the spending limitation for that year will be exceeded. The Trustee should use the projected expenditures in any subsequent year to determine whether the spending limitation for that subsequent year will be exceeded.

3) The Trustee shall limit the amount of multi-year projects that the State commits to pay in the future by assuring that total spending limit in any future year will not exceed the funding limit set for that year. Subject of public review, the Trustee may set future year spending limits on an annual basis.

[14] This policy was approved by the Trustee Restoration Council on November 14, 2000.

Deer Lodge Valley Conservation District
Upper Little Blackfoot River Restoration Project

Project Summary

Deer Lodge Valley Conservation District (DLVCD) seeks funding to enhance and protect aquatic, riparian, and water resources in a 2.6 mile reach of the Little Blackfoot River (LBR) located between Telegraph Creek and Highway 12. To accomplish these goals, the applicant proposes to conduct stream restoration, weed control, fencing, grazing management, public tours, monitoring, and project management activities. The stream restoration activities would include revegetation, streambank stabilization, channel geometry adjustment, and fish habitat/bank structure installation. The cost of this proposal is $313,743, with $238,879 requested in Restoration funds and $74,864 in matching funds.

The DLVCD's *Little Blackfoot River Physical Features and Riparian Assessment*, dated May 2002, ranked the reach in which this project is located as one of the two highest priorities for restoration based on the severity of the problems, restoration feasibility and potential for recover.[1] This reach has eroding and non-vegetated streambanks (less than 50% of the banks have deep rooted vegetation), in-stream sedimentation, and weed problems that create poor fish habitat and negatively impact water quality. In 2003, the NRDP approved DLVCD's Project Development Grant proposal to develop the restoration design that is the basis of the current project application.

The LBR is classified as an "outstanding fisheries resource" by Montana Fish, Wildlife and Parks (MFWP) and supports more that 7,000 angler use-days each year. This project proposes to improve a section of the LBR that is not a sustaining reach of the river.

Overall Application Quality: Fair. The application was fairly complete and accurate, though the application was not well organized and it lacked an adequate level of detail in some areas. For example, some tasks did not relate well to the budgeted items and some budget items were not well justified. These inconsistencies led to NRDP recommendations for funding conditions and some task/budget reductions. The alternative analysis and project need were fairly well justified and supported by previous studies.

Stage 1 Criteria

1. Technical Feasibility – Task Specific

This criterion considers whether the project employs well-known and accepted technologies and whether it can accomplish its goals. The proposed goals of the project are to improve habitat for and increase production of fish and associated aquatic life, improve stream channel geometry, stabilize and revegetate stream banks, restore riparian vegetation and riparian wildlife habitat, reduce sediment inputs and in-stream sedimentation, and improve

[1] *Little Blackfoot River Physical Features Inventory and Riparian Assessment*, prepared for Little Blackfoot Watershed Group and DLVCD, May 2002.

water quality. Secondary goals are to maintain the improvements to the river through improved management of grazing and other land uses, to enhance recreational opportunities in the LBR, to improve water quality in downstream portions of the watershed, and to encourage other similar restoration projects by demonstrating methods and benefits to area landowners and watershed stakeholders. The NRDP has divided the project components into five tasks that will be evaluated separately for technical feasibility.

Task 1: Stream Restoration – Reasonably Feasible with NRDP funding conditions

The applicant would conduct the following activities in order to restore riparian vegetation, enhance fish habitat and increase bank stability in the project reach:

- install approximately 50 fish habitat/streambank improvement structures, which includes pools, undercut banks, overhanging vegetation, root wads, woody-debris jams and rock clusters;
- reconstruct 515 feet of streambank;
- plant 5,000 sprigs of willow and 120 willow, dogwood and cottonwood plants; and
- adjust channel geometry.

These plant species proposed are native to the LBR and have been proven to assist in the revegetation in other locations. The proposed structure installation and channel adjustment activities will simply replace structures that occur naturally and reshape the cross-section of the stream to a more natural profile. If these activities are constructed correctly, they should provide the needed habitat without compromising the stability of the stream or its banks. These techniques have been used with success for many years in many other locations and should attain the desired goals within a fairly short period of time.

Based on a 6/28/06 site visit and input from State fisheries biologists, it is likely that the number of fish habitat/streambank improvement structures proposed can be decreased without compromising the project's success in the long-term. The NRDP thus recommends a funding condition providing for NRDP review and approval, in consultation with MFWP, of the final restoration design. This condition will allow for the opportunity for State input on the optimal number and locations for these improvements and is consistent with the RPPC's requirement of NRDP approval of final design plans for construction activities.

The only uncertainty regarding the success of these stream restoration activities is the lack of any recognized need and budget for maintenance of the fish habitat and streambank improvement structures in the application.2 Based on the NRDP's experience with similar projects, such maintenance will be needed. The NRDP believes adequate funding is available in the monitoring budget to cover needed maintenance activities (see criteria #2).

[2] The proposed revegetation restoration budget has $1,786 for maintenance.

Task 2: Weed Control, Fencing and Grazing Management – Reasonably feasible with NRDP funding modifications and conditions

The applicant would conduct the following activities to improve and protect riparian vegetation:

- conduct weed control of 76 acres before and after construction activities;
- install 7,000 feet of riparian fencing; and
- assist with the development of a grazing management plan.

The budget for weed control covers costs for project management as it relates to weed control, permit writing, monitoring, weed pulling, chemicals and labor for spraying, biological releases, reseeding and transplanting. Weed control is an important part of the restoration, as it will allow the natural vegetation to better compete in the areas that are to be disturbed as part of this project. Nonetheless, 16 acres (21%) of the 76 total acres to have weed control, at the south end of the project, are not related specifically to construction of the restoration activities. This area is not included in the area to be fenced and is not an integral part of this project and the goal of improving and protecting riparian vegetation can be met without the spraying of this 16 acres. Given this, the NRDP does not recommend funding the $9,208 requested for weed control activities in this area.3

The fencing and appropriate grazing management of the project area is also integral to the success of improving and protecting vegetation. The entire project area falls within one pasture. About 190 acres of the project area that includes about 9,750 feet of stream would be fenced and excluded from cattle activity for at least five years. However, approximately 800 feet of the stream in the southern portion of the project area would not be fenced. A possibility exists that grazing would be concentrated on this portion of the stream, or in other riparian areas of the pasture that are not in the project area, and thereby degrade riparian vegetation and decrease bank stability in those areas. The applicant has stated that this is not likely to occur because there will be a large pasture available to the cattle that has adequate water from a nearby tributary (Mike Renig Creek) and from pits/springs in the area and because a natural bench area is a deterrent to cattle on that portion of the stream.4 However, there is still an uncertainty that the proposed fencing will successfully attain the goal within the unfenced portion of the project area and not negatively impact other riparian areas.

This uncertainty can be addressed through the development of and landowner agreement/adherence to an adequate grazing management plan that would define the number of cattle, the time of year and the period of time that grazing will take place. Without this agreement, the new vegetation and streambank treatments are at risk of becoming degraded by cattle, which would waste valuable resources. The application indicates that the grazing management plan would be completed before the end of the 5-year cattle exclosure period, but does not provide any other specifics on the plan. To help ensure the success of the

[3] This reduction is consistent with the NRDP's policy to fund only those weed control activities that are necessitated by or targeted to approved restoration activities, as explained in the NRDP's applicant guidelines and FAQs.

[4] Gary Ingman of PBS&J, consultant to DLVCD, May 2, 2006 meeting with Tom Mostad of NRDP.

project, the NRDP recommends a funding condition that a grazing management plan, approved by the Natural Resource Conservation Service (NRCS), be completed and agreed upon before construction begins in order to address the uncertainties regarding potential impacts in the unfenced area and nearby riparian areas. With the 5-year exclusion and this requirement, the project will likely attain its goal to improve and protect riparian vegetation.

Task 3: Tours – Reasonably Feasible

The applicant would conduct a tour(s) of the project for landowners, stakeholders in the watershed, and the public to educate them on the benefits of the project. There are no uncertainties with the feasibility of this task and the ability to meet its educational goal.

Task 4: Monitoring – Reasonably feasible with NRDP funding condition

Monitoring to measure the effectiveness of the project is critical to determining the success of the project. The proposed monitoring is not specific enough to determine project progress and success because no specific targets/goals are provided for proposed monitoring parameters (channel type, gradient Wolman pebble count, width/depth and entrenchment ratios and sinuosity, etc.). Conducting the proposed monitoring activities is feasible and common for this type of project, but this lack of specifics makes the technical feasibility of the monitoring plan somewhat uncertain. Thus, the NRDP recommends a funding condition that the applicant develop a specific monitoring plan in consultation with NRDP that will address the goals and objectives of the project before construction begins.

Task 5: Project Management, Administration, Final Design and Permitting – Reasonably Feasible

Project management involves all tasks that are related to the general management, DLVCD administration, completing the final design and acquiring the needed permits for the project. There are no uncertainties associated with the feasibility of these tasks. The applicant has appropriately identified all the needed permits and the DLVCD currently adequately administers several other funded grant projects.

<u>Overall Technical Feasibility</u>

The project activities are considered reasonably feasible subject to the following proposed revisions/funding conditions that would increase the likelihood that the project would meet its goals:

- final restoration design be subject to NRDP review and approval
- maintenance of habitat structures be included in the monitoring activities/budget
- the proposed weed control of 16 acres not be funded
- NRCS-approved grazing management plan be completed and agreed upon before construction begins
- the applicant develop a monitoring plan tied to the project goals that is subject to NRDP review and approval before construction begins

2. Relationship of Expected Costs to Expected Benefits – Commensurate Benefits with NRDP funding modifications and conditions

The DLVCD has requested $238,879 in Restoration funds and has offered $74,864 in matching funds, with $10,400 of the matching funds as in-kind materials, for a total project cost of $313,743. The proposed Restoration funds, total cost, percent of budget cost and the NRDP recommended funding amounts of these costs are summarized in Table 1.

Table 1

Task #	Task Name	Proposed			NRDP Recommended	Amount NRDP Reduced
		Restoration Funds	Total Budget	Percent of Total		
1	Stream Restoration	$47,184	$98,788	31.5%	$47,184	$0
2	Weed Control	$43,737	$61,005	19.4%	$34,530	$9,208
	Fencing	$4,174	$10,166	3.2%	$4,174	$0
	Grazing Management	$2,000	$2,000	0.6%	$2,000	$0
3	Public Tours	$8,799	$8,799	2.8%	$0	$8,799
4	Monitoring	$43,336	$43,336	13.8%	$43,336	$0
5	DLCD Admin	$18,825	$18,825	6.0%	$17,507	$1,318
	Project Management & Reporting	$50,155	$50,155	16.0%	$46,644	$3,511
	Final Design & Permitting	$20,670	$20,670	6.6%	$20,670	$0
	Task Totals	$238,879	$313,743	100%	$216,044	$22,835

In the DLVCD 2005 Upper LBR Restoration Project design document, the project was estimated to cost $129,000, which did not include weed control, project management, permitting and design or public tours activities. When this original estimate is compared to tasks in this application, there is a $25,920 (19%) budget increase to $154,290. The increase is not addressed in the application, though it is likely due to the more in-depth analysis of the costs for each task. Nonetheless, since it has not been addressed, there is some uncertainty in the justification of the overall project budget.

The need for stream restoration activities on this reach of the stream is well documented in the 2001 DLVCD LBR assessment report. The reach has major problems with streambank erosion and moderate problems with channel morphology, aquatic habitat, and riparian vegetation. Direct benefits of the project would include improved fish habitat within the 2.6 mile project reach, improved water quality, improved stream bank stability, restored riparian vegetation, reduced soil erosion, decreased sediment loading and in-stream sedimentation, and improved aquatic habitat. Given the good conditions that exist up and downgradient of the project reach, improving this degraded reach will result in seven miles, or 20% of the LBR corridor, of continuous good riparian habitat (see criterion #16). The project would also

provide indirect benefits, such as improved fisheries upstream and downstream in the LBR and associated improvements to fishery-related recreational services on the LBR. Following is a more detailed assessment of the benefit:cost relationship on a task-specific basis.

The proposed stream restoration activities (task 1) are directed at improving the identified problems and will result in increased streambank stability, improved channel morphology and increased riparian vegetation. These tasks, which are estimated at a combined reasonable cost of $47,183, will derive substantial benefits to aquatic and riparian resources.

The proposed fencing and grazing management planning activities (task 2) have reasonable costs of $6,174 and considered key to the success of the project, assuming landowner adherence to a grazing management plan that provides adequate protection to riparian areas as addressed in NRDP's recommended funding condition under technical feasibility.

The proposed weed control activities (task 2) are also important to project success, except for the 16 acre unfenced portion of the project that is not recommended for weed control funding as explained under criterion #1. This would reduce the weed control budget of $43,736 by $9,208, or 21%. The remaining budget of $34,552 should supply adequate weed control for the remaining 60 acres where weed control is integral to project success. The benefit:cost relationship of the weed control activities is diminished by the inclusion within its budget of $20,700 for other activities associated with weed control such as permit writing and project management to be done by a botanist that are in addition to the permit writing and project management costs in task 5.

The proposed public tour(s) (task 3) are proposed to demonstrate the overall project benefits and restoration methodologies to area landowners, watershed stakeholders, project sponsors and cooperators and the interested public. The application and its budget did not specify how many tours the budget would cover,5 so a benefit:cost comparison cannot be judged. The NRDP thus recommends that this task be removed from the project and the project budget be reduced by $8,799.

The monitoring activities (task 4) should provide positive benefits, subject to the funding condition regarding development of and NRDP approval of a plan tied to goals and objectives of the project (see criterion #1). Since this specific plan has not been developed, costs for this task are difficult to judge. The monitoring budget of $50,155 appears high, relative to other monitoring costs of similar stream restoration projects,6 though some parameters vary with each specific project. The NRDP believes $5,000 of the monitoring budget could be set aside and used for maintenance. There will be no overall budget increase or decrease with this modification of the monitoring and maintenance budget. The

[5] While the schedule in the application indicated public tours would be in Years 3, 4, and 5, the budget for the tour(s) is only in Year 5. On the 6/28/06 site tour, the applicant indicated only one tour was budgeted, but that there was flexibility to modify the budget for this task.

[6] The 2005 UCFRB Work Plan, German Gulch Project had a $6,270 per year monitoring budget without metal sampling.

modification will allow DLVCD to address problems that are identified by the monitoring program throughout the five years of the project.

The total cost of project management (task 5) as defined by the NRDP (Table 1) includes the combined cost of DLVCD administration ($18,834 and 6% of total cost), contractor project management ($50,155 and 16% of total cost). The total project management cost is $68,980 and is 22% of the total project cost of $313,743. Completing the final design and acquiring the needed permits, which is 6.6% of the total budget at $20,670, is also included in task 5 since these activities are similar to the project management activities. The proposed project also has several tasks, such as weed control, that have a substantial project management component included within that task budget.7 The applicant did not supply enough information to precisely determine what amount of project management funds are in all the of other task budgets, though some are likely present.

Judging what is reasonable for project management costs is difficult because the needed level of project management will vary depending on the nature of the tasks conducted. Some projects have some tasks that may not be very expensive to construct, but due to the level of effort to oversee them, the management cost can be high compared to how much they cost. As discussed under cost-effectiveness (criterion #3), the DLVCD has chosen less intrusive and less expensive techniques that are budgeted at the appropriate level of effort for the problems that have been documented.

Of the 50 NRDP-funded projects, only two are similar enough to the proposed project for comparison purposes.8 When similar tasks are compared, this proposal has a 2% higher project management component than the 2003 East Deer Lodge Valley Project and a 12% higher project management component than the 2005 German Gulch Project. Given that some of the proposed management costs are covered in the task-specific budgets, the NRDP considers the proposed project management costs of $68,980, or 22% of total project costs as relatively high compared to that of similar projects, although the basis of comparison is limited.

Summary

The NRDP recommends eliminating the funding for the tours ($8,799) and a portion of the weed control ($9,208) for a total of $18,007, which is a total of approximately 7% of the total Restoration fund request. Since the reduction of tasks and activities should require less project management, the NRDP also recommends a 7% proportionate decrease in the project administration and management costs of $1,318 and $3,511, respectively. The total recommended budget reduction is $22,835.

[7] The total weed control budget is $61,005, of which $25,515 is spraying labor and chemical insect releases. Weed monitoring is also a part of this budget.

[8] For the two other comparable stream restoration projects conducted by MFWP, the agency's project management costs were funded by MFWP as an in-kind match.

The stream restoration, fencing, grazing management, and monitoring activities would likely provide net benefits to natural resources and associated recreational services compared to the costs of these activities. However, due to the relatively high weed control and project management costs and the lack of explanation regarding the increase in project costs from the 2005 design document, the NRDP considers the overall project, as revised by the NRDP, as one that would derive benefits commensurate with its costs.

3. Cost-Effectiveness – Cost-Effective with NRDP modifications and conditions

The applicant has identified five separate alternatives for the implementation of the project. Each alternative assumed a reasonable level of effort needed to attain the goals of the project, except the "no action" alternative. The proposed alternatives are as follows:

1. No Action
2. Riparian Fencing
3. Channel Relocation
4. Widening of the Floodplain and Fish Habitat and Stability Enhancement
5. Channel Geometry Adjustment and Fish Habitat and Stability Enhancement

The "no action" alternative is not considered a viable alternative because it is not capable of attaining the desired project goals as indicated by the current condition of the stream. Many of the impacts to the river are a result of activities that took place many years ago. The LBR has recovered to some degree from these past impacts during the past 20 years; however, without changes in grazing practices and streambank improvements, the riparian condition and aquatic habitat will likely remain poor in the reach of the LBR addressed in this application.

Alternative 2 proposes to only fence the riparian area and exclude livestock throughout the project area. The DLVCD's May 2002 Riparian Assessment showed that up to 50 percent of the stream banks lacked woody, deep-rooted vegetation, while 30 percent of all stream banks showed excessive erosion and instability problems in the project area.9 In addition, the assessment noted a high frequency of sediment, channel widths and width-to-depth ratios were excessive, which contributed to a severe anchor ice problem in winter and a seasonal limitation to the fishery. If the alternative is implemented, in several years vegetation would naturally start to revegetate the site in the areas where the channel has reached equilibrium and is functioning correctly. Conversely, areas with steep banks and areas where the stream is over widened channel would not quickly restore themselves to natural channel geometry using only this technique. The cost for fencing and the planning for grazing management is approximately $12,165 and does not include the required grazing management implementation costs. According to the applicant, the landowner is not likely to agree to a long-term exclusion of cattle from the entire area, though grazing will be excluded from a

[9] *Little Blackfoot River Physical Features Inventory and Riparian Assessment*, prepared for Little Blackfoot Watershed Group and DLVCD, May 2002.

portion of the project area for five years after the completion of the construction.10 This alternative to only fence the area probably will not achieve the desired goals in the short term, though it might achieve the goals if the area could be excluded from grazing for a longer period of time. Since the landowner is not likely to agree long-term grazing exclusion, the NRDP does not consider this as a viable alternative.

Alternative 3 would relocate portions of the channel back to what was thought to be fairly recent natural meanders where there is dense riparian vegetation. On further examination by the applicant, the historic channels were neither recent channels nor were they as densely vegetated as first thought. After examination of historical photographs, the river channel has not shown significant channel relocation within the past 50 years. The lack of channel movement indicates that the channel is fairly laterally stable and does not need to be moved. Finally, the applicant estimated the cost of this alternative to be more than four times that of the preferred alternative, though no specific costs were supplied. The benefits to this alternative would be an increase in channel length, which would increase the amount of fish habitat. However, the investigation into historic channel location is a valuable tool and is usually a good indication of a channel's natural tendencies. Relocating a channel simply to increase fish habitat without taking into account the historic channel location would be a mistake. This alternative, though not fully developed by the applicant, does not appear to achieve the goals of the project.

Alternative 4 would increase the floodplain width as well as the proposed stabilization/habitat enhancement measures to reduce the amount of incised channels. Again, further investigation and hydraulic modeling has indicated that the floodplain width is adequate. The applicant states this alternative could involve a substantial volume of soil movement and the associated costs with no additional benefits, but they did not provide any indication of what the cost could be. In any case, observations by the NRDP indicate that there is a substantial amount of floodplain in this reach and enhancement measures would appear to be unnecessary. This alternative, though not fully developed, does not appear to achieve the goals of the project.

Alternative 5 is the Preferred Alternative and it should address the declining quality of fish habitat from upstream to downstream in this reach. The cause of this appears to be declining riparian vegetation, pool frequency, woody debris, shade and cover, and increasing in-stream sediment deposits. Water quality, stream channel, and riparian integrity also declined in a downstream direction throughout the 2.6 mile project area. Nuisance levels of filamentous green algae were periodically seen in the LBR in the project area, suggesting nutrient enrichment from livestock wastes. Noxious weeds were abundant throughout the project area, which negatively influenced the health of the riparian area. A major factor in the high prioritization of this reach was the opportunity to reverse an apparent trend of declining conditions before the problems become critical and the remedies more expensive. The NRDP agrees that the preferred alternative is a good selection because it is a less intrusive treatment than alternative 3 or 4. While the NRDP agrees with the overall approach reflected of the preferred alternative, the NRDP has recommended funding modifications and

[10] Tom Mostad of NRDP in a phone conversation with Gary Ingman of PBS&J, consultant to the applicant, May 17, 2006.

conditions to the preferred alternative to increase the project's cost-effectiveness. Those recommendations involve reduction in the weed control budget, deletion of the project tour(s), NRDP approval of the final design and goal-specific monitoring plans, and completion of an adequate grazing management plan before construction begins.

Summary

The applicant provided an adequate analysis of alternatives and justification of the preferred alternative. With the NRDP's recommended funding modifications and conditions identified under criterion #1 and #2, the project will cost-effectively achieve the goals of streambank stabilization and fish habitat.

4. Environmental Impacts – Short-Term Impacts with Mitigation

No significant long-term environmental impacts are expected to complete the project tasks. Short-term turbidity will likely occur from tasks such as adjusting channel geometry and installing fish habitat and streambank structures. Mitigation measures will be required through permits for these activities to address these short-term impacts. The long-term benefits of these restoration activities will exceed any short-term impacts caused by the construction of this project. The NRDP has recommended a funding condition to ensure the proposed fencing will not result in impacts to riparian areas outside of the fenced area.

5. Human Health and Safety Impacts – No Significant Adverse Impacts

No significant adverse human health and safety impacts are anticipated during the completion of tasks associated with the project. Tasks such as weed spraying and stream work using heavy construction equipment are expected to be safe as long as proper personal protective equipment and safe construction practices are utilized.

6. Results of Superfund Response Actions – Consistent

The restoration project will not interfere or duplicate any Superfund response actions.

7. Recovery Periods and Potential for Natural Recovery – May Reduce the Recovery Period

The LBR is a tributary of the Clark Fork River, therefore, the restoration of this reach of the tributary could, to a very limited degree, enhance water quality and trout populations in the Clark Fork River.

8. Applicable Policies, Rules and Laws – Consistent/Sufficient Information Provided

The project contractor will secure all necessary local, state and federal permits required to implement the Upper LBR Restoration Project, including: U.S. Army Corps of Engineers 404 permit, DLVCD 310 permit, Montana Department of Environmental Quality 318 permit, and US Fish and Wildlife Service Section 7 consultation.

All permits will be acquired at least 30 days prior to task implementation and will be on file at the DLVCD office. The DLVCD and the project contractor will implement the project in coordination with the NRCS, MFWP, NRDP, and the private landowners of the project reach.

9. Resources of Special Interest to the Tribes and DOI – Beneficial Impact

The project may enhance resources of special interest to the Tribes and DOI. The DOI supports the project. The NRDP has not received specific comments from the Tribes. The applicant would need to assess cultural resources prior to construction activities associated with implementation of the restoration activities. The LBR has been identified as a river that contains bull trout; bull trout are listed as threatened under the Endangered Species Act.

Stage 2 Criteria

10. Project Location – Within Basin

The project is located on the LBR, a tributary to the Clark Fork River within the Clark Fork River Basin. The reach specifically addressed by this project is located approximately 30 miles from the Clark Fork River.

11. Actual Restoration of Injured Resources – May Contribute to Restoration

This replacement project addresses natural resources within the LBR that were degraded by historic floods, roads, and landowner management activities conducted in a floodplain that have magnified the detrimental impacts from flooding. The activities associated with the project will not constitute actual restoration of injured resources addressed under Montana v. ARCO. However, since the LBR is a tributary of the Clark Fork River, it may indirectly contribute towards restoration.

12. Relationship between Service Loss and Service Restoration – Same

The implementation of restoration activities on the LBR will enhance resources and recreational services considered substantially equivalent to the injured resources and services covered under Montana v. ARCO such as fish and wildlife habitat, fishing, and wildlife viewing.

13. Public Support – Six Support Comments

NRDP received support comments from the LBR Watershed Group, RV Ranch Company, Montana Water Trust, UCFRB Steering Committee, Clark Fork Coalition, and the Tri-State Water Quality Council.

14. Matching Funds and Cost Sharing – 24% Match as proposed; 26% Match as revised

The applicant has offered $74,864 in matching funds with $64,464 in cash and $10,400 in in-kind materials contributions. Restoration funds would make up approximately 76% of the total budget. Matching funds would be provided for the stream restoration, weed control, and fencing activities (tasks 1 and 2). The sources of the matching funds are indicated in the table below. The DLVCD has not directly provided any matching funds and none of the matching funds have been secured yet. With the NRDP's recommended funding reductions, the percentage match would increase from 24% to 26%.

Matching Funds	
Source	Amount
NRCS EQIP	$43,464
MFWP Future Fisheries	$20,000
Montana Noxious Weed Trust	$1,000
Landowner (In-kind)	$10,400
Total Matching Funds	$74,864

15. Public Access – No Access Change

The applicant states that the current property landowner allows the public to access his property on a permission basis and this policy is not likely to change after completion of the project. There is some degree of uncertainty associated with public access since there is no written agreement with the landowner. There is one access point to this project area via the Montana's stream access laws at the Highway 12 Bridge located at the north end of the project reach. More certainty of public access would increase the full project's public benefits, provided restored areas are not disturbed.

16. Ecosystem Considerations –Positive

There is some concern associated with the applicant's request for funding to design restoration activities in this reach of the LBR prior to first addressing problems upstream. Most watershed restoration projects work from the headwaters downstream; this proposed project is located downstream of the headwaters of the LBR. This concern is addressed in the application and in the DLVCD's May 2002 *Little Blackfoot River Physical Features and Riparian Assessment*. This assessment report covers the entire LBR watershed, from the U.S. Forest Service boundary to the confluence with the Clark Fork River. It identifies and ranks the reaches of the river that were in need of the most work and areas that would result in the highest restoration benefit. The portion of the Little Blackfoot associated with this proposal was ranked as one of the two highest priorities for restoration and had the highest restoration feasibility score. The 1.9 mile reach directly upstream of the project reach was given the highest physical assessment score in the 2001 DLVCD assessment report, indicating that this upstream reach is stable and self-sustainable. The 2.4 mile downstream reach has mostly minor channel stability problems. Combined, restoring the 2.6 mile reach

would provide for a continuous 7.0 miles, or 20% of the LBR corridor, of good riparian habitat.

17. Coordination and Integration – Coordinates/Integrates

The restoration project will coordinate and integrate with the watershed planning effort already established for the LBR by the DLVCD, LBR Watershed Group and others. The reach of river being addressed is the reach identified as on of the two highest priorities for restoration work to be completed by DLVCD. The U.S. Forest Service is developing a watershed management plan for restoration work on the LBR upstream of the LBR 2002 Watershed Assessment area; the work by DLVCD integrates with the U.S. Forest Service work, though the Forest's work has a broader scope and includes an upland vegetation assessment.[11] The *Little Blackfoot River Physical Features and Riparian Assessment* report completed in 2002 by DLVCD was coordinated and partially funded by the Department of Environmental Quality's (DEQ) Total Maximum Daily Load Program (TMDL). The TMDL program is directed to develop a restoration plan for the LBR to address causes of impairment by 2008 or 2009. The work supports TMDL goals and addresses some of the causes of impairment to the LBR.

18. Normal Government Functions –Outside Normal Government Function

This project involves stream restoration activities on private lands for which Conservation Districts, NRCS, MFWP, conservation organizations, or the landowner might normally seek grant funding. No government entity is specifically responsible for these activities at this site, nor does it receive funding for such activities in the normal course of events.

Land Acquisition Criteria – Not Applicable

Monitoring and Research Criteria – Not Applicable

[11] Tom Mostad of NRDP phone conversation with Bo Stuart USFS Helena National Forest Hydrologist, June 1, 2006.

Anaconda-Deer Lodge County
East Third and South Birch Water Main Replacements

Project Summary

Anaconda-Deer Lodge City-County (ADLC) proposes to replace 5,670 feet of leaking, century old waterlines along East Third and South Birch Streets in the City of Anaconda. This project is a replacement project that will conserve water for the City of Anaconda by the installation of a new water main in place of a leaking water system. The total project costs are $2,028,343, with $64,080 in matching funds and $1,964,263 requested in Restoration funds.

Anaconda is located adjacent or partially within the 40 square miles of groundwater contamination associated with the Anaconda Regional Water, Waste, and Soils Operable Unit. Groundwater resources are somewhat limited because the upper portion of the alluvial groundwater aquifer east of Anaconda is contaminated with metals associated with past mining activities at levels above water quality standards. The 1995 State of Montana Anaconda Groundwater Injury Assessment Report supports this claim of groundwater contamination east of Anaconda. Also, the 1998 Anaconda Regional Water, Waste, and Soils Operable Unit Record of Decision indicate some 30 square miles of contaminated bedrock groundwater to the north and south of the City.

Currently, Anaconda's water system is losing 1.5 million gallons of water per day via leaking waterlines, which could be further reduced by 148,500 gallons per day (approximately 10%) if this project is implemented. Repairing these leaks is an alternative that will provide the city with additional water resources instead of developing a new water source.

This request is the fifth year of what ADLC has indicated will be a multi-year funding request to replace the waterline system, with $4,707,076 in Restoration funds approved for 31,874 feet of waterline replacement and 2,150 feet of new waterline installation in the past four years. With implementation of this project, 47,240 feet of waterline would remain to be addressed in future projects.[1] ADLC has identified $11.3 million of needed water system upgrades in the next six years, but has not indicated what portion of those costs would be sought in Restoration funds.

Overall Application Quality: Very good. ADLC's application is complete, accurate, well organized and had an appropriate level of detail. The application addresses all of the criteria well and has a thorough analysis of alternatives. In addition, the minor supplemental information needed to complete the evaluation was supplied quickly.

Stage 1 Criteria

1. Technical Feasibility – Reasonably Feasible

   This project involves replacement of a total of 5,670 feet of dilapidated waterline along 12 blocks of East Third Street between Main Street and Monroe Street and along 1½ blocks of

[1] The 2004 Preliminary Engineering Report (PER) for Anaconda's Municipal Water System (prepared for ADLC by HKM Engineering, August 2004) indicates 72,910 feet of waterline in need of repair. With the completion of 11,800 feet for Seventh, East Sixth, and East Eight streets approved in 2005 and 5,670 feet for this proposed project, 47,240 feet of waterline would remain to be addressed in future projects.

Birch Street south of Eight Street; installation of a booster pump station of South Birch Street in Anaconda; and monitoring of all of the NRDP-funded projects from 2002-2006. Other activities that will increase the complexity of the project is that there has been creosote-impregnated streetcar rail bed ties identified, which will likely have to be handled as hazardous waste, within the waterline removal area along Third between Main and Madison Street. In addition, there are 208 residential and commercial users along the East Third and South Birch corridors that are each served by taps on the existing mains. Service taps in some cases date as far back as the mains, and all service taps will be replaced along with eight fire hydrants. Other project tasks include producing designs and specifications, preparing and competitively releasing a construction bid package, and implementing waterline construction and oversight. ADLC has already procured an engineering firm to produce the design documents.

The current waterline is Kalimane pipe that is a century old and is the next priority as identified in the 2004 Preliminary Environmental Review (PER). ADLC proposes to manage and be responsible for the design, project bidding and contracting, construction oversight, and waterline maintenance. Restoration funds will be used for installation of the new waterline, connection to existing water service, and construction oversight.

Since assuming operations of the water system in 1992, ADLC has invested approximately $9 million in the system, including approximately 55,000 feet of waterline replacement along Commercial and Park Avenue, Main Street, Fourth Street, installed a waterline to the Warms Springs Campus, constructed a new well field and water storage tank, and contracted for engineering services for the design and planning of these projects. The same level of effort and approach is proposed by ADLC for this project.

The NRDP has a reasonable degree of confidence that the technologies proposed to complete this project can be achieved. Standard design and construction techniques that conform to the Montana Public Works Standards Specifications for Construction and the Department of Environmental Quality (DEQ) specifications will be used for this waterline replacement project. The proposed monitoring program will assess the effectiveness of this project and past replacement projects.

2. Relationship of Expected Costs to Expected Benefits – Commensurate Benefits

Total cost for the proposed project is projected to be $2,028,343, with $1,964,263 (97%) requested in Restoration funds and $64,080 (3%) to be provided by ADLC. The Restoration funds consist of $1,700,052 in construction (15% contingency added in), $255,008 in engineering, and $9,203 in monitoring.

The leaking waterlines in Anaconda proposed for replacement in this grant lose approximately 148,500 gallons of water per day.[2] This assessment was completed during winter months to eliminate uses such as yard watering that would normally not be treated at the wastewater treatment plant. The 2004 PER concluded that the best alternative to develop a water supply would be to conserve the water already being treated and piped out through the water distribution system.

[2] ADLC August 2004 Preliminary Engineering Report.

ADLC estimates a production/delivery cost of $1.07 per thousand gallons, with the estimated average water loss of 26.2 gal/day/lineal foot of old pipe. Using these estimates, the replacement of 5,670 feet of pipe would result in a water savings of 148,500 gallons/day, which would result in approximately $57,800 in annual benefits in terms of reduced treatment costs.

The annual equivalent cost of the proposed $2 million project is $82,800 per year, which is greater than the estimated annual benefits of $57,800.3 This cost comparison does not necessarily mean that the project cost exceeds the benefits. The leakage amount is calculated on a per foot basis and the corresponding benefits were estimated on a per foot basis, and neither assumption is completely accurate. Since the pipe does not leak equally from all locations, the associated benefits cannot be gained equally on a foot-by-foot basis. Other factors that are also not accounted for with this foot-by-foot comparison are the other items needed to complete this project, such as the $82,000 booster pump. The pump is required for residents of South Birch Street to realize the benefits of the water line replacement because that area is plagued by low pressure. The cost of the pump is spread out throughout the entire project, which raises the overall price per foot when the actual benefits are localized to South Birch Street. Another factor is the 208 service lines that are also being replaced in addition to the water main. New service lines ensure that the entire area beneath the newly paved area has new pipe. This activity adds cost, but also adds value to the project.

Comparably, using this analysis, last year's project had a favorable benefit:cost ratio compared to this year's project.4 Thus, the benefits of this year's project are reduced from last year's project.

Conservation of the leaking water derived from this project will be a direct benefit to the City of Anaconda by reducing the need to seek additional water supplies and lowering water distribution costs, since water pumped from the wells will not be lost through leaking pipes.

In addition, other benefits include:

- Increased water pressure for fire protection and users;
- Cost savings associated with reduction in repairs;
- Reduction in potential for property damage and reduction in associated insurance claims for leaky pipes; and

[3] ADLC calculated this annual cost based on a total project cost of $2 million, a 100-year project life span and an interest rate of 4.0%.

[4] The annual equivalent cost analysis is useful to compare previous ALDC Waterline projects to this year's project. In 2005 the project cost was nearly the same ($1.99 million) but the benefits were estimated to be greater since they proposed to replace 11,800 feet of water line. The 2005 ADLC proposal had benefits that exceeded the cost, since the annual equivalent cost was approximately $81,000 and the annual benefit:cost was estimated to be $138,000. The annual equivalent cost analysis was revised from the $23,400 reported in the *2005 UCFRB Restoration Work Plan*.

- Opportunity to conserve more water during drought conditions as a result of reduced leakage.

Restoration funds are needed to help defer costs of replacing waterlines and to conserve water. The project offers substantial benefits to the Anaconda public. Thus, NRDP believes the benefits gained from this replacement proposal are commensurate with its costs. Had the project had more substantial matching funds, the NRDP would have considered the project as one of net benefit.

3. Cost-Effectiveness – Cost Effective

The project involves replacing 5,670 feet of waterline for $2,028,342 and a pump station. Costs were estimated using bids from the 2003 and 2004 waterline projects, preliminary draft design plans for this proposed project, and ADLC's consulting engineer's knowledge and experience. ADLC's engineer made some necessary adjustments to account for individual bid item pricing. The NRDP believes the use of this approach to estimate costs is appropriate and has been accurate in the past. Following the priorities established in the 2004 PER, the East Third and South Birch Street upgrade proposes using new eight- and six-inch ductile iron pipe, plus a booster pump station on South Birch to address low pressure and loss of service problems. ADLC will probably use ductile steel pipe for the larger 12-inch waterline and PVC pipe for the smaller diameter lines.

The application uses the alternative analyses from the 2004 PER to compare seven methods for enhancing water supply. Rehabilitation of the existing distribution system scored the highest, compared to installing meters, adding additional water wells or developing the Hearst Lake/Fifer Gulch Surface Water Source. In addition, the application compares two other construction methods that could be used to complete this project compared to conventional water main replacement. ADLC evaluated using trenchless technology and installing a new waterline in a different corridor. As presented in the application, neither of the alternative methods of installation was as cost effective as standard waterline installation within the existing waterline corridor.

ADLC has water development limitations because of the groundwater contamination associated with the Anaconda Water, Waste, and Soils Operable Unit and the restrictions on installation of new well fields in some areas inside and outside the contamination. The groundwater contamination east of Anaconda in the upper portion of the aquifer has limited, to some degree, the number of sources for Anaconda's additional water resources. Conservation of the existing water supply is an efficient and effective alternative to increase the supply of water to the current and future users. Development of additional water resources and reserves would utilize the existing water distribution system, resulting in continued losses of treated water. ADLC does hold the water rights to Hearst Lake/Fifer Gulch (7.63 cubic feet per second), although ADLC indicates a new pipeline and treatment system would be required to integrate this water into the current system at a cost of approximately $1.7 million. Additional wells at the current well field may not be possible due to an agreement between ADLC and the West Valley Water Users. This agreement was negotiated to protect the water rights of the West Valley Water Users.

Metering water use is another mechanism to conserve water. ADLC has recently contracted with an engineering firm to assess their water system. The 2004 PER concludes that along with waterline replacement, water metering is the best way to reduce water loss from the current water system. The report indicates that 7% of the connections within Anaconda are metered. A new ordinance passed in February 2004 requires metering for all new connections and ADLC proposes to install system-wide water metering by 2009 at an estimated cost of $2.1 million.5 The 2003 loss of water through leaks appears greater than the estimated possible water savings from installation of meters.6 While proceeding with more intensive efforts to increase use of water meters, replacing waterlines is likely a more cost-effective method to conserve water in the short-term.

In conclusion, the alternative of replacing the leaking East Third and South Birch Streets waterline is a cost effective alternative compared to other water development alternatives and waterline replacement methods, and the estimated costs are reasonable since actual contractor bids were used to estimate the potential costs for this project. Also, the materials proposed should provide the City of Anaconda with a quality waterline system serving users for many years.

4. Environmental Impacts – No Significant Adverse Impacts

This project presents no significant adverse impacts to the environment. It will have potentially adverse impacts to aesthetics from the short-term excavation during the installation of the new waterline. ADLC will use erosion control to protect stormwater runoff and indicates that, if required, the contractors will obtain a construction site stormwater management permit from DEQ. The project will potentially benefit water conservation by reducing leaks.

5. Human Health and Safety Impacts – No Significant Adverse Impacts

Potentially adverse impacts to the human environment during construction activities include dust, noise, temporary loss of water service, restricted access to commercial facilities, worker safety, and disruption of traffic flow. The ADLC has proposed mitigation measures to alleviate these adverse impacts to the greatest extent possible. Temporary waterlines and construction site safety measures are proposed. Bringing clean water to residences and businesses by replacement of water mains will also benefit the community by reducing impacts on human health and safety due to enhanced reliability of the water service and distribution, and by increasing availability of water otherwise lost to leakage. In addition to bringing clean water to the City of Anaconda, the services will also improve fire protection pressure and flows. ADLC indicates that standard OSHA and Montana Public Work Standards for work place safety practices will be followed during the completion of this project to insure worker and public health and safety.

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[5] The 2006 application updated the system-wide meter installation that was to occur over a two-year period beginning in 2007, but it has been rescheduled to a single-year implementation in 2009.

[6] In a letter dated May 18, 2003, Dave Shultz, of B-SB, indicated that metering is estimated to save 1/3 of the difference between winter base usage and summer peak usage; this reduction is also generally applicable to metering in Anaconda. This difference may not equal the current loss of 1.5 million gallons per day from the ADLC waterlines.

6. Results of Superfund Response Actions – Consistent

This project is consistent with remedy in that contaminated groundwater is not being accessed for use. The project will not conflict or coordinate with any known EPA Superfund actions.

7. Recovery Period and Potential for Natural Recovery – No Effect on the Recovery Period

This replacement project will not affect the groundwater recovery period, which will not occur for thousands to tens of thousands of years.

8. Applicable Policies, Rules and Laws – Consistent/Sufficient Information Provided

The ADLC has provided sufficient information on the applicable requirements needed to complete these projects. The following standard procedures will be implemented:

- ADLC will submit all design drawings for water main replacement to DEQ for review and approval prior to performing the work.
- ADLC will coordinate with DEQ to ensure that contamination from other potential sources will be investigated prior to construction.
- ADLC will follow Montana Public Works Specifications in the implementation of the projects, including those for ditch width, pipe burial depths, safety measures, and related specifications.

9. Resources of Special Interest to the Tribes and DOI – No Impact

It is not anticipated this project will have any impacts on resources related to the Tribes or DOI. The DOI does not object to funding this proposal. While the Tribes have not commented on this year's request, they commented on the potential for encountering buried cultural features and/or artifacts during excavation of last year's project.

Stage 2 Criteria

10. Project Location – Within Basin and Proximate

This project is located within the City of Anaconda, within the UCFRB and within and adjacent to the injured groundwater resource boundary.

11. Actual Restoration of Injured Resources – No Restoration

This is a replacement project; actual restoration of the injured portion of the Anaconda Area groundwater resource is infeasible as recognized in the State's 1995 Restoration Determination Plan. The project constitutes replacement of lost services because it replaces drinking water lost in the area as a result of contamination.

12. Relationship between Service Loss and Service Restoration – Same/Similar

Remediation and restoration of the injured groundwater in the upper portion of the aquifer associated with the Anaconda Regional Water, Waste, and Soils Operable Unit is infeasible as recognized in the State's 1995 Restoration Determination Plan. Use of much of the bedrock aquifer north and south of Anaconda is also not feasible due to contamination. Thus, ADLC has lost potential sources of water for future development and needs. Optimization and conservation of existing water resources from the current leaking water supply system (approximately 148,500 gallons per day for this year's proposal area) is an effective means of enhancing its water resources. Thus, there is a direct connection between the potential services lost and the services this project will replace.

13. Public Support – 80 Support Comments

The NRDP received a total of 80 comments in support of the funding the Anaconda waterline project, including letters from: ADLC – Council of Commissioners, Anaconda Local Development Corporation's Executive Director, Anaconda Area Chamber of Commerce's Executive Director, Anaconda Superintendent of Schools, Fred Moodry Middle School's Principal, Dwyer Elementary School's Principal, Lincoln Elementary School's Principal, Anaconda High School's Vice Principal, Anaconda Public School's Business Manager/Clerk, Copper Village Museum and Art Center's Executive Director, business owners (7 letters) and Anaconda residents (63 letters). The amount of support received by NRDP is greater than any other waterline project funded by Restoration funds to date.

14. Matching Funds and Cost Sharing – 3%

Restoration Fund Request:	$1,964,263
ADLC In-kind Match:	$ 64,080
Total Project Costs:	**$2,028,343**

ADLC has proposed to provide in-kind matching funds of $64,080, or 3% for this project. This consists of $19,970 in staff services for project administration, oversight, utility repairs, and coordination, representing 941 person-hours over the 12-month project duration. ADLC has also committed $38,610 in supplies, materials, and equipment for utility repairs and construction facilitation, plus $5,500 spent in 2006 for preliminary engineering for this project.

In past years, ADLC has been able to contribute significantly higher match to Restoration funds, but is seriously cash deficient following completion of an audit in February 2006. To restore inadvertently depleted bond reserves and excess coverage on a 1992 issue, all matching cash is necessary to meet match requirements on the Seventh, East Sixth and East Eight water main project funded by NRDP in 2005. To meet those obligations, ADLC is extending construction of that project over the 2006 and 2007 construction seasons.

The 2004 PER recommended a $5.00 per month rate increase. Following public hearings in 2005, the Council of Commissioners by resolution enacted a three-year phased water rate increase beginning January 1, 2006. Effective that date, flat rates increased 12 percent (new residential flat rate of $20.80 per month). On January 1st of 2007 and 2008, additional increases of 12 percent and 11 percent, respectively, will occur. This will bring the (single

family) residential flat rate to $25.86 by 2008. Seasonal sprinkling rates are being increased by similar percentages. Based on past years' revenues, revised sprinkling charges will add the equivalent of $5.65 per month per Equivalent Dwelling Units, bringing the projected residential rate to $31.51 per month by 2008. This represents a 172 percent increase in water rates since 1992.

The application indicates that, beginning in March 2006, ADLC will use these rate increases to set aside $10,000 per month from water rate revenues to accumulate towards a cash match on future Restoration grant proposals so that ADLC could provide $120,000 annually for use as a match on future water project proposals to the NRDP, beginning in 2007. Based on a recent audit of its Water Utilities fund, however, ADLC will not be able to set aside monies according to this schedule and must increase rates further in order to provide matching funds.[7]

15. Public Access – Not Applicable

Public access is not a component of this project, nor is it relevant to the project.

16. Ecosystem Considerations – Positive Impacts

The ADLC states that the grant project will provide a net benefit to the local ecosystem by conservation of water resources and reduced power requirements for pumping and treating water. These statements are correct; however, the overall effect of the requested grant funds on water conservation is limited since the replacement of the waterlines could conserve up to 148,500 gallons of water loss per day in Anaconda. Accumulatively, however, the conservation of the total estimated leakage system-wide is considered a significant benefit to the conservation of resources.

17. Coordination and Integration – Integrates

This project integrates with ADLC's 2004 PER, which proposes replacement of waterlines on a priority basis.

18. Normal Government Function – Substantially Augments Normal Government Function

Waterline installations and repairs are part of local government responsibilities as they are the owners of the water distribution systems. The NRDP considers this project as one that substantially augments, not replaces, normal government function because communities typically rely on grant funds to assist in funding such work and also because the replacement of severely leaking waterlines is an effective way to compensate the community for extensive injuries to the Anaconda area groundwater resources that were covered under Montana v. ARCO.

ADLC proposes to provide matching funds of $64,080, or 3% for this project. In past years, ADLC has been able to contribute a significantly higher match to Restoration funds, but is seriously cash deficient following completion of an audit in February 2006. The NRDP

[7] Information provided by ADLC Chief Executive Becky Guay to Carol Fox of NRDP on 8/30/06.

lends credence to the efforts that ADLC is making towards increasing its ratepayer share of waterline improvements. (Refer to matching funds criterion.)

ADLC's project rate increases will move it closer to the Montana Department of Commerce's (MDOC) target rate. The MDOC established the target rate methodology based on input from legislators that communities should participate in the funding of any public facility project in proportion to their financial resources.[8] Communities applying for the MDOC Treasure State Endowment Program grants for water system improvements must demonstrate that the proposed user rates for their communities would be at or above the target rate to be recommended for and awarded a grant. ADLC has instituted a phased increase in its water rates that will bring the projected residential water rate in 2008 to $31.51 per month, which is above the calculated affordable target rate of $29.92 for communities that only have a water system.[9] As noted in the application, however, the combined water/sewer rate projected at $36.76 in 2008 would be still be $10.76 below the calculated target rate of $47.39 per month for combined systems, which applies to ADLC.

ADLC has provided backup information in its application documenting that, due to recent audit findings, all existing cash reserves in its Water Enterprise Fund are needed to meet match requirements for the 2005 waterline project. (Refer to matching funds criterion). Since 2004, ADLC has required metering for all new connections and ADLC proposes to install system-wide metering by 2009.

Land Acquisition Criteria – Not Applicable

Monitoring and Research Criteria – Not Applicable

[8] Montana Treasure State Endowment Program Application Guidelines, 2005, p. 55.

[9] Based on information provided on p. 16 of ADLC's application.

Montana Natural Heritage Program
Information Resources for Restoration planning: Basin-wide Wetland/Riparian Maps, Wetland/Riparian Functional Assessment, and Comprehensive Plant Community Descriptions

Project Summary

The Montana Natural Heritage Program (MTNHP) requests $394,515 to fund a three-year riparian/wetland assessment program for the entire UCFRB. The applicant proposes to: 1) use new 2005 color infrared imagery to classify and delineate wetlands and riparian areas in the UCFRB and then produce hard copy and digital maps for about $156,400; 2) perform a landscape-level evaluation of actual and potential wetland and riparian function for about $125,000 using the maps produced under task 1; and 3) develop a community field guide describing all plant communities in the Basin for about $114,000. All materials produced would be made available to the public through the Montana State Library's Natural Resource Information Service (NRIS) and the MTNHP website. Total project costs are $538,522, with $144,007 to be provided as cash and in-kind matching funds.

Overall Application Quality: Fair. The majority of the application is well written and relatively clear in its intent, except for the explanations for the functional analysis component of the project that required further clarification. The application was more general in nature and less focused on what information gathering and analysis would provide the optimal benefit for restoration planning that fits well with the *UCFRB Restoration Plan, Procedures and Criteria (RPPC)*, thus some of the criteria statements such as recovery period and cost:benefit were not adequately addressed. MTNHP provided needed supplemental information for these criteria and some additional budget information upon request from the NRDP.

Stage 1 Criteria

1. Technical Feasibility – Reasonably Feasible for mapping component; Uncertain Feasibility for functional analysis and field guide components

   This feasibility evaluation considers whether the project employs well-known and accepted technologies and whether it is likely to accomplish its goals. The goal of the project is to facilitate basin-wide planning of restoration, replacement, and acquisition of wetland and riparian resources by accomplishing the following objectives:

   1) Providing up-to-date, National Wetland Inventory-standard digital maps for the entire Basin and making them available for free public download;
   2) Characterizing actual and potential wetland/riparian function across the whole Basin and publicly distribute the results;
   3) Developing a user-friendly guide to vegetation communities within the Basin, available in hardcopy and electronic formats, and compiling a database of all existing vegetation information.

MTNHP would accomplish the above objectives via the following tasks and timeline:

- 2007: identify and secure digital data products and imagery, conduct literature and herbarium searches, secure access, identify sites for ground truthing, and collect field data for photo interpretation

- 2008: verify mapping accuracy, along with actual wetland/riparian area mapping, and complete and analyze plant field surveys

- 2008 – 2010: conduct basin-wide assessment of wetlands and riparian areas

- 2009: complete the plant community descriptions

- 2010: make digital maps and data available, create a dichotomous key, develop plant community field guide, and publish report to website

Overall, there are no significant uncertainties about the ability of the proposed project to accomplish the above tasks in the indicated timeframe and accomplish the indicated objectives. MTNHP proposes to use well-qualified wetland and vegetation ecologists and mapping experts who have experience in conducting similar landscape-level mapping efforts and are knowledgeable about the U.S. Fish and Wildlife Service's (USFWS) national standards for wetland and riparian area mapping. The proposed technical methods are well known and accepted. Regardless of these qualifications of the proposed team and proven methods to be used, the NRDP questions the extent to which some of the end products of this project would meet the indicated goal of facilitating basin-wide planning of restoration, replacement, and acquisition of wetland and riparian resources. The following describes the end products and feasibility of each of the three project components.

1) Wetland/Riparian Mapping – Reasonably Feasible

The mapping component is reasonably feasible and is being implemented in various locations in Montana, but not in the UCFRB. GIS technicians would digitize wetlands and riparian vegetation according to National Wetland Inventory (NWI) mapping standards using color infrared imagery collected in July 2005. Areas representing typical wetland/riparian types will be identified and field-checked. The product of the mapping would be a hardcopy 1:24,000 USGS topographic quad that would include wetland/riparian boundaries, the classification of the wetland/riparian area, a digital geodatabase, plus associated data sets and data summaries. The digital geodatabase would be housed at NRIS and available for viewing or download by watershed or other geographic parameters.

Data summaries for each map will include: 1) the acreage of each wetland and riparian type; 2) a description of the vegetation and ecosystem functions associated with that type; and 3) the distribution of each type across ecological units. The summaries would be the final report and would be available to the public at the MTNHP website.

2) Wetland/Riparian Function Characterization – Uncertain Feasibility

The analysis of wetland/riparian function involves the analysis of the mapped wetlands in a two-step process. For wetland, the first step is "hydromorphic wetland profiling" that would identify landscape units, such as lands with similar elevations and the wetland types that are at most risk from impacts. The second step of this analysis would use a statistical program to evaluate wetland classes that could be prioritized for restoration actions.

The NRDP does not believe this project component will facilitate restoration planning in the UCFRB because of the screening level nature of the results, due to the uncertainty in the locations and effects of environmental variables affecting wetland/riparian function. Since the analysis would not be a robust assessment of wetlands that are at risk, the utility of the analysis to restoration planning in the UCFRB is unknown. It is unclear if the information derived would actually be helpful in facilitating/prioritizing restoration in the Basin. As further described under cost-effectiveness (criteria #3), the NRDP believes a functional analysis is best performed in a comprehensive manner on a local level rather than the proposed screening level analysis performed over an extensive area.

3) Plant Community Guide – Uncertain Feasibility

The third task will create descriptions of vegetation communities within the Basin to be used to create a plant community guide. This will be done by utilizing an array of statistical analysis procedures to identify vegetation communities identified on maps. Then the plant community descriptions will be compiled into a single field guide accompanied by maps, figures, illustration, photographs, and community descriptions.

This component is of uncertainty feasibility based on input from the DOI that not enough time is budgeted for the ground-truthing needed for this project component, based on the agency's experience on the Clark Fork Riparian Assessment.[1] The NRDP did not explore this deficiency given additional doubts about the need for this project component to assist in facilitating restoration planning in the Basin, as further addressed under cost-effectiveness (criterion #3).

2. Relationship of Expected Costs to Expected Benefits – Net Costs for full project/Commensurate Benefits for NRDP's revised project

Costs for the proposal total are $538,522, with $394,515 (73%) requested in Restoration funds and $144,007 (27%) in matching funds from the Montana State Library and MTNHP. The majority of the funding request is for salaries and benefits (40% of salaries) for approximately four MTNHP employees for about 30% of their time over three years, plus indirect costs of 22% of direct costs. Year 1 through 3 project requests are for $117,300, $138,840, and $138,380, respectively.

[1] 5/22/06 comment letter from Laura Rotegard NRDP on the 2006 grant cycle projects of the USDOI to Carol Fox of NRDP.

MTNHP indicates the direct benefits of this proposal would be an inventory and functional analysis of wetland and riparian resources and vegetation field guide that could be used to facilitate effective replacement, restoration and acquisition planning for these resources. Facilitation of effective replacement, restoration, and acquisition planning would indirectly enhance aquatic and terrestrial resources, including wetland- and riparian-dependent wildlife, fish, and biota and those surface and groundwater resources dependent on wetland filtering function, and would also indirectly enhance the recreational services associated with these resources, such as bird watching, waterfowl and wildlife hunting, and nature study. MTNHP notes that such benefits cannot be quantified nor can the use of such products be predicted.

The NRDP agrees with the MTNHP about the importance of wetland and riparian resources to overall restoration work in the UCFRB. The NRDP believes, however, that the project, as proposed by the applicant for $394,515, is a costly means of providing information about wetland and riparian resources that would be of limited benefit to restoration planning in the upper basin. The major reason for this determination is that the benefits gained by producing the wetland/riparian functional characterization ($125,000) and the plant community guide ($114,000) for restoration planning purposes are of unknown value and these components of the project is not considered cost-effective. (Refer to criterion #3 for further detail.) In addition, none of the proposed project components are needed for the restoration already underway or being planned in the Program's priority riparian areas along Silver Bow Creek, the Clark Fork River between Warm Springs Ponds and Garrison, and near the confluence of the Clark Fork and Blackfoot Rivers at Milltown Dam. The project is not needed to complete the restoration planning process for the Anaconda Uplands and Butte Area One sites, nor is it needed in the possible land transfer and restoration of the Dutchman wetlands near Anaconda.

While the wetland and riparian vegetation inventory produced by the mapping effort will be the most useful deliverable resulting from the project as proposed, it is difficult to ascertain the benefits of mapping the entire UCFRB for the proposed cost of $156,400. It could be many years before restoration will occur, if any, in some sections of the Basin that are in much less of a close proximity to the injured areas covered under Montana v. ARCO. The NRDP thus recommends that the mapping component of the project be scaled-down to cover the eastern part of the Basin where the majority of restoration activities funded by the NRDP are underway or being planned, instead of the whole Basin. This alternative proposal, for $71,400 in Restoration funds, would involve mapping wetlands and riparian areas for the eastern half of the UCFRB between Butte and Drummond.

Wetland and riparian areas of Montana are important islands of biodiversity that support substantial and diverse aquatic and wildlife populations. Having the wetland and riparian area inventory in the revised project area would assist the NRDP and other entities in evaluating benefits from future restoration projects that improve aquatic and wildlife resources in this area. For example, the number of wetland acres in a future acquisition or stream restoration project could be ascertained once the MTNHP mapping effort is completed. The quantity of these wetlands could be compared to total wetlands in a specific watershed. This information could be used in evaluating the utility and benefits of a particular land acquisition or stream restoration project from a wetland/riparian standpoint.

This reduced mapping effort can also serve as a pilot to ascertain the benefits of a larger, basin-wide mapping effort, which the NRDP believes would best be considered after resolution of the remaining NRD litigation when restoration priorities have been further established. The NRDP believes the benefits of this partial mapping effort would be commensurate with its costs.

3. Cost Effectiveness – Not Cost Effective for full project/Likely Cost Effective for NRDP's revised project

The following cost-effectiveness evaluation is specific to the three project components.

1) Wetland/Riparian Mapping

The applicant considered three alternatives for the mapping effort: no-action, digitizing existing 1980's wetland maps, and using different software. A contractor could digitize the existing 1980's USFWS wetland maps for approximately $550 per USGS 7.5 minute quadrangle. The total cost for all 92 quads in the Basin would be approximately $40,950. In comparison, digitizing current 2005 imagery, as the applicant proposes, and producing the maps to NWI standards would be $1,700 per quadrangle for a total cost of $156,400. The NRDP agrees with the MTNHP that using the new 2005 imagery, which has a higher resolution and more recent data than the 1980's imagery, would result in a more accurate depiction and identification of wetland/riparian types. The use of alternative software would cost about the same, but result in a less accurate product that would not meet national standards for wetland mapping. Under the no-action alternative, color aerial photos could be used on an image-by-image basis in a specific area; however, the MTNHP indicates that to do so on a watershed scale would be time consuming and not cost effective.

The NRDP recommends a partial mapping alternative not considered by the applicant. The NRDP proposes that mapping be funded for the area in the UCFRB between Butte and Drummond. This area would cover 36 full quadrangles and 12 partial[2] quadrangles of the 92 proposed by the applicant, or about half of the 2.3 million acres in the Basin. The cost for this effort according to the applicant would be $71,400, or 18% of the total proposed project cost.

This alternative proposal is likely to be cost effective because it will accomplish the goal of mapping a more specific area of the UCFRB that would most likely be subject of near-future restoration. The Basin is divided in two by a watershed divide area.[3] This proposal will map the eastern half of the Basin. Two-thirds of the western part of the divide are lands under U.S. Forest Service (USFS) ownership that are not likely to be a future focus of Restoration fund expenditures. The lower elevation private lands are the areas that have the majority of

[2] NRDP is recommending that the partial 12 quadrangles along the eastern and southern edges of the east half of the Basin, as depicted in the application on page 38, be mapped at half the price, or $850 per quadrangle, in order to save costs and so NRD funds are not used to map areas outside of the basin.

[3] The Basin is divided into the Upper Clark Fork USGS Hydrologic Unit Code (HUC #17010201) and the Flint-Rock Creek (HUC #17010202).

wetland and riparian areas that might be subject of future restoration, replacement, or acquisition requests to the NRDP. The area from Butte to Drummond covers where the majority of restoration work funded under the NRDP or restoration planning by the NRDP is underway. The needed wetland and riparian inventories for the Milltown and Clark Fork River sites will be separately accomplished through the integrated remediation and restoration actions that are planned for those sites.

The choice of mapping lands that drain into Silver Bow Creek and the Clark Fork River above Drummond also matches the preferences set forth in the *RPPC* for restoration actions at or near the site of injury. It covers the same areas for which wildlife populations and habitat have been mapped with Restoration funds.[4] It also covers a headwaters area that was the focus of a pilot restoration planning effort.[5]

The alternative proposal can serve as a pilot to ascertain the utility of the maps for restoration planning in other Basin areas that may be subject of restoration in later years. The NRDP believes a larger-scale effort would best be considered after resolution of the remaining NRD litigation when restoration priorities have been further established. This is consistent the NRDP's position to wait for comprehensive basin-wide planning efforts until completion of the litigation.

2) Wetland and Riparian Function Characterization

The only alternative offered by the applicant for this component is to carry out the analysis on a smaller watershed scale at a cost of $184,000 vs. $125,000 on a basin-wide basis. Regardless of whether it is done at a smaller scale, it is unclear if the product would be utilized much for planning restoration efforts in the Basin. Numerous factors could lead to a wetland or riparian area receiving an at risk classification simply due to its proximity to a human disturbance. There are too many unknown factors to reliably predict whether the risks are significant via the proposed screening level analysis. The NRDP agrees with input from its consultant that the functional analysis is best performed at a comprehensive local level rather than a basin-wide screening level.[6] It is simpler and more appropriate to assess the condition of wetlands and riparian areas in a specific drainage in response to a single environmental variable that is obviously causing a problem than the proposed approach of basin-wide assessment and multiple environmental variables. Also, determining what are the best opportunities for Restoration fund expenditures on acquisition or restoration work will depend on many other factors beyond the riparian/wetland function of an area. This project component is thus not considered cost effective and not recommended for funding.

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[4]UCFRB Wildlife Data – GIS, prepared by Dan Hook of Blue-Eyed Nellie Consulting, Inc. Final Report dated February 2004.

[5] *Final Silver Bow Creek Watershed Restoration Plan*, prepared by the NRDP, Confluence Consulting and DTM Consulting, dated December 2005.

[6] Consultant review provided by Dave Marshall of DTM consulting dated April 26, 2006.

3) Community Plant Guide

The only alternative offered for this project component was the no-action alternative. The NRDP believes that the field guide, estimated to cost $114,000, is not cost-effective because its use for restoration in the Basin is not clear. The NRDP agrees with the DOI that production of a vegetation guide/habitat typing is not necessary at this time.[7] The NRDP has not found the need for such a guide for the extensive revegetation efforts now occurring along Silver Bow Creek and for the restoration revegetation planning efforts now underway for the Clark Fork River and Milltown sites. Successful revegetation has also been conducted or is being planned on replacement stream restoration projects funded by the NRDP such as the Lost Creek, Upper Willow Creek, and German Gulch projects. These projects all employ revegetation specialists that do not need such a field guide to accomplish successful restoration adapted to site-specific conditions.

In sum, the NRDP proposes a more cost-effective alternative for the mapping component of this project. The other two project components are not considered cost-effective.

4. Environmental Impacts – No Adverse Impacts

This project does not present any adverse impacts on the environment. Potential secondary beneficial impacts to surface water, groundwater, aquatic, terrestrial, and vegetation resources could result from the increased knowledge and understanding of the distribution and composition of wetlands and riparian areas obtained from the mapping effort.

5. Human Health and Safety Impacts – No Adverse Impacts

This project does not present any adverse impacts to the human environment.

6. Results of Superfund Response Actions – Consistent

While this project will not interfere or duplicate with results of completed Superfund response actions, a potential exists for duplication with planned remedial action work in the Clark Fork River floodplain area between Warm Springs Ponds and Deer Lodge based on input from EPA and DEQ.[8] Based on follow-up discussions with these agencies,[9] this issue can be adequately addressed by a funding condition specifying that if there is a discrepancy between the remedial mapping data and the MTNHP mapping data, the remedial mapping data would be of primary reliance. The basis for this condition is that the remedial mapping data should be of better quality, more detailed and based on actual field data whereas the MTNHP mapping data will be generated from 2005 aerial photographs. Also, with the NRDP's recommendation to revise the project to only include mapping efforts, the potential

[7] 5/22/06 Letter from Laura Rotegard of the USDOI to Carol Fox of the NRDP.

[8] 4/21/06 e-mail from Sandi Olsen of DEQ to Carol Fox of NRDP and 5/18/06 e-mail from John Wardell of EPA to Carol Fox.

[9] 7/24/06 meeting between representatives of NRDP, DEQ, EPA, and USFWS.

for interference/duplication of effort for the Anaconda Uplands and Butte Area One sites identified in the NRDP's 04/07/06 minimum qualification determination is no longer an issue.

7. Recovery Period and Potential for Natural Recovery – No Effect

   This project will not affect the recovery time of injured natural resources in the Basin.

8. Applicable Policies, Rules and Laws – Consistent

   No permits are required for this effort. The MTNHP will follow the applicable USFWS national standards and protocols for wetland and riparian area mapping and the applicant demonstrates adequate knowledge of these standards. The MTNHP will secure needed access for the field work associated with the proposed project.

9. Resources of Special Interest to the Tribes and DOI – No impact

   This project will not have any adverse impacts on resources related to the Department of Interior (DOI) or the Tribes. Wetlands and riparian areas provide habitat to resources of special interest to the Tribes and DOI such as migratory waterfowl and threatened and endangered species and the mapping components of this project may assist with the preservation or restoration of wetlands and riparian areas. The Tribes have not specifically commented on this proposal. The DOI supports partial funding of the project.[10] Specifically, the DOI recommends that USFS properties should not be considered at this time because restoration activities are not likely to occur on those lands. The DOI further states that a vegetation guide/habitat typing is not necessary and the amount of time committed to ground truthing for this guide is unrealistic based on USFWS experience on the Clark Fork River Riparian Assessment.

   The NRDP does agree with the DOI that significant future restoration funded by the NRDP on USFS lands is unlikely. This was part of the rationale provided for not recommending funding for mapping of the western part of the Basin, two-thirds of which is USFS lands. The NRDP does believe, however, that some future restoration funded by the NRDP may occur on or be directly linked to riparian or wetland resources on USFS lands. It is therefore necessary to keep USFS lands in the proposed alternative in order to carry out the project from a watershed approach. A third of the eastern part of the Basin is USFS land, but these lands are more scattered throughout the eastern part of the Basin than in the western portion.

Stage 2 Criteria

10. Project Location – Within Basin

    The project area for the proposal is the whole UCFRB. The areas for the revised project are the eastern half of the UCFRB from Butte to Drummond.

[10] 5/22/06 Letter from Laura Rotegard of the DOI to Carol Fox of the NRDP.

11. Actual Restoration of Injured Resources – No Restoration

This project is in the nature of a research and assessment project that will not directly restore injured resources.

12. Relationship Between Service Loss and Service Restoration – Same

This project will map wetland and riparian areas in the UCFRB. Wetland and riparian resources and the ecological services wetlands and riparian areas provide such as wildlife habitat were addressed as part of the State's aquatic and terrestrial injury claims in Montana v. ARCO. The mapping component of this project may provide useful information for the preservation or restoration of wetland and riparian resources and associated services substantially equivalent to those addressed under Montana v. ARCO. Since the NRDP lawsuit was based on three major injuries in the Basin [groundwater, aquatic and terrestrial (wildlife) resources], future aquatic and wildlife enhancement projects will be funded. Restoration improvement of these two resources will likely be associated with wetland and riparian areas since significant aquatic and wildlife populations live in these areas. Knowing the locations of the wetlands and riparian areas will therefore be beneficial to future restoration planning.

13. Public Support – Two support comments

The NRDP received two comments in support of the mapping proposal from the geospatial analyst for the U.S. Natural Resources Conservation Service and the Wetland Program Manager for the Montana Department of Environmental Quality.

14. Matching Funds

A. Matching funds for full project as proposed by applicant – 27% match

Restoration Fund Request:	$394,515
Montana State Library in-kind match:	$ 53,147
MTNHP in-kind match:	$ 17,612
MTNHP cash match:	$ 73,248
Total Project Costs:	**$538,522**

Of the $144,000 proposed match, $73,248 (or 51%) is a cash match and $70,759 (49%) is an in-kind match.

B. Matching funds for revised project as proposed by NRDP – 27%

Restoration Fund Request:	$71,400
Montana State Library in-kind match:	$ 9,597
MTNHP in-kind match:	$ 3,173
MTNHP cash match:	$13,291
Total Project Costs:	**$97,461**

Under the NRDP's suggested alternative, a total of $26,061 (or 27%) would be provided as match. Of this, $13,291 (51%) would be a cash match and $12,770 (49%) would be an in-kind match.

15. Public Access – Not Relevant

Public Access is not relevant to this project.

16. Ecosystem Considerations – Positive

The project is based on an ecosystem, watershed management approach and would address collecting information about multiple natural resources. MTNHP proposes to map the entire basin so that relationships between and among wetlands, riparian areas and uplands can be identified, analyzed, assessed and managed. The NRDP's revised alternative would also be consistent with a watershed approach, but on the eastern half the Basin.

Although the need for such a watershed/riparian area mapping effort was not set forth as a priority in the *Silver Bow Creek Watershed Restoration Plan*, such an effort would be consistent with the priority that this Plan gives to preserving/protecting existing quality natural resources and can produce data that can augment that Plan.

17. Coordination and Integration – Coordinates

While the project is not specifically coordinated or integrated with any ongoing or planned actions in the UCFRB, it would provide data available via the State's Natural Resource Information System (NRIS) that may be of use to entities planning restoration actions in the mapped areas. The revised mapping area is the same area covered in a mapping effort funded by the NRDP of wildlife populations and habitat.

18. Normal Government Functions – Within but Augments Normal Government Functions

The NRDP considers this as a project that augments, but does not replace normal government function. The MTNHP receives limited state funding through the Montana State Library to support the management of the current natural resource information maintained by the Program and respond to data requests from agencies and the public. MTNHP must seek grants or contracts for activities beyond the core of this State funding for activities such as the proposed wetland/riparian area mapping and assessment and vegetation field guide development. While the DEQ is funding the MTNHP to conduct similar activities in the Flathead, Gallatin, and Bitterroot watersheds with EPA grant monies, no entity is funding such work in the UCFRB. Although the USFWS previously funded statewide wetland mapping efforts in the 1980's, the agency is not currently funded to conduct the proposed work nor is the agency required to do so. A similar situation exists with USFS funding. About 44% of the entire Basin is USFS lands. Within the smaller pilot area the NRDP recommended funding as a pilot mapping effort, about 33% of the lands are USFS lands.

While the USFS is responsible for these lands, the USFS is not mandated or currently funded for such mapping efforts.

Land Acquisition Criteria – Not applicable

Monitoring and Research Criteria

21. Overall Scientific Program – Coordinates

The project will augment and not duplicate past and on-going scientific work as it focuses on existing data gaps. The MTNHP commits to coordinate and integrate with the NRIS on the distribution of any products created during this project. The MTNHP has a website that planners and managers in the State can access maps and databases. Thousands of users access the website each month to download data, according to the MTNHP.

22. Assistance with Restoration Planning – Minor Benefits

Riparian areas are home for many wildlife species in Montana; therefore, having an inventory of the locations of these areas is expected to assist with restoration planning. Having the wetland and riparian area inventory in the revised project area would assist the NRDP in evaluating benefits from future restoration projects that improve terrestrial and aquatic resources. For example, the number of wetland acres in a future acquisition project could be ascertained once the MTNHP mapping effort is completed. The quantity of these wetlands could be compared to total wetlands in a specific watershed. This information could be used in evaluating the utility and benefits of a particular land acquisition or stream restoration project from a wetland/riparian standpoint.

APPENDIX C

PROJECT CRITERIA COMPARISONS

Appendix C: Project Criteria Comparisons

This section compares the projects pursuant to each criterion, summarizing the similarities and differences between projects that were determined through a comparison of the Project Criteria Narratives contained in Appendix B. None of the five projects have land acquisition components; one of the five has a research component.

Stage 1 Criteria Required by Legal Considerations

1. Technical Feasibility

This criterion evaluates the degree to which a project employs well-known and accepted technologies and the likelihood that a project will achieve its objectives. It considers both the technology and management aspects of the project in judging whether each of the proposed project elements have a reasonable chance of successful completion in an acceptable period of time. The State will not fund projects considered technologically infeasible or insufficiently planned.

The Butte Waterline, Anaconda Waterline, and Bonner Bridge projects are all considered reasonably feasible as proposed and likely to achieve the stated objectives. Of these, the two waterline projects have the highest degree of certainty of technical and administrative feasibility, given that both counties have successfully completed waterline replacements for a number of years. The success of the Bonner Bridge project is contingent on the Missoula County coordinating with the Milltown removal timeframe. The application indicates the County has adequate knowledge and understanding of EPA's remedial schedule and needed coordination steps.

Of the five proposed tasks for the Little Blackfoot project, the public tour and project management tasks are considered reasonably feasible as proposed and the other three tasks are considered reasonably feasible with the NRDP changes/conditions. Those conditions require the applicant to go through some additional design and plan review and approval steps than what was proposed for in the application to increase the likelihood of success.

The mapping component of the MTNHP mapping project is reasonably feasible and is being implemented in various locations in Montana, but not in the UCFRB. The other project components are of uncertain feasibility because it is uncertain whether the information derived from the functional analysis and field guide would actually be helpful in meeting the intended goal of facilitating/prioritizing restoration in the Basin.

2. Relationship of Expected Costs to Benefits

This criterion evaluates the degree to which project costs are commensurate with project benefits. While it is possible to quantify most costs, quantifying benefits is more difficult. Thus, application of this criterion is not a straight cost:benefit analysis. Because this criterion involves

a weighing of all public benefits expected to be derived from a project against all costs associated with the project, it is essentially a summation of results of all other criteria.

The Bonner Bridge and Butte Waterline projects are considered ones that offer net benefits. The other three projects are considered ones that offer commensurate benefits.

The Bonner Bridge project offers substantial benefits to the public. Direct benefits of the Bonner Bridge project include restoration of aquatic and riparian resources and retention and enhancement of a pedestrian and recreational route for the public. Benefits also include improved river recreation safety and links to other recreational trail systems.

The Butte and Anaconda Waterline projects offer substantial benefits to the Butte community and water system users. The projects would improve fire protection, conserve water, and reduce treatment, repair, and property damage costs. Both projects constitute cost-effective compensatory restoration for extensive injuries to bedrock aquifer underlying Butte and the shallow and bedrock aquifers surrounding Anaconda, respectively. While the projects provide similar types of benefits to a large public, the Anaconda project has a higher relative cost compared to the Butte project due to Butte's greater matching fund contribution. The NRDP has judged the benefits gained from the Anaconda project as commensurate with its costs. Had the project had more substantial matching funds, the NRDP would have considered the project as one of net benefit.

Benefits of the Little Blackfoot project would include improved fish habitat within a 2.6 mile degraded reach of river, improved water quality, improved stream bank stability, restored riparian vegetation, reduced soil erosion, decreased sediment loading, improved aquatic habitat, improved fisheries upstream and downstream of the project and associated improvements to fishery-related recreational services. The NRDP does not recommend funding the public tours ($8,799) and a portion of the weed control ($9,208) for a total of $18,007, which is a total of approximately 7% of the total Restoration fund request. Combined with a proportionate decrease in project management costs, the total recommended budget reduction is $22,835. The stream restoration, fencing, grazing management, and monitoring activities would likely provide net benefits to natural resources and associated recreational services compared to the costs of these activities. However, due to the relatively high weed control and project management costs and the lack of explanation regarding the increase in project costs from the 2005 design document, the NRDP considers the overall project, as revised by the NRDP, as one that would derive benefits commensurate with its costs.

The MTNHP mapping project, which would cost $394,515 as proposed by the applicant, is a costly means of providing information about wetland and riparian resources. This proposal may provide some benefits to restoration planning in the upper basin, although the degree of these benefits cannot presently be ascertained. The NRDP recommends that this project be scaled down considerably, reducing its cost to $71,400 that would fund the mapping component in the eastern half of the Basin where most restoration is underway or being planned instead of the whole Basin. The NRDP believes the benefits of this alternative are commensurate to costs since wetlands and riparian areas provide important habitat for aquatic and wildlife resources and maps of these areas would be useful for assessing and comparing benefits of future aquatic and wildlife restoration projects. This reduced effort can serve as a pilot to ascertain the benefits of a

larger, basin-wide mapping effort, which the NRDP believes would best be considered after resolution of the remaining NRD litigation when restoration priorities have been further established.

3. Cost-Effectiveness

This criterion examines whether a particular project accomplishes its goals in the least costly way possible, with preference given to projects with demonstrated cost-effectiveness. Applicants are to address this criterion through the analysis of alternatives and justification of the selected alternative.

The Bonner Bridge project is considered cost-effective. Missoula County offered a thorough analysis of alternatives and adequately justified the preferred alternative of a three-span bridge as the most cost-effective, restoration oriented alternative.

The Anaconda Waterline and Butte Waterline projects are considered cost-effective, economical ways for the counties to address their future water supply needs given the significant documented leakage from their water distribution systems. ADLC provided a more detailed analysis of alternatives that better demonstrated the cost-effectiveness of its proposed approach than B-SB provided. Estimated costs for both projects are considered reasonable since they are based on recent competitive bidding for similar work. Although B-SB applied for two years of funding, the NRDP recommends that only one year be funded, since the project can be implemented on an annual basis, and given the unknowns concerning the potential cost savings and effects on funding of other projects in the 2007 grant cycle.

The Little Blackfoot project had an adequate analysis of alternatives and justification of the preferred alternative. With the NRDP's recommended funding modifications and conditions identified, the project will likely achieve the goals of streambank stabilization and fish habitat in a cost-effective way.

The mapping component of the MTNHP proposal, as revised by the NRDP to cover the eastern half of the Basin instead of the entire Basin, is considered as cost-effective because it would accomplish the goal of mapping a more specific area of the UCFRB that would most likely be subject of near-future restoration and serve as a pilot to ascertain the benefits of a larger mapping effort. The functional analysis and vegetation habitat typing guide components of the MTNHP proposal are not considered cost-effective due to their limited utility to restoration planning.

4. Environmental Impacts

This criterion evaluates whether and to what degree the proposal will have an adverse impact on environmental resources. None of the projects will cause significant adverse impacts to the environment. All of the projects will have long-term benefits to the environment.

The MTNHP mapping is a research proposal that will not have any adverse environmental impacts.

The Bonner Bridge and Little Blackfoot projects will likely enhance natural resources by removing bridge piers from the active river channel and floodplain or by enhancing the natural function of the Little Blackfoot River, respectively. There are short-term environmental impacts associated with both of these projects; however, the applicants properly plan to mitigate such impacts with implementation of best management construction practices.

The Butte Waterline, Anaconda Waterline, and the Bonner Bridge projects have potential short-term adverse impacts associated with construction that can be mitigated. The applicants have appropriately planned for necessary mitigation.

5. Human Health and Safety Impacts

This criterion evaluates whether and to what degree the proposal will have an adverse impact on human health and safety. None of the projects will have any significant adverse human health and safety impacts.

The waterline projects can have beneficial impacts to human health and safety by improving fire protection, reducing road hazards caused by leaking water and ice, and increasing the availability of water otherwise lost to leakage. The Bonner Bridge project will beneficially impact human safety by improving passage over the Blackfoot River.

The MTNHP mapping project does not present any adverse impacts to health and safety.

The Little Blackfoot, Bonner Bridge, Butte Waterline, and Anaconda Waterline projects have potential impacts associated with construction or field activities, but none are deemed significant and mitigation measures are appropriately planned. The Bonner Bridge project involves a temporary pedestrian crossing over the Blackfoot River that presents a short-term safety concern that the applicant is addressing.

6. Results of Superfund Response Actions

This criterion examines the relationship between projects and completed, planned, or anticipated Superfund response actions. The State will tend to favor projects that build on response actions rather than those that undo an effective response action.

The Bonner Bridge project involves positive coordination with remedial actions. The applicant indicates that the project's schedule will coordinate with the remedial action schedule, which requires the bridges across the Blackfoot River have mitigation measures completed prior to the Milltown Dam removal in spring 2008.

The Butte Waterline, Anaconda Waterline, and Little Blackfoot projects are considered consistent with remedial actions. They will not interfere with or duplicate the results of these actions.

The MTNHP mapping project will not interfere or duplicate with results of completed Superfund response actions. The NRDP's recommended funding condition addresses potential overlap of proposed mapping efforts with the planned remedial design efforts for the Clark Fork River.

7. Recovery Period and Potential for Natural Recovery

This criterion evaluates whether and to what degree a project affects the time frame for natural recovery of the injured resources to their baseline conditions. Reduction of the recovery period benefits a project's overall ranking. This criterion also evaluates the potential for natural recovery of injured resources. If a resource is expected to recover on its own in a short period of time, a restoration action may not be justified.

Of the five projects, the Bonner Bridge and the Little Blackfoot projects have the greatest likelihood of enhancing the recovery time of injured resources. Bonner Bridge proposed ecological enhancements will accelerate recovery of the injured aquatic and riparian resources of the Clark Fork and Blackfoot Rivers by removal of bridge piers from the active river channel and floodplain. The Little Blackfoot River may reduce the recovery period, to a very limited degree, of the aquatic resources of the Clark Fork River. The other projects are not expected to affect the time frame for recovery of injured resources.

8. Applicable Policies, Rules, and Laws

This criterion evaluates to what degree the proposal is consistent with all applicable policies of state, federal, local and tribal government and in compliance with applicable laws and rules. Consistency with applicable policies, rules, and laws benefits a project's overall ranking.

The NRDP concludes that all projects can be implemented in compliance with applicable laws and rules. All applications identified the needed permits and plans for obtaining them, except for the MTNHP mapping projects, which does not require permits.

9. Resources of Special Interest to the Tribes and Department of Interior

Pursuant to a Memorandum of Agreement (MOA), the State is to address natural resources of special interest to the Confederated Salish and Kootenai Tribes (Tribes) and the Department of Interior (DOI) in its restoration planning process. Projects that may cause potential negative impacts to resources of special interest require special consideration according to provisions of the MOA.

The NRDP considers the Bonner Bridge, MTNHP mapping project, and Little Blackfoot projects as likely to benefit any such resources of special interest. The Bonner Bridge and the Little Blackfoot projects will derive the greatest benefits to native trout. The Anaconda Waterline and Butte Waterline projects are not likely to have any impacts on these resources. The MTNHP Wetland Inventory will provide resource information.

The NRDP solicited information from both the Tribes and the DOI regarding these resources or sites that are relevant to all proposals. Appendix E contains comment letters from the DOI. In

its written comments, that agency supported the Little Blackfoot project and does not object to funding of the Bonner Bridge, Butte Waterline, and Anaconda Waterline projects. The DOI suggests revisions to the MTNHP mapping project to exclude the efforts on U.S. Forest Service Lands and to not fund the vegetation guide/habitat typing component. The Tribes have not provided specific comments on these projects prior to issuance of the *Pre-Draft Work Plan*.

Stage 2 Criteria Reflecting Montana Policies

10. Project Location

This criterion evaluates the proximity of the proposal to the injured resources it restores or replaces. The RPPC expresses a preference for restoration projects that occur at or near the site of injury.

Three of the five projects are considered within the UCFRB and proximate to injured resources. The Bonner Bridge projects is located within the Milltown Reservoir Sediment Operable Unit, the State's restoration planning project area for the Clark Fork and Blackfoot Rivers near Milltown, and the injured aquatic resources of the UCFRB. The Butte Waterline project will be conducted above the injured Butte Hill bedrock aquifer area. The Anaconda Waterline project is located within the City of Anaconda, within the UCFRB and within and adjacent to the injured groundwater resource boundary.

The two other projects are within the Basin. The Little Blackfoot project is located on the Little Blackfoot River, a tributary to the Clark Fork River within the Clark Fork River Basin. The reach specifically addressed by this project is located approximately 30 miles from the Clark Fork River. The MTNHP mapping project area for the proposal is the whole UCFRB. The areas for the revised project are the eastern half of the UCFRB from Butte to Drummond, excluding the Clark Fork River Operable Unit.

11. Actual Restoration of Injured Resources

This criterion evaluates whether and to what extent a project actually restores an injured resource. A preference exists for those projects that constitute actual restoration (i.e., they operate directly on the injured resources). For those projects that do not constitute actual restoration, a preference can be given to those that may or will indirectly contribute to restoration of injured natural resources over those that do not so contribute.

The removal of the old Bonner Bridge and the associated piers and construction of a new bridge without piers in the restored floodplain will allow the Blackfoot River and the associated riparian area to be restored to a more naturally functioning stream and will help in restoring the fishery of both rivers. Thus, the project constitutes actual restoration.

While the Little Blackfoot project does not constitute actual restoration, it may indirectly contribute towards restoration since it will improve aquatic resources in a tributary of the Clark Fork River.

The Butte and Anaconda Waterline projects are considered replacement projects and will not restore or contribute to restoration. The waterline projects replace services of injured groundwater resources that cannot be restored and constitute compensatory restoration.

The MTNHP mapping project is in the nature of a research and assessment project that will not directly restore injured resources.

12. Relationship between Service Loss and Service Restoration

This criterion examines the connection between the services that a project seeks to address and the services that were lost or impaired. Projects that focus on providing the same or similar services as those lost or impaired will be favored over projects that focus on providing dissimilar services.

All of the proposed projects have the focus of providing services that are the same or substantially similar to those services that were lost.

The Butte Waterline and Anaconda Waterline projects will provide replacement drinking water services that are closely linked to the injured groundwater resources of the Butte and Anaconda areas. They will enhance the water supply from an unaffected source.

A direct connection exists between the Bonner Bridge project and services that would be lost due to the removal of the Milltown Dam, as the current Bonner Bridge may become unstable and unsafe in a post-dam removal environment. The project will enhance access to riverside trails and fishing/river access sites, thus enhancing services such as hiking, boating, and fishing that were the subject of Montana v. ARCO.

The Little Blackfoot project will enhance resources and recreational services considered substantially equivalent to the injured resources and services covered under Montana v. ARCO, such as fish and wildlife habitat, fishing, and wildlife viewing.

The MTNHP mapping project will map wetland areas in the UCFRB. Wetland resources and the ecological services wetlands provide, such as wildlife habitat, were addressed as part of the State's aquatic and terrestrial injury claims in Montana v. ARCO.

13. Public Support

This criterion assesses the level of public support based on information provided to the State between application submittal in March 2006 and issuance of the *Pre-Draft Work Plan* in July 2006.

The Anaconda Waterline project received the highest demonstrated public support with 80 comments in support including letters from representatives of 17 entities and 63 Anaconda residents.

The Bonner Bridge project received nine support letters from representatives of six groups and two area residents and a letter signed by nine members of the Montana Legislature from western Montana.

The Little Blackfoot, Butte Waterline, and MTNHP mapping projects received support letters from six, five, and two entities, respectively.

14. Matching Funds

This criterion evaluates the extent to which a project entails cost sharing.

In terms of percentage match, the MTNHP mapping project has the highest percent of matching funds at 27% for either the full proposal or the part proposal recommended by the NRDP. For the full proposal, matching funds total $144,000, with a cash match of $73,248 and an in-kind match of $70,759. For the revised proposal, matching funds are $26,061, with a cash match of $13,291 and in-kind match of $12,770.

The Little Blackfoot project, as proposed, has 24% or $74,864 in matching funds with $64,464 in cash and $10,400 in in-kind materials contributions. With the NRDP's recommended funding reductions, the percentage match would increase from 24% to 26%.

The Butte Waterline and Bonner Bridge follow, each with a 25% match. The Bonner Bridge has matching funds totaling $325,218, all of which is a cash match. The Butte Waterline has proposed matching funds of $606,526 for Year 6 and $624,581 for Year 7 of the total project costs for this year's proposal; twenty-three percent is a cash match and two percent is an in-kind match.

The Anaconda Waterline the lowest matching fund contribution of only 3%, or $64,080, as in-kind match.

15. Public Access

This criterion evaluates whether a project will affect public access and the positive or negative aspects of any increased or decreased public access associated with the project. Public access is not required for every project, nor is it relevant to all projects.

With the Bonner Bridge project, public access will be improved. Without this project, the existing bridge may become unsafe and the only way across the Blackfoot River would be on the Highway 200 Bridge, which is unsafe for pedestrian travel. This project will also provide access to existing pedestrian and recreational corridor as well as a network of recreational trails that are proposed by the County and the Milltown Redevelopment Group.

There will be no access change with the Little Blackfoot project. The applicant states that the current property landowner allows the public to access his property on a permission basis and this policy is not likely to change after completion of the project. There is some degree of uncertainty associated with public access since there is no written agreement with the landowner.

There is one access point to this project area via Montana's stream access laws, at the Highway 12 Bridge located at the north end of the project reach.

Public access is not a component of the other three projects.

16. Ecosystem Considerations

This criterion examines the relationship between the project and the overall resource conditions of the UCFRB. The State will favor projects that fit within a broad ecosystem concept in that they improve a natural resource problem(s) when viewed on a large scale, are sequenced properly from a watershed management approach, and are likely to address multiple resource problems.

The Little Blackfoot project reach is one of the two highest priorities for restoration of this stream based on the severity of the problems, restoration feasibility and recovery potential of this reach, determined via a 2002 watershed assessment. Restoration of the 2.6 mile proposed reach will connect the good quality reach directly upstream and the good quality reach direct downstream of the project, creating a seven mile stretch of good quality stream habitat.

MTNHP proposes to map the entire basin so that relationships between and among wetlands/riparian areas can be studied from a watershed approach. NRDP's proposed alternative would be consistent with a watershed approach, but on a smaller scale.

The removal of the old Bonner Bridge and its associated piers from the river will allow for a natural channel and floodplain to be formed, thus resulting in positive ecosystem impacts.

The Butte Waterline and Anaconda Waterline projects will conserve water and reduce power requirements of pumping and treating water.

17. Coordination and Integration

This criterion examines whether, how, and to what extent a restoration project is coordinated and integrated with other on-going or planned actions in the UCFRB besides the coordination with Superfund remedial actions addressed under Criterion #6. Restoration projects that can be efficiently coordinated with other actions may achieve cost savings.

All projects will coordinate/integrate with other efforts. The Bonner Project has the greatest level of coordination/integration. The County coordinated and integrated the design and revegetation plans with the State's restoration design for the Blackfoot River. The bridge will link to approximately 16 miles of new pedestrian trails planned by the County and the Milltown Redevelopment Group for local communities.

The Little Blackfoot project will coordinate and integrate with the watershed planning effort already established for the Little Blackfoot River by the local watershed group, the local conservation district and others. The reach of river being addressed is the reach identified as one of the two highest priority for restoration work by the Deer Lodge Valley Conservation District.

It coordinates with the U.S. Forest Service's watershed management plan for upstream areas. The proposed work supports the DEQ's Total Maximum Daily Load efforts for the Little Blackfoot River.

The Anaconda Waterline project is integrated with ADLC's Preliminary Engineering Report, which proposes replacement of waterlines on a priority basis. The Butte Waterline project coordinates with other waterline projects in the Butte area. Unlike Anaconda, Butte has not completed its master plan to prioritize water improvements.

The MTNHP mapping project would provide data available via the State's Natural Resource Information System (NRIS) that may be of use to entities planning restoration actions in the mapped areas. The revised mapping area is the same area covered in a mapping effort funded by the NRDP of wildlife populations and habitat.

18. Normal Government Functions

As set forth in the *RPPC*, the State, through its restoration program, will not fund activities for which a governmental entity would normally be responsible or that would receive funding in the normal course of events. Restoration funds may be used to augment funds normally available to government agencies to perform a particular project if such cost sharing would result in implementation of a restoration project that would not otherwise occur through normal agency function.

The Little Blackfoot project involves efforts that are outside normal government function. The other four projects are all considered as ones that augment normal government function.

The Little Blackfoot project involves stream restoration activities on private lands for which local, state or federal agencies, conservation organizations, or the landowner might normally seek grant funding. No government entity is specifically responsible for these activities at this site, nor does it receive funding for such activities in the normal course of events.

The MTNHP receives limited State funding and must seek grants for activities such as the proposed that are beyond the core of State funding that is strictly for supporting the current natural resource information maintained by the Program. Neither the USFWS nor the USFS are currently mandated or funded to conduct the proposed efforts. The MTNHP has offered a 27% cost-share.

Missoula County has a statutory responsibility for certain vehicular bridges, but not generally pedestrian bridges such as the Bonner Bridge. Nor does the County have available funds for replacement of this bridge. Communities typically rely on grant funds to assist in funding such work. The County secured matching funds of $325,218, or 25% for this project.

The Butte Waterline and Anaconda Waterline projects all augment normal government function because communities typically rely on a combination of grant funds and user fees to fund such projects. Because of the extensive injuries to groundwater resources, both projects constitute replacement of lost groundwater and compensatory restoration for extensive injuries to the

bedrock aquifer underlying Butte Hill and the shallow alluvial aquifer in areas surrounding Anaconda that were covered under Montana v. ARCO. Restoration of these injured groundwater resources is technically infeasible, which is one reason these communities sought to augment their existing supplies from uncontaminated sources. The Butte project ranks higher than the Anaconda project for this criterion for two reasons: 1) the Anaconda project augments government function to a greater extent than the Butte project because of its limited cost-sharing 3% compared to Butte's 25%; and 2) Anaconda seeks Restoration funds to replace a much greater proportion of its total waterline distribution system than Butte.

Stage 2 Land Acquisition Criteria – These criteria are not applicable to any of the five projects since none them involved land acquisition activities**.**

Stage 2 Monitoring and Research Criteria – These criteria apply to any research activity and to projects for which monitoring is a significant focus of the project. These criteria only apply to the MTNHP proposal.

21. Overall Scientific Program

The criterion considers the extent to which the proposed monitoring and research efforts coordinate or integrate with other scientific work in the UCFRB. Greater benefits can be achieved when monitoring and research projects can use and assist other projects.

The MTNHP mapping project will augment and not duplicate past and on-going scientific work as it focuses on existing data gaps. The MTNHP applicant commits to coordinate and integrate with NRIS on the distribution of any products created during this project.

22. Assistance with Restoration Planning

Under this criterion, the State will consider whether the knowledge that might be gained from a monitoring or research project will directly assist with future restoration efforts.

The MTNHP would provide minor benefits to the restoration planning in the UCFRB. Having the wetlands inventory in the revised project area would assist the State and others in evaluating benefits from future restoration projects that improve terrestrial and aquatic resources. For example, the number of wetland acres in a future acquisition project could be ascertained once the MTNHP mapping effort is completed. The quantity of these wetlands could be compared to total wetlands in a specific watershed. This information could be used in evaluating the utility and benefits of a particular land acquisition or stream restoration project from a wetland/riparian standpoint.

APPENDIX D

PROJECT BUDGET SUMMARY TABLES

Bonner Pedestrian Bridge Replacement

Funding Source		Amount in ($) Dollars					Matching Fund Percentage (Funding Source Total/Project Total)
		Commited Funds			Uncommitted Funds	Total	
		Grants	Non-Grant Funds				
			Cash	In-kind			
A.	UCFRB Restoration Fund	$ 975,652.00				$ 975,652.00	75.00%
B.							
C.	EPA	$ 250,000.00				$ 250,000.00	19.22%
D.	Fed Transportation bill	$ 75,218.00				$ 75,218.00	5.78%
E.							
F.							
G.							
H.							
I.							
Non-NRDP Totals		$ 1,300,870.00				$ 325,218.00	**25.00%**

8. Estimated Total Project Cost $1,300,870.00

(Automatically Calculated from spreadsheet above)

Chart A: Project Budget Summary
NATURAL RESOURCE DAMAGE PROGRAM -- 2006 APPLICATION
Butte-Silver Bow - Drinking Water Infrastructure Replacement Project -- Year 6

DESCRIPTION	Annual Hours	Y2006 Total	NRDP Share (75%)	BSB Share	15-year Total***
1. SALARIES AND WAGES					
DPW Director	82	$2,932		2,932	$43,985
Water Division General Manager	252	$7,440	0	7,440	$111,606
DPW Engineer	404	$8,352	0	8,352	$125,279
Other Professional Staff	572	9,724	0	9,724	$145,860
				0	$0
Sub-Total Salaries		28,449	0	28,449	$426,730
				0	
2. BENEFITS @ 34% of Wages		9,673	0	9,673	145,088
Total Wages and Benefits:		38,121	0	38,121	571,818
3. CONTRACTED SERVICES:					
Engineering Consultation*		310,482	237,337	73,145	4,657,232
Construction Contractor**		2,069,881	1,582,245	487,636	31,048,213
(includes supplies and materials					
to replace pipes and re-pave roads)					
4. SUPPLIES AND MATERIALS		0	0	0	0
5. COMMUNICATIONS		0	0	0	0
6. TRAVEL		0	0	0	0
7. RENT AND UTILITIES		0	0	0	0
8. EQUIPMENT		0	0	0	0
9. MISCELLANEOUS					
Indirect Costs		7,624	0	7,624	114,364
@ 20% of salaries and benefits					
TOTAL PROJECT COSTS:		$ 2,426,108	$ 1,819,581	$ 606,527	$ 36,391,627

NOTES:

Engineering design, inspection and grant administration @ 15% of construction costs

** Construction contractor based on actual material cost + 10% contingency for proposed SOW (~17,000 feet per year)

Chart A: Project Budget Summary
NATURAL RESOURCE DAMAGE PROGRAM -- 2006 APPLICATION
Butte-Silver Bow - Drinking Water Infrastructure Replacement Project -- Year 7

DESCRIPTION	Annual Hours	Y2007 Total	NRDP Share (75%)	BSB Share	15-year Total***
1. SALARIES AND WAGES					
DPW Director	82	$2,411	0	2,411	$36,169
Water Division General Manager	252	$7,664	0	7,664	$114,955
DPW Engineer	404	$8,858	0	8,858	$132,863
Other Professional Staff	572	10,016	0	10,016	$150,236
				0	$0
Sub-Total Salaries		28,948	0	28,948	$434,222
				0	
2. BENEFITS @ 34% of Wages		9,842	0	9,842	147,636
Total Wages and Benefits:		38,791	0	38,791	581,858
3. CONTRACTED SERVICES:					
Engineering Consultation		319,797	244,401	75,395	4,796,949
Construction Contractor**		2,131,977	1,629,341	502,637	31,979,659
(includes supplies and materials					
to replace pipes and re-pave roads)					
4. SUPPLIES AND MATERIALS		0	0	0	0
5. COMMUNICATIONS		0	0	0	0
6. TRAVEL		0	0	0	0
7. RENT AND UTILITIES		0	0	0	0
8. EQUIPMENT		0	0	0	0
9. MISCELLANEOUS					
Indirect Costs		7,758	0	7,758	116,372
@ 20% of salaries and benefits					
TOTAL PROJECT COSTS:		$ 2,498,323	$ 1,873,742	$ 624,581	$ 37,474,838
				578,032	

NOTES:

Engineering design, inspection and grant administration @ 15% of construction costs
** Construction contractor based on year 6 + 3% inflation

Upper Little Blackfoot Restoration

PROJECT BUDGET SUMMARY FORM (All Years)										
EXPENSE CATEGORY			UCFRB RESTORATION FUND	APPLICANT CONTRIBUTION			OUTSIDE SOURCES			TOTAL
				Cash	In-Kind	Subtotal	Cash	In-Kind	Subtotal	
1	YEAR 1	SALARIES AND WAGES (1)	$3,764.92			$0.00			$0.00	$3,764.92
	YEAR 2	SALARIES AND WAGES (1)	$3,764.92			$0.00			$0.00	$3,764.92
	YEAR 3	SALARIES AND WAGES (1)	$3,764.92			$0.00			$0.00	$3,764.92
	YEAR 4	SALARIES AND WAGES (1)	$3,764.92			$0.00			$0.00	$3,764.92
	YEAR 5	SALARIES AND WAGES (1)	$3,764.92			$0.00			$0.00	$3,764.92
SALARIES AND WAGES SUBTOTAL			$18,824.60							$18,824.60
2	YEAR 1	FRINGE BENEFITS								
	YEAR 2	FRINGE BENEFITS								
	YEAR 3	FRINGE BENEFITS								
	YEAR 4	FRINGE BENEFITS								
	YEAR 5	FRINGE BENEFITS								
FRINGE BENEFITS SUBTOTAL										
3	YEAR 1	CONTRACTED SERVICES	$51,854.33				$13,248.33		$13,248.33	$65,102.66
	YEAR 2	CONTRACTED SERVICES	$69,929.57				$46,210.09	$10,400.00	$56,610.09	$126,539.66
	YEAR 3	CONTRACTED SERVICES	$30,841.83				$5,005.83	$0.00	$5,005.83	$35,847.66
	YEAR 4	CONTRACTED SERVICES	$26,565.00			$0.00	$0.00		$0.00	$26,565.00
	YEAR 5	CONTRACTED SERVICES	$40,863.50	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$40,863.50
CONTRACTED SERVICES SUBTOTAL			$220,054.23				$64,464.25	$10,400.00	$74,864.25	$294,918.48
4	YEAR 1	SUPPLIES AND MATERIALS								
	YEAR 2	SUPPLIES AND MATERIALS								
	YEAR 3	SUPPLIES AND MATERIALS								
	YEAR 4	SUPPLIES AND MATERIALS								
	YEAR 5	SUPPLIES AND MATERIALS								
SUPPLIES AND MATERIALS SUBTOTAL										
5	YEAR 1	COMMUNICATIONS								
	YEAR 2	COMMUNICATIONS								
	YEAR 3	COMMUNICATIONS								
	YEAR 4	COMMUNICATIONS								
	YEAR 5	COMMUNICATIONS								
COMMUNICATIONS SUBTOTAL										
6	YEAR 1	TRAVEL	$0.00							$0.00
	YEAR 2	TRAVEL								
	YEAR 3	TRAVEL								
	YEAR 4	TRAVEL								
	YEAR 5	TRAVEL								
TRAVEL SUBTOTAL										
7	YEAR 1	RENT AND UTILITIES								
	YEAR 2	RENT AND UTILITIES								
	YEAR 3	RENT AND UTILITIES								
	YEAR 4	RENT AND UTILITIES								
	YEAR 5	RENT AND UTILITIES								
RENT AND UTILITIES SUBTOTAL										
8	YEAR 1	EQUIPMENT								
	YEAR 2	EQUIPMENT								
	YEAR 3	EQUIPMENT								
	YEAR 4	EQUIPMENT								
	YEAR 5	EQUIPMENT								
EQUIPMENT SUBTOTAL										
9	YEAR 1	MISCELLANEOUS								
	YEAR 2	MISCELLANEOUS								
	YEAR 3	MISCELLANEOUS								
	YEAR 4	MISCELLANEOUS								
	YEAR 5	MISCELLANEOUS								
MISCELLANEOUS SUBTOTAL										
YEAR 1 TOTAL			$55,619.25				$13,248.33		$13,248.33	$68,867.58
YEAR 2 TOTAL			$73,694.49				$46,210.09	$10,400.00	$56,610.09	$130,304.58
YEAR 3 TOTAL			$34,606.75				$5,005.83		$5,005.83	$39,612.58
YEAR 4 TOTAL			$30,329.92							$30,329.92
YEAR 5 TOTAL			$44,628.42							$44,628.42
ALL YEAR TOTAL			$238,878.83				$64,464.25	$10,400.00	$74,864.25	$313,743.08

(1) Salaries and Wages cover the 6% Administrative Fees for the Deer Lodge Valley Conservation District to administer the contract.

Anaconda Waterline Project

PROJECT BUDGET SUMMARY FORM									
	EXPENSE CATEGORY	UCFRB RESTORATION FUND	APPLICANT CONTRIBUTION			OUTSIDE SOURCES			TOTAL
			Cash	In-Kind	Subtotal	Cash	In-Kind	Subtotal	
1	SALARIES AND WAGES			$15,601.63	$15,601.63				$15,601.63
2	FRINGE BENEFITS			$4,368.46	$4,368.46				$4,368.46
3	CONTRACTED SERVICES	$1,964,262.65		$5,500.00	$5,500.00				$1,969,762.65
4	SUPPLIES AND MATERIALS			$15,542.84	$15,542.84		$19,566.66	$19,566.66	$35,109.50
5	COMMUNICATIONS								
6	TRAVEL								
7	RENT AND UTILITIES								
8	EQUIPMENT			$3,500.00	$3,500.00				$3,500.00
9	MISCELLANEOUS								
	TOTAL	$1,964,262.65		$44,512.93	$44,512.93		$19,566.66	$19,566.66	$2,028,342.24

In electronic form this spreadsheet will automatically calculate the expense totals from the following Budget Detail Form.

Basin-Wide Wetland/Riparian Mapping

PROJECT BUDGET SUMMARY FORM (All Years)										
EXPENSE CATEGORY			UCFRB RESTORATION FUND	APPLICANT CONTRIBUTION			OUTSIDE SOURCES			TOTAL
				Cash	In-Kind	Subtotal	Cash	In-Kind	Subtotal	
1	YEAR 1	SALARIES AND WAGES	$55,568.00	$13,680.00		$13,680.00				$69,248.00
	YEAR 2	SALARIES AND WAGES	$67,918.72	$18,960.00		$18,960.00				$86,878.72
	YEAR 3	SALARIES AND WAGES	$71,178.00	$19,680.00		$19,680.00				$90,858.00
	SALARIES AND WAGES SUBTOTAL		$194,664.72	$52,320.00		$52,320.00				$246,984.72
2	YEAR 1	FRINGE BENEFITS	$22,227.20	$5,472.00		$5,472.00				$27,699.20
	YEAR 2	FRINGE BENEFITS	$27,167.49	$7,584.00		$7,584.00				$34,751.49
	YEAR 3	FRINGE BENEFITS	$28,471.20	$7,872.00		$7,872.00				$36,343.20
	FRINGE BENEFITS SUBTOTAL		$77,865.89	$20,928.00		$20,928.00				$98,793.89
3	YEAR 1	CONTRACTED SERVICES								
	YEAR 2	CONTRACTED SERVICES								
	YEAR 3	CONTRACTED SERVICES								
	CONTRACTED SERVICES SUBTOTAL									
4	YEAR 1	SUPPLIES AND MATERIALS	$1,200.00							$1,200.00
	YEAR 2	SUPPLIES AND MATERIALS	$1,200.00							$1,200.00
	YEAR 3	SUPPLIES AND MATERIALS	$ 2,400.00							$ 2,400.00
	SUPPLIES AND MATERIALS SUBTOTAL		$4,800.00							$4,800.00
5	YEAR 1	COMMUNICATIONS	$500.00							$500.00
	YEAR 2	COMMUNICATIONS	$500.00							$500.00
	YEAR 3	COMMUNICATIONS	$900.00							$900.00
	COMMUNICATIONS SUBTOTAL		$1,900.00							$1,900.00
6	YEAR 1	TRAVEL	$5,887.50							$5,887.50
	YEAR 2	TRAVEL	$6,225.00							$6,225.00
	YEAR 3	TRAVEL	$1,312.50							$1,312.50
	TRAVEL SUBTOTAL		$13,425.00							$13,425.00
7	YEAR 1	RENT AND UTILITIES						$14,542.08	$14,542.08	$14,542.08
	YEAR 2	RENT AND UTILITIES						$18,989.70	$18,989.70	$18,989.70
	YEAR 3	RENT AND UTILITIES						$19,615.48	$19,615.48	$19,615.48
	RENT AND UTILITIES SUBTOTAL							$53,147.26	$53,147.26	$53,147.26
8	YEAR 1	EQUIPMENT			$5,520.00	$5,520.00				$5,520.00
	YEAR 2	EQUIPMENT			$6,700.00	$6,700.00				$6,700.00
	YEAR 3	EQUIPMENT			$5,392.00	$5,392.00				$5,392.00
	EQUIPMENT SUBTOTAL				$17,612.00	$17,612.00				$17,612.00
9	YEAR 1	MISCELLANEOUS	$31,912.67							$31,912.67
	YEAR 2	MISCELLANEOUS	$35,829.71							$35,829.71
	YEAR 3	MISCELLANEOUS	$35,817.31							$35,817.31
	MISCELLANEOUS SUBTOTAL		$103,559.69							$103,559.69
YEAR 1 TOTAL			$117,295.37	$19,152.00	$5,520.00	$24,672.00		$14,542.08	$14,542.08	$156,509.45
YEAR 2 TOTAL			$138,840.91	$26,544.00	$6,700.00	$33,244.00		$18,989.70	$18,989.70	$191,074.62
YEAR 3 TOTAL			$138,379.01	$27,552.00	$5,392.00	$32,944.00		$19,615.48	$19,615.48	$190,938.49
ALL YEAR TOTAL			$394,515.30	$73,248.00	$17,612.00	$90,860.00		$53,147.26	$53,147.26	$538,522.56

In electronic form this spreadsheet will automatically calculate the expense totals from the following Budget Detail Form.

APPENDIX E

INPUT FROM THE: ADVISORY COUNCIL, DEPARTMENT OF INTERIOR, AND CONFEDERATED SALISH AND KOOTENAI TRIBES

Appointed Members of the Upper Clark Fork River Basin
Remediation and Restoration Advisory Council

January 2006

Name	*Community*	*Representing*
• Larry Curran, Chair	Butte	Silver Bow County
• Paul Babb	Butte	Silver Bow County
• Linda Bouck	Anaconda	Deer Lodge County
• Dennis Daneke	Missoula	Missoula County
• Jim Dinsmore	Hall	Granite County
• Barbara Evans	Missoula	Missoula County
• Kathy Hadley	Deer Lodge	Deer Lodge County
• John Hollenback	Gold Creek	Powell County
• Sally Johnson	Missoula	Missoula County
• Milo Manning	Anaconda	Deer Lodge County
• Robbie Taylor	Butte	Silver Bow County
• James Yeoman	Anaconda	Deer Lodge County

In addition to the 12 citizen appointees, the following governmental representatives serve on the Advisory Council. (Note: the State representatives are non-voting members.)

Name	*Representing*
Mary Sexton	Montana Department of Natural Resources and Conservation (DNRC)
Jeff Hagener	Montana Department of Fish, Wildlife and Parks (MFWP
Richard Opper	Montana Department of Environmental Quality (DEQ)
James Steele, Jr.	Confederated Salish and Kootenai Tribes
Laura Rotegard	U.S. Department of Interior (DOI)

Advisory Council Mission Statement

The mission of the Advisory Council is to facilitate public dialogue, promote public understanding, and advise the Governor regarding site remediation and proposals for restoration, replacement, and/or acquisition of injured natural resources in the UCFRB.

Members of the UCFRB Trustee Restoration Council

Governor's Chief of Staff
Attorney General[1]
DEQ Director
DNRC Director
MFWP Director
Advisory Council Chairman

[1] The Attorney General is a non-voting member

Upper Clark Fork River Basin
Remediation and Restoration Advisory Council

Larry Curran, Chair
Butte

Paul Babb
Butte

Linda Bouck
Anaconda

Dennis Daneke
Missoula

Jim Dinsmore
Hall

Barbara Evans
Missoula

Kathy Hadley
Deer Lodge

John Hollenback
Gold Creek

Sally Johnson
Missoula

Milo Manning
Anaconda

Robbie Taylor
Butte

James Yeoman
Anaconda

Richard Opper, Director
Dept. of Environmental Quality

Jeff Hagener, Director
Dept. of Fish, Wildlife and Parks

Mary Sexton, Director Dept. of Natural Resources and Conservation

James Steele, Jr.
Confederated Salish & Kootenai Tribes

Laura Rotegard
U.S. Dept of Interior

TO: Trustee Restoration Council

FROM Larry Curran, Advisory Council Chairman

DATE: August 30, 2006

RE: Advisory Council Preliminary Recommendations

The Remediation and Restoration Advisory Council met on August 8, 2006 to vote on the 2006 grant applications. The Council's preliminary recommendations are as follows:

- Bonner Bridge – Recommended for full funding of $975,651
- Butte Waterline – Recommended for funding of Year 6 only for $1,819,581, with an option that allows for the waterline replacement work to be performed in-house or contracted out in the situation when the bidding process indicates the bids exceed the available funding.
- Little Blackfoot River Restoration – Recommended for partial funding of $216,044, subject to NRDP's recommended funding conditions.
- Anaconda Waterline –Recommended for full funding of $1,964,263
- UCFRB Mapping – Recommended for partial funding of $71,400, subject to NRDP's recommended funding condition.

The Advisory Council considered input on this project at their April, July and August 2006 meetings. Appendix E of the *Pre-Draft Work Plan* provides summary notes from those meetings. Attached is a summary of the action taken by the Council on each project at their August meeting.

I look forward to the discussion at our meeting on August 31, 2006.

ADVISORY COUNCIL PRELIMINARY ACTION ON 2006 GRANT PROJECTS

Summary of 8/8/06 Advisory Council Meeting[1]

1. Bonner Bridge – Motion to approve NRDP's staff recommendation for full funding passed 12-0. No discussion.

2. Butte Waterline – Motion to approve Year 6 as recommended by NRDP with an option that allows for the waterline replacement work to be performed in-house or contracted out in the situation when the bidding process indicates the bids exceed the available funding passed 12-0. Discussion focused on whether to allow this procurement option. A previous motion to recommend the project for funding as recommended by the NRDP without this option failed on a tie (6-6) vote. Members were agreeable to the option of Butte Silver doing the work, but only under limited circumstances when the competitive bidding process did not result in a bid within available funds.

3. Little Blackfoot River – Motion to approve partial funding as recommended by the NRDP passed on a 7-4 vote with one member abstaining. Concerns expressed centered on the questionable need/priority for this project based on comparisons to other streams in the Basin, including the Clark Fork River, where conditions are worse; the need to address mining-impacted sites first, and the need for greater assurance of public access. Those supporting the project noted the fishery benefits of the project and importance of healthy tributaries to a healthy Clark Fork fishery, the landowner's cooperation and willingness to allow access by permission, and the nearby public access.

4. Anaconda Waterline – Motion to approve NRDP's staff recommendation for full funding passed 12-0. No discussion.

5. MTNHP mapping project – Motion to approve NRDP's staff recommendation for partial funding passed 12-0. Discussion centered on the potential overlap between the MTNHP mapping project and the EPA remedial mapping effort in the Clark Fork River floodplain; this overlap is addressed via a funding condition.

[1] Note: This is a brief summary of the decisions made at the Advisory Council's 8/8/06 meeting. Detailed minutes of this meeting are contained in Appendix E of the *Pre-Draft Work Plan*.

Summary of April 11 2006 Meeting Advisory Council Meeting

All members present except for Barbara Evans, Sandi Olsen, Laura Rotegard and Laurence Siroky. Joel Chavez served as an alternate for Sandi and Greg Nottingham served as an alternate for Laura.

Larry Curran called the meeting to order.

Carol Fox handed out a calendar and highlighted upcoming events:
Tuesday, May 9: Regular monthly meeting in Bonner
Wednesday, May 10: Tour of Silver Bow Creek via Rarus Railway.
June 5 – 7: Billings Land Reclamation Symposium
June 8 & 9: Governor's Restoration Forum in Billings

Applicant Symposium: Carol explained the purpose and format of the Applicant Symposium. Members can request additional copies of applications by contacting Kathy Coleman. Carol will contact members regarding any desired follow-up questions of the applicants or the NRDP. The NRDP will then provide the Council with written responses before the Council's July meeting. Council members will have the opportunity to visit project sites in May and June.

Applicants for the five 2005 grant-cycle proposals for >$25,000 and applicants for two proposals of <$25,000 presented their projects to the Council. The Council will vote on the five large projects in August and on the two small projects in May. Copies of the applicant's PowerPoint presentations are available upon request from Kathy Coleman. The following is the summary of the questions and responses that followed each presentation, with responses indicated by an "R".

Basin Wide Wetland/Riparian Mapping, presented by Greg Kudray of the Montana Natural Heritage Program and Lynda Saul of DEQ.

What area will be mapped? Does it include Silver Bow Creek watershed? R: All of the Basin from Butte to Bonner. Boundaries will be established via topo maps, so some areas just outside the Basin watershed boundary would be included. It includes the Silver Bow Creek watershed.

How long will the data be useful? R: In perpetuity. It will provide a baseline reference that will be useful well into the future.

How will you accommodate all the changes that are projected to occur when the Clark Fork River cleanup and other remedial actions get underway? R: If interest exists, the data can be updated at critical junctures.

Do you ground-truth any of the data? R: Yes, we will validate a certain percentage of the sites in the field. We built in QA/QC protocols into the effort that follow USFWS guidance.

How will you use the wetland mapping efforts of local NRCS offices? R: We will look at available data such as that, but oftentimes those efforts are at a larger scale than our proposed scale.

What about access to private lands? R: The majority of the work involved is GIS-based assessment and imagery, not field work. We will get any needed access permission for any ground-truthing efforts conducted on private lands.

This effort will obtain useful information. Is there a plan to do this on a statewide basis? R: The Montana Watershed Council directed Lynda Saul, wetlands coordinator for DEQ, to start this effort, focusing first on the areas that have the greatest development occurring. Lynda obtained EPA grant funding for the Bitterroot, Flathead and Gallatin areas. The approach is being done project-by-project instead of a statewide effort since it is difficult to get funding for a larger scale effort, but a consistent, standardized method is being applied for each project.

Can the mapping effort cover water withdrawals? R: That is not a component of the current proposal, but it is something that could be added. There's flexibility to add other components as well; it is not static.

Isn't this more of a tool that could be used in watershed assessment than an actual assessment? R: Yes. It's an assessment of wetland and riparian habitat that can be a component/tool of a full watershed assessment.

The effort will cover federal lands. Have you considered federal agency partnerships/funding? R: We are open to working with federal agencies on this project but have not sought monies from them. The USFWS funded the 2005 infrared imagery.

Why didn't EPA fund this work for the Clark Fork? R: The EPA funded the 3 projects with monies from the federal Wetlands program, not Superfund program. That funding is for the areas with greatest development pressure where the no net loss of wetlands is of greatest concern. Bill Olsen of the USFWS noted that EPA did look at wetlands at the federal Superfund sites in the UCFRB on an operable unit basis because remedial actions must comply with wetland laws, so there is a wetlands assessment for the Clark Fork River. He added that the value of this effort that is covers the entire basin, including the tributaries.

<u>Butte Waterline</u>, Years 6 &7, presented by Jean Pentecost of Butte-Silver Bow

How much work has been done already? R: The NRDP has funded 5 years of work with about 17,000 feet of line replaced each year.

Why did you apply for two years? Does this provide any cost-savings? R: The cost savings is difficult to predict. It is depends greatly on the contractor bids. Bidding two years of work vs. one does save a lot in terms of transaction costs, such as the engineering work done for one bid package vs. two bid packages.

What inflation factor did you assume? 3%.

How will you select the contractor and do the contractors provide health insurance to their employees? R: We will follow the state bidding laws and regulations and select the lowest

responsive bidder. The health insurance will vary depending on what company is selected. Most of the companies hired to date have hired union employees that have insurance.

Anaconda Waterline, presented by Alden Beard of BETA, consultant for Anaconda Deer-Lodge County

Are the estimates of leakage provided for the past projects based on the same study? R: The estimates provided before 2004 were based on the 2002 study whereas the post-2004 estimates were based on the HKM study. Both studies bracketed a similar range of estimated leakage. This points to the benefits of the proposed monitoring to document actual leakage reduction.

How did the lawsuit address the Anaconda groundwater injury vs. the Butte groundwater injury? R: The State's claim for the Butte injury was higher because Butte lost use of all the area groundwater whereas Anaconda had access to groundwater west of town that was uncontaminated. The restoration damage claim for Butte involved a replacement water supply system; the restoration damage claim for Anaconda was based on natural recovery. Both groundwater injuries were also covered via the compensable damages.

Upper Little Blackfoot River Restoration Project, presented by Gary Ingman of Land and Water Consulting

How far is the project site from the confluence with the Clark Fork River and will it benefit the Clark Fork? R: It is 27 miles upstream. Benefits will mainly be the Little Blackfoot aquatic resources. It will have limited water quality benefits and has potential fishery benefits to the Clark Fork River if downstream connectivity problems are addressed.

Have you taken advantage of what can be funded through the local NRCS, such as the riparian fending and weed control work? R: We have worked with the local NRCS to cover some of the work through the EQIP program and have that as match, but that program cannot cover all of the costs, such as the instream aquatic enhancement work.

What assurance do you have of continued open public access in the future? Have you considered an easement for a fishing access site? R: The landowner has provided a letter stating that he does not intend to change his policy of allowing the public on the property by permission. That agreement would not cover future landowners. We have not approached the landowner about providing further assurance via an easement for a fishing access site. This option could be broached with the landowner.

What caused the major damage to the Little Blackfoot River? Mining? R: The railroad caused a lot of the problems with the main channel in the upper valley. There are impacts from mine activities in the upgradient headwaters on federal lands. In the lower valley, greater impacts have occurred from land management practices on agricultural lands.

The proposed work seems similar to the work done by the Blackfoot Challenge on the Big Blackfoot River. Where do they get their funding? R: Their funding sources are very diverse but I don't know the specifics.

What percentage of the Little Blackfoot River total stream length is impaired? R: There are two priority sections for restoration: a 2.7-mile reach in the lower end and the 2.6-mile subject reach in the upper end. There are about 20+ miles in need of restoration, so this reach is about 10% of the total in need of restoration. If you combine the reaches immediately upgradient and downgradient, which are in good condition, with the impaired project reach section, they cover 20% of stream reaches that run through private lands.

What about fish passage? R: Fish passage is not a limitation to fisheries in the project area. It appears anchor ice, which occurs because of the wide/shallow stream channel in this area, does impact the fishery in this area.

Is the railroad adjacent to the project reach? R: No, the project reach is upgradient of the railroad transportation corridor.

Your plan calls for exclusion of cattle for a minimum of 5 years. Will this cause grazing impacts to the other areas on the property? R: The landowner has enough pasture for the cattle to use other areas that have adequate off-stream water supplies, so this impact should not occur.

What safeguards do you have in place to address future impacts from grazing and weeds in the restored areas? R: Fencing will be used to actively manage cattle in riparian areas. We will work with the landowner to develop a grazing management plan. An integrated weed management plan for the whole property will address weed problems. John H. suggested looking at the WRC's agreements with landowners on the East Valley project that could be used for such safeguards. Landowners agree to provide certain operation and maintenance over a period of years, up to 20, in exchange for improvements made on the property. After many members expressed interest in a site tour, Carol indicated the NRDP would arrange for one sometime in June or July before Council action on this proposal.

<u>Bonner Pedestrian Bridge</u>, presented by Peter Nielsen of Missoula County

Is any of the Blackfoot River included in the approved remediation/restoration plans? R: Yes, the bridge is in the area approved for the joint remediation/restoration action. That area starts below the Stimson Dam on the Blackfoot River.

Will the remedial actions remove sediments near the bridge? R: No, the sediments in the bridge area are not part of the contaminated sediments to be removed under remedy.

Why isn't this work part of the Record of Decision/Consent Decree? R: The CD specified that this bridge was the responsibility of the County. The County was not a signatory to the CD.

If the bridge is a County responsibility, what is the County contributing? R: The County does not have money in its General Fund for the bridge work, so the County has sought grant funding. In addition to this grant request, the County applied for and received federal grant funds that are applied as matching funds to this project.

Does the Stimson Mill cause water quality problems? R: The mill has a discharge permit for their wastewater and cooling pond discharges.

What is the population of the school district? How many use the bridge? R: I don't know the exact population, but there are about 1,400 homes in the district. The bridge gets a lot of use.

What are the plans for temporary bridge during replacement activities? R: The County has been working on an alternative with the MDT that would involve placement of jersey barriers on the HWY 200 bridge to provide for a pedestrian lane and reducing the lane width for motor vehicles for the few months of construction activity.

Won't the remediation impact the bridge and if so, why was it not covered in the CD? R: The dam removal will jeopardize the stability of the bridge. The Consent Decree, including provisions for dam removal, integrates both remediation and restoration. At the time the CD was negotiated, it was expected that this bridge would be covered with $5 million in federal Transportation Bill funds. After the CD was final, it was subsequently decided the $5 million would be split between Deer Lodge and Missoula County. This is appropriate since wastes from the Milltown cleanup will go to Opportunity Ponds. So, Missoula had to seek other funding sources for some of the work they had planned to cover with the Transportation Bill funds.

Why aren't you using some of Missoula County's $2.5 million for this? R: The $2.5 million is allocated over five years. The amount available through the fall of '07 is $1.375 million. That amount would be sufficient for only the pedestrian bridge project. We also need funds to fund the neighborhood trails (shown in purple on map) to allow for safe pedestrian travel in the multiple areas that will see increased construction traffic during remedy and restoration. These trails need to be in place when remediation traffic starts in 2006-7 and so we had to seek other monies for the bridge work. Dennis D. suggested folks take the Turah exit in traveling to Bonner/Milltown to get a good perspective on the great need for such pedestrian trails.

<u>Little Blackfoot Flow PDG</u>, presented by John Ferguson and Brianna Randall of the Montana Water Trust

Will you be able to extrapolate the study results to other areas? R: The surface/groundwater interaction issues are very site-specific. The approach and results of this study can be used elsewhere in other areas where flood irrigation occurs, however.

How can you make significant monetary decisions based on one year of data? R: It's the pattern that we are looking at; the amount of water will vary a lot over time, but the patterns should remain the same.

Will water leases result from the study effort and what funding sources will you seek for those leases? R: The results may indicate that irrigation returns provide important inflow, in which case leasing may not be a solution to low flows. If leasing is found to be a solution, then they would seek to get long-term leases in place. Funding sources could include the Columbia Basin Water Transaction Program and the National Fish and Wildlife Foundation.

What do you expect a stream flow lease to cost? R: Costs are very variable, depending on the specifics of the water trade. We determine them via comparable leases or a farm costs approach. We've typically seen rates of $15-20 per acre feet of water, but again, it's a very lease-specific issue.

What about the appropriation process? What will keep the water gained through any leasing effort from being used up downstream? R: We've seen success in the Bitterroot using a water commissioner; it can be managed well.

Flint Creek Flow Monitoring, presented by Larry Dolan of DNRC

What do the costs cover? Aren't these stations supposed to be self-monitoring? R: They cover the costs of monthly visits to station to do cross sections and check on the equipment, the costs of data management and publication, and maintenance costs.

Why was funding cut? R: This station was funded by ARCO for use in determinations tied to the Clark Fork River remedy. In 2004, EPA discontinued requiring ARCO to fund this station and two others because the data was no longer needed for remedy decisions.

What about the issue of normal government function? R: This is an issue the applicant addressed in the short-form application even though they were not required to so. No government entity is responsible for or funded to conduct the flow monitoring at this station. The NRDP will address this issue further as part of its detailed criteria evaluation.

Is the Legislative funding for future years beyond the one-year requested a sure thing? R: No, it is not.

Question on all projects: How do you deal with the multi-year requests and how are they applied to the funding caps? Even though a number of projects would occur over several years, the only one that would involve an allocation from the future year funding cap is the Butte Year Waterline. If the second year of funding is approved, then the approved funded would be deducted from 2007 funding cap.

There was no public comment. Larry adjourned the meeting.

July 11, 2006 Advisory Council Meeting Notes

Attendees: All members present except for Phil Tourangeau, John Hollbenback, Linda Bouck, and Robbie Taylor.

Carol updated the Council on the TRC action taken on the five planning grants taken at their June 21, 2006 and upcoming meeting dates/agendas.

Madsen-Rock Creek PDG: Greg Tollefson from the Five Valleys Land Trust (FVLT) presented the Madsen-Rock Creek PDG. Following is a summary of the questions and responses that followed this presentation, with responses indicated by an "R".

- Is the Madsen property adjacent to the proposed subdivision at the lower end of Rock Creek? R: Yes, it is west of the proposed subdivision.

- Why did it take so long to get the easement through, if you've been working with the family since the 1980's? R: The elder Madsen did not want to make decisions about the estate that would affect future generations. His son and daughter determined they wanted this property protected, as well as to provide a nest egg for their children. Such decisions take a long time and conservation easements should not to be taken lightly.

- What are the tax advantages to the family? R: Although uncertain, it is likely to be substantial. The landowner is donating the remainder of easement beyond the value of $150,000, so the tax advantage could be around $300,000 to $500,000 over a few years.

- How is the value of the easement established? R: By a detailed appraisal conducted with and without the easement.

- Does public access affect the value of the easement? R: Yes, public access would increase the value.

- If FWP were involved, would public access be required? R: In some cases, FWP money does require access. Glenn Phillips clarified that easements funded with Habitat MT funds are required to have an access component because the funding comes from hunting license fees.

- What are the natural resources attributes of the property? It is at the gateway to Rock Creek. It has tremendous riparian values, with a floodplain area on Rock creek that interacts with Clark Fork floodplain and good riparian conditions. This intact floodplain system is important in light of adjacent development. It offers scenic values. It sets tone for the drainage and is visible from the interstate. The property provides an important wildlife travel corridor, particularly given nearby subdivision activity.

- What uses would easement preclude? R: Primarily subdivision. The property could be split into two even parcels that would still be subject to the easement. No commercial

uses would be allowed. Agricultural uses would be allowed with adequate protection for riparian corridor. Timber harvest would be allowed but not mining. The easement would allow for one additional building site.

- Where would the building site be located? R: It would be allowed on one of the two parcels.

- Is there a weed problem in lower Rock Creek? Is weed control a requirement of the easement? R: The landowner is encouraged to control weeds and has cooperated with the weed district, but weed control is not a specific requirement of the easement.

- Can you expand on the land steward enforcement? R: FVLT would be checking to see if the land is properly managed. They would establish photo points on the range that would be evaluated periodically. If the landowner plans to harvest timber, FVLT would be with him to develop a plan.

- Are there legal enforcement abilities? R: The easement and the stricter standards it requires the landowner to follow will be part of the deed. It is essentially a contract. FVLT has the ability to take legal action.

- Has the FVLT ever had trouble with people cooperating? R: Yes, we've had some problems, mainly in the early years. We've learned we need more flexibility for change built into the easements. Some things may require revisiting because the landowner cannot keep the contract. We've learned to try to build in more flexibility from the beginning.

- Are there any building setbacks? R: Yes, while the easement does not specify setbacks, due to the floodplain, any building would need to be 300-400 feet from the stream.

- Can you provide more detail about public access? R: We do not require it, unless it's required by the funding source. It is a cherished landowner prerogative and we honor that. Historically, the landowner/recreationist relationship is good. The landowner has a long history of allowing public access to the stream corridor on a permission basis.

Public Comment

Matt Clifford stated that the area has a lot of USFS and Plum Creek Timber lands that are open to public access. He knows the property and if it were developed, it would impact wildlife. By providing security and travel corridors, this easement would be a benefit to wildlife populations. People are currently allowed onto this land to hunt.

Bonner Bridge: Doug Martin presented the NRDP's funding recommendation and criteria evaluation for this project. The NRDP recommends it for full funding of $975,652. Following is a summary of the questions and responses that followed this presentation, with responses indicated by an "R".

- What is the source of EPA matching funds? R: From EPA Superfund monies acquired via a settlement with ARCO for past costs.

- The costs of $1.2 million seem to be high for a pedestrian bridge; what were the costs of the alternatives? R: The County estimated costs for several alternatives. The highest cost was $1.9 million was for a single span bridge; the lowest cost was $1.1 million for a two span bridge.

  Peter Nielsen added that although the two span bridge option was $100,000 lower than the preferred alternative, its design conflicted with the goals of restoration plan. The costs of all materials have gone up since these estimates were produced; they tried to account for that with a 20% contingency. The costs are reasonable estimate for a long bridge – it's a big river. Plus the costs are not for just a new pedestrian bridge, but also for removing the existing bridge, five piers, and for revegetation, and lighting.

- What is timeframe for construction? R (Peter Nielsen): Using EPA monies, we would put out the RFP for the design work next month. Mobilization and construction on the temporary bridge would start in spring 2007. The bridge should be completed by fall of 2007 to be completed prior to Stage 2 drawdown. While an engineering analysis was not done of the safety hazards to this bridge as a result of dam removal as was done for the interstate bridges, the pedestrian bridge is the oldest and it the most shallow piers of all of the five bridges. Which is one reason we want it out.

- Are you concerned that you might not be asking for enough money? Steel and concrete prices are going up and American steel is required. R: We received two estimates last winter, one from Roscoe Steel and one Continental and added the 20% contingency.

- Engineers at DOT have indicated costs have increased 22% from last year. R: We had to make the best call on projecting future costs since the application was due in March 2006. We will use EPA and federal highway monies for work on some pedestrian trails that need to be done this fall and winter due to the dam removal construction schedule for the rail line and truck routes.

- Is there historic sentiment for this bridge? R: There was and is still. This was a difficult decision for the Redevelopment Group because people are losing landmarks due to remediation/restoration activities and this was one more thing. We looked at alternatives and debated the issue a lot. We had to confront the conflict between restoration and the historic value of the bridge and ultimately decided that restoration goal of a free-flowing river was more important than the historic goal. The bridge will be offered to those who may adopt it and use it elsewhere.

- Could you explain the federal highway monies? R: The monies are over a five year period, with $2.5 each million for Missoula and Deer Lodge counties. There is $1.288 million available for first 2 years, which is less than what we were initially told. Thus, $644,000 is available now to Missoula County. Initially trails were budgeted at $100,000/mile; now costs may be as high as $140,000/mile. The plan is to construct 6

miles of trail between Bonner and Turah and 4 miles in the West Riverside/Pinegrove Neighborhood prior to the onset of most of the construction traffic, rail spur construction and rail traffic in these neighborhoods.

Public Comment

Judy Matson, a resident who uses the bridge, commented that the bridge is a valuable link between neighborhoods from east to west. Other options are unsafe. She can attest to what the working group discussed and debated regarding historic values. We need to honor the bridge and the river.

Sue Furey, who lives nearby and is a member of the Friends of Two Rivers and Milltown Working Group, comments in support of the project. She believes they need more walking trails and accessibility.

Butte Waterline: Tom Mostad presented the NRDP's funding recommendation and criteria evaluation for this project. The NRDP recommends it for funding of requested $1,819,581 for Year 6 only. Following is a summary of the questions and responses that followed this presentation, with responses indicated by an "R".

- Wasn't this funded for two years last year? R: No. They applied for two years last year but only one year was funded.

- What does the multi-year policy say? R: Carol reviewed the multi-year policy that is provided in the *Pre-Draft* and the reasons why the NRDP believes that only Year 6 of this project should be funded at this time.

- Wouldn't funding multiple years save B-SB money? R: The application indicated an estimated cost savings of $3,000; we didn't see this as a significant enough difference.

- With the type of materials used, could 2007 be under-budgeted? R: It is possible. Estimated costs for Year 6 are higher in this year's application than what was requested for Year 6 in last year's application. Budgets are hard to predict much in advance. The Year 5 project estimate was short.

- Are the staff's recommendations in the Work Plan? R: Yes; they are provided in Section 4.0 and summarized on the criteria summary tables in Section 3.0.

- Is this project outside the litigation area? R: Yes.

- Why does this have to be for Year 6 and Year 7? Couldn't B-SB do more waterline work at one time? R: B-SB has determined that 17,000 feet per year is an optimum amount. Jean Pentecost added that doing more replacement work would be disruptive to the community.

- What is B-SB's position about funding only Year 6? R: Jean Pentecost of B-SB indicated this is not a problem for B-SB in light of the costs issues that have come up since this application was submitted. B-SB is comfortable with the one year funding recommendation.

Public Comment

Matt Clifford of the Clark Fork Coalition stated that this is a successful program with a proven track record and a good relationship to the lawsuit. They wants to see it done the most efficient way to get it done – whether it's multi-year or annually. Either way, it has good priority.

Barbara Evans indicated agreement with Matt's comments. Whatever is the best way, let's just find a way to get it done.

Little Blackfoot River: Tom Mostad presented the NRDP's funding recommendation and criteria evaluation for this project. The NRDP recommends it for the partial funding of $216,044 of the requested $238,879, which eliminates the funding for the tours, a portion of the weed control, and a proportionate decrease in project administration and management costs for a total budget reduction of $22,835. Following is a summary of the questions and responses that followed this presentation, with responses indicated by an "R".

- What maintenance would be required? R: Maintenance is needed for the bank wraps and in-stream structures. Such maintenance can be funded within the budget for the project monitoring.

- Once you restore a river, should it be self-maintaining? R: There are always risks of impacts from runoff to restored areas in the early years after construction.

- Based on a site visit, there does not seem to be a great need for revegetation. There were lots of small willows and trees; it looked a lot healthier than the Clark Fork River. R: The banks are likely to continue to erode in certain areas without more plants established. Not all 2.6 miles of the stream banks would be revegetated. In some areas, the grazing exclusion will be adequate to spur the needed revegetation; other areas need more plantings in order to reduce erosion more quickly. Planting will be concentrated in bend areas. The extent of revegetation will be further refined at the final design phase. The Clark Fork River banks are in worse condition due to impacts from metals contamination.

- The project seems to be overbuilt. The 50 habitat structures seem like too many. R: Some of this will change based on determinations in the final design stage. We also believe the number of habitat structures can be decreased and have addressed this concern via a funding condition requiring State of the final restoration design.

- Who will do the monitoring? R: The consultant.

- What is the recourse is there if the landowner does not comply with the grazing plans? R: The NRCS would have the enforcement ability for the grazing management plan via a

contract with the landowner. They can seek reimbursement of funding if the landowner does not comply with the plan. The landowner's cooperation is vital to this and the applicant has a good relationship with the landowner.

- Overgrazing is one of the main problems at this site; would this be fixed in this plan? We are relying on the NRCS grazing management plan and guidance to the landowner. We've seen such improvements with the East Deer Lodge Valley project. Education is important. Monitoring will tell us whether it is working.

- How are the recreational services replaced without a public access commitment? The current landowner allows access by permission but this permission can often be difficult to obtain and there are no signs indicating access by permission. The ranch may change ownership and the subsequent owner may decide not to allow any access. R: It will benefit the fishery resource and can thereby improve fishing opportunities at locations where access exists. Glenn Phillips added that there is a fishing access point is near the project since it is close to the highway.

- What is the goal of this type of project? Are we just seeking improvement or there are more definitive goals? R: We are seeking the stable conditions with less channel migration, a connection of the stream to its floodplain and healthy vegetation to help reduce erosion. A picture of a degraded stream section was used to show the problems of eroding banks/inadequate vegetation.

  But how much of the eroding conditions due to natural causes vs. other causes? R: Yes, erosion is a natural occurrence, but there are different rates of erosion and it be can accelerated by other causes.

  Streams have a life of their own. Cut banks occur in the wilderness. For all such types of project, not just this one in particular, it is difficult to judge whether the benefits are worth the costs. There are other places that seem much worse. Where are we going? R: We have judged the benefits to be worth the costs.

  Isn't the goal to get the rate and frequency of channel migration back to conditions that optimize fish survival? R: Correct. The conditions of reference reaches are used to determine the desired conditions of degraded reaches. We have relied greatly on the Little Blackfoot River watershed assessment that determined this reach to be one of two highest priorities for restoration and on the applicant's analysis of alternatives as to how best reach these reference conditions.

- There are weeds everywhere. The Little Blackfoot River is not different from any other places such as the Clark Fork River. R: The watershed assessment indicated this was a priority reach for restoration in the watershed.

Public Comment

Matt Clifford of the Clark Fork Coalition indicated the Coalition's support for the project. They have an expectation that the Upper Clark Fork fishery will be restored to a healthy system by addressing problems system-wide. Major tributary restoration work is needed for a healthy system. Work on the tributaries can offer the best bang for the buck. From a personal standpoint, he fishes the Little Blackfoot it is a valued recreational fishery. Montanans do fish many places like this.

Gary Ingman, consultant for the applicant, noted that the project area is part of a 3,000 acre pasture. Fencing will be installed to control the areas and timing of livestock grazing. With regards to knowing when you've reached success, most of the project area is classified as a C stream and woody vegetation is a very important component in such streams. Vegetation provides for a narrow, deep channel. The lack of vegetation leads to shallow, wide channel conditions without any fish habitat, which occurs in the portions of the project area. Anchor ice also occurs in several reaches of the project area because of the shallow, wide channel conditions. The proposed restoration will result a more natural erosion rate. The 2001 assessment established priorities for addressing some problems before they get too severe. There are some areas are too difficult/expensive to fix. This project will address 20% of the privately-owned part of the river. It resulted from the culmination of 5 years of assessment/planning work and will set the stage to address more problems.

Doug Martin of the NRDP noted that a September conference sponsored by the U. of MT's Center for Riverine Science will focus on the issue of developing goals/performance criteria for river/stream restoration projects. This issue of performance criteria is being looked at now for the Milltown site and also looked at nationwide. (Follow-up Note from NRDP: the conference will be September 28-29 in Missoula; more details are available from the Center's website at http://www.umt.edu/rivercenter.

Glenn Phillips commented that while results of such projects vary, they have seen fish population increases result from similar restoration efforts elsewhere in Montana. Sometimes it is better off just fencing areas; other times it takes more active restoration work to improve fisheries. This issue of cost:benefit is a difficult but legitimate question to ask and evaluate of all projects.

Anaconda Waterline: Tom Mostad presented the NRDP's funding recommendation and criteria evaluation for this project. The NRDP recommends it for full funding of $1,964,263. Following is a summary of the questions and responses that followed this presentation, with responses indicated by an "R".

- Why is the Butte waterline 17,000 feet vs. 4,902 feet for the Anaconda waterline? What's the difference? R: The Butte and Anaconda are apples and oranges. Butte does not replace the service lines to property boundary whereas Anaconda does, with 208 service line replacements proposed. Butte offers a program where entities have to pay to have this work done while the county does the main lines. That alone is a big difference in cost, plus the Anaconda project involves a booster pump or well and fire hydrant work

and removal of the old streetcar line. All those costs are rolled into that cost. You can't really compare the two projects straight across, as there are so many differences.

Public Comment: None.

MTNHP Wetlands Mapping: Greg Mullen presented the NRDP's funding recommendation and criteria evaluation for this project. The NRDP recommends it for the partial funding of $71,400 of the requested $394,515 for the mapping component only in a portion of the UCFRB. Following is a summary of the questions and responses that followed this presentation, with responses indicated by an "R".

- If the project is scaled down, can they still do this project? R: Yes.

- Why does the mapping exclude the Clark Fork River? R: EPA asked us not to fund this for the area where they will be doing similar work. They don't want other agencies contacting/confusing landowners.

- If the MTNHP doesn't map that the river corridor area, it is still possible to get all the data, including river corridor data, all on one map/in one database? R: Yes, they could. Greg Kudray of the MTNHP indicated he had talked with Kris Knutson from EPA and that EPA will be doing more of an assessment, not a full scale mapping effort.

- Kathy Hadley indicated that EPA had contacted them about doing aerial photography work tied to the RIPES assessment and not a wetlands mapping effort. She does not believe there will be agency overlap. Greg Kudray indicated that the MTNHP works from aerial photographs, so he does not feel this is not an issue, either. Greg Mullen suggested the NRDP reassess this issue with EPA.

- It would be a good idea to include the river. Would there be enough money in the reduced budget? R: Yes.

- Why is EPA not here? R: Carol responded that the NRDP does consult with EPA regarding grant requests and they are informed about Advisory Council meetings but typically don't attend on a routine basis. Both EPA and DEQ requested that the Clark Fork River be excluded from this mapping effort in written comments.

- Barbara Evans requested that an EPA representative (John Wardell) be at the next meeting so the Council could hear directly from them.

- Sandi Olsen verified that DEQ agreed with EPA's position. Jim Dinsmore indicated that the NRCS agrees with EPA.

- Kathy Hadley commented that only one agency person has contacted them in three years. She suggested talking to the landowners about what they want. Greg Kudray responded that the MTNHP will not be knocking on doors. The MTNHP will not interfere with the

work being done by EPA and DEQ; it's a non-issue. There may be a misunderstanding about what they would be doing.

- Won't the remediation work be on the ground and of different protocols that the MTNHP work? R: Yes, they use different methods. The MTNHP will follow the national wetland standards and guidelines.

- Bill Olsen commented that the USFWS provides technical information to EPA about the wetlands at the UCFRB Superfund sites. They are doing this now for the Anaconda site. The same type of work would be required for Clark Fork River. It would be nice to see the entire basin, including the river, mapped using National Wetland Inventory methods.

- Greg Mullen indicated that the NRDP will iron out these issues with DEQ and EPA before the next meeting and that the area to be excluded was only about 2000 acres. He further clarified what areas would be mapped under the NRDP's recommended funding alternative.

2005 Butte Waterline Contract Amendment Request

Carol Fox of the NRDP provided background a request from Butte-Silver Bow (B-SB) to amend its NRDP restoration grant agreement for the approved 2005 Waterline Project (Year 5) in order to allow B-SB the option of performing the work in-house or contracting it out. B-SB seeks this amendment because they only received one bid for the waterline work and that bid was about one million dollars over the estimated cost of the project.

Jean Pentecost of B-SB provided additional background (see attached testimony and handout) on this issue. She indicated B-SB is willing to guarantee that 17,000' of waterline will be replaced, with B-SB accepting responsibility for any cost-overruns. They want to use this as a test case for future years. Following is a summary of the questions and responses that followed this presentation, with responses indicated by an "R".

- Will the timing work? R: Yes, it is possible; it's the best we can do.

- Who has the ability to make the decision? R: This request involves a significant change in the scope of work, so it requires input from the Advisory Council, Trustee Restoration Council, and public with a final decision by the Governor.

- Why did this happen? R: There was a 30% markup in materials reflected in the only bid received. Montana's economy is booming, particularly the construction industry.

- Have you always done your bidding in June in the past? R: Yes. This year there was not much competition. The lowest bid doesn't always guarantee the best product and best performance. Having the option of doing the work ourselves gives us a better opportunity to manage the risks. We own the system.

- What was the time gap between the Pioneer estimate and the bid? R: Our engineer's estimate was done for the March 2005 application. We've seen a 33% inflation in materials in one year.

- Can B-SB's crews take on this additional work? R: Yes. We have crews that have been doing B-SB-funded waterline work that could switch to this work.

- Are the crews covered by a collective bargaining unit? R: Yes.

- What work would they do? R: They'd still be putting pipe in, but at different locations.

- Who is doing the waterline work this year and how is the work going? R: Hollow Construction is completing the Year 4 project. They have had problems. They did not bid on the Year 5 project. John Van Daveer of B-SB added that B-SB may want to contract out some portions of the project, which might attract small, local contractors who cannot go for the whole project due to inadequate bonding ability.

- You should always be cautious when you get one bid. R: Agreed. This gives is the opportunity to create a baseline; it can be a test case.

- Is this option legal: R: Carol Fox indicated that she believed so based on her review of a 2002 court decision on a similar issue but that a legal analysis by an attorney is needed.

- This is a recurring problem. Can they have a contingency added in? R: They can do this in the application.

August 8, 2006 Advisory Council Meeting Summary

Attendees: All members present except for John Hollenback and Sally Johnson.

2005 Butte waterline project

Carol provided background on Butte-Silver Bow's (B-SB) request to amend the grant agreement for the 2005 waterline project to allow B-SB the option of performing work in-house or contracting out the work. She summarized public input received from the MT Contractor's Association and Tom Bowler, a Butte resident.

Jean Pentecost of B-SB summarized B-SB's reasons for this request and willingness to do all 17,000 feet of replacement work and accept all responsibilities for cost over-runs. Pioneer Engineering will provide engineering oversight and all cost-accounting. This accounting will allow for comparisons of B-SB's costs to the costs of the one bid received.

Following is a summary of the questions/discussions/comments that followed these briefings.

- Does B-SB Public Works have the manpower to do this work along with the normal operations they do? Jean responded yes. Like other cities, they have put off some capital improvement work due to high costs and also put off some other work due to scheduling issues, so they have the crews available.

- What wages will the B-SB workers be paid and how do they compare to the private contractor's wages? R: B-SB is bound by a laborers contract. Their base wage is about $16.29 per hour, which is generally comparable to that of the industry.

- What were the circumstances of this issue when it occurred in 2002? Carol provided background on the 2002 issues and results.

- Paul Babb provided additional background on why B-SB sought this amendment. They seek the flexibility that allows them to manage the project and allow for subcontractors, if needed. Those subcontractors don't have the bonding capacity to bid on the entire project.

- Jean elaborated on where the county could likely save costs over the private bid. They can save on mobilization costs and have locked into a contract for asphalt for 2006 that they can take advantage of. They are a non-profit.

- Dennis Daneke indicated he does not have problem with this option since it is legal, but that he wants to make it an exception, not a rule. His problem is with process. He'd like to see guidelines for such issues after getting a detailed analysis/report of how it worked in this test case. Jean committed to such a report that would analyze the pros/cons of such option. They have a third party doing the cost accounting/comparisons. They want to do what's best for the Butte ratepayers.

- Milo Manning indicated his disagreement with Tom Bowler's comment that this waterline work is not an appropriate NRD expense. Such work is a good fit with NRD legal framework and a good expenditure of NRD money. He also believes that the bid was a token bid since it was $1 million over the engineer's estimate. Butte should be able to do the work.

- Robbie Taylor commented in support of the amendment. It makes sense to do it, given that it is a legal option and that the needed oversight and monitoring will be conducted. The cost-efficiencies will benefit the ratepayers. It gives a greater ability to hire local firms.

- Dennis Daneke wanted the record to reflect that action on the 2005 project is not precedent-setting. He asked for B-SB's assurance that this is an experiment and needed data will be collected and assessed for future considerations. Jean affirmed that this is a test case.

- How will B-SB pay for cost-overrun's? Jean indicated B-SB has a reserve fund for this.

Public Comment

Chris Hafer of H&H contractors commented in opposition to B-SB's requested amendment. Local businesses pay property tax and equipment tax; they should not have to compete with government entities that do not pay these taxes. If this is commonplace, why don't other communities do such work? B-SB has the right to pursue the action that is in their best interests; he's speaking from a private contractor's perspective. You can't compare work of the private industry to that of government; private industry has to pay Davis-Bacon wages and pay taxes. They did not bid on the project due to its timing, but they have done other work for B-SB. Why not bid at a different time? Contractors build their schedules in the winter. He does not believe the bid was a token bid. His greatest concern is how this might be handled in future years; there needs to be parameters that allows for a predictable, fair process.

In follow-up to Chris's comments, Jim Dinsmore questioned how this could be a test case and how inclusive the data would be. For example, can it consider what might be the lost wages to private industry? He wants to make sure that the analysis is comprehensive.

Council Action

Kathy Hadley motioned approval of the requested amendment. Barbara Evans seconded.

Barbara indicated her reasons for support. She took an oath to protect public safety and health. B-SB is providing for public health and safety. Given the high bid, the choice is don't do it at all or provide for it another way. There isn't a lot of choice. They are doing what they can.

Kathy commented that she sees Butte as different from other communities. They have suffered greatly from mining impacts. If they can provide for comparable wages and do the work, we

should support the community. She supports the notion of allowing a test case and doing it in the future if results are positive.

The motion passed unanimously (12-0).

2006 Grant Cycle Projects

For these five projects, Carol summarized the NRDP funding recommendations, Larry solicited public comments prior to Advisory Council deliberations and action. Following is a summary of major discussion points, the public comment, and the formal Council Action.

Bonner Pedestrian Bridge: The NRDP recommends full funding of $975,652. Milo Manning motioned to approve the project as recommended by the NRDP; Dennis Daneke seconded. There was no public comment. The motion passed unanimously (12-0).

2006 Butte Waterline: Carol summarized the NRDP's recommendation to fund Year 6 only for $1,819,581 and briefed members on B-SB's recent request to have the flexibility to either do this project in-house or contract it out. The NRDP's *Pre-Draft* evaluation and funding recommendation does not consider this option, which was not in the application.

Council members asked questions/voiced concerns that centered on: what conditions would trigger the decision on which way to go; the changes needed to get more competitive bids; the difficulty in estimating an adequate contingency for inflation; whether the timing of this was appropriate given the intent to have the 2005 work provide test case data; and whether this issue needed to be addressed by the Council if B-SB had the legal option of doing the work either way. Paul Babb explained why B-SB would like the flexibility of this option and noted than having the issue addressed now would allow for the greater public consideration of the issue that having it addressed as a contract change after project approval, as happened with the 2005 project. Carol explained how the applicant's approach to doing the work is a part of the application review and public comment process. There was no public comment.

Council Action

Milo Manning motioned to recommend project for Year 6 funding as recommended by the NRDP; Dennis Daneke seconded. Some members thought that B-SB's request for additional flexibility should be subject of later action if the need arises; other members thought it was better to have it addressed now and get public comment on issue before final recommendations are made. The motion failed on a tie vote of 6 to 6.

Kathy Hadley motioned to recommend the project for Year 6 funding as recommended by the NRDP with the option of allowing B-SB of doing the work based on cost-efficiencies. Linda Bouck suggested a substitute motion requiring B-SB to bid the work first, which Kathy accepted. After several attempts at acceptable substitute motion language and further questions/discussion, the following motion was made by Kathy and seconded by Phil Tourangeau: "The Advisory Council recommends funding Year 6 as recommended by NRDP with an option that allows for the waterline replacement work to be performed in-house or contracted out in the situation when

the bidding process indicates the bids exceed the available funding." This motion passed unanimously (12-0).

Little Blackfoot: The NRDP recommends the project for $216,044 of the requested $238,879, subject to four funding conditions specified in the *Pre-Draft*, which Carol read.

Public Comment

Jeff Janke, Chairman of the Little Blackfoot River Watershed Group, commented in support of the project. The project has resulted from six years of planning and will result in substantial improvements on the ground. The landowner is supportive and they want to implement the project while there is good landowner support.

Matt Clifford of the Clark Fork Coalition commented in support of the project, which he believes is a good fishery project.

Council Action

Linda Bouck motioned to recommend the project for funding as recommended by the NRDP; Robbie Taylor seconded the motion.

Kathy Hadley explained why she was going to vote against the project. While the application is great and they have good experts to implement the project, the stream conditions are better than the Clark Fork River and many other streams. The problems were caused by land management practices, not mining. Mining impacts need to be addressed first. She does not see how the project replaces recreational services without greater assurance of public access. Although current access is allowed, this could change if the landownership changes, plus there is no public access signage. It seems like a good project, but one that is more appropriate for EQIP funding than for NRD monies. Paul Babb and Robbie Taylor indicated their agreement with Kathy's comments regarding no mining damage and lack of assured public access.

Glenn explained why he respectfully disagreed: The tributaries of the Clark Fork are very important to restoration of the Clark Fork fisheries. Spawning occurs in the tributaries. This is a good project and the first step in restoring the Little Blackfoot. It can be an example to get the ball rolling, the landowner is cooperative, and there is existing public access via the nearby highway bridge. Dennis Daneke asked Glenn about project benefits; Glenn responded that other similar projects have resulted in increased fishery populations.

Further questions and discussion occurred on the topics of public access, project benefits, and the project's connection to mining impacts. Jeff Janke reiterated the landowner's willingness to allow public access for fishing and reiterated the project benefits. He believes landownership change is unlikely.

The motion to approve the project as recommended by the NRDP passed, with 7 members in favor, 4 opposed (Kathy, Paul, Robbie and Larry), and one member abstaining (Barbara).

Anaconda Waterline: The NRDP recommends the project for full funding of $1,964,263. Milo Manning motioned to approve the project as recommended by the NRDP; Jim Yeoman seconded. There was no public comment. The motion passed unanimously (12-0).

MTNHP Mapping: Carol summarized the NRDP's partial funding recommendation of $71,400 of the requested $395,515 for the mapping component only in the eastern half of the UCFRB. She briefed members on the discussions that had occurred since the last meeting regarding the issue of excluding the Clark Fork River floodplain between Warms Springs Ponds and Deer Lodge from the mapping effort due to concerns about interference with/duplication of remedial efforts. Representatives of the NRDP, EPA, DEQ and USFWS were acceptable to having the MTNHP project include the floodplain area subject to a provision that the remedial data would be of primary reliance given it was based on more detailed field data.

At Barbara's request, Kristine Knutson of the EPA described the proposed remedial mapping of the floodplain area. She answered questions about EPA's position on the mapping project and the public accessibility of the EPA data. Barbara sought further clarification regarding potential duplication of effort, which was addressed by NRDP, MTNHP, and EPA representatives. EPA's data is only a small subset of the MTNHP mapping project and of different methodology. MTNHP representatives answered further questions about their methodology and the level of accuracy/anticipated uses of the results.

Council Action

Milo Manning motioned to recommend the project for funding as recommended by the NRDP; Dennis Daneke seconded his motion. Milo commented that based on his past work as a county planner, the more mapping that can be done, the better. There was no public comment. The motion carried unanimously (12-0).

Milltown Education PDG

Kathy Coleman summarized and answered questions about the NRDP's evaluation and funding recommendation of this project. The NRDP recommends this PDG for partial funding of $23,914 of the requested $24,714, subject to a funding condition that this PDG effort be integrated under the auspices of the Clark Fork Watershed Education Program (CFWEP) for an additional $6,000 in contracted services.

Public Comment

Colleen Elliot of the CFWEP commented in support of the project and the proposed integration of WEN's Milltown effort under CFWEP. This is extension of an already 4-year working relationship between the two entities and the educational effort in the basin schools will be enhanced and not duplicated through this integration. Time is of the essence in order to offer students the opportunity to view the before and after dam removal scenarios.

Deb Fassnacht of WEN indicated WEN's agreement with the proposed integration and noted efforts underway already to incorporate aspects of the BP/ARCO repository into the educational materials on Milltown.

Council Action

Robbie Taylor motioned recommendation of the project as recommended by the NRDP. Barbara Evans seconded the motion. Linda Bouck and Kathy Hadley expressed thanks the staff, WEN, and CFWEP for their efforts to incorporate the Opportunity/Anaconda area students in the Milltown education program. The motion passed unanimously.

Upcoming meetings/events: Carol passed out a handout on upcoming meetings and NRD-related conferences/events. After discussing options for the September 12, 2006 meeting, the Council elected to have this meeting in Anaconda focusing on Anaconda/Opportunity area sites and issues.

There was no additional public comment. The meeting was adjourned.

United States Department of the Interior

NATIONAL PARK SERVICE
Grant-Kohrs Ranch National Historic Site
266 Warren Lane
Deer Lodge, Montana 59722

N22

May 22, 2006

Carol Fox, Director
Natural Resource Damage Litigation Program
State of Montana
Department of Justice
PO Box 201425
Helena, MT 59620-1425

RE: USDOI Comments on 2006 Natural Resource Damage Restoration Fund Proposals

Dear Ms. Fox,

The United States Department of the Interior (USDOI) has reviewed the applications submitted for funding under the 2006 Upper Clark Fork River Basin Restoration Fund Grant Program. The focus of our review was two-fold: (1) how the projects might impact DOI properties, trust resources, or legislative responsibilities; and (2) the overall appropriateness of each project given the funding guidelines. Our comments on the reviewed applications are as follows:

1. *Basin-wide Wetland/Riparian Mapping*

Applicant:	Montana Natural History Program/Nature Conservancy
NRDP 2006 Grant Request:	$ 394,515
Total project cost:	$ 538,523

This three year project involves the creation of basin-wide wetland and riparian corridor maps, implementation of wetland and riparian functional assessments, and the development of comprehensive plant community descriptions. USFS properties should not be considered at this time because restoration activities are not likely to occur on those lands. If USFS is contributing funds then this position could change. Production of a vegetation guide/habitat typing is not necessary at this time, and the amount of time committed to ground truthing is unrealistic based on USFWS experience on the Clark Fork Riparian Assessment. Despite these concerns, the information generated by this effort would complement future remedial design and restoration planning along the Clark Fork River and is not otherwise contemplated in the Record of Decision or other decision documents; it should serve to improve the effectiveness of remediation and restoration activities related to wetland and riparian systems within the basin.

DOI supports this proposal with modifications to the scope and adjustment to the budget.

2. *Drinking Water Infrastructure Replacement*

Applicant:	City and County of Butte-Silver Bow
NRDP 2006 Grant Request:	$ 1,819,581
Total project cost:	$ 2,426,108

This project involves continued improvements to the Butte drinking water system. This is year 6 of a 15 year replacement project for lost ground water resources in the Butte area. Year 6 activities include replacing approximately 16,000 feet of deteriorated drinking water distribution lines. Extrapolating over the 15 year period, the total cost of this project will be roughly $30 million. DOI recommends that NRDP staff consider the total cost of this project, and that of the Anaconda infrastructure projects, in terms of the settlement funds recovered for groundwater injuries in these communities.

DOI does not object to the funding of this proposal.

3. *Little Blackfoot River Flow Study*

Applicant:	Deer Lodge Valley Conservation District
NRDP 2006 Grant Request:	$ 238,871
Total project cost:	$ 313,743

This project involves the creation and enhancement of fish, wildlife, and water quality resources along 2.6 miles of the Little Blackfoot River as replacement for injured resources within the Clark Fork River basin. The Little Blackfoot River is a primary tributary to the Clark Fork and, therefore, the proposal will improve the fishery and water quality of the Clark Fork River. Given the number of tributaries to the Clark Fork River, DOI recommends that a list of priority tributaries be identified according to such parameters as water quality and fishery contribution to the Clark Fork River. This list would help target the use of Restoration Program funding to maximize the effective use of program funds outside of the river's mainstem.

DOI supports this proposal for NRD funding.

4. *Flint Creek Flow Monitoring*

Applicant:	State of Montana, DNRC
NRDP 2006 Grant Request:	$ 7,000
Total project cost:	$ 14,000

It is not clear how this project meets Restoration Program funding criteria given the "routine government function" exception. Unless it can be demonstrated that the additional information the proposed stream gauge would generate will contribute to restoration project monitoring, DOI does not support this project for funding.

5. *Bonner Pedestrian Bridge Project*

Applicant:	Missoula County
NRDP 2006 Grant Request:	$ 975,652
Total project cost:	$ 1,300,870

This project proposes to reconstruct the pedestrian bridge at Bonner, linking West Riverside and Milltown to the Bonner School. This must be accomplished prior to the planned 2008 drawdown of the Milltown Reservoir. The removal of bridge abutments is to restore injured resources associated with the Milltown Reservoir. It is unfortunate that this project was not contemplated in the Milltown Reservoir Record of Decision. Given the need to remove obstructions to Blackfoot River flow and to provide the communities with a river crossing, however, DOI does not object to funding this proposal.

6. *East Third Street & South Birch Water Main Replacements*

Applicant:	Anaconda-Deer Lodge County
NRDP 2006 Grant Request:	$ 1,964,263
Total project cost:	$ 2,028,342

This project involves continued improvements to the Anaconda drinking water system. This is the fifth consecutive year of ADLC water project funding requests. This project will upgrade 5,670 feet of drinking water lines and replace a booster pump station. While this project does replace lost ground water resources in Anaconda, a comparison of total estimated project costs to the value of the settled injury claim would be useful in assessing the appropriateness and scale of future project funding, particularly in terms of establishing an appropriate total funding value relative to settlement.

DOI does not object to funding for this proposal.

Thank you for the opportunity to review and comment on these proposals. If you have any questions, please contact me at 406-846-2070.

Sincerely,

Laura Rotegard
Superintendent

LR/ks

cc: Bill Olsen, USFWS
Greg Nottingham, NPS

APPENDIX F

APPLICATION REVIEW GUIDELINES

APPENDIX F

UCFRB RESTORATION GRANTS

APPLICATION REVIEW GUIDELINES

Introduction

The March 2002 *UCFRB Restoration Plan Procedures and Criteria* (*RPPC*) provides the framework for expending Restoration funds and describes the criteria to be used to evaluate Restoration Grant Projects. To help in these evaluations, the NRDP developed the following Application Review Guidelines based on the *RPPC*. These Guidelines categorize the likely manner in which restoration projects meet or address a particular criterion. For example, for technical feasibility, projects are categorized as reasonably feasible, uncertain feasibility, or not feasible. These categories provide a framework to assist in evaluating and comparing projects consistently. Reviewers should note that it is the explanatory text for each criterion provided in the detailed Project Criteria Narratives, not the titles provided in this guidance to categorize projects that forms the basis of judging how well a project addresses a particular criterion. The titles/headers should not be misconstrued to denote a certain level of ranking or adequacy in meeting the *RPPC* criteria.

STAGE 1 CRITERIA REQUIRED BY LEGAL CONSIDERATIONS

1. <u>TECHNICAL FEASIBILITY</u>

General Considerations: Reviewers should bear in mind that the ultimate question to be answered under this criterion is: To what degree is the project likely to achieve its objectives? As per DOI regulations, "Are the technology and management skills necessary to implement the project well known and does each element of the plan have a reasonable chance of successful completion in an acceptable period of time?" To evaluate both the technology aspects and management aspects, the application asks for a scope of work as well as information regarding successful application of the selected technology to similar sites. We are not just evaluating whether a particular technology has been successfully applied in the past, but also whether it will work as applied to this particular project as planned by the applicant.

Reasonably Feasible: The following descriptions apply to a project that is "Reasonably Feasible."

- The project employs well-known and accepted technology in design, engineering and implementation components of the project, <u>and/or</u>;

- The project applicant demonstrates that any innovative technologies proposed in the project are reasonably likely to achieve their stated objectives.

- Any uncertainties/issues requiring future resolution associated with the project are insignificant.

- There is a reasonable degree of confidence that the technologies proposed to be utilized in the project (whether well-known and accepted or experimental or innovative) can be applied to the project site to achieve their stated objectives.

- The project applicant demonstrates management skills necessary to implement the technologies at the project site in an acceptable period of time.

Based on these findings, the project is "Reasonably Feasible," and is therefore reasonably likely to achieve its objectives.

Uncertain Feasibility: If any of the following descriptions apply to a project that otherwise satisfies the description of a "Reasonably Feasible" project, then the project is of "Uncertain Feasibility."

- It is uncertain whether any innovative or experimental technologies proposed in the project are likely to achieve their stated objectives.

- There are many or significant uncertainties associated with the project that require future resolution.

- It is uncertain whether the technologies proposed to be utilized in the project (whether well- known and accepted or experimental or innovative) can be applied to the project site to achieve their stated objectives.

- It is uncertain whether the project applicant demonstrates management skills necessary to implement the technologies at the project site in an acceptable period of time.

Based on these findings, the project is of "Uncertain Feasibility," and therefore the likelihood of the project achieving its objectives is uncertain.

Not Feasible: The conclusion that a project is "Not Feasible" may be based on one or more of several possible findings, including:

- Technologies (or a technology) proposed in the project are (is) not likely to achieve their (its) stated objectives.

- The project applicant does not demonstrate management skills necessary to implement the technologies (technology) at the project site in an acceptable period of time.

Based on these findings, the State concludes that the project is "Not Feasible," and therefore not likely to achieve its objectives.

2. RELATIONSHIP OF EXPECTED COSTS TO EXPECTED BENEFITS

General Consideration: Pursuant to this criterion, reviewers should evaluate to what extent a project's costs are commensurate with the benefits it provides. All costs and benefits, both direct and indirect, should be considered in this evaluation. Costs include monetary and other costs associated with the project. Because some project benefits and costs may be hard to quantify, reviewers should not attempt to assign a monetary value to all costs and benefits.

Note: Because this criterion involves a weighting of all public natural resource and service benefits expected to be derived from a project against all costs associated with the project, it is suggested that reviewers undertake this evaluation only after completing all other Stage 1 and Stage 2 criteria evaluations. If the project is part of a larger project, reviewers should evaluate the costs/benefits from the perspective of the benefits the project achieves by itself and its costs, as well as the benefits of the larger project and its costs. This criterion will ultimately be used to relatively compare projects. At this stage, however, the evaluation is confined to assessing the degree to which the project's costs are commensurate with the project's benefits.

High Net Benefits: Project benefits significantly outweigh/exceed costs associated with the project.

Net Benefits: Project benefits outweigh/exceed costs associated with the project.

Commensurate Benefits and Costs: Project benefits are generally commensurate with, or proportionally equal to, costs associated with the project.

Net Costs: Project costs outweigh/exceed benefits to be gained from the project.

High Net Costs: Project costs significantly outweigh/exceed benefits to be gained from the project.

3. COST-EFFECTIVENESS

General Consideration: The analysis of cost effectiveness evaluates whether a particular project accomplishes its goals the least costly way possible, or whether there is a better alternative. For example, if the project replaces a service, is this the most cost-effective way to replace that service? In our application guidelines, we asked applicants to provide:

1. A description of alternatives to the proposed project that were considered, including the no-action alternative;

2. A comparison of the benefits and costs of each alternative (to the extent possible); and

3. Justification for the selection of the preferred alternative.

Note: Whereas the previous criterion compared all of the costs and benefits associated with the project as proposed by the applicant, this criterion requires reviewers to compare the project as proposed with alternative methods of accomplishing the same or substantially similar goals.

Reviewers should not limit this evaluation to the alternatives discussed by applicants. If the applicant does not discuss an obvious alternative, reviewers should consider that alternative in reaching their conclusions on cost-effectiveness.

Cost Effective: The applicant provides a complete and thorough analysis and the selected alternative is most cost-effective.

Likely Cost Effective: Although the applicant only provided a limited analysis of alternatives, the State concludes that the selected alternative is likely to be cost-effective.

Not Cost Effective: A suitable alternative exists that will produce the same or similar level of benefits, but at significantly lower costs.

Uncertain: Insufficient information is available to conclude that the selected alternative is likely to be cost-effective.

4. ENVIRONMENTAL IMPACTS

General Consideration: To what degree will the project adversely impact the environment? Reviewers will evaluate to what degree the applicant has properly identified and addressed any potential short-term or long-term adverse impacts that significantly affect the quality of the human environment. For Montana Environmental Policy Act (MEPA) compliance, we will need to assure that all adverse environmental impacts and reasonable alternatives have been adequately characterized and considered during decision-making. If this assurance is uncertain, we may conduct some further evaluation or seek supplemental information.

Note: In the application, we divided our information requests to applicants regarding the impacts to the human environment into "environmental impacts" and "human health and safety" components. In this section, reviewers should consider applicant responses in the "environmental impacts" section as set forth in the application. In the following section, reviewers should consider applicant responses in the "human health and safety" section as set forth in the application. For assistance with MEPA terminology, please refer to Attachment A.

No Adverse Impacts: Without mitigation, the project presents no potential adverse impacts, either significant or minor, to the environment.

No Significant Adverse Impacts: Without mitigation, the project presents no potential significant adverse impacts to the environment. The project involves the potential for some minor adverse environmental impacts that do not rise to the level of significance.

Short-Term Adverse Impacts with Mitigation: The project presents potential significant short-term adverse environmental impacts. Mitigation measures, however, are included in the project that reduce otherwise significant adverse environmental impacts to below the level of significance. Mitigation that reduces significant adverse environmental impacts to below the level of significance results in a finding of no significant adverse impacts.

Long-Term Adverse Impacts with Mitigation: The project presents potential significant long-term adverse environmental impacts. Mitigation measures, however, are included in the project that reduce otherwise significant adverse environmental impacts to below the level of significance. Mitigation that reduces significant adverse environmental impacts to below the level of significance results in a finding of no significant adverse impacts.

Significant Adverse Impacts with Insufficient Mitigation: The project presents potential significant adverse environmental impacts, either short-term or long-term, and includes no (or insufficient) mitigation measures to reduce the otherwise significant impacts to below the level of significance.

5. HUMAN HEALTH AND SAFETY IMPACTS

General Consideration: To what degree will the project have an adverse impact on human health and safety? If this is uncertain, further evaluation may be conducted or supplemental information may be gathered.

No Adverse Impacts: Without mitigation, the project presents no potential adverse impacts, either significant or minor, to human health and safety.

No Significant Adverse Impacts: Without mitigation, the project presents no potential significant adverse impacts to human health and safety. The project involves the potential for some minor adverse human health and safety impacts that do not rise to the level of significance.

Short-Term Adverse Impacts with Mitigation: The project presents potential significant short-term adverse human health and safety impacts. Mitigation measures, however, are included in the project that reduce otherwise significant adverse human health and safety impacts to below the level of significance. Mitigation that reduces significant adverse human health and safety impacts to below the level of significance results in a finding of no significant adverse impacts.

Long-Term Adverse Impacts with Mitigation: The project presents potential significant long-term adverse human health and safety impacts. Mitigation measures, however, are included in the project that reduce otherwise significant adverse human health and safety impacts to below the level of significance. Mitigation that reduces significant adverse human health and safety impacts to below the level of significance results in a finding of no significant adverse impacts.

Significant Adverse Impacts with Insufficient Mitigation: The project presents potential significant adverse human health and safety impacts, either short-term or long-term, and includes no (or insufficient) mitigation measures to reduce the otherwise significant impacts to below the level of significance.

6. RESULTS OF SUPERFUND RESPONSE ACTIONS

(Readily Available Information)

General Consideration: This criterion considers the results, either existing or anticipated, of completed, planned, or anticipated (if there is a reasonable measure of confidence in the

anticipated action) UCFRB Superfund response actions. To what degree would the project be consistent with, augment or, alternately, interfere with or duplicate the results of such actions, including Superfund investigations and evaluations?

Note: A finding of inconsistency with response actions will usually, but not always, mean that the action is inappropriate or unjustifiable. As stated in the RPPC, the State will tend to favor projects that augment response actions rather than undo a response action. If, however, the State considers a response action to be ineffective and non-beneficial, then interference or inconsistency with the response action may positively improve restoration of natural resources to baseline. This should be assessed on a case-by-case basis. If necessary, reviewers should utilize the form attached as Attachment B to record any additional information pursuant to this criterion not included in the application and required for complete evaluation of the project.

Positive Coordination: The project coordinates with and augments the results of an effective Superfund action(s).

Consistent: The project may or may not augment the results of an effective Superfund response action(s), but it will not interfere with or duplicate the results of such an action(s).

Inconsistent but Potentially Beneficial: The project would interfere with or duplicate the results of an ineffective Superfund action(s).

Inconsistent: The project would interfere with or duplicate the results of an effective Superfund action(s).

7. RECOVERY PERIOD AND POTENTIAL FOR NATURAL RECOVERY

(Readily Available Information)

Note: If necessary, reviewers should utilize the form attached as Attachment B to record any additional information pursuant to this criterion not included in the application and required for complete evaluation of the project.

General Consideration: Will the proposed restoration project affect the time frame for recovery of the injured resource and if so, to what degree? In addition to information presented by the project applicant, reviewers should rely on the 1995 Restoration Determination Plan and backup injury assessment reports to estimate natural recovery potential for injured resources addressed by the project. For projects that involve actual restoration of natural resources and, consequently, services, this criterion aims at determining just how well the project enhances the recovery period – does it significantly hasten that recovery? This criterion also evaluates the potential for natural recovery of an injured resource. If a resource is expected, on its own, to recover in a short period of time, a restoration action may not be justified.

Note: Given that the State recovered damages for past lost value of natural resources and services, it is not critical that all replacement projects consider the potential for recovery of the injured resource or services being replaced. This consideration may be relevant, however, when comparing replacement projects and relatively weighing the necessity of replacing one service or resource over another. For example, one project may replace services that will recover

naturally in one year, while another project replaces services that will not recover naturally for 500 years. Depending on the service or natural resource replaced, the State may favor one of these projects over the other, based on the fact that the services or natural resources replaced will naturally recover in a short period of time for one project and not the other. For this reason, reviewers should consider recovery potential in the context of replacement projects.

Reduces the Recovery Period: The project enhances recovery potential of the injured resource and/or services provided there by reducing the time in which they will recover to baseline.

Note: This is a qualitative evaluation that should be assessed on a scale ranging from slight enhancement to complete restoration/replacement to baseline.

May Reduce the Recovery Period: It is possible but not certain that the project may reduce the time in which the injured resources and/or services provided thereby will recover to baseline.

No Effect on Recovery Period: The project most likely will not change the time frame for recovery.

Increases Recovery Period: The project diminishes recovery potential of the injured resource and/or services provided thereby by lengthening the time in which they will recover to baseline.

8. APPLICABLE POLICIES, RULES AND LAWS

(Readily Available Information)

General Consideration: To what degree is the project consistent with all applicable policies of state, federal, local and tribal government, including the *RPPC*, and in compliance with applicable laws and rules, including the consent decree?

The application requested information from applicants regarding four sub-issues: (1) permits obtained and any other permits required to complete the project, including pertinent dates; (2) deeds, easements or right-of-way agreements required to complete the project; (3) communication and coordination with local entities; and, (4) the effect, and consistency/ inconsistency with other laws, rules, policies, or consent decree requirements. The State may supplement applicant's information to the extent necessary to assess consistency with applicable policies and compliance with applicable laws and rules.

Note: For this criterion, applicants for projects over $10,000 were only required to submit readily available information. Applicants for projects of $10,000 or under were not required to address this criterion. Thus, the State may need to supplement information to evaluate this criterion. If necessary, reviewers should utilize the form attached as Attachment B to record any additional information pursuant to this criterion not included in the application and required for complete evaluation of the project.

Consistent/Sufficient Information Provided: The applicant has provided sufficient information to make the following determinations:

- All permits necessary to complete the project on schedule are identified and obtained, or reasonable assurance is provided that they will be obtained.

- All deeds and easements or rights-of-way necessary to complete the project on schedule are identified and obtained, or reasonable assurance is provided that they will be obtained.

- As necessary, the applicant has demonstrated that communication and coordination with local entities has occurred, or reasonable assurance is provided that such communication and coordination will occur.

- The applicant has demonstrated measures taken to comply with, and that the project is otherwise consistent with, other laws, rules, policies, or consent decree requirements.

Consistent/Insufficient Information Provided: Based on information provided by applicant and supplemented by the State on Attachment B, it has been demonstrated that the project is consistent as described above.

Inconsistent: After supplemental information has been obtained by the State (if necessary), the State concludes that the project may not be implemented consistent with policies of state, federal, local and tribal government, including the *RPPC*, or in compliance with applicable laws and rules, including the consent decree.

9. RESOURCES OF SPECIAL INTEREST TO THE TRIBES AND DOI

(Readily Available)

General Consideration: Are any of the following located in the vicinity of the proposal? This criterion will require NRDP consultation with Tribes and DOI. For affirmative response, indicate whether the project may have a positive or negative impact on Tribal cultural resources or Tribal religious sites (as defined in the MOA) and/or natural resources of special environmental, recreational, commercial, cultural, historical, or religious significance to the Tribes or DOI. Projects of potential negative impact require special consideration according to the provisions of the MOA. If necessary, reviewers should utilize the form attached as Attachment B to record any additional information pursuant to this criterion not included in the application and required for complete evaluation of the project.

Beneficial Impact: Project will have or may have beneficial impacts on these special sites/resources.

No Impact: Project has no adverse impacts on these special sites/resources.

Minor Adverse Impact: Project has potential minor adverse impacts on these special sites/resources but protective measures have been integrated or can be easily integrated without significant project changes.

Major Adverse Impact: The project has potential major adverse impacts on these special sites/resources that will require further consideration under terms of the MOA.

STAGE 2 CRITERIA REFLECTING MONTANA POLICIES

10. PROJECT LOCATION

General Consideration: This criterion requires evaluation of the geographic proximity of the project to the injured resources it proposes to restore or replace. The *RPPC* and application instructions express a preference for restoration (or replacement) projects that occur at or near the site of injury, with the exception of Big Blackfoot River native trout restoration or replacement activities (see specific instructions below). There is no absolute scale of distance to determine proximity. Rather, proximity may be judged independently for each project, depending on a number of factors including the natural resource injury addressed and the geographic extent of benefits that may accrue from the project.

Specific instructions regarding Big Blackfoot River native trout restoration or replacement activities: For projects on the Big Blackfoot River watershed outside of the Milltown Dam area that an applicant states are intended to restore native trout that cannot, from an economic or practical standpoint, be restored in the UCFRB, categorize the project into the "Big Blackfoot Exception" below. Analyses conducted pursuant to other criteria will determine whether the project will actually accomplish what it says it will. For the purposes of the "Big Blackfoot Exception" only, rely on applicant's statement for this criterion.

Within Basin and Proximate: All or most of the restoration or replacement activities associated with this project will be conducted at or reasonably near the site of natural resource injury to be addressed through the project.

Within Basin and Proximate/Other: Some of the restoration or replacement activities associated with this project will be conducted at, or reasonably near, the site of natural resource injury to be addressed through the project. Some of the restoration or replacement activities associated with this project will be conducted at other locations away from the site of natural resource injury to be addressed through the project.

Within Basin: All or most of the restoration or replacement activities associated with this project will be conducted at a location that is within the UCFRB but away from the site of natural resource injury to be addressed through the project.

Big Blackfoot Exception: Applicant states that this project proposes native trout restoration or replacement activities located in the Big Blackfoot River watershed which cannot, due to practical or economic considerations, be conducted within other areas of the UCFRB.

Not Applicable: The project is a research or monitoring project.

11. ACTUAL RESTORATION OF INJURED RESOURCES

General Consideration: The *RPPC* states that actual restoration of the resources that are injured should be given priority. This criterion requires evaluation of whether, and to what extent, the project will restore injured natural resources that were the subject of the Montana v. ARCO lawsuit.

Note: The term "restore" under this criterion is used in its specific meaning, i.e., actions are designed to return injured resources and services provided thereby to baseline conditions or accelerate the natural recovery process.

Restoration: All aspects of the project are intended to accomplish restoration of an injured natural resource.

Restoration/Other: Some aspects of the project are intended to accomplish restoration of an injured natural resource.

Contributes to Restoration: Although the project is not intended to directly accomplish restoration of an injured natural resource, some aspects of the project contribute to the restoration of an injured natural resource.

May Contribute to Restoration: Although the project is not intended to directly accomplish restoration of an injured natural resource, some aspects of the project may contribute to the restoration of an injured natural resource.

No Restoration: The project is not intended to accomplish restoration of an injured natural resource, nor is it likely to contribute to restoration of an injured natural resource.

12. RELATIONSHIP BETWEEN SERVICE LOSS AND SERVICE RESTORATION

General Consideration: The *RPPC* states that proposed restoration projects (general sense) that closely link the services that are the project's focus with the service flows that have been impaired, will be favored over projects that do not. To address this criterion, reviewers should examine the connection between the services that a project seeks to provide or augment and the services lost or impaired as a result of natural resource injuries.

Note: Complex projects may involve a combination of the following categories. Reviewers should note which aspects of each project fall into each of the categories.

Same: The services restored or augmented by the project are the same or substantially equivalent to services lost or impaired due to natural resource injury.

Similar: The services restored, augmented, or replaced by the project are not the same or equivalent to, but are similar to those lost or impaired due to natural resource injury.

Dissimilar: There is no connection between the services lost or impaired and the services provided or augmented by the project.

13. PUBLIC SUPPORT

General Consideration: What is the extent of public support for the project demonstrated in the application?

For this criterion, the State will identify the number of letters received by the State in either support or opposition to the project and identify the entities providing these letters. The evaluation conducted pursuant to these instructions is based exclusively on information available at the time of the evaluation, which is primarily the letters of support provided in an application. Subsequently, public support may be demonstrated throughout the funding selection process (e.g., at the pre-draft and draft review stages). This evaluation will need to be updated at each stage in the funding selection process. Public comment may demonstrate further support, opposition, or a mixture of support and opposition.

14. MATCHING FUNDS

General Consideration: To what extent does the project entail cost sharing?

For this criterion, the State will identify the amount of matching funds and indicate how much are cash contributions and how much are in-kind contributions. The State will calculate matching funds by determining the percentage of the total project costs for activities under the project's scope of work to be funded by other sources besides Restoration funds. For projects that are part of a larger project for which future funding will be sought, the State will only consider the matching funds dedicated to the phase of the project that is to be funded by Restoration funds. For land acquisition projects, the State will accept as matching funds payments or donations that make up the difference between the funding request and the appraised value.

Note: If necessary, reviewers will need to consult matching fund entities to determine the likelihood of matching funds. The State's determination of matching funds will not always match the applicant's determination.

15. PUBLIC ACCESS

General Consideration: This criterion evaluates whether a project will affect public access and the positive or negative aspects of any increased or decreased public access associated with the project. Public access is not required of every project, nor is it relevant to all projects.

Increased Access Beneficial: The benefits from the new or enhanced public access created by the project outweigh the adverse impacts associated with this increased access.

Increased Access Detrimental: The adverse impacts associated with new or enhanced public access created by the project outweigh the benefits associated with increased access.

No Access Beneficial: While public access is relevant and could have been a project component, increased access would have been detrimental to the restoration of injured or replacement natural resources in the long-term.

No Access Change: The existing acreage and methods of public access would not change as a result of the project.

Not Relevant: Public access is not a component of the project, nor is it relevant to the project.

16. ECOSYSTEM CONSIDERATIONS

General Consideration: This criterion examines the relationship between the project and the overall resource conditions of the UCFRB. The State will favor projects that fit within a broad ecosystem concept in that they improve a natural resource problem(s) when viewed on a large scale, are sequenced properly from a watershed management approach, and are likely to address multiple resource problems.

Positive: The project positively fits within a broad ecosystem concept in that it improves a natural resource problem when viewed on a large scale, and/or is sequenced properly from a watershed management approach, and/or addresses multiple resource problems. This category would apply to projects in the Silver Bow Creek watershed that are consistent with the priorities established in the *Silver Bow Creek Watershed Restoration Plan*.

Negative: The project does not fit within or is inconsistent with a broad ecosystem concept and this makes it less likely to be effective in the long-term. The project is one that should wait from an ecosystem standpoint until certain environmental conditions occur. For example, problems in the upper portion of a watershed may need to be corrected first before work is conducted downstream. This category would apply to projects in the Silver Bow Creek watershed that are inconsistent with the priorities established in the *Silver Bow Creek Watershed Restoration Plan* and for which insufficient justification has been provided on why it should be funded anyway.

Not Relevant: The project is a service project for which ecosystem considerations are not relevant.

17. COORDINATION AND INTEGRATION

General Consideration: How well is the project planned to integrate with other ongoing or planned actions in the UCFRB? This criterion addresses coordination with other projects besides remedial actions, which is addressed under Criterion #6. Restoration projects that can be efficiently coordinated with other actions may achieve cost savings.

Coordinates/Integrates: The project coordinates and achieves efficiencies not otherwise possible through coordination with other actions (besides remedial actions).

None: The project does not coordinate/integrate with other actions.

Conflicts: Project may interfere with significant, beneficial on-going or planned actions or is one with missed coordination opportunities.

18. NORMAL GOVERNMENT FUNCTIONS

(Readily Available Information)

General Consideration: The *RPPC* states those activities, for which a governmental agency would normally be responsible or that would receive funding in the normal course of events, (absent the UCFRB Restoration Fund) will not be funded. The Restoration Fund may be used, however, to augment funds normally available to government agencies to perform a particular

project if such cost sharing would result in implementation of a restoration project that would not otherwise occur through normal agency function. For this criterion, reviewers should determine whether the project is intended to accomplish activities that would otherwise not occur through normal agency function.

Note: If necessary, reviewers should utilize the form attached as Attachment B to record any additional information pursuant to this criterion not included in the application and required for complete evaluation of the project.

Outside Normal Government Functions: The project does not involve activities normally conducted by government agencies or obligations of governmental entities under law for which they receive funding or for which they are responsible for securing funding.

Within but Augments Normal Government Functions: The project involves activities that are normally conducted by governmental agencies, but it augments such activities beyond a level required by law and for which funding is presently insufficient to implement the project. This category would apply to activities for which government agencies typically seek funds outside of their normal operating funds, such as supplemental grant funds.

Replaces Normal Government Functions: The project involves activities that are typically funded through a government's normal operating funds or obligations of governmental entities under law.

STAGE 2 CRITERIA – LAND ACQUISITION PROPOSALS ONLY

19. DESIRABILITY OF PUBLIC OWNERSHIP

General Consideration: This criterion assesses the potential benefits and detriments associated with putting privately owned land, or interests in land, under public ownership. Although the State has established a policy that favors actions that actually improve the condition of injured resources and services, land acquisition may be an appropriate replacement alternative.

Restoration Beneficial: The benefits of the acquisition to restoration of injured natural resources and services are considered major and the detrimental aspects of public ownership, if any, are considered minor.

Replacement Beneficial: The benefits of the acquisition to replacement natural resources and services are considered major and the detrimental aspects of public ownership, if any, are considered minor.

Detrimental: The detrimental aspects of putting privately owned lands into public ownership outweigh the benefits derived to public natural resources and services derived from the project.

20. PRICE

General Consideration: To what extent is the land/interest being offered for sale at fair market value?

Reasonable: Documentation indicates property is being acquired at or below fair market value.

High: Documentation indicates property is being acquired above market value.

Uncertain: Insufficient information is available at this time for comparison to fair market value.

STAGE 2 RESEARCH AND MONITORING CRITERIA

These criteria apply to any research activity, whether or not it constitutes the entire project or a portion of the project. These criteria also apply to projects for which monitoring is a significant focus of the project, but not to projects that simply have a monitoring component tied to judging the project's effectiveness. Through minimum qualification determinations, we have already established that the proposed research or monitoring project pertains to restoration of injured natural resources in the UCFRB. These two criteria are designed to distinguish the level of benefits these projects will have on restoration of injured natural resources.

21. OVERALL SCIENTIFIC PROGRAM

General Consideration: To what extent is the monitoring or research project coordinated or integrated with other scientific work in the UCFRB?

Coordinates: The project will augment and not duplicate past and on-going scientific work, focusing on existing data gaps. The applicant has also demonstrated thorough knowledge of and coordination with other scientific work in the Basin.

Does not Coordinate: The project does not involve any coordination or integration with other scientific work in the Basin or may be duplicative.

Uncertain: Insufficient information has been provided to determine the level of coordination/ integration with other scientific work in the UCFRB.

22. ASSISTANCE WITH RESTORATION PLANNING

General Consideration: To what extent will this project assist with future restoration efforts?

Major Benefits: The project will be of major benefit to future restoration efforts in terms of needed information on the status and condition of natural resources and recovery potential/ constraints or assistance with restoration project planning, selection, implementation, and monitoring.

Moderate Benefits: The project will be of moderate benefit to future restoration efforts in terms of needed information on the status and condition of natural resources and recovery potential/constraints or assistance with restoration project planning, selection, implementation, and monitoring.

Minor Benefits: The project will be of minor benefit to future restoration efforts in terms of needed information on the status and condition of natural resources and recovery potential/ constraints or assistance with restoration project planning, selection, implementation, and monitoring.

ATTACHMENT A

MEPA Terminology

The Montana Environmental Policy Act ("MEPA"), Mont. Code Ann. § 75-1-101 through § 75-1-324, requires state agencies to carry out the policies in part 1 of MEPA through the use of a systematic, interdisciplinary analysis of state actions that have an impact on the human environment. To this end, MEPA has two central requirements: agencies must consider the effects of pending decisions on the environment and on people prior to making each decision; and, agencies must ensure that the public is informed of and participates in the decision-making process. Through the "Environmental Impacts" and "Human Health and Safety" analyses, reviewers accomplish this first important requirement of MEPA. This appendix provides basic information regarding MEPA with which reviewers should be familiar before undertaking their analyses of "Environmental Impacts" and "Human Health and Safety" criteria statements.

1. Terminology used in the *RPPC*: short-term, long-term, direct and indirect adverse impacts.

The *RPPC* states that **short-term**, **long-term**, **direct** and **indirect** adverse impacts will be evaluated. "Short-term" and "long-term" adverse impacts are not specifically discussed in MEPA. These terms, however, should be used by reviewers to subjectively categorize the duration of adverse impacts potentially presented by a project.

The Montana EQC guide to MEPA provides the following definitions of "direct" and "secondary" (rather than indirect) impacts.

- **Direct impacts** are those that occur at the same time and place as the action that triggers the event.
- **Secondary impacts** are those that occur at a different location and/or later time than the action that triggers the effect.

2. MEPA evaluations apply to the "human environment."

Reviewers should be aware that the MEPA analysis of adverse impacts applies to the "**human environment**." The MEPA definition of the term "human environment" includes, but is not limited to "biological, physical, social, economic, cultural, and aesthetic factors that interrelate to form the environment…[E]conomic and social impacts do not by themselves require an EIS…" but when an EIS is prepared, "economic and social impacts and their relationship to biological, physical, cultural and aesthetic impacts must be discussed." MEPA Model Rule II (12).

3. What is a "significant" adverse impact, and what is a "minor" adverse impact?

The determination of the "**significance**" of an adverse impact on the human environment involves the consideration of several factors, as set forth in MEPA Model Rule IV. The standard

set forth in this rule is somewhat subjective, and reviewers should be familiar with the rule to make a determination of the significance of adverse environmental impacts. Additionally, there is a library-full of case law (speaking metaphorically) on what constitutes a "significant adverse environmental impact." Questionable or borderline determinations should be referred for a legal opinion.

MEPA Model Rule IV sets forth the following criteria for determining the significance of an impact on the quality of the human environment:

(a) the severity, duration, geographic extent, and frequency of occurrence of the impact;
(b) the probability that the impact will occur if the proposed action occurs; or conversely, reasonable assurance in keeping with the potential severity of an impact that the impact will not occur;
(c) growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative impacts;
(d) the quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources or values;
(e) the importance to the state and to society of each environmental resource or value that would be affected;
(f) any precedent that would be set as a result of an impact of the proposed action that would commit the department to future actions with significant impacts or a decision in principle about such future actions; and
(g) potential conflict with local, state or federal laws, requirements or formal plans.

"**Minor**" adverse environmental impacts are adverse environmental impacts that do not rise to the level of significance.

4. "Mitigation" under MEPA.

Mitigation reduces or prevents the undesirable impacts of an action. Mitigation measures must be enforceable. MEPA Model Rules II(14) and V(2)(h) define mitigation as: avoiding an impact by not taking certain action or parts of an action; minimizing impacts by limiting the degree or magnitude of an action and its implementation; rectifying an impact by repairing, rehabilitating, or restoring the affected environment; or, reducing or eliminating an impact over time by preservation and maintenance operations during the life of an action or the time period thereafter that an impact continues. Examples of mitigation include designs, enforceable controls, or stipulations to reduce the otherwise significant impacts to below the level of significance.

ATTACHMENT B

Supplemental Information Form
(to be utilized by reviewers)

Results of Superfund Response Actions – Supplemental Information

Recovery Period and Potential for Natural Recovery – Supplemental Information

Applicable Policies, Rules and Laws – Supplemental Information

- Additional permits necessary to complete the project on schedule.
- Additional deeds, easements or rights-of-way necessary to complete the project on schedule.
- Additional communication and coordination with local entities necessary to complete the project on schedule.
- Additional measures necessary for compliance and consistency with other laws, rules, policies, or consent decree requirements.

Resources of Special Interest to the Tribes and DOI – Supplemental Information