

SCOPE OF WORK OUTLINE & EXAMPLES

For approved UCFRB Restoration Grants

July 2010

Note to Grant Recipients: The scope of work (SOW) for an approved grant proposal summarizes the project goals/objectives, tasks, schedule, and deliverables. It is a CONDENSED version of the technical narrative provided in the grant application, with any necessary adjustment to reflect changes made through the project evaluation and approval process, such as when project approval was made subject to certain funding conditions. Since the grant project has been approved, however, it is NOT necessary to include all the extra information that is included in the application to justify project funding. Failure to eliminate unnecessary information from the application into a condensed SOW will delay the grant agreement approval process.

Attached to this outline are five example SOWs for different types of projects that exemplify the type and level of information to be included in a scope of work. Attachment A is a SOW for an instream flow monitoring project. Attachment B is a SOW for a project development grant to develop instream flow augmentation alternatives. Attachment C is a SOW for a construction project. Attachment D is a SOW for project involving public outreach on and installation of water meters. Attachment E is a SOW for a project involving removal of bridge piers and logs that provides a good example of a project involves multiple entities responsible for different tasks, including design and construction tasks. Feel free to contact the NRDP for other examples more similar to your project type.

A. Project Summary

For this section, provide a BRIEF overall project summary of a few sentences. We suggest you use the brief summary provided at the beginning of the NRDP's project evaluation table. Indicate any funding conditions tied to project approval.

Example summary for Anaconda waterline project: Anaconda-Deer Lodge City County will replace about 8,800 feet of leaking, century old waterlines in West Third and other nearby streets in the City of Anaconda that serve 227 users. The total cost is \$2,206,030, with \$1,988,478 approved in Restoration Funds and \$206,481 in cash and \$11,071 in-kind matching funds.

B. Project Goals and Objectives

Indicate the goals of this project, or the problems you intend to solve through implementation of this project. Identify the specific project objectives you plan to accomplish in order to achieve these goals.

C. Project Implementation

Describe in chronological order the individual tasks or activities necessary to accomplish the work under each objective. Identify project phases, staff, contracted services, and needed regulatory permits or approval.

Project Schedule

Provide a project time schedule for the project tasks and deliverables. The format of the schedule may be either a list of activities, table or flow chart. If desired, the schedule can be included in project implementation section.

D. Monitoring Activities

Indicate the monitoring activities related to measuring project effectiveness. Note: If you provided this information under project implementation, it does not need to be repeated here.

E. Project reports

List project reports or other deliverables that will be submitted as part of grant activities. Identify which reports require NRDp approval. This should include the progress reports and final grant report required under the grant agreement. These progress reports are to be submitted quarterly or monthly depending upon whether the grant recipient wants to be paid quarterly or monthly.

ATTACHMENT A: Montana Trout Unlimited Instream Flow Measurements SCOPE OF WORK

A. Project Summary

In June 2009, the Trustee Restoration Council approved \$25,000 in funding to Montana Trout Unlimited (TU) to collect flow data on 10 to 15 Upper Clark Fork River Basin (UCFRB) tributary streams to facilitate the establishment of some instream flow water rights by the U.S. Forest Service (USFS). A 2007 Compact Agreement between the State and the USFS established a process whereby the USFS could apply for such instream flow rights.

B. Project Goals and Objectives

The overall goal of the project is to prevent further degradation of fisheries in UCFRB tributaries. The primary objective of this project is to collect streamflow data necessary for preparing USFS instream water right applications on at least 10 and up to 15 of the following tributaries in the Basin: German Gulch, Lost Creek, Warm Springs Creek, Storm Lake Creek, Twin Lakes Creek, Barker Creek, Foster Creek, Flint Creek, Boulder Creek, Ross Fork Rock Creek, Upper Willow Creek, Stony Creek, Ranch Creek, Harvey Creek, and Tyler Creek.

C. Project Implementation and Schedule

TU will hire and manage two temporary to collect stream flow data on 10-15 streams using the State-adopted wetted perimeter methodology. TU will provide the flow data to USFS, which will utilize this information to prepare instream flow application for DNRC approval. To complete this project, TU will conduct the following tasks, which are further detailed in TU's grant application, according to the indicated schedule:

Task 1- Project Design (October 2008 - July 2009): Conduct site identification, recruitment of field technicians, and coordination with the USFS, DNRC and FWP. TU conducted most of these project design tasks that focused on selecting the appropriate project streams prior to submission of its grant application.

Task 2- Field Measurement Design (June - July 2009): Conduct site visits to identify appropriate measurement location. Sites will be marked with rebar and flagging in addition to a GPS coordinate measurement.

Task 3- Implementation (July - September 2009): Collect three sets of streamflow measurements for each stream over the course of one field season using the State-adopted wetted perimeter methodology prescribed by the 2007 Compact Agreement.

Task 4- Implementation (July - December 2009): Conduct project management, coordination, field data synthesis activities and submission of data to the USFS.

Task 5- Project Completion (December 2009): Provide financial accounting and grant reporting.

D. Monitoring Activities

TU will periodically communicate with the USFS to ensure that the data collected for this project is being utilized for instream flow applications to the DNRC.

E. Progress Reports

Progress reports and a final grant report will be submitted with invoices as required by the contract with NRDp.

ATTACHMENT B: Montana Water Trust Dry Cottonwood PDG

SCOPE OF WORK

B. Project Summary

The Montana Water Trust (MWT) was approved for a project development grant (PDG) to perform a water study on the Dry Cottonwood Ranch and associated ranchlands in the Upper Clark Fork River Basin. This water study includes both groundwater and surface water monitoring components as well as data modeling, analysis, and reporting. The results of this study will inform decisions on efficiency, water management, and operational changes to increase instream flow in the area for the benefit of the fishery resource.

A1. Funding Conditions. MWT is not to measure flow at the Westside Ditch headgate unless approved by NRD staff, in order to assure coordination with on-going work by DNRC on the Westside Ditch.

B. Project Goals and Objectives

The goal of this project is to study the hydrology and water usage in a ~4.25 mile stretch of the Clark Fork River (CFR) near Galen in order to guide and develop future efficiency, water management, and operational changes on lands associated with the Dry Cottonwood Creek Ranch.

The primary objectives of this project are to:

- 1) Characterize loss or gain in the channel of the CFR in the project area.
- 2) Determine the current irrigation water usage of the ranch.
- 3) Quantify ditch seepage on the Helen Johnson ditch.
- 4) Investigate irrigation-related groundwater storage and return flow.
- 5) Assess the potential for converting excess water from the Dry Cottonwood Ranch's water rights to instream flow.
- 6) Assess the potential to upgrade or replace existing irrigation infrastructure to improve efficiency (e.g., leaky or inoperable headgates will be recommended for replacement).
- 7) Produce a document that incorporates and evaluates the above data and makes recommendations for water conservation.

C. Project Implementation

There are three project phases: 1) establishing the monitoring network; 2) gathering hydrologic data; and 3) post processing and report compilation.

Phase 1 – Establishing the Monitoring Network

- Install 11 small-diameter groundwater wells (piezometers) with a Geoprobe on the east side of the floodplain, within the property boundary of the Dry Cottonwood Creek Ranch. Well locations will be mapped with GPS, and relative elevations determined using MWT's laser level.

- Establish surface water monitoring locations that meet USGS quality control guidelines (e.g., straight stream sections, even flow distribution across the channel, lack of obstructions to the straight path of flow). These locations will be recorded with GPS and marked with pins and flagging. All surface water (tributary) inputs and diversions encountered within the study reach will be measured.
- Install two flumes (one in the Helen Johnson Ditch and one in the Dry Cottonwood Creek diversion) to determine water usage and to effect better irrigation water management.

Phase 2 – Gathering Hydrologic Data

- Using a depth tape, obtain weekly well water levels (by both MWT and by the Clark Fork Coalition’s Ranchlands Community Coordinator).
- Conduct slug test and estimate hydraulic conductivity of the shallow aquifer one or more of the three existing stock wells on the Ranch property.
- Conduct monthly surface water synoptic flow studies on both the CFR and on the specified portion of the Helen Johnson Ditch. During each monthly synoptic study event, the entire study length of the CFR and Helen Johnson ditch will be walked, with flow measurements taken along the way at each water input or diversion encountered. All measurements will be completed in one day for each event, and will abide by USGS streamflow protocol, using a calibrated Marsh-McBirney velocity meter. Where possible, measurement sites will be consistent for each synoptic study.
- Record flume readings at least weekly (primarily by the Clark Fork Coalition’s Ranchlands Community Coordinator).

Phase 3 – Post-Processing and Report Compilation

- Complete analysis of the groundwater data (by the Clark Fork Coalition’s Science Director).
- Produce hydrographs of individual wells, and seasonal water table maps of the east side of the floodplain.
- Conduct calculations to determine the amount of irrigation water that recharges groundwater, and estimates of return flow to the river.
- Analyze the synoptic flow and surface water data (by Damon Pellicori of the MWT). Products will include hydrographs, calculations of gain or loss in the CFR, ditch loss calculations, quantification of irrigation water usage, and comparison of water used to the ranch’s water right holdings.
- Compile and produce a report of the results that includes suggestions for water conservation and instream flow conversions.
- Present results to residents and interested parties in the UCFRB. MWT will notify NRDp when and where this presentation will take place so NRDp staff have an opportunity to attend.

F. Project Schedule

Timelines

The timelines for implementing the three tasks, plus preparation of a final report for this grant, is shown in Table 1. The final report for this grant will be completed by December 31, 2009.

| TASK | COMPLETION DATE | | | | | | | |
|--|-----------------|--------|--------|--------|--------|--------|--------|--------|
| | May-09 | Jun-09 | Jul-09 | Aug-09 | Sep-09 | Oct-09 | Nov-09 | Dec-09 |
| 1. Install piezometers (11) | | | | | | | | |
| 2. Monitor wells weekly | | | | | | | | |
| 3. Synoptic Streamflow studies (5 times, numerous sites) | | | | | | | | |
| 4. Ditch loss measurements (5 times) | | | | | | | | |
| 5. Data analysis | | | | | | | | |
| 6. Present results to CFC and interested parties | | | | | | | | |
| 7. Report preparation | | | | | | | | |

Table 1 - Please note that timelines have been changed from the application to reflect the later start date.

G. Monitoring Activities – Not applicable

H. Progress Reports

Progress reports and final grant report will be submitted with invoices as required by MWT contract with NRDp.

The final product of this project will be a document that presents, analyzes the hydrologic field data and evaluates the instream flow potential of a variety of water conservation options. These data and analyses will be necessary for any future dedication of water to instream flow through the DNRC change process. This project will also increase the volume of knowledge on water interactions, agricultural use, and the potential for instream flow on the east side of the Upper CFR in one of its most severely dewatered reaches.

ATTACHMENT C: BIG HOLE RIVER DIVERSION DAM REPLACEMENT SCOPE OF WORK

A. Project Summary

Butte Silver Bow City/County (B-SB) will replace the old, dilapidated Big Hole River Diversion Dam. This dam diverts water from the Big Hole River into the Butte Water Company's transmission/treatment system. Approximately 60% to 80% of Butte's water supply comes from the Big Hole River which is 22 miles south of Butte. The Big Hole also serves as Rocker's main water source. Total project costs are estimated at \$4,155,844 with \$3,714,833 to be provided in Restoration Funds and \$412,760 cash and \$28,252 in-kind matching funds.

A1. Funding Conditions

As specified in the *2008 Final UCFRB Restoration Work Plan*, the Governor approved funding for this project subject to an additional funding condition requiring NRDPA approval of any changes in the proposed improvements that result from the environmental assessment process. This condition, as well as the standard funding conditions for all projects, requires NRDPA approval of final design documents and that matching fund commitments be met is reflected in this scope of work and the associated budget.

B. Project Goals and Objectives

The goal of this project is to replace the dilapidated Big Hole River Diversion Dam in order to sustain a reliable supply of water from the Big Hole River to the citizens of Butte-Silver Bow now and into the future.

B1. Significant Change in Scope of Work

Refer to Section 4 of the Grant Agreement #600237.

C. Project Implementation Plan

B-SB will conduct the following tasks to accomplish project goals:

Task 1: Select an engineering firm to design, permit, and oversee project

Project staff will need to secure B-SB Council of Commissioners' approval to solicit an RFP for consulting engineering services. The RFP will then be prepared and a legal notice of the RFP will be advertised. Following the deadline for submission, the RFP responses will be reviewed and a consulting engineering firm selected.

Project Staff Required -

Public Works Director, 4 hours

Water Division Plant Superintendent, 40 hours

Chief Operating Engineer, 40 hours

Task 2: Develop design input for new dam

B-SB Water Division personnel, in conjunction with the engineering firm, will review historic information and databases to thoroughly assess the structural limitations, as well as the operation and maintenance issues and problems, of the existing the Big Hole River Diversion Dam.

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| Project Staff Required - | Public Works Director, 16 hours |
| | Assistant Public Works Director, 16 hours |
| | Water Division Plant Superintendent, 20 hours |
| | Chief Operating Engineer, 20 hours |

Task 3: Design new dam

The engineering firm will design the new Big Hole River Diversion Dam and then create plan sheets that detail the work to be performed. These plan sheets and specifications will be used for the construction bidding process and during actual construction. B-SB Water Division personnel will work with the consulting engineer during this process and review the designs once complete. The consulting engineer will then submit the designs to the Montana Department of Environmental Quality for review and approval.

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| Project Staff Required - | Public Works Director, 12 hours |
| | Assistant Public Works Director, 20 hours |
| | Water Division Plant Superintendent, 60 Hours |
| | Chief Operating Engineer, 60 hours |

Pursuant to the requirements of the UCFRB Restoration Plan Procedures and Criteria, B-SB will provide design plans to the NRD prior to bidding for NRD's approval that the proposed design is consistent with the approved proposal.

Task 4: Obtain all necessary permits for construction of new dam

The engineering firm will secure all necessary and appropriate permits for the construction of the new Big Hole River Diversion Dam. B-SB Public Works Department staff will assist the engineering firm in providing the necessary data required for the various permit applications.

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| Project Staff Required - | Public Works Director, 12 hours |
| | Assistant Public Works Director, 8 hours |
| | Water Division Plant Superintendent, 12 Hours |
| | Chief Operating Engineer, 8 hours |

In regards to possible regulatory approvals and permits required, the 2008 B-SB Water Master Plan and B-SB's 2008 application for this project included the following list:

- a. Montana Natural Streambed and Land Preservation Act Permit (310 Permit). This permit is intended to minimize the impact to the stream and stream bed. Permit applications are

- made through the local conservation district. The permit is reviewed by the Montana Department of Fish Wildlife and Parks and the conservation district.
- b. Montana Floodplain and Floodway Management Act. (SP124 Permit). This permit is obtained from the Floodplain Management Section of the Department of Natural Resources and Conservation. This permit is required for all construction within the 100 year floodplain.
 - c. Army Corps of Engineers 404 Permit. This permit is required for any activity that will result in the discharge or placement of dredged or fill material into waters of the United States.
 - d. Federal Rivers and Harbors Act (Section 10 Permit). This permit is obtained from the Army Corps of Engineers and is required for any construction activity in, on, under, or over any federally listed navigable water of the United States.
 - e. Short-Term Water Quality Standard for Turbidity (318 Authorization). This permit is required for any construction activity that will cause short term or temporary violations of state surface water quality standards for turbidity.
 - f. Montana Land-Use License or Easement on Navigable Waters. The license/easement is required for any entity implementing a project on lands below the low water mark of navigable waters. This permit is obtained from the Montana Department of Natural Resources and Conservation Special Use Management Bureau.
 - g. Storm Water Discharge Permit Authorization. This permit is required for any construction project that will have a discharge of storm water into surface waters. It is obtained from the Montana Department of Environmental Quality.
 - h. Environmental Impact Statement (EIS) or Environmental Assessment (EA). Either an EA or an EIS will be required to comply with MEPA and NEPA provisions.

Pursuant to the approved funding conditions, B-SB shall obtain NRDP approval of any changes in proposed improvements that result from the environmental assessment process.

Task 5: Select general contractor through a public competitive bidding process

The engineering firm will prepare a bid package that contains plans, specifications, general conditions, and a contract for the construction of the new dam. The project will be advertised in the legal notices of the newspaper and sealed bids will be received and opened at a meeting of the Council of Commissioners. B-SB Public Works Department personnel, in conjunction with the engineering firm, will review all submitted bids. B-SB will prepare a recommendation for award of a contract for construction and will present this recommendation to the Council of Commissioners. The Council will award the project and a contract will be executed between the general contractor and B-SB.

Project Staff Required -

Public Works Director, 4 hours
Assistant Public Works Director, 8 hours
Water Division Plant Superintendent, 24 Hours
Chief Operating Engineer, 12 hours

Task 6: Oversee the construction of the dam

B-SB Public Works Department personnel and the engineering firm will oversee the general contractor throughout the construction phase of the project. This oversight is intended to assure that the contractor builds the project in conformance with the approved plans and specifications. The engineering firm will review all pay requests submitted by the contractor for completeness and accuracy. The engineering firm will make recommendations to B-SB regarding the pay estimates.

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| Project Staff Required - | Public Works Director, 48 hours |
| | Assistant Public Works Director, 16 hours |
| | Water Division Plant Superintendent, 160 Hours |
| | Chief Operating Engineer, 160 hours |

Task 7: Prepare records and drawings for completed work

All construction records and drawings will be reviewed by the engineering firm. Pertinent information and drawings that detail the work accomplished will be submitted by the engineering firm to the appropriate federal, state and local agencies to demonstrate that the work was accomplished in accord with the approved plans.

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| Project Staff Required - | Public Works Director, 4 hours |
| | Assistant Public Works Director, 4 hours |
| | Water Division Plant Superintendent, 40 Hours |
| | Chief Operating Engineer, 80 hours |

D. Project Time Schedule

As reflected on chart below, the tasks will be conducted and completed over a 24-month period.

| | Jan 09 | Feb 09 | Mar 09 | Apr 09 | May 09 | Jun 09 | Jul 09 | Aug 09 | Sept 09 | Oct 09 | Nov 09 | Dec 09 |
|---------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|-------------------|-------------------|-------------------|
| Task 1: Select Engineering Firm | X | X | | | | | | | | | | |
| Task 2: Design Input | | | X | X | | | | | | | | |
| Task 3: Design the New Dam | | | | X | X | X | | | | | | |
| Task 4: Obtain Permits | | | | | | X | X | X | X | X | X | |
| Task 5:Select Construction Contractor | | | | | | | | | | | | X |
| Task 6: Oversee Construction | Jan 10 | Feb 10 | Mar 10 | Apr 10 | May 10 | Jun 10 | Jul 10 | Aug 10 | Sept 10 | Oct 10 | Nov 10 | Dec 10 |
| | X | X | X | X | nc | nc | nc | nc | nc | X | X | X |
| Task 7: Prepare Records and Drawings | | | | | | | | | | | | |
| | | | | | | | | | | | | Dec 10 |
| | | | | | | | | | | | | X |

nc – means no construction activity due to spring runoff and summer low water levels and high water consumption.

E. Project Reports

Pursuant to Section 8 of the grant agreement #6002387 B-SB will submit progress reports with invoices to the NRDP during the term of the agreement and a final grant report. The information to be contained in the progress reports and final report is specified in Attachments D and E, respectively, to this grant agreement.

ATTACHMENT D: B-SB METERING PROJECT

SCOPE OF WORK

A. Project Summary

Butte-Silver Bow Local Government (B-SB) will initiate the first year of a ten year incremental, voluntary water metering and public awareness program to enhance water conservation efforts in Butte. Total project costs are estimated at \$325,161 with \$273,600 to be provided in Restoration Funds, \$32,743 in cash, and \$18,818 in-kind matching funds. Of the \$273,600 in Restoration Funds, \$25,000 is for the public awareness campaign and \$248,000 is for metering installation.

A1. Funding Conditions

The Governor approved full funding of this project for the requested amount of \$273,600, with the funding condition that Restoration Funds will reimburse B-SB for installed meters.

B. Project Goals and Objectives

The goal of this project is to promote water conservation through a public awareness campaign and to install 500 new water meters in homes and businesses on the Butte water system. The first objective of this project is to hire a consultant to conduct a public awareness program to educate the community on water conservation and the financial benefits of water metering. The second objective will be to install 500 new water meters in existing homes or businesses.

C. Project Implementation Plan

B-SB will conduct the following tasks to accomplish the project goals:

Task 1: Select a firm to create, implement, and monitor public awareness program

Project staff will need to secure B-SB Council of Commissioners' approval to solicit an RFP for the services of a public relations firm. The RFP will then be prepared and a legal notice of the RFP will be advertised. Following the deadline for submission, the RFP responses will be reviewed and a public relations firm selected. This firm will create, implement and monitor the public relations campaign project for approximately one year. Continuation of the public awareness program will be sustained by the B-SB Water Utility Division after the first year.

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| Project Staff Required – | Public Works Director, 4 hours |
| | Public Works Assistant Director, 24 hours |
| | Water Utility Business Manager, 40 hours |

Task 2: Install approximately 500 Water Meters

Since 1992, the B-SB Water Utility Division has installed 6,535 meters. Approximately 100 meters are being installed yearly on new construction projects. This project will require the B-SB Water Utility Division to install approximately 500 water meters in year one of the project.

An effort will be made to coordinate water meter installations in neighborhoods where B-SB's contractor is replacing water distribution lines. The B-SB Water Utility Division will provide a competent workforce to install these water meters and will properly update records.

Project Staff Required –

Public Works Director, 20 hours
 Public Works Assistant Director, 36 hours
 Water Utility Business Manager, 24 hours
 Water Utility Division Engineer Technician-56 hours
 Water Utility Division Laborers, 1,250 hours
 Water Utility Division Construction Foreman, 24 hours
 Water Utility Division Asst. Operations Mgr., 24 hours
 Butte-Silver Bow Risk Manager, 8 hours
 Other, 10 hours

D. Project Time Schedule

The goals, objectives, and tasks will be conducted as reflected on the following Time Schedule:

| | Aug 09 | Sept 09 | Oct 09 | Nov 09 | Dec 09 | Jan 10 | Feb 10 | Mar 10 | Apr 10 | May 10 | Jun 10 | Jul 10 | Aug 10 | Sept 10 | Oct 10 | Nov 10 | Dec 10 |
|--|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|
| Task 1: Public Awareness Program | | | | | | | | | | | | | | | | | |
| Develop Scope of Work | X | X | | | | | | | | | | | | | | | |
| Evaluate & Select Contractor | | X | | | | | | | | | | | | | | | |
| Contractor Initiate/ Implement Awareness Campaign | | X | X | X | X | X | X | X | X | X | X | X | | | | | |
| Evaluation of Contractor | | | | | | | | | | | | | | X | | | |
| Task 2: Meter Installation | | | | | | | | | | | | | | | | | |
| Coordinate Water Meter Installation w/ Distribution Line Replacement | X | | | | | | | | X | | | | | | | | |
| Install Meters | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | |
| Proper Record Keeping | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | |

E. Project Monitoring

Successful completion of the water metering project will require careful monitoring on the part of B-SB. As provided in the project application (pp. 17-18), B-SB's monitoring on this project will be part of its comprehensive on-going water system monitoring and an intended 10 year program to incrementally meter all service connections. The elements of B-SB comprehensive monitoring that are specific to evaluating the effects of increased metering include: monitoring of leakage distribution showing supply flows to metered flows to determine leakage; comparing the water usage over the summer months between metered and unmetered customers; monitoring the potential resident water usage reduction with a metered system by completing a year-long comparison with unmetered and metered users; and comparing the reduction of flow to the wastewater treatment plant during the time when water meters are being installed.

F. Project Reports

Pursuant to Section 8 of the grant agreement #600240 B-SB will submit progress reports with invoices to the NRDP during the term of the agreement and a final grant report. The information to be contained in the progress reports and final report is specified in Attachments D and E, respectively, to this grant agreement.

Bridge Pier and Log Removal near the Former Milltown Reservoir
Attachment A: Scope of Work

A. Project Summary

The Clark Fork Coalition (CFC) and the Montana Fish, Wildlife and Parks (FWP) (co-applicants) have been granted \$262,177 in Restoration Funds to complete restoration actions on the Clark Fork and Blackfoot Rivers. Project costs cover: 1) removal of four abandoned bridge piers in the bed and banks of the Blackfoot River approximately 1.4 miles upstream of the confluence with the Clark Fork River; 2) removal of up to four abandoned bridge piers and up to two bridge abutments on the Clark Fork River above Turah; and 3) the removal of up to 5,000 logs from the lower 1.5 miles of the Blackfoot River. CFC and FWP will assist as needed the Montana Department of Natural Resources and Conservation (DNRC), which will be the lead agency, to secure landowner agreements, competitively procure engineering and construction contractors, and oversee both bridge pier and log removal. The DNRC will handle grant administration responsibilities with assistance from CFC as needed. Of the \$262,177 requested in Restoration Funds, \$165,653 is allocated for bridge pier removal, \$80,000 for log removal, \$14,740 for agency management and oversight costs, and \$1,784 for the CFC's grant administration costs.

Al. Funding Conditions: The Governor approved this project subject to the following funding conditions:

- 1) that the NRDPA approve of landowner agreements;
- 2) that grant activities be coordinated with DEQ's remedial action to remove the Stimson Cooling Pond; and
- 3) that the NRDPA approve of the final design components as required by the *RPPC*.

B. Project Goals and Objectives

The project goals are to restore the Clark Fork and Blackfoot Rivers and increase recreational safety for boaters and other river uses in the vicinity of the former Milltown Reservoir. The objectives to achieve these goals include removing abandoned railroad bridge piers from the bed of both the Clark Fork and Blackfoot Rivers and removing saw logs from the lower Blackfoot River (as described above).

C. Project Implementation

The project phases for each of the three parts of this proposal are described below. The responsible agency for each task is included in parentheses. Items needed NRDPA approval are indicated.

Log Removal on the Blackfoot River

- a. Secure access agreements with Stimson on the south bank, and Scott Cooney and The Nature Conservancy on the north bank. Obtain NRDPA approval of landowner agreements. (DNRC, FWP, CFC)
- b. Estimate the number of logs in the river to be removed. (DNRC)
- c. Prepare a bid and selecting a contractor. (DNRC)
- d. Conduct permitting (preparing applications and obtaining all required permits) including a floodplain permit from Missoula County, 124 permits from Montana Fish,

- Wildlife and Parks and River Land Use agreement from DNRC. (Contractor, FWP, DNRC)
- e. Construct skid trails as necessary, to be approved by agency. (Contractor)
 - f. Remove logs from river. (Contractor)
 - g. Transport logs to designated stacking area, sort by dimension. (Contractor)
 - h. Agency oversight. (DNRC)
 - i. Sell logs (funds from logs will be returned to the NRD; any excess over projects costs will go to the state's School Trust funds). (DNRC)

Bridge pier removal on the Blackfoot River

- a. Secure access agreements with Stimson on the south bank, and Scott Cooney and The Nature Conservancy on the north bank. Obtain NRD approval of landowner agreements. Three piers would be removed from the north and one pier would be removed from the south. (DNRC, FWP, CFC)
- b. Prepare bid and contract with engineering firm. (DNRC)
- c. Project design and work plan. Obtain NRD approval of design. (CFC, Contractor)
- d. Permitting (preparing applications and obtaining all required permits) including a floodplain permit from Missoula County, 124 permits from Montana Fish, Wildlife and Parks and River Land Use agreement from DNRC. (Contractor, FWP, DNRC)
- e. Mobilization, including transport of equipment, personnel and supplies to the work site. (Contractor)
- f. Site preparation, including access improvements as necessary, clearing and grubbing as necessary. (Contractor)
- g. Demolition of piers to an eight foot scour depth, including general excavation and loading of rubble. (Contractor)
- h. Disposal of debris, including hauling and dumping at the Allied Waste landfill in Missoula. (Contractor)
- i. Reclamation of access routes and river banks, including spreading reserved topsoil and woody debris over disturbed areas, seeding with native vegetation. (Contractor)
- j. Demobilization of equipment and personnel. (Contractor)
- k. Agency oversight. (DNRC)
- l. Monitoring re-vegetation. (DNRC, FWP, CFC)

Bridge pier and abutment removal on the Clark Fork River

- a. Secure access agreements with Bryan Black on the east bank, and Russell Heliker on the west bank. Determine number of piers/abutments that landowners desire to remove, of those on their property. Obtain NRD approval of landowner agreements. (DNRC, FWP, CFC)
- b. Write bid and contract with engineering firm. (DNRC)
- c. Project design and work plan. Obtain NRD approval of design. (CFC, Contractor)
- d. Permitting (preparing applications and obtaining all required permits) including a floodplain permit from Missoula County, 124 permits from Montana Fish, Wildlife and Parks and River Land Use agreement from DNRC. (Contractor, FWP, DNRC)

- e. Mobilization, including transport of equipment, personnel and supplies to the work site. (Contractor)
- f. Site preparation, including access improvements as necessary, clearing and grubbing as necessary. (Contractor)
- g. Demolition of piers and abutments to an eight foot scour depth, including general excavation and loading of rubble. The west abutment and one instream pier would be removed from the west side, and the remaining three piers and abutment would be removed from the east side. (Contractor)
- h. Disposal of debris, including hauling and dumping at the Allied Waste landfill in Missoula. (Contractor)
- i. Reclamation of access routes and river banks, including spreading reserved topsoil and woody debris over disturbed areas, seeding with native vegetation. (Contractor)
- j. Demobilization of equipment and personnel. (Contractor)
- k. Agency oversight. (DNRC)
- l. Monitoring re-vegetation. (DNRC, FWP, CFC)

D. Project Schedule

The log and pier removal projects on the Blackfoot River will occur September-December 2010. Upon consultation with FWP, fall through early spring are appropriate months for avoiding undue impacts to fisheries. Exact start dates will depend on flow conditions in the river; high flows may delay progress. The project will be coordinated to the extent possible with DEQ, Stimson, and Envirocon on the Stimson cooling pond remedial action, since this project is in close proximity to that one. The anticipated project completion date on the Blackfoot River is December 15th, 2010. The pier removal on the Clark Fork will occur in late 2010 or early 2011, before runoff, depending on contractor availability and landowner negotiations. We expect that log removal and pier removal will be two separate contracts, thus they can overlap.

BLACKFOOT AND CLARK FORK PIER REMOVAL: Total time is approximately 3 months

| Task | Timeframe In days | Can overlap with previous task | Clark Fork and Blackfoot can overlap |
|--|----------------------|--------------------------------------|--|
| Secure final access agreements with landowners | 5 | | X |
| Prepare bid and contract with engineering firm | 30 | X | X |
| Project design and work plan | 1.5 | | X |
| Permitting | 3 | X | X |
| Mobilization | 1 | | |
| Site preparation | 1 | | |
| Demolition of piers | 4 | | |
| Hauling and dumping debris | 13 | X | |
| Reclamation and revegetation | 2 | | |
| Demobilization | 1 | | |
| Monitoring of re-vegetation | (up to 3 years) | | X |

LOG REMOVAL: Total time is up to 3 months

| Task | Timeframe In days | Can overlap with previous task | Can overlap with pier removal |
|------------------------------------|----------------------|--------------------------------------|-------------------------------------|
| Estimate the number of logs | 1 | | X |
| Prepare bid and select contractor | 30 | | X |
| Construct skid trails as necessary | 1 | | X |
| Remove logs from river | Up to 60 | | X |
| Transport and sort logs | Up to 60 | X | X |
| Sell logs | Up to 90 | X | X |

E. Monitoring Activities

The reclamation and re-vegetation of disturbed areas will require monitoring for a period of 3 years each summer to be sure that seeded and sprigged vegetation is successful, and weeds are controlled. Agency personnel will be responsible for assessing the success of re-vegetation in consultation with each landowner. The grant will not be closed until each landowner is satisfied with the reclamation effort. If additional work is required, the agencies and CFC will assist in the effort.

F. Project reports

Progress reports and a final grant report will be submitted with invoices as required by the contract with NRDP.