

**US Army Corps  
of Engineers**

Omaha District

## **PUBLIC NOTICE**

**Application No: 2003-90-714**

**Applicant: Edward Mortenson, et al**

**Waterway: Bitterroot River**

**Issue Date: 26 November 2003**

**Expiration Date: 11 December, 2003**

**15 DAY NOTICE**

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**Helena Regulatory Office 10 West 15<sup>th</sup> Street, Suite 2200 Helena, Montana 59626**

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**JOINT PUBLIC NOTICE  
FOR PERMIT APPLICATION SUBMITTED TO  
U.S. ARMY CORPS OF ENGINEERS  
AND  
MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

The application of Mr. Edward Mortenson submitted on behalf of an informal association of 17 landowners, for approval of plans and issuance of a permit under authority of the Secretary of the Army is being considered by the District Engineer, U.S. Army Corps of Engineers, Omaha, Nebraska. **The project described herein is not being proposed by the Corps, but by the applicant; the Corps will evaluate the proposed work to determine if it is permissible under current laws and regulations.**

**Description of Proposed Project:** The applicant requests permission to remove woody debris and sediment from a recently abandoned channel of the Bitterroot River, with the intent of diverting flow from the avulsed channel back into the abandoned main channel. The project also involves placing two woody debris jams in the avulsed channel and constructing a rootwad revetment for bank protection. Drawings showing the location and extent of the project are attached to this notice.

**Location:** The proposed activity is located in the SE1/4, SW1/4 of Section 35, Township 4 North, Range 21 West, Ravalli County, Montana, approximately two miles north of the town of Darby.

**Purpose:** The purpose of the proposed project is to return flow to the former main channel that was abandoned during spring runoff in 2003. The newly formed channel is causing flooding and property damage to residences adjacent to the new channel. The landowners are concerned that if nothing is done to restore flow to the main channel before high water next spring, that they will sustain further damage to residences and associated buildings.

**Background:** The services of Specialized Engineering and Mr. Howard Anderson, P.E., were retained by the affected landowners to assist with the design and implementation of the restoration of the abandoned channel, which is now dry. This design plan was submitted to the Bitterroot Conservation District and was approved. The plan was also reviewed on-site by the Montana Department of Natural Resources and Conservation and Montana Fish Wildlife and Parks.

**401 Water Quality Certification:** The Montana Department of Environmental Quality, 1520 East 6th Avenue, PO Box 200901, Helena, Montana 59620-0901, will review the proposed project with the intent to certify in accordance with the provisions of Section 401 of the Clean Water Act. The certification, if issued, will express the State's opinion that the operations undertaken by the applicant will not result in a violation of applicable water quality standards. The Montana Department of Environmental Quality hereby incorporates this public notice as its own public notice and procedures by reference thereto.

**Cultural Resources:** The Corps of Engineers, Omaha District will comply with the National Historic Preservation Act of 1966, as amended. We have checked the National Register of Historic Places and its current supplements, and there are no known National Register sites in the vicinity; however, we will evaluate input by the State Historic Preservation Office and the public in response to this public notice, and we may conduct or require a reconnaissance survey of the permit area to check for unknown historic or prehistoric properties, if warranted.

**Threatened / Endangered Species:** This project is in the known range of the threatened **bull trout** (*Salvelinus confluentus*.) In compliance with the Endangered Species Act, a preliminary "may-affect" determination has been made. Coordination with the U.S. Fish and Wildlife Service and other interested agencies will be completed to determine the effects on the threatened **bull trout** or its critical habitat.

**Evaluation Factors:** The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposed activity must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people. In addition, the evaluation of the impact of work on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act (40 C.F.R.; Part 230).

**Comments:** The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity. All public notice comments will be considered public information and will be subject to review by the applicant.

Any person may request, in writing and within the comment period specified in this notice, that a public hearing be held for the purpose of gathering additional information. Requests for public hearings must be identified as such and shall state specifically the reasons for holding a public hearing and what additional information would be obtained. The request must be submitted to the U.S. Army Corps of Engineers, 10 West 15th Street, Suite 2200, Helena, Montana 59626. If it is decided that additional information is required and that a public hearing should be held, interested parties will be notified of the date, time and location.

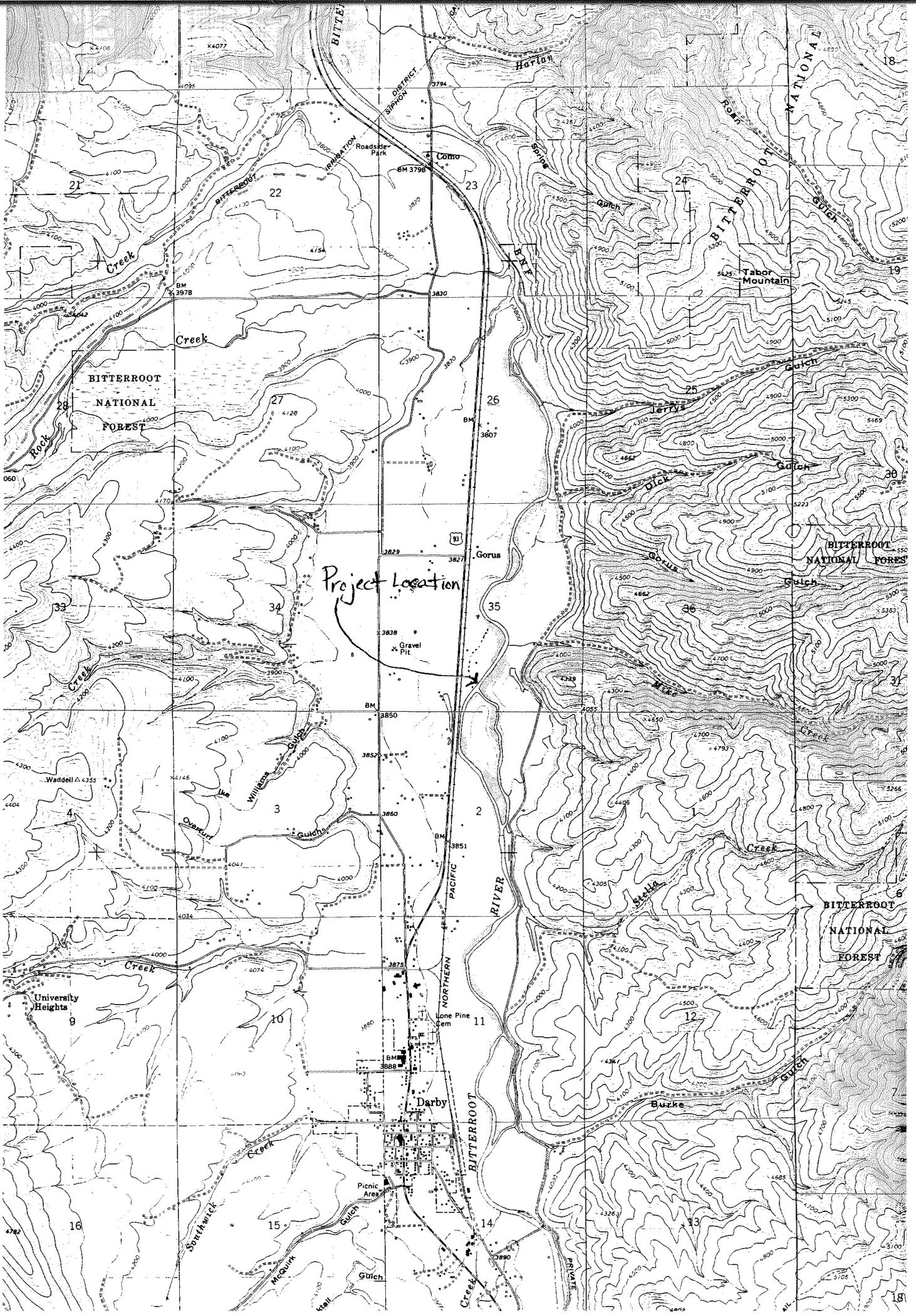
Any interested party (particularly officials of any town, city, county, state, or Federal agency; Indian tribe; or local association whose interests may be affected by the work) is invited to submit to this office written facts, arguments, or objections on or before the expiration date listed on the front of this notice. Any agency or individual having an objection to the work should specifically identify it as an objection with clear and specific reasons. Comments, both favorable and unfavorable, will be accepted, made a part of the record and will receive full consideration in subsequent actions on this application. All replies to the public notice should be addressed to the **U.S. Army Corps of Engineers, 10 West 15th Street, Suite 2200, Helena, Montana 59626. Please reference the Application Number found on the first page of this notice in any correspondence.** Jean Ramer (project manager), telephone number (406) 441-1375, may be contacted for additional information. You may also fax your comments to (406) 441-1380, or email to: **Jean.L.Ramer@usace.army.mil**

Comments postmarked after the expiration date of this public notice will not be considered.

**Statutory Authorities:** A permit, if issued, will be under the provisions of Section 404 of the Clean Water Act.

Mortenson 2003 90 714

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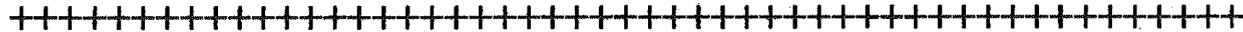
# McKAY RIVER RESTORATION PROJECT

COE-HLNA

NOV 20 2003

## WORK ORDER AND SPECIFICATIONS

REVISED 11.19.2003



### **1.0 INTENT OF THIS PROJECT AND PROJECT SPECIFICATIONS:**

It is the intent of these specifications and order of work for the River Restoration Project located in The SE ¼ of the SW ¼ and the SW ¼ of the SE 1/4 of Sec 35, T 4 N., R 21 W. commonly called locally the McKay River Restoration project is to RESTORE THE BITTERROOT RIVER TO ITS ORIGINAL CHANNEL AS SHOWN ON VARIOUS MAPS DATED 1955, 1964, 1987 AND 1996; AND as shown on the enclosed drawings, to PROTECT EXISTING HOMES (ABOUT 10) DOWNSTREAM AND PARALLEL TO THE RAILROAD TRACKS, and to RE-ESTABLISH FISH HABITAT WITHIN A TOTALLY FLOWING CHANNEL THAT WILL BE IN ITS HISTORICAL LOCATION.

Further INTENT is to protect existing vegetation along the East and West River banks, prevent future soil erosion, prevent future vegetation erosion, and provide or enhance fisheries habitat all along the Bitterroot River in Sec. 35. Refer to the attached USGS vicinity maps of the area.

### **2.0 PROJECT DESCRIPTION:**

Work to complete the intent of this project will involve the following major work items:

- a. Removal of woody debris from three (3) major locations.
- b. Opening One (1) existing small stream threads to allow more direct river flow.
- c. Installing root wads along a river stretch of about 450 lin ft and other woody debris.
- d. Building a major log jam about 150 ft wide. See plan
- e. Place root wads and other woody debris along a river stretch of about 200 lin ft. (West Side)
- f. Building a smaller Log Jam of about 60 ft in width, Adjacent to the McKay House.
- g. Remove deposits of gravels and sands to allow a smother river flow.
- h. Depositing the remaining woody debris in an organized manner between the log jam and The railroad
- i. Cleanup.

### **3.0 AFFECTED PROPERTY OWNERS:**

There are Seventeen (17) affected property owners who have signed the 310 application asking for Permission and approval to complete the work shown on the attached plans and the 310 permit application. That list is enclosed and is the signature portion of the 310 application.

Sixteen of the above property owners are experiencing present flooding problem, damage to their land, Threatening potential damage to their residences and face possible serious future damage from the new Channel that is now flowing through their property. There are numerous homes facing possible damage.

One owner, the CB Ranch, is where most of the existing problems occurred, and where most of the work As shown on the plans will take place. There are no residences or structures on this property.

The last owner , Drye Sibrams owns land where some of the work will take place, and had some severe erosion of unstable Banks along about 450 lin ft of his property take place this past June of 2003.

### **4.0 PROPERTY OWNERS WHERE ALL OF THE WORK WILL BE COMPLETED:**

There are four (4) property owners where most or all of the work contained in these plans will take place and those property owners are as follows;

1. Glenn and Barbara Christ (owners of the McKay House)
2. The CB Ranch
3. Harold Nelson
4. Dyre and Anita Sibrams.

**5.0 PROPOSED WORK ORDER:**

The following work order is proposed for this project, and is designed to keep at a very Minimum, disturbance of the river, to keep sediment from work operations out of the flowing river, and to allow for the river to heal itself gradually without creating many serious changes and direction Of flow, and hopefully to allow the River to re-establish its original natural channel as shown on the The attached 310 application.

Further, work is designed to be conducted after Fall Floating operations are over, and when the Trout Migration is from what we believe to be over by November 15, and before we have ice on the river.

Note that much of the work involved will be out of the flowing river.

**THE WORK ORDER IS AS FOLLOWS:**

ITEM NO 1:>>>Remove all WOODY DEBRIS from this area and stockpile at Site A.

ITEM NO 2:>>>Remove all WOODY DEBRIS from this area and stockpile at Site A also.

ITEM NO 3:>>>Remove all WOODY DEBRIS in this area (Sibrams Property) and stockpile on his East Bank. (SITE B) The debris in this area is scattered, but contains some fairly large root wads That are partially buried and need to be dug out. These root wads are in the middle of the Existing channel which now has NO FLOWING WATER due to the new channel that has been Created.

ITEM NO 4:>>>Install root wads, (9-12) and other woody debris at the Sibrams work site (site C) Using a Track Hoe with Thumb. Note that in the submittal package one of the photographs Shows a power pole owned by Northwestern energy about ready to fall into the river. If it does, it will not only disrupt power but possible electricute someone.

ITEM NO 5:>>>Open the STREAM THREAD at SITE C, TO allow the river to continue flowing In its historic channel, and to remove most of the flowing water now passing the Existing McKay house. Its determined that this item of work will restore about 75% Of the present water flow of the Bitterroot to its historic channel with this item of work. More work at this site will be required.

ITEM NO 6:>>>Build the LOG JAM at SITE D using numerous large ROOT WADS, WOODY DEBRIS, LARGE GRAVEL, and compaction with a SHEEP FOOT ROLLER.

ITEM NO 7:>>>Install LARGE ROOT WADS at SITE F and other woody debris. This material will be Hauled from SITE A around the North side of the log jam to this site for placement. No work will Will be done in flowing water.

ITEM NO 8:>>>Install a small Log Jam on the Christ property just East of their garage, using on site Materials, and left over material hauled to site A This work item was requested by the BCD.

ITEM NO 9:>>>Place all of the remaining WOODY DEBRIS at sites that will provide the best practices For River Management and Habitat protection.

ITEM NO 10:>>>Project cleanup.

ITEM NO 11:>>>An On Site Inspection by the BCD and others. This needs to be scheduled at the same Time that final cleanup is taking place.

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**6.0 ADDITIONAL POSSIBLE ITEMS OF WORK:**

There are two (2) possible areas of work that may need to be completed and they are as follows:

- 1.0 At site A where work item No 2 will take place, it may be necessary to further open the existing channel by excavation using a D7 cat or other equipment. There is so much woody debris in this area that it is difficult to determine just what other work needs to be completed in this area. There is also a tremendous amount of depositions of sands and gravels in this area. **THERE IS NO FLOWING WATER IN THIS AREA.**
- 2.0 In the area of Item No 1, it may be necessary to open this area also, however It was determined that water flowed through this area during the flood flow of this past June 2003. **IT HAS FURTHER BEEN DETERMINED THIS WORK ITEM SHOULD NOT BE EVEN ATTEMPTED.**

**7.0 DESCRIPTION OF EACH WORK ITEM INCLUDING LOCATION, EQUIPMENT, AND PROPOSED WORK DATES:**

**WORK ITEM NO 1:** Remove all Woody Debris from this area and place at Site A for FUTURE USE in accordance with the 310 application to be used at Work Item No 6. It is necessary to carefully move the larger Trees with root wads for use in Work item No 6 TO PROTECT THE ROOT WADS.

Equipment will be a Rubber Tired Log Skidder. It will probably be necessary to hand dig around some of The woody debris to attached a choker cable, or it may even be necessary to sue a backhoe for this work also.

Start Date: November 05 +/- Work Time involved is 2 – 3 days.

**WORK ITEM NO 2:** Remove all Woody Debris from this area and also place at SITE A FOR FUTURE USE in accordance with the 310 application to be used at Work Item No 6. There are numerous large root wads in this area and they will be carefully moved close to the actual work site where they will be used without damaging the root wad base.

Equipment will be the same as Item No 1 above.

Start date will be immediately after Item No 1 is completed. Work time involved will be about 3-4 days.

**WORK ITEM NO 3:** The Woody Debris in this area is scattered but will involve the same approach as items no 1 and 2 above. This material will be stacked on high ground immediately East of the Work Site for future use as outlined elsewhere.

Equipment will be the same as item No 1 and 2 above but will require a track hoe to dig the root wad bases out of the deposited sands and gravels in this area. Note that we do not have any flowing water in this area. We only have stagnant water ponds. See Photographs attached to the 310 application.

Start work date will be immediately after Items No 1 and 2 are completed but may take place concurrently. We believe that the removal of woody Debris does not require a permit from Ravalli County Flood Plain so this work in Items No 1,2 and 3 may take place before that permit is given, but after BCD approval and after receiving our 318 from the Montana Department of Environmental Quality.

We also believe a 404 permit is also not required for work items No 1,2, and 3 listed above.

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7.0 CONTI.....

**WORK ITEM NO 4:**

Work will involve placing large five to six ft. diameter root wads with tree trunks with a minimum diameter of 18" into the existing no disturbed river bank at about forty (40) ft. centers. Root wad tree trunks to be placed at ordinary high water mark and with the tree trunk at about a 35 deg angle to the flowing river. Note that the river channel although not now flowing is on a curve in this area with about a 30 deg total deflection. Length of tree trunks is 20 ft minimum. Total required is 9 to 12.

It is also the intent of this work item to install as much of the remaining woody debris available in this area in between the root wads, compacting with a roller, and placing gravels in between the voids of the woody debris. Willows and willow root systems will be planted in this area to help stabilize this bank.

Equipment to be used will be a track hoe with thumb and will be working from the bank and not in flowing water as there is no flowing water.

Start work date is December 01, 2003 Work time is three days max. See attached Drw. No. 45.08.10.03

**WORK ITEM NO 5** This item of work involves opening the stream thread as shown on Drawing No 45.08.10.01 Length involved is 450 lin ft. Width is 50 ft wide at the bases. Side slopes will be a minimum of 4:1. Work will start at the East end of this work area, and the new channel will be formed to grade as shown and to the width and depth as required.

There are some large willow root wads in this area and they will be removed with a track hoe and set aside for burial in the log jam, Item No 6.

The material removed in this area will be moved to the North and placed as close to the Work Site for Item No 6 as possible.

As the cut is made to allow the river flow to use this cleaned out original channel, the head cut will only be about One (1) ft deep to allow only a one third of the river flow to enter this area. After the flow has continued for about one week, an additional cut of another 0.5 ft will be made to allow more flow to enter this area. Again after this additional flow has continued for a week the remaining cut will be made to allow the remaining portion of the Bitterroot River total flow volume to flow enter this cleaned out original channel.

**PLEASE NOTE THAT THE ABOVE PROCEDURE WAS REQUESTED BY CHRIS CLANCEY,  
TO ALLOW TIME FOR FISHERIES TO RE-ESTABLISH ITSELF.**

Equipment will be a D7 track type Dozer with Blade and a Trackhoe. Work time for the original work will be about three (3) days with an additional ¼ day for the remaining cuts each.

Start date for this work must be November 20 to 24.

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**7.0 CONTI.....**

**WORK ITEM NO 6:** This work items proposed the construction of a Log Jam using ROOT WADS, LARGE TREE TRUNKS, WOODY DEBRIS, WILLOW ROOTS WAD SYSTEMS, AND BACKFILL USING ADJACENT DEPOSITS OF COURSE AND FINE GRAVELS.

See Attached Drawing No 45.08.10.02

Equipment that is speced for this work items is the following:

- Trackhoe
- Log Skidder
- Backhoe
- D7 cat.
- Sheep Footh Roller-at least a ten (10) ton.

Beginning work date is about December 05, 2003. Time for completion is five (5) working days.

**WORK ITEM NO 7:** In this area it is the intent to place some root wads and other woody debris to Prevent the river from making a left turn and going between the main log jam (Item No 6) and the railroad tracks. Since we can not place materials in the railroad right of way for liability reason we will contact the railroad as for their approval of this work and their assistance.

Also note that we intend to stack this material on top of the existing ground surface and compact into the existing soils using a sheep fooths roller.

This work can take place during the time frame as outlined in Item No 6 above.  
Equipment will be the same as above.

**WORK ITEM NO 8:** At this site we will install a small channel blocking log jam and other woody debris by just placing this material in the existing channel. This material will include three (3) large root wads that we intend to bury in this channel. **THIS ITEM WAS A REQUEST OF THE BCD FOR LIABILITY REASONS.**

The actual working site will be immediately east of the garage or where the rip rap ends that is immediately South of the garage.

Work will begin about December 10 and should be completed in about two (2) days.

Equipment will be the same as Item No 6 and 7.

**WORK ITEM NO 9:** All remaining woody debris is to be hauled, stacked, placed in this area and formed to provide a LOG JAM affect to the river in this area. Here again we need to stay off the railroad right of way, and again the intent is to prevent the river from going between the railroad and the other work involved.

**WORK ITEM NO 10 AND 11:** At the time that Item No 9 is under way we need to have an inspection by the Conservation District and others who may wish to attend. Its important that this field inspection have as its mission a review of the work involved, and provide the owners with comments or additional work items before the equipment is removed from the site.

Coordination is important for this phase of the project.

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**OTHER COMMENTS RELATING TO THE WORK:**

As always the case on any project, it is likely that conditions other than what is presented herein may actually exist in the field. If this is the case, we will need to take a short work stoppage, assess the situation, make a decision and get back to work.

It is therefore important that all persons and workers involved in this project pay attention to the project, and be aware of any conditions that will or may cause changed conditions.

Log Jams work very well in many places. However the success depends somewhat on just how the river responds and acts immediately after the work is done.

**NORTHWESTERN ENERGY AND THIS PROJECT:**

There are three (3) power poles of a power supply line crossing the river immediately North of the work site that are in jeopardy of falling into the river. Northwestern Energy has asked to be a part of this project and will contribute cash to assist with this work. This decision was made about November 01, 2003 by Northwestern Energy.

**THIS IS SERIOUS-->TO FLOATERS AND OTHER RIVER USERS, especially if a line were to fall into the river with floaters or others nearby.**

END OF DOCUMENTS—WORK ORDER AND SPECIFICATIONS:

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McKay specs.