Final

CONTINGENCY PLAN FOR THE CLEANOUT OF IRRIGATION INTAKES AND DITCHES

Milltown Reservoir Sediments Site

Prepared by:

ENVIROCON

Date:

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1.0 INTRODUCTION

There are four (4) irrigation diversions downstream of the Milltown Dam with intakes from the Clark Fork River (CFR) above its confluence with the Bitterroot River. The irrigation diversions are the Missoula Irrigation District; the Orchard Homes Ditch Company; the Hellgate Valley Irrigation Company (Flynn Lowney Ditch); and the Grass Valley French Ditch Company. Figure 1, taken from the May, 2004 scour report (Envirocon, 2004)[1], shows the approximate location of the intake for each district. (Note: A drawing showing the location of each of the irrigation ditches and pipes will be requested from each diversion. The drawing will show the open sections of the ditch with a solid blue line and will show underground pipe portions of the system with a dashed blue line. The drawings will be provided to the EPA and the State as soon as they are available.)

During periods of reservoir drawdown (Stages 1, 2 and 3) it is possible that sediment scoured from the bottom of the reservoir could come to rest at the location of the irrigation intakes and possibly clog or otherwise interfere with the proper operation of the intakes. This contingency plan is intended to specify what actions will be taken to address impacts to irrigation intakes[2] located below the Milltown Dam but above the confluence of the CFR and Bitterroot Rivers.

2.0 CONTACT INFORMATION

The contact information for the four irrigation diversions is as follows:

Flynn-Lowney Ditch - Hellgate Valley Irrigation District Mike Flynn - President 2275 Roundup Dr. Missoula, Montana 59808 Home: 406-543-3912 Cell: 406-544-1339	Missoula Irrigation District Ben Lowman 2200 Brooks Missoula, Montana 59801 Cell: 406-240-3392 Home: 406-549-9818 also: Jerry Supola (try first) – Ditch Rider Pager: 406-523-7603
Grass Valley French Ditch Company Tim Fister – Ditch Rider 13560 Mullan Road Missoula, Montana59808 Home: 406-728-1526 Cell: 406-240-9306	Orchard Homes Irrigation District Gerald Saulter President 816 Hendricksen Dr Missoula, MT 59801 Home: 406-549-3625 Business: 406-240-7040

[1] "Final Technical Memorandum Milltown Reservoir Scour During Area I Sediment and Dam Removal Evaluation", Envirocon, May 17, 2004.

[2] The definition of intakes includes the area beginning immediately in front of the head gate(s), the head gate(s) area and the area immediately after the head gates(s).

Contact information for the EPA, State, Missoula County Health Department, Envirocon and the Missoula Conservation District is as follows:

Mr. Russ Forba EPA Project Coordinator U.S. Environmental Protection Agency Region 8 Montana Office 10 West 15th Street, Suite 3200 Helena, MT 59626 406-457-5042	Mr. Keith Large State Project Officer Milltown CERCLA Site Department of Environmental Quality Remediation Division P.O. Box 200901 Helena, MT 59620-0901 406-841-5039
Mr. Peter Nielsen Missoula County Health Department 301 W. Alder Missoula, MT 59802-4123 406-523-4968	Ms. Tara Comfort District Administrator Missoula Conservation District 3550 Mullan Road, Suite 106 Missoula, MT 59808-5125 406-829-3395
Mr. Kris Cook Envirocon, Inc. 101 International Way Missoula, MT 59808-6655 406-523-1182	

3.0 EXISTING CONDITIONS

Envirocon personnel inspected each intake during January 2006 to collect data and access information necessary to prepare this contingency plan. Other information such as existing operation and maintenance procedures for each intake was collected. Existing operation and maintenance procedures will remain the responsibility of the operator of each irrigation district. A photographic record of each intake was collected. Select photographs from those inspections are presented in Appendix A.

Two weeks before each stage of drawdown the irrigation districts will be notified (by phone and mail) by Envirocon that a drawdown is planned. With that notification, Envirocon will encourage (but will not require) the irrigation districts to close their head gate(s) until the main pulse of scour sediment has passed. Just prior to Stage 1, 2 and 3 drawdowns each irrigation intake will be inspected again by Envirocon personnel to assess the existing condition of the intake. A photographic record of the intake's existing condition will again be collected.

3.1 Grass Valley French Ditch Company

The Grass Valley French Ditch Company is a private ditch company. The intake structure is constructed of a concrete diversion and apron. The head gates are constructed

of wood and are operated manually. The head gates are locked. The head gates are normally opened the first week of May and closed in November. It takes approximately 48 hours for water to travel through the ditch system. In July or August a dam is constructed across the Clark Fork River to divert more water into the ditch. In January 2006 the head gate area appeared relatively free of debris. According to the scour report (Envirocon, 2004) the maximum allowed diverted flow for the Grass Valley French Ditch Company is 105.8 cubic feet per second (cfs).

3.2 Flynn-Lowney Ditch – Hellgate Valley Irrigation District

The intake structure is located in downtown Missoula on the north side of the CFR and is constructed of a concrete diversion and apron. The head gate is constructed of steel and is operated manually. The head gate is locked. The head gate is normally opened between April 15 and May 1 and closed on December 1 each year. It takes approximately 24 - 48 hours for water to travel through the ditch system. A rock weir diverts water into the ditch. The weir is built new each year as required. In January 2006 the head gate area appeared relatively free of debris. According to the scour report (Envirocon, 2004) the maximum allowed diverted flow for the Flynn-Lowney Ditch – Hellgate Valley Irrigation District is 62.5 cfs.

3.3 Missoula Irrigation District

The intake structure is located in downtown Missoula on the south side of the CFR and is constructed of a concrete diversion and apron. The head gates are steel and are operated manually. The head gates are locked. The head gates are normally opened between April 15 and May 1 and closed on October 1 each year. It takes approximately 48 hours for water to travel through the ditch system. A rock weir diverts water into the ditch. The weir is built new each year as required. In January 2006 the head gate area appeared relatively free of debris. According to the scour report (Envirocon, 2004) the maximum allowed diverted flow for the Missoula Irrigation District is 88.3 cfs.

3.4 Orchard Homes Irrigation District

The intake structure is located in downtown Missoula on the south side of the CFR and is constructed of a concrete diversion and apron. The head gates are steel and are operated manually. The head gates are locked. The head gates are normally opened between April 15 and May 1 and closed on October 1 each year. It takes approximately 24 hours for water to travel through the ditch system. A rock weir diverts water into the ditch. In January 2006 the head gate area was slightly clogged with floating debris. The debris is caused by normal fluvial processes and probably can be removed easily. According to the scour report (Envirocon, 2004) the maximum allowed diverted flow for the Orchard Homes Irrigation District is 19.5 cfs.

4.0 MONITORING

Beginning on the first day of Stage 1, 2 and 3 drawdown events and continuing two times a week thereafter until 30 days after the day the planned drawdown elevation is reached each irrigation intake will be visually inspected by Envirocon, if the irrigation intake is open. If the head gates are not open, an inspection will be completed after the completion of the drawdown but before the planned opening of the head gates. The intakes will be

inspected thereafter once per month during the time the head gates are open. A photographic record of each inspection will be made. The irrigation district representative will be notified of the inspections and encouraged to accompany Envirocon personnel on the inspection.

In addition to the inspections, each representative of the districts will have the phone number of an Envirocon representative to notify if they discover a problem with sediment fouling their intakes. Within 12 hours of receiving such notification, Envirocon personnel will conduct an inspection of the intake to verify a sedimentation problem.

5.0 ACCESS AGREEMENT

An access agreement will be secured with each of the irrigation districts and landowners that must be crossed to gain access to each intake. The access agreements provide legal access for Envirocon personnel to each intake area for the purposes of inspections and repairs.

6.0 CONTINGENCY PLAN

If the monitoring or notification described in Section 4.0 indicates that the intake portion of the irrigation ditches are being impacted by the accumulation of sediment from one or more of the drawdowns, Envirocon will undertake the activities described below to address and eliminate the impact. Envirocon will not be responsible for removing trash and debris unless associated with remediation or reservoir scour.

Based on detailed site visits conducted in January 2006, each intake area is relatively easy to access with excavation equipment if cleanout is required. Within two (2) hours of Envirocon observing a problem with sedimentation of an intake area, it will notify the EPA, the State and the irrigation district that a sedimentation problem exists and that it plans to take action. Envirocon will discuss a plan with the irrigation district to reach consensus on what should be done. Within twenty-four (24) hours of Envirocon discovering or verifying a sedimentation problem, Envirocon will mobilize the necessary personnel and equipment to remove the sediment. For safety reasons, work to remove the sediment will occur only during daylight hours. Sufficient sediment will be removed from the intake area to eliminate the impact, loaded into dump truck(s), hauled to the Milltown project area, dumped, and eventually loaded into rail cars for shipment to, and disposal at, Opportunity along with SAA I sediments.

Envirocon will work to minimize the disturbance to the environment of the head gate area. Placing machinery in the CFR may be required. Envirocon will work to minimize turbidity to the river. A spill kit will be on site to deal with spills of petroleum products. Depending on the location of the sediment obstruction, tree removal may be required for access but will be minimized. Ground that is disturbed by Envirocon will be regraded and reclaimed using an appropriate seed mixture. Erosion control devices appropriate to the situation will be employed until the reseeded area is vegetated and erosion is no longer a concern.

Envirocon will follow its corporate health and safety plan as well as the plan approved for the Milltown Site during intake cleanout operations. Controlling access to the work area by unauthorized personnel (especially those intakes located in downtown Missoula) will be required. The use of flag personnel will be decided on a case-by-case basis depending on the nature of the work and interaction with the public.

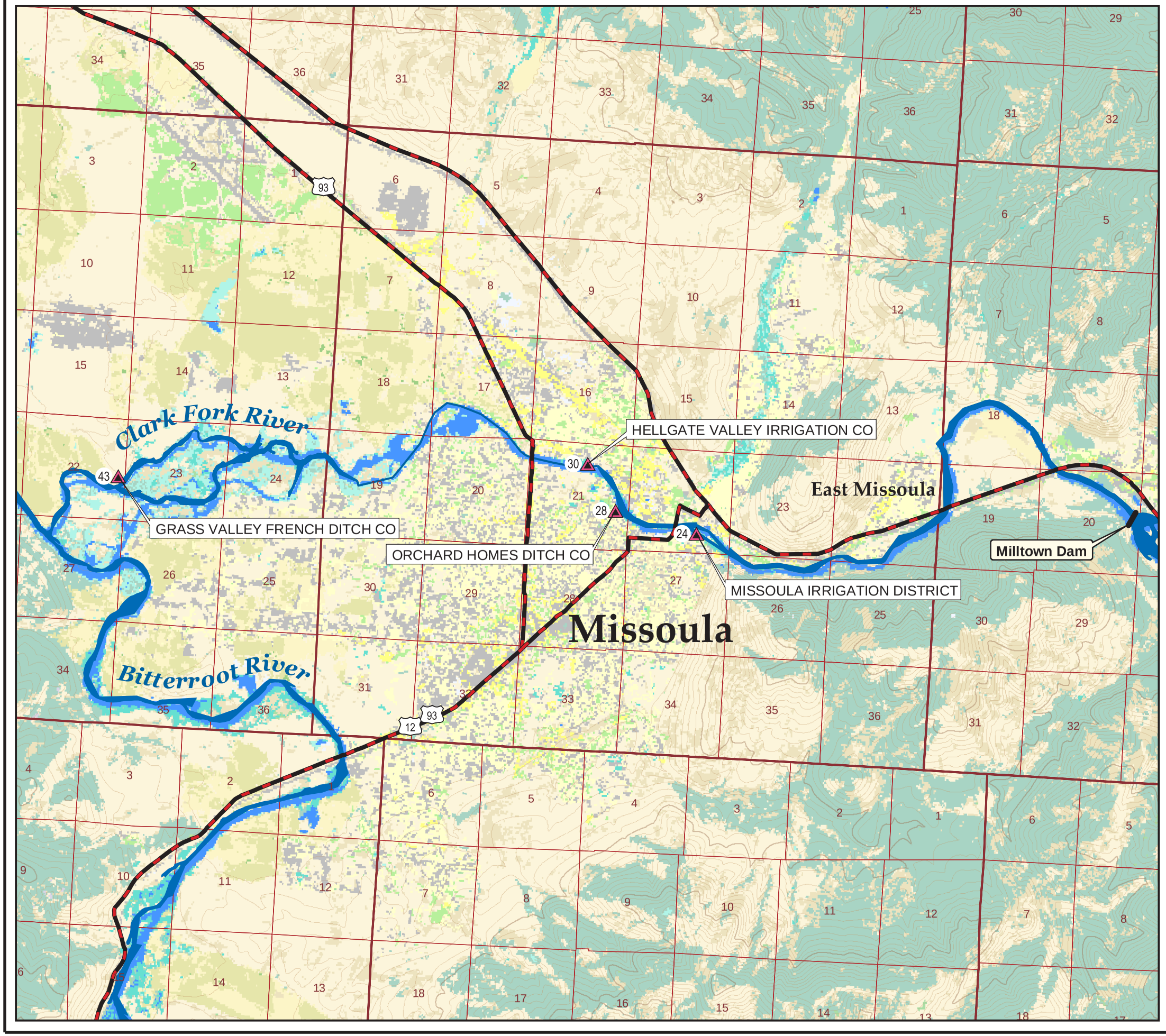
6.1 Management of Sediment Generated From Ditch Maintenance Activities

Routine maintenance of the ditches will remain the responsibility of the individual irrigation districts. During implementation of the remedial action sediment having arsenic levels above background may accumulate in irrigation ditches. This sediment is not expected to pose a human health risk. If this sediment is stockpiled by the ditch operators in the course of routine maintenance by the ditch, it will be hauled off for disposal by Envirocon upon request of the irrigation ditch operators. In this case, the irrigation district will be responsible for the cost of excavating the sediment and loading the sediment into trucks provided by Envirocon.

However, if EPA, in consultation with the State, believes arsenic levels in ditch sediments presents an unacceptable human health risk, the cleanout and disposal of this sediment is the responsibility of Envirocon. Sampling and evaluation of data will be conducted by EPA and the State using the Anaconda Smelter NPL site sampling and evaluation methods. Anaconda Smelter risk-based values for action levels for this risk determination will also be used. Those levels are 1,000 mg/kg arsenic for agricultural and recreational scenarios, and 250 mg/kg for residential scenarios (yards).

Both of these sediment management plans will cease at the end of train haulage operations from Milltown to Opportunity.

FIGURES



LEGEND:

POINTS OF DIVERSION

- Pump
- Headgate or Other Diversion

LAND COVER

- Open Water
- Perennial Ice/Snow
- Low Intensity Residential
- High Intensity Residential
- Commercial/Industrial/Transportation
- Bare Rock/Sand/Clay
- Transitional
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrubland
- Grasslands/Herbaceous
- Pasture/Hay
- Row Crops
- Small Grains
- Fallow
- Urban/Recreational Grasses
- Woody Wetlands
- Emergent Herbaceous Wetlands

N

1:63,360
1 inch equals 5,280 feet

FEET
5,000 0 5,000

CONTOUR INTERVAL = 100 FEET

REFERENCES:

FILENAME - CFR-DAM2BR_WRv2.MXD
BACKGROUND LAYER - NATIONAL LAND COVER DATASET*

*The National Land Cover Dataset was compiled from Landsat satellite TM imagery (circa 1992) with a spatial resolution of 30 meters and supplemented by various ancillary data.

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DITCH DIVERSION LOCATIONS
CLARK FORK RIVER - MILLTOWN DAM TO BITTERROOT RIVER

PREPARED BY
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1120 CEDAR STREET
MISSOULA, MT 59807 (406)721-0354

FIGURE 1

ISSUED FOR: Irrigation Cleanout Plan
Revision: 1

Drawn: JCG
Checked:
Approved:
Date: 10/13/03
Dwg. No.:

APPENDIX A

Head gates to the Grass Valley irrigation ditch from CFR.

Head gates to the Grass Valley irrigation ditch from channel.

Head gates of the Flynn-Lowney irrigation ditch.

Flynn-Lowney irrigation ditch intake channel.

Head gates of the Missoula irrigation ditch.

Missoula irrigation ditch head gates and irrigation channel.

Head gates of the Orchard Homes irrigation ditch.

Orchard Homes irrigation ditch head gates.