

cc: Terry A. [Signature]

Memo

TO: David T Bull, Forest Supervisor
FROM: Richard Bayles
DATE: March 20, 2005
SUBJECT: Mill Creek Dam Project File Code: 2720-3/7510-1

I would strongly encourage the Forest Service to approve this project promptly. This Project has been needed for at least two years. Hopefully the project will be approved in such a manner that the financial impacts will be minimized for all of the concerned parties including the public.

The high mountain offer a valuable resource in keeping the Bitterroot Valley from reverting to a high desert environment.

These dams also offer a valuable resource in assisting in flood control.

They also offer a valuable tool in maintaining our ground water levels.

In approving this project the Forest Service will assist in maintaining the Bitterroot environment.

Richard R. Bayles
PO Box 534
Corvallis, MT 59828
406-961-8337

RECEIVED
MAR 22 2005
Bitterroot National Forest

Commentor	Forest Service Response
1. Richard R. Bayles	Thank you for your interest in this project and your comments.



Mill Lake Dam Project 2005
Appendix A - Response to comments

Decision Notice



United States
Department of
Agriculture

Forest
Service

Stevensville Ranger District

88 Main Street
Stevensville, MT 59870
406-777-5461

File Code: 2720-3/7510-1
Date: March 16, 2005

Commentor	Forest Service Response
2. Doris Milner	Thank you for your interest in this project and your comments.

Mill Lake Dam Project
Interested Parties

DM

Dear Interested Party,

The Stevensville Ranger District is initiating an environmental analysis for the Mill Lake dam project. A brief summary of the purpose and need for action and the proposed action is enclosed along with a map of the project area.

Attached is important information for people wishing to comment on this project. To be timely, comments for this proposed project must be postmarked or received within 30 days after the legal notice is published in the Ravalli Republic. Please let us know if you want to stay on the mailing list for this project, so we can conserve resources in future mailings.

If you have questions or would like more information, please call Elizabeth Ballard, Interdisciplinary Team Leader, Stevensville Ranger District at 777-5461.

Sincerely,

DGR

DANIEL G. RITTER
Acting District Ranger

Enclosures (3)

March 21

*Now, Thank you for sending 2005
me the Mill Creek Dam info. While I
am not great for mechanical work in
wilderness, I've come to view helicopter
use for dam repairs as the most efficient
& least damaging way method of doing
the necessary work. So I support
the use on Mill Creek Dam.*

Sincerely, Doris Milner

*65 Roberts Rd
Hamilton, MT.*

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Mill Lake Dam Project 2005
Appendix A - Response to comments

Decision Notice

539 Keeling Lane • Hamilton, Montana, 59840 • (406) 961-1318•

Daniel G. Ritter
Acting District Ranger
Bitterroot National Forest
88 Main Street
Stevensville, MT 59870

March 22, 2005

Dear Sir:

Please keep me on your mailing list for communications regarding the Mill Lake dam project. If you need to reach me by telephone before June 15th please call 858-755-7121.

Sincerely,

Charles D. Keeling
Charles D. Keeling
539 Keeling Lane
Hamilton Montana, 59840

DK
PLEASE ADD
MR. KEELING
TO MILL DAM
MAILING
LIST.

3/30/05 letter to
C. Keeling

RECEIVED
MAR 25 2005
STEVENSVILLE
MONTANA

Commentor	Forest Service Response
3. Charles Keeling	Thank-you for your interest in this project. No response needed




March 29, 2005

~~Bitterroot Forest Supervisor~~
Bitterroot Forest Supervisor
Bitterroot National Forest
1801 N. First N
Hamilton, Montana 59840

Gentlemen:

In regard to the Mill Lake Dam Project, please allow repairs to be made on this project. We totally approve the use of helicopters.

Thank you,

Rosemarie Neuman
Secretary, Concerned About Grizzlies
3866 Peery Lane
Stevensville, Montana 59870-6600

We would like to be kept on the mailing list for this project.

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APR 11 2005
Bitterroot National Forest

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APR 13 2005
Stevensville
Ranger District

Commentor	Forest Service Response
4. Rosmarie Neuman, Secretary, Concerned about grizzlies	Incorporated into the Proposed Action and purpose and need for action Thank you for your interest in this project and your comments.



U

Forest Supervisor
David Bull
Bitterroot N.F.
Hamilton Mt.

574 Harvey Lane
Corvallis Mt 59828

Don R.
DOR

RECEIVED

APR 18 2005

Bitterroot National Forest

Dave,

To decide to use Helicopters and other
motorized equipment to repair Mill Creek
dam before doing any environmental assessment
is totally unacceptable.

You have made your decision against
the wilderness resource without any analysis.

It is sad enough that the Administration
is doing its best to destroy the National Forest
system, but, to see a manager, on-the-ground,
such as yourself ignore wilderness values
hurts even more.

I urge you to get out into the
wilderness and take your engineers with you
and get the feel of why we feel so
strongly about keeping the "wild" in
wilderness..!!

cc: wmf, milner, thompson
and Bull

Ed Bloedel

Commentor	Forest Service Response
5. Ed Bloedel	<p>The Bitterroot National Forest completed an environmental analysis to consider and disclose the environmental effects of authorizing Mill Creek Irrigation District adequate access¹ to their facilities, and to prescribe terms and conditions related to this access and their subsequent work on the facilities as necessary to protect the National Forest. In addition to the selected alternative 2, a no action alternative was analyzed. Please refer to Appendix E for a discussion regarding use of primitive techniques in the construction of critical elements of Mill Lake Dam.</p> <p>Several other alternatives were considered, but they do not meet state of practice techniques for design and construction methods, which affects the long term performance and safety of the dam. Please refer to Appendix C.</p> <p>Thank you for your interest in this project and your comments.</p>

¹ Defined at FSM 2320.5.15 as "The combination of routes and modes of travel that the Forest Service has determined will have the least-lasting impact on the wilderness resource and, at the same time, will serve the reasonable purposes for which State or private land or right is held or used."



Mill Lake Dam Project 2005
Appendix A - Response to comments

Decision Notice



P.O. Box 9075 Stevensville, MT 59725-9075 Phone: 406-242-7711 www.wildernesswatch.org

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Counselor
Stewart Tidall



April 19, 2005

Dave Bull, Forest Supervisor
Bitterroot National Forest
1801 N. First
Hamilton, MT 59840

RE: Comments on Mill Lake Dam Repair Proposal

Dear Mr. Bull,

Wilderness Watch, Friends of the Clearwater, Friends of the Bitterroot, and The Ecology Center submit the following comments on the proposal to use helicopters and motorized equipment to repair the outlet pipe and intake and outlet gates on the Mill Lake dam within the Selway-Bitterroot Wilderness (Project File Code 2720-3/7510-1).

We are dismayed that the USFS has decided not to include an in-depth analysis of a non-motorized alternative in the upcoming EA. We believe it is imperative under NEPA and the Wilderness Act to analyze a non-motorized alternative. This is underscored by our belief that the current minimum requirement analysis is flawed, and therefore reached an inaccurate conclusion that motorized activity is necessary for this project. For one thing, the minimum requirement analysis does not contain sufficient factual detail to allow an informed decision. Based on the limited facts that are presented, we remain unconvinced that any motorized activity is the "minimum necessary" means for completing the repairs on Mill Lake dam.

The proposal calls for 22-24 helicopter trips to transport a 92-foot HDPE pipe, 13.5 cu. yards of fly-ash grout, a motorized grout mixer, and motorized sprayer. The minimum requirement worksheet indicates that using packstock for grout transport would compromise the quality of the grout, and result in the work not being completed in 2005. We question these conclusions, and request that the EA contain more detailed discussion in regard to these concerns.

To facilitate arriving at a well-informed decision on this project along with greater shared understanding of its requirements and feasibility, we request that you organize a field trip to the site this summer involving all interested parties. Site visits can be extremely helpful in better educating all involved about the realities of the situation, and affords opportunities for participants to explore viable ideas and options that may not otherwise have occurred to anyone. This field trip should occur prior to issuing a final decision regarding this project.

We also urge that the EA include detailed discussion of the following factors:

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Stevensville
Banger District

Commentor	Forest Service Response
6. Wilderness Watch, Friends of the Clearwater, Friends of the Bitterroot, and the Ecology Center	6.1. See Alternative 4 and Appendixes C, E and F of EA
	6.2. See Alternative 3 and Appendixes C, E, and F of EA
	6.3. The timing of the Decision will preclude a field trip prior to the Decision Notice signing.



6.4 *Easement Rights:*

The EA needs to clearly explain what legal rights are attached to this dam and easement. This information is necessary so that each alternative can be analyzed within the context of what is legally required, and what actions might be discretionary.

Pipe and Headgate:

We understand that the existing intake headgate is located within the dam in the middle of the existing outlet pipe, and can therefore be operated while standing on top of the dam. We also understand that this is the reason for using a solid HDPE pipe instead of the "Snap-Tite" system of shorter, lighter pieces of HDPE pipe due to concerns about water pressure within the portion of the pipe that is upstream from this intake headgate. The Snap-Tite pipe (manufactured by ISCO) is easily assembled by hand, and does not require the fusion welding described in the minimum requirement analysis, so no welding equipment would be necessary.

In order to reduce or eliminate motorized transport of heavy pipe, we ask that the EA examine the following additional options:

6.5

- Replace the existing intake headgate in the center of the pipe with a headgate located at the upstream end of the outlet pipe. This is a common design of many small dams, and while this may require construction of a catwalk to reach the operating wheel, this is a reasonable alternative that should be analyzed. Moving the headgate to the upstream end of the outlet pipe would remove the risk of pressure leakage within the pipe that currently exists. This would then allow the "Snap-Tite" system of short pieces of locking HDPE pipe to be used, which can easily be transported by non-motorized means.
- In addition to moving the intake headgate, examine the possibility of engineering a means of opening and closing the headgate while retaining the advantage of standing on the dam to do so, in order to avoid constructing and maintaining a catwalk. Perhaps a sloped bar connected by a u-joint to a vertical bar could make access to the new headgate just as easy and safe as access currently is to the existing intake gate. We request that the Stevensville Ranger District consult with additional engineers outside of the forest, such as those at the USFS' Technology and Development Center here in Missoula for design possibilities in this regard, and that the results of the consultation be discussed in the EA.
- If there is some compelling reason not to move the headgate upstream, then the EA should analyze the option of using solid pipe for the upstream half of the outlet pipe, but using the Snap-Tite pipe for the downstream half, since there is no pressure leakage concern below the existing headgate. The EA should provide details on the weight per linear foot for a solid 21-inch HDPE pipe so that feasible access means can be adequately assessed for the upper half of the outlet pipe, combined with using snap-together pipe for the lower half of the outlet which could be brought in by non-motorized means. This option would likely reduce the number of helicopter trips by at least one trip.

Commentor	Forest Service Response
6. Wilderness Watch, Friends of the Clearwater, Friends of the Bitterroot, and the Ecology Center	6.4. See Appendix D of EA
	6.5. See Alternative 6 and Appendix C and Appendix E of the EA, letter 12 from Laurence Siroky letter, letter 13 from Mike Oelrich, Hydrometrics for discussion regarding the suitability of alternative piping materials. See Appendix B for MCID's proposed repairs. The proposal improves accessibility to the headgate and does not include a catwalk. Although the FS Tech. & Dev. Center is a good source for new technology related to a variety of subjects, it does not specialize in ancillary facilities related to dam safety operations.



- The EA should also describe how the heavy, single pipe would be maneuvered and pushed through the outlet, given its significant weight. The scoping notice does not describe how muscle power alone could move such a heavy pipe.

Grout:

The dry grout mix is estimated to weigh 40,500 pounds, and is proposed to be flown in by helicopter. However, it is completely feasible to transport the grout with packstock, and in wilderness non-motorized transport should always be the first choice. At 150 lb./horse, grout transport could be accomplished in 22-23 trips using 12-horse packstrings. This is far fewer packstrings than outfitters take into a number of wildernesses each season, and there is no reason why the USFS can't use the same mode of transport in the Selway-Bitterroot Wilderness, on this well-travelled existing trail. There is no immediate emergency that would compel rushing to 'get the job done' at the expense of wilderness character and wilderness values. The USFS should serve as a wilderness role model and as an example of using traditional tools and methods to accomplish tasks "the wilderness way."

6.6

In analyzing the option of moving the intake headgate to the upstream opening of the outlet, the EA should also calculate how this might reduce the amount of sealant needed to adequately prevent seepage or water flow into the space around the new outlet pipe. If grout is used as the sealant, it may be possible that significantly less grout would be needed under this alternative, thereby reducing the number of packstock required to carry grout to the site. We ask that this scenario be fully analyzed in the EA.

In terms of mixing the grout, we see no need for a motorized mixer -- the habits that may be common outside of wilderness should not simply be adopted in wilderness. We suggest that mixing the grout in a barrel or tub be evaluated in the EA.

All the old dams in the Bitterroot were originally built with horses and traditional hand tools, and no motorized tools or transport. Clearly, it is possible today to find a way to repair this dam in the same can-do manner. We understand that finding the commitment to do so may be a harder task, so we are offering to help and assist in shaping this project so that it will conform with the meaning and tradition of wilderness to the maximum extent possible.

Sealing the Space around the New Pipe:

6.7

We understand that slip-lining a new 21-inch pipe through the existing outlet pipe will leave approximately two inches of space around the new pipe that will need to be sealed off so that water doesn't continue flowing through the old pipe and possibly leaking into the earthen dam. The proposal calls for using a motorized grout sprayer to apply the grout as the sealant. The EA should clarify how many linear feet of the outlet needs sealant around the new pipe.

We understand the importance of stabilizing the first half of the new pipe that will be under significant water pressure if the existing central headgate remains in use. However, the EA should analyze moving the headgate to the upper end of the outlet pipe, and then re-calculate how much grout would be necessary. It might be that grouting just the first several feet along the

Commentor	Forest Service Response
6. Wilderness Watch, Friends of the Clearwater, Friends of the Bitterroot, and the Ecology Center	6.6. See alternatives 3 and 4 and Appendix C and E
	6.7. See letter 13 from Mike Oelrich, Hydrometrics, Inc.



6.7 upper end would suffice to seal off water seepage into the old pipe under this scenario. With the headgate moved, Snap-Tite pipe could be used for the entire length of the outlet, and could easily be grouted by hand as the pieces are being snapped together.

If the existing headgate is not moved, then we ask that the EA analyze other sealant options that may not require a motorized sprayer. For example, sealants used in oil and gas well drill casings might be a good option, and should be analyzed in the EA. Since these sealants must flow down thousands of feet in a well bore, they likely are in a much more fluid form than grout, and could possibly be poured into the upper end of the outlet to gravity-flow down the entire length of the outlet pipe. There may also be other sealant options out there, and we therefore request that the EA analyze other options beyond grout.

Breaching:

6.8 We question why analyzing the option of breaching the dam is "outside the scope of Forest Service authority." Since the dam has potential to be unsafe, breaching must be analyzed as one of the feasible alternatives to meeting dam and public safety requirements. It is also not clear that the irrigation district would be opposed to this option, given the expense of the current proposed alternative. Analyzing an alternative to breach the dam would provide the irrigation district with the detailed information it would need to be able to assess all of its options. Not providing that analysis suppresses information that is needed and helpful in reaching an informed decision by all parties.

Secondly, the EA should discuss the possibility of digging down to the existing outlet pipe so that the new pipe can easily be installed and sealant placed along it by hand as the dam material is gradually filled back in to cover the pipe. To assess this option, it is necessary for the EA to provide factual details about the dam -- its current height, width, and estimated amount of material that would have to be removed to expose the outlet from above, and then replaced. Given that these dams were built by hand originally, this option might be very feasible to achieve both dam safety standards and protection for the area's wilderness character by avoiding any motorized intrusion into the wilderness.

We look forward to working with you in regard to the above ideas and suggestions, and to reviewing the EA. Please don't hesitate to contact us if you have any questions or concerns. Thank you.

Sincerely,

TinaMarie Ekker
Policy Director
Wilderness Watch
PO Box 7025
Missoula, MT 59807
(406) 542-2048

Gary Macfarlane
Forest Watch Director
Friends of the Clearwater
PO Box 9241
Moscow, ID 83843
(208) 882-9755

Larry Campbell
Friends of the Bitterroot
PO Box 206
Darby, MT 59829
(406) 821-3110

Jeff Juel
The Ecology Center
314 N. First Street W.
Missoula, MT 59802
(406) 728-5733

<p>6. Wilderness Watch, Friends of the Clearwater, Friends of the Bitterroot, and the Ecology Center</p>	<p>6.7. In moving the intake headgate to the upstream opening of the outlet as you propose, the amount of grout, or "sealant", required would still be the same. Regardless of the location of the headgate, it is unacceptable to leave a void between a severely deteriorated corrugated metal pipe (CMP) and the new slip-lined pipe. If the old, deteriorated CMP corrodes all the way through the pipe wall, the outlet works could collapse, and soil could move in to fill the void. This situation could lead to a piping failure of the dam.</p> <p>Numerous other alternatives were explored, but they do not meet state of practice techniques for design and construction methods, which affects the long term performance and safety of the dam.</p>
	<p>6.8. See Alternatives 7 and 8 in the EA. Thank you for your interest in this project and your comments.</p>
	<p>Thank you for your interest in this project and your comments.</p>



Mill Lake Dam Project 2005
Appendix A - Response to comments

Decision Notice

Bill Worf
6315 Hillview Way
Missoula, MT 59803
April 20, 2005

Dave Bull, Forest Supervisor
Bitterroot National Forest
1801 N. First
Hamilton, MT 59840

Comments on Mill Lake Dam Repair Proposal

Dear Dave,

The following comments are offered on the proposal to use helicopters and motorized equipment to repair the outlet pipe and intake and outlet gates on the Mill Lake dam within the Selway-Bitterroot Wilderness (Project File Code 2720-3/7510-1).

7.1 This is the only one of the existing dams within the Selway Bitterroot Wilderness that I have not visited so my comments are general in nature. However, more than fifty years of experience working in the remote back country of the National Forests tells me that the needed repairs to this structure can be designed in such a way that they can be accomplished without use of motorized equipment or aircraft. After all this facility is located within a unit of the National Wilderness Preservation System which was set aside by Congress in 1964 to insure that increasing population accompanied by expanding settlement and growing mechanization does not occupy or modify all areas within the United States. Congress was aware that these dams existed at the time the SBW was designated but it provided no special exception to the general prohibitions listed in Section 4.(c) of the 1964 Act. See my 8/26/04 letter to you in which I set forth the principles that I believe should apply to the proposed work (copy attached).

7.2 You should provide an opportunity for a field review of this proposed work. I will personally participate. Those other participants should include FS experts in use of traditional skills, engineers experience in dam safety standards who are committed to objectively explore the possibility of doing the needed repairs by non motorized means; representatives of the dam owners and other interested parties. If we all approach this with an objective commitment to insure an enduring resource of wilderness we can find a way to get the needed work done with the same skills used by those hardy pioneers who built it originally.

Please keep me fully informed and involved as you move forward with this project.

Sincerely,
Bill
Bill Worf

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APR 28 2005
Stevensville
Ranger District

Commentor	Forest Service Response
7.1 Bill Worf	See Appendix E of the EA
7.2	The timing of the Decision will preclude a field trip prior to the Decision Notice signing.



Bill Worf
 6315 Hillview Way
 Missoula, MT 59803
 August 26, 2004

Mr. Dave Bull, Supervisor
 Bitterroot National Forest
 Hamilton, Mt. 59840

Dear Dave:

This is a follow up to my comments given at the 8/16/04 meeting in your office concerning the draft Wilderness Dam Operation and Maintenance Plan you are proposing to enter into with the dam owners. I appreciate your holding the meeting and providing the opportunity to hear other views. Of course additional public involvement will be needed.

The first thing I want to do is clarify in writing the way that I view the irrigation dams and reservoirs in the Selway Bitterroot Wilderness. They are important artifacts relating to how early day settlers to the Bitterroot Valley carved homesteads out of the wilderness. Future Americans will marvel at what those hardy individuals were able to accomplish without motorized equipment, mechanical transport or helicopters. These artifacts should remain as long as their owners continue to find them useful. They should continue to be maintained in a safe condition using the skills and equipment that those early settlers used - a bit of living history. The Forest Service should assist in that effort by providing traditional skills expertise and by assisting the dam owners in contracting traditional skills experts. I will personally contribute the knowledge I've gathered in the school of hard knocks over the past 78 years. If current or future owners decide that the water storage is no longer worth the effort, the structures themselves should simply be rendered harmless and allowed to melt into the land as mute relics of an interesting past. To put it another way, there should be no effort to "naturalize" the sites.

Now to discussion of your proposed Agreements. Let me start by reminding you that Congress established the National Wilderness Preservation System " In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify, all areas within the United States " (Section 2.(a) of the 1964 Act) Congress did provide you authority to authorize those activities and/or uses generally prohibited by Section 4.(c) of the Act in certain situations. However, it gave you responsibility to **limit such approval** to those activities " specifically provided for in this Act existing private rights ... necessary to meet minimum requirements for the administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area)" There is no other place in the Act that

Commentor	Forest Service Response
7.3 Bill Worf	Please refer to the letter David Bull sent to you on April 28, 2005, responding to your letter of April 10, 2005 regarding operation and maintenance plans. (PF B-14) See Appendixes C, D, E and F of EA.

7.3



gives you any authority to approve exceptions to the general prohibitions. Let me deal with each of these conditions individually:

Specific provisions- The Congress was well aware that the original 54 units of the new Wilderness System contained a total of 144 water storage facilities including those within the Selway Bitterroot Wilderness. In spite of that knowledge Congress included no specific provision in the 1964 Act which allows you or any other administrator to treat the desires of dam owners differently than those of outfitters, livestock permittees, wildlife biologists, research scientists, etc., etc.. Ed Slusher, wilderness staff from Region I, was a member of the FS Task Force convened to draft manual policy and Regulations for implementing the Act. Because of his familiarity with the Bitterroot we placed that question directly to the Congressional folks. They assured us that Congress intended no special treatment for existing dams.

Private rights: All of the dam owners hold water rights which cannot be realized without their dam. Some of the dam owners also hold easements which authorize construction and maintenance of that reservoir as it was constructed. However, no dam owner holds any right to the use of any of the generally prohibited motorized tools or mechanical transport.

Emergencies: I do not believe there is much of an issue here. Everyone agrees that when a true emergency occurs it must be dealt with in the best and most efficient way possible. We must still keep the wilderness resource in mind and minimize impact to it but use of motorized equipment and/or helicopters may be used as needed. However, everything must be done to prevent emergencies from occurring. At least two of the emergency situations at Tin Cup resulted from administrative lapses on the part of the Forest Service.

"necessary to meet minimum requirements for the administration of the area for the purpose of this Act": In my view this exception is the most clearly stated but it is the one most commonly abused. Note that the word "purpose" is singular and refers to your mandate to "secure for the American people of present and future generations the benefits of an enduring resource of wilderness". The exception applies if there is some activity that must be done and that activity cannot possibly be done using traditional non-motorized tools. There is nothing that refers to economy, efficiency or speed. Let me list and respond to some of the common arguments I've heard as to why it is not possible to use traditional tools in the maintenance of dams:

1. **None of our people know how to use a crosscut saw, hand rock drill, etc.** These tools are not highly technical or difficult to understand. Any person with average intelligence, for example, should be able to reach full production level with a crosscut saw after a couple hours of instruction and practice. The Forest Service has



people with traditional tool skills who could assist in getting needed training.

2. Traditional tools present unacceptable risk to the safety of workers. Not valid! Sixty plus years of working with both motorized and non-motorized tools convinces me that non-motorized tools are generally safer.

3. Much of the material and equipment required for dam maintenance is to unwieldy to be transported to and from the site by pack stock so helicopter transport is needed: Once again I doubt this is valid. Western Montana is home to some of the best packers in the world. I believe that these experts could pack anything needed in maintenance or could suggest reconfiguration into a form that could be packed.

4. The skills and equipment needed to move earth by non-motorized methods is not available. Again, the Bitterroot valley is home to some of the best draft horse handlers and draft horse equipment that ever existed. These folks are looking for opportunities to demonstrate and hone their skills. I personally own a Fresno horse drawn earth mover that I will donate to the dam owners.

5. Dam safety laws passed since 1964 require maintenance standards that were not in existence when the 1964 Act was under consideration by Congress. True, but that does not automatically translate into the need for motorized equipment. Each standard needs to be analyzed to determine if it is possible to meet it with traditional tools. I'm convinced that most if not all can be met without motors if presented to a traditional skills expert for advice.

6. Use of traditional skills will make the work unreasonably expensive. The Forest Service long ago recognized that doing a given job on the cheap does not usually result in the best land stewardship. During my career, for example, we often increased the cost of roads to protect water and fisheries resources. If necessary we should show the same respect for the resource of wilderness. Having said that, history tells us that even though use of traditional skills might make the work a bit slower it generally does not increase the cost. In fact it often result in a cost savings. I am not aware of a single documented instance over the past 40 years where use of traditional tools added to the cost.

7. Use of helicopter transport can be timed to gets the job done quickly while few visitors are around and this will result in the least lasting impact on Wilderness. This statement implies that the only reason for prohibition of helicopters and other motorized equipment is noise. That is akin to telling your teenage son its OK to load up on beer if he does not drive a car.

8. And finally, some say that if you continue to insist on doing maintenance the wilderness way dam owners will get legislation to mandate use of motors, etc. This



is akin to a father advising his beautiful teen age daughter that if she sleeps with the biggest and toughest football player none of the other guys will bother her. Legislation is the American way. If Congress passes legislation to give the owners what they want we will live with that. That still does not justify giving it away!

Once more Dave, I do not believe you have authority to enter into the draft agreement you sent for review. However I do have some ideas regarding how the Forest Service can move forward in a cooperative way with the dam owners and other interested publics to accomplish dam maintenance in a timely manner and in a way that protects the resource of wilderness from further degradation. I will be pleased to sit down to talk about these ideas with you and other interested folks.

If you still believe that public value of some or all of these dams is so great that wilderness values should be sacrificed in order to give the owners of these dams blanket authority to select the tool and method of their choice, Congress provided a safety valve in Section 4(d)(4) of the 1964 Act. It says:

"...the President may, within a specific area and in accordance with such regulations as he may deem desirable, authorize prospecting for water resources, the establishment and maintenance of reservoirs, water-conservation works, power projects, transmission lines, and other facilities needed in the public interest, including the road construction and maintenance essential to development and use thereof, upon his determination that such use or uses in the specific area will better serve the interests of the United States and the people thereof than will its denial"

If you believe it is in the public interest, you should develop your rationale, run it through the NEPA process and present it to the President for consideration.

Please call on me if I can be of assistance as you move forward on this issue.

Sincerely,

Bill Worf





Region 2 Office
 3201 Spurgin Road
 Missoula, MT 59804-3099
 406-542-5500
 Fax 406-542-5529
 April 18, 2005

Daniel Ritter, Acting District Ranger
 Stevensville Ranger District
 88 Main St.
 Stevensville, MT 59870

Dear Mr. Ritter:

Reference: Mill Lake dam--Scoping for allowing MLID to access and repair the dam in the Selway-Bitterroot Wilderness (T6N, R23W, Sec 1)

We have reviewed the information provided for the Mill Lake Irrigation District's proposal to use helicopter access to repair Mill Lake Dam in the summer and fall of 2005. In addition to recreational uses such as hiking, camping, horseback riding and fishing in this area, we point out its hunting usage. Beginning in early September and ending late November this year, various hunting seasons will occur and will include potential archery and/or firearms hunters pursuing upland game bird, black bear, mountain goat, deer and/or elk in this area.

1. If possible under the repair timetable, we recommend scheduling the use of helicopters and other mechanized equipment such that it has the least impact on wilderness visitors. We expect that recreational and hunting use of this wilderness area is heaviest on weekends. Therefore, restricting mechanized access and equipment use to weekdays whenever possible could lessen the impact of the repair activities on the enjoyment of wilderness users.
2. We also recommend posting signs at the Mill Creek trailhead alerting wilderness users and hunters to the presence of helicopter and motorized equipment use at Mill Lake. Posting such signs by mid-summer would help in alerting and preparing hunters who pre-scout the area prior to the beginning of the hunting seasons.

Thank you for providing the opportunity for MFWP to comment on this project.

Sincerely,

Mack Long
 Regional Supervisor

ML/sr

Commentor	Comment	Forest Service Response
8. Mack Long, Montana Fish, Wildlife and Parks	8.1 Recommend scheduling the use of helicopters and other mechanized equipment ... to weekdays whenever possible. 8.2 Recommend posting signs at trailhead, by mid-summer to alert hunters.	Addressed in the terms and conditions of the EA pages 8-9.



Mill Lake Dam Project 2005
Appendix A - Response to comments

Decision Notice



"Kay"
<kneal@montana.com>
04/20/2005 12:58 PM

To: <comments-northern-bitterroot-stevensville@fs.fed.us>
cc:
Subject: Comments-Mill Creek Irrigation District Project

Big Creek Lakes Reservoir Association
c/o Kay Neal, Secretary/Treasurer
2850 Rippling Woods S.
Victor, MT 59875
(406) 642-3848
E-Mail Address: kneal@montana.com

Sent via e-mail to: comments-northern-bitterroot-stevensville@fs.fed.us

April 20, 2005

RE: Mill Lake Irrigation District Project

To Whom it May Concern:

The owners of Mill Lake Dam already have the right to maintain their dam in a safe, efficient, and economical manner, including all repairs to the structure and access to and from the dam.

Dam owners were granted the right to develop water storage and access to their facilities from Congress under the Act of 1866 and Act 1891. Any proposal from the Forest Service that restricts and/or hinders the engineering of rebuilding and repairing of a dam compromises the integrity and safety of the dam.

BCLRA and its 83 members are in support of the Mill Lake Dam Project.

Sincerely,

Jack Buker

BCLRA President

Commentor	Forest Service Response
9. Big Creek Lakes Reservoir Association, Kay Neal secretary	Incorporated into the Proposed Action and purpose and need for action Thank you for your interest in this project and your comments.



Mill Lake Dam Project 2005
Appendix A - Response to comments

Decision Notice

Tin Cup County Water and/or Sewer District
Post Office Box 292
Darby, Montana 59829
April 15, 2005

Bitterroot Forest Supervisor
Bitterroot National Forest
1801 N. First Street
Hamilton, Montana 59840

Dear Sir,

I appreciate the opportunity to provide comments on the Mill Lake Dam Project proposed in late summer or early fall of 2005.

This and other water storage reservoirs located in the wilderness provide much needed water for irrigation and ground water surcharge capabilities for the Bitterroot Valley which would not be what it is today without them.

The fact that these water storage facilities lie in areas of wilderness requires special consideration to minimize their impact, but does not change the fact that most need occasional major upgrade and in all cases continued maintenance.

These upgrades require that they meet current dam safety standards and that every effort is made to eliminate potential failure. Most lie in canyons upstream of residential inhabitation creating a sincere potential for loss of life and property, should these facilities fail.

The former two paragraphs require that modern technology be utilized to assure that any impact is short term and that we minimize the potential for failure.

Three water storage structures located in the wilderness in the Bridgeport District in California, namely the Green, East, and West Reservoir Dams had major upgrades performed utilizing primitive methods as established by various wilderness advocates. All three of these facilities failed within the first year following their upgrades. Imagine the long term impact caused by these failures versus the short term impact of utilizing modern equipment to perform these upgrades.

Neither method guarantees non-failure, but the odds of a failure occurring after modern equipment upgrades are certainly minimized and any failure is unacceptable.

Commentor	Forest Service Response
10. Tin Cup County and/or Sewer District, Tex Marsolek, Assistant General Manager	Incorporated into the Proposed Action and purpose and need for action. Thank you for your interest in this project and your comments.



Mill Lake Dam Project
Page 2

Therefore as an administrative member of an irrigation district which is the owner of a wilderness dam and totally liable for its safety, I recommend that every effort be made to utilize whatever mechanized means are necessary to assure maximum success in the Mill Lake Dam Project providing only short term impact to the surrounding wilderness.

Most, if not all, of these wilderness dams were constructed over a period of several years allowing primary consolidation to occur before the next additional lift of embankment materials were placed, minimizing the need for adequate immediate compaction.

Short term placement of materials by primitive means was in all probability the cause for the failures which were previously mentioned. Long term impacts due to lengthy construction periods were not an issue prior to 1964 Wilderness Act, thus primitive tools and methods were acceptable.

If man's intrusion into the wilderness is to be kept to a minimum, yet he be held responsible for the safety of these dams, then he must be allowed, when required, to utilize modern equipment for the work as well as modern means of transportation to get in and out as quickly as possible.

Thank you for allowing me these comments. As an individual with over thirty years experience in construction materials testing and geotechnical work and as an active player in the happenings at Tin Cup Lake Dam since 1996, I hope to add some credibility to my comments.

Sincerely,

Tex R. Marsolek
Tex R. Marsolek
Assist. Gen. Mgr. TCCWSD



Mill Lake Dam Project 2005
Appendix A - Response to comments

Decision Notice



U.S. ARMY CORPS OF ENGINEERS
HELENA REGULATORY OFFICE
10 WEST 15TH STREET, SUITE 2200
HELENA, MONTANA 59626

REPLY TO
ATTENTION OF:

April 21, 2005

Helena Regulatory Office
Phone (406) 44-1375 Fax (406) 441-1380

Mill Creek Irrigation District
795 Bowman Road
Hamilton, Montana 59840

Gentlemen:

Reference is made to a notice from the Stevensville Ranger District regarding your request for access to repair Mill Creek Dam. A review of our files indicates our correspondence to you was for temporary repair in 2001. (See attached letter re Corps File No. 200190655).

The proposed new work will most likely require a Department of the Army permit. Please fill out the enclosed joint application and return to this office for review and processing.

If you have any questions, please give me call at (406) 441-1375.

Sincerely,

Robert McInerney
Robert McInerney
Project Manager

CF:w/o enclosure

Daniel Ritter, Acting District Ranger
Stevensville Ranger District
88 Main Street
Stevensville, MT 59870

RECEIVED
APR 22 2005
Stevensville
Ranger District

Commentor	Forest Service Response
11. U.S. Army Corps of Engineers (Rec 4/22)	Addressed in the terms and conditions of the EA. P 8-9.



Mill Lake Dam Project 2005
Appendix A - Response to comments

Decision Notice

Terri L Anderson/R1/USDAFS
05/03/2005 08:37 AM

To Elizabeth H Ballard/R1/USDAFS@FSNOTES
cc
bcc
Subject Fw: Mill Lake Dam Comments from WW et al

Betsy,
I think we should include some ideas from below in the public comment section.

Terri Anderson
Civil Engineer
406-363-7112

----- Forwarded by Terri L Anderson/R1/USDAFS on 05/03/2005 08:36 AM -----



"Siroky, Laurence"
<lsiroky@mt.gov>
04/22/2005 04:20 PM

To "Terri L Anderson" <tlanderson01@fs.fed.us>
cc
Subject RE: Mill Lake Dam Comments from WW et al

Terri,
What a tuff job you have. The state law 85-15-208 MCA requires that a dam must be constructed in a "through, secure, and substantial manner". I think that applies to the dams on USFS property.

The comments propose various "design solutions" to the rehabilitation of Mill Lake dam. Anyone practicing engineering in Montana is required to have a Montana Professional Engineer license. Of course designing and over seeing construction on a high hazard dam is clearly engineering and requires a Professional Engineer licensed in Montana. Even as a regulator agency when reviewing plans and specifications, we stay clear of designing the rehabilitation. Our review is to assure the design meets minimum design and construction standards as well as the current state of practice for design and use of materials...oh, and is most likely to solve the problem. As you probably know, all kinds of suggestions can be made, and can be considered by the design engineer but the engineer's stamp means the responsibility and liability is the engineer's to choose the appropriate method and means.

Also, I would doubt that there is dam safety engineering experience in the USFS Tech outfit in Missoula. I have never seen any of those folks at any federal or state training on dam safety that I have attended or we have provided. Civil engineering of roads is not the same as designing dams.

Anyway per some of the "experts suggestions"...I believe that the snap tight pipe is not made for use as hydraulic pressure pipe and should not be used for slip lining where there are internal hydraulic pressures and those internal pressures could cause internal erosion in the dam along the conduit. I don't think that prohibits considering the use of snap tight pipe for the access tunnel downstream of the gate per the design you described on the phone.

Laurence

-----Original Message-----

Commentor	Forest Service Response
12. Laurence Siroky, State of Montana, Engineer (Rec 4/22)	Incorporated into the Proposed Action and purpose and need for action. Thank you for your interest in this project and your comments.



Mill Lake Dam Project 2005
Appendix A - Response to comments

Decision Notice



3020 Bozeman Avenue
Helena, MT 59601
(406) 443-4150
Fax: (406) 443-4155
www.hydrometrics.com

May 3, 2005

Terri Anderson
Bitterroot National Forest
U.S. Forest Service
1801 North 1st
Hamilton, MT 59840

RECEIVED

MAY - 4 2005

Bitterroot National Forest

RE: Wilderness Watch, et el April 19, 2005 Letter

Dear Terri,

Thank you for a copy of the subject letter from Wilderness Watch, Friends of the Clearwater, Friends of the Bitterroot, and The Ecology Center. They have brought up some very good points that I will consider as I prepare the design for slip-lining the outlet at Mill Lake Dam.

I am all for keeping the need for helicopter support to a minimum on the project, and I will avoid using them when I can, because it is in my client's best interest to do so. Besides being noisy, helicopter support is unpredictable, dangerous, and very expensive. The cost of helicopter support has risen significantly in the last few years to the point where it may account for more than half of the cost of the proposed project. I have learned to appreciate the cheapness, reliability, and safety of pack and work animals, and I will continue to rely upon them for future work efforts at Mill Lake Dam. I will also encourage the contractor to use them as much as possible by including an economic incentive in the bid package. Mill Creek Irrigation District has agreed that Contractors who are willing to pack in their materials and equipment will be given up to a 10% credit on their bid amount. In other words, a contractor who is willing to use all non-mechanized means for accomplishing this job could potentially have a bid that is 10% higher than the next lower bidder and still get the job. However, as the engineer on this project I need to emphasize how critical quality assurance is on this portion of the project and state that I am unwilling to compromise public safety or risk loosing qualified contractors over the issue of helicopter support.

Mill Creek Irrigation District is a public entity that must comply with state statutes for contracting work. As the project manager, I must ensure that the project can be successfully completed for the budget that the District has to work with. I have a responsibility to my client and to the State of Montana from where the funding comes to structure the project in a manner that will ensure we get a responsive bid, meaning that it is within budget and from an experienced, reliable contractor. Otherwise, the District stands the risk of loosing funding for this project. There are other regulations besides the Wilderness Act at work on this project that also limit how I approach the project.

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5/3/05 2:57 PM

Commentor	Forest Service Response
13. Hydrometrics	Thank you for your comments.



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Terri Anderson
May 3, 2005
Page 2

Safety of the dam embankment is a real issue on this project. We have reason to believe that the old outlet is piping out. Piping is a very common failure mechanism for old dams and it is the most difficult problem to address. Therefore, I am striving to design a repair that I know will ensure the integrity of the dam for another 40 years. Corrugated Metal Pipe, like the one currently used at Mill Lake, is notorious for allowing piping to develop. It is not a welded pipe, but has joints that although appear to be tight when it is first installed, will rarely hold water under pressure without leaking. This is true even for dams with upstream headgates. In the case of an upstream headgate, it is not the pressure inside the pipe leaking out that causes piping, but the water pressure around the pipe leaking into the pipe through joints or holes that causes it. Although the snap-tight pipe may be much better than corrugated metal pipe, it still contains joints that can come apart or leak and I have been unable to get a warranty or even any conclusive test data from the manufacturer that suggests it will remain watertight under the 25-feet of head that the outlet pipe at Mill Lake will have on it. In addition, the solid-wall snap-tite pipe cannot structurally support 25-feet of head. If a debris jam blocks the pipe entrance and causes the pipe to empty when the lake is full, it will likely collapse.

I'm not against considering the use of a segmented pipe on the project, but I have studied their use and the ones that I see on the market do not appear to be safe for this application. The specifications that I have prepared do not prohibit the use of a segmented pipe, but in order to make it safe it will have to be welded on site and require at least a generator and extrusion welder to be brought to the site. This portion of the project must be done right and we can't afford to experiment on a project for which failure could impact public safety. However, if the contractor comes up with a plan that they can convince me will work, I'll be glad to consider it and I will attempt to provide specifications that allow this sort of innovation.

In regards to the comments concerning the gate position, my decision to place it on the downstream end was made only after the pipe was selected. I only settled on a downstream gate after coming to the conclusion that I really felt the project needed a jointless/seamless pipe. From an operational standpoint, the downstream gate adds another measure of safety because the dam tender will be able to get easy access to it and will be able to do a much better job of maintenance and upkeep on it. The added risk of having a pressurized outlet pipe is offset in this case by having a jointless pipe and by having a reservoir that only remains filled for a few months each year.

Finally, grouting is a difficult task even under good conditions. My pipe references contain this warning: "...please realize that only a few small single voids in the grouted annulus are allowed, or the higher pressure capability of the piping system is lost. In actual grouting procedures, it is extremely difficult to achieve a void free annulus. Professional grouting companies should be used." I'm willing to try a lot of wilderness friendly work applications on this project. In fact it's in my clients financial interest to do so, but a good grouting job is critical to preventing the old seepage problems from coming back. We considered requiring the contractor to mix the grout on site, but even the lake water is too acidic for use in

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5/3/05 2:57 PM



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Terri Anderson
May 3, 2005
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manufacturing the grout. In the interest of public safety we have to allow the contractor the option of using mechanized equipment to mix and place the grout and allow him to fly it in because it may be the only means ensuring the job is done right.

In summary, there are many maintenance items on Mill Lake Dam that we can do without helicopter support. However, this pipe installation and grouting is just not one of them if we want to ensure a safe, reliable result. Please call me if you have any other questions or comments on my approach to the project. My phone number is 443-4150, Ext. 179.

Sincerely,



Michael J. Oelrich, P.E.
Civil Engineer

