

Swan View Coalition Nature and Human Nature on the Same Path



3165 Foothill Road, Kalispell, MT 59901

swanview.org & swanrange.org

ph/fax 406-755-1379

January 3, 2018

To: Hillary Cooley
Grizzly Bear Recovery Coordinator - USFWS
University Hall, Room 309
Missoula, MT 59812
hilary_cooley@fws.gov

Also to be submitted via the Federal eRulemaking Portal (www.regulations.gov)
Docket # FWS-R6-ES-2017-0057

Written Comments Submitted for January 3, 2018, HBRC Workshop

My name is Keith Hammer. I am Chair of Swan View Coalition. This testimony is submitted on behalf of Swan View Coalition and the eight other groups and individuals listed at the end of this statement. Recent winter storms, hazardous driving conditions and other circumstances prevent me from presenting these comments orally at the “workshop.” We incorporate by reference the oral and written comments we submitted in this matter, along with their attachments, at the July 7, 2016 Habitat Based Recovery Criteria (HBRC) workshop in Missoula, MT.

Once again, Fish and Wildlife Service (FWS) has the cart before the horse and we must submit these comments under protest. In the Draft Supplement to the Grizzly Bear Recovery Plan that we’ve been asked to review, FWS states clearly:

This recovery plan supplement delineates objective, measureable habitat-based criteria that we believe will help assist in determining when an endangered or threatened species has recovered to the point that the protections afforded by the ESA are no longer necessary and the grizzly bear may be delisted.

FWS used population-based criteria alone, however, to declare the NCDE population recovered in 2011. FWS then uses 2011 as the “baseline year” for all things grizzly bear in the Draft Supplement and the draft NCDE Conservation Strategy. HBRC did not assist in this determination whatsoever. It is arbitrary, capricious, unlawful, and

entirely disingenuous to imply that they somehow did. FWS is treating development of HBRC as a last-minute speed bump on the road to delisting, not as timely criteria by which to measure and determine when recovery has been achieved.

On July 7, 2016, FWS did not hold an HBRC “workshop” as promised and in the format used previously for the Yellowstone Ecosystem. It instead held a formal hearing with no give-and-take or exchange of ideas between FWS and the participants. Today’s January 3, 2018, “workshop” is also not a workshop but a hearing that “will be in the same format as the previous one we held on July 7, 2016.” (See the attached 12/13/17 email from Jennifer Fortin-Noreus).

We have reviewed the Draft Supplement and its scant two-page response to the 36 comments received in 2016. FWS fails to respond in any meaningful way to those comments, has made no substantive changes to the draft HBRC, and instead simply restates FWS’s and the Conservation Strategy’s position on them. We will discuss a few of those HBRC issues in a moment.

First, let’s address the issue of FWS attempting to disown the draft Conservation Strategy by referring to it as an “NCDE Subcommittee” document in the Draft Supplement (page 3 and Literature Cited). Please see the attached 2013 Federal Register in which FWS published notice of availability of the draft Conservation Strategy. Please also see the attached letter from FWS’s Wayne Kasworm addressing our concerns with the 2016 “workshop” by promising:

Once the Service receives public comment on the draft habitat based recovery criteria, those criteria will be set forth in the revised Conservation Strategy, and the Service will make the revised draft Conservation Strategy available for public comment. (Emphasis added).

Now, however, FWS is attempting to renege on that promise and shift the responsibility to the NCDE Subcommittee, which at its 11/29/17 meeting made it very clear there would be no public review of the revised Conservation Strategy. (See the attached 12/18/17 email response of FWS’s Jennifer Fortin-Noreus to our concerns).

This is all very important because Flathead National Forest’s Kathy Ake told a lie in Appendix 5 of the draft Conservation Strategy. She writes that calculation of Total Motorized Route Density (TMRD) does not include roads “impassable” to motor vehicles due to the removal of a bridge or large culvert or the obliteration of the road entrance. She errs further by claiming “impassable” roads have “been incorporated this way since IBGC motorized access or Flathead NF’s A19 started.”

Flathead Forest Plan Amendment 19 was based in the South Fork Grizzly Bear Study's 1993 findings that all but the most overgrown closed roads were displacing bears, not just roads with motor vehicles. Hence, Amendment 19 required that a road must be decommissioned, have all stream-bearing culverts removed, be fully revegetated, no longer function as a road or trail - motorized or non-motorized, and be removed from the Road System in order to not count in TMRD. Roads can't simply be rendered impassable to motor vehicles, remain a road and trail, and yet not be counted in TMRD. (Please see the attached Roads to Ruin report, its Appendix A "TMRD Report," and the attached 12/5/17 Supplement to those reports).

Rather than correcting for Kathy Ake's misrepresentation in the draft Conservation Strategy, FWS's Draft Supplement promotes it by explicitly excusing "impassable" roads from calculations of TMRD and by adding it to the definition of TMRD on page 21. The Glossary states "impassable" roads "are not counted in [TMRD]." Meanwhile, back at the ranch, the Flathead appears to be changing its tune now that it has been caught in this lie about "impassable" roads and Amendment 19. Page 535 of the revised Flathead Forest Plan FEIS states:

In calculating total motorized route density for the action alternatives [which would implement the Conservation Strategy], roads are not counted if they meet the definition of "impassable" (see glossary). Because the methods for calculating percentages under the action alternatives are different than the methods for calculating percentages under Alternative A [current Forest Plan Amendment 19], the percentages for some subunits may change even if there have been no changes on the ground.

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd566348.pdf.

In fact, the Flathead did not begin implementing this "impassable" roads fiasco until about 2011, when FWS essentially declared the NCDE population recovered. It appears to have gotten ahead of itself in the rush to delist the grizzly bear and revise its Forest Plan. It told what it might consider a little white lie along the way. The effects of this lie on grizzly bear habitat security, however, are huge!

As we detailed in our July 2016 testimony and our comments on the draft Conservation Strategy, allowing "impassable" roads to be omitted from limits on TMRD allows unlimited miles of roads to remain on the landscape as roads and trails used by hikers, hunters, mountain bikers and the like. Such use of roads and trails has very real impacts to bears and that is why it is not allowed under Amendment 19. The Draft Supplement does not respond to the issues involved with redefining TMRD,

grizzly bear Security Core and other security parameters. The HBRC substitutes oranges for apples while claiming agencies will maintain the same number of 2011 baseline apples post-delisting. This mixing of apples and oranges makes it impossible for the public, let alone the decision-makers, to know what the actual baseline is and how the future will or will not deviate from it!

In our July 2016 testimony we also provided research showing that high levels of foot and bike use of trails displaces grizzly bears. The HBRC still wrongly allow such high-use trails to exist in Security Core. Recent passage of H.R. 1349 out of the House Committee on Natural Resources poses a very real threat to grizzly bear as it would allow mountain bikes and other wheeled devices in congressionally designated Wilderness areas. What basis in science will the agencies rely upon to close Wilderness trails to bikes administratively if Congress opens them up by law? How can the proposed HBRC stand as adequate regulatory mechanisms when the agencies are claiming limitless amounts of non-motorized use does no harm to bears?

The threat mountain bikes pose to bears goes beyond displacement. As Chris Servheen comments on the attached MTPR story about H.R. 1349 (emphasis added):

Mountain biking in bear habitat is dangerous for bikers and dangerous for bears. This is especially true in Wilderness areas where animals (and human users like hikers and horseback riders) are used to slow travel. Allowing mountain bikes in Wilderness areas would erode the quality of these areas and put bikers and wildlife in danger . . . mountain biking can lead to serious injury and death.

We've also attached the 3/3/17 Board of Review Recommendations related to mountain bike safety in bear habitat based on the fatality of Mr. Brad Treat on June 29, 2016. It concludes:

Current safety messaging at trailheads and in the media is usually aimed at hikers. However mountain biking is in many ways more likely to result in injury and or death from bear attacks to people who participate in this activity. In addition, there are increasing numbers of mountain bikers using bear habitat and pressure to increase mountain bike access to areas where black bear and grizzly bear encounters are very likely. (Emphasis added).

In other words, not only are we seeing remarkable increases in human recreation, we are seeing remarkable increases in reckless and stupid behavior in bear habitat. The situation is getting worse, not better.

There are 376,875 people in the 12 NCDE counties and Flathead County's population of 96,165 is growing at 2% per year (see attached Human Population of Twelve NCDE Counties and <http://worldpopulationreview.com/us-counties/mt/flathead-county-population/>). How do you think some 1,000 grizzly bears increasing at 2% per year are going to compete with people when Flathead County alone added twice the number of people in just 2016 as the entire NCDE has grizzly bears? Is this really the time for FWS's HBRC to reduce security for grizzly bears and allow for increased human impacts, while lying that they are not? Is there ever a time for that?

To add insult to injury, the Draft Supplement continues to rely upon Mace and others' 2012 estimate of a 3% annual NCDE grizzly bear population increase even though Costello, Mace and Roberts in 2016 revised that estimate downward to 2.3%! If FWS's answer to this is that the 3% estimate fits more nicely with the 2004-2011 baseline determination that the NCDE grizzly bear population is recovered, this is all the more evidence that FWS has the cart before the horse.

We urge you to back way up and recognize that it is unlawful to try to delist the lower-48 distinct population segment of grizzly bears one sub-ecosystem at a time. This should be obvious in light of the recent court ruling regarding unlawfully segmented wolf delisting. This should be a primary component of the Recovery Plan Supplement!

Start over and develop HBRC that are truly about the bear foods and habitat needed to robustly connect and recover the entire lower-48 population. The Draft Supplement essentially refuses to develop food and habitat HBRC because it says it is difficult, even though it has had 20 years since promising to do so. It instead proposes to monitor body condition and stable isotopes as a surrogate to measure habitat quality. By the time changes in foods and habitat show up as poor physical condition in delisted grizzly bears, it's a little late to do much about it or consider whether the bears should be delisted!

The issue of reconnecting the various lower-48 sub-ecosystems is paramount in light of Peck and others' 2017 paper on the "Potential paths for male-mediated gene flow to and from an isolated grizzly bear population." While this paper provides some hopeful looking maps of potential paths between the NCDE and Yellowstone, the likelihood that grizzly bears will be able to make the trip appears to be zero. On page 15, the Peck et al. paper concludes:

However, among 20,000 simulations consisting of 3000 steps (equivalent to one active season), very few simulated walks reached the vicinity of the destination population, and none were fully successful.

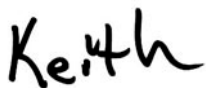
In other words, male bears can't make the trip in a single season and will have to set up home ranges in the highly-lethal lands along those paths. Nowhere do the draft HBRC or the draft Conservation Strategy establish adequate criteria and standards that will ensure male bears can establish themselves in these intervening lands, let alone female bears also necessary for successful reproduction and genetic exchange. The bears need secure, suitable, occupiable habitat between the sub-ecosystems, not paths.

The NCDE and/or Yellowstone cannot afford to have any sizeable fraction of 20,000 bears perish along these potential paths in a real-life enactment of the failed computer simulation. The Peck et al. paper is not a cause for celebration but a sobering reminder that these sub-ecosystems are highly isolated from one another. An adequate Recovery Plan and HBRC are needed to secure grizzly bear occupancy, not just travel, between the sub-ecosystems.

To recap, FWS needs to go back to the drawing board and develop meaningful HBRC that include measures of important foods and climate conditions necessary to gauge the recovery of grizzly bears. Then these criteria can be used to make an objective determination of when the highly fragmented lower-48 grizzly bear population might be reconnected and achieve recovery in the face of climate change and an ever-increasing population of people having a generally decreasing knowledge and will to safely coexist with grizzly bears.

We incorporate by reference the comments being submitted on the HBRC by Brian Peck and Arlene Montgomery/Friends of the Wild Swan.

Sincerely,

A handwritten signature in black ink that reads "Keith". The letters are cursive and slightly slanted to the right.

Keith J. Hammer
Chair

And on behalf of:

Michael Garrity
Executive Director
Alliance for the Wild Rockies
PO Box 505
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Dr. Brian L. Horejsi
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Hamilton, MT 59840

Steve Kelly - Co-Chair
Montana Ecosystems Defense Council
PO Box 4641
Bozeman, MT 59722

List of Attachments

1. 12/13/17 email from Jennifer Fortin-Noreus.
2. 5/3/13 Federal Register notice of draft NCDE Grizzly Bear Conservation Strategy.
3. 6/9/16 letter from FWS's Wayne Kasworm.
4. 12/18/17 email from Jennifer Fortin-Noreus.
5. May 2016 "Roads to Ruin" report by Keith Hammer.
6. 12/5/17 "Supplement to Keith Hammer's Roads to Ruin and TMRD Reports"
7. 12/13/17 MRPR story about bikes in wilderness, with comment by Chris Servheen.
8. 3/3/17 Board of Review recommendation for mountain biking in bear habitat.
9. 8/12/16 "Human Population of Twelve NCDE Counties" by Keith Hammer.

Other Literature Cited

Costello, C.M., R.D. Mace, and L. Roberts. 2016. Grizzly bear demographics in the Northern Continental Divide Ecosystem, Montana: research results (2004– 2014) and suggested techniques for management of mortality. Montana Department of Fish, Wildlife and Parks. Helena.

Mace, R. D., and L. L. Roberts. 2012. Northern Continental Divide Ecosystem Grizzly Bear Monitoring Team annual report, 2012. Montana Fish, Wildlife & Parks, Kalispell, Montana, USA.

Peck, C.P., F.T. van Manen, C.M. Costello, M.A. Haroldson, L.A. Landenburger, L.L. Roberts, D.D. Bjornlie, and R.D. Mace. Potential paths for male-mediated gene flow to and from an isolated grizzly bear population. *Ecosphere*, October 2017, Volume 8(10), Article e01969.

1. 12/13/17 EMAIL FROM FORTIN-NOREUS

"Fortin-Noreus, Jennifer" <jennifer.fortin-noreus@mso.umt.edu>

December 13, 2017 11:50 AM

To: Keith Hammer <keith@swanview.org>, Hilary Cooley <hilary_cooley@fws.gov>

RE: HBRC workshop

Keith,

I have signed you up for the 1:10pm slot at the workshop. The workshop will be in the same format as the previous one we held on July 7, 2016.

The information at this workshop will be considered as official public comments for the record and do not need to be submitted via the online portal. In addition, the information that you submitted at the previous workshop is also part of the record and do not need to be resubmitted.

Jennifer

Jennifer Fortin-Noreus
Wildlife Biologist
Grizzly Bear Recovery Program
University of Montana
University Hall, Room 309
Missoula, MT 59812
phone: (406) 243-4994
jennifer.fortin-noreus@umontana.edu

From: Keith Hammer [keith@swanview.org]
Sent: Wednesday, December 13, 2017 6:56 AM
To: Hilary Cooley; Fortin-Noreus, Jennifer
Subject: HBRC workshop

Hilary and Jennifer;

Please reserve me a spot to speak at the January 3 Habitat Based Recovery Criteria workshop. The earlier the better, please.

Will this workshop follow the format of the July 7 one, where folks essentially give testimony one after another?

Or will it be more of a true workshop format where there is some dialogue between the participants and the FWS?

Is there a way that we can incorporate the information we provided at the July 7 workshop by reference,

1. 12/13/17 EMAIL FROM FORTIN-NOREUS

without having to resubmit all of it again via the regulations.gov<<http://regulations.gov>> portal?

Will the information we provide at the workshop be considered as much a part of the public record as what is provided via the online portal - in other words, if we submit information at the workshop, must we also submit it via the online portal?

Thanks,

Keith

Keith Hammer - Chair
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<http://www.youtube.com/user/swanviewcoalition>

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action as detailed in the Final Environmental Assessment will not have a significant impact on the quality of the human environment, and that an environmental impact statement is not required.

ADDRESSES: Copies of the Final Environmental Assessment and Finding of No Significant Impact are available for inspection at:

- Central Utah Water Conservancy District, 355 West University Parkway, Orem, Utah 84058-7303
- Department of the Interior, Central Utah Project Completion Act Office, 302 East 1860 South, Provo, Utah 84606
- Utah Reclamation Mitigation and Conservation Commission, 230 South 500 East, Suite 230, Salt Lake City, Utah 84102

The documents are also available at www.cuwcd.com, www.mitigationcommission.gov, and www.cupcao.gov.

FOR FURTHER INFORMATION CONTACT: Mr. Lee Baxter, Central Utah Project Completion Act Office, at (801) 379-1174; or email at lbaxter@usbr.gov.

SUPPLEMENTARY INFORMATION: The Department of the Interior, the Utah Reclamation Mitigation and Conservation Commission, and the Central Utah Water Conservancy District have completed evaluating the impacts of the proposed East Hobbie Creek Restoration Project. The Final Environmental Assessment has been completed in conjunction with the June Sucker Recovery Implementation Program, and provides an analysis of the anticipated environmental effects of a proposed restoration effort on a portion of lower Hobbie Creek, near Springville, Utah. This restoration effort is intended to facilitate the recovery of the June sucker, a federally listed endangered species, through improvement of spawning habitat and maintenance of stream flow. The effort analyzed included the potential restoration of approximately 2 miles of stream channel, modification or removal of several existing barriers to fish passage, use of the Utah Lake System Hobbie Creek Valve Station for supplemental stream-flow releases, and enhancement of the existing water supply.

Dated: April 15, 2013.

Reed R. Murray,
Program Director, Central Utah Project Completion Act, Department of the Interior.

Dated: April 15, 2013.

Michael C. Weland,
Executive Director, Utah Reclamation Mitigation and Conservation Commission.

[FR Doc. 2013-10458 Filed 5-2-13; 8:45 am]

BILLING CODE 4310-MN-P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[FWS-R6-ES-2013-N064; 60120-1113-0000-C2]

Endangered and Threatened Wildlife and Plants; Draft Conservation Strategy for the Northern Continental Divide Ecosystem Grizzly Bear

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of document availability; request for comments.

SUMMARY: The U.S. Fish and Wildlife Service (Service) announces the availability of a draft Conservation Strategy for the Northern Continental Divide Ecosystem grizzly bear (*Ursus arctos horribilis*) population for public review and input. The strategy will be the post-delisting management plan for the NCDE grizzly bears and their habitat. This document is necessary to demonstrate the adequacy of regulatory mechanisms in order to delist this grizzly population.

Grizzly bears are currently federally listed as threatened in the lower 48 States under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), as amended (Act). The Service solicits review and comment from the public on this draft document.

DATES: Comments on the draft revised recovery plan must be received on or before August 1, 2013.

ADDRESSES: An electronic copy of the draft Conservation Strategy for the Northern Continental Divide grizzly bear population is available at <http://www.fws.gov/endangered/species/recovery-plans.html>. Hard copies of the draft strategy are available by request from the Grizzly Bear Recovery Coordinator, U.S. Fish and Wildlife Service, University Hall, Room 309, University of Montana, Missoula, MT 59812; telephone 406-243-4903. Submit comments on the draft Conservation Strategy for the Northern Continental Divide grizzly bear population to the Grizzly Bear Recovery Coordinator at this same address.

FOR FURTHER INFORMATION CONTACT: Project Leader, at the above address, or telephone 406-243-4903.

SUPPLEMENTARY INFORMATION:

Background

Restoring an endangered or threatened animal or plant to the point where it is again a secure, self-sustaining member of its ecosystem is a primary goal of the Service's endangered species program.

Conservation Strategy for the Northern Continental Divide Ecosystem of the grizzly bear (*Ursus arctos horribilis*) demonstrates the adequacy of regulatory mechanisms that will remain in place post-delisting to assure the health of this grizzly population. The Conservation Strategy describes the management and monitoring direction to maintain a recovered grizzly bear population in the NCDE and documents the commitment of signatory agencies to the Memorandum of Understanding implementing the Strategy to continue to manage the grizzly and its habitat as per the specifics in the Strategy document. The NCDE Conservation Strategy is the post-delisting management plan for this population and its habitat.

Request for Public Comments

The Service hereby solicits public comments on a draft Northern Continental Divide Ecosystem Conservation Strategy. All comments received by the date specified in **DATES** will be considered prior to approval of the final Northern Continental Divide Ecosystem Conservation Strategy. Written comments and materials regarding the Strategy should be addressed to the Grizzly Bear Recovery Coordinator (see **ADDRESSES** section). Comments and materials received will be available, by appointment, for public inspection during normal business hours at the above address. All public comment information provided (e.g., names, addresses, letters of comment, input recorded during meetings) becomes part of the official public record. If requested under the Freedom of Information Act (5 U.S.C. 552) by a private citizen or organization, the Service may provide copies of such information.

Authority

The authority for this action is section 4(f) of the Act, 16 U.S.C. 1533(f).

Dated: April 17, 2013.

Noreen E. Walsh,
Regional Director, Denver, Colorado.

[FR Doc. 2013-10492 Filed 5-2-13; 8:45 am]

BILLING CODE 4310-55-P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[F-14952-B; LLA940000-L14100000-HY0000-P]

Alaska Native Claims Selection

AGENCY: Bureau of Land Management, Interior.



3. 6/9/16 FROM WAYNE KASWORM
United States Department of the Interior
FISH AND WILDLIFE SERVICE



**GRIZZLY BEAR RECOVERY COORDINATOR
UNIVERSITY OF MONTANA
UNIVERSITY HALL, ROOM 309
MISSOULA, MT 59812
PHONE (406) 243-4903, FAX (406) 329-3212**

June 9, 2016

Keith Hammer
Chair – Swan View Coalition
3165 Foothill Road
Kalispell, MT 59901

Dear Mr. Hammer,

The US Fish and Wildlife Service (Service) has received your letter dated June 8, 2016, and has decided to proceed with its scheduled habitat-based recovery criteria workshop for the Northern Continental Divide Ecosystem (NCDE) on July 7, 2016, as published on May 11, 2016 in the Federal Register notice. The Federal Register notice refers to the draft Conservation Strategy for the NCDE for availability of the habitat criteria. Although they are not specifically titled 'habitat-based recovery criteria', they are discussed in the draft Conservation Strategy in Chapter 3 on pages 41–92. The Forest Service draft EIS also incorporates the habitat management criteria discussed in the draft Conservation Strategy, in Volume 3—Draft EIS for the Forest Plan Amendments to incorporate relevant direction from the NCDE Grizzly Bear Conservation Strategy for the Helena, Kootenai, Lewis and Clark, and Lolo National Forests (available at <http://www.fs.usda.gov/detail/full/flathead/home/?cid=stelprdb5422786&width=full>).

The Service will consider all written and oral comments received at the habitat-based recovery criteria workshop in developing a Recovery Plan Supplement: Habitat-Based Recovery Criteria for the NCDE. Please note that you will have another opportunity to comment on the habitat based recovery criteria. Once the Service receives public comment on the draft habitat based recovery criteria, those criteria will be set forth in the revised draft Conservation Strategy, and the Service will make the revised draft Conservation Strategy available for public comment.

Sincerely,

Wayne Kasworm
Acting Grizzly Bear Recovery Coordinator

4. 12/18/17 EMAIL FROM FORTIN-NOREUS

Keith Hammer <keith@swanview.org>

December 19, 2017 9:59 AM

To: Jennifer Fortin-Noreus <Jennifer_fortin-noreus@fws.gov>, Hilary Cooley
<hilary_cooley@fws.gov>

Fwd: Confusion on HBRC review and Conservation Strategy, Documents Requested

Hilary and Jennifer;

In retrospect, I regret having used Jennifer's UMT email address for my questions about the HBRC and Conservation Strategy, so I am redirecting those questions and Jennifer's prior response to Jennifer's FWS email address.

The upshot here is that I am simply asking BOTH OF YOU to confirm via a reply email that the answers Jennifer provided on 12/18/17, below, are true and correct and represent the position of U.S. Fish and Wildlife Service, not the University of Montana.

I'll do my best to use only Jennifer's FWS email address in the future.

Thank you for your attention to this,

Keith

Keith Hammer - Chair
Swan View Coalition
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<http://www.swanrange.org>
<http://www.facebook.com/SwanViewCoalition>
<http://www.youtube.com/user/swanviewcoalition>

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Begin forwarded message:

From: "Fortin-Noreus, Jennifer" <jennifer.fortin-noreus@mso.umt.edu>
Subject: **RE: Confusion on HBRC review and Conservation Strategy, Documents Requested**
Date: December 18, 2017 2:20:32 PM MST
To: Keith Hammer <keith@swanview.org>, Hilary Cooley <hilary_cooley@fws.gov>

Keith,

In response to your peer review questions: Although we had planned on the peer review occurring concurrently with the public comment period, the request for peer review moved faster than publication (we did not anticipate this occurring). This has made the peer reviews available to the public during the public comment period. The draft criteria that were sent to the peer reviewers is the same draft that was released during the public comment period. The peer review was coordinated by Greg Watson, Office of

4. 12/18/17 EMAIL FROM FORTIN-NOREUS

Landscape Conservation, US Fish and Wildlife Service.

In response to your Conservation Strategy (CS) questions: The CS is not an ESA requirement and therefore it is a NCDE subcommittee document rather than a USFWS document, a clarification we are trying to make after the confusion in the GYE that it was a USFWS document. We will provide the NCDE subcommittee with comments that we receive on the draft HBRC for consideration in revisions to the CS. It is up to the NCDE subcommittee to determine whether they will release the CS for a second round of public comment. Please see attached the presentation that I gave at the NCDE subcommittee meeting with an overview of public comments received on the draft CS.

Sincerely,
Jennifer

Jennifer Fortin-Noreus
Wildlife Biologist
Grizzly Bear Recovery Program
University of Montana
University Hall, Room 309
Missoula, MT 59812
phone: (406) 243-4994
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From: Keith Hammer [keith@swanview.org]
Sent: Sunday, December 17, 2017 10:51 AM
To: Hilary Cooley
Cc: Fortin-Noreus, Jennifer
Subject: Confusion on HBRC review and Conservation Strategy, Documents Requested

Hilary;

We see conflicting information coming from FWS concerning peer and public review of both the NCDE Habitat Based Recovery Criteria and the Revised NCDE Grizzly Bear Conservation Strategy:

1. FWS's circa October 2017 request for peer review of the HBRC states: "These reviews will occur concurrently with the public comment period for the draft [Recovery Plan] supplement."
2. FWS did not issue the draft HBRC to the public, however, until the 12/12/17 Federal Register notice started the public comment period for the HBRC Recovery Plan supplement.
 - A. Why was the peer review begun prior to the public comment period and who was the person "responsible for the solicitation and coordination of the independent peer review?" Please also provide us a description of their job title and information demonstrating that they are "not associated with the decision."
3. On June 9, 2016, FWS wrote to us and stated: "Once the Service receives public comment on the draft habitat based recovery criteria, those criteria will be set forth in the revised draft Conservation Strategy, and the Service will make the revised draft Conservation Strategy available for public comment."
4. At the November 29, 2017 IGBC NCDE Subcommittee meeting in Missoula, however, FWS and

4. 12/18/17 EMAIL FROM FORTIN-NOREUS

MDFWP made it quite clear there will be no public review of the revised draft Conservation Strategy, in spite of numerous public requests that there be more public review.

B. When will the public be provided a timely opportunity to review and comment on the revised draft Conservation Strategy, as promised?

It goes without saying that we are not pleased with having to prepare for the Jan 3 "workshop" during the Holiday Season any more than we appreciated having to prepare for the July 7 "workshop" over the July 4th holiday season.

C. Why did you not initiate the public comment period on the NCDE HBRC in October, as you did for the peer review?

D. Please email us a copy of the Conservation Strategy public comment summary that Jennifer presented at the 11/29/17 meeting and a copy of the Conservation Strategy public comment summary that was to be later provided the members of the Subcommittee.

We'd appreciate a prompt reply to these questions and requests so we can make the best use of the public comment period.

Thank you,

Keith

Keith Hammer - Chair
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<http://www.youtube.com/user/swanviewcoalition>

"Nature and human nature on the same path."

May 2016

Roads to Ruin: The Flathead National Forest Shirks Its Road Reclamation Duties

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Easy-to-access culverts on open roads can blow out, like this one, while culverts on closed roads get inspected even less often. Though the Flathead National Forest has found up to half of its culverts on closed roads at high risk of failing, it has neither inspected them regularly nor removed them as promised. (Forest Service photo, Nokio Creek, 1999)

Executive Summary

In order to protect water quality and fish, the Flathead National Forest is required to either remove or monitor annually all culverts and bridges in roads closed in threatened bull trout habitat. Similarly, the Flathead is required to develop a monitoring plan for each road it chooses to simply close in providing Security Core habitat for threatened grizzly bear, rather than conducting the preferred reclamation by removing all stream-crossing structures.

Our investigation finds the Flathead has developed none of the required stream-crossing monitoring plans for roads closed to provide Security Core. Nor has it annually monitored stream-crossing structures on closed roads in bull trout habitat.

Though the Forest Service (FS) set forth these requirements and the need for them, the Flathead has failed to implement them. Rather than correct the problem, it has instead set upon a course to do away with such requirements - as culverts and bridges continue to fail on roads both open and closed to motor vehicles.

This report will discuss how the Flathead tracks its roads and stream-crossing structures, discuss how it does and does not monitor them, and provide examples of the consequences when it fails to adequately manage them. It will conclude with recommendations on how to get the effort back on track rather than abandon it to the detriment of fish, wildlife and taxpayers.



Reclamation of 60 miles of road in the Big Creek watershed removed culverts and restored native stream channels, like this reclaimed crossing. This resulted in Big Creek being the first watershed in Montana restored and removed from its list of watersheds "impaired" by logging and road-building. (Forest Service photo)

Why the Fuss About Roads and Culverts?

Grizzly bear research indicates bears are displaced by motorized vehicles and other human uses of bear habitat. They are displaced from habitat near roads, even roads closed by gates to motorized vehicles, due to vehicle trespass and non-motorized uses of the road behind the gate. Moreover, female bears raising young need 68% of their habitat to be essentially free of roads. [1]



MT Dept. Fish, Wildlife and Parks photo

Flathead Forest Plan Amendment 19 (A19) was issued in 1995 to incorporate this research and includes limits on Open Motorized Route Density (OMRD) and Total Motorized Route Density (TMRD) - and a required minimum of 68% Security Core. A gate can be placed on a road to reduce OMRD but the road must be reclaimed/decommissioned and removed from the road "system" in order to not count as a road and reduce TMRD. Road reclamation requires that all stream-aligned culverts and bridges be removed so they can't plug or fail during indefinite long-term closure.

While road reclamation is preferred to increase Security Core habitat, permanent road barriers like earthen berms are al-

lowed and culverts may remain, but a culvert "monitoring plan must be developed and its implementation assured." [2, 3]

Requirements for maintaining FS roads in bull trout habitat place even more emphasis on not leaving stream-crossing structures to fail behind road closure devices. Biological Opinions (BiOps) issued by Fish and Wildlife Service (FWS) require that all culverts behind gates and permanent barriers be monitored annually and that, if annual monitoring behind barriers "is not feasible, remove all stream crossing structures when the road is closed." The BiOps require the removal of all stream-crossing structures when roads are reclaimed, so annual inspections shouldn't be an issue. [4]

In other words, when done properly, road closures and reclamation benefit bears, other wildlife, water quality, fish, and the American taxpayer. The FS and FWS agree that road reclamation that removes all stream-crossing structures, as well as the ditch-relief culverts that channel ditch water under the road, "offers the greatest long-term benefit by reducing sediment delivery, reducing the risk of culvert failure, and the need for maintenance. [5]



Joel Sartore Nat. Geo. Stock w/ Wade Fredenburg photo

Are Culvert and Bridge Failures That Big a Problem?

FWS finds all abandoned culverts eventually fail. More broadly, plugging by stream bedload and woody debris was the most common cause in cited studies of culverts. Those smaller than 24" diameter accounted for 81% of the plugged culverts. [6]

Even a small stream in an 18" dia. culvert can do a lot of damage, as shown in our 2015 photos on this page of such a crossing on Pinnacle Ridge Road 1673. Steep streams like this tributary move bedload downhill. It in this case entirely fills the culvert catch basin, plugs the culvert, and sends the stream over the road where it carries away the road fill and fine sediments that can choke trout spawning beds.

The author witnessed this same culvert plugged with bedload and failing in 1973

overflow. The one pictured sent 1,000 cubic yards of road fill downstream. [8] A rust line greater than one-third the height of the culvert indicates this culvert was undersized and at increased risk of failure. [9]

Bridges are not immune to washing out, especially during high flows in Spring or with rain falling on fresh snow. A 1990 report by the Flathead documents \$319,000 in necessary repairs to roads, culverts and bridges in the South Fork Flathead and Spotted Bear areas damaged during a rain-on-snow event in November 1989. [10]

As A19 was being written, Montana Department of Fish, Wildlife and Parks (MDFWP) used a helicopter to survey culverts on closed roads in the South Fork Flathead and Spotted Bear area, finding 52 culverts par-



Road 1673 looking upstream at plugged catchment.



Road 1673 looking downstream at road-fill erosion.

as an employee of the Flathead National Forest. The Flathead reports roads have increased sediment levels in Pinnacle Creek nearly twelve-fold over natural levels! [7]

Large culverts like the 54" dia. culvert pictured on the cover of this report can still

tially plugged or undermined and 13 culverts that had failed in bull trout streams. [11] Such findings are among the reasons A19 and FWS's Road Maintenance BiOps include requirements to either remove culverts from closed roads or monitor them regularly to prevent blowouts. [12]

How Aware is the Forest Service of this Problem?

The Forest Service is well aware of the problems associated with roads, culverts and bridges. Following is what the Forest Service wrote in its 2014 Biological Assessment (BA) of road-related activities in bull trout habitat:

“Existing roads are considered a primary source of sediment related impacts to bull trout in developed watersheds (USFS 1998, page 38), and the degraded baseline conditions caused by roads and sediment were part of the rationale for listing bull trout as threatened. . .

The road related activities addressed in this BA . . . are necessary to . . . reduce the risk of damage to watersheds realizing that significant environmental events are likely to occur. . .

The activities described in this BA can occur on a routine basis . . .

The BTCS [Bull Trout Conservation Strategy] recognized that road interactions and activities associated with roads are a high concern. Road densities have been demonstrated as an effective proxy for departure from historic condition, the state of current condition, and ostensibly past management (Rieman et al. 2000). The correlation of higher road densities with fewer bull trout is repeated throughout the planning area, the Columbia River Basin, and other areas where native fisheries and land management issues overlap (Ripley et al. 2005, Quigley and Arbelbide 1997, Riggers and Mace 1997). . .

Road related activities include maintaining the driving surface, reducing the environ-

mental impacts of existing roads, and decommissioning roads. . .

Appendix E addresses how roads placed in a closed or stored status, or decommissioned, are to be treated. . .

Culverts that remain in the road behind gates and berms that are not properly sized, positioned, and inspected will be considered for removal. These have an increased risk for failure by reducing awareness of potential maintenance needs. The accumulation of debris has the potential to obstruct culverts and other road drainage structures. Without maintenance and periodic cleaning, these structures can fail, resulting in sediment production from the road surface, ditch, and fill slopes. The design criteria to address drainage structures left behind gates and berms require annual monitoring of these structures. This programmatic BA recognizes that as the number of closed roads grows (as anticipated), the burden of annual inspection will increase. . .

In the recent past these land management units have maintained an average of approximately 19 percent of the open road system, or 3727 miles each year . . . The overall condition of the existing road network and amount of maintenance needed to maintain the entire road network is unknown. . .

Road decommissioning will result in long-term benefits by reducing sediment sources, reducing the risk of culvert failure, and eliminating the need for maintenance.”

[13, parenthesis in original, emphasis added; 14].

So the Forest Service Must be Pursuing Road Decommissioning to Eliminate Culverts and Maintenance Costs?

Rather than continuing to embrace its road decommissioning obligations, the Flathead's decommissioning program has come nearly to a standstill. [15] FWS initially required the Flathead to meet its A19 OMRD objectives within 5 years and its TMRD and Security Core within 10 years as mandatory terms and conditions of its 1995 BiOp. [16] When the Flathead failed to meet those conditions, FWS began issuing BiOps allowing the Flathead to simply make some bit of progress as it plans timber sales and other projects. [17]

When the Flathead began revision of its current (1986) Forest Plan in 2006, it proposed to halve its timber sale program and the "suitable timber base" acreage supporting it. This was partly due to recognizing the Flathead was receiving only 15% of the funds needed to properly maintain its road system, which was built primarily for logging access, and that it needed to continue decommissioning up to 500 miles of road over the coming decade to further reduce impacts to fish and wildlife. [14; 18; 19]

The 2006 Forest Plan revision effort was suspended, then taken up again in late 2013. The Flathead's 2014 Planning Assess-

ment concludes "During the past two decades, appropriated funding for roads construction and maintenance has decreased. . . The overall trend affecting the Flathead NF transportation system is that budgets for repairs and maintenance are expected to continue to decrease . . . [20]

Regardless of failing budgets, the Flathead's 2015 Proposed Forest Plan would

increase the suitable timber base half-again over the 2006 proposal, requiring more roads be retained for logging access. It would do away with further implementation of the A19 road management program and treat grizzly bear as a

species no longer protected by the Endangered Species Act. [21]

Similarly, the Flathead's 2014 Travel Analysis Report finds only 54 miles of its 3,518-mile road system should be decommissioned, in spite of A19's legally required objectives for grizzly bear never being met to provide the promised bear habitat security. The TAR also portends a shift to "storing" roads rather than decommissioning them, claiming that storing a road is cheaper, largely because the culverts need not be removed for "storage." [22]



Road decommissioning removes culverts, restores streambed gradients, removes road fill, and stabilizes slopes. Paul Harvey photo

Is the Delay in Road Decommissioning Hurting Anything?

Here, in part, is what the Flathead wrote FWS about the effects to bull trout of its delayed implementation of A19's road closure and decommissioning objectives:

"The delay in achieving the implementation schedule has resulted in roads existing on the landscape longer than anticipated. . .



A blown-out culvert in the long-closed Bunker Creek Road 549 in 2014, upstream of bull trout critical habitat.

In 2007, 30 miles [of closed roads] were surveyed and 9 failed culverts were found and about 50% of the culverts were at a high risk of failure. It is estimated that there are about 760 miles of bermed roads on the Forest and until these roads are surveyed, it is reasonable to state that conditions exist on them that could contribute sediment to stream networks downstream. . .

These surveys do not exist for every road [so we] infer from the surveys that have occurred that the retention of roads have resulted in unwanted culvert failures or debris slumps that have entered streams and have impacted bull trout habitat. . .

Retention of these roads and lack of maintenance has resulted in culvert failures that

have contributed sediment into bull trout waters . . . and is 'likely to adversely affect' bull trout. . .

If the A19 objectives were achieved we would have more roads that would have been reclaimed (i.e. culverts removed, stream channels restored, road surface water barred and treatment that would put that road in a self-maintaining state) and fewer potential effects. Decommissioning . . . would result in a long-term reduction of sediment and improve watershed and stream conditions." [23, emphasis added]

Shown on this page are just two of the problems we found behind the closure berm on Bunker Creek Road 549 the last two summers, in a bull trout watershed. [24]



Wildfire burned this Road 549 bridge over Bunker Creek in 2015, stranding 3 bridges and 30 culverts beyond!

Then Certainly Culverts are Being Removed or Monitored!

Though the Forest Service is well aware of the damage being caused by failing culverts, culvert failures remain a common occurrence. Though it long ago set forth its own requirements for monitoring culverts annually on closed roads in bull trout watersheds, and FWS agreed it must do so, it has not done so. [4; 5; 24; 25; 26]

Though the Flathead required that it either remove culverts or develop a monitoring plan for each road it closes with a berm to provide grizzly bear Security Core habitat, the Flathead has not prepared a single such monitoring plan! [2, 27] This even though it has bermed or simply abandoned several hundred roads to increase Security Core (and even more to lower TMRD). [28]

The Flathead, like other National Forests, uses an INFRA database to track culverts, bridges and other travel route infrastructure. The 2015 INFRA data it provided us lists 14,460 culverts and 231 bridges on its National Forest System Roads (NFSR). Not all culverts are listed in INFRA, however, especially smaller diameter culverts. [29]

The failure to include smaller culverts in INFRA compounds the problem of trying to track culverts at risk of blowing out. This is especially true given that studies show

81% of plugged culverts are less than 24" diameter. [6] The culvert size issue aside, we found the 2015 INFRA data extremely inconsistent in tracking problem culverts and those that had been replaced due to problems. [24; 30]

In short, the Flathead does not know with certainty how many culverts it has, where they are all located, what condition they are in, or which have failed. This lack of culvert surveys and adequate database make it difficult to determine the Forest-wide and system-wide effects on water quality and fish.



Monitoring culverts on closed roads is not an easy task, which is why it is best to remove them instead.

Indeed, the Flathead finds "If road surveys existed on every road system, we would be better able to determine if culverts have failed on closed roads and what the associated affects would be on streams and bull trout."

[23] The For-

ests in Western Montana in 2014 were left to conclude "The overall condition of the existing road network and amount of maintenance needed to maintain the entire road network is unknown." [5]

Rather than proposing to significantly reduce the size of its road system to be more fiscally and environmentally responsible, the Flathead intends to make it larger by beginning to rebuild roads it previously decommissioned! [Appendix A; 31]

What's the Problem?

It has become increasingly clear the FNF simply doesn't want to take full responsibility for either removing culverts from closed roads or inspecting them annually to insure they do not plug and fail - as required by the programmatic bull trout BiOp. While the FNF, when challenged, recently agreed to an annual culvert monitoring program in its Chilly James Restoration Project, it simultaneously claims it need not do this elsewhere in bull trout habitat. [26]

This is akin to how the FNF failed to implement its programmatic A19 road closure and decommissioning objectives, leaving 126 miles of road decommissioning scheduled but never implemented and much of the Forest never scheduled to meet A19 objectives. [15, 17] Now the FNF is trying to cheat A19, leaving unattended culverts in "impassable" and other "stored" or abandoned roads from which culverts were promised to be removed! [32]

While the FNF claims A19 has since 1995 allowed it to not count "impassable" or "stored" roads in TMRD, it only began doing so in 2012. [33, 34] When pressured, the FNF now states there "is no forest policy concerning [stored road] treatments and TMRD calculations" and that it is up to the District Ranger whether or not to include "stored" roads in TMRD. [35]

In a broader context, the Forest Service appears to be favoring politics over science and trying to keep its admittedly bloated road system. Whereas its initial directive to arrive at a "minimum road system" clearly "points to a smaller road system," subsequent directives and travel planning like that on the FNF show that the road system may instead get even larger. [36]

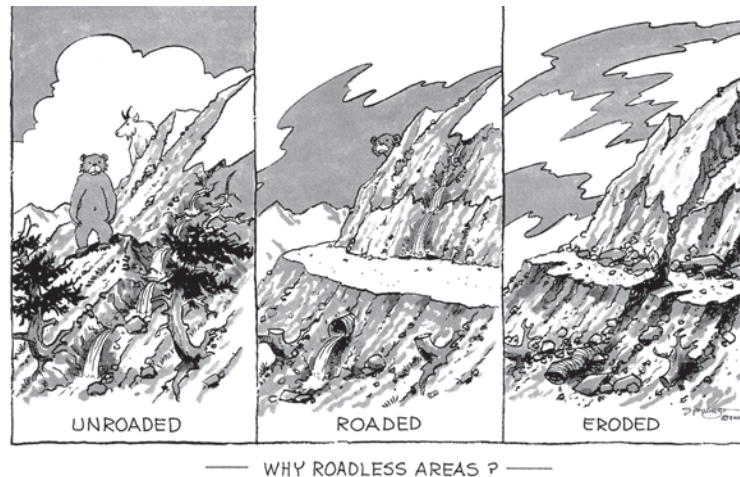
The agency's recently released Ecosystem Restoration Policy could not be more telling. The word "road" appears not at all in

the policy, as though roads do not compromise ecosystem resilience and we needn't do anything about them to restore damaged ecosystems. [37]

Such notions run contrary to the primary findings of the

Interior Columbia Basin Ecosystem Management Project, which essentially found that ecosystems with roads and management were generally less resilient than those remaining roadless and without management. Many studies caution that trying to restore ecosystems through more management could do more harm than good. [38]

Simply put, the Forest Service is retaining its bloated road system so it can argue for more funds to feign "restoration" by logging, thinning, and burning in ways that require retention of the very roads that cause and enable the ecosystem damage! [37, 38]



Aren't Collaborative Groups Coming to the Rescue?

Unfortunately, collaborative groups have been used on the FNF to promote the myth that the primary problem with forest ecosystems is that there are too many trees rather than too many logging roads. In spite of plentiful scientific research and advice to the contrary, some collaborative groups have outright lied that logging is needed to restore forests and then argued that stream-aligned culverts be left in "reclaimed/decommissioned" roads.

The collaborative group Flathead Common Ground was launched on the FNF by Defenders of Wildlife, National Wildlife Federation and Intermountain Forest Industries Association. An invited panel of scientists reviewed the collaborative's "ecologically driven" logging proposal and reported back in 1997.

The panel did not agree that the logging was ecologically driven and concluded "the desire to harvest timber products should be explicitly recognized here as the driving force." The panel also found it was "unclear the extent to which road closure entails gating only, gating plus culvert removal, or reclamation/obliteration." [39]

The collaborative's final proposal nonetheless still called its logging "ecologically driven." DOW and NWF in particular re-

fused to abide by A19's requirement that all stream-aligned culverts be removed from the 120 miles of road the FNF said needed to be reclaimed in the Paint-Emery Project area. Indeed, they argued against it. [40]

The Collaborative Forest Landscape Restoration Program (CFLRP) says plenty about logging as restoration but barely mentions decommissioning existing roads. [41] This bias is similarly reflected in its accom-

plishments. Its 5-year report finds CFLRP exceeding its logging goals but falling far short in removing roads and the weeds they spread. [42]

The Southwest Crown Collaborative (SWCC), which is partly funded by

CFLRP, on 9/11/12 recorded the FNF Supervisor as saying the Swan Lake Ranger District "has already decommissioned 800 miles of roads due to grizzly bears, so there aren't as many opportunities today" for decommissioning. [43] Swan View Coalition showed this to be in error and the District Ranger subsequently agreed only 74 miles have been decommissioned in the District - about half of that in the SWCC area. [44]

Meanwhile, other collaborators are urging Congress to fund them and to ignore those who may have a better grip on the facts and resort to litigation when necessary. [45]



The Southwest Crown Collaborative visits a completed logging unit in the Meadow Smith timber sale in 2012.

In Plain Language, What's Going On?

The Forest Service complains it doesn't get enough funding to maintain its roads yet refuses to significantly reduce its road network. Instead it simply blocks more roads shut to save on maintenance while largely ignoring the culverts and bridges on those closed roads as though they'll maintain themselves. [46, 47]

When it does get funding for road maintenance, it skims 55% off the top of that and uses it instead for "timber support." [48] Though timber sales are supposed to then help maintain the roads used to haul the logs, a vicious downward spiral is set in motion as timber sales are used to justify more roads and roads are used to justify more timber sales! [49]

The conservation community has helped lobby Congress to provide funds to repair or decommission roads via the Legacy Roads and Trails Program. [50] This once independent budget line item, however, has now been combined with other budget sources into an Integrated Resource Restoration budget line item. This makes it harder to insure that money to fix or decommission roads is not instead used to accomplish logging targets and other logging-as-restoration objectives - concerns expressed by the Forest Service itself. [51]

On the FNF, its choices for decades have been crystal clear, especially in bull trout habitat: either remove all the culverts from closed roads or commit to monitoring and maintaining them annually. This it has not done, nor has it met similar requirements when closing roads to provide grizzly bear Security Core habitat. As roads, culverts and bridges continue to wash out and collapse, as pictured on this page and page 7, it becomes even harder to monitor culverts

and bridges stranded further up the road. [52]



Water collecting in the ditch of this closed road contributed to mass failure into Sullivan Creek, a key bull trout spawning stream.

The FNF is attempting a revisionist history of A19, as though it did not require "reclaimed" roads to be treated as "decommissioned" roads to be removed from the road

system. Its increasing reliance instead on simply calling roads "impassable" and "stored" to decrease road densities reneges on promises it made its biologists, the courts and the American public. [53]

No National Forest should need the additional force of law afforded threatened and endangered species to make it do the right thing. Simple common sense and fiscal responsibility indicate the Forest Service needs to decommission a significant portion of its road system in order to adequately manage the remainder in an ecologically sound manner. [54]

Recommendations

Based on our investigations, we recommend the following to the Forest Service:

1. Continue A19 as an integrated road management program and reduce the Suitable Timber Base and Allowable Sale Quantity accordingly, as proposed in 2006. [55]

2. Recognize that A19 dovetails with requirements for managing roads in bull trout habitat and the agency's duty to arrive at an environmentally and fiscally sustainable "minimum road system."



The last three miles of Bunker Creek Road 549 was decommissioned under Clinton's 1998 Clean Water Action Plan. Here a bridge was removed at Warrior Creek.

3. Apply the road closure, reclamation and culvert monitoring programs developed for bull trout and grizzly bear across the entire Flathead National Forest, so the benefits are extended to all fish and wildlife and are not dependent upon Endangered Species Act listings and protections. [56]

4. Inventory all stream-crossing structures on the Forest and include them in the INFRA database, in a manner that insures inspections, problems and repairs are fully accounted for and easily traceable. [57]

5. Commit to the annual inspection and necessary cleaning of all stream-crossing structures. If this is unrealistic, reduce the size of the road system to a size that is realistic. [58]

6. Quit skimming 55% off the top of road maintenance funds for "timber support" and put it directly to work maintaining roads where needed most. [59]

7. Recognize that calling logging and other vegetative treatments requiring roads "restoration" is at odds with considerable science and at odds with ecosystem restoration requiring the removal of roads. [60]

8. Recognize removing culverts from roads is cheaper than maintaining them in the long term. [61]

9. Work with the public to secure funding and independent budget line items for decommissioning roads - and keep them independent line items. [62]

10. Recognize litigation is as important as collaboration in helping guide the agency. [63]

"The simplicity of A19 and its ability to permanently secure areas for grizzly bears makes it a powerful tool in the conservation of the grizzly bear."

Dr. Bruce McLellan, Dr. M. A. Sanjayan
and Dr. Nova Silvy
9/19/2000

Acknowledgements

The author wishes to acknowledge the assistance of Flathead Forest Supervisor Chip Weber and members of his staff as we conducted our investigations and submitted numerous Freedom of Information Act requests for data and documents. Michele Dragoo was of particular help as she handled the FOIA requests and collected various documents from District offices as well as the Supervisor's office. Our thanks extend to those who helped get the documents to Michele Dragoo.

We met several times with Rob Carlin, Kathy Ake and Trisha Cassner and wish to thank them for their efforts to answer our questions and to provide INFRA and other infrastructure data to us in formats we could use in Excel and Google Earth.

We also wish to thank Spotted Bear District Ranger Deb Mucklow, Ron Krueger and other FNF staff who followed up on our numerous reports of plugged or partially plugged culverts, in some cases removing the debris before further damage could occur and in others confirming our discovery of culverts where they were thought not to exist.

Disclaimer and Need for Further Study

This investigation and report were made without the benefit of full access to the INFRA database. It nonetheless reports on a handful of the problems found by comparing INFRA data using Excel and Google Earth to field observations. Space here does not allow a discussion of every problem found. We reserve for another time a discussion of the stream-aligned culverts found in decommissioned, "impassable/stored" and other roads where they should not exist either by definition, requirement, common sense, or because they were specifically reported as having been removed.

With full access to the INFRA data and its database capabilities, more could be gleaned concerning the adequacy of the data and its ability or inability to indicate where culverts and bridges have been stranded beyond culverts and bridges that have been removed by act or nature. Such further study could also produce recommendations for improving how INFRA could track the history of each structure and when it was last inspected, cleaned, identified as a problem, repaired, or scheduled for further action.

Notes and Sources

1. See generally Fish and Wildlife Service's 1/6/95 Biological Opinion on Flathead Forest Plan Amendment 19, as amended 2/17/95, for the biological rationale adapting research to Forest Plan objectives and standards, including the BiOp's Incidental Take Statement. Kemper McMaster, Field Supervisor, Montana Field Office.
2. Flathead Forest Plan Amendment #19: Allowable sale quantity and objectives and standards for grizzly bear habitat management. Decision Notice signed 3/1/95 by Joel Holtrop, Flathead Forest Supervisor. See also Amendment 19 Appendix D: Forest Plan Appendix TT Definitions and implementation direction for restricted roads, reclaimed roads, and security core areas.
3. For more information regarding how Amendment 19 has been dovetailed with the work of the Inter-agency Grizzly Bear Committee and implemented on the Flathead National Forest, see Keith Hammer's white paper "Only decommissioned roads removed from the Forest Development Road System may be omitted from calculations of Total Motorized Route Density on the Flathead National Forest. Dated 6/4/15 and updated by addendum 2/7/16. This white paper is also included as Appendix A to this report.
4. Biological Opinion on the effects to bull trout and bull trout critical habitat from the implementation of proposed actions associated with road-related activities that may affect bull trout and bull trout critical habitat in Western Montana. Jodi Bush, Field Supervisor, Ecological Services Montana Field Office of Fish and Wildlife Service. April 15, 2015. The 2015 BiOp follows similar BiOps dated 4/26/99, 8/1/01, and 4/29/08. All these BiOps, and the Forest Service Biological Assessments they respond to, express concerns about continued failure of culverts. The 8/1/01 BiOp and all that follow require the annual inspection of culverts on closed roads.
5. Biological Assessment of Road related activities that affect bull trout and bull trout critical habitat in Western Montana. Prepared by USDA Forest Service Northern Region and UDI Bureau of Land Management Missoula Field Office. Dated 5/5/14, revised 12/15/14.
6. Biological Opinion on the Effects of the Moose Post-Fire Project on bull trout. U.S. Fish and Wildlife Service, Montana Field Office. Dated 11/14/02. Citing Copstead, R. L. and D. K. Johansen. 1998. Water/road interaction: examples from three flood assessment sites in Western Oregon. USDA Forest Service, San Dimas Technology and Development Center, San Dimas, California.
7. Due to a switchback in Pinnacle Ridge Road 1673, another 18" dia. culvert carries the same small stream under the road immediately uphill of the crossing shown in the photos. While the upper culvert was not failing in 1973 when the author inspected it then as a Forest Service employee, its catch basin was filled with bedload and the culvert was overflowing the road when inspected on 6/26/15, sending more bedload and road fill downhill to fill the catchbasin at the lower crossing and contributing to its failure also.

The Flathead's August 1993 DEIS for the Middle Fork Ecosystem Management Project, reported another "recent culvert washout and repair" in the Pinnacle Creek watershed, but did not specify exactly where. The DEIS did note lower Pinnacle Creek was in the worst condition of all streams in the Project area. It noted a 1,177% increase in sediment over natural conditions and concluded "The existing sediment yield increase is from roads. Roads will continue to generate sediment indefinitely unless they are restored to pre-road condition."

When Road Management Objectives for this road were established in 2009, the two 18" dia. culverts weren't even listed as existing, let alone included under "Special Maintenance Criteria Details." A Forest Service Avalanche Ranger reported the 2015 failures in late winter and both culverts with a history of failure on the small tributary to Pinnacle Creek are reported to have since been replaced with 48" dia. culverts.

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8. Counting culverts: An assessment of integrated road and culvert management on the Flathead National Forest. Keith Hammer. December 2000. Available at <http://www.swanview.org/reports/Culvert-Report.pdf>

9. Culvert Monitoring Form 5/2005 provided by the Flathead National Forest on 2/5/16.

10. See Note 8, citing Flathead NF Flood Damage report to the Regional Forester, 4/4/90.

11. See Note 8, citing MDFWP survey report to Flathead NF by Tom Weaver, 12/18/95.

12. See Notes 2 and 4.

13. See Note 5.

14. In preparation for revision of the Flathead, Lolo and Bitterroot Forest Plans, Forest Service fisheries biologists in 2000 conducted “baseline bull trout risk assessments.” These risk assessments were made on a 6th Code Hydrologic Unit Code (HUC6) basis and detailed among other things the miles of roads and streams in each HUC, the density of roads, the proximity of those roads to the streams, and the number stream crossings by roads.

We analyzed this risk data and found, based on road density and its location relative to streams, that the Flathead National Forest rated 70% of its HUC6 sub-watersheds to be Functioning at Risk or Functioning at Unacceptable Risk to bull trout. It found 30% of the sub-watersheds Function Appropriately. Our analysis of the data is presented in our May 2004 report “Watersheds at Risk: Roads threaten bull trout on the Bitterroot, Flathead and Lolo National Forests.” The report is available at:

http://www.swanview.org/reports/Watersheds_at_Risk_report.pdf

We also applied a “Road:Stream Ratio” analysis to this same HUC6 data. We found that only 23% of the HUC6 sub-watersheds within the Flathead National Forest boundary remain roadless and that, on the whole, the developed sub-watersheds had 20% more miles of road than streams (9,092 miles of road compared to 7,607 miles of streams). We also found that 92% of the developed sub-watersheds had road densities in excess of levels where most bull trout populations occur and in excess of recommended standards for grizzly bear recovery. This analysis is detailed in our April 2003 report “Off the Charts: Roads outnumber streams in developed Flathead watersheds.” The report is available at:

http://www.swanview.org/reports/Off_the_Charts_report.pdf

15. The Flathead National Forest tracks its Road Decommissioning Projects in a spreadsheet updated annually. These are roads intended to be decommissioned, removed from the “road system,” and tracked instead as “historic” roads once the decommissioning work and re-vegetation become effective. The spreadsheet also tracks decisions to decommission roads where the decommissioning has not yet occurred.

The 2/18/16 spreadsheet concludes decisions have been made since 1992 to decommission 889 miles of road; that 162 of those miles needed no work as they were naturally re-vegetated, that 601 of those miles needed work and were actively decommissioned, but that 126 of those miles remain in the road system and have not been decommissioned as planned. The spreadsheets and other Flathead documents show that the Flathead decommissioned an average of 43 miles of road per year from 2003 - 2013 [see Note 19, below] while decommissioning only 12 miles total in 2014 and 2015.

As discussed in Appendix A to this report, where A19 used the term “reclaimed,” the A19 EA made clear that reclaimed roads would also be removed from the road system, also known as “decommissioned.”

16. See the Incidental Take Statement in Fish and Wildlife Service’s 1/6/95 Biological Opinion on Flathead Forest Plan Amendment 19, as amended 2/17/95. Kemper McMaster, Field Supervisor, Montana Field Office.

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17. FWS's 2015 BiOps and Incidental Take Statements regarding the Forest-wide effects of Amendment 19 to grizzly bear [see Note 15] were replaced by successive BiOps and Incidental Take Statements on 10/25/05 and 1/31/14 to address revised A19 implementation schedules. Currently, FWS prohibits the Flathead from making any net increase in OMRD or TMRD or any net decrease in Security Core; to abide by any access management implementation schedules made a part of individual projects; and to otherwise proceed "with reductions of access densities and increases in core as authorized by project decisions without time tables, as funding allows." This is followed by the Conservation Recommendation that the Flathead "Continue to manage access on the Forest to maintain or achieve lower road densities . . . low road densities would also benefit other wildlife and public resources. Low road densities may result in lower maintenance costs that free up funding for other resource needs."

18. US Forest Service Western Montana Planning Zone. 2004. Analysis of the management situation for the Bitterroot, Flathead and Lolo National Forests. 3/2/2004. Missoula, MT

19. Flathead National Forest. 2006. Proposed Land Management Plan. April 2006.

20. Flathead National Forest. 2014. Assessment of the Flathead National Forest - Part 2. April 2014.

21. Flathead National Forest. 2015. Proposed Action - Revised Forest Plan. March 2015.

22. Flathead National Forest. 2014. Travel Analysis Report for Flathead National Forest. The final TAR includes the same economic analysis as the draft TAR and suffers from the same flaws described in Swan View Coalition's comments on the draft TAR.

Namely, the TAR: 1) compares the cost of decommissioning to the cost of ML-1 road maintenance, not to the true costs of properly "storing" a road with no risk of culvert or bridge failures and no need for maintenance, falsely concluding "You can store the road forever cheaper than decommissioning" and 2) presumes that the road will be rebuilt or reconditioned in the future, making decommissioning appear all the more costly and short-circuiting the whole purpose of the TAR in helping determine which roads should never be rebuilt in order to arrive at a fiscally and environmentally sustainable "minimum road system."

Our full comments on and other documents related to the draft TAR can be found at:

http://www.swanview.org/articles/newsletter-alerts/help_decommission_old_logging_roads_that_are_trashing_the_environment/194

23. Flathead National Forest. 2010. Fisheries Biological Assessment: Amendment 19 objectives and standards for grizzly bear habitat management revised implementation schedule. Pat Van Eimeren - Flathead National Forest Fisheries Biologist. 6/2/10.

24. Bunker Creek Road 549 (and its spur Middle Fork Road 2820) have been closed yearlong to protect wildlife habitat since 3/26/96, initially with a gate and then with an earth berm at Milepost (MP) 3.7 on Road 549. In 1998 and 1999, Road 549 was decommissioned above its junction with Road 2820, from MP 9.7 to its end MP 12.9, using funds provided by President Clinton's 1998 Clean Water Action Plan, which called for the decommissioning of 5,000 miles of road a year by 2002 on federal lands. (See Note 15. The Clean Water Action Plan is at <https://www.epa.gov/aboutepa/president-clinton-announces-clean-water-action-plan>)

Bunker Creek, below its confluence with Middle Fork Creek, has since been designated bull trout "critical habitat." The Road 549 bridge burned in 2015 and pictured on page 7 of this report is 50 yards upstream from the confluence with Middle Fork Creek and the beginning of downstream "critical habitat." The bridge debris and the worst of the slumping road fill has since been removed.

Similarly, the burned bridge is 50 yards from the junction with Road 2820 and 175 yards from the decommissioned portion of Road 549. We surveyed the decommissioned portion of Road 549 in 2014. This appears to be a good job of decommissioning and not a single bridge or culvert remains.

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Road 2820, on the other hand, has relied on the earth berm on Road 549 for its closure to motor vehicles and had motorcycle tracks evident during our visit in 2014. According to the Flathead's INFRA database, which is used Forest Service-wide to track travel route infrastructure, Road 2820 still has 3 bridges and 30 culverts in place. (The Flathead in 2015 provided us with Excel spreadsheets and Google Earth KML files containing INFRA and other data relative to National Forest System Roads, decommissioned/historic/non-system roads, "impassable" NFSR roads, road barriers, road gates, existing culverts and bridges, and disposed/removed culverts and bridges on the Flathead).

When we requested pursuant to the Freedom of Information Act (FOIA) all culvert inspection plans and forms for Road 2820, the only ones provided were 12 stream-bearing culvert inspection forms from a 2010 survey, along with the survey log noting the cleaning of additional cross-drain culverts. Although this is a bull trout watershed, no requisite annual culvert inspections were provided. Although this is a bermed road in grizzly bear Security Core, no requisite monitoring plan for the road and culverts was ever prepared. The 2010 survey reported three plugged and failed stream-bearing culverts, another half-dozen partially plugged culverts cleaned during the survey, and rated half of the dozen stream-bearing culverts as medium or high risk of blockage or failure.

On 8/28/14 we found two of these Road 2820 culverts again partially plugged with woody debris and noted one had overflowed and sent part of the roadbed downstream toward Middle Fork Creek. We alerted the District Ranger, who sent a couple employees up with hand tools to clean the woody debris out.

On 8/28/14 we also encountered a Forest Service employee and "Call When Needed" backhoe contractor digging out the failed 24" dia. culvert at MP 6.2 in Road 549, as pictured on page 7 of this report, and laying in a second 24" dia. culvert alongside it. The 2015 INFRA data shows two culverts now at this location, but no remarks to indicate one of them had failed or why a second culvert was necessary. A 2010 culvert survey log for Road 549 indicates this culvert was at that time a "washout, deposition upstream of road, downstream side of road washout is 5-10 ft deep."

We alerted this 8/28/14 crew, which had temporarily removed the earth berm closure to get equipment in to make the repair at MP 6.2, to a 4' dia. culvert at MP 6.9 that was nearly completely plugged with logs and bed load and would likely fail with the next big storm or Spring runoff. They ran the backhoe up the road and cleaned the culvert inlet, heading off another culvert failure and sediment load into Bunker Creek. The 2015 INFRA data contains no remarks that this culvert nearly failed and needed cleaning in 2014. Nor does the 2015 INFRA data note the 2010 culvert survey log indicated the crew had at that time cleared the culvert of all but "large immovable logs," which are perhaps among the logs that trapped bedload against the culvert inlet as shown in our 2014 photo below, left. The small remaining hole into the 4' dia. culvert inlet was smaller than a volleyball. The culvert pictured on the right is provided for comparison and is a Forest Service photo of a 4' dia. culvert blowing out in 2014 behind a gate on Emery Creek Road 546.



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We requested pursuant to the FOIA all culvert inspection plans and forms for Road 549. The only ones provided for the road behind the closure berm were 2 stream-bearing culvert inspection forms from a 2010 survey, along with the survey log. The 2010 survey log accounts for only 36 of the 51 culverts that the 2015 INFRA data list as existing behind the closure berm. Although this is a bull trout watershed, no requisite annual culvert inspections were provided. Although this is a bermed road in grizzly bear Security Core, no requisite monitoring plan for the road and culverts was ever prepared.

25. Through a series of FOIA requests and meetings with FNF staff spanning from November 2014 through February 2016, we learned that annual monitoring of stream-crossing culverts behind road closures in bull trout habitat is not being conducted Forest-wide. When we asked for such culvert monitoring records for five specific closed roads in bull trout habitat, FNF could provide no annual inspection reports for those roads. Though we were provided INFRA road infrastructure data for FNF culverts and bridges, we were informed the INFRA data would not show when a culvert was last inspected (personal communication with Kathy Ake and Trisha Kassner, 6/24/15) - which it indeed does not.

26. The FNF insists “The Forest is not required to monitor every stream crossing in every bull trout watershed across the forest [and the annual culvert monitoring requirement on closed roads does not apply until] a project utilizes the programmatic [Biological] Opinion.” (Chilly James Restoration Project Decision Notice and Finding of No Significant Impact, Appendix 4 Response to Public Comments, Richard Kehr, 4/15/16).

On the other hand, the Chilly James DN cited above then continues: “Roads with stream crossings that are closed by a berm or gate in bull trout watersheds in the project area will have annual culvert monitoring and reporting as required by the bull trout biological opinion . . . The Chilly James project is very similar to work described in the 2015 programmatic Biological Opinion for road-related work . . . However the project does have more actual activity (number of cross-drains to be cleared and culverts removed) than normally allotted and thus a stand-alone Biological Opinion was prepared.”

The Chilly James DN essentially claims that the annual culvert monitoring requirement in the programmatic BiOp does not apply until the Forest Service says it does. We will let the referenced 2008 Biological Opinion speak for itself, along with its 2015 updated Biological Opinion (see Note 4 and page 3 of this report). Similarly, we will let the Forest Service’s Biological Assessment prepared for the 2015 update speak for itself (see Note 5 and the summary of the BA provided on page 5 of this report).

27. On 7/15/15, we submitted a FOIA request and asked the FNF to provide copies of all the culvert monitoring plans required for each road closed, rather than decommissioned, to provided grizzly bear Security Core habitat - as required by A19 since 1995. In his FOIA response dated 9/22/15, FNF Supervisor Chip Weber responded: “as was mentioned in our August 6th meeting, there are no monitoring plans as you requested in your July 15th request.”

28. We utilized INFRA data and Google Earth kml road files provided by the FNF to determine how many roads have been simply closed, rather than decommissioned, to increase grizzly bear Security Core habitat. Bermed ML-1 roads numbered 228, Impassable TMRD roads numbered 48, and Impassable Not TMRD roads numbered 45, for a total of 321 roads. [See Appendix A to this report for a discussion of ML-1 and Impassable roads]. For comparison purposes, 435 of FNF’s decommissioned roads also serve to increase Security Core.

29. Personal communication with Kathy Ake and Trisha Kassner, 6/24/15. Our Counting Culverts report in 2000 estimated 80,000 culverts may exist on the FNF. The report is accessible via Note 8.

30. The INFRA data provided by the FNF included 14,460 culverts. In the “Remarks” data column, only 110 culverts were mentioned as having problems and similarly, though not the same culverts, 110 were mentioned as having been replaced. This appears to be a gross under-representation of problem culverts, given some individual culvert surveys have reported up to 65 failed or failing culverts on the handful of

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roads surveyed (see Notes 11 and 24, for example). If there exists a portion of the INFRA database that better tracks problem culverts, we were not provided nor made aware of it by the FNF.

31. Though FNF's implementation of A19 road decommissioning has been sluggish, it has recently come nearly to a standstill. While the FNF proposed in 2006 to decommission up to another 500 miles of road, assessments in the past couple of years call for only 54 miles of road decommissioning ever and the elimination of A19 altogether (see page 6 of this report). More recently, FNF logging proposals like the Trail Creek Fire Salvage Project have begun proposing to rebuild previously decommissioned roads, bring them back into the roads "system" and keep them there - to the detriment of water quality, fish and wildlife (see pages 11 - 14 of Appendix A to this report).

32. A particularly egregious example of leaving unattended culverts in "impassable" roads is the recently "waterproofed" Raghorn Road 10802 in the Coal Creek watershed, which is "critical habitat" for bull trout and an "impaired" Water Quality Limited Stream. Road 10802 was among many roads initially scheduled for decommissioning in 1992 but for which implementation languished for decades. Finally, a 2010 decision was issued to remove all 13 culverts from the "long abandoned" Road 10802. But in 2012 only three culverts were removed, stranding numerous stream-crossing culverts beyond! More details can be found on pages 12-14 of Appendix A to this report.

33. Protocol paper for motorized access analyses application rule. Draft NCDE Grizzly Bear Conservation Strategy Appendix 5. Kathy Ake. February 2013.

34. 2012 Annual Flathead National Forest Plan Amendment 19 implementation monitoring report and responses to Amendment 19 revised implementation schedule terms and conditions. June 2013. Flathead National Forest. This announcement that the FNF was not including many "impassable" roads in calculations of TMRD coincides with the significant slowdown in the FNF's road decommissioning, which is required by A19 to remove a road from TMRD calculations. Decommissioning dropped from an average of 43 miles per year to only 6 miles per year (see Note 15).

35. See the Chilly James DN cited in Note 26. In its Appendix 4 Response to Comments, the DN more fully states: "There is no forest policy concerning ISS treatments and TMRD calculations. Roads and specific treatments are assessed by the Interdisciplinary Team at the project area scale as described in the EA. Whether or not a road will be managed to meet 'reclaimed' status under Amendment 19 and contribute or not contribute towards TMRD is specifically addressed within the EA . . ."

This District-level discretion was confirmed by Mark Ruby during an informal Objection resolution meeting for the Chilly James Restoration Project on 4/5/16, stating that the District Ranger has the discretion to either include or not include an ISS road that otherwise meets "reclaimed" status (though not removed from the transportation "system" and considered decommissioned) in TMRD calculations. For more detail on ISS, impassable, reclaimed, and decommissioned roads and their inclusion in or exclusion from calculations of TMRD, see Appendix A to this report.

In short, it does little good to have a well-written program like A19 or the programmatic bull trout BiOp for road-related activities if it is going to be cherry-picked and rendered piecemeal at every project. Rather than a program, this is called "making it up as we go along."

36. Deputy Chief Joel Holtrop's 11/10/10 directive for implementing Travel Management, Implementation of 36 CFR 212, Subpart A stated that the travel management process "points to a smaller road system." Deputy Chief Leslie Weldon on 3/29/12 replaced Holtrop's directive and, among other things, removed the phrase "points to a smaller road system." The FNF is now proposing to reconstruct previously decommissioned roads and keep them in the road system (see Note 31).

37. Forest Service Ecosystem Restoration Policy. RIN 0596-AC82. Notice of Final Directive. Thomas Tidwell. 4/18/16 as reported in the Federal Register, Vol. 81, No. 81, 4/27/16, pages 24785-24793. The Policy notes

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“Ecosystem restoration can be achieved by a range of management activities, such as forest thinning to reduce tree density, prescribed fire to reduce fuel buildup, replacing culverts to better connect streams, or fencing to restrict disturbances.” No mention is made of removing culverts or roads to restore ecosystems. The policy goes on to promote tree- and carbon-removing “forest treatments” with the expectation that “more carbon will continue to be sequestered than would otherwise occur without the treatment” - while acknowledging “research on whether restoration increases carbon stocks is inconclusive.”

38. See our annotated bibliography at http://www.swanview.org/reports/Annotated_Bibliography.pdf. The first nine pages contend with roads. For convenience, we include several relevant citations here:

“High integrity [forests] contain the greatest proportion of high forest, aquatic, and hydrologic integrity of all [] are dominated by wilderness and roadless areas [and] are the least altered by management. [] Low integrity [forests have] likely been altered by past management [] are extensively roaded and have little wilderness.” (U. S. Forest Service. 1996. Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin and Portions of the Klamath and Great Basins. General technical report PNW-GTR-382. September 1996. Pages 108, 115 and 116).

“High road densities and their locations within watersheds are typically correlated with areas of higher watershed sensitivity to erosion and sediment transport to streams. Road density also is correlated with the distribution and spread of exotic annual grasses, noxious weeds, and other exotic plants. Furthermore, high road densities are correlated with areas that have few large snags and few large trees that are resistant to both fire and infestation of insects and disease. Lastly, high road densities are correlated with areas that have relatively high risk of fire occurrence (from human caused fires), high hazard ground fuels, and high tree mortality.” (U. S. Forest Service. 1996b. Status of the Interior Columbia Basin: Summary of Scientific Findings. General technical report PNW-GTR-385. November 1996. Page 85).

“Proposed efforts to reduce fuel loads and stand densities often involve mechanical treatment and the use of prescribed fire. Such activities are not without their own drawbacks -- long-term negative effects of timber harvest activities on aquatic ecosystems are well documented . . .

Species like bull trout that are associated with cold, high elevation forests have probably persisted in landscapes that were strongly influenced by low frequency, high severity fire regimes. In an evolutionary sense, many native fishes are likely well acquainted with large, stand-replacing fires . . .

Attempts to minimize the risk of large fires by expanding timber harvest risks expanding the well-established negative effects on aquatic systems as well. The perpetuation or expansion of existing road networks and other activities might well erode the ability of populations to respond to the effects of fire and large storms and other disturbances that we cannot predict or control . . .

Watersheds that support healthy populations may be at greater risk through disruption of watershed processes and degradation of habitats caused by intensive management than through the effects of fire.” (An Assessment of Ecosystem Components in the Interior Columbia Basin and Portions of the Klamath and Great Basins, Volume 3 (ICBEMP); pages 1340-1342).

“Fire and the associated hydrologic effects can be characterized as pulsed disturbances as opposed to the more chronic ‘press’ effects linked to permanent roads or extended timber harvest activities . . . It also is not clear that attempts to manipulate the structure and processes of whole ecosystems (i.e. beneficially manipulate the fire regime) can ever be successful . . . The perpetuation or expansion of existing road networks, and other activities might well erode the ability of populations to respond to the effects of large scale storms and other disturbances that we clearly cannot change.” (Bruce Reiman, Danny Lee, Gwynne Chandler and Deborah Meyers. 1997. Does Wildfire Threaten Extinction for Salmonids? Responses of Redband Trout and Bull Trout Following Recent Large Fires on the Boise National Forest. USDA Forest Service, Intermountain Research Station; Boise, Idaho. 1997.)

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“Rehabilitation of road-miles cannot be accomplished alone by gating, berming, or otherwise blocking the entrance to a road permanently or temporarily, or seasonally closing roads, but will require obliteration, recontouring, and revegetating.” (U.S. Fish and Wildlife Service Regions 1 and 6. 1998a. Biological Opinion for the Effects to Bull Trout from Continued Implementation of Land and Resource Management Plans and Resource Management Plans as Amended by the Interim Strategy for Managing Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, Western Montana, and Portions of Nevada (INFISH), and the Interim Strategy for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and Portions of California (PACFISH). 8/14/98.

39. University of Montana Science Advisory Committee letter to Intermountain Forest Industry Association’s Brendan Moynahan and Defenders of Wildlife’s Hank Fisher regarding its review of Flathead Common Ground’s Draft Proposal. Daniel Pletscher. 1/3/97.

40. Flathead Common Ground [Final] Recommendations. 2/24/97.

In an 8/4/99 email response to criticism from Swan View Coalition and others, National Wildlife Federation’s Tom France and Sterling Miller, along with Defenders of Wildlife’s Hank Fisher, state that leaving some stream-aligned culverts in roads to be reclaimed/decommissioned would save the FNF money, acknowledge NWF and DOW don’t know “how many culverts would be left and what their locations are,” agree “a watershed inventory should have been completed,” and yet conclude leaving unidentified stream-aligned culverts “poses little risk to fish populations.” They concluded this would “achieve important security for grizzly bears sooner rather than later, both in Paint Emery and across the entire forest.”

Indeed, only a few months earlier, the FNF decided to attempt this “let’s not and say we did” approach to A19 road reclamation in its 5/6/99 “Implementation Note #13.” Swan View Coalition and others filed notice they would sue and reminded the FNF of its A19 duties to remove all stream-aligned culverts from reclaimed roads in order to protect water quality and fish as it secured bear habitat. FNF rescinded Note 13, stating “We talked it over with our attorneys and we decided they [Swan View Coalition and Friends of the Wild Swan] were right.” This matter is more thoroughly discussed on page 7 of Appendix A to this report.

41. The CFLRP is set forth in Title IV of the Omnibus Public Land Management Act of 2009, available at: <https://www.gpo.gov/fdsys/pkg/PLAW-111publ11/pdf/PLAW-111publ11.pdf>

42. Collaborative Forest Landscape Restoration Program 5-Year Report. USDA Forest Service. FS-1047. March 2015. Available at: https://gallery.mailchimp.com/1947d6cd971c70f8ef837d21a/files/CFLR_5_Year_Report_USFS_lowres_4_6_15.pdf

43. Initial meeting notes of the 9/11/12 SWCC Executive Committee, prior to updating/correction on 12/11/12.

44. Keith Hammer email to Chip Weber and the SWCC, dated 11/28/12 re: the SWCC meeting notes cited in Note 43, above. Richard Kehr email to Matthew Koehler, dated 8/4/15. Keith Hammer email to Richard Kehr and the SWCC, dated 8/11/15. Keith Hammer’s 8/11/15 email attached a letter to the SWCC, which included a Google Earth map using FNF road data layers to demonstrate the plethora of roads in the Swan Valley from which to choose for decommissioning. This letter and map are available at: http://www.swanview.org/reports/SLRD_Road_Decommissioning.pdf

45. Joint letter from 43 Montana collaborators to Senator Steve Daines. Julia Altemus, Montana Wood Products Association, et al. 1/14/15. Available at: http://www.swanview.org/reports/FinalPartnersLetter_1_14_15_Final.pdf

The above letter is also included in a packet of information prepared by Keith Hammer on 9/27/15 detailing “How Congress and the Forest Service are Paying Collaborative Partners.” The packet includes links to the SWCC web site, which lists its collaborative partners and provides a listing of CFLRP and other funds

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provided some of those partners, often in exchange for little more than an in-kind contribution in labor worth one-fifth the amount of cash the partner may receive from the federal government. This packet is available at: http://www.swanview.org/reports/Full_Packet_2.pdf

46. Flathead National Forest. 2014. Travel Analysis Report for Flathead National Forest. Page 5: “Current and projected funding is far reduced from the funding needed to maintain the needed road system. . . Approximately 3,465 miles of roads [are] ‘likely needed for future use’ [and] 55 miles of road were identified as ‘likely not needed for future use’.”

47. Legacy Roads and Trails Program FAQs: “The Forest Service generally has the funding to maintain 20% of our road network each year. In 2011, the Forest Service maintained 16% of its road network [and] decommissioned 581 miles” of its 375,000 mile road network. Available at http://www.fs.fed.us/restoration/Legacy_Roads_and_Trails/faqs.shtml

48. Flathead National Forest. 2014. Travel Analysis Report for Flathead National Forest: Appendix E.

49. The Forest Service has a long history of using taxpayer “capital investment” funds to build roads into remote areas where the timber industry refused to bid on the timber, often multiple times. Our “A Tale of Two Subsidies” details two such “hard money” projects totaling \$840,000 to build 27 miles of new road and reconstruct 14 miles of existing roads when no timber sale bids were received. The Bent Flat and Sunset Beaver roads were built into sensitive areas, including grizzly bear habitat, and it was subsequently necessary to decommission some of these roads. In the Bent Flat area, FNF is now proposing to rebuild 7 miles of previously decommissioned roads to log trees burned in 2015. See pages 10-11 of Appendix A to this report for more about the Trail Creek Fire Salvage Project. “A Tale of Two Subsidies” is available at: http://www.swanview.org/reports/A_Tale_of_Two_Subsidies.pdf

50. See Note 47 for source.

51. Evaluating the Integrated Resource Restoration Line Item: Results from Phase 1. 2014. Ecosystem Workforce Program Working Paper #47. Courtney Schultz, Katherine Mattor and Cassandra Moseley. Spring 2014. Available at http://ewp.uoregon.edu/sites/ewp.uoregon.edu/files/WP_47.pdf

52. INFRA data provided by the FNF indicates there are 24 culverts remaining in Sullivan Creek Road 547 above the 2014 mass failure at MP 3.5, with 5 of them larger than 18” diameter. FNF on 2/5/26 could provide only 4 culvert monitoring reports for this road in a bull trout watershed, rather than the requisite annual reports. The reports provided were written after the mass failure that occurred in 2014. A 3’ dia. culvert at MP 4.26 was rated as “high risk” because it had a rust line greater than one-third the height of the culvert, had floatable debris upstream and is located less than 600 feet above a bull trout spawning reach. An old wooden bridge over Sullivan Creek and more culverts on Road 2801 are also stranded beyond the mass failure on Road 547.

The FNF has refused to decommission Road 547 and claims the mass failure was a natural occurrence caused by Sullivan Creek eating away at the toe of the slope. This even though the toe of the slope remains largely in place, still supporting some of the slumped hillside, and the apex of the slump is located in the road bed. When inspected in 2015, the apex has further collapsed, removing the entire width of the road bed. Links to our requests that all culverts and bridges be removed above the mass failure, FNF’s response, and relevant new articles are available at:

http://www.swanview.org/articles/whats-new/help_decommission_old_logging_roads_that_are_trashing_the_environment/194

See Note 24 for information on the culverts and bridges stranded beyond the burned bridge in Bunker Creek Road 549, as pictured on page 7 of this report.

53. See Appendix A to this report, particularly pages 2-3, which explain how the A19 EA accounted for reclaimed roads miles by removing them from the road system, which is also the definition of a decommis-

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sioned road. See also pages 6-7 of Appendix A, which describe the conditions placed on A19 by the Forest's fisheries biologist (and later incorporated into A19's Appendix D).

Though the FNF reported to the Flathead Basin Commission and others that it "decommissioned" South Coal Ridge Road 1604, it instead has retained it in its road system as an "impassable/stored" road not included in the calculation of TMRD. The Flathead Basin Commission makes clear in a footnote: "Decommissioning of a Forest Service road means that it will be removed from the official transportation system." FNF hydrologist Craig Kendall confirms the road has been "decommissioned" by removing culverts and installing 75 water bars along the road surface, noting that "sediment delivery is expected to be reduced from an annual average of 558 lbs to 8.5 lbs in locations where ditch lengths are reduced from 500 feet to 50 feet . . . due primarily to shortening of ditch lengths by constructing water bars." (Final Report: Coal Creek Restoration Project. DEQ Contract No. 205042. Flathead Basin Commission. 7/30/08).

Google Earth KML road files and INFRA data provided by the FNF, however, show Road 1604 has been retained in the road system as a "stored" Maintenance Level 1 road not included in calculations of TMRD, rather than removed from the system as "decommissioned." This is important because it signals an intent on the part of the FNF to rebuild the road in the future, which would remove the water bars and largely negate the reductions in sediment delivery to Coal Creek intended to meet the Coal Creek TMDL, a plan intended to help remove Coal Creek from the list of streams "impaired" by sediment. Coal Creek is also suffering low bull trout spawning success.

Google Earth KML road files provided by the FNF indicate 110 road segments are considered "impassable" and are not included in calculations of TMRD. Another 174 road segments are considered "impassable" and are included in calculations of TMRD. Roads in either category of "impassable road" may exist in grizzly bear Security Core. All "impassable" roads are retained in the "system" as Maintenance Level 1 "stored" roads.

54. See Note 47. The FAQ responses include the following: "The 'Travel Management' analysis effort that is currently under way will help the Forest Service identify how to best 'right-size' our vast road network . . . The Forest Service recognizes that a significant number of roads need to be removed to bring the road system down to a manageable, maintainable system that still meets the needs of the agency and forest users."

55. The FNF led an effort by the Interagency Grizzly Bear Committee NCDE Subcommittee to replace A19's road reclamation, permanent road barriers and Security Core habitat with an approach dependent instead on road gates and Seasonally Secure Areas that fluctuate as gates are swung open and shut. This "Proposed Approach" was submitted for peer review and the reviewers found the "simplicity of A19 and its ability to permanently secure areas for grizzly bears makes it a powerful tool in the conservation of the grizzly bear in the NCDE . . . The proposed approach's added complexity unfortunately necessitated several additional assumptions, some of which are tenuous . . . we caution against any relaxation of establishing permanently secure areas . . ." Dr. Bruce McLellan, Dr. M. A. Sanjayan and Dr. Nova Silvy. 2000. Peer review of the motorized access management strategies for grizzly bear habitat in the Northern Continental Divide Ecosystem. 9/19/2000.

Moreover, and as detailed on page 3 and in Appendix A to this report, FNF's fisheries biologists insured that A19 road closures and reclamation to benefit grizzly bears would also protect water quality and fish by requiring all stream-aligned culverts be removed from reclaimed roads and all culverts in closed roads be either removed or inspected regularly. Indeed, page 12 of the A19 Decision Notice summarizes its multiple-resource benefits as follows: "Motorized access restrictions and road reclamation will provide other benefits in addition to increased habitat security for grizzly bears. Decreased motorized access density will improve the habitat effectiveness for numerous species of wildlife, including wolves, fisher, lynx, elk, wolverine, and marten. Motorized access restrictions will change hunting opportunities from roaded to unroaded in some portions of the Forest. This is expected to increase the proportion of older bulls and bucks in elk and deer populations. Road reclamation, while likely causing some short-term increases in sediment, will in the long-term improve water quality and fish habitat by reducing fine sediment and stream channel erosion." (See Note 2).

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56. The replacement of failed culverts in westslope cutthroat trout habitat and subsequent requirements that they then be monitored annually is not without precedent on the FNF. A Decision Memo for several Emery Creek Culvert Replacements, for example, notes Emery Creek “has one of the highest densities of [westslope cutthroat] trout tributary to Hungry Horse Reservoir.” It also documents the failure of a 4’ dia. culvert “during the 2014 spring runoff,” as pictured in this report, in the lower right of Note 24. (Emery Creek Culvert Replacements Decision Memo. Robert Davies. 8/25/14).

Montana Dept. of Fish, Wildlife and Parks issued Stream Protection Act “124” Permits for these culvert replacements on several Emery Creek tributaries, requiring that the new culverts be inspected annually, post-runoff and/or during runoff “to insure that the new pipe arch is effectively moving water and debris and that any new failures are avoided.” (Leo Rosenthal. MDFWP Stream Protection Act 124 Permits dated 9/22/14 for Remington Creek, 9/22/14 for Royal Creek, and 10/9/14 for Emery Creek).

57. Culvert inspection reports currently occupy some 45 file cabinet drawers on the FNF. A similar or larger number of file drawers contain information on bridges, road engineering and road work contracts. (Personal communication with Michele Dragoo and Rob Carlin, 8/6/15). Only in rare instances was culvert inspection information included in the INFRA data provided us by the FNF. Moreover, we were told that INFRA would not indicate the date of the last culvert inspection (see Note 25).

It is important that stream-crossing structures be fully inventoried and their inspection and repair tracked in a searchable database. This would help, among other things, to identify culverts like those that repeatedly failed in Pinnacle Ridge Road 1673 due to significant bedload movement and undersized culverts (see page 4 of this report). Pinnacle Ridge Road 1673 is a seasonally open road, so its not like these culverts never get driven by or can’t be inspected from the comfort and convenience of a motor vehicle. Indeed, the focus on monitoring culverts on closed roads per A19 and the bull trout BiOps for road-related activities is intended to address the issue of more difficult inspection and less likely discovery of plugged culverts. This should not be construed to indicate that stream-crossing structures on open roads don’t plug and fail and hence need not be inspected annually.

58. See note 57.

59. See page 11 of this report and Note 48.

60. See pages 9 and 10 of this report and Note 38.

61. FNF’s Allen Rowley in 1998 told the Missouian newspaper that it is cheaper to reclaim a road than continually maintain it (see our Counting Culverts report via Note 8). In proposing road “storage” for 9 miles of road in a manner that would remove all stream-aligned culverts, Swan Lake Ranger District notes “Rather than investing in BMPs [Best Management road maintenance Practices] now, it is more cost-efficient to remove any potential impact it has to aquatic resources up front [and be] placed in a condition that does not require maintenance.” (Request for public input: Chilly James Restoration Project. Richard Kehr. 2/14/14.)

62. See page 11 of this report.

63. Were it not for lawsuits filed by Swan View Coalition and others, the 1986 Flathead Forest Plan would have built 75 miles of road per year until its already abundant 4,000 miles of roads was increased to 6,000. Because the 1986 Plan did not have adequate road density standards and all five Ranger Districts reported they could not produce the Allowable [Timber] Sale Quantity [ASQ] without violating the Plan’s grizzly bear standards, we went to court. The court told the agency to rework its Plan to provide adequate grizzly bear security and the FNF wrote A19. Besides the motorized access management discussed in the report, A19 also lowered FNF’s ASQ from 100 MMBF/year to 54, although only 10MMBF of that reduction was due to grizzly bear standards and the rest was due to improved planning for the protection of old growth forests, elk winter range, whitetail deer winter range, etc. (See Note 2). A more detailed accounting of these lawsuits is provided in our Counting Culverts report accessible via Note 8 of this report.

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A19 was precedent-setting. A19's form of managing motorized access was applied to the other National Forests in the NCDE, though it is unfortunate the culvert removal and monitoring requirements were not. Because of those culvert removal requirements, the FNF has demonstrated and been able to claim progress in making things better for threatened bull trout. The FNF has consequently reclaimed/decommissioned 763 miles of road and has only built 13 miles of road in roadless areas since 1986. Especially when considered within the context of broader agency initiatives like the Roadless Rule and Travel Planning Rule, A19 has made it easier for the FNF to adjust to initiatives aimed at minimizing roads and their environmental effects. How much of this progress would have been made without litigation?

More recently, Swan View Coalition and others filed a lawsuit against the Glacier Loon Fuels Reduction and Forest Health Project. In it they also challenged the continued logging of now-federal former Plum Creek lands by The Nature Conservancy for Plum Creek without the full application of A19, federal law and ESA consultation requirements. When the Court said Plum Creek and TNC must apply all federal law, they chose instead to cancel their "timber supply agreement." So the FS is no longer constrained from decommissioning former Plum Creek roads until the agreement would have expired in 2018 or until logging cleanup by TNC was completed as late as 2021. As a result, the Chilly James Restoration Project will begin decommissioning roads in the "impaired," Water Quality Limited Jim Creek in Summer 2016. (See *Swan View Coalition v Weber*, CV 13-129-M-DWM, Court Order dated 9/25/14. See also the Chilly James Decision Notice cited in Note 26).

Litigation could have been avoided. The FNF could have followed the plain language of A19 and the law and perhaps the SWCC would have rallied around it. But the FNF instead refused. Swan View Coalition and others were there in SWCC meetings and letters urging compliance, but it took a lawsuit instead. The bottom line is that old Plum Creek roads in a heavily damaged watershed can be decommissioned in Summer 2016 because a lawsuit helped clear that path. The Forest Service needs to acknowledge the essential constructive path, checks and balances provided by litigation rather than demonize those who work to enforce land management laws and help insure collaborative groups have access to accurate information.

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Appendix A

Keith Hammer's white paper "Only decommissioned roads removed from the Forest Development Road System may be omitted from calculations of Total Motorized Route Density on the Flathead National Forest, dated 6/4/15 and updated by addendum 2/7/16, begins on the following page.

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Only Decommissioned Roads Removed from the Forest Development Road System May be Omitted from Calculations of Total Motorized Route Density On the Flathead National Forest

Keith Hammer

June 4, 2015

Updated by Including Addendum

February 7, 2016

Executive Summary

This paper is written in response to attempts by the Flathead National Forest and the Draft NCDE Grizzly Bear Conservation Strategy to omit from calculations of Total Motorized Route Density (TMRD) roads that may be impassable to motorized vehicles but have not been adequately decommissioned and removed from the Forest Development Road System (System).

The administrative record and the plain language of Flathead Forest Plan Amendment 19 (A19) show that a road must be reclaimed/obliterated/decommissioned (hereafter "Reclaimed") and removed from the System before it is no longer considered a road that must be included in calculations of TMRD.

TMRD standards require road reclamation and removal of the road from the System, while Security Core standards do not. Road reclamation is A19's preferred method of increasing Grizzly Bear Security Core because it simultaneously protects water quality and fish through required culvert removals and other hydrologic stabilization work. Reclamation of roads is not absolutely required in Security Core and roads restricted by berms, boulders or dense vegetation may suffice, provided "a monitoring plan to detect any erosion or culvert blockage problems" is implemented.

The A19 administrative record does not support the notion that a road can remain in the System as a road and yet not be counted as a road in calculations of TMRD. As long as the road remains in the System, even if placed in Intermittent Stored Service (ISS) or any other "storage" or "impassable" category, it is considered a road and must be included in the calculation of total road miles and TMRD.

Current and past attempts to exclude System roads from calculations of TMRD appear to arise from interpretations like those guided by the ill-fated and short-lived Implementation Note #13 in 1999 - which ran counter to the A19 administrative record.

Rather, implementation must be guided by the plain language of Amendment 19, as clarified by its Appendix D definitions and the administrative record discussed below.

Amended EA for Amendment 19

The essential question of whether open and restricted roads need to be reclaimed and removed from the System in order to meet TMRD and other A19 standards was resolved, according to the Flathead National Forest, in the Amended A19 Environmental Assessment and its Appendix D. This Appendix was also issued as Appendix D to A19 and as Flathead Forest Plan Unbound Appendix TT. In the Amended EA's Response to Public Comments, the Flathead responds:

Total motorized access density objectives must be met after including open and restricted motorized roads and trails, except for those that have been reclaimed . . . In response to comments that the definitions of restricted and reclaimed roads and core areas did not adequately express our intent, additional text . . . has been included as Appendix D [and] would be incorporated into the Forest Plan as Unbound Appendix TT.

(Forest Plan Amendment 19 Amended Environmental Assessment. February 1995. Page 107.) The Amended EA continues in its Response to Public Comments:

Comment(s): The preferred alternative should make clear that meeting the Total Motorized Access Density (TMAD) objective will require reclaiming open and restricted roads.

Response: Chapter III of the EA describes the miles of road reclamation and road restrictions estimated to result from implementation of each alternative. In addition, Appendix D has been added to the EA. This Appendix defines in detail "reclaimed road" and "restricted road."

(Forest Plan Amendment 19 Amended Environmental Assessment. February 1995. Page 133.) Indeed Chapter III of the Amended EA, in describing the chosen Alternative 3C, concludes:

To meet the standards and short-term objectives in MS-1 and MS-2 areas, approximately 350 miles of open roads and 125 miles of currently restricted roads would need to be reclaimed in the short term (5 years). To meet long term (10 years) standards and objectives, another 175 miles of already-restricted roads would need to be reclaimed.

(Forest Plan Amendment 19 Amended Environmental Assessment. February 1995. Page 95.)

Also, apparently in response to public comments including ours, the Amended A19 EA reworked Figures 22 and 23 to reflect the reclamation of Chapter III's estimated 475 miles of road and their removal from the road System to meet the 5-year A19 standards. Figure 23 shows no category for "stored" or "impassable" System roads that would not

be counted in calculating TMRD. Reclaimed roads are accounted for in the reduction of total road miles in the System.

In other words, if it remains a System road, it gets counted as a road. That this common sense understanding predated A19 is confirmed by Figure 22's notation of 420 miles of roads that were in 1990 "obliterated and removed from the forest inventory."

Amendment 19 and Interagency Grizzly Bear Committee Definitions

The A19 process and the Interagency Grizzly Bear Committee (IGBC) process on which it is based include the same three classifications of roads: Open, Restricted, and Reclaimed. Neither includes a category for "stored" or "impassable" roads that remain on the System yet would not be counted as roads in calculations of TMRD.

In part the definitions of Restricted and Reclaimed roads are as follows, first from A19:

RESTRICTED ROAD . . .

A road on which motorized vehicle use is restricted during the entire non-denning period. The road requires physical obstruction and motorized vehicle use in the non-denning period is legally restricted by order . . .

Outside of security core areas, motorized administrative use is acceptable at low intensity levels . . .

All restricted roads will be included in calculating total motorized access route density . . .

RECLAIMED ROAD . . .

A reclaimed road has been treated in such a manner so as to no longer function as a road or trail and has a legal closure order until reclamation is effective. This can be accomplished through one or a combination of treatments including: recontouring to original slope, placement of natural debris, or revegetation with shrubs or trees . . .

Administrative use of reclaimed roads may not occur . . .

The entire road will receive treatment such that maintenance or entries to maintain "road drainage" is not needed. This will require removal of culverts or other water passage structures that are aligned with stream channels. In most cases this will also require that road related sediment sources be repaired and the road reworked to eliminate ditch water flow without the aid of cross drain culverts . . .

Reclaimed roads that fully satisfy the definition of a reclaimed road will not be included in calculations of open road density, total motorized access density, or

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security core area. Roads that have been treated, but that do not yet fully satisfy the definition of a reclaimed road will be included in calculations for total motorized access route density . . .

The acceptable lag time for the treatment to become effective and the expected persistence of people to continue to use a road should dictate the amount and type of initial, and perhaps follow-up, treatment required . . .

(Flathead Forest Plan Appendix TT; a.k.a. Appendix D to Amendment 19.)

Now, according to the IGBC:

Reclaimed/Obliterated Road -- a route which is managed with the long term intent for no motorized use, and has been treated in such a manner so as to no longer function as a road. An effective means to accomplish this is through one or a combination of several means including: recontouring to original slope, placement of logging, or forest debris, planting of shrubs or trees, etc. . .

Total Motorized Route Density calculations will include open roads, restricted roads, roads not meeting all restricted or obliterated criteria, and all motorized trails.

(Interagency Grizzly Bear Committee Task Force Report: Grizzly Bear / Motorized Access Management; Interagency Grizzly Bear Committee; July 29, 1998; emphasis added.)

Protocol Papers for Amendment 19 and the IGBC Task Force Report

Protocol Papers prepared for both A19 and the IGBC Task Force over the years consistently document the use of only the initial three classifications of roads: Open, Restricted, and Reclaimed. None include a category for roads to remain in the System yet not be counted in calculations of TMRD:

. . . each road was classified as open, restricted, or reclaimed.

(Kathy Ake and Nancy Warren. 9/1/94 updated 2/17/95.) In 2001, the Protocol Paper provides a bit more specific definition of road, as follows, but repeats the three allowed classifications of roads:

Definitions are based upon the IGBC Motorized Access Management report with verbal clarification from individual committee members (see Amendment 19 project file) . . .

ROAD . . . All created or evolved routes that are >500 feet long (minimum inventory standard for the Forest Service INFRA data base), which are or were reasonably and prudently drivable with a conventional passenger car or pickup. Within the three classes below . . . OPEN ROAD . . . RESTRICTED ROAD . . . RECLAIMED/OBLITERATED ROAD.

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(Protocol paper. Kathy Ake; 11/20/01; emphasis added).

Even the 2013 draft Protocol Paper Kathy Ake prepared as Appendix 5 to the Draft NCDE Grizzly Bear Conservation Strategy starts off on the right foot by clarifying that:

Sometimes referred to as a reclaimed or obliterated road, a historical road has been treated in such a manner so as to no longer function as a road or trail, and the road is no longer considered part of the agency's road system.

When the 2013 Protocol Paper begins discussing the Draft Grizzly Bear Conservation Strategy, however, it introduces a new and fourth classification of roads as "Closed Yearlong Impassable" (hereafter "Impassable"):

Similar to historical roads, roads that are naturally revegetated, have the entrance obliterated for >0.1 miles, or have the bridge or large >4ft culvert removed are also not included in the analyses, i.e. they do not count in OMRD or TMRD, nor are they buffered in the Secure Core analysis. These roads are impassable by any vehicle (passenger car, truck, 4WD vehicle, ATV, motorcycle, etcetera). These roads are still on the system. Revegetated roads defined as so grown-in that they are no longer drivable. The vegetation is such that it is easier to walk on the side-hill as opposed to down the center of the road bed.

(Protocol Paper for Motorized Access Analyses Application Rule. Draft NCDE Grizzly Bear Conservation Strategy Appendix 5. Kathy Ake. February 2013.)

This new, fourth classification of roads is introduced to the public for the first time in the 2013 draft Grizzly Bear Conservation Strategy while simultaneously stating it "Has been incorporated this way since IGBC motorized access or Flathead NF's A19 started." This interpretation is not supported by the administrative record.

In an 8/18/94 letter to the A19 Interdisciplinary Team Leader, Flathead Forest Wildlife Biologist Nancy Warren documented her clarification on this very issue with members of the IGBC Motorized Access Task Force:

Is it correct to classify all bermed, barricaded, tank-trapped, or overgrown (to just a path) roads as restricted roads, even though they may not be "reasonably and prudently driveable with a conventional passenger or pickup", even though use by all-terrain vehicles may not be restricted?

Tom Puchlerz [IGBC Task Force Chair] indicated that the intent was to classify as "restricted" roads that could easily be re-opened by removing a barricade or tank trap. If the road was so overgrown or rough that reconstruction would be needed [and] if there were no access, then it would be classified as reclaimed/obliterated. Tom Wittinger and Chris Servheen agreed with this interpretation.

(Nancy Warren to Jim Morrison; letter dated 8/18/94; emphasis added).

The IGBC Task Force did not suggest a new, fourth classification of road. Nancy Warren instead reports that, if the road is so overgrown and rough as to require reconstruction to become passable again, it should be classified as Reclaimed. The Flathead's A19, however, requires among other things that all stream-bearing culverts be removed from that road and that it be removed from the System in order to be fully Reclaimed.

Moreover, as detailed above and summarized below, the A19 administrative record does not support use of a fourth classification of Impassable road. In response to public comment, the Amended A19 EA estimates the miles of open road that will need to be closed to motor vehicles and the miles of open and already restricted roads that will need to be reclaimed to meet A19 standards. Nowhere does it mention that roads can be simply rendered "impassable" and retained as part of the System while not being counted in calculations of TMRD.

Nor do any of the Protocol Papers prior to 2013 highlight that "impassable" roads can simply be omitted from calculations of TMRD. Nor does either the 1994 or 1998 IGBC Task Force Report say or allow this. Indeed, they make it clear that a road must meet all of the criteria for a Reclaimed road to not be counted in calculations of TMRD. Simply put, under A19, an Impassable road that remains on the road System is a Restricted road and must be counted in calculations of TMRD until it has all of its stream-bearing culverts and bridges removed, fully meets all other Reclaimed road criteria, and is removed from the System.

Road Treatments Required by the Amendment 19 Fisheries Biological Evaluation

A19 reluctantly allows stream-bearing culverts and bridges to remain behind berms, concrete and boulder barriers on Restricted roads in Security Core, provided "a monitoring plan to detect any erosion or culvert blockage problems" is implemented. However, A19 expressly requires that all those stream crossing structures be removed from Reclaimed roads that will no longer be included in calculations of TMRD. This is due in large part to the Fisheries Biological Evaluation for A19:

Implementation of the preferred alternative would result in the following: . . .

Direction for reclaiming/obliterating roads including removal of culverts which greatly reduces the risk of future sedimentation problems resulting from culvert failure on reclaimed roads.

Direction for restricted roads in core habitat areas to implement road drainage treatments similar to reclaimed roads, or to develop and implement a monitoring plan to detect any erosion or culvert blockage problems . . .

The determination [of effects on fish] assumes incorporation of the proposed definitions and minimum treatment requirements for reclaimed and restricted roads.

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(Biological Evaluation for Bull Trout, Cutthroat Trout, and Shorthead Sculpin: Potential Effects from Implementing Amendment 19, Alternative 3 to the Forest Plan. Donald E. Hair. 2/4/95.)

The Fisheries Biological Evaluation, like all the other A19 and IGBC documents, contends with the effects of Open roads, Restricted roads, and Reclaimed roads. It does not mention a fourth classification of Impassable roads, let alone say that they are considered separate from Restricted roads. Nor does it say Impassable roads can be excluded from calculations of TMRD while leaving stream-bearing culverts to blow out behind an obliterated entrance, the first already blown-out or otherwise removed >4ft culvert, or in a roadbed grown thick with vegetation but still harboring stream-bearing culverts.

Indeed, this fourth classification of Impassable roads appears to have all the trappings of an under-the-radar, end-run around the clear language and requirements of A19. We don't doubt the Flathead has done this. We simply disagree that this is allowed by A19 - for all the reasons provided above.

Implementation Note #13

On May 6, 1999 the Flathead issued Implementation Note #13 under the guise of clarifying A19's Appendix D definitions. It in fact contradicted them, in part by allowing stream-bearing culverts to remain in Reclaimed roads in violation of the conditions of the Fisheries Biological Assessment and the plain language of A19.

Swan View Coalition and Friends of the Wild Swan on September 23, 1999 filed a 60-day notice of intent to file suit under the Endangered Species Act and the Forest Supervisor rescinded Implementation Note #13 on November 19, 1999. Flathead Forest spokesman Allen Rowley was quoted in the November 24, 1999 Missoulian: "We talked it over with our attorneys and we decided they (conservation groups) were right."

So here we are in 2014 with the Flathead claiming it can simply render or find a road impassable, keep it on its road System, not remove all stream-bearing culverts, and yet not count it in calculations of TMRD either. (Personal communication with Kathy Ake 10/15/14 and Kathy Ake's Appendix 5 to the draft Grizzly Bear Conservation Strategy.) Indeed, connected Roads #10753 and #10754 in the Flathead's Canyon Creek drainage have seven washed out culverts, have never been adequately repaired or reclaimed, and yet are not included in the Flathead's calculation of TMRD. (Terms and Conditions Monitoring Report: Bull Trout Biological Opinions for Post-fire Salvage Operations, Flathead National Forest, 2007-2009; Craig Kendall; October 28, 2009; Appendix A Summary of Road and Culvert Surveys - checked against "Impassable" road data files provided by Kathy Ake 1/27/15). A19 certainly did not intend for the Flathead to allow culverts to blow out and to then take credit for the reduction in TMRD as though the blown-out roads had been properly reclaimed!

Leaving culverts to potentially blow out in roads not counted in TMRD would have been allowed by Implementation Note #13. It appears the Flathead formally rescinded Note #13, then went ahead and implemented portions of its intent anyway - in clear

violation of the plain language of A19 and in spite of assurances by the Forest Supervisor that the plain language of Flathead Forest Plan Appendix TT / A19 Appendix D would be implemented:

. . . I have reviewed the language of LRMP Implementation Note #13 and the existing Forest Plan Appendix TT and have determined to rescind Implementation Note #13 to avoid any confusion or misunderstanding with the implementation of Appendix TT . . . The definitions and direction contained in Appendix TT will be used by the Flathead National Forest unless and until the Forest Plan is subsequently amended or revised and any consultation obligations are satisfied with the U.S. Fish and Wildlife Service.

(Letter of Supervisor Cathy Barbouletos to attorney Dan Rohlf. 11/19/99.)

No such amendments or revisions have taken place and Appendix TT/D remains the law of A19. A19's requirements to protect fish are not at odds with its requirements to protect grizzly bear. A19's requirements to remove stream-bearing culverts from Reclaimed roads and to regularly inspect and clean culverts on Restricted roads are indeed common sense measures required by Fish and Wildlife Service in numerous biological opinions regarding bull trout. Rather than graciously comply with the multiple-species requirements of A19, it appears the Flathead has instead employed a shrouded classification of Impassable road to reportedly benefit bears while ducking corresponding requirements to protect water quality, bull trout and other aquatic life.

The Flathead's Road Decommissioning Spreadsheet

The Flathead's Road Decommissioning Spreadsheet lists "Road Decommissioning Projects" since A19 was first issued in 1995. It tracks five categories of Reclaimed roads:

Category 1 - System roads reclaimed and moved to Historic but still monitor for A19

Category 2 - System roads reclaimed and moved to Historic = revegetated - no monitoring

Category 3 - Roads reclaimed and left as System roads, still monitor for A19

Category 4 - Moved to Historic, naturally revegetated, no contract work needed, no monitoring

The fifth category is "Only Has Decision," meaning reclamation plans have yet to be implemented on those miles of road.

This spreadsheet shows clearly that the goal is to remove Reclaimed Roads from the System as the reclamation treatments become effective. Interestingly, all roads from Category 3 were shifted to other categories in 1999, the same year as the short-lived Implementation Note #13, and it has remained at zero road miles ever since.

A19 allows only three classifications of roads. Open and Restricted roads must be included in calculations of TMRD and only Reclaimed roads are excused from those calculations. Like all the other documents in the A19 administrative record, the spreadsheet does not contain a classification or category for Impassable roads excused from calculations of TMRD while remaining on the System.

According to A19 and Appendix TT/D, the only roads excused from calculations of TMRD should be included in this spreadsheet of Reclaimed roads. But they aren't all included because a shrouded classification of Impassable roads exists, though contrary to A19. (Personal communication with Kathy Ake 10/15/14; Kathy Ake's Appendix 5 to the draft Grizzly Bear Conservation Strategy; and "Impassable" road data files provided by Kathy Ake 1/27/15.)

Conclusion

At every turn, A19 NEPA documents and the Flathead National Forest have pointed to Forest Plan Appendix TT/A19 Appendix D as the guiding light and requirements of A19. Appendix TT/D provides for only three classifications of roads: Open, Restricted, and Reclaimed. It provides no classification for Impassable roads. Under A19, if a road is rendered impassable by either an act of nature or by human intervention, it remains an Open or Restricted road until it meets all criteria for a Reclaimed road and is removed from the road System.

This interpretation describes the publicly observable practice of implementing A19. This interpretation has been the Forest Service's direct response to public comments raising these very questions since 1995. This interpretation is consistent with the Forest Service itself asking these very questions of the IGBC Motorized Access Task Force. This is also the only interpretation of Appendix TT/D supported by the A19 administrative record.

The public discovery of the Flathead's shrouded category of Impassable roads that need not be included in calculations of TMRD came about only due to its disclosure in Appendix 5 of the 2013 Draft NCDE Grizzly Bear Conservation Strategy. Even then, its disclosure is largely obscured by footnotes attempting to detail the differences in motorized access management between the Flathead and the four other Forests in the NCDE - partly because the other Forests apparently do not require all stream-bearing culverts and bridges to be removed from Reclaimed roads.

Simply put, and for the reasons provided above, the Flathead must consider its Impassable roads to be Restricted or Open roads, include them in calculations of TMRD, and set about either repairing or reclaiming these roads to adequately protect water quality, fisheries and wildlife. It violates A19 and a wide variety of conservation laws for the Flathead to retain what at this juncture appears to be a "junk pile" of unattended old roads. It adds insult to injury to suggest that these roads are environmentally benign by implying they have been managed according to A19's standards for protecting water quality, fish and wildlife.

Addendum Added February 7, 2016

“Storing” Roads is Not the Functional Equivalent of “Decommissioning”

The preceding portions of this paper remain unchanged. The preceding explains why “impassable” roads can’t be omitted from Total Motorized Route Density (TMRD) under Forest Plan Amendment 19 (A19). This addendum explains why neither “impassable” nor “stored” roads are the functional equivalent of decommissioned roads. The Flathead is proposing to reconstruct previously decommissioned “non-system” road templates for logging, then place them back into the road “system” under “Intermittent Stored Service” (ISS) - as though ISS is the functional equivalent of “decommissioning.”

ISS is not the functional equivalent of decommissioning. Nor did the A19 Amended EA assess the effects of road reclamation/decommissioning as though roads removed from the road system would periodically be rebuilt, requiring culverts to be reinstalled and vegetation to be removed from the roadbed each time they are brought back into service under ISS.

The Flathead’s Trail Creek Fire Salvage Project proposal, for example, proposes to “construct approximately seven miles of new system roads on existing templates to access proposed harvest units and then place these seven miles, plus approximately an additional mile of road, into storage and classify the roads as intermittent stored service (ISS) roads following salvage harvest operations . . . to facilitate harvest activities and long-term resource management.” (Trail Creek Fire Salvage Project proposal released for public review by Spotted Bear District Ranger Debbie Mucklow via cover letter dated 1/26/16).

These roads would largely be rebuilt on “historic” road templates decommissioned and removed from the road system as recently as 2000 and 2004. (Personal communication with Matt Shaffer, FNF, and FNF’s 3/23/15 Road Decommissioning Projects spreadsheet). “Upon completion of the project, the first portion of the road would be recontoured to the original hillslope . . . Beyond the first portion of the road (200 - 600 feet) the roadway would be treated to discourage use including sporadic placement of natural debris where available and seeding or planting to encourage re-vegetation.” (Trail Creek Fire Salvage Project proposal released for public review by Spotted Bear District Ranger Debbie Mucklow via cover letter dated 1/26/16).

While the Trail Creek proposal says that the new road design would “favor rolling dips over culvert installation,” it does not say culverts will not be installed where necessary and it does not say that they would be removed post-project if they are installed. The proposal does make it clear that the road template would be brushed out and the road surface bladed to allow for log hauling.

The proposal does acknowledge it would need site-specific amendments to A19 to allow for summertime heavy equipment work on these road templates, which is not allowed in Security Core during the non-denning period for grizzly bears. The proposal

would then simply have the public and other agencies believe that post-project ISS is the functional equivalent of decommissioning and complies with A19.

As described on pages 3 and 4 of this paper, A19 requires that a reclaimed/ decommissioned road be “treated in such a manner so as to no longer function as a road or trail” and the IGBC further emphasizes “the long term intent for no motorized use.” To the contrary, ISS designation has the long-term intent of intermittent motorized use of the road and retains it in the road system. This is not the functional equivalent of a decommissioned road that is removed from the system precisely because the long term intent is to eliminate motorize use and render the road environmentally benign in the watershed. This is clearly evident in Amended EA’s assessment of the effects of A19 road decommissioning, particularly on pages 65-67:

Road reclamation can decrease rates of surface erosion by up to 95 percent . . . With road reclamation, culverts will be removed at stream crossings . . . The potential increase in sediment due to culvert removals and other ground disturbance will be balanced by an immediate decrease in peak flows and subsequent stream channel erosion due to dispersing runoff concentrated by the roads . . . Soil compaction on the reclaimed roads will gradually decrease as the roads revegetate with woody shrubs and conifer. After 50 - 100 years, these areas will have increased infiltration and productivity rates similar to undisturbed sites. Water quality and fisheries will improve from the road reclamation activities . . . culvert removal will reduce the risk of culvert failures . . . [and the A19 EA alternative proposing the fewest open roads and the greatest amount of Security Core] would improve watershed conditions more than all other alternatives.

What the A19 Amended EA did not do was assess decommissioned roads as if they were to be ISS roads intermittently used for logging access. While A19 requires that Security Core remain in place and effective for at least 10 years, it did not contemplate nor assess the effects of roads being decommissioned, rebuilt, then decommissioned again on a repeating basis of every 10 years or so, or simply at the whim of the Forest Service. Such a repetitive process clearly has significant negative impacts to vegetation, soils and water quality not contemplated nor assessed in A19. In Trail Creek and other projects, the Flathead is ignoring and shortchanging the benefits to soils, water quality and fish that were fully integrated into A19 grizzly bear security standards.

ISS and Road “Storage”

The Flathead’s Travel Analysis Process, as documented in the June 2014 Beaver Creek Analysis and elsewhere, defines ISS as “Closed to traffic. The road is in a condition that THERE IS LITTLE RESOURCE RISK IF maintenance IS NOT PERFORMED (self-maintaining). (FSH 5409.17-94-2).” (Emphasis in original). FSH 5409.17-94-2 in turn defines “Road Storage [as] The process/action of closing a road to vehicle traffic and placing it in a condition that requires minimum maintenance to protect the facility for future use.”

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This is little more than Maintenance Level 1 “storage,” which is defined in the Flathead’s 2014 Forest-Wide Travel Analysis Report as follows:

These roads have been placed in storage between intermittent uses. The period of storage must exceed 1 year. Basic custodial maintenance is performed to prevent damage to adjacent resources and to perpetuate the road for future resource management needs. Emphasis is normally given to maintaining drainage facilities and runoff patterns. Planned road deterioration may occur at this level.

A19 road decommissioning requires that “drainage facilities” like stream-aligned culverts be removed, not maintained. A19 decommissioning also requires that “runoff patterns” be “reworked to eliminate ditch water flow without the aid of cross drain culverts,” not to maintain runoff patterns through culverts. (A19, Appendix D). Hence, again, ISS and other “stored” roads are not the functional equivalent of an A19 decommissioned road. Properly decommissioned roads, unlike those repeatedly reused, should pose no risk to a watershed, require no maintenance, and are allowed to re-vegetate. That re-vegetation not only deters human use of the old travel-way, it also over time de-compacts any road surface that was not mechanically de-compacted at the time of decommissioning.

The Problems with “Storage” and “Impassable” Exemplified

So, what could possibly go wrong in the Flathead’s pursuit of replacing road decommissioning with road “storage” and/or classifying roads “impassable?” In addition to misrepresentations made to the public and other agencies like Fish and Wildlife Service (FWS), plenty. Take Raghorn Road #10802 in the Coal Creek watershed as an example:

According to the Flathead’s 3/23/15 Road Decommissioning Projects spreadsheet, the Flathead decided to reclaim Road #10802 on 9/25/92 as a part of the North Coal Salvage Timber Sale. The Biological Assessment for this timber sale was supplemented on 4/15/94 and FWS concurred with its findings on 5/5/94, citing the same grizzly bear research and findings soon to be incorporated into A19 in 1995.

Given the importance of Coal Creek to bull trout and westslope cutthroat trout, the Flathead revisited the pre-A19 decisions for Road #10802 and two others in the watershed. The subsequent 7/27/10 decision by District Ranger Jimmy DeHerrera for these roads decided to remove all 15 culverts from the three roads, 13 of them on Road #10802, including all cross-drain culverts:

These actions are being proposed to protect important bull trout spawning areas. If these culverts fail during a storm event, unnecessary sediment would be transported downstream jeopardizing spawning and rearing habitat for fish and impacting water quality. A TMDL [Total Maximum Daily Load plan for an “impaired water body”] was also completed for Coal Creek in 2005 and road waterproofing was identified to alleviate sediment conditions in Coal Creek.”

5. MAY 2016 ROADS TO RUIN REPORT BY KEITH HAMMER

On 6/21/2010, FWS concurred with the decision to remove all the culverts. Coal Creek was soon after designated Bull Trout Critical Habitat, adding additional Endangered Species Act prohibitions to damaging threatened bull trout habitat. In 2012, however, the Flathead considered the road “waterproofed” after removing only 3 culverts less than half way up the 3.69-mile-long Road #10802, leaving other culverts in place! (Waterproofing Rd. 10802 map and notes by Pat VanEimeran and John Littlefield, November 2012).

Several of the remaining culverts beyond those removed are stream-aligned and at least two of them were flowing water when I inspected them on 8/20/15! VanEimeran and Littlefield’s November 2012 notes cited above also document water flowing across and under the road at these locations!

The Flathead’s INFRA database and KML (Google Earth Keyhole Markup Language) road files provide by Kathy Ake in 2015 nonetheless classify the entire road as a Maintenance Level 1 “system” road that is “impassable” and hence not included in A19 calculations of TMRD. This even though the road is not impassable according to the “impassable” criteria Ake listed in the Draft Grizzly Bear Conservation Strategy (see page 5 of this paper): 1) the first portion is not naturally re-vegetated to the degree it hinders motorized or foot travel - in fact the brush was cut back, apparently to provide passage for the culvert-removal machinery in 2012, 2) the entrance to the road has not been obliterated, and 3) the three culverts removed were 36” diameter culverts that don’t meet the minimum 4’ culvert removal criteria to qualify as an impassable barrier.

When compared to Ake’s Conservation Strategy criteria, Road #10802 is not an “impassable” road but a bermed road. Under A19 this bermed road can be and is largely located in Security Core habitat. Though decommissioning the road is preferred under A19, a berm closure of restricted road in Security Core is allowed - provided the Forest develops and implements “a monitoring plan to detect any erosion or culvert blockage problems” on each such road. (Biological Evaluation for Bull Trout, Cutthroat Trout, and Shorthead Sculpin: Potential Effects from Implementing Amendment 19, Alternative 3 to the Forest Plan. Donald E. Hair. 2/4/95.)

Hair’s culvert monitoring requirement, above, is also repeated in A19’s Appendix D definition of a restricted road. In spite of this, the Flathead has not developed a single culvert-monitoring plan for any of the many score of bermed roads in Security Core, let alone for Raghorn Road #10802! (Chip Weber’s 9/22/15 response to Swan View Coalition’s 8/7/15 FOIA request).

Whether a bermed road or an “impassable” road, as made clear in this paper, Road #10802 must nonetheless be included in calculations of TMRD. And this brings us back to the plain language interpretation of A19: a road must have all stream-aligned culverts removed, all cross-drain culverts removed or rendered non-essential and harmless, and be removed from the road “system” before it is no longer a road counted in TMRD. Moreover, Road #10802 should have all of its culverts removed because the Flathead promised the public and FWS that it would do so in National Environmental Policy Act and ESA consultation documents!

Raghorn Road #10802 is but one example of what goes wrong when the Flathead fails to follow the plain language of its own Forest Plan and road decommissioning decisions. Instead of a decommissioned road that no longer functions as a road or trail, Road #10802 can be easily walked or ridden on a mountain bike or driven for at least the first mile by violating the berm closure in/on a motorized vehicle. Bears and other wildlife are left with easier human access into their habitat than promised and bull trout are left with culverts that remain ticking time bombs instead of having been removed as promised. FWS has concluded:

Culverts left in place behind gated and bermed roads . . . pose a risk to bull trout . . . Whatever the design life, any crossing structure would have a 100% chance of failure over its installation life if it is not removed after the road is abandoned.

(FWS's Montana Field Office, Biological Opinion on the Effects of the Moose Post-Fire Project on Bull Trout, 11/14/2002).

Conclusion

The public is left with little reason to trust the Flathead as it repeatedly attempts to end run A19's fiscally responsible program to restore grizzly bear habitat security in a way that provides the same benefits to other wildlife and fish. If the Flathead wants to change A19, it needs to issue a major Forest Plan amendment with full public disclosure and involvement. It cannot lawfully or ethically change A19 by simply claiming that "impassable" and ISS "system" roads are not really roads, are equivalent to decommissioned roads removed from the "system," and need not be included in TMRD.

Swan View Coalition Nature and Human Nature on the Same Path



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Supplement to Keith Hammer's "Roads to Ruin" and "TMRD" Reports

Keith Hammer
December 5, 2017

This paper and its attachments provide supplementary documentation of matters discussed in two of my previous reports: 1) "Roads to Ruin: The Flathead National Forest Shirks its Road Reclamation Duties" dated May 2016 and 2) "Only Decommissioned Roads Removed from the Forest Development Road System May be Omitted from Calculations of Total Motorized Route Density [TMRD] on the Flathead National Forest" dated 6/4/15 and updated 2/7/16.

My TMRD report is included as Appendix A in my Roads to Ruin report, which can be found at: http://www.swanview.org/reports/Roads_to_Ruin.pdf. These reports detail Flathead Forest Plan requirements that the Flathead National Forest, in order to lower TMRD, must both remove roads from the Forest Development Road System (System) and re-vegetate those roads so they no longer function as a road or trail.

The attached documents and following citations to them show that the Flathead used the term road "reclamation" to also mean the road must be "decommissioned" and removed from the road System in the 1995 Flathead Forest Plan Amendment 19 (A19). A19 also requires that reclaimed/decommissioned roads be re-vegetated after having all of their stream-aligned culverts removed so they can't plug and blow out. The road can't simply be physically blocked off or strewn with logs and rocks.

The attached documents and following citations will also show how, beginning around 2010 - 2012, the Flathead began simply making or documenting roads as "impassable" to motor vehicles in order to reduce TMRD. This was done in violation of A19, without firstly making lawful public revisions to A19. This has resulted in numerous roads remaining on the landscape and in the road System without being included in TMRD calculations and without the prior removal of all stream-aligned culverts and the reestablishment of adequate vegetation.

It also bears mentioning at the outset that A19 was initiated, interpreted and implemented up until around 2010 - 2012 in a manner attempting to be consistent with requirements of the National Forest Management Act; that roads no longer a part of the System must be managed "with the goal of reestablishing vegetative cover on the roadway . . . within ten years." (NFMA Section 8(b)).

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A19 was based largely on the April 1993 South Fork Grizzly Bear Project Progress Report: "Apparently, grizzly bears adjust their habitat use patterns in part to both precise open road densities and precise total road densities. Unless a road has completely revegetated, managers should assume that some level of human use is occurring along closed roads, and grizzly bears will respond to that use." (Page 25, attached).

"Roads: all roads except those sufficiently revegetated with shrubs and/or trees to deter travel by foot or ATV." (Draft Flathead LRMP Implementation Note 12, 4/28/93, page 1, attached. This draft was not finalized and was instead replaced by Amendment 19).

Also based on the South Fork Grizzly Bear Project: "A 'reclaimed road' is any road that has been physically modified on all or part of the road, reclaimed to contour and planted with vegetation on all or part of the road, so as to provide vegetative screening throughout the road corridor, make the road impassible by vehicles and foot travel difficult." (Lost Silver Biological Opinion, 9/3/93, page 24, attached).

The 1995 Forest Plan Amendment 19 Amended Environmental Assessment found: "To meet the standards and short-term objectives in MS-1 and MS-2 areas, approximately 350 miles of open roads and 125 miles of currently restricted roads would need to be reclaimed in the short term (5 years)." This 475 miles of road reclamation is shown under the preferred/selected Alternative 3 as a reduction in System roads, along with greater reductions in the road System for alternatives with greater limitations on TMRD within 5 years. (Pages 95-97, attached).

"Some roads that have all reclamation work completed are still counted in calculation processes. Roads utilized in calculations for Total Access Density [TMRD] include roads for which reclamation work has been completed, pulling culverts, installation of drainage dips, distributing of rocks and debris on the road surface, **but the road has not revegetated to the level required to meet Amendment 19 reclamation requirements.**" (Barbouletos letter to Wilson, 3/2/01, page 3, emphasis added, attached).

Attached is a 3/23/15 "Road Decommissioning Projects" spreadsheet by which the Flathead until 2017 tracked the roads to be decommissioned under A19, among others. This is the last such spreadsheet to include the annual subtotals for all years dating back to 1995, the year A19 was authorized. This spreadsheet demonstrates the goal of A19 is to remove reclaimed roads from the System as the reclamation treatments become effective, as described on page 8 and elsewhere in my TMRD report.

The Road Decommissioning spreadsheet lists several roads in the North Coal watershed for decommissioning that the Flathead in 2010 decided to treat otherwise, removing culverts to reduce sediment delivery into streams but keeping the roads in the System. (See the attached Shorty and Coal Creeks Stream Restoration Project Decision Memo, July 2010).

The Biological Assessment (BA) for the Shorty-Coal project duly found that this project would not reduce TMRD, even though several roads were being rendered impassable to motorized vehicles. The BA compared existing A19 parameters in the Coal Creek Subunit to the <19/<19/> or = 68 requirements for OMRD/TMRD/Security Core. It found the existing and post-project indices would remain at 15/24/71. (See Biological

Assessment for Terrestrial Wildlife Species: Shorty and Coal Creek Stream Restoration Project, Reed Kuennen, 5/3/10, attached).

Fish and Wildlife Service concurred: "Total road densities would not change during activity or post-project." (See Wilson letter to Barbouletos, 6/21/10, attached).

Counter to these biological findings, however, the Flathead's GIS specialist and fisheries biologist celebrated, claiming that by calling these roads "impassable" and retaining them in the road System they had somehow lowered TMRD and increased Security Core. Kathy Ake, the GIS specialist, declared that TMAD would decrease from the excessive 24% to the maximum allowed 19% and Security Core would increase to 74%. Pat VanEimeren, the fisheries biologist declared in turn: "Good news!" (See the attached email string originating with Kathy Ake on 2/14/12).

This is a flagrant violation of A19 and has been repeated many times over since, with absurd consequences. While the Shorty-Coal Decision Memo required all 15 culverts to be removed from Raghorn Road 10802, only 3 were removed. (See the attached 9/25/12 Road 10802 Survey by J. Littlefield, noting only three 36" culverts would be removed, while leaving a 36" culvert adjacent to the last waterbar constructed (and others beyond). See also the November 2012 map by Littlefield and VanEimeren noting the first draw and small stream beyond the three culverts they would remove).

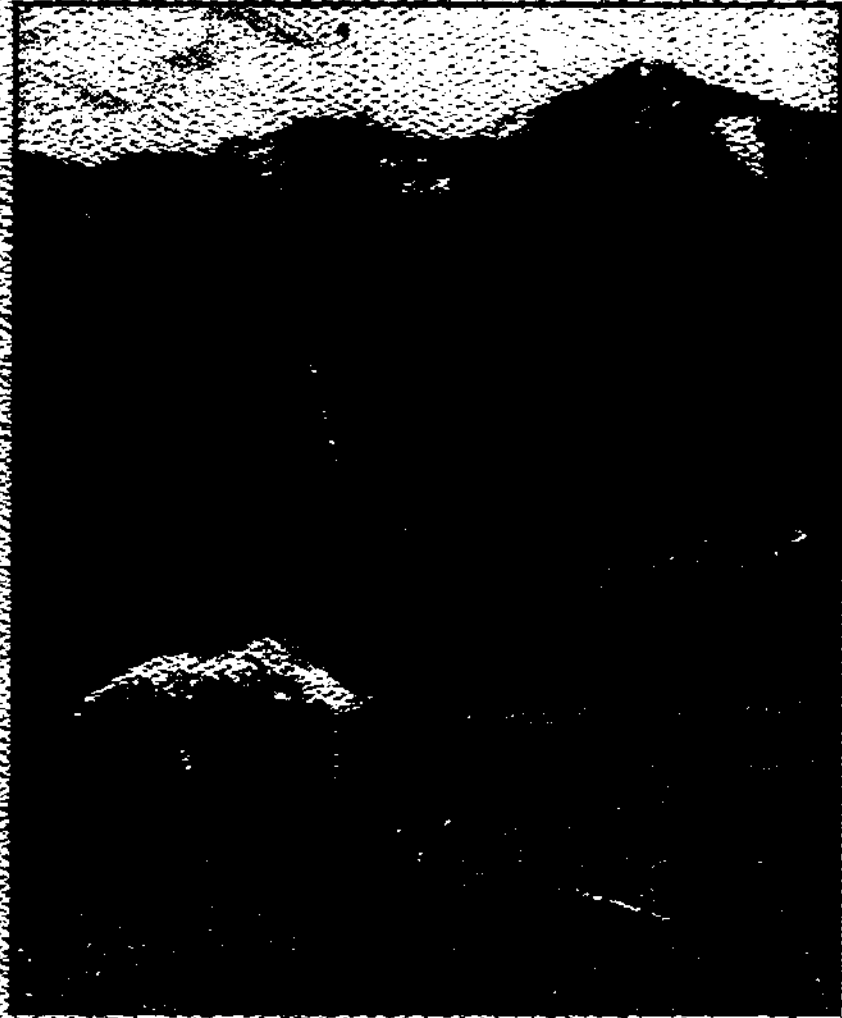
Having obtained kml files of the Flathead's "impassable" roads, I used Google Earth to note that not all stream-aligned culverts had been removed from the Raghorn Road. I then surveyed the entire road on the ground and took photos of the remaining culverts. Swan View Coalition, Friends of the Wild Swan, and WildEarth Guardians filed a Sixty-Day Notice of Intent to File Suit over the remaining culverts (attached). In response, the Flathead agreed to remove the remaining stream-aligned culverts. The work is scheduled for Summer 2018, having not been done in 2017 due to fire restrictions.

Separately, the Flathead agreed to conduct a field review of its 78 "impassable" roads that are not counted in TMRD (but did not necessarily survey the 174 road segments considered "impassable" but indeed counted in TMRD). Attached is a summary of that road survey conducted in 2017. It found that 13 of the 78 "impassable" roads not counted in TMRD contained stream-aligned culverts, including several roads in Coal Creek that, in turn, include two of the roads where culverts were to be removed under the Shorty-Coal Decision Memo (Raghorn Road 10802 and Coal Dust One Road 5279).

The work done on Road 5279 involved the removal of only one stream-bearing culvert to render the road "impenetrable/impassable." (See the attached 7/15/12 Maintenance Work Order by Littlefield and VanEimeren). Per the 2017 survey mentioned above, "5 stream aligned cmps [culverts] some with alignment issues" remain orphaned beyond the first culvert removal/barrier on Road 5279!

A19, while not perfect, is a well-integrated program requiring that TMRD be reduced to protect both fish and wildlife by requiring that all stream-aligned culverts be removed, and that the road then be removed from the System and re-vegetated. The Flathead's recent (circa 2010 - 2012) invention of "impassable" road management at odds with A19 appears to be an ill-conceived scam equivalent to "let's not and say we did."

SOUTH FORK FLATHEAD RIVER GRIZZLY BEAR PROJECT



COOPERATORS:

Montana Department of Fish, Wildlife, & Parks
USDA Forest Service, Intermountain Research Station
USDI Fish and Wildlife Service
National Fish and Wildlife Foundation

April 1993

**SOUTH FORK FLATHEAD RIVER GRIZZLY BEAR PROJECT:
PROGRESS REPORT FOR 1992**

Richard D. Mace
Timothy L. Manley

Montana Department of Fish, Wildlife and Parks

Approved by: James Cross
Regional Wildlife Manager

Approved by: John P. Steigemeier
Bureau Chief, Research and
Technical Services

Approved by: Lon Williams
Wildlife Div. Administrator

This research has been funded by the Montana Department of Fish, Wildlife and Parks, USDA Forest Service, USDI Fish and Wildlife Service, and National Fish and Wildlife Foundation

Since this is a Progress Report only, results presented herein are not necessarily final and may be subject to change. For this reason, the information contained in this report may not be published or used for other purposes without permission of the Director, Montana Department of Fish, Wildlife and Parks.

Grizzly bears can live and reproduce in multiple-use habitats. Preliminary data analyses strongly suggest that grizzly bears are not able to fully exploit habitats, especially those at low to mid-elevation, because of human activity associated with roads.

Techniques for calculating road densities that average over large blocks of land (e.g. a BMA), inclusive of both high and low elevations, result in inadequate assessments of grizzly bear response to road densities. Using an average road density figure, derived from a large area, will not detail the precise road densities within smaller areas. The current method employed to calculate road densities, using an average open road density only, has a tremendous effect on how road density standards are interpreted and applied to grizzly bear habitat. When only open roads are used in density calculations, the influence of closed roads is removed. For example, an area may have an open road density of 1.0 mi/mi²; thus, there is one mile of open road for each square mile of habitat. However, this same area could also have two miles of closed roads per square mile, an actual total road density of 3 mi/mi². This area would still meet the 1 mi/mi² open road density standards, but according to our data areas where the total road density exceeded 2mi/mi² would receive use less than expected. For example, our entire analysis area has an average open road density of 0.63 mi/mi² and meets current road density standards. Our precise open road density technique produces the same average open road density. However, from our method we know that 26% of the analysis area (70 mi² of habitat) exceeds the 1.0 mi/mi² standard. When all roads are included in calculations for our analysis area, the average total road density is 1.13 mi/mi² with 22% (58 mi²) of the area having >2 mi/mi². This 58 mi² of habitat was used less than expected by radio-instrumented grizzly bears.

The amount of area with a total road density of >2 mi/mi² in our analysis area is considerable. Juxtaposition of this 58 mi² to other lands with other classes of road densities and associated cover types is critical for determining the overall quality of the habitat.

Apparently, grizzly bears adjust their habitat use patterns in part to both precise open road densities and precise total road densities. Unless a road has completely revegetated, managers should assume that some level of human use is occurring along closed roads, and grizzly bears will respond to that use.

Our data suggest that once a decision is made to road and silviculturally treat stands in a previously unroaded area, that area will subsequently be used less by female grizzly bears. This response by female bears is predicted to occur regardless of what silvicultural treatment is chosen. Once precise total road densities reach 2 mi/mi², use by all bears is predicted to significantly decline. Closing roads has a positive effect on use of an area by grizzly bears when precise open road densities are reduced below 1.0 mi/mi².



United States
Department of
Agriculture

Forest
Service
406-755-5401

Flathead National Forest
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Kalispell, MT 59901

6-12/5/17 SUPPLEMENT TO KEITH HAMMER'S ROADS TO RUIN TMRD PAPERS

FAX TRANSMITTAL SHEET

TO: Anne Vandenberg
USFWS

DATE: 1/5/94

FROM: Nancy Warren

TOTAL NUMBER OF PAGES INCLUDING THIS COVER SHEETS: 5

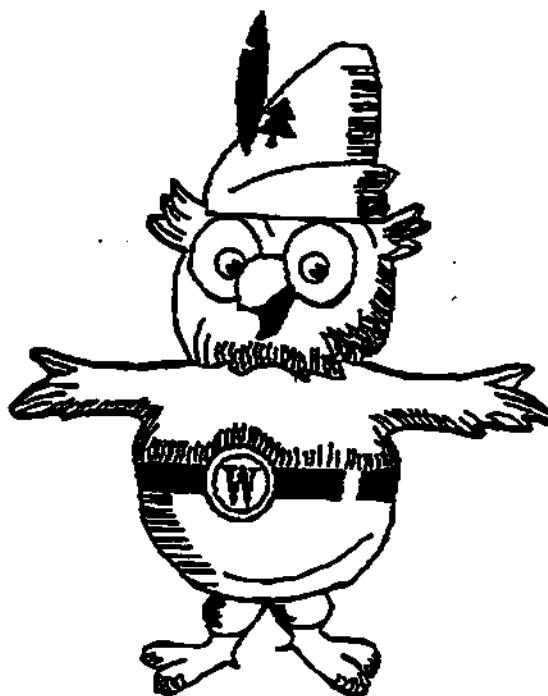
RECIPIENT'S FAX NO: (406) 449-5339

REMARKS: Don't know if this will help you. This document
(or earlier draft) was reviewed by R. Mace and T. Manley
and by R. Hazlewood. Final approval/action was not
taken, however. Tim went over core area info w/me in person.

FLATHEAD NATIONAL FOREST FAX NUMBER: 406-758-5363

SENDER: Nancy Warren

TELEPHONE NO: 755-5401



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6. 12/5/17 SUPPLEMENT TO KEITH HAMMER'S ROADS TO RUIN/TMRD PAPERS

11/9 ENF Am. 19

April 28, 1993

LRMP Implementation Note #12

DRAFT

SUBJECT: CALCULATION OF ROAD DENSITIES AND INTERPRETATION OF EFFECTS ON GRIZZLY BEARS

ISSUE: How should the preliminary results of the South Fork Flathead River Grizzly Bear Project be applied to project planning? Specifically, how should road densities be calculated for effects analysis, what is the relationship to existing Forest Plan standards, and what interpretations or conclusions should be drawn from this analysis?

FOREST DIRECTION:

To demonstrate compliance with Forest Plan standards, continue to follow the interim direction contained in Implementation Note #8.

To analyze effects of road construction and management, use a moving window GIS procedure to create maps of "precise" road density. This will allow for comparison with preliminary results from the South Fork Grizzly Bear Project (SFGBP). Before extrapolating the findings from the SFGBP to another area, evaluate the area to ensure that it is similar in terms of grizzly bear habitat and foraging strategies, bear population structure, and human use levels and patterns.

A moving window procedure assigns a value describing the road density within the surrounding one-square mile window to the center pixel. The SFGBP analysis used a 30-meter pixel size, but the 50-meter pixel size available on our GIS is acceptable. To create maps comparable to those being used for the SFGBP, use the following definitions:

Road: all roads except those sufficiently revegetated with shrubs and/or trees to deter travel by foot or ATV. Roads that are closed seasonally are included.

Open road: road open to public use permanently or seasonally, during the March 15 to November 15 period.

Descriptions of existing conditions and the effects of alternatives should portray open and total road density classes, in the context of the relative value or importance of the habitat being affected. Habitat components, seasonal habitat value, available space, or bear preference value are examples of factors or measures of relative importance.

The results of the moving window analysis can be used to infer bear response to road management. On a Bear Management Area basis, the maps may be useful for describing the availability of habitat to bears. Preliminary results of the SFGBP indicate that bears use areas with $>1 \text{ mi}/\text{mi}^2$ precise open road density and areas with $>2 \text{ mi}/\text{mi}^2$ precise total road density significantly less than expected based on availability. In addition, at the scale of a Bear Management Unit or Subunit, the GIS maps may be useful in identifying secure habitat (contiguous habitat located farther than 1/2-mile from roads and trails) that is important for adult females.

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calculating precise road densities, in contrast with "average" road densities, to analyze grizzly bear response to roads should be used as a tool to describe the existing conditions and expected effects, in the context of the relative importance or value of the habitats being affected.

A significant portion of the SFGSP core area exceeded the 1 mi/mi² of open road class (26%) and the 2 mi/mi² of total road class (22%). The area continues to support a productive population of grizzly bears at a relatively high density. It is not known what the desired or threshold levels of various road density classes should be, in order to maintain effective habitat within the home range of a grizzly bear.

The relationship between open and total road densities, seasonal elevational movements by grizzly bears, elevational distribution of seasonal habitats, and expected use by grizzly bears has not been fully analyzed. Analysis of effects, therefore, must clearly define the seasonal use expected by bears, and the relationship of important bear habitats to the distribution and density of roads. Preliminary results from the SFGSP indicate that >1 mi/mi² open road density and >2 mi/mi² total road density result in statistically significant declines in expected use of habitat by grizzly bears. However, the overall effect of exceeding these levels in a specific area must be evaluated in the context of the relative value or importance of the underlying habitat.

Protection of existing secure habitat is of high priority. Analysis of the effects of human use of trails is not yet complete. Preliminary analysis indicates that the response of grizzly bears to trails is very similar to that described for roads. Analysis of road and trail construction/reconstruction and management proposals should include consideration of effects on secure habitat and possible reductions in habitat capability to support adult females. Within Management Situation 1, it is of high priority to ensure that adult females, the reproductive segment of the population, continue to have high-quality secure habitat available within their home ranges.

For the SFGSP, all roads except those sufficiently revegetated with shrubs and/or trees to deter travel by foot or ATV were included in the total road density calculation. Currently available road inventories may not include spur roads. In analyzing effects, the completeness of the inventory data used to create a "precise" total road density map may need to be considered.

Barriers placed at closure sites to deter human use are probably not sufficient to eliminate road effects, although they will improve the effectiveness of the closure. Because many of our road closures occurred recently and the use of closed roads have continued to change, there is insufficient information available as yet from the SFGSP to assess changes in grizzly bear response to road closures. It seems likely that grizzly bears (particularly females) will respond slowly in "recolonizing" habitat from which they have been displaced, and that the avoidance behavior will be easily reinforced by occasional use of closed roads. Analysis of effects should include consideration of the expected frequency of timber management entries and the expected duration of closures to human access.

6. 12/5/17 SUPPLEMENT TO KEITH HAMMER'S ROADS TO RUIN/TMRD PAPERS

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6. 12/5/17 SUPPLEMENT TO KEITH HAMMER'S ROADS TO RUIN/TMRD PAPERS

References:

- Mace, R., T.Manley, and S.Riley. 1992. Grizzly bear response to forest road densities and timber management in a multiple use environment: research update. Unpubl. Report, Montana Dept. of Fish, Wildlife and Parks. 17 pp.
- Manley, T.L. and R.D. Mace. 1992. Grizzly bear habitat use and disturbance studies: South Fork of the Flathead River. Progress Report for 1991. Unpubl. Report, Montana Dept. of Fish, Wildlife and Parks. 41 pp.

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in the last two pages of this PDF.

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"Draggoo, Michele -FS" <mdraggoo@fs.fed.us> 
To: Keith Hammer <keith@swanview.org>
FW: FOIA Response

September 1, 2016 5:13 PM

5 Attachments, 446 KB

Hi Keith,

I have looked for the missing pages from the 4/28/93 Draft LRMP Implementation Note #12 you provided...and I cannot find them.

Michele



Michele Draggoo
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Caring for the land and serving people

From: Keith Hammer [mailto:keith@swanview.org]
Sent: Wednesday, August 31, 2016 1:04 PM
To: Draggoo, Michele -FS <mdraggoo@fs.fed.us>
Subject: Re: FOIA Response

Michele;

Thanks for your response to our August 2 FOIA request. I did indeed look at the Implementation Notes you had provided previously, but that Note 12 is different subject matter than the draft Note 12 we referenced in our request. Hence our question of whether the draft Note 12 was ever finalized or not - and the answer is looking like "no, it wasn't" as indicated by Nancy Warren's fax cover sheet in the attached pdf of an incomplete version of draft Note 12.

In taking a second look at the draft Implementation Note 12, I note that the copy we received quite a while ago contains two copies of page 3 and no copy of page 2.

Please consider this a FOIA request for a full copy of draft Implementation Note 12, preferably as a pdf if possible.

I've attached a pdf of the incomplete version received previously so you can see the problem and also some filing notes that may make it easier for you to locate this.

A fee waiver is requested for the same reasons given in our August 2 request.

Your continued assistance in this matter is greatly appreciated,

Keith

6. 12/5/17 SUPPLEMENT TO KEITH HAMMER'S ROADS TO RUIN/TMRD PAPERS

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"Nature and human nature on the same path."

On Aug 30, 2016, at 5:22 PM, "Draggoo, Michele -FS" <mdraggoo@fs.fed.us> wrote:

<image001.png> **Michele Draggoo**
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Caring for the land and serving people

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FINAL BIOLOGICAL OPINION
ON THE
LOST SILVER TIMBER SALE
ON THE
HUNGRY HORSE RANGER DISTRICT
FLATHEAD NATIONAL FOREST

U. S. FISH AND WILDLIFE SERVICE
DIVISION OF ECOLOGICAL SERVICES
MONTANA STATE OFFICE
HELENA, MONTANA



SEPTEMBER 3, 1993

roads" by motorized vehicles should be restricted to one or two periods between April 1 and November 15 that together shall not exceed 14 days. Restricting administrative use to one period reduces the possibility of habituation of bears to roads, and reduces the displacement of bears from habitat because of random or periodic disturbance. The period of administrative use should not coincide with periods of expected bear use.

- b) A "reclaimed road" is any road that has been physically modified on all or part of the road, reclaimed to contour and planted with vegetation on all or part of the road, so as to provide vegetative screening throughout the road corridor, make the road impassible by vehicles and foot travel difficult. Road reclamation methods and degree of reclamation may vary with each project. A variety of techniques are available to achieve road reclamation including complete removal of the road bed to planting and encouragement of vegetation while leaving the road bed intact. Implementation of road reclamation may entail a broad array of techniques that should be discussed and mutually agreed upon by the Forest and Service.
- 2. Compliance with the precise total road densities (2 miles/square mile) in Subunit A shall occur within one year after logging activities have ceased in the Lost Silver sale area. Road closures and road reclamation within the nine BMAA's of the Subunit should be conducted concurrently with the Lost Silver Timber Sale logging period.
 - 3. Compliance with the precise open road density of 1 mile/square mile in the nine BMAA's shall occur within the first year of the Lost Silver Timber Sale.
 - 4. Consistently adhere to all grizzly bear Flathead Forest Plan standards and guidelines in addition to those modified in this opinion.
 - 5. Provide adequate enforcement to monitor public violations and excessive administrative use of road closures and to enforce closures.

Reporting Requirements

The Forest Service shall prepare an annual report due to the Service in December of each year that details the progress in obtaining the open and total road densities and security criteria in Subunit A.

Within 90 days after meeting the open and total road densities and security requirements in Subunit A, the Forest Service shall provide the Service with a final report detailing all activities undertaken in association with terms and conditions of this biological opinion.

Once compliance is achieved and then should the incidental take limit (2 and 3 on page 22 and 23) be exceeded, the Forest Service shall immediately cease the activity resulting in the take and reinitiate consultation with the Service to avoid violation of section 9 of the Act. The Lost Silver

United States
Department of
Agriculture

Forest Service



Flathead
National Forest

Feb. 1995

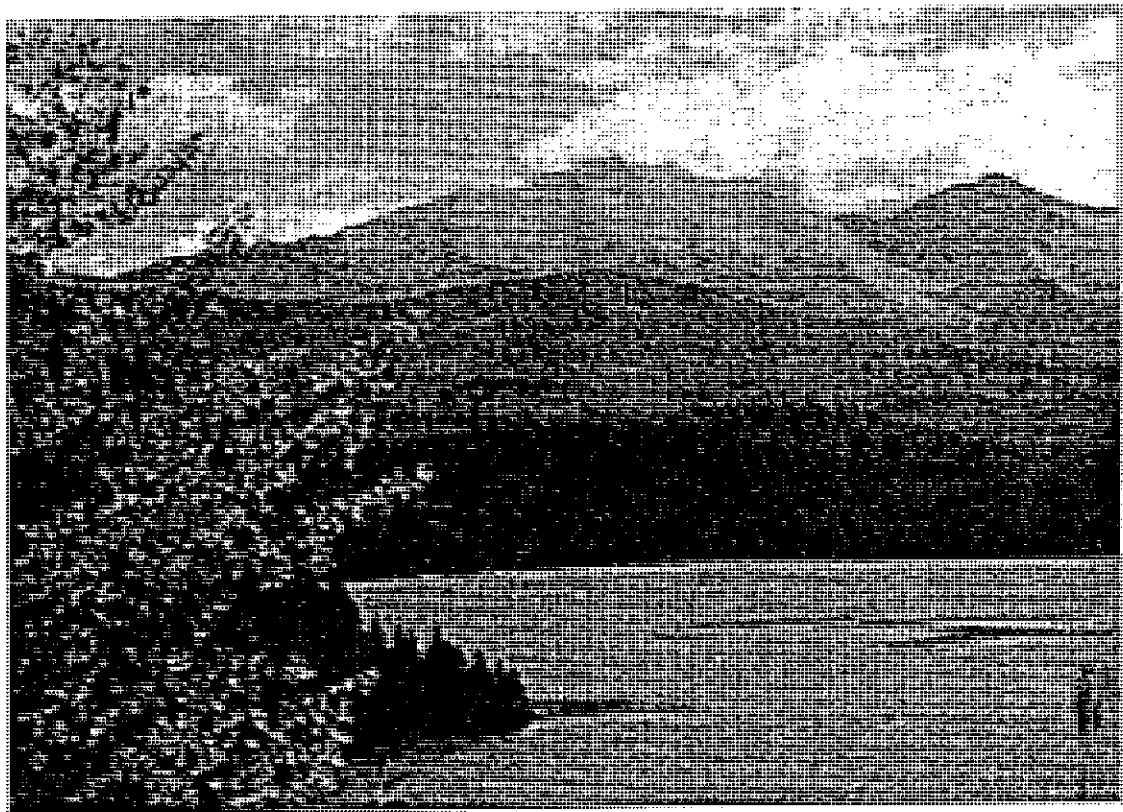
FLATHEAD NATIONAL FOREST



FOREST PLAN AMENDMENT #19

Allowable Sale Quantity and Objectives
and Standards For
Grizzly Bear Habitat Management

AMENDED
ENVIRONMENTAL ASSESSMENT



Environmental Effects

The following describes and compares the estimated miles of roads open, restricted, and reclaimed (See Appendix D for definitions) for each of the alternatives, followed by a general discussion of relative costs. The costs associated with various methods are displayed in order to provide a general understanding only. Decisions regarding changes in road status, method of closure, and projections of actual costs will be made during site-specific analyses.

Several changes were made in this section in response to changes to the alternatives and in response to comments received since the draft was issued; most notably in the estimates of miles of roads that need to be restricted or reclaimed and in the discussion of costs of reclamation and maintenance.

Transportation System

The estimated potential number of miles of road that would need to be constructed for each of the alternatives corresponds to the maximum potential timber harvests projected in this amendment (ASQ). The actual miles needed will depend on the choice of yarding system, site-specific analysis, and budgets. The miles of roads that would need to be restricted or reclaimed are rough estimates only. Detailed information regarding estimates of road miles is in Project Record, Exhibit L-34.

Alternative 1 - The ASQ for Alternative 1 is 100 million board feet of timber per year. The 1986 Forest Plan projected 68 miles of road per year would need to be constructed to achieve projected timber harvest. Over five years (1995-1999) that would amount to roughly 340 miles of new road construction. Approximately 185 miles of local roads would be restricted to meet the open road density standards of the existing Forest Plan.

Alternative 2 - The ASQ for Alternative 2 is 64 million board feet per year. This level of timber harvest reflects the modeling of current Forest Plan standards. To achieve this maximum potential of timber harvest, approximately 44 miles of new roads would need to be constructed per year; 220 miles over 5 years. Approximately 185 miles of local roads would be restricted to meet the open road density standards of the existing Forest Plan.

Alternative 3-Corrected - The ASQ for Alternative 3-Corrected is 54 million board feet per year. This level of timber harvesting reflects the modeling of current forest plan standards and the addition of new objectives for grizzly bear habitat. This level of timber harvest would require approximately 13 miles of new roads per year; roughly 65 miles over 5 years. These roads would need to be constructed primarily in areas outside of MS-1 and MS-2 grizzly bear habitat.

To meet the standards and short-term objectives in MS-1 and MS-2 areas, approximately 350 miles of open road and 125 miles of currently restricted roads would need to be reclaimed in the short term (5 years). To meet long term (10 years) standards and objectives, another 175 miles of already-restricted roads would need to be reclaimed.

The long-term objectives of this alternative would require restricting or reclaiming many of the existing local roads in the recovery area, but would not require restricting major collector or arterial roads, such as the Hungry Horse Reservoir roads (FR #895 or #38). Approximately 1600 miles of road would remain open for motorized use on the Forest.

Alternative 4-Corrected - The ASQ for Alternative 4-Corrected, is 52 million board feet per year. This level of timber harvest reflects modeling of current forest plan standards and the addition of new objectives for grizzly bear habitat. This level of timber harvest would require approximately 13 miles of new roads per year; roughly 65 miles over 5 years. These roads would be constructed primarily in areas outside of MS-1 and MS-2 grizzly bear habitat.

To meet standards and objectives, roughly 350 miles of open road and 300 miles of currently restricted roads would be reclaimed within 5 years. This alternative would require restricting or reclaiming many of the existing local roads in the recovery area, but would not require restricting major collector or arterial roads, such as the Hungry Horse Reservoir roads (FR #895 or #38). This alternative would leave approximately 1600 miles of roads open forest-wide.

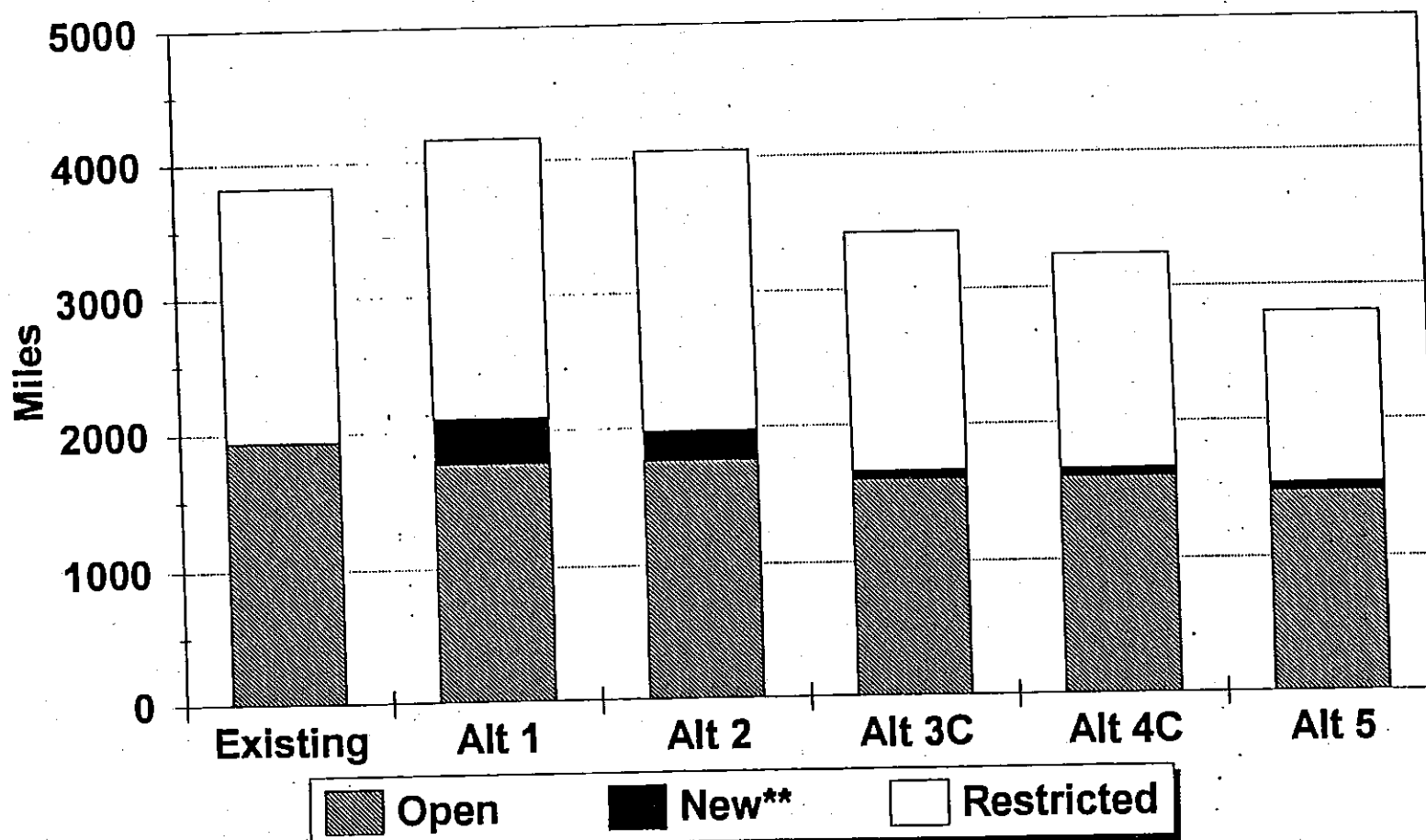
Alternative 5 - The ASQ for Alternative 5 is 46 million board feet per year. This level of timber harvest reflects modeling of current forest plan standards and the addition of new objectives for grizzly bear habitat, with added emphasis on increased security core area. This level of timber harvest would require approximately 13 miles of new roads per year; roughly 65 miles over 5 years. These roads would be constructed primarily in areas outside of MS-1 and MS-2 grizzly bear habitat.

The standards and objectives for Alternative 5 provide more security core area and permit less open motorized access than the thresholds in the Lost Silver Biological Opinion, thus the effects in terms of miles of roads restricted and reclaimed are greater. Supporting information is in Project Record, Exhibit L-32. To meet the standards and objectives, roughly 475 miles of open road and approximately 625 miles of currently restricted roads would be reclaimed within 5 years; this would require restricting or reclaiming nearly all existing local roads, and restricting many collector roads. Approximately 1500 miles of roads would remain open for motorized use across the forest.

For comparison, see Figure 23 "Projected Miles of Roads."

Figure 23. Projected Miles of Roads

Projected Miles of Roads*
1995-1999



* Source: RMS DataBase plus projections by Alternative

** New Roads May Be Temporary



United States
Department of
Agriculture

Forest
Service

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Flathead National Forest
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Kalispell, MT 59901

File Code: 2670

Date: March 2, 2001

Mr. R. Mark Wilson
Montana Field Supervisor
U.S. Fish and Wildlife Service
100 N. Park, Suite 320
Helena, MT 59601

COPY

Dear Mark:

On May 12, 2000, the Forest requested an extension of the 5-year implementation schedule contained within the USFWS opinion for Amendment 19 (February 17, 1995). Your response (letter dated September 21, 2000) requested additional information. The following responds to the questions contained in your letter.

Question (1)

"Please provide to us a summary of the accomplishments made toward 5-year goals identified in the terms and conditions in the 1995 incidental take statement for each of the years 1999, 1998, 1997, and 1996. This information should include a summary table similar to that in your May 12 letter to us, and also the amount of road restricted or reclaimed, if available."

The Flathead National Forest has emphasized access management as a primary management tool to reduce grizzly bear mortality risk and promote use of habitat. Management direction has varied over time, but became formalized with development of the Flathead Forest Plan (LRMP, 1986) and afterward LRMP Amendment 19 (1995). Access management has been an ongoing process, with implementation progress achieved under both original LRMP direction and Amendment 19 direction.

Road development on the Flathead Forest began in the early 1900s, with management of the road system to provide for wildlife benefits becoming a management issue in the 1970s. Figure 1 provides a summary of Forest road data for the ranger districts having grizzly bear habitat for the period 1978 through 1998. Data displays for individual ranger districts are found in Appendix A. The data show that the 1998 road system was larger by approximately 770 miles than was the 1979 system, but had decreased by approximately 325 miles from the year having the largest road system, 1988. Some road mile increases during this period were due to updates based upon improved road inventories. When the combination of reduced road system miles and restrictions on road system use are considered, 1998 provided greater security for grizzly bears than during any other year during the period. Also, restricted roads in 1998 provided greater protection than restricted roads in 1978 by limiting the amount of administrative use allowed. We have, and will continue, to make progress in managing access in a manner that provides for grizzly bears.



Figure 1: Total, open, and seasonally open miles of road on the Swan Lake, Spotted Bear, Hungry Horse, and Glacier View Ranger Districts, Flathead National Forest.

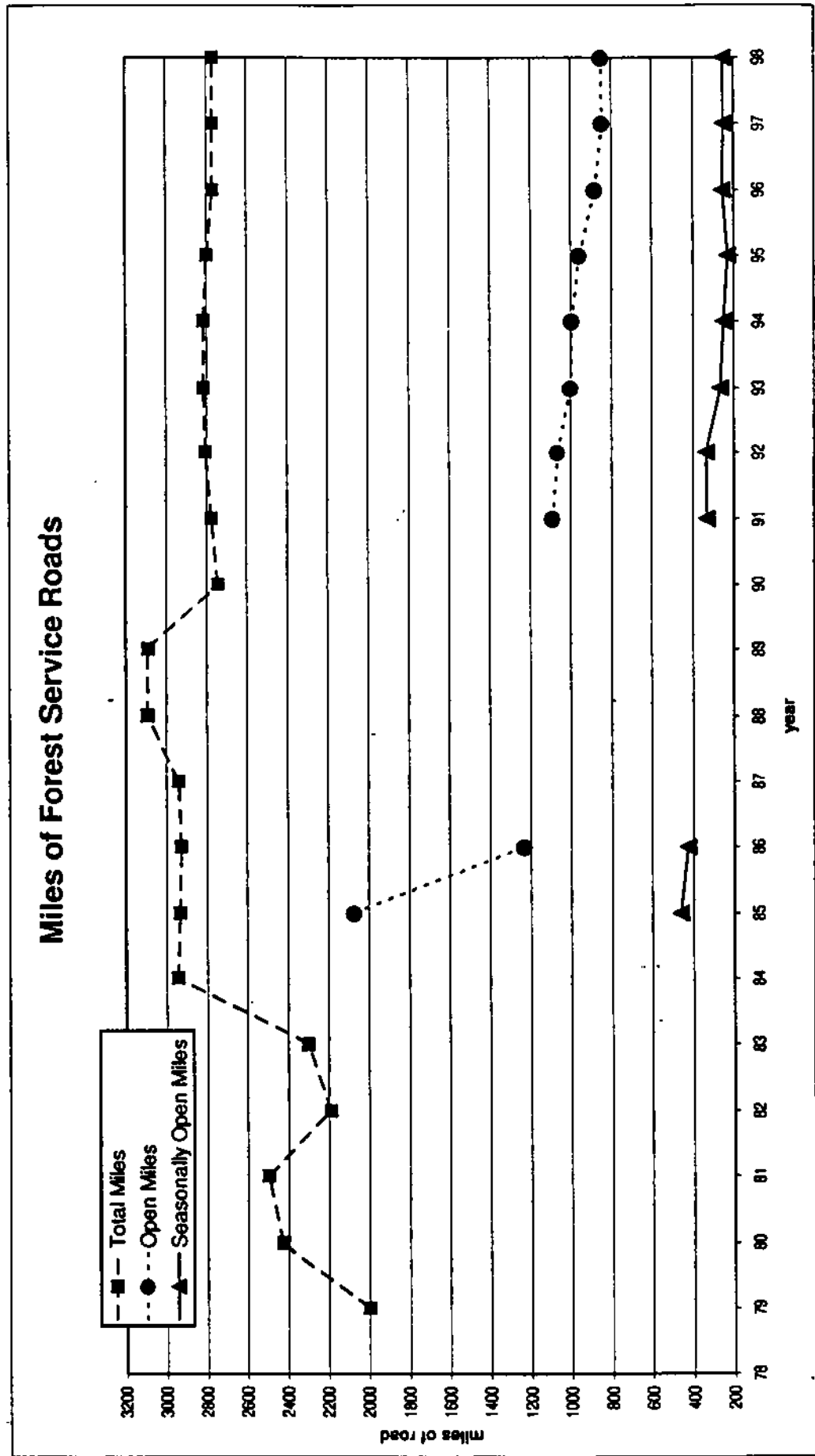


Table 1 displays total, open, and restricted road system information for the Swan Lake, Spotted Bear, Hungry Horse, and Glacier View Ranger Districts, the ranger districts on the Flathead Forest where Amendment 19 applies, for each year during the 1995-99 period. The road system was reduced by approximately 211 miles and restrictions increased through the period, with 67% of the system having restrictions for all or part of the grizzly bear non-denning period. In addition, a scheduling and tracking process was put in place that aids in limiting administrative use on restricted roads to <7/week.

Some roads that have all reclamation work completed are still counted in calculation processes. Roads utilized in calculations for Total Access Density include roads for which reclamation work has been completed, pulling of culverts, installation of drainage dips, distributing of rocks or debris on the road surface, but the road has not revegetated to the level required to meet Amendment 19 reclamation requirements. These roads have had all reclamation work completed, but still must be counted for Total Density calculations.

Table 1

	Starting Point 3/95	Implementation Year					% of Road Miles After 5 yrs	Difference Over 5 yrs
		1995	1996	1997	1998	1999		
Total Miles	2816	2800	2771	2771	2770	2605		-211
Open Miles	995	957	881	847	849	850	33%	-145
Open Miles Seasonal	252	230	254	251	246	248	10%	-4
Restricted Miles	1569	1612	1635	1674	1675	1506	57%	-63
New Construction Miles		1	3	1	0	0		+5

*Data includes all areas on the Forest except for the Tally Lake Ranger District. Since the roads data set cannot be partitioned, other than by ranger district, the Swan Lake Ranger District Island Unit roads are included, but is not in an area covered by Amendment 19 direction, and contains approximately 338 road miles.

The Forest has been implementing access management in response to Amendment 19 direction since 1995 (Amendment 19 decision May 1, 1995). Appendix B contains tables that display Subunit "existing percent values" for years 1995, 1997, 1998, 1999, and 2000 for open route density, total route density, and security habitat. See the footnote to Table 2 for the reason that 1996 data are not displayed. The reduction of the road system to approximately 2600 miles and restriction of approximately 1750 miles of that road system, as displayed in Table 1, resulted in the number of Subunits meeting Amendment 19 density and security habitat values displayed in Table 2. Summary percent open access density, percent total access density and percent security habitat information is displayed in the following tables for the 54 Subunits relevant to Amendment 19 direction.

Table 2* The number of Subunits (N=54) meeting or not meeting the 5- and 10-year Amendment 19 implementation schedule objectives, by calendar year. The determination for meeting the objective is made based upon data at the beginning of the year calendar indicated.

Access item	Number of Subunits Meeting Objectives					Number of Subunits Not Meeting Objectives				
	1/95	1/97	1/98	1/99	1/00	1/95	1/97	1/98	1/99	1/00
5 yr Objectives										
Open	34	34	34	35	35	20	20	20	19	19
Total	38	40	39	40	44	16	14	15	14	10
Security	37	37	37	38	39	17	17	17	16	15
10 yr Objectives										
Open	34	34	34	35	35	20	20	20	19	19
Total	34	36	36	36	37	20	18	18	18	17
Security	34	34	34	35	35	20	20	20	19	19

*A change in software from ERDAS to ACR/INFO in 1997 required a full redevelopment of the roads data base from a raster format to a vector format, information calculated from raster data are not directly comparable to information calculated from vector data. The 1995 starting point data for Amendment 19 was rebuilt so that comparisons with future years data would be possible. The road file for 1996 was not rebuilt in the vector format, and consequently is not available for this comparison, so data for year 1996 are not displayed.

Question (2)

"Please identify measures the Forest will carry-out both in the near future (in the next month or two) and over the next 2 years to help meet the 5-year goals or attain equivalent measures. Provide to us maps identifying the approximate 70 miles of road closures directed by existing Decisions but not yet implemented, as discussed at the meeting."

Approximately 73 miles of road that have been open either seasonally or year round have completed NEPA decisions for either restriction or reclamation that would allow them to be restricted to public use without additional planning. Individual road information for the 73 miles of road is included in the table and maps found in Appendix C. In summary: 58 additional miles of road has been or will be restricted using gates and/or berms during fall 2000 and spring 2001, most work was scheduled for fall 2000; currently planned restrictions on 2 roads, 8 miles, are not needed to meet A-19 requirements and implementation dates have not been identified; and currently planned restrictions 1 road, 7 miles, that is needed to meet A-19 requirements will be reviewed and restricted or reconsultation initiated for the Crane Mountain area.

Longer-term road restrictions will occur based upon the following:

- Multi resource project planning processes are scheduled for completion during 2001 in the Kah-Soldier, Spotted Bear Mountain, and Jungle-Addition Subunits. I expect access management decisions addressing A-19 objectives to result from these NEPA processes. Roads scheduled for restriction or reclamation through these processes will have motorized use restrictions imposed within 12 months of the decision.
- Project planning will be carried out to determine and decide road management actions necessary to accomplish open access density objectives, and are scheduled to be completed in the first and second years after this reconsultation process is complete, for seven additional Subunits having open access densities that are 5% or more above the five-year objective (although >5% above the objective, the Crane Mountain Subunit was

not included due to the recent access planning and implementation processes carried out for the area). Emphasis will be placed upon completing open access density project planning for Subunits in the South Fork of the Flathead River Drainage, including Doris Lost Johnny, Wounded Buck Clayton, Logan Dry Parks and the Peters Ridge Subunit on the Swan Lake District, as one group, and those Subunits in the North Fork Flathead River Drainage, Lower Whale, Red Meadow-Moose, and Hay Creek as a second group. Motorized use restrictions will be implemented within 12 months of project decisions.

Reclamation of roads may proceed at a similar pace as has occurred over the past 5 years, but will focus upon roads having multiple resource objectives that require reclamation, and will rely upon availability of funding. This would modify the schedule for total access density from a specific number to "making improvement" until modified through a subsequent consultation.

Question (3)

"Please provide a summary of the reasons why the 5-year goals could not be met in the 5-year period. At our September 13 meeting, lack of funding for road management was identified as one impediment to attaining the goals. Please provide information on the mechanisms the Forest will employ to ensure that funding for required access management is received in the future."

It is important to note that the Flathead National Forest is required to conduct NEPA analysis prior to making road management decisions. Due to the complexity and controversial nature of road closures and decommissioning, Environmental Assessment or Environmental Impact Statements are most often required.

The budget for the Flathead National Forest has dropped significantly during recent years. In 1997 the total Forest budget was \$17.1 million. In 2000, the total budget has dropped to \$12.6 million, a decrease of \$4.5 million. A large portion of this decrease occurred in funds for planning and NEPA analysis. Due to this unprecedented reduction in funding, the Forest's workforce has decreased, along with the number of NEPA analyses that can be completed in any one year. The net result has been fewer NEPA decisions than were anticipated when Amendment 19 was signed.

In addition, the workload associated with appeals, litigation and Freedom of Information requests associated with the Forest's NEPA decisions has increased substantially during this same time frame. That increased workload has fallen on many of the same people that work on NEPA analyses to implement Amendment 19, further slowing our ability to produce NEPA decisions.

Funding for implementation of road management decisions has also been reduced below the level needed to keep pace with Amendment 19 objectives. Due to the cumulative effect of funding and workforce reductions, the location and rate of Amendment 19 implementation has been greatly affected.

As we have restricted roads in recent years, local resistance to more road closures has increased, which in turn has led to additional time and expense required in our NEPA processes. Resistance to more road closures on the Flathead Forest is extremely high within many public user groups, requiring time and effort to work with interest groups in the formation of alternatives and/or in conveying the rationale for closures. The level of public concern for this issue makes the NEPA planning associated with road closures volatile, with complex social perception issues to be resolved with every road closure.

Question (4)

"Please prepare an analysis of the Forest's current environmental baseline as it may affect grizzly bears, considering any relevant new information available since 1995 as well as any specific information and analysis of the subunits where the goals are not being met."

Roading Within Subunits And Grizzly Bear Home Ranges:

Grizzly bears have shown that they can live and reproduce, with varying levels of success, under a wide range of habitat, environmental, and human associated conditions. Amendment 19 established a conservative set of access related objectives based upon South Fork female grizzly bears. Additional review of South Fork female grizzly bear home ranges (N=10) and Flathead Forest Subunits (N=40) road data indicate that female grizzlies have been living in areas having a range of road access densities, and that existing access densities within Subunits in most cases are similar to densities found within female grizzly bear home ranges.

An analysis of roading within 10 South Fork Study female grizzly bear home ranges, for a total of 30 bear years of data (Rationale and Choices Made in The Review and Development of an Access Direction Proposal for the NCDE Grizzly Bear Ecosystem, November 1998, Appendix 2 and 3), and roading within the 40 Subunits on the Flathead Forest subject to Amendment 19 numerical objectives (1999 Amendment 19 monitoring report, May 12, 2000), displays considerable similarity in the range of open road density, total road density, and secure area values between grizzly bear home ranges and Subunits. Tables 3, 4, and 5 display summary grizzly bear home range and Subunit values for open access density, total access density, and secure area. A more detailed display of data is found in Appendix D.

The following Tables are structured so that the top row displays increasing percentages >1 mi/sq mi open access density (Table 3), or >2 mi/sq mi total access density (Table 4), or "Core Area" (Table 5). Access percentage values are displayed along the top row of each table, with the range based upon values found within grizzly bear home ranges or existing Subunit conditions. The 2nd and 3rd row of each table is the cumulative percentage of bear years or Subunits having the same or less value than that displayed in the top row. The last row in each table shows the number of bears that had the row one percentage value within their home range.

Table 3 Open Access Density*

% >1 mi/sq mi	0	2	6	10	15	19	22	25	27	31	32	33
Cumulative % of Bear years (N=30)	0	13	33	43	53	70	73	77	83	87	97	97
Cumulative % of Subunits (N=40)	15	20	30	38	48	53	60	68	70	83	85	93
Number of Individual Bears at this value (N=10)	0	4	6	5	6	4	3	2	2	2	2	1

Table 4 Total Access Density*

% >2 mi/sq mi	0	4	8	13	15	19	24	29	30	37	42	42+
Cumulative % of Bear years (N=30)	0	13	27	40	63	70	80	90	93	97	97	100
Cumulative % of Subunits (N=40)	18	40	40	48	50	58	75	78	78	85	95	100
Number of Individual Bears at this value (N=10)	0	3	4	6	4	4	3	3	2	1	1	1

Table 5 Security Area*

% "Core"	26	35	38	48	54	60	68	74	82	88
Cumulative % of Bear years (N=30)	0	0	3	7	23	47	60	73	93	100
Cumulative % of Subunits (N=40)	3	5	5	13	25	38	50	63	80	90
Number of Individual Bears at this value (N=10)	0	0	1	2	4	4	6	5	3	1

*Available bear home range data were presented as kilometer/square kilometer (km/km sq), while Amendment 19 Subunit direction is presented as miles/square miles (mi/mi sq). Since the two data sets are not directly comparable, nor mathematically convertible, Flathead National Forest Subunit values were calculated in both measures and this scale utilized to convert km/km sq into mi/mi sq. The years of bear data presented above is a product of this conversion, and may have errors of approximately 1%-2%.

The long-term improvement in access conditions expected from implementation of Amendment 19 should aid in assuring the distribution and viability of the grizzly bear population on the Flathead National Forest. But, access conditions found in adult female home ranges in the South Fork of the Flathead indicate that a wider range of conditions are useable by most grizzly bears, and most Subunits under Amendment 19 direction are within the range of access values used by bears.

Levels of Rading Within The Grizzly Bear Management Area On The Forest:

Flathead National Forest land ownership occurs within 73 grizzly bear Subunits totaling 2,452,410 acres, while Amendment 19 applies to 54 Subunits totaling 1,662,162 acres. The area on the Flathead National Forest managed for grizzly bears includes areas within the Swan Valley, North Fork Flathead, and Stillwater River Drainages where PCTC, DNRC, and/or small private may account for substantial land ownership and the South Fork, Middle Fork, and Swan River Drainages where areas of wilderness management direction are substantial in size. All of these areas and land categories play an important role in determining and describing grizzly bear management and habitat suitability on the Forest.

If the area within the 54 Subunits under Amendment 19 management (1,662,156 acres) is considered, and is calculated independent of Subunit boundaries, Flathead National Forest ownership meets Amendment 19 access criteria for open route density at $>1\text{mi}/\text{mi}^2 = 17\%$, for total route density at $>2\text{mi}/\text{mi}^2 = 19\%$, and for security habitat at 66%.

Table 6 displays the amount of area and number of Subunits, containing Flathead National Forest ownership irrespective of access direction, that would meet or not meet the 5 and 10 year Amendment 19 access objectives. All areas, except for 12%, meet some of the Amendment 19 objectives. Nearly 74% (1.8 million acres) meet all 5-year objectives, and nearly 73% meet all 10 year objectives.

Table 6

Category of Subunit	Number of Subunits	Number of Acres	Percent of Total Acres
Meets All 10 yr Objs	51*	1777506	72.5
Meets All 5 yr Objs	52*	1811543	73.9
Meets 5 and 10 yr Open	53*	1867401	76.1
Meets 10 yr Total	56*	1928129	78.6
Meets 5 yr Total	62*	2098265	85.6
Meets 10 yr Security	53*	1829415	74.6
Meets 5 yr Security	57*	1957821	79.8
Meets No 5 or 10 yr Objs	9	294830	12.0

*Includes 3 Subunits in the Stillwater River that are predominantly DNRC ownership and were considered as meeting "no net loss" Amendment 19 objectives, and 22 Subunits that contain wilderness-designated lands.

Although using Subunit boundaries for this analysis would change the distributional characterization, these data indicated that most Flathead National Forest ownership is currently suitable for grizzly bear use as measured by Amendment 19 access criteria.

Cooperative Access Management:

Amendment 19 included an objective to "improve habitat effectiveness through cooperative management with other landownerships, land adjustments, or other means." The Forest, in cooperation with Plum Creek Timber Company (PCTC), Montana Department of Natural Resources and Conservation (DNRC), and the U.S. Fish and Wildlife Service (USFWS) developed and implemented an agreement for access management and timber harvest scheduling in the intermingled ownership lands of the Swan Valley. Access management requires cooperative management by all landowners when an intermingled ownership pattern exists. The Swan Valley Grizzly Bear Conservation Agreement (USFWS 1995) sets in place a cooperative management plan to promote grizzly bear habitat use and security on approximately 370,000 acres.

Mortality Risk and Habitat Use on Private Lands:

Many grizzly bears in the NCDE depend upon both public and private lands to provide the full complement of habitats required to meet their needs. Thus, recovery and conservation of the NCDE grizzly population is dependent upon both ownerships. The Forest recognizes the interdependence of public and private lands, and has joined with Montana Department of Fish, Wildlife, and Parks (MDFWP), Glacier National Park, USFWS, and the National Fish and Wildlife Foundation in funding a Grizzly Bear Specialist position with MDFWP, that works to correct problem situations, many of which occur on private lands. This work has pioneered efforts in rapid and complete cleanup of railroad grain spills, the use of aversive conditioning techniques to educate bears, including the use of Karelian Bear dogs, and the hazard and necessity of the cleanup of large and small attractants at private residences. This effort may lead to an increased ability of grizzly bears to utilize habitats in areas currently having high mortality risk and low use potential.

Public Acceptance of Access Management:

Access management on National Forests depends considerably upon agreement, or at least grudging acceptance, by the general public that program objectives are "desirable," program elements are required to achieve the objectives, and the costs are worth the benefits. There have

always been segments of the public that did not agree with some elements of the access management program. The level of opposition within the public concerning access management has been growing over the recent past, as well as the level of polarization between segments of the public. Increased opposition and polarization is displayed in the number of appeals, litigations, and FOIAs filed concerning forest management projects, the number and tone of letters to the editor in local newspapers, the amount of vandalism to gates and other road restriction structures, the public encouragement of gate vandalism by a local radio station, the emotion and anger displayed between individuals conveying differing points of view, the emotion and anger displayed by individuals toward Forest Service employees, and the formation of interest groups focused primarily upon access issues.

Public attitudes toward access management has led to formation of interest groups that either support or oppose access management, that has in-turn led to higher costs and slower than expected implementation of the access management program. In addition, the level and strength of feelings associated with this issue may cause some to take out their frustrations directly and result in increased mortality risk to grizzly bears and/or escalating damage and violation of road closure devices.

Too rapid an implementation of road restrictions likely will lead to an increase of the public controversy. A consistent dedicated pace will allow for work with public interests to increase understanding, which should result in improved implementation, and better success of the overall grizzly bear management program.

Food Storage:

The life pattern of grizzly bears includes an extended winter hibernation period that leads to the need for large weight gains during the nonhibernating period. The need to gain large amounts of weight during the relatively short summer-fall period "makes" bears extremely "food seeking" during the time they are out of the den. Humans, as they recreate on the Forest, often take along large quantities of food and livestock feed, and produce considerable garbage. The food seeking activity of bears often brings them into areas near people because of the attraction and potential of food rewards. This conflict situation often leads to nuisance bear behavior and the removal of bears from the population. In order to reduce the risk to the public and grizzly bears, the Forest implemented an order (USFS 1995) that requires forest visitors to store items that may attract grizzly bears, in a "bear resistant manner." Implementation of this food storage order is expected to reduce nuisance bear behavior and grizzly bear mortality risk on the Forest.

Grizzly Bear Population Monitoring:

The Forest, along with Glacier National Park, The Blackfoot Tribe, DNRC, MDFWP, and the Lewis and Clark and Kootenai National Forests, has implemented a population monitoring technique that is providing improved population data. Grizzly bear DNA population monitoring was carried out within the northern third of the NCDE in 1998 and 2000, with results available for 1998. DNA hair sampling covered most areas of the NCDE north of Federal Highway 2, and a small area south of Highway 2 east of the Continental Divide. Two hundred and fourteen individual grizzly bears were genetically identified, with a population estimate of 379 (95%CI=290-575); results combined 2 different hair sample processes with the sexes calculated separately, as each method appears to have a sexual selection bias (Kate Kendall, 2000, unpublished data). The 379 bear estimate for this third of the NCDE is nearly equal to the minimum acceptable NCDE-wide grizzly bear population of 391 identified in the Grizzly Bear Recovery Plan (USFWS 1993), if female and cub monitoring objectives are achieved.

The success of the DNA monitoring protocol has led to proposals for its application to other areas in the NCDE, including areas of the Flathead National Forest. The costs and effort associated with implementation of DNA sampling over a large area are substantial, and the Forest has applied for and received funding consideration to carry out the work in 1998 and 2000, and now to expand into a new area in 2001. The area currently proposed for 2001 monitoring is the Swan Valley/Missions Mountains/Upper Clearwater River/Jocko area. Additional population information for this area would set a context for grizzly bear levels that would help to judge the success of the Swan Valley Conservation Agreement and implementation of access management in the area.

This improvement in population monitoring information should allow for better understanding of population levels, trends, and changes related to management actions, and corrections to management direction if/when required.

New Access Information From The South Fork Grizzly Bear Study:

A final report was produced for the South Fork Grizzly Bear Study (MDFWP 1997) that included access and habitat considerations and analysis processes not available when Amendment 19 was developed. The report details analysis processes that allow for rating of habitat quality, highlights the fact that habitats are seasonal and found in different locations between seasons, and documented differences in bear use, in relation to roads, depending upon the quality of the habitat present. This new information calls into question some aspects of Amendment 19 direction; including limited consideration of habitat quality, and a "fixed site" Secure Habitat location. The scientific foundation provided by the information contained in this final report, much of which has been published in peer reviewed journals, is far superior to the information base used in the development of Amendment 19. If access management is to adequately provide for grizzly bears over time, the tie between habitat quality and access management implementation requires strengthening.

The NCDE Subcommittee chartered a technical task group to develop an approach that better integrates the new understandings concerning habitat quality and seasonal variation into access management. Over the past few years, we have participated in and provided technical support to the task group. Substantial analysis and documentation has been completed during this period in the development of a Proposed Rule that differs substantially from the terms and conditions found in the current Amendment 19 incidental take statement. This Rule has been subjected to a formal peer review process. We anticipate that action by the NCDE subcommittee, as to whether to move forward in adopting the Proposed Rule, will likely occur during 2001.

Question (5)

"Please identify the amount of time that is needed for the requested extension. As we discussed and as your letter states, new information regarding access management in the NCDE will be available in the near future."

The Forest will select a course of action to deal with access direction on the Forest soon after a NCDE decision regarding the Proposed Rule is completed. If the Subcommittee decides to proceed with the Proposed Rule, I expect this would lead to a proposal to amend access management direction contained in the Flathead Forest Plan. If the decision is otherwise, we will work with USFWS to develop, adopt, and implement a revised Amendment 19

implementation schedule. The following are scenarios and timeline estimates, one of which may be carried out, depending upon the chosen course of action.

Possible Scenarios and Timeline Considerations and Estimates:

1) Amendment of the LRMP to incorporate the Proposed Rule.

- NCDE finals access direction as Proposed Rule 3/01
- BA/BO for NCDE completed (12 mo) 3/02
- NOI for Flathead Amendment (1 mo) 4/02
- ROD for Flathead Amendment (18 mo) 10/03

2) Revision of the LRMP, including incorporation of the Proposed Rule

- NCDE finals access direction as Proposed Rule 3/01
- NOI for Flathead Forest Plan Revision 4/02
- Flathead Revision NEPA analysis 4/06
- BA/BO completed 4/06
- ROD for Flathead Amendment (6 mo) 10/06

3) Amend Amendment 19 to modify the implementation schedule

- NCDE finals access direction as Interim Direction 3/01
- BA/BO for Flathead completed (12 mo) 3/02

In Summary,

- The current motorized access condition on the Flathead National Forest provides for a substantial, well-distributed grizzly bear population.
- Considerable progress in management of motorized access on the Forest, that benefit and expand areas used by grizzly bears, has been made since implementation of the original LRMP and later Amendment 19.
- Progress in meeting access objectives, as outlined in this letter, will continue, and progress made to date will not be lost.
- The Forest and others are involved in many necessary ongoing grizzly bear conservation efforts that reduce grizzly bear mortality risk and provide for greater use of habitats by grizzly bears.
- Preliminary results from DNA population monitoring indicate a population estimate of 379 grizzly bears within the northern third of the NCDE, while the Recovery Plan identifies the minimum target population for the entire NCDE as 391 bears.
- There is some uncertainty concerning how Amendment 19 deals with seasonal habitat issues, based upon new information and analysis processes developed as a consequence of the final South Fork Grizzly Bear Study. The NCDE Subcommittee is considering new access management direction based upon this new information, with a final recommendation likely in 2001.

In light of current access conditions on the Forest, the other necessary and ongoing conservation activities that effect grizzly bear that the Forest is supporting and implementing, the uncertainty

concerning new access information and analysis processes that should be considered, the high degree of public polarization associated with access management, and the high cost of access management implementation; I request that the current Amendment 19 implementation schedule be modified to include the proposed actions described in this letter and that they become the Amendment 19 implementation schedule through calendar year 2003, unless modified.

Sincerely,

A handwritten signature in black ink, appearing to read "C. Barbouletos". The signature is fluid and cursive, with a large initial "C" and a stylized "B".

CATHY BARBOULETOS
Forest Supervisor

3/23/2015

ROAD DECOMMISSIONING PROJECTS

9:36 AM

DIST	Decision Name	Road No.	Spur	Beginning System	System Now	Year Const	Pres. Init. \$\$	Year Reclaim (CY)	Year Reclaim (FY)	AD-112 on file	Beg. M.P.	End M.P.	Total Length	Only Has Decision	Category 3 Roads Reclaimed & Left as System Roads, Still Monitor for A19	Category 1 System Roads Reclaimed and Moved to Historic But Still Monitor for A19	Category 2 System Roads Reclaimed and Moved to Historic = Revegetated - No Monitoring	Category 4 Moved to Historic, Naturally Revegetated, No Contract Work Needed, No Monitoring	TOTALS
6	Battery Mountain T.S. (FONSI)	1666	A	NFSR	NOT	1967		1997	1997	✓	0.000	3.060	3.060				3.060		
	27-May-87	1666	Y	NFSR	NOT	1989		2009	2009	✓	0.000	1.100	1.100				1.100		
	Battery Mountain T.S. (FONSI)																		
	TOTALS												4.160	0.000	0.000	0.000	4.160	0.000	4.160
7	Big Creek 94																		
7	7-Jul-94	316	A	NFSR	NOT	1963		1995	1995	✓	0.000	0.950	0.950				0.950		
7	Contract #43-0385-5-0227	316	A	NFSR	NOT	1963		1995	1995	✓	0.950	2.890	1.940				1.940		
	Big Creek 94																		
	TOTALS												2.890	0.000	0.000	0.000	2.890	0.000	2.890
4	Bent Flat II	1678		NFSR	NOT	1964		2004	2004	✓	0.000	0.250	0.250			0.250			
4	29-Sep-97	1678		NFSR	NOT	1964	Y	1999	1999	✓	0.250	1.050	0.800			0.800			
4		2836		NFSR	NOT	1989	Y	1999	2000	✓	1.340	2.270	0.930			0.930			
4		2836	A	NFSR	NOT	1989	Y	1999	2000	✓	0.000	0.670	0.670			0.670			
4		2836	B	NFSR	NOT	1989		2004	2004	✓	0.000	1.040	1.040			1.040			
4		2849		NFSR	NOT	1963		2004	2004	✓	0.000	2.000	2.000			2.000			
4		2849	Y	NFSR	NOT	1963		2004	2005	✓	0.000	0.200	0.200					0.200	
4		2850		NFSR	NOT	1969		2004	2004	✓	2.200	5.200	3.000			3.000			
4		2851		NFSR	NOT	1989	Y	1999	2000	✓	2.220	3.760	1.540			1.540			
4		2851	A	NFSR	NOT	1970	Y	1999	2000	✓	0.000	0.900	0.900				0.900		
4		2851	B	NFSR	NOT	1989	Y	1999	2000	✓	0.000	1.050	1.050			1.050			
4		2851	C	NFSR	NOT	1969	Y	2004	2004	✓	0.000	0.050	0.050			0.050			
4		2851	C	NFSR	NOT	1969	Y	1999	2000	✓	0.050	2.290	2.240			2.240			
4		11401		NFSR	NOT	1990		2004	2004	✓	0.000	1.500	1.500			1.500			
4		11401	A	NFSR	NOT	1968	Y	1999	2000	✓	0.000	0.500	0.500				0.500		
4		11401	B	NFSR	NOT	1969	Y	1999	2000	✓	0.000	0.600	0.600				0.600		
	Bent Flat II																		
	TOTALS												17.270	0.000	0.000	15.070	2.000	0.200	17.270
7	Big Mtn Ski & Summer Resort																		
7	17-Jul-95	316		NFSR							0.000	0.000	0.000	0.000					
7	Done by Donation 9/12/96	316	E	NFSR	NOT	1960		1996	1996	✓	4.800	6.000	1.200				1.200		
7		316	E	NFSR	NOT	1960		2012	2012	✓	0.311	4.800	4.489				4.489		
7		1655	B	NFSR	NOT	1965		2002	2003	✓	0.090	1.400	1.310				1.310		
7		1657		NFSR	NOT	1980		2012	2012	✓	0.000	0.200	0.200					0.200	
7		1657		NFSR	NOT	1980		1997	1997	✓	0.200	2.720	2.520				2.520		
7		1668		NFSR	NOT	81		2004	2005	✓	0.000	0.700	0.700					0.700	
7		1668		NFSR	NOT	81/85		2002	2003	✓	0.700	4.800	4.100				4.100		
7	(tributary)	1695		NFSR	NOT	1970		2012	2012		0.000	0.800	0.800					0.800	
7		1696		NFSR	NOT	69/92		2004	2005	✓	3.442	6.010	2.568				2.568		
7		1696	A	NFSR	NOT	1992		2004	2005	✓	0.000	1.780	1.780				1.780		
7		1696	Y	NFSR							0.000	0.000	0.000	0.000					
7	Done by Donation 9/12/96	5284		NFSR	NOT	1990		1996	1996	✓	1.200	1.700	0.500				0.500		
7		5284		NFSR	NOT	1981		1997	1997	✓	0.000	1.200	1.200				1.200		
7		5286		NFSR	NOT	1981		2008	2008	✓	0.000	1.700	1.700					1.700	
7		5286		NFSR	NOT	1981		1997	1997	✓	1.700	4.210	2.510				2.510		
7		10907		NFSR	NOT	1970		2003	2004	✓	0.000	1.553	1.553				1.553		
7	(tributary)	10908		NFSR	NOT	1970		2003	2004	✓	0.000	0.215	0.215				0.215		
	Big Mtn Ski & Summer Resort																		

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	TOTALS												27.345	0.000	0.000	0.000	23.945	3.400	27.345
7	Center Mountain	1671	D	NFSR	NOT	19783		2005	2006	✓	0.000	1.100	1.100					1.100	
7	20-Aug-96	5226		NFSR	NOT	1972		1997	1997	✓	0.000	3.500	3.500			3.500			
7		5226	B	NFSR	NOT	1972		1997	1997	✓	0.000	1.100	1.100				1.100		
7	Center Mountain	5226	C	NFSR	NOT	1974		1997	1997	✓	0.000	0.100	0.100				0.100		
7		5281		NFSR	NOT	1979		1997	1997	✓	0.000	1.590	1.590				1.590		
7		5289		NFSR	NOT	1977		1997	1997	✓	0.000	1.500	1.500			1.500			
7		5298		NFSR	NOT	1991		1997	1997	✓	0.000	0.850	0.850			0.850			
7		5298	A	NFSR	NOT	1980		1997	1997	✓	0.000	0.100	0.100			0.100			
7		5330		NFSR	NOT	1975		1997	1997	✓	0.000	1.900	1.900			1.900			
7	(tributary)	5330	A	NFSR	NOT	1980		1997	1997	✓	0.000	0.400	0.400				0.400		
7	(tributary)	5330	B	NFSR	NOT	1980		1997	1997	✓	0.000	0.200	0.200				0.200		
7	(tributary)	5330	C	NFSR	NOT	1980		1997	1997	✓	0.000	0.500	0.500				0.500		
7		10887		NFSR	NOT	1968		1997	1997	✓	0.000	0.800	0.800				0.800		
	Center Mountain												13.640	0.000	0.000	7.850	4.690	1.100	13.640
	TOTALS																		
1	Crane Mountain Reclamation																		
	6-Oct-95																		
1	Contract #44-0385-5-0307	129		NFSR	NOT	1970		1996	1996	✓	6.600	8.650	2.050				2.050		
1	Contract #44-0385-5-0307	498		NFSR	NOT	1965		1996	1996	✓	17.444	19.300	1.856				1.856		
1	Contract #44-0385-5-0307	5247		NFSR	NOT	1967		1996	1996	✓	0.000	1.100	1.100				1.100		
1	Contract #44-0385-5-0307	9687		NFSR	NOT	1981		1996	1996	✓	0.000	0.990	0.990				0.990		
1	Contract #44-0385-5-0307	9735		NFSR	NOT	1977		1996	1996	✓	0.000	0.050	0.050				0.050		
1	Contract #44-0385-5-0307	9736		NFSR	NOT	1977		1996	1996	✓	0.000	0.100	0.100				0.100		
1	Contract #44-0385-5-0307	9743		NFSR	NOT	1975		1996	1996	✓	0.000	1.120	1.120				1.120		
1	Contract #44-0385-5-0307	9817		NFSR	NOT	1981		1996	1996	✓	0.000	1.650	1.650				1.650		
1	Contract #44-0385-5-0307	9818		NFSR	NOT	1990		1996	1996	✓	0.000	2.500	2.500				2.500		
1	Contract #44-0385-5-0307	9857		NFSR	NOT	1989		1996	1996	✓	0.000	1.300	1.300				1.300		
1	Contract #44-0385-5-0307	10135		NFSR	NOT	1981		1996	1996	✓	0.850	3.470	2.620				2.620		
1	Contract #44-0385-5-0307	10137		NFSR	NOT	1980		1996	1996	✓	0.000	0.800	0.800				0.800		
1	Contract #44-0385-5-0307	10213		NFSR	NOT	1982		1996	1996	✓	0.000	0.660	0.660				0.660		
1	Contract #44-0385-5-0307	10630		NFSR	NOT	1977		1996	1996	✓	0.000	1.410	1.410				1.410		
1	Contract #44-0385-5-0307	9735		NFSR	NOT	1977		1995	1995	✓	0.050	1.110	1.060					1.060	
1	Contract #44-0385-5-0307	9736		NFSR	NOT	1977		1995	1995	✓	0.100	0.820	0.720					0.720	
1	Contract #44-0385-5-0307	9743		NFSR	NOT	1975		1995	1995	✓	1.120	1.800	0.680					0.680	
1	Contract #44-0385-5-0307	9818		NFSR	NOT	1970		1995	1995	✓	2.500	3.500	1.000					1.000	
1	Contract #44-0385-5-0307	10628		NFSR	NOT	1977		1995	1995	✓	0.000	0.300	0.300					0.300	
1	Contract #44-0385-5-0307	10630	Y	NFSR	NOT	1977		1995	1995	✓	0.000	0.700	0.700					0.700	
	Crane Mountain Reclamation												22.666	0.000	0.000	0.000	18.206	4.460	22.666
	TOTALS																		
1	Crane Mountain Salvage	129	Y	NFSR	NOT	1990		2000	2000	✓	0.000	0.830	0.830			0.830			
1	18-Jun-96	498		NFSR							9.300	17.444	8.144	8.144					
1		498	Y	NFSR							0.000	0.060	0.060	0.060					
1		5242		NFSR	NOT	1981		2000	2000	✓	0.000	0.400	0.400			0.400			
1		5243		NFSR	NOT	1981		2000	2000	✓	0.000	1.000	1.000			1.000			
1		5244		NFSR	NOT	1981		2000	2000	✓	0.000	0.800	0.800			0.800			
1		5244	A	NFSR	NOT	1984		2000	2000	✓	0.000	0.890	0.890			0.890			
1		5245		NFSR	NOT	1982		2000	2000	✓	0.000	0.770	0.770			0.770			

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1		9702		NFSR							0.000	2.400	2.400	2.400					
1		9704	Z	NFSR							0.000	0.100	0.100	0.100					
1		9705		NFSR	NOT	1965		2000	2000	✓	0.270	0.729	0.459				0.459		
1		9708		NFSR							0.000	4.200	4.200	4.200					
1		9711		NFSR	NOT	1980		2000	2000	✓	0.000	2.380	2.380			2.380			
1		9711	A	NFSR	NOT	1981		2000	2000	✓	0.000	0.630	0.630			0.630			
1		9712		NFSR							2.300	4.820	2.520	2.520					
1		9714	Y	NFSR	NOT	1960		2000	2000	✓	0.000	0.900	0.900				0.900		
1		9716		NFSR							0.000	3.100	3.100	3.100					
1		9716	B	NFSR	NOT	1979		2000	2000	✓	0.820	0.950	0.130			0.130			
1	Crane Mountain Salvage	9717		NFSR							0.000	4.120	4.120	4.120					
1		9717	A	NFSR	NOT	1975		2000	2000	✓	0.000	0.600	0.600			0.600			
1		9719	X	NFSR	NOT	1970		2000	2000	✓	0.000	0.900	0.900			0.900			
1		9719	Y	NFSR	NOT	1970		2000	2000	✓	0.000	0.700	0.700			0.700			
1		9720		NFSR							0.000	2.430	2.430	2.430					
1		9722		NFSR	NOT	1980		2000	2000	✓	0.000	1.010	1.010			1.010			
1		9723		NFSR		1976					0.000	0.400	0.400	0.400					
1		9724		NFSR	NOT	1972		2000	2000	✓	0.000	0.900	0.900				0.900		
1		9725		NFSR	NOT	1972		2000	2000	✓	0.000	1.600	1.600			1.600			
1		9726		NFSR							0.000	2.300	2.300	2.300					
1		9726	A	NFSR	NOT	1976		2000	2000	✓	0.000	1.600	1.600				1.600		
1		9726	B	NFSR							0.000	0.900	0.900	0.900					
1		9726	Y	NFSR							0.000	0.800	0.800	0.800					
1		9745	Y	NFSR	NOT	1978		2000	2000	✓	0.000	0.220	0.220			0.220			
1		9746		NFSR							0.000	4.870	4.870	4.870					
1		9746	C	NFSR	NOT	1978		2000	2000	✓	0.000	0.600	0.600			0.600			
1		9747		NFSR	NOT	1977		2000	2000	✓	0.000	0.760	0.760			0.760			
1		9748		NFSR	NOT	1982		2000	2000	✓	0.000	0.950	0.950			0.950			
1		9749		NFSR	NOT	1977		2000	2000	✓	0.000	1.150	1.150			1.150			
1		9754		NFSR							0.000	1.040	1.040	1.040					
1		9754	A	NFSR							0.000	1.700	1.700	1.700					
1		9756		NFSR							0.000	0.860	0.860	0.860					
1		9757		NFSR							0.000	2.200	2.200	2.200					
1		9764		NFSR							0.000	2.380	2.380	2.380					
1		9765		NFSR							0.000	1.510	1.510	1.510					
1		9765	A	NFSR							0.000	0.940	0.940	0.940					
1		9770		NFSR							0.000	1.370	1.370	1.370					
1		9779		NFSR	NOT	1985		2000	2000	✓	0.000	2.550	2.550			2.550			
1		9804		NFSR							0.000	1.600	1.600	1.600					
1		9812		NFSR	NOT	1982		2000	2000	✓	0.000	0.850	0.850			0.850			
1		9823		NFSR	NOT	1982		2000	2000	✓	0.000	0.410	0.410			0.410			
1		9824		NFSR	NOT	1985		2000	2000	✓	0.000	0.420	0.420			0.420			
1		9847		NFSR							0.000	0.700	0.700	0.700					
1		9849		NFSR							0.000	1.100	1.100	1.100					
1		9874		NFSR							0.000	0.880	0.880	0.880					
1		9885		NFSR							0.000	3.600	3.600	3.600					
1		9885	A	NFSR							0.000	2.130	2.130	2.130					
1		9896		NFSR							0.000	1.960	1.960	1.960					
1		10218		NFSR							0.000	1.640	1.640	1.640					
1		10221		NFSR							0.000	0.270	0.270	0.270					
1		10222	A	NFSR	NOT	1960		2000	2000	✓	0.000	0.300	0.300				0.300		

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1		10223		NFSR							0.000	0.700	0.700	0.700					
1		10229		NFSR	NOT	1987		2000	2000	✓	10.700	12.330	1.630				1.630		
1		10229	F	NFSR	NOT	1986		2000	2000	✓	0.000	0.080	0.080				0.080		
1		10533		NFSR	NOT	1987		2000	2000	✓	0.000	2.540	2.540				2.540		
1		10533	A	NFSR	NOT	1990		2000	2000	✓	0.000	0.070	0.070				0.070		
1		10534		NFSR	NOT	1987		2000	2000	✓	0.000	1.370	1.370				1.370		
1		10535		NFSR	NOT	1987		2000	2000	✓	0.000	0.600	0.600				0.600		
1		10536		NFSR	NOT	1987		2000	2000	✓	0.000	0.300	0.300			0.300			
1		10537		NFSR	NOT	1977		2000	2000	✓	0.000	0.300	0.300				0.300		
1		10540		NFSR	NOT	1965		2000	2000	✓	0.000	0.200	0.200				0.200		
1		10541		NFSR	NOT	1987		2000	2000	✓	0.000	0.890	0.890				0.890		
1		10543		NFSR							0.100	1.770	1.670	1.670					
1		10584		NFSR	NOT	1960		2000	2000	✓	0.000	0.400	0.400				0.400		
1		10585		NFSR							0.000	1.300	1.300	1.300					
1		10612		NFSR							0.000	1.090	1.090	1.090					
1	Crane Mountain Salvage	10616		NFSR	NOT	1960		2000	2000	✓	0.000	1.400	1.400				1.400		
1		10617		NFSR							0.000	2.060	2.060	2.060					
1		10618		NFSR							0.000	0.610	0.610	0.610					
1		10626		NFSR							0.000	1.950	1.950	1.950					
1		10627		NFSR	NOT	1977		2000	2000	✓	0.000	0.800	0.800			0.800			
1		10638		NFSR	NOT	1977		2000	2000	✓	0.000	0.400	0.400				0.400		
	Crane Mountain Salvage																		
	TOTALS												107.293	71.604	0.000	21.650	14.039	0.000	107.293
6	Firefighter Project	1621		NFSR						✓	2.500	3.417	0.917	0.917					
		1621		NFSR	NOT	1970		2010	2010	✓	3.417	4.000	0.583				0.583		
6	8/12/2009	1621	A	NFSR						✓	0.000	0.189	0.189	0.189					
		1621	A	NFSR	NOT	1963		2010	2010	✓	0.189	0.900	0.711				0.711		
6		1630		NFSR	NOT	1962		2010	2010	✓	0.000	2.000	2.000				2.000		
6		1630	A	NFSR	NOT	1962		2010	2010	✓	0.000	1.550	1.550				1.550		
6		5320		NFSR	NOT	1965		2010	2010	✓	0.000	0.400	0.400					0.400	
6		10190		NFSR	NOT	1971		2010	2010	✓	0.000	2.000	2.000				2.000		
6		11010		NFSR	NOT	1985		2010	2010	✓	0.000	0.700	0.700				0.700		
6		11010	A	NFSR	NOT	1985		2010	2010	✓	0.000	0.780	0.780				0.780		
6		11042		NFSR							0.000	0.500	0.500	0.500					
6		11042	A	NFSR							0.000	0.500	0.500	0.500					
6		11047		NFSR	NOT	1958		2010	2010	✓	0.000	1.900	1.900					1.900	
6		11050		NFSR	NOT	1958		2013	2013		0.000	0.500	0.500					0.500	
6		11069		NFSR	NOT	1992		2010	2010	✓	0.150	0.250	0.100				0.100		
	Firefighter Project																		
	TOTALS												13.330	2.106	0.000	0.000	8.424	2.800	13.330
1	Glacier Loon Fuels Reduction	79	B	NFSR	NOT	1962		2014	2015		0.000	0.200	0.200				0.200		
1	13-Feb-13	79	Y	NFSR		1960					0.000	0.750	0.750	0.750					
1		79	Z	NFSR	NOT	1960		2014	2015		0.000	0.150	0.150					0.150	
1		561	F	NFSR	NOT	1962		2014	2015		0.000	0.370	0.370				0.370		
1		561	G	NFSR	NOT	1965		2014	2015		0.000	0.200	0.200				0.200		
1		9573		NFSR	NOT	1985		2014	2015		0.000	0.400	0.400				0.400		
1		9575		NFSR		1969		2018			1.098	2.000	0.902	0.902					

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1		9579		NFSR	NOT	1980		2014	2015		0.715	1.500	0.785					0.785	
1		10247		NFSR	NOT	1988		2014	2015		0.000	0.270	0.270				0.270		
1		10566		NFSR	NOT	1985		2014	2015		0.230	0.310	0.080					0.080	
1		10568		NFSR		1960					0.000	0.300	0.300	0.300					
1		10730		NFSR		1985					0.000	0.450	0.450	0.450					
1		10731		NFSR	NOT	1985		2014	2015		0.000	0.400	0.400				0.400		
1		10732		NFSR	NOT	1985		2014	2015		0.300	2.300	2.000				2.000		
1		10733		NFSR	NOT	1985		2014	2015		0.000	0.850	0.850				0.850		
1		10734		NFSR	NOT	1985		2014	2015		0.000	0.150	0.150				0.150		
1		11648	A	NFSR	NOT	1982		2014	2015		0.000	0.380	0.380					0.380	
	Glacier Loon Fuels Reduction																		
	TOTALS												8.637	2.402	0.000	0.000	4.840	1.395	8.637
8	Good Creek Resource	60	I	NFSR	NOT	1960		2015	2015		0.000	1.500	1.500					1.500	
8	30-Mar-00	1649	A	NFSR	NOT	1975		2004	2004	✓	0.000	0.500	0.500					0.500	
8		2809	A	NFSR	NOT	1981		2003	2003	✓	0.000	1.500	1.500					1.500	
8		2809	C	NFSR	NOT	1981		2012	2012	✓	0.000	0.400	0.400					0.400	
8		2809	D	NFSR	NOT	1981		2003	2003	✓	0.000	0.300	0.300					0.300	
8		2809	E	NFSR	NOT	1981		2003	2003	✓	0.000	0.200	0.200					0.200	
8		2810	C	NFSR	NOT	1981		2003	2003	✓	0.000	0.600	0.600					0.600	
8		2840	W	NFSR	NOT	1960		2011	2012	✓	0.000	1.440	1.440				1.440		
8		2859		NFSR	NOT	1988		2003	2003	✓	0.000	1.500	1.500					1.500	
8		2868		NFSR	NOT	1970		2003	2003	✓	0.000	1.300	1.300					1.300	
8		2868	A	NFSR	NOT	1970		2003	2003	✓	0.000	0.800	0.800					0.800	
8		2869		NFSR	NOT	1962		2008	2008	✓	1.712	3.229	1.517				1.517		
8		2869	A	NFSR	NOT	1962		2008	2008	✓	0.000	0.933	0.933				0.933		
8		2875	F	NFSR	NOT	1970		2003	2003	✓	0.000	0.800	0.800					0.800	
8		2875	G	NFSR	NOT	1970		2003	2003	✓	0.000	1.900	1.900					1.900	
8		2875	H	NFSR	NOT	1980		2014	2015		0.000	1.210	1.210				1.210		
8		2880	F	NFSR	NOT	1980		2004	2004	✓	0.000	0.500	0.500					0.500	
8		2881	A	NFSR	NOT	1967		2003	2003	✓	0.000	0.200	0.200					0.200	
8		2881	C	NFSR	NOT	1967		2003	2003	✓	0.000	0.200	0.200					0.200	
8		2883	E	NFSR	NOT	1981		2003	2003	✓	0.000	0.510	0.510					0.510	
8		2883	F	NFSR	NOT	1981		2013	2013		0.000	0.500	0.500					0.500	
8		2891	A	NFSR	NOT	1985		2013	2013		0.000	0.600	0.600				0.600		
8		2891	B	NFSR	NOT	1985		2012	2012	✓	0.000	0.800	0.800					0.800	
8		2891	Y	NFSR	NOT	1985		2003	2003	✓	0.000	1.400	1.400					1.400	
8		2892	Y	NFSR	NOT	1965		2013	2013		0.000	0.400	0.400					0.400	
8		2958		NFSR	NOT	1960		2012	2012	✓	0.000	0.900	0.900					0.900	
8	Good Creek Resource	2989		NFSR	NOT	1981		2014	2015		1.703	1.800	0.097					0.097	
8		5302		NFSR	NOT	1964		2003	2003	✓	0.000	0.800	0.800					0.800	
8		5314		NFSR	NOT	1960		2011	2012	✓	0.000	0.600	0.600				0.600		
8		9528	A	MFSR	NOT	1981		2015	2015		0.000	0.620	0.620				0.620		
8		9625		NFSR	NOT	1975		2003	2003	✓	0.000	1.000	1.000					1.000	
8		9650	D	NFSR	NOT	1963		2003	2003	✓	0.000	0.500	0.500					0.500	
8		9806	A	NFSR	NOT	1962		2013	2013		0.000	0.500	0.500					0.500	
8		9819		NFSR	NOT	1962		2015	2015		0.000	1.400	1.400				1.400		
8		9820		NFSR	NOT	1962		2003	2003	✓	0.000	0.600	0.600					0.600	
8		10431	A	NFSR	NOT	1985		2012	2012	✓	0.000	0.300	0.300				0.300		
8		10434	C	NFSR	NOT	1962		2013	2013		0.000	0.700	0.700					0.700	
8		11252	A	NFSR	NOT	1984		2015	2015		0.000	0.400	0.400					0.400	

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8		11259		NFSR	NOT	1990		2015	2015		0.000	0.800	0.800					0.800	
8		11277		NFSR	NOT	1980		2014	2015		0.000	0.330	0.330				0.330		
8		11278		NFSR	NOT	1980		2014	2015		0.000	0.660	0.660				0.660		
8		11279		NFSR	NOT	1980		2004	2004	✓	0.000	0.350	0.350					0.350	
8		11281		NFSR	NOT	1970		2013	2013		0.000	0.250	0.250				0.250		
8		11285		NFSR	NOT	1990		2004	2004	✓	0.000	0.700	0.700					0.700	
8		11286		NFSR	NOT	1990		2008	2008	✓	0.000	0.700	0.700				0.700		
	Good Creek Resource																		
	TOTALS												33.717	0.000	0.000	0.000	10.560	23.157	33.717
8	(AKA) Griffin/Sheppard Watershed	1166	B	NFSR	NOT	1990		2011	2011	✓	0.470	1.170	0.700					0.700	
8	17-May-94	2813	A	NFSR	NOT	1979		2011	2011	✓	0.000	0.600	0.600					0.600	
8		2871		NFSR	NOT	1983		2002	2003	✓	3.210	4.210	1.000				1.000		
8	Watershed Restoration Via Road	2874		NFSR	NOT	1963		1995	1996	✓	0.000	0.510	0.510					0.510	
8	Reclamation - Sheppard and Griffin	2885		NFSR	NOT	1967		1995	1996	✓	4.400	4.800	0.400					0.400	
8		2899		NFSR	NOT	1967		1995	1996	✓	0.000	0.600	0.600					0.600	
8		2911		NFSR	NOT	1981		1995	1996	✓	0.000	0.830	0.830					0.830	
8		2919		NFSR	NOT	70/82		2002	2003	✓	0.000	0.970	0.970				0.970		
8		2946		NFSR	NOT	1978		2002	2003	✓	0.000	2.100	2.100				2.100		
8		2947		NFSR	NOT	1978		1995	1995	✓	0.000	0.580	0.580					0.580	
8		2969		NFSR	NOT	1983		1995	1995	✓	0.000	0.440	0.440					0.440	
8		2975		NFSR	NOT	1967		1995	1995	✓	1.800	2.100	0.300					0.300	
8		2980		NFSR	NOT	1967		1995	1995	✓	0.000	0.650	0.650					0.650	
8		2981		NFSR	NOT	1963		1995	1995	✓	0.000	0.800	0.800					0.800	
8		5353		NFSR	NOT	1982		1995	1995	✓	0.340	2.160	1.820					1.820	
8		5363		NFSR	NOT	1984		1995	1995	✓	0.000	1.520	1.520					1.520	
8		9602		NFSR	NOT	1980		2007	2008	✓	0.000	3.850	3.850				3.850		
8		9602	A	NFSR	NOT	1980		1995	1995	✓	0.000	1.550	1.550					1.550	
8		9602	B	NFSR	NOT	1980		1995	1995	✓	0.000	0.330	0.330					0.330	
8		9602	C	NFSR	NOT	1982		2003	2004	✓	0.000	1.245	1.245				1.245		
8		9609		NFSR	NOT	1980		1995	1995	✓	0.000	0.590	0.590					0.590	
8		9610		NFSR	NOT	1980		1995	1995	✓	0.000	0.370	0.370					0.370	
8		9611		NFSR	NOT	1980		1995	1995	✓	0.000	0.230	0.230					0.230	
8		9630		NFSR	NOT	1981		1995	1995	✓	1.030	2.610	1.580					1.580	
8		9630	A	NFSR	NOT	1981		1995	1995	✓	0.000	0.270	0.270					0.270	
8		9637		NFSR	NOT	1991		1995	1995	✓	0.000	0.990	0.990					0.990	
8		9638		NFSR	NOT	1981		1995	1995	✓	0.000	0.370	0.370					0.370	
8		9641		NFSR	NOT	1989		1995	1995	✓	0.000	2.140	2.140					2.140	
8		9642		NFSR	NOT	1981		1995	1995	✓	0.350	4.870	4.520					4.520	
8		9643		NFSR	NOT	1981		1995	1995	✓	0.000	1.510	1.510					1.510	
8		9645		NFSR	NOT	1981		1995	1995	✓	0.000	0.680	0.680					0.680	
8		9646		NFSR	NOT	1981		2002	2003	✓	0.000	4.500	4.500				4.500		
8		9649		NFSR	NOT	1981		1995	1995	✓	0.000	0.370	0.370					0.370	
8		9681		NFSR	NOT	1981		2002	2003	✓	0.000	3.160	3.160				3.160		
8		9682		NFSR	NOT	1981		1995	1995	✓	0.000	1.460	1.460					1.460	
8	Watershed Restoration Via Road	9683		NFSR	NOT	1981		1995	1995	✓	0.000	0.360	0.360					0.360	
8	Reclamation - Sheppard and Griffin	9782	G	NFSR	NOT	1982		1995	1995	✓	0.000	0.900	0.900					0.900	
8		9840		NFSR	NOT	1981		1995	1995	✓	0.000	0.400	0.400					0.400	
8	AKA (Griffin/Sheppard Watershed)	10163		NFSR	NOT	1982		1995	1996	✓	0.000	1.030	1.030					1.030	
8		10164		NFSR	NOT	1982		1995	1996	✓	0.000	0.870	0.870					0.870	
8		10181		NFSR	NOT	1982		2003	2004	✓	0.000	3.780	3.780				3.780		

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8		10210		NFSR	NOT	1982		1995	1996	✓	0.000	0.920	0.920					0.920	
8		10305		NFSR	NOT	1985		1995	1996	✓	1.370	2.250	0.880					0.880	
8		11246		NFSR	NOT	1987		1995	1996	✓	0.000	0.560	0.560					0.560	
8		113	Z	NOT	NOT	1985		1995	1996	NA	0.000	0.800	0.800					0.800	
8		538	S	NOT	NOT	1985		1995	1996	NA	0.000	0.300	0.300					0.300	
8		2896	2	NOT	NOT	1985		1995	1996	NA	0.000	0.600	0.600					0.600	
8		2918	4	NOT	NOT	1985		1995	1996	NA	0.000	0.550	0.550					0.550	
8		5363	1	NOT	NOT	1985		1995	1996	NA	0.000	0.600	0.600					0.600	
8		5363	2	NOT	NOT	1985		1995	1996	NA	0.000	0.810	0.810					0.810	
8		5363	3	NOT	NOT	1985		1995	1996	NA	0.000	0.400	0.400					0.400	
8		5363	4	NOT	NOT	1985		1995	1996	NA	0.000	0.400	0.400					0.400	
	(AKA) Griffin/Sheppard Watershed																		
	TOTALS												57.695	0.000	0.000	0.000	20.605	37.090	57.695
7	Hornet Wedge T.S. (FONSI)																		
7	6-Dec-96	907		NFSR	NOT	1956		2005	2006	✓	8.320	9.080	0.760				0.760		
7		1669		NFSR	NOT	1960		2007	2007	✓	0.000	2.600	2.600					2.600	
7		1672		NFSR	NOT	63/67		2004	2004	✓	0.000	6.430	6.430				6.430		
7		1682		NFSR	NOT	1967		1996	1997	✓	0.000	1.400	1.400					1.400	
7		5219		NFSR	NOT	1961		1996	1997	✓	0.000	0.500	0.500					0.500	
7		5332		NFSR	NOT	1978	Y	1996	1997	✓	0.100	0.600	0.500				0.500		
7		5332		NFSR	NOT	1978		1996	1997	✓	0.600	1.100	0.500					0.500	
7		5332	A	NFSR	NOT	1981		1996	1997	✓	0.000	0.500	0.500					0.500	
7		5332	B	NFSR	NOT	1981		1996	1997	✓	0.000	0.800	0.800					0.800	
7		5399		NFSR	NOT	1975		2005	2006	✓	2.240	2.440	0.200				0.200		
7		5399	A	NFSR	NOT	1975		1996	1997	✓	0.000	0.110	0.110					0.110	
7		9827		NFSR	NOT	1975		1998	1998	✓	0.150	1.550	1.400			1.400			
7		9846		NFSR	NOT	1979		1998	1998	✓	0.000	0.730	0.730			0.730			
7		9846	A	NFSR	NOT	1980		1998	1998	✓	0.000	0.310	0.310					0.310	
7		9899		NFSR	NOT	1969	Y	1999	1999	✓	3.000	5.060	2.060			2.060			
7		10333		NFSR	NOT	1960		1996	1997	✓	0.000	1.000	1.000					1.000	
7		10827		NFSR	NOT	1975		1996	1997	✓	0.000	0.700	0.700					0.700	
7		10828		NFSR	NOT	1975		1996	1997	✓	0.000	0.750	0.750					0.750	
7		10829		NFSR	NOT	1975		1996	1997	✓	0.000	1.200	1.200					1.200	
7		10830		NFSR	NOT	1975		1996	1997	✓	0.000	1.750	1.750					1.750	
7		10833		NFSR	NOT	1978		1996	1997	✓	0.000	0.750	0.750					0.750	
7		10844		NFSR	NOT	1971		1996	1997	✓	0.500	0.900	0.400					0.400	
7		10863		NFSR	NOT	1979		2007	2007	✓	0.000	0.770	0.770					0.770	
7		10864		NFSR	NOT	1980		2007	2007	✓	0.000	1.000	1.000					1.000	
7		10865		NFSR	NOT	1980		2007	2007	✓	0.000	0.850	0.850					0.850	
7		10865	A	NFSR	NOT	1980		1996	1997	✓	0.000	0.500	0.500					0.500	
7		10865	B	NFSR	NOT	1980		2007	2007	✓	0.000	0.390	0.390					0.390	
7		10882		NFSR	NOT	1968		1998	1998	✓	0.000	0.500	0.500					0.500	
7		10883		NFSR	NOT	1968		2007	2007	✓	0.000	0.060	0.060					0.060	
7		10890		NFSR	NOT	1967		1996	1997	✓	0.000	0.160	0.160					0.160	
7		10891		NFSR	NOT	1970		1996	1997	✓	0.000	0.330	0.330					0.330	
7		10910		NFSR	NOT	1969		1996	1997	✓	0.000	0.150	0.150					0.150	
7		10914		NFSR	NOT	1980		1993	1993	✓	0.000	0.900	0.900					0.900	
	Hornet Wedge T.S. (FONSI)																		
	TOTALS												30.960	0.000	0.000	4.190	7.890	18.880	30.960

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8	Little Wolf Fire Salvage	1166	B	NFSR	NOT	1990		2011	2011	✓	0.000	0.470	0.470					0.470	
8	9-Jun-95	1167	B	NFSR	NOT	1984		2002	2003	✓	0.000	0.470	0.470				0.470		
8	Little Wolf Fire Salvage	2871	A	NFSR	NOT	1983		2002	2003	✓	0.000	1.180	1.180				1.180		
8		2944		NFSR	NOT	78/89		2002	2003	✓	0.000	1.498	1.498				1.498		
	Little Wolf Fire Salvage																		
	TOTALS												3.618	0.000	0.000	0.000	3.148	0.470	3.618
1	Meadow Smith	124	B	NFSR		1965					0.000	0.140	0.140	0.140					
1	6/20/2003	9546	P	NFSR		1984					0.000	0.070	0.070	0.070					
1		9547	A	NFSR		65/80					0.500	1.200	0.700	0.700					
1		9718		NFSR		1966					0.900	1.400	0.500	0.500					
1		9811		NFSR		1980					0.000	0.820	0.820	0.820					
1		9835	Y	NFSR		1962					0.000	0.500	0.500	0.500					
1		10657		NFSR		1970					0.000	0.200	0.200	0.200					
	Meadow Smith																		
	TOTALS												2.930	2.930	0.000	0.000	0.000	0.000	2.930
6	Middle Fork Ecosystem	1638		NFSR	NOT	1970		1998	1998	✓	4.100	4.520	0.420				0.420		
6	4-Mar-97	1638		NFSR	NOT	1970		1998	1998	✓	2.390	4.100	1.710				1.710		
6		1638		NFSR	NOT	1970		1999	1999	✓	1.720	2.390	0.670			0.670			
	Middle Fork Ecosystem																		
	TOTALS												2.800	0.000	0.000	0.670	2.130	0.000	2.800
7	Moose Post-Fire Project	315	A	NFSR	NOT	1960		2004	2004		0.000	1.000	1.000					1.000	
7	27-Nov-02	315		NFSR	NOT	1960		2012	2012	✓	4.655	8.543	3.888				3.888		
7		803	K	NFSR	NOT	1970		2004	2004		0.000	0.530	0.530					0.530	
7		803	M	NFSR	NOT	1980		2006	2006	✓	0.000	1.100	1.100				1.100		
7		1667		NFSR	NOT	1981		2003	2004		0.000	0.960	0.960				0.960		
7		1692		NFSR	NOT	1964		2012	2012	✓	0.978	1.856	0.878				0.878		
7		1692		NFSR	NOT	64/70		2004	2005		1.856	4.083	2.227				2.227		
7		1692		NFSR	NOT	1970		2004	2005		4.083	4.140	0.057					0.057	
7		1694	A	NFSR	NOT	81/82		2006	2006	✓	0.000	1.930	1.930				1.930		
7		1694	B	NFSR	NOT	1981		2006	2006	✓	0.000	0.350	0.350				0.350		
7		1694	C	NFSR	NOT	78/81		2007	2007	✓	0.000	2.190	2.190				2.190		
7		1694	D	NFSR	NOT	1980		2007	2007	✓	0.000	1.900	1.900				1.900		
7		1694		NFSR	NOT	60/70		2007	2007	✓	0.000	6.640	6.640				6.640		
7		5207		NFSR	NOT	1961		2004	2005		4.496	5.613	1.117				1.117		
7		5220	D	NFSR	NOT	1981		2006	2006	✓	0.000	0.500	0.540				0.540		
7		5223		NFSR	NOT	1986		2004	2004		0.000	0.710	0.710					0.710	
7		5233		NFSR	NOT	63/73		2006	2006	✓	0.000	2.300	2.300				2.300		
7		5261	A	NFSR	NOT	1975		2004	2004		0.000	1.000	1.000					1.000	
7		5261		NFSR	NOT	1962		2004	2005		2.597	3.835	1.238				1.238		
7		5262		NFSR	NOT	1964		2003	2004		0.000	2.520	2.520				2.520		
7		5268		NFSR	NOT	1963		2006	2006	✓	0.000	1.410	1.410				1.410		
7		5268		NFSR	NOT	1963		2004	2004		1.410	1.940	0.530					0.530	
7		5272	A	NFSR	NOT	1977		2005	2006		0.000	0.200	0.200					0.200	
7		5272	B	NFSR	NOT	1977		2005	2006		0.000	0.270	0.270					0.270	
7		5272		NFSR	NOT	1993		2005	2006		8.700	9.650	0.950					0.950	

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7		5273		NFSR	NOT	1976		2005	2006		0.100	0.700	0.600					0.600	
7		5280		NFSR	NOT	1969		2006	2006		0.000	2.000	2.000					2.000	
7		5283		NFSR	NOT	1981		2006	2006	✓	0.000	1.660	1.660				1.660		
7		5287		NFSR	NOT	1981		2003	2004		0.000	1.551	1.551				1.551		
7		5288	A	NFSR	NOT	1978		2005	2006		0.000	0.070	0.070					0.070	
7		5288		NFSR	NOT	1981		2006	2006	✓	0.000	1.620	1.620				1.620		
7		5288		NFSR	NOT	1981		2004	2004		1.620	2.120	0.500					0.500	
7	Moose Post-Fire Project	5290		NFSR	NOT	1985		2007	2007	✓	0.000	2.180	2.180				2.180		
7	27-Nov-02	5292	A	NFSR	NOT	1981		2008	2008	✓	0.000	1.000	1.000				1.000		
7		5292		NFSR	NOT	1960		2008	2008	✓	0.000	3.900	3.900				3.900		
7		5293		NFSR	NOT	1974		2004	2004		0.000	0.500	0.500					0.500	
7		5299		NFSR	NOT	1975		2004	2004		0.000	0.400	0.400					0.400	
7		5304		NFSR	NOT	1980		2006	2006	✓	0.000	1.764	1.764				1.764		
7		5316		NFSR	NOT	1975		2006	2006	✓	0.000	1.912	1.912				1.912		
7		5396		NFSR	NOT	1982		2004	2004		0.000	1.570	1.570					1.570	
7		10913		NFSR	NOT	1970		2008	2008	✓	0.000	0.200	0.200					0.200	
	Moose Post-Fire Project																		
	TOTALS												57.862	0.000	0.000	0.000	46.775	11.087	57.862
1	No Document Needed	498	C	NFSR	NOT	1975		1998	1998	✓	0.000	0.400	0.400					0.400	
1	Swan Lake	1073	A	NFSR	NOT	1979		1997	1997	✓	0.000	0.200	0.200					0.200	
1		1073	B	NFSR	NOT	1979		1997	1997	✓	0.000	0.200	0.200					0.200	
1		1073	C	NFSR	NOT	1979		1997	1997	✓	0.000	0.210	0.210					0.210	
1		9766		NFSR	NOT	1978		2000	2000	✓	0.000	0.580	0.580			0.580			
1		10229	Y	NFSR	NOT	1965		1995	1996	✓	0.000	1.230	1.230					1.230	
1		10539		NFSR	NOT	1970		1995	1996	✓	0.000	0.800	0.800					0.800	
1		10623		NFSR	NOT	1970		1995	1996	✓	0.000	0.500	0.500					0.500	
1		10624		NFSR	NOT	1970		1995	1996	✓	0.000	1.500	1.500					1.500	
1		10643		NFSR	NOT	1970		1995	1996	✓	0.000	0.600	0.600					0.600	
1		251808	A	NOT	NOT	UNK		1984	1984	NA	0.000	0.040	0.040					0.040	
1	Letter to the File 11/2/2007	10736		NFSR	NOT	1995		2007	2008		0.000	1.040	1.040					1.040	
1	Swan Lake	10738		NFSR	NOT	1995		2007	2008		0.000	1.080	1.080					1.080	
1	(Roads acquired from Plum Creek)	10743		NFSR	NOT	1990		2007	2008		0.000	0.150	0.150					0.150	
1		10744		NFSR	NOT	1990		2007	2008		0.300	0.450	0.150					0.150	
1		10745		NFSR	NOT	1990		2007	2008		0.250	0.450	0.200					0.200	
6	No Document Needed	590	D	NFSR	NOT	1961		1996	1996		0.000	1.600	1.600					1.600	
6	Hungry Horse	1066	OB	NOT	NOT	1966		1993	1993	NA	0.000	0.230	0.230					0.230	
6		10368		NFSR	NOT	1980		1980	1980		0.000	0.100	0.100					0.100	
6		11065		NFSR	NOT	1950		1991	1991		4.780	5.580	0.800					0.800	
6		11065	D	NFSR	NOT	1950		1993	1993		0.000	0.320	0.320					0.320	
6	No Document Needed	11065	E	NFSR	NOT	1950		1993	1993		0.000	0.280	0.280					0.280	
6	Hungry Horse	11065	F	NFSR	NOT	1950		1993	1993		0.000	0.120	0.120					0.120	
6		11065	J	NFSR	NOT	1950		1993	1993		0.000	0.200	0.200					0.200	
6		11065	K	NFSR	NOT	1950		1993	1993		0.000	0.120	0.120					0.120	
6		11065	L	NFSR	NOT	1950		1993	1993		0.000	0.240	0.240					0.240	
6		271717	A	NOT	NOT	UNK		1990	1990	NA	0.000	0.240	0.240					0.240	
7	No Document Needed	10849		NFSR	NOT	1972		1998	1998		0.000	0.060	0.060					0.060	
7	Glacier View	10858		NFSR	NOT	1969		1998	1998		0.000	0.110	0.110					0.110	

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7		10862		NFSR	NOT	1970		1998	1998		0.000	0.070	0.070					0.070	
7		10885		NFSR	NOT	1967		1998	1998		0.000	0.130	0.130					0.130	
7		10905		NFSR	NOT	1970		1998	1998		0.000	0.080	0.080					0.080	
8	No Document Needed	911	B	NFSR	NOT	1988		1993	1993	✓	0.000	1.030	1.030					1.030	
8	Tally Lake	2842		NFSR	NOT	1972		1993	1993	✓	0.000	0.600	0.600					0.600	
8		2843		NFSR	NOT	1972		1993	1993	✓	0.000	1.000	1.000					1.000	
8		2844		NFSR	NOT	1972		1993	1993	✓	0.000	0.410	0.410					0.410	
8		2973	B	NFSR	NOT	1985		1993	1993	✓	0.000	0.490	0.490					0.490	
	No Document Needed																		
	TOTALS												17.110	0.000	0.000	0.580	0.000	16.530	17.110
7	North Coal	317	B	NFSR							4.828	6.560	1.732	1.732					
7	25-Sep-92	317	B	NFSR	NOT	1994		1995	1996		6.560	7.160	0.600					0.600	
7		317		NFSR							15.100	18.520	3.420	3.420					
7		317		NFSR	NOT	1981		1998	1998		18.520	20.450	1.930			1.930			
7		376	Y	NFSR	NOT	1975		1995	1996		0.000	0.400	0.400				0.400		
7		376	Z	NFSR	NOT	1975		1995	1996		0.000	0.100	0.100				0.100		
7		376		NFSR	NOT	1967		1995	1995		9.872	15.500	5.628				5.628		
7		909	A	NFSR							0.000	1.230	1.230	1.230					
7		909	Y	NFSR							0.000	0.500	0.500	0.500					
7		1603		NFSR							0.000	0.800	0.800	0.800					
7		1604		NFSR							0.000	2.700	2.700	2.700					
7		1628		NFSR							0.120	0.260	0.140	0.140					
7		1641	A	NFSR							0.000	0.200	0.200	0.200					
7		1641		NFSR							0.000	0.660	0.660	0.660					
7		1642		NFSR	NOT	1977		1998	1998		0.000	3.300	3.300			3.300			
7		1643		NFSR							0.000	0.500	0.500	0.500					
7		1648	A	NFSR	NOT	1958		1993	1993		0.000	0.300	0.300				0.300		
7		1648		NFSR	NOT	1958		1995	1996		0.000	0.600	0.600				0.600		
7		1680	Y	NFSR	NOT	1970		1995	1996		0.000	0.900	0.900				0.900		
7		1680		NFSR	NOT	1970		1995	1996		0.350	3.500	3.150				3.150		
7		1684		NFSR							6.900	7.500	0.600	0.600					
7		1686		NFSR							0.000	3.420	3.420	3.420					
7		1686		NFSR	NOT	1965		1993	1993		3.420	5.700	2.280					2.280	
7		1687		NFSR	NOT	1968		1998	1998		0.290	4.390	4.100			4.100			
7		1689		NFSR	NOT	1966		1998	1998		0.000	0.840	0.840			0.840			
7		1691	A	NFSR	NOT	1984		1998	1998		0.000	0.500	0.500			0.500			
7		1691		NFSR							0.000	3.000	3.000	3.000					
7		1693		NFSR							2.758	7.840	5.082	5.082					
7		5205		NFSR							0.000	1.120	1.120	1.120					
7		5221		NFSR	NOT	1965		1995	1996		0.320	1.400	1.080				1.080		
7		5241	D	NFSR	NOT	1975		1995	1996		0.000	1.790	1.790				1.790		
7		5241	E	NFSR	NOT	1973		1995	1996		0.000	0.400	0.400				0.400		
7		5241		NFSR	NOT	1973		1996	1996		3.561	6.200	2.639			1.439	1.200		
7		5265		NFSR							0.000	0.600	0.600	0.600					
7		5270		NFSR							0.000	4.900	4.900	4.900					
7		5276		NFSR	NOT	1976		1995	1996		0.000	1.300	1.300				1.300		
7		5277	A	NFSR							0.000	0.280	0.280	0.280					
7		5277		NFSR							0.000	3.670	3.670	3.670					
7		5278		NFSR							0.000	4.980	4.980	4.980					

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7		5279		NFSR							0.000	1.720	1.720	1.720					
7		10801	A	NOT	NOT	1970		1995	1995	NA	0.000	1.200	1.200					1.200	
7		10801		NOT	NOT	1970		1993	1993	NA	0.000	1.600	1.600					1.600	
7		10802		NFSR							0.000	3.690	3.690	3.690					
7		10803		NOT	NOT	1970		1995	1995	NA	0.000	1.500	1.500					1.500	
7		10819	A	NFSR	NOT	1983		1995	1996		0.000	0.600	0.600				0.600		
7		10819	B	NFSR	NOT	1986		1997	1997		0.000	3.030	3.030				3.030		
7		10819	C	NFSR	NOT	1990		1997	1997		0.000	0.300	0.300				0.300		
7		10819		NFSR	NOT	1990		1997	1997		0.000	2.630	2.630				2.630		
7		10821		NFSR	NOT	1980		1995	1996		0.000	1.200	1.200				1.200		
7		10822	A	NFSR	NOT	1983		1995	1996		0.000	1.000	1.000				1.000		
7		10822		NFSR	NOT	1982		1995	1996		0.000	0.500	0.500				0.500		
7		10873		NFSR	NOT	1982		1995	1996		0.000	0.950	0.950				0.950		
7		10900		NFSR	NOT	1969	Y	1999	1999		0.000	0.420	0.420				0.420		
7		10901		NFSR	NOT	1968		1998	1998		0.000	0.270	0.270				0.270		
7		342201	A	NOT	NOT	UNK		1995	1995	NA	0.000	1.340	1.340					1.340	
7		342201	B	NOT	NOT	UNK		1995	1995	NA	0.000	0.600	0.600					0.600	
7	North Coal	342201	C	NOT	NOT	UNK		1995	1995	NA	0.000	1.600	1.600					1.600	
7		342201	D	NOT	NOT	UNK		1995	1995	NA	0.000	0.830	0.830					0.830	
7		342201	E	NOT	NOT	UNK		1995	1995	NA	0.000	1.000	1.000					1.000	
7		342204	A	NOT	NOT	UNK		1995	1995	NA	0.000	0.600	0.600					0.600	
7		342220	A	NOT	NOT	UNK		2004	2004	NA	0.000	0.700	0.700					0.700	
7		342220	B	NOT	NOT	UNK		1995	1995	NA	0.000	0.790	0.790					0.790	
7		342222	B	NOT	NOT	UNK		1995	1995	NA	0.000	0.600	0.600					0.600	
7		342310	A	NOT	NOT	UNK		1995	1995	NA	0.000	0.550	0.550					0.550	
7		342310	B	NOT	NOT	UNK		1995	1995	NA	0.000	0.300	0.300					0.300	
7		342310	C	NOT	NOT	UNK		1995	1995	NA	0.000	0.250	0.250					0.250	
7		342311	A	NOT	NOT	UNK		1995	1995	NA	0.000	0.500	0.500					0.500	
7		352228	A	NOT	NOT	UNK		2004	2004	NA	0.000	0.500	0.500					0.500	
7		352228	B	NOT	NOT	UNK		2004	2004	NA	0.000	0.450	0.450					0.450	
7		352228	C	NOT	NOT	UNK		2004	2004	NA	0.000	1.600	1.600					1.600	
7		352232	A	NOT	NOT	UNK		2004	2004	NA	0.000	0.750	0.750					0.750	
7		352232	B	NOT	NOT	UNK		2004	2004	NA	0.000	0.450	0.450					0.450	
7		352232	C	NOT	NOT	1973		1995	1995	NA	0.000	1.350	1.350					1.350	
7		352233	A	NOT	NOT	1990		1995	1995	NA	0.000	1.450	1.450					1.450	
7		352233	B	NOT	NOT	1986		1995	1995	NA	0.000	0.850	0.850					0.850	
7		352233	C	NOT	NOT	1990		1995	1995	NA	0.000	1.000	1.000					1.000	
7		352233	D	NOT	NOT	UNK		1995	1995	NA	0.000	0.700	0.700					0.700	
	North Coal																		
	TOTALS												110.741	44.944	0.000	12.109	27.748	25.940	110.741
6	Paint Emery Resource Mgmt	38	C	NFSR	NOT			2002	2003		0.000	1.500	1.500				1.500		
6	27-May-99	38	E	NFSR	NOT	1986		2010	2010		0.000	1.250	1.250				1.250		
6	(Re-mileposted 2002)	546		NFSR	NOT	1960		2002	2003		6.245	7.300	1.055				1.055		
6		546	A	NFSR							0.000	0.100	0.100	0.100					
6		896	A	NFSR	NOT			2002	2003		0.000	1.520	1.520				1.520		
6		896	B	NFSR	NOT			2002	2003		0.000	0.538	0.538				0.538		
6		896	C	NFSR	NOT	1963		2010	2010	✓	0.000	1.911	1.911				1.911		
6		896	C	NFSR	NOT	1963		2002	2003	✓	1.911	2.100	0.189				0.189		
6	(see Firefighter Project EA)	1048		NFSR	NOT	1948		2010	2010		2.420	9.804	7.384				7.384		
6		1048	A	NFSR	NOT			2002	2003		0.000	1.586	1.586				1.586		

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6		1048	B	NFSR	NOT	1963		2010	2010		0.000	0.500	0.500					0.500	
6		1613		NFSR	NOT	1965	Y	1999	1999		0.000	0.900	0.900				0.900		
6	(see Firefighter Project EA)	1614		NFSR	x	x		x	x		0.000	0.000	0.000						
6		1614	A	NFSR	NOT	1962		2004	2004		0.000	0.700	0.700					0.700	
6	(see Firefighter Project EA)	1615		NFSR	x	x		x	x		0.000	3.610	0.000						
6		1618		NFSR	NOT			2002	2003		0.000	2.220	2.220				2.220		
6		1618	A	NFSR	NOT			2002	2003		0.000	0.725	0.725				0.725		
6		1619		NFSR	NOT			2002	2003		0.000	1.200	1.200					1.200	
6		1620		NFSR	NOT	1962	Y	1999	1999		0.050	1.500	1.450				1.450		
6		1622		NFSR	NOT	1961	Y	1999	1999		0.000	1.100	1.100				1.100		
6		1624		NFSR	NOT	73/87		2006	2007	✓	3.246	4.860	1.614				1.614		
6		1624	A	NFSR	NOT	1987		2006	2007	✓	0.000	1.850	1.850				1.850		
6		1624	B	NFSR	NOT	63/87		2006	2007	✓	0.000	1.360	1.360				1.360		
6		1624	C	NFSR	NOT	1987		2006	2007	✓	0.000	0.130	0.130				0.130		
6		1624	C	NFSR	NOT	1987	Y	1999	1999	✓	0.130	0.280	0.150				0.150		
6		1624	X	NFSR	NOT	1963		2010	2010		0.000	0.200	0.200				0.200		
6		1627		NFSR	NOT			2002	2003		0.000	0.223	0.223				0.223		
6		1629		NFSR	NOT			2002	2003		0.000	2.460	2.460				2.460		
6		1629	A	NFSR	NOT			2002	2003		0.000	0.700	0.700				0.700		
6		1629	B	NFSR	NOT			2002	2003		0.000	0.770	0.770				0.770		
6	Paint Emery Resource Mgmt	1631		NFSR	NOT			2010	2010	✓	1.000	6.740	5.740				5.740		
6		1632		NFSR	NOT	55-67		2010	2010		0.000	2.420	2.420				2.420		
6		1632		NFSR	NOT	67/69		2010	2010		3.350	5.400	2.050				2.050		
6		1654		NFSR	NOT	1965	Y	1999	1999		0.000	1.400	1.400				1.400		
6		1663		NFSR	NOT	1975		2009	2009		0.000	0.600	0.600				0.600		
6		2834		NFSR	NOT	1962		2009	2009	✓	0.000	2.545	2.545				2.545		
6		2837		NFSR	NOT	1961		2009	2009		0.000	1.500	1.500				1.500		
6		2841		NFSR	NOT	1960		2010	2010	✓	0.000	0.510	0.510				0.510		
6		2841		NFSR	NOT	1960	Y	1999	1999		0.510	2.080	1.570				1.570		
6		2841		NFSR	NOT	1960		2010	2010	✓	2.080	2.700	0.620				0.620		
6		2841	A	NFSR	NOT	1960	Y	1999	1999		0.000	1.300	1.300				1.300		
6		5305		NFSR	NOT	1961		2010	2010	✓	0.000	2.300	2.300				2.300		
6		5313		NFSR	NOT	1960	Y	1999	1999		0.000	1.870	1.870				1.870		
6		5317	B	NFSR	NOT	1960	Y	1999	1999		0.060	0.500	0.440				0.440		
6		5318		NFSR	NOT			2002	2003		0.000	1.500	1.500				1.500		
6		5319		NFSR	NOT			2002	2003		0.000	0.331	0.331				0.331		
6		5322		NFSR	NOT	1965	Y	1999	2000		0.000	1.000	1.000				1.000		
6		5322		NFSR	NOT	1965	Y	1999	1999		1.000	1.270	0.270				0.270		
6		5328		NFSR	NOT	60/91		2008	2008	✓	0.000	2.440	2.440				2.440		
6		5333	Y	NFSR	NOT	1967		2010	2010	✓	0.000	0.500	0.500					0.500	
6		5333	Z	NFSR	NOT	1967		2010	2010	✓	0.000	0.600	0.600					0.600	
6		5334		NFSR	NOT	63/69		2010	2010	✓	0.000	1.519	1.519				1.519		
6		5334	X	NFSR	NOT	1964		2010	2010	✓	0.000	0.400	0.400					0.400	
6	(see Firefighter Project EA)	5360		NFSR	x	x		x	x		0.000	0.620	0.000						
6		5360		NFSR				2002	2003		0.620	3.820	3.200				3.200		
6		5360	A	NFSR	NOT	1991	Y	1999	1999		0.000	0.260	0.260				0.260		
6		5360	B	NFSR	NOT	1991	Y	1999	1999		0.000	0.330	0.330				0.330		
6		5361		NFSR	NOT			2002	2003		0.000	0.170	0.170				0.170		
6		5361		NFSR	NOT	1979	Y	1999	1999		0.170	0.940	0.770				0.770		
6		5362		NFSR	NOT	1979	Y	1999	1999		0.000	0.350	0.350				0.350		
6		5364		NFSR	NOT	1979	Y	1999	1999		0.000	0.670	0.670				0.670		

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6		5365		NFSR	NOT	1975		2008	2008	✓	0.000	0.450	0.450				0.450		
6		5366		NFSR	NOT	1975		2008	2008	✓	0.000	2.000	2.000				2.000		
6		5367		NFSR	NOT	1970		2008	2008	✓	0.000	1.300	1.300				1.300		
6		5368		NFSR	NOT	1970		2010	2010	✓	0.000	0.241	0.241				0.241		
6		9777		NFSR	NOT	61/65		2010	2010	✓	0.000	1.000	1.000				1.000		
6		9778		NFSR	NOT	1968		2010	2010		0.576	0.900	0.324				0.324		
6		9778		NFSR	NOT	1968	Y	1999	1999		0.900	1.810	0.910				0.910		
6	(see Paint Emery Decision)	9778		NFSR	x	x		x	x		1.810	2.500	0.000						
6		9778	X	NFSR	NOT	1976	Y	1999	1999		0.000	1.000	1.000				1.000		
6		9778	Y	NFSR	NOT	1976	Y	1999	1999		0.000	0.200	0.200				0.200		
6		9778	Z	NFSR	NOT	1976	Y	1999	1999		0.000	0.200	0.200				0.200		
6		9783		NFSR	NOT	61/89		2010	2010	✓	0.000	1.440	1.440				1.440		
6		9854		NFSR	NOT	1986		2010	2010		1.800	3.750	1.950				1.950		
6		9894		NFSR	NOT			2002	2003		0.000	3.300	3.300				3.300		
6		10104		NFSR	NOT	1960		2002	2003	✓	0.000	0.500	0.500				0.500		
6		10176		NFSR	NOT	1975		2009	2009		0.000	1.010	1.010				1.010		
6		10176		NFSR	NOT	1975	Y	1999	1999		1.010	1.490	0.480				0.480		
6		10176		NFSR	NOT	1975		2009	2009		1.490	1.700	0.210				0.210		
6	(see Firefighter Project EA)	10188	A	NFSR	x	x		x	x		0.000	0.000	0.000						
6		10326		NFSR	NOT	1970		2009	2009		0.000	1.000	1.000				1.000		
6		10326	X	NFSR	NOT	1970	Y	1999	1999		0.000	0.400	0.400				0.400		
6		10326	Y	NFSR	NOT	1970	Y	1999	1999		0.000	0.400	0.400				0.400		
6		10327		NFSR	NOT	1968		2010	2010	✓	0.000	1.500	1.500					1.500	
6		10328		NFSR	NOT	1968		2010	2010	✓	0.000	1.000	1.000				1.000		
6		10328	X	NFSR	NOT	1969		2010	2010	✓	0.000	0.400	0.400					0.400	
6	Paint Emery Resource Mgmt	11025		NFSR	NOT	1963	Y	1999	1999		0.000	1.900	1.900				1.900		
6		11025	A	NFSR	NOT	1985	Y	1999	1999		0.000	0.400	0.400				0.400		
6		11035		NFSR	NOT	1963		20080	2008	✓	0.000	1.250	1.250				1.250		
6		11036		NFSR	NOT	1991	Y	1999	1999		0.000	0.870	0.870				0.870		
6		11045		NFSR	NOT			2002	2003		0.000	0.800	0.800				0.800		
6		11070		NFSR	NOT			2002	2003		0.000	1.640	1.640				1.640		
6		11071		NFSR	NOT	1958	Y	1999	1999		1.200	1.910	0.710				0.710		
6		11072		NFSR	NOT	1958		2008	2008	✓	0.000	0.200	0.200				0.200		
6		11083		NFSR	NOT	1964		2010	2010		0.000	0.080	0.080				0.080		
6		11101		NFSR	NOT	1963		2010	2010		0.000	0.100	0.100				0.100		
6	(see Firefighter Project EA)	11140		NFSR	x	x		x	x		0.000	0.090	0.000				0.000		
6	(Original road #1048 changed 2002)	11140		NFSR	NOT	1948		2002	2003		0.090	1.590	1.500				1.500		
	Paint Emery Resource Mgmt																		
	TOTALS												105.125	0.100	0.000	0.000	99.225	5.800	105.125
1	Patrick Stoner (FONSI)																		
1	5-Aug-93	10297		NFSR	NFSR						0.000	0.420	0.420	0.420					
	Patrick Stoner (FONSI)																		
	TOTALS												0.420	0.420	0.000	0.000	0.000	0.000	0.420
4	President's Initiative	38	Y	NFSR	NOT	1970	Y	1999	2000	✓	0.000	0.800	0.800				0.800		
4	Spotted Bear	38	Z	NFSR	NOT	1970	Y	1999	2000	✓	0.000	0.500	0.500				0.500		
4	Letter to the File 11/5/99	549		NFSR	NOT	1972	Y	1999	1999	✓	9.690	12.900	3.210				3.210		
4		549	T	NFSR	NOT	1978	Y	1999	1999	✓	0.000	0.900	0.900				0.900		
4		549	U	NFSR	NOT	1978	Y	1999	1999	✓	0.000	0.900	0.900				0.900		

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4		549	V	NFSR	NOT	1978	Y	1999	1999	✓	0.000	1.200	1.200				1.200		
4		549	W	NFSR	NOT	1980	Y	1999	1999	✓	0.000	1.400	1.400				1.400		
4		549	X	NFSR	NOT	1980	Y	1999	1999	✓	0.000	0.900	0.900				0.900		
4		549	Y	NFSR	NOT	1980	Y	1999	1999	✓	0.000	0.800	0.800				0.800		
4		549	Z	NFSR	NOT	1980	Y	1999	1999	✓	0.000	0.900	0.900				0.900		
4		1635		NFSR	NOT	1961	Y	1999	2000	✓	0.000	0.800	0.800				0.800		
4		5359		NFSR	NOT	1965	Y	1999	2000	✓	3.570	5.120	1.550				1.550		
4		10130		NFSR	NOT	1980	Y	1999	2000	✓	0.630	1.130	0.500				0.500		
4	President's Initiative	10131		NFSR	NOT	1980	Y	1999	2000	✓	0.000	0.260	0.260				0.260		
4	Spotted Bear	10132		NFSR	NOT	1961	Y	1999	2000	✓	0.000	0.500	0.500				0.500		
4	Letter to the File 11/5/99	11460		NFSR	NOT	1980	Y	1999	2000	✓	0.000	0.400	0.400				0.400		
4		11473		NFSR	NOT	1975	Y	1999	2000	✓	0.000	0.900	0.900				0.900		
6	President's Initiative	895	C	NFSR	NOT	1963	Y	1999	1999		2.570	3.000	0.430				0.430		
6	Hungry Horse	895	F	NFSR	NOT	1960	Y	1999	1999		6.863	8.000	1.137				1.137		
6	Letter to the File 11/4/99	895	I	NFSR	NOT	1987	Y	1999	1999		0.000	0.250	0.250				0.250		
6		895	K	NFSR	NOT	1963	Y	1999	1999		0.820	0.900	0.080				0.080		
6		895	P	NFSR	NOT	1961	Y	1999	1999		0.000	0.990	0.990				0.990		
6		1607		NFSR	NOT	1980	Y	1999	2000		2.700	5.100	2.400				2.400		
6		1607	A	NFSR	NOT	1985	Y	1999	2000		0.530	1.250	0.720				0.720		
6		1607	B	NFSR	NOT	1985	Y	1999	2000		0.000	0.300	0.300				0.300		
6	President's Initiative	1609		NFSR	NOT	1967	Y	1999	2000		3.460	3.850	0.390				0.390		
6	Hungry Horse	1611		NFSR	NOT	1988	Y	1999	2000		1.700	2.500	0.800				0.800		
6	Letter to the File 11/4/99	1623		NFSR		1961	Y	(1999)	(1999)		0.000	0.800							
6		1626	A	NFSR	NOT	1962	Y	1999	1999		0.000	1.000	1.000				1.000		
6		1661		NFSR	NOT	1980	Y	1999	1999	✓	0.600	1.880	1.280				1.280		
6		1661	X	NFSR	NOT	1980	Y	1999	1999	✓	0.000	0.230	0.230				0.230		
6		1661	Y	NFSR	NOT	1980	Y	1999	1999	✓	0.000	0.380	0.380				0.380		
6		1666		NFSR	NOT	1959	Y	1999	2000	✓	1.730	4.300	2.570				2.570		
6		1666	B	NFSR	NOT	1978	Y	1999	2000	✓	0.000	1.300	1.300				1.300		
6		2817	A	NFSR	NOT	1992	Y	1999	1999		0.360	2.560	2.200			2.200			
6		2817	B	NFSR	NOT	1992	Y	1999	1999		1.310	2.020	0.710			0.710			
6	President's Initiative	2889		NFSR	NOT	1985	Y	1999	1999		0.000	1.680	1.680			1.680			
6	Hungry Horse	5251		NFSR	NOT	1970	Y	1999	2000		0.300	1.000	0.700				0.700		
6	Letter to the File 11/4/99	5251	A	NFSR	NOT	1970	Y	1999	2000		0.720	1.000	0.280				0.280		
6		5323	A	NFSR	NOT	1968	Y	1999	1999		0.000	1.250	1.250				1.250		
6		9676		NFSR	NOT	1970	Y	1999	1999		0.000	3.200	3.200				3.200		
6		9797	A	NFSR	NOT	1985	Y	1999	2000		0.370	0.630	0.260				0.260		
6		9828		NFSR	NOT	1970	Y	1999	1999		1.370	1.440	0.070				0.070		
6		9830		NFSR	NOT	1978	Y	1999	1999		0.800	1.700	0.900				0.900		
6		9830	A	NFSR	NOT	1978	Y	1999	1999		0.000	0.320	0.320				0.320		
6		9832		NFSR	NOT	1980	Y	1999	1999		0.550	0.620	0.070				0.070		
6		9837		NFSR	NOT	1960	Y	1999	1999		0.000	1.000	1.000				1.000		
6		9841		NFSR	NOT	1978	Y	1999	1999		0.580	1.710	1.130			1.130			
6		9842		NFSR	NOT	1979	Y	1999	1999		0.350	1.000	0.650			0.650			
6		9843		NFSR	NOT	1979	Y	1999	1999		0.000	0.300	0.300			0.300			
6		9864		NFSR	NOT	1980	Y	1999	1999		1.440	1.700	0.260				0.260		
6		9869		NFSR	NOT	1979	Y	1999	1999		0.000	0.640	0.640				0.640		
6		9872		NFSR	NOT	1972	Y	1999	1999		0.000	0.470	0.470				0.470		
6		9873		NFSR	NOT	1979	Y	1999	1999		0.000	0.590	0.590				0.590		
6		10167		NFSR	NOT	1972	Y	1999	1999	✓	0.000	0.800	0.800				0.800		

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6		10168		NFSR	NOT	1973	Y	1999	1999	✓	0.000	0.900	0.900				0.900		
6		10169		NFSR	NOT	1973	Y	1999	1999	✓	0.000	1.400	1.400				1.400		
6		10170		NFSR	NOT	1974	Y	1999	1999	✓	0.000	2.200	2.200				2.200		
6		10170	A	NFSR	NOT	1974	Y	1999	1999	✓	0.000	0.400	0.400				0.400		
6		10294		NFSR	NOT	1986	Y	1999	1999		0.000	0.650	0.650				0.650		
6		10295		NFSR	NOT	1981	Y	1999	2000		0.000	0.320	0.320				0.320		
6		11004		NFSR	NOT	1980	Y	1999	1999		0.000	0.600	0.600				0.600		
6		11005		NFSR	NOT	1979	Y	1999	1999		0.000	0.500	0.500				0.500		
6		11026	A	NFSR	NOT	1988	Y	1999	2000		0.000	0.670	0.670				0.670		
6		11028		NFSR	NOT	1988	Y	1999	1999		0.610	1.410	0.800				0.800		
7	President's Initiative	803	K	NFSR	NOT	1970	Y	1999	1999		0.530	1.200	0.670				0.670		
7	Glacier View	1673		NFSR	NOT	1983	Y	1999	1999		0.600	0.900	0.300				0.300		
7	Letter to the File 11/4/99	1673	A	NFSR	NOT	1984	Y	1999	1999		0.000	0.150	0.150				0.150		
7		1673	B	NFSR	NOT	1984	Y	1999	1999		0.000	0.150	0.150				0.150		
7		1673	C	NFSR	NOT	1984	Y	1999	1999		0.000	0.050	0.050				0.050		
7		1675		NFSR	NOT	1961	Y	1999	1999		0.750	1.570	0.820				0.820		
7		1675	A	NFSR	NOT	1970	Y	1999	1999		0.170	1.500	1.330				1.330		
7		1692		NFSR	NOT	1970	Y	1999	1999		4.140	6.010	1.870			1.870			
7		5224	D	NFSR	NOT	1988	Y	1999	1999		0.890	1.590	0.700				0.700		
7		5290		NFSR	NOT	1985	Y	1999	1999		2.180	2.580	0.400				0.400		
7		5294		NFSR	NOT	1981	Y	1999	1999		0.000	1.290	1.290				1.290		
7		10870		NFSR	NOT	1965	Y	1999	1999		0.000	0.250	0.250				0.250		
	President's Initiative																		
	TOTALS												64.577	0.000	0.000	8.540	56.037	0.000	64.577
1	Road Management on PC Lands	11648		NFSR		1982					0.150	0.300	0.150	0.150					
1	Acquired with LWCF - 11/27/2009	11648	A	NFSR		1982					0.180	0.380	0.200	0.200					
	Rd Mgmt on PC Lands w/LWCF																		
	TOTALS												0.350	0.350	0.000	0.000	0.000	0.000	0.350
1	Road Management on PC Lands	9739		NFSR	NOT			2012	2012	✓	0.010	0.100	0.090					0.090	
		9739	Y	NFSR	NOT			2012	2012	✓	0.000	0.280	0.280					0.280	
1	Acquired with LWCF, Sections 9 & 10	11606		UND	NOT			2010	2011	NA	0.000	0.100	0.100					0.100	
1	T21N, R17W	11609		UND	NOT			2010	2011	NA	0.000	0.100	0.100					0.100	
1	27-Aug-10	11610		UND	NOT			2010	2011	NA	0.000	0.100	0.100					0.100	
1		11611		UND	NOT			2010	2011	NA	0.000	0.150	0.150					0.150	
	Rd Mgmt on PC Lands (LWCF 9&10)																		
	TOTALS												0.820	0.000	0.000	0.000	0.000	0.820	0.820
7	Robert-Wedge Post-Fire Project	648	A	NFSR	NOT	1965		2007	2007	✓	0.000	0.450	0.450					0.450	
7	12/4/2004	803	G	NFSR	NOT	1971		2007	2007	✓	0.000	0.300	0.300				0.300		
7		5225		NFSR	NOT	1960		2006	2006	✓	0.000	3.820	3.820				3.820		
7		5225		NFSR	NOT	1967		2005	2006	✓	3.820	5.600	1.780				1.780		
7		5295		NFSR	NOT	76/83		2007	2007	✓	0.000	2.810	2.810				2.810		
7	Robert-Wedge Post-Fire Project	5295	A	NFSR	NOT	1984		2007	2007	✓	0.000	1.000	1.000				1.000		
7	12/4/2004	5295	B	NFSR	NOT	1983		2007	2007	✓	0.000	1.890	1.890				1.890		
7		5295	C	NFSR	NOT	1984		2007	2007	✓	0.000	0.600	0.600					0.600	
7		10755		NFSR	NOT	1970		2008	2007	✓	0.000	1.900	1.900				1.900		
7		10756		NFSR	NOT	1970		2008	2007	✓	0.000	0.800	0.800				0.800		

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	Robert-Wedge Post-Fire Project																		
	TOTALS												15.350	0.000	0.000	0.000	14.300	1.050	15.350
4	Rock Creek Rehabilitation																		
	25-Aug-95																		
4	Contract #44-0385-5-0328	1612		NFSR	NOT	1961		1996	1996	✓	1.250	5.320	4.070				4.070		
4		1612	B	NFSR	NOT	1963		1996	1996	✓	0.000	0.260	0.260				0.260		
4		1612	C	NFSR	NOT	1964		1996	1996	✓	0.000	0.300	0.300				0.300		
	Rock Creek Rehabilitation																		
	TOTALS												4.630	0.000	0.000	0.000	4.630	0.000	4.630
4	Rock Creek P.R. Supplement																		
	6-Dec-95																		
4		1612		NFSR	NOT			2001	2001	✓	0.000	1.250	1.250				1.250		
	Rock Creek P.R. Supplement																		
	TOTALS												1.250	0.000	0.000	0.000	1.250	0.000	1.250
8	Sheppard Griffin Salvage																		
	And Rehabilitation																		
	20-Nov-96																		
8		1166		NFSR	NOT	72/82		2002	2003	✓	1.126	1.920	0.794				0.794		
8		2846		NFSR	NOT	1983		2009	2010	✓	1.200	3.620	2.420				2.420		
8		2896		NFSR	NOT	1969		1999	2000	✓	2.710	2.940	0.230				0.230		
8		2918		NFSR	NOT	1975		2010	2011	✓	0.000	2.450	2.450				2.450		
8		2918		NFSR	NOT	75/82		2002	2003	✓	2.450	4.100	1.650				1.650		
8		2923		NFSR	NOT	1960		2003	2004	✓	0.000	3.800	3.842				3.842		
8		2927		NFSR	NOT	1975		2011	2012	✓	1.400	2.000	0.600				0.600		
8		2927		NFSR	NOT	1981		2009	2010	✓	2.000	3.020	1.020				1.020		
8		2949	A	NFSR	NOT	1984		2003	2004	✓	0.000	1.530	1.553				1.553		
8		2951		NFSR	NOT	1978		2002	2003	✓	3.607	4.200	0.593				0.593		
8		2961		NFSR	NOT	1983		1975	2011	✓	0.000	1.010	1.010				1.010		
8		2961		NFSR	NOT	1983		2009	2010	✓	1.010	3.190	2.180				2.180		
8		2970		NFSR	NOT	80/82		2002	2003	✓	0.000	2.410	2.410				2.410		
8		2973		NFSR	NOT	63-98		2009	2010	✓	0.000	3.220	3.220				3.220		
8		2976		NFSR	NOT	1967		2009	2010	✓	0.000	1.200	1.200				1.200		
8		5306	A	NFSR	NOT	1982		1999	2000	✓	0.000	0.340	0.340				0.340		
8		5308		NFSR	NOT	1982		2002	2003	✓	0.000	1.360	1.360				1.360		
8		5331		NFSR	NOT	1975		1999	2000	✓	0.210	1.590	1.380				1.380		
8		5348		NFSR	NOT	1979		1999	2000	✓	0.000	0.800	0.800				0.800		
8		5357		NFSR	NOT	1973		1999	2000	✓	0.000	0.160	0.160				0.160		
8		9601		NFSR							0.000	0.352	0.352	0.352					
8	Sheppard Griffin Salvage	9601		NFSR	NOT	1983		2003	2004	✓	0.352	2.120	1.768				1.768		
8	And Rehabilitation	9607		NFSR	NOT	1982		2003	2004	✓	0.000	1.208	1.208				1.208		
8		9608		NFSR	NOT	1980		2007	2008	✓	0.000	0.810	0.810				0.810		
8		9639		NFSR	NOT	1980		2003	2004	✓	0.000	1.000	1.000				1.000		
8		9639	A	NFSR	NOT	1980		2003	2004	✓	0.000	0.600	0.600				0.600		
8		9640	A	NFSR	NOT	1989		2003	2004	✓	0.000	0.810	0.810				0.810		
8		9647		NFSR	NOT	1981		2003	2004	✓	0.000	1.403	1.403				1.403		
8		9782	E	NFSR	NOT	1983		2003	2004	✓	0.000	1.180	1.180				1.180		
8	Letter to the File 3/29/2011	9784	B	NFSR	NFSR						0.000	0.370							
8		9784	B	NFSR	NOT	1983		2007	2008	✓	0.370	1.840	1.470				1.470		

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8	Letter to the File 3/29/2011	9784	D	NFSR	NFSR						0.000	0.600							
8		9887		NFSR	NOT	1983		2011	2012		0.000	4.010	4.010				4.010		
8		10106		NFSR	NOT	1983		2009	2010	✓	0.000	1.200	1.200				1.200		
8	Letter to the File 6/22/2011	10184		NFSR	NFSR						0.000	1.910							
8		10204		NFSR	NOT	1981		1999	2000	✓	0.000	1.750	1.750				1.750		
8		10205		NFSR	NOT	1982		2002	2003	✓	0.000	1.030	1.030				1.030		
		10206		NFSR	NOT	1981		2011	2012	✓	0.000	0.520	0.520				0.520		
8		10206		NFSR	NOT	1981		1999	2000	✓	0.520	1.490	0.970				0.970		
8		10207		NFSR	NOT	1981		1999	2000	✓	0.000	1.220	1.220				1.220		
8		10211		NFSR	NOT	1985		1999	2000	✓	0.000	0.700	0.700					0.700	
8		10230		NFSR	NOT	1982		1999	2000	✓	0.000	1.100	1.100				1.100		
8		11266		NFSR	NOT	1982		1999	2000	✓	1.090	2.120	1.030				1.030		
8		11267		NFSR	NOT	1982		1999	2000	✓	0.590	1.700	1.110				1.110		
	Sheppard Griffin Salvage																		
	TOTALS												54.453	0.352	0.000	0.000	53.401	0.700	54.453
4	Spotted Beetle	1115	A	NFSR	NOT	1964		2007	2007	✓	0.000	1.150	1.150					1.150	
4	29-Mar-02	1115	Y	NFSR	NOT	1964		2007	2007	✓	0.000	0.150	0.150					0.150	
4		1115	Z	NFSR	NOT	1964		2007	2007	✓	0.000	0.200	0.200					0.200	
4		2828		NFSR	NOT	1968		2004	2005	✓	0.321	4.680	4.359				4.359		
4		2828		NFSR	NOT	1968		2004	2004	✓	4.680	4.900	0.220					0.220	
4		2828	Y	NFSR	NOT	1968		2004	2004	✓	0.000	0.500	0.500					0.500	
4		2829		NFSR	NOT	1968		2008	2008	✓	5.397	7.660	2.263				2.263		
4		2829		NFSR	NOT	68/70		2004	2004	✓	7.660	7.850	0.190					0.190	
4		2831		NFSR	NOT	1961		2006	2007	✓	5.550	7.140	1.590				1.590		
4		2831	C	NFSR	NOT	1970		2006	2007	✓	0.000	2.500	2.500				2.500		
4		2831	Z	NFSR	NOT	1970		2005	2006	✓	0.000	0.100	0.100					0.100	
4		2847		NFSR	NOT	71/80		2006	2007	✓	0.000	6.600	6.600				6.600		
4		2847	A	NFSR	NOT	1991		2006	2007	✓	0.000	0.200	0.200				0.200		
4		2847	H	NFSR	NOT	1975		2006	2006	✓	0.000	0.100	0.100					0.100	
4		2847	K	NFSR	NOT	1980		2006	2006	✓	0.000	0.200	0.200					0.200	
4		2847	Y	NFSR	NOT	1981		2006	2006	✓	0.000	0.800	0.800					0.800	
4		9535		NFSR	NOT	1968		2004	2005	✓	0.000	0.578	0.578				0.578		
4		9734		NFSR	NOT	1961		2008	2008	✓	0.642	4.506	3.864				3.864		
4		9845		NFSR	NOT	1961		2008	2008	✓	0.000	1.000	1.000				1.000		
4		10103		NFSR	NOT	1969		2006	2007	✓	1.840	4.600	2.760				2.760		
4		10103	Y	NFSR	NOT	1975		2005	2006	✓	0.000	0.900	0.900					0.900	
4		10119		NFSR	NOT	1981		2004	2005	✓	3.174	4.060	0.886				0.886		
4		10130		NFSR	NOT	66,80		2008	2008	✓	0.000	0.630	0.630				0.630		
4		10183		NFSR	NOT	1966		2004	2005	✓	0.000	1.202	1.202				1.202		
4		10183	Y	NFSR	NOT	1967		2004	2004	✓	0.000	0.400	0.400					0.400	
4		10338		NFSR	NOT	1975		2006	2007	✓	0.000	1.335	1.335				1.335		
4		10339		NFSR	NOT	1966		2008	2008	✓	0.000	2.200	2.200				2.200		
4		11437		NFSR	NOT	1965		2006	2007	✓	0.000	2.500	2.500				2.500		
4		11447		NFSR	NOT	1991		2008	2008	✓	0.000	0.760	0.760				0.760		
4		11449		NFSR	NOT	1975		2006	2006	✓	0.000	0.500	0.500					0.500	
4		11452		NFSR	NOT	1961		2008	2008	✓	0.000	3.300	3.300				3.300		
4		11453		NFSR	NOT	1961		2005	2006	✓	0.612	2.200	1.588				1.588		
4		11454		NFSR	NOT	1980		2005	2006	✓	0.000	0.400	0.400					0.400	
4		11459		NFSR	NOT	1991		2006	2007	✓	0.000	2.220	2.220				2.220		
4		11467		NFSR	NOT	61/80		2005	2006	✓	0.000	1.300	1.300					1.300	

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4		11472		NFSR	NOT	1962		2005	2006	✓	0.000	0.650	0.650					0.650	
4		11472	A	NFSR	NOT	1963		2005	2006	✓	0.000	0.150	0.150					0.150	
4		11496		NFSR	NOT	1965		2004	2005	✓	0.000	0.149	0.149				0.149		
	Spotted Beetle TOTALS												50.394	0.000	0.000	0.000	42.484	7.910	50.394
4	Sullivan Creek Road Repair																		
4	28-Sep-94	547		NFSR	NOT	1962		1995	1996	✓	5.600	6.780	1.180				1.180		
4	Contract #43-0385-4-0372	547		NFSR	NOT	1962		1995	1995	✓	6.780	8.640	1.860				1.860		
4	Contract #43-0385-4-0372	547	C	NFSR	NOT	1959		1995	1995	✓	0.000	3.000	3.000				3.000		
	Sullivan Creek Road Repair TOTALS												6.040	0.000	0.000	0.000	6.040	0.000	6.040
6	West Side Reservoir Post-Fire	895	A	NFSR	NOT	59/65		2010	2010	✓	3.820	6.700	2.880				2.880		
6	1/12/2005	895	D	NFSR	NOT	1971		2009	2010	✓	9.300	10.800	1.500				1.500		
6		895	D	NFSR	NOT	1971		2005	2006	✓	10.800	12.540	1.740				1.740		
6		1601		NFSR	NOT	1970		2008	2007	✓	0.000	0.430	0.430				0.430		
6		1601		NFSR	NOT	1970		2005	2006	✓	0.430	2.400	1.970				1.970		
6		1607	A	NFSR	NOT	1980		2012	2013		0.000	0.530	0.530					0.530	
6		1609	B	NFSR	NOT	1988		2008	2009	✓	0.000	1.610	1.610				1.610		
6		1610		NFSR	NOT	66/76		2008	2009	✓	0.800	2.100	1.300				1.300		
6		2806		NFSR	NOT	70/75		2008	2008	✓	1.820	5.600	3.780				3.780		
6		2807		NFSR	NOT	1965		2008	2008	✓	0.000	2.386	2.386				2.386		
6		2817	A	NFSR	NOT	61/68		2010	2010	✓	0.000	0.360	0.360				0.360		
6		2817	B	NFSR	NOT	68/92		2010	2010	✓	0.000	1.310	1.310				1.310		
6		2818		NFSR	NOT	70/92		2005	2006	✓	0.000	2.610	2.610				2.610		
6		5253		NFSR	NOT	1970		2008	2009	✓	0.000	1.000	1.000				1.000		
6		5255		NFSR	NOT	70/79		2008	2009	✓	0.000	1.270	1.270				1.270		
6		5323		NFSR	NOT	63/68		2010	2010	✓	0.000	1.580	1.580				1.580		
6		5345		NFSR	NOT	1966		2008	2008	✓	0.000	0.337	0.337				0.337		
6		9688		NFSR	NOT	1975		2008	2008	✓	0.000	0.500	0.500					0.500	
6		9690		NFSR	NOT	1981		2005	2006	✓	0.000	0.850	0.850				0.850		
6		9691		NFSR	NOT	81/87		2005	2006	✓	0.000	0.600	0.600				0.600		
6		9692		NFSR							0.000	0.230	0.230	0.230					
6		9794		NFSR	NOT	1962		2008	2008	✓	0.000	1.345	1.345				1.345		
6		9797		NFSR	NOT	1970		2009	2010	✓	2.100	2.950	0.850				0.850		
6		9797	A	NFSR	NOT	1985		2009	2010	✓	0.000	0.370	0.370				0.370		
6		9834		NFSR	NOT	1980		2005	2006	✓	0.000	0.300	0.300					0.300	
6		9836		NFSR	NOT	1978		2007	2008		0.000	1.300	1.300				1.300		
6		9836	A	NFSR	NOT	1978		2007	2008		0.000	0.800	0.800				0.800		
6		9838		NFSR	NOT	1969		2005	2006	✓	4.240	5.940	1.700				1.700		
6		9841		NFSR							0.000	0.180	0.180	0.180					
6		9841		NFSR	NOT	1970		2005	2006	✓	0.180	0.580	0.400				0.400		
6		9842		NFSR	NOT	1979		2007	2008		0.000	0.350	0.350					0.350	
6		9862		NFSR	NOT	1981		2010	2010	✓	0.000	1.140	1.140				1.140		
6		9864		NFSR	NOT	1980		2005	2006	✓	0.000	1.440	1.440				1.440		
6		9865		NFSR	NOT	1980		2005	2006	✓	0.000	0.490	0.490				0.490		
6		10171		NFSR	NOT	1974		2005	2006	✓	0.000	0.400	0.400				0.400		
6		10172		NFSR	NOT	1974		2005	2006	✓	0.000	0.500	0.500				0.500		
6		10173		NFSR	NOT	1992		2005	2006	✓	0.000	0.350	0.350				0.350		
6		10293		NFSR	NOT	76/81		2009	2010	✓	0.000	1.300	1.300				1.300		

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6		10293	A	NFSR	NOT	1981		2009	2010	✓	0.000	0.900	0.900				0.900		
6		10331		NFSR	NOT	1971		2005	2006	✓	0.000	0.800	0.800				0.800		
6		10341		NFSR	NOT	1970		2005	2006	✓	0.000	0.890	0.890				0.890		
6		10341	A	NFSR	NOT	1992		2005	2006	✓	0.000	0.360	0.360				0.360		
6		11026		NFSR	NOT	1988		2008	2009	✓	0.000	1.610	1.610				1.610		
6		11028		NFSR	NOT	1988		2008	2009	✓	0.000	0.610	0.610				0.610		
6		11051		NFSR	NOT	1992		2010	2010	✓	0.000	0.580	0.580				0.580		
6		11054		NFSR	NOT	1992		2007	2008		0.000	0.600	0.600				0.600		
6		11061		NFSR	NOT	1970		2007	2007	✓	0.000	0.830	0.830				0.830		
6		11061		NFSR	NOT	1970		2005	2006	✓	0.830	1.800	0.970				0.970		
	West Side Reservoir Post-Fire																		
	TOTALS												50.138	0.410	0.000	0.000	48.048	1.680	50.138
6	Wounded Buck Quarry																		
	16-Mar-99	5339	A	NFSR	NFSR														
	Wounded Buck Quarry																		
	TOTALS												0.000	0.000	0.000	0.000	0.000	0.000	0.000
	GRAND TOTALS			NOTE: When new projects are added, manually update the sum formula.									888.211	125.618	888.211	70.659	527.465	164.469	1776.422
				CUMULATIVE TOTALS FOR FISCAL AND CALENDAR YEARS															
	TOTALS PRIOR TO "1995" THAT ARE LISTED ON THIS SHEET																0.300	11.000	11.300
	miles accomplished 1/1 - 9/30/95														0.950		18.980	42.510	62.440
	FISCAL YEAR TOTALS "1995"												178.840	83.600	0.950		19.280	53.510	157.340
	miles accomplished 9/30 - 12/31/95														4.230		2.940	21.830	29.000
	CALENDAR YEAR TOTALS "1995"												178.840	54.600	5.180		22.220	75.340	157.340
	miles accomplished 1/1 - 9/30/96														27.280		0.000	1.600	28.880
	FISCAL YEAR TOTALS "1996"												326.110	171.410	32.460		22.220	76.940	303.030
	miles accomplished 9/30 - 12/31/96														0.000		0.000	11.500	11.500
	CALENDAR YEAR TOTALS "1996"												326.110	159.910	32.460		22.220	88.440	303.030
	miles accomplished 1/1 - 9/30/97														9.290		0.000	0.000	9.290
	FISCAL YEAR TOTALS "1997"												437.710	282.620	41.750		22.220	88.440	435.030
	miles accomplished 9/30 - 12/31/97														18.500		0.610	0.000	19.110
	CALENDAR YEAR TOTALS "1997"												438.320	264.120	60.250		22.830	88.440	435.640
	miles accomplished 1/1 - 9/30/98														17.410		0.950	0.420	18.780
	FISCAL YEAR TOTALS "1998"												457.650	257.240	77.660		23.780	88.860	447.540
	miles accomplished 9/30 - 12/31/98														0.000		0.000	0.000	0.000
	CALENDAR YEAR TOTALS "1998"												457.650	257.240	77.660		23.780	88.860	447.540
	miles accomplished 1/1 - 9/30/99														0.000	33.680	39.080	0.000	72.760
	FISCAL YEAR TOTALS "1999"												568.960	295.790	77.660	33.680	62.860	88.860	558.850
	miles accomplished 9/30 - 12/31/99														9.240	104.860	0.000	0.000	114.100
	CALENDAR YEAR TOTALS "1999"												678.480	378.980	0.000	42.920	167.720	88.860	678.480
	miles accomplished 1/1 - 9/30/00														22.230	14.310	0.700	0.000	37.240
	FISCAL YEAR TOTALS "2000"												680.520	343.780	0.000	65.150	182.030	89.560	680.520
	miles accomplished 9/30 - 12/31/00														0.000	0.000	0.000	0.000	0.000
	CALENDAR YEAR TOTALS "2000"												680.520	343.780	0.000	65.150	182.030	89.560	680.520
	miles accomplished 1/1 - 9/30/01														0.000	0.000	1.250	0.000	1.250
	FISCAL YEAR TOTALS "2001"												680.520	342.530	0.000	65.150	183.280	89.560	680.520
	miles accomplished 9/30 - 12/31/01														0.000	0.000	0.000	0.000	0.000

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ROAD DECOMMISSIONING PROJECTS

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DIST	Decision Name	Road No.	Spur	Beginning System	System Now	Year Const	Pres. Init. \$\$	Year Reclaim (CY)	Year Reclaim (FY)	AD-112 on file	Beg. M.P.	End M.P.	Total Length	Only Has Decision	Category 3 Roads Reclaimed & Left as System Roads, Still Monitor for A19	Category 1 System Roads Reclaimed and Moved to Historic But Still Monitor for A19	Category 2 System Roads Reclaimed and Moved to Historic = Revegetated - No Monitoring	Category 4 Moved to Historic, Naturally Revegetated, No Contract Work Needed, No Monitoring	TOTALS
	CALENDAR YEAR TOTALS "2001"												670.210	332.020	0.000	65.150	183.280	89.560	670.010
	miles accomplished 1/1 - 9/30/02															0.000	0.000	0.000	0.000
	FISCAL YEAR TOTALS "2002"												670.210	332.020	0.000	65.150	183.280	89.560	670.010
	miles accomplished 9/30 - 12/31/02															0.000	55.344	1.200	56.544
	CALENDAR YEAR TOTALS "2002"												808.492	413.958	0.000	65.150	238.624	90.760	808.492
	miles accomplished 1/1 - 9/30/03															-2.320	-0.620	14.110	11.170
	FISCAL YEAR TOTALS "2003"												804.542	403.888	0.000	62.830	238.004	104.870	809.592
	miles accomplished 9/30 - 12/31/03															0.000	25.255	0.000	25.255
	CALENDAR YEAR TOTALS "2003"												809.854	378.840	0.000	62.830	263.259	104.870	809.799
	miles accomplished 1/1 - 9/30/04															7.840	6.544	15.250	29.634
	FISCAL YEAR TOTALS "2004"												809.244	348.451	0.000	70.670	269.803	120.120	809.044
	miles accomplished 9/30 - 12/31/04															0.000	16.082	0.257	16.339
	CALENDAR YEAR TOTALS "2004"												810.183	333.251	0.000	70.670	285.885	120.377	810.183
	miles accomplished 1/1 - 9/30/05															0.000	0.000	0.700	0.700
	FISCAL YEAR TOTALS "2005"												810.183	332.141	0.000	70.670	285.885	121.077	809.773
	miles accomplished 9/30 - 12/31/05															0.000	20.398	6.990	27.388
	CALENDAR YEAR TOTALS "2005"												894.163	389.143	0.000	70.670	306.283	128.067	894.163
	miles accomplished 1/1 - 9/30/06															0.000	18.406	3.600	22.006
	FISCAL YEAR TOTALS "2006"												894.839	367.813	0.000	70.670	324.689	131.667	894.839
	miles accomplished 9/30 - 12/31/06															0.000	24.659	0.000	24.659
	CALENDAR YEAR TOTALS "2006"												895.128	343.443	0.000	70.670	349.348	131.667	895.128
	miles accomplished 1/1 - 9/30/07															0.000	18.910	8.220	27.130
	FISCAL YEAR TOTALS "2007"												895.128	316.313	0.000	70.670	368.258	139.887	895.128
	miles accomplished 9/30 - 12/31/07															0.000	11.990	2.970	14.960
	CALENDAR YEAR TOTALS "2007"												895.518	301.743	0.000	70.670	380.248	142.857	895.518
	miles accomplished 1/1 - 9/30/08															0.000	36.210	2.400	38.610
	FISCAL YEAR TOTALS "2008"												879.470	247.085	0.000	70.670	416.458	145.257	879.470
	miles accomplished 9/30 - 12/31/08															-0.011	9.845	0.000	9.834
	CALENDAR YEAR TOTALS "2008"												880.704	238.485	0.000	70.659	426.303	145.257	880.704
	miles accomplished 1/1 - 9/30/09															0.000	6.265	0.000	6.265
	FISCAL YEAR TOTALS "2009"												886.969	238.485	0.000	70.659	432.568	145.257	886.969
	miles accomplished 9/30 - 12/31/09															0.000	16.160	0.000	16.160
	CALENDAR YEAR TOTALS "2009"												870.958	206.314	0.000	70.659	448.728	145.257	870.958
	miles accomplished 1/1 - 9/30/10															0.000	48.642	6.200	54.842
	FISCAL YEAR TOTALS "2010"												881.366	161.880	0.000	70.659	497.370	151.457	881.366
	miles accomplished 9/30 - 12/31/10															0.000	0.000	0.000	0.000
	CALENDAR YEAR TOTALS "2010"												881.366	161.880	0.000	70.659	497.370	151.457	881.366
	miles accomplished 1/1 - 9/30/11															0.000	1.770	2.970	4.740
	FISCAL YEAR TOTALS "2011"												881.366	161.880	0.000	70.659	499.140	154.427	886.106
	miles accomplished 9/30 - 12/31/11															0.000	8.860	-0.750	8.110
	CALENDAR YEAR TOTALS "2011"												879.006	146.670	0.000	70.659	508.000	153.677	879.006
	miles accomplished 1/1 - 9/30/12															0.000	9.555	3.470	13.025
	FISCAL YEAR TOTALS "2012"												879.157	133.796	0.000	70.659	517.555	157.147	879.157
	miles accomplished 9/30 - 12/31/12															0.000	0.000	0.000	0.000
	CALENDAR YEAR TOTALS "2012"												879.157	133.796	0.000	70.659	517.555	157.147	879.157
	miles accomplished 1/1 - 9/30/13															0.000	0.850	2.600	3.450
	FISCAL YEAR TOTALS "2013"												879.157	141.733	0.000	70.659	518.405	159.747	890.544
	miles accomplished 9/30 - 12/31/13															0.000	0.000	0.530	0.530
	CALENDAR YEAR TOTALS "2013"												887.594	138.253	0.000	70.659	518.405	160.277	887.594
	miles accomplished 1/1 - 9/30/14															0.000	4.220	2.797	7.017
	FISCAL YEAR TOTALS "2014"												887.594	138.253	0.000	70.659	522.625	163.074	894.611

Maintained by Trisha Kassner

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ROAD DECOMMISSIONING PROJECTS

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	2009 (FY10) NOTE: Added Firefighter Project.																		
	2009 (FY10) NOTE: Paint Emery Project mileage updated due to ground survey: added 0.245 miles to road 2834.																		
	2009 (FY10) NOTE: West Side Reservoir mileage updated due to ground survey: added 0.10 of Decom. miles to road 9797.																		
	2010 (FY10) NOTE: Added Project - "Road Management on PC Lands Acquired with LWCF" - for total of +0.35 miles.																		
	2010 (FY10) NOTE: Road 11069 under Firefighter Project was incorrectly entered as decommission entire road, only 0.10 miles to be decommissioned adding 0.15 miles back onto system.																		
	2010 (FY10) NOTE: Road 9705 under Crane Mountain Salvage was verified as being only 0.729 miles long as opposed to 1.00 miles. 0.271 miles was dropped from having been decommissioned.																		
	2010 (FY10) NOTE: Road 1048 under Paint Emery was modified under the Firefighter Project resulting in leaving miles open on the north end and the south end (adjustment of -2.496 miles).																		
	2010 (FY10) NOTE: Road 9854 under Paint Emery was erroneously shown as being decommissioned beginning at MP 1.30 - the decision shows it beginning at MP 1.80 just beyond road 9854A (adjustment of -0.500 miles).																		
	2010 (FY10) NOTE: Road 9778 under Paint Emery was erroneously shown as being decommissioned beginning at MP 1.81 to the end (northern end). Decision was to waterproof and leave on system (adjustment of -0.69 miles).																		
	2010 (FY10) NOTE: Road 9778 under Paint Emery mileage changed from beginning at 0.55 to 0.576 to reflect ground conditions (adjustment of -0.026)																		
	2010 (FY10) NOTE: Road 11140 under Paint Emery was shown as being decommissioned beginning at MP 0.00 to 0.09. Firefighter Project decision is leave on system (adjustment of -0.09 miles).																		
	2010 (FY10) NOTE: Road 5334 under Paint Emery was shown as being decommissioned beginning at MP 0.00 to 1.50, actual ground miles was 0.00 to 1.519 (adjustment of +0.019 miles).																		
	2010 (FY10) NOTE: Added new Decision: Road Management on Plum Creek Land Acquired with WLCF, Sections 9 and 10; T21N, R17W (adjustment of +0.82 miles)																		
	2011 (FY11) NOTE: Road 10184 under Sheppard Griffin (originally planned to be decommissioned) is now being kept as NFSR (adjustment of -1.910 miles).																		
	2011 (FY11)NOTE: Roads 9784D & 9784B under Sheppard Griffin (originally planned to be decommissioned) are now waterproofed and being kept as NFSR (adjustment of -0.6 and -0.37 miles, respectively - for a total of -0.97 miles). As of 10/31/2011, we are still waiting on a letter to the file officially keeping these on the system.																		
	2011 (CY11)NOTE: Road 10206 under Sheppard Griffin from MP 0.00-0.520 was inadvertently left off of this spreadsheet. (added +0.520 miles)																		
	2012 (CY12) NOTE: MP on road 315E under Big Mtn changed from decision map of 0.43 (no MP provided) to accurate ground-measured MP of 0.311. (added +0.119 miles)																		
	2012 (CY12) NOTE: BMP on road 1962 under Moose Post-Fire Project changed from 1.010 to 0.978 to reflect accurate on-the-ground berm placement (added +0.032 miles).																		
	2013 (CY13) NOTE: Rd 11241 re-routed in 2011 under Lost Mountain Reconstruction; re-named OB section 'Lost Mtn Re-route' # 11241H, 0.120 mi. long; Status = DE & System = NOT. Unsure if this will affect decommission miles.																		
	2013 (FY14) NOTE: Glacier Loon Fuels Reduction Project Decision of 2/13/13 was added on 11/21/2013																		
	2014 (FY2015) NOTE: Type-o on mileage Rd 11648A in Glacier Loon: actual road mileage is 0.380, not 0.180. Entire road was decommissioned under no-work-needed (added +0.200 miles).																		
	2015 (CY2015) NOTE: Clarification on Road 2989 mileage from Good Cr. Resource Management; map was accurate, mileage was not (added +0.203 miles).																		



United States Department of Agriculture
Forest Service

Glacier View Ranger District
Flathead National Forest
Flathead County, Montana

July 2010

SHORTY and COAL CREEKS STREAM RESTORATION PROJECT

DECISION MEMO

I. DECISION TO BE IMPLEMENTED

The decision involves activities in two watersheds, Shorty Creek and Coal Creek, on the Glacier View Ranger District, Flathead National Forest. Shorty Creek is a third order stream within the Whale Creek drainage. It supports a population of bull trout and westslope cutthroat trout. The drainage is entirely within grizzly bear security core and Management Situation 1. An old road that has been bermed to the south at Link Lake trailhead (Road 589) extends for 7 miles to the north at Whale Creek Road 318 where it is also bermed. This road has been closed to motorized traffic since the early 1980's. Motorized traffic is occurring behind the south berm at the end of Road 589 for about 2 miles. This activity has prevented the establishment of alder and other vegetation that dominates the road bed to the north. North of this 2 mile section, down to the Shorty Creek and South Fork Shorty Creek confluence, foot traffic is nearly impossible on the road bed due to dense coverage of alder shrubs. Along the remaining section, from the confluence to the berm at the junction of the Whale Creek Road 318, there is an established horse trail on the old road bed although it is not a maintained trail.

Six culverts remain in the southern 2.5 miles of road that are undersized and pose a high risk of failure. If these culverts fail during a storm event, unnecessary sediment would be transported downstream jeopardizing spawning and rearing habitat for fish and impacting water quality. A TMDL was recently completed for Whale Creek in 2005 and this activity was identified to alleviate sediment conditions in Whale Creek. The culvert on Shorty Creek is large (8' diameter) and is at a low risk of failure; however there is no reason to retain it for management purposes.

Coal Creek is a third order stream that also supports bull trout and westslope cutthroat trout. Three actions are proposed in Coal Creek. 1) Road 10802 has naturally revegetated and only a small portion of its 4 mile length, but only a small portion lies within grizzly bear security core. Road 10802 (classified as naturally revegetated in the database) has been bermed for a decade and has been closed to motorized use. Fifteen culverts remain, many of them cross drains. Several of the culverts are undersized and pose a high risk of failure. All culverts are proposed to be removed. 2) An avalanche in 2009 partially removed a culvert on Road 5277 which made the last ¾ mile of road inaccessible. The culvert was removed in August 2009 and the stream

channel was restored to its natural width. Removal of one 24" culvert is proposed and berm installed at a better turnaround location. The road is currently gated year round. 3) Road 5279 is currently gated year round. There is one 24" culvert that is behind the gate. Removal of this culvert is proposed and berm installed.

These actions are being proposed to protect important bull trout spawning areas. If these culverts fail during a storm event, unnecessary sediment would be transported downstream jeopardizing spawning and rearing habitat for fish and impacting water quality. A TMDL was also completed for Coal Creek in 2005 and road waterproofing was identified to alleviate sediment conditions in Coal Creek.

Activities will occur between July 31 and September 1, 2010 and will not result in an increase in public use or user type. Culvert removal will take approximately 5 days in Shorty Creek and 5 days in Coal Creek.

II. PURPOSE

The purpose of the project is to restore stream channels to their proper widths at locations where culverts have previously failed and/or to remove culverts to prevent future failures along four roads that have been long abandoned.

III. PUBLIC INVOLVEMENT

Fisheries and wildlife biologists from the Montana Department of Fish, Wildlife, and Parks and U.S. Fish and Wildlife Service have been consulted and concurred with the benefits involved in this decision.

IV. REASONS FOR CATEGORICALLY EXCLUDING THE PROPOSED ACTION

A. Category of Exclusion

Decisions may be categorically excluded from documentation in an environmental impact statement (EIS) or environmental assessment (EA) when they are within one of the categories identified by the Chief to the Forest Service in Forest Service Handbook (FSH) 1909.15, Section 30.3, proposed actions may be categorically excluded from further analysis and documentation, if there are no extraordinary circumstances related to the proposed action and if the proposed action:

- "Is within one of the categories in the Department of Agriculture (USDA) NEPA policies and procedures in 7 CFR Part 1b" *or*
- "Is within a category listed in sec. 31.1b or 31.2."

This project may be categorically excluded from documentation in an EIS or EA as it is a routine activity within a category of exclusion and there are no extraordinary circumstances related to the decision that may result in a significant individual or cumulative effect on the quality of the human environment.

The proposed action falls within a category of actions listed in Forest Service Handbook 1909.15, 31.1b, Category 4: "Repair and maintenance of roads, trails, and landline boundaries."

6/12/5/17 SUPPLEMENT TO KEITH HAMMER'S ROADS TO RUIN TMJF 1110
The proposed action is for the purpose of putting long abandoned roads into a self-maintaining state where maintenance of road culverts is no longer needed. Additionally, the project falls into a category of actions under 31.2(7) "modification of maintenance of stream or lake aquatic habitat improvement structures using native material or normal practices" since stream channels will be restored to their natural stream width.

B. Relationship to Extraordinary Circumstances

Clarification of extraordinary circumstances was made by the Forest Service through an interim directive that was published in the Federal Register on August 23, 2002 and then subsequently in 2004 as Forest Service Handbook direction (see FSH 1909.15, Section 30.3). The following is a list of resource conditions that should be considered in determining whether extraordinary circumstances related to the proposed action warrant further analysis and documentation in an EA or EIS. The mere presence of one or more of these resource conditions does not preclude use of a categorical exclusion. It is the degree of the potential effect of a proposed action on these resource conditions that determines whether extraordinary circumstances exist.

A. Federally listed species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species

Threatened, endangered, and proposed species are managed under the authority of the Federal Endangered Species Act (PL 93-205, as amended) and the National Forest Management Act (PL 94-588). Under provisions of the Endangered Species Act (ESA), Federal agencies shall use their authorities to carry out programs for the conservation of listed species, and shall insure any action authorized, funded, or implemented by the agency is not likely to: (1) adversely affect listed species or designated critical habitat; (2) jeopardize the continued existence of proposed species; or (3) adversely modify proposed critical habitat (16 USC 1536).

Biological Assessments conducted for this project analyzed the potential effects of the proposed federal action on all threatened, endangered, and proposed species known or suspected to occur in the proposed action influence area. The project areas lie within an area designated as lynx critical habitat and may, affect but will not likely adversely affect critical habitat. The projects may affect but not likely to adversely affect lynx.

The projects lie within areas of MS-1 grizzly bear habitat. A biologist determined that the Shorty and Coal Creek projects may affect but will likely not adversely affect the grizzly bear as a result of proposed motorized use in grizzly security core and sent a biological assessment to the US Fish and Wildlife Service (USFWS) for informal consultation. The USFWS concurred with this determination on June 2010 with the following determination:

"Disturbance to grizzly bears is possible but would be very short-term and will not occur during the spring period, April 1 through July 1, when grizzly bear habitat is most limited. Activities in both subunits would only occur between July 31 and September 1. During this period, grizzly bears typically use mid to higher elevation sites that provide huckleberry shrub fields. This habitat type is more abundant than spring habitat, in the NCDE. Some activity will occur within grizzly bear security core. However, even if the affected segments were considered 'open roads' during activity, both subunits would continue to meet or exceed open road density and security core standards based on amendment 19 (A19). Also, the duration would be very short, no more than 10 days in Shorty Creek and 5 days in Coal Creek. Vehicle use of the area would be minimal - consisting of an excavator, and all activities would occur on or immediately adjacent to the existing road. No public use of these roads would occur. This type and level of short-term disturbance in these subunits is unlikely to have significant impacts on grizzly bears. Upon completion of activities, both open

road density and security core would return to pre-project numbers. Total road densities would not change during activity or post-project. Upon project completion, the on-the-ground effectiveness of existing road closures to provide secure habitat for grizzly bears would be increased."

The botanist determined that for threatened and endangered plant species the project will have *"No effect"* on the "threatened" water howellia and Spalding's catchfly, its habitat, or potential habitat for these species (refer to documentation in the project record).

This project fits within the conditions allowable under the *2008 Programmatic Biological Assessment (BA) of Road Related Actions on Western Montana's Federal Lands that are Likely to Adversely Affect Bull Trout (Salvelinus confluentus)* prepared by the U.S. Forest Service (USFS) and Bureau of Land Management (BLM) for road management actions on the Beaverhead-Deerlodge, Bitterroot, Flathead, Helena, Kootenai, and Lolo National Forests (refer to the BA in the project record).

The fisheries biologist determined that there will be *"a Likely to Adversely Effect"* on the threatened bull trout because of sediment delivered to the stream channel while removing culverts and is covered by the programmatic BO by the U.S. Fish and Wildlife Service (USFWS) for road related actions for bul trout.

Sensitive species are managed under Forest Service policy (Forest Service Manual [FSM] 2670). Policy directives (FSM 2672.4) state that all planned activities should be reviewed for possible effects on sensitive species. Sensitive species are to receive special management emphasis to ensure their viability and to preclude trends that could threaten the species with extinction resulting in federal listing under the Endangered Species Act (FSM 2672.1).

The Biological Evaluation (BE) prepared for "sensitive" wildlife species determined that the road decommissioning will have *"No impact"* on the following species: yellow-billed cuckoo, gray wolf, bald eagle, peregrine falcon, flammulated owl, harlequin duck, common loon, black-backed woodpecker, northern leopard frog, Townsend's big-eared bat, long-legged myotis, long-eared myotis, northern bog lemming, fisher, wolverine, northern leopard frog, and neotropical migratory birds. For the western toad, the biologist determined that it is possible that the riparian area and the streams themselves provide habitat for boreal toads. Therefore, it is possible that the proposed project *"May impact some individual boreal toads but the project is unlikely to cause a decline in population viability or lead to federal listing of this species or its habitat"* (refer to the BE in the project record).

The project will have *"No effect"* on the Regional Forester's sensitive plants listed in with habitat affinities for aquatic, fens and fen margins, other wetlands, wet coniferous forest, subalpine and alpine, upland coniferous forest; grasslands and forest openings; and moist cliffs, seeps, and talus slopes due to the lack of known occurrences or potential habitat within the project area (refer to documentation in the project record). The project may also affect individuals and habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability for all Regional Forester's sensitive plants with habitat affinities for riparian habitat guilds. This determination is based on the presence of some potential habitat for this habitat group within and near project area (refer to documentation in the project record).

The fisheries biologist determined for the "sensitive" westslope cutthroat trout the effects of the road decommissioning "*May adversely affect individuals but will not lead towards a trend of Federal listing*" (refer to documentation in the project record). This project will result in an increase of sedimentation that will affect juvenile cutthroat. This effect will be short term but will result in a long term benefit by reducing sediment. The removal of culverts will also result in long term benefits by minimizing the risk of potential future failure.

B. Flood plains, wetlands, or municipal watersheds:

This project is not located in a municipal watershed or wetland. The project does take place in the flood plain of Shorty and Coal creeks; however, the magnitudes of the effects are low due to a temporary increase of sediment from the culvert removals while the objective is to ultimately improve habitat conditions, not impact them. Wetlands will not be impacted.

C. Congressionally designated areas, such as wilderness, wilderness study areas, or national recreational areas

Project activities do not occur in any Congressionally designated areas.

D. Inventoried roadless areas

Project activities do not occur in an inventoried roadless area.

E. Research Natural Areas

Project activities do not occur in a research natural area.

F. American Indians and Alaska Native religious or cultural sites, archaeological sites, or historic properties or areas

No known historic or cultural sites have been identified within the project boundary by the forest archeologist and (refer to reports in the project record).

As a result of the above discussion and supporting project record documentation, I find that the degree of effect on extraordinary circumstances does not warrant preparation of an environmental assessment or environmental impact statement.

V. FINDINGS REQUIRED BY OTHER LAWS

The Flathead Land and Resource Management Plan (Forest Plan) establishes management direction for the Flathead National Forest. This management direction is achieved through the establishment of Forest goals and objectives, standards, and guidelines, and Management Area goals and accompanying standards and guidelines. Project implementation consistent with this direction is the process in which desired conditions described by the Forest Plan are achieved. The National Forest Management Act requires that all resource plans are to be consistent with the Forest Plan (16 USC 1604(i)).

The Forest Plan management area for this area is MA 12 and MA17 which includes riparian

areas consisting of aquatic, riparian, and a portion of terrestrial ecosystems along most perennial streams, lakes, ponds, marshlands, bogs, and some important seasonal flow streams. Disturbance activities will be occurring with these riparian areas; however, these activities are intended to provide long term benefit for aquatic habitat. Additionally, the project will reestablish perennial stream flow and remove a fish barrier culvert.

The proposed action is consistent with Flathead Land and Resource Management Plan (LRMP) direction related to Best Management Practices for road maintenance shown of pages II-40 thru II-45 which were designed to protect the quality of the water resource. The proposed action is consistent with Flathead LRMP direction for road maintenance described on page II-54.

I find that after reviewing Forest Plan direction, my decision is consistent with its goals, standards, and objectives.

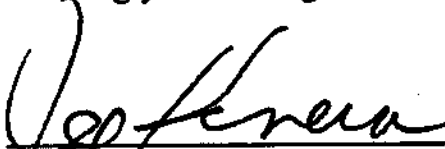
This decision is not expected to negatively affect the civil rights of consumers, minority groups, women, or Indian tribes. Subsistence activities will not be disproportionately reduced for any of the identified groups. The Flathead Indian Reservation is 80 miles from the project area, and the project area does not provide resources that cannot also be found in the surrounding area or in closer proximity to the reservation. This decision is not expected to negatively affect wildlife that may be used for subsistence. No environmental health hazards are expected to result from implementation of the decision. This project should not disproportionately affect one income group over another. This project is in compliance with Executive Order 12898, which requires Federal actions to address environmental justice in minority and low-income populations. The USDA is an equal opportunity provider and employer.

To the best of my knowledge, this decision complies with all other applicable laws, regulations, and policies such as the National Forest Management Act, National Environmental Policy Act, the Clean Water and Air Acts, Endangered Species Act, and the Equal Employment Opportunity Act.

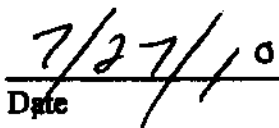
VI. IMPLEMENTATION

This decision is not subject to administrative appeal pursuant to 36 CFR 215.12(f). Implementation of this decision will begin in August 2010 during low flow periods and be completed prior to September 1, 2010 to avoid impacts to spawning bull trout.

Detailed records of the environmental analysis are available for public review at the Hungry Horse Ranger Station, 10 Hungry Horse Drive (P.O. Box 190340), Hungry Horse, Montana 59919. For more information on this stream restoration decision, contact Pat Van Eimeren, at the Hungry Horse Ranger Station (406) 387-3863.


JIMMY J. DEHERRERA

District Ranger
Glacier View and Hungry Horse Ranger Districts


Date

BIOLOGICAL ASSESSMENT FOR TERRESTRIAL WILDLIFE SPECIES SHORTY AND COAL CREEK STREAM RESTORATION PROJECT FLATHEAD NATIONAL FOREST

I. INTRODUCTION

The purpose of this Biological Assessment is to review the possible effects of the proposed federal action on threatened, endangered, and proposed species and their habitats. Threatened, endangered, and proposed species are managed under the authority of the Federal Endangered Species Act (PL 93-205, as amended) and the National Forest Management Act (PL 94-588). Under provisions of Section 7 (a) (2) of the Endangered Species Act of 1973 as amended, federal agencies shall use their authorities to carry out programs for the conservation of listed species, and shall insure any action authorized, funded, or implemented by the agency is not likely to: (1) adversely affect listed species or designated critical habitat; (2) jeopardize the continued existence of proposed species; or (3) adversely modify critical habitat (16 USC 1536).

This Biological Assessment analyzes the potential effects of the proposed federal action on all threatened, endangered, and proposed species known or suspected to occur in the proposed action influence area (Table 1). This species list was confirmed from the Montana Field Office of the US Fish and Wildlife Service on November 2, 2009. Life history information on these species can be found in the reference document "The Distribution, Life History, and Recovery Objectives For Region One Threatened, Endangered, and Proposed Terrestrial Wildlife Species" (USDA Forest Service 2001) and is incorporated by reference in this Biological Assessment.

Table 1. Threatened, Endangered, and Proposed Terrestrial Wildlife Species Known or Suspected to Occur within the Influence Area of the Proposed Action.

Species	Status	Occurrence
Canada Lynx (<i>Lynx canadensis</i>)	Threatened	Resident
Grizzly Bear (<i>Ursus arctos</i>)	Threatened	Resident

Determination of Effects

Implementation of the proposed Federal action: 1) "may affect - is not likely to adversely affect" grizzly bears, 2) "may affect, but is not likely to adversely affect" Canada lynx, and 3) "may affect, but is not likely to adversely affect" Canada lynx critical habitat.

Consultation Requirements

In accordance with the Endangered Species Act (ESA), its implementation regulations (50 CFR 402.13), and FSM 2671.4, the Flathead National Forest is required to request written concurrence or consultation from the United States Fish and Wildlife Service (FWS) with respect to determinations of potential effects on Canada lynx, Canada lynx critical habitat, and grizzly bears.

Need For Re-Assessment Based On Changed Conditions

The Biological Assessment findings are based on the best current data and scientific information available. A revised Biological Assessment must be prepared if: (1) new information reveals affects, which may impact threatened, endangered, and proposed species or their habitats in a manner or to an extent not considered in this assessment; (2) the proposed action is subsequently modified in a manner that causes an affect, which was not considered in this assessment; or (3) a new species is listed or habitat identified, which may be affected by the action.

II. PROPOSED ACTION

The purpose of the project is to restore segments of the Shorty Creek and Coal Creek stream channels to their proper width at locations where culverts have previously failed and to remove culverts to prevent future failures along a road that has been long abandoned. If these culverts fail during a storm event, unnecessary sediment would be transported downstream. Culvert removal is needed to: 1) maintain water quality and 2) prevent sediment from being transported downstream, jeopardizing important spawning and rearing habitat for Threatened bull trout as well as cutthroat trout.

Shorty Creek

Shorty Creek is a third order stream within the Whale Creek drainage—a stream that flows into the North Fork Flathead River. The project not only includes culvert removal and streambed restoration, but would also fortify closure devices on a restricted road where illegal motorized use is occurring.

The culverts are accessed by Road #589, which is approximately 7 miles in length. The south end of Road 589 is bermed at the Link Lake Trailhead and the north end is bermed at its junction with Whale Creek Road 318. A total of eight culverts are planned for removal in the upper 1 ½ miles of the South Fork of Shorty Creek. One culvert is planned for removal in the lower 2 ½ miles of Shorty Creek (Map 1). Six of these culverts are undersized and pose a high risk of failure. If these culverts fail during a storm event, unnecessary sediment would be transported downstream, jeopardizing spawning and rearing habitat for fish and impacting water quality. A TMDL was recently completed for Whale Creek in 2005 and the proposed culvert removal was identified to alleviate detrimental sediment conditions in Whale Creek.



Figure 1 – Example of proposed culvert removal and stream restoration in Shorty Creek.



Figure 2 – Culvert to be removed from Shorty Creek/ S. Fk. Shorty Cr.

Culvert removal would occur between July 31 and September 1, 2010. The excavator would access culverts in the upper end of the South Fork of Shorty Creek from the Link Lake Trailhead. The excavator would access culverts in the north end of Shorty Creek from the Whale Creek Road. This would result in trampling of brush on Road #589, leaving stubs from broken off shrubs and small trees sticking up on two sections of the roadbed (Map 1). Stream restoration and replacement of road closures would take a maximum of 5 days in each location. The excavator would be used to remove culverts, restore the stream channel, and re-close each end of Road #589 with numerous berms, logs, rocks, and brush once stream work is completed. A flatbed truck would be used to haul away old culverts once they are dug out to open roads by the excavator.

Coal Creek

A TMDL was completed for Coal Creek in 2005 and road waterproofing was identified to alleviate sediment conditions in Coal Creek. All fifteen culverts remaining on three closed roads in the Coal Creek drainage are proposed for removal: 1) Road 10802, 2) Road 5277 and 3) Road 5279. Several of the culverts are undersized and pose a high risk of failure.

Road 10802 - has been bermed for a decade and has been closed to motorized use. It is classified as naturally revegetated in the database. A small portion of its 4-mile length lies within grizzly security core. Thirteen remaining culverts would be removed, followed by replacement of existing berms.

Road 5277- is currently gated year round. An avalanche in 2009 partially removed a culvert on Road 5277, making the last ¾ mile of road inaccessible. This culvert was removed in August 2009 and the stream channel was restored to its natural width. There is one more 24" culvert behind the gate. Removal of this culvert is proposed, followed by installation of a berm at a better turnaround location.

Road 5279 - is currently gated year round. There is one 24" culvert behind the gate. Removal of this culvert, followed by installation of a berm, is proposed.

Culvert removal would take approximately 5 days, occurring between July 31 and September 1, 2010. Roads would be signed as closed to the public while the excavator is removing culverts, so temporary use of Roads #5277 and 5279 would meet administrative use requirements (USDA Forest Service 1995 as amended).

III. SPECIES ASSESSMENT

Grizzly Bear

Environmental Baseline- Population and Habitat Status

The proposed project is within the 5.7 million acre Northern Continental Divide Ecosystem (NCDE). The NCDE is thought to contain the largest population of grizzly bears in the lower 48 states. A USGS

population estimate based on DNA sampling (Kendall 2009) estimated that the minimum number of grizzly bears in the NCDE was 765.2 with a 95% CI of 715 to 831 bears. This method of estimating the population is more accurate than methods used in the 1993 Recovery Plan. Estimates of numbers of resident bears are not specifically available at the subunit level.

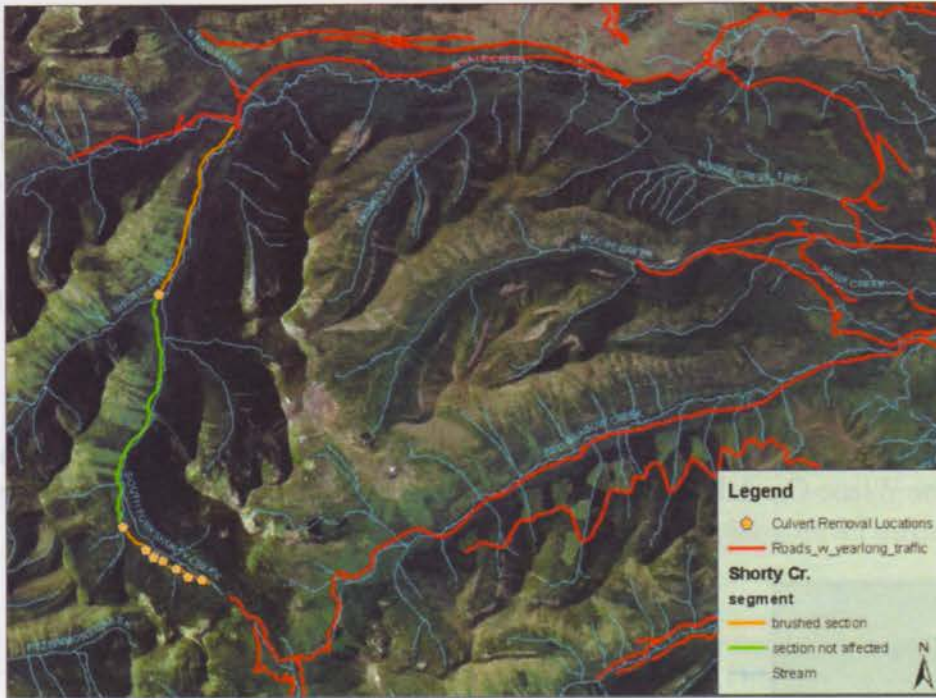
The proposed projects lie within the Upper Whale Shorty and Coal/South Coal grizzly bear subunits located in the Upper North Fork Flathead River Bear Management Unit (BMU) (Maps 1 and 2). Proposed activities that could directly or indirectly affect grizzly bears are contained within these subunits. Each subunit is large enough to include the home range of a female grizzly bear and to represent the effects of proposed activities across the landscape. The Grizzly Bear Recovery Plan (1993) provides recovery goals and objectives for the grizzly bear. The subunits are designated as grizzly management situation 1 (MS-1)(Table 2) habitat. Grizzly use is well known in the project analysis areas. The Flathead Forest Plan (pages II-38 to II-51 and amendments) provides management direction, standards and guidelines for project planning.

Table 2 Grizzly Bear Management Situation 1 Description (IGBC 1986)

Situation 1	
Population and Habitat Conditions	
The area contains grizzly population centers (areas key to the survival of grizzly where seasonal or year-long grizzly activity, under natural, free-ranging conditions is common) and habitat components needed for the survival and recovery of the species or a segment of its population. The probability is very great that major Federal activities or programs may affect (have direct or indirect relationships to the conservation and recovery of) the grizzly.	
Management Direction	
Grizzly habitat maintenance and improvement (improvement does not apply to National Park Service), and grizzly-human conflict minimization will receive the highest management priority. Management decisions will favor the needs of the grizzly bear when grizzly habitat and other land use values compete. Land uses which can affect grizzlies and/or their habitat will be made compatible with grizzly needs or such uses will be disallowed or eliminated. Grizzly-human conflicts would be resolved in favor of grizzlies unless the bear involved is determined to be a nuisance. Nuisance bears may be controlled through either relocation or removal but only if such control would result in a more natural free-ranging grizzly population and all reasonable measures have been taken to protect the bear and/or its habitat (including area closures and/or activity curtailments).	

Table 3. Grizzly Bear Population and Habitat Status

Bear Management Unit	Subunit	Subunit Acres	Bear Mgmt Area	Habitat	Mortality
Upper North Fork Flathead	Upper Whale Shorty Creek	33,857	MS-1	Year-round habitat	No known mortalities since 1982
Upper North Fork Flathead	Coal/South Coal	25,277	MS-1	Year-round habitat	1 adult, legal harvest hunting, 1981



Map 1 – Upper Whale Shorty Grizzly Bear Subunit and Proposed Culvert Removal Sites



Map 2 – Coal & South Coal Grizzly Bear Subunit and Proposed Culvert Removal

A19 Standards on Road Access- Shorty Creek

The Upper Whale Shorty subunit meets A19 standards (USDA Forest Service 1995 as amended) with an open route density of 12%, a total route density of 10%, and security core of 86% (Table 4) (1 March 2009 A19 Report).

The proposed project is entirely within grizzly bear security core. Road #589 has been closed to motorized traffic with numerous berms since the early 1980's, but illegal use by off-road vehicles is occurring on a ½ to 1 ½ mile section of the road at the south end of Road #589 (Figure 3). Deep snow covers brush on this section of the roadway in winter and snow machine use also occurs on the road. North of this section, downstream to the Shorty Creek and South Fork Shorty Creek confluence, foot traffic is nearly impossible on the road bed due to dense coverage of alder shrubs (Figure 4). Along the remaining section of Road 589, from the Shorty Creek/South Fork Shorty Creek confluence downstream to the berm at the junction of the Whale Creek Road #318, there is an established horse trail through the alder on the old road bed.



Figure 3 – Illegal ATV use on upper end of Shorty Creek

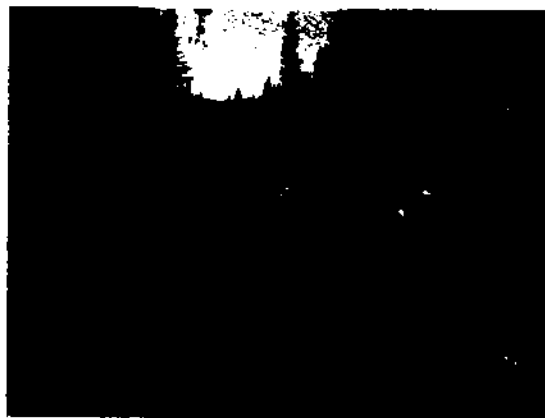


Figure 4 – Lower End of Shorty Creek Road #589

Table 4 – A19 Effects: Shorty Cr.

A19 Factor	Current and After Stream Restoration	During Stream Restoration	A19 Standard
Open Road Density (ORD)	12	15	19% or less
Total Road Density (TRD)	10	10	19% or less
% Security Core	86	81	68% or more

A19 Standards on Road Access- Coal Creek

Map 2 displays the road status within the Coal & South Coal subunit. The subunit currently meets A19 standards for open road density (19% standard) and core (68% standard), but not for total motorized access density (19% standard). (1 March 2009 A19 Report).

Table 5 – A19 Effects: Coal Cr.

A19 Factor	Current and After Stream Restoration	During Stream Restoration	A19 Standard
Open Road Density (ORD)	15	15	19% or less
Total Road Density (TRD)	24	24	19% or less
% Security Core	71	68	68% or more

The Coal & South Coal subunit has a Total Motorized Access Density (TMAD) of 24%, so motorized administrative use is restricted in this subunit. As stated in the Biological Assessment (BA) for the A19 Revised Implementation Schedule (2009), all motorized use requests will be scrutinized and approval will be made directly by the District Ranger or another Forest Line Officer. Motorized administrative use would be limited to specific activities, including watershed improvement projects. The proposed project qualifies as an acceptable administrative use.

Direct and Indirect Effects Analysis – Shorty Cr.

- In order to access culverts for removal, an excavator would trample alder and small trees on two sections of the old roadbed totaling approximately 4 miles. Although the road would be reclaimed, sections of the roadbed would have less cover for a period of 3-4 years, until trampled alder grows back to its present height and density. Stubs of shrubs and trees (resulting from trampling) would stick up on the road surface, making travel difficult. Cover is good in areas adjacent to the roadbed.
- Excavator use on Road #589 (which is in security core habitat), could result in short-term, temporary disturbance/displacement of grizzlies. This effect would be of very short duration (less than 10 days) and would occur during August, a time period when available bear habitat is abundant within the subunit. The proposed activity would not cause increased disturbance or displacement during the spring or fall hunting seasons.
- The subunit currently meets all A19 standards and would still meet A19 standards during culvert removal (Table 4). Once road segments are closed, the Upper Whale Shorty subunit would return to the current situation.
- The middle section of Road #589, approximately 3 miles in length, would not be used in order to maintain dense cover which makes human travel very difficult, maintaining grizzly bear security.
- Once culverts have been removed and the road is reclosed, the proposed project would help reduce illegal, motorized off-road vehicle use on the upper ½ to 1 1/2 miles of Shorty Creek Road #589, allowing it to become brushed in and providing more secure habitat for grizzly bears in the long term.

Direct and Indirect Effects - Coal Cr.

- The road segments proposed for culvert removal are not currently brushed in with vegetation, so cover removal is not an issue.
- Motorized use, including excavator use on Road #10802 (which is in security core habitat), could result in short-term, temporary disturbance/displacement of grizzlies. This effect would be of very short duration (less than 5 days) and would occur during August, a time period when available bear habitat is abundant within the subunit. The proposed activity would not cause increased disturbance or displacement during the spring or fall hunting seasons.

- Although the subunit does not currently meet A19 standards for *total* road density, the subunit does meet standards for *security core* and *open* road density and would continue to do so during the short duration of proposed activities (Table 5).

Direct and Indirect Effects Common to Shorty and Coal Creek

- The proposed project does not increase the potential for bears to become habituated or conditioned to human-related foods (i.e. livestock feed, garbage). Any seeding or shrub planting used to stabilize stream banks would be done in a manner that will not tend to attract grizzly bears or increase the likelihood of grizzly-human interactions.
- The contract would include a clause providing for the cancellation, suspension, or temporary cessation of activities if needed to resolve a grizzly-human conflict situation.
- The proposed project does not involve any road or trail construction, nor would it lead to a permanent increase in motorized access. Removal of culverts now would mean that future entries to maintain "road drainage" would not be needed.

Cumulative Effects Analysis - ESA

The culvert removal sites are surrounded by Flathead National Forest lands so there are no cumulative effects due to actions on state or private lands within the grizzly subunits. There are no Forest Service timber sales or related activities planned in this LAU in the next three years.

Determination of Effects

The proposed project "may affect - is not likely to adversely affect" grizzly bears. This determination is based upon the following rationale:

- 1) Motorized equipment would cause disturbance and potential displacement in core grizzly habitat, but it would be of insignificant intensity and duration (Project Record Exhibit 1).
- 2) The Coal & South Coal grizzly subunit meets minimum A19 standards for open road density and security core. The project would increase the on-the-ground effectiveness of existing road closures.
- 3) The Upper Whale Shorty Creek subunit greatly exceeds all minimum A19 standards before, during, and following the proposed project. The project would increase the on-the-ground effectiveness of existing road closures.

Recommendations for Removing, Avoiding, or Compensating for Adverse Effects

The project design incorporates measures to reduce effects to grizzly bear. No additional mitigation is recommended. The project would increase the effectiveness of existing road closures and eliminate the need for future culvert maintenance, resulting in a high level of habitat security and favoring the needs of the grizzly bear in the long-term.

In addition to removing culverts and replacing existing berms in Shorty Creek, the excavator would place large rocks/logs/debris on the first 600 feet of Road #589 roadbed (to the north from the Link Lake Trailhead and to the south from the Whale Creek road). After removing culverts on the upper end of Road #589, numerous berms would be constructed as the excavator works its way out. These measures should help to prevent existing, illegal motorized use. With effective barriers in place, the roadbed is expected to become brushed in again within 3-4 years. The excavator will not trample vegetation in the middle section of Road #589 (Map 1) in order to help maintain grizzly habitat security.

The project would be completed within a 5 day timeframe in one subunit and within a 10 day timeframe in another. Operations would occur during August of one year, in order to minimize disturbance and displacement of grizzly bears. Excavator use on Roads# 5277 and # 5279 would be administrative access behind existing gates. Removal of culverts and replacement of gates with berms would increase the effectiveness of two road closures. Road #589 and #10802 would be signed as closed to the public while the excavator is removing culverts.

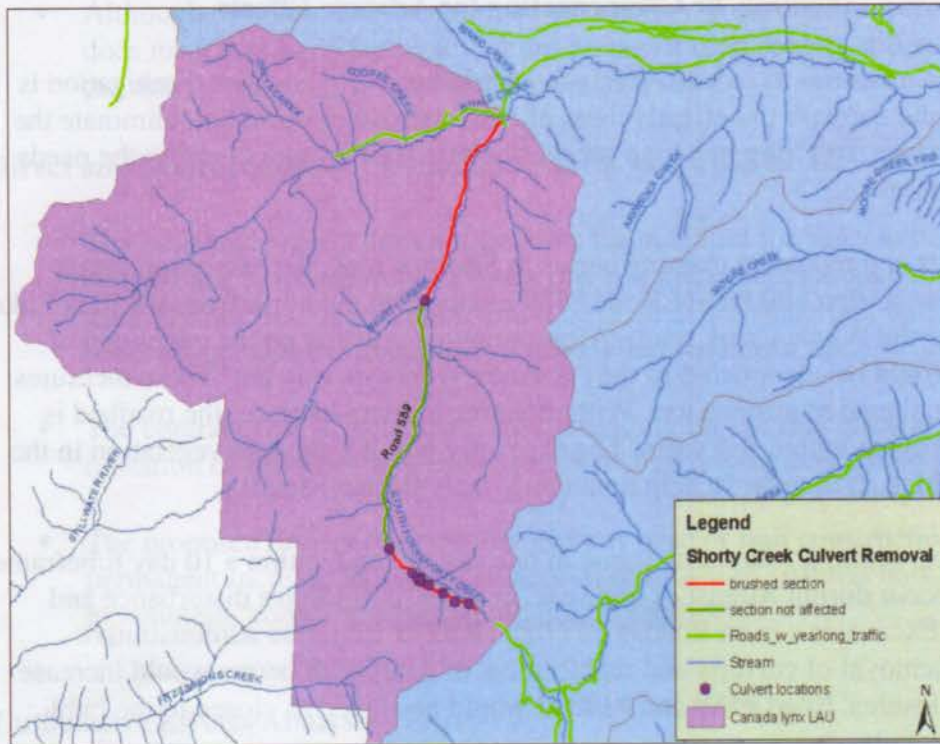
Canada lynx

Environmental Baseline- Population and Habitat Status

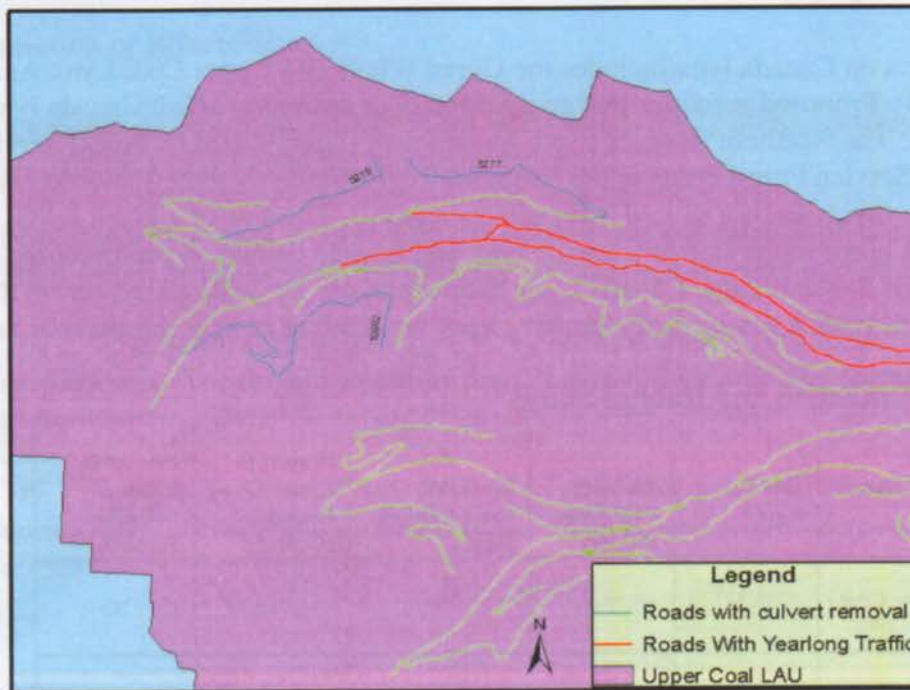
The analysis area for effects on Canada lynx includes the Upper Whale and Upper Coal Lynx Analysis Units (LAUs)(Maps 3 & 4). Proposed activities that could directly or indirectly affect Canada lynx are contained within this area. The Northern Rockies Lynx Amendment (NRLA, USDA Forest Service 2007) amended 18 Forest Service Forest Plans in the Northern Region, including the Flathead National Forest's Plan. The NRLA directs the use of LAUs for effects analysis. The size of a given LAU represents the approximate home range size of a female lynx and is large enough to represent the effects of proposed activities across the landscape. Canada Lynx habitat and use are widespread across the Flathead National Forest. Canada Lynx or their sign have been recorded in or near the analysis area.

Table 6 - Canada Lynx Population and Habitat Status

Canada Lynx Activity	LAU Name	LAU Acres	Project in FNF Lynx Habitat	Project in Lynx Critical Habitat	Project in Lynx Foraging Habitat	Project in Lynx Denning Habitat
Lynx have been reported in and near the Project Area.	Upper Coal	28,327	Yes	Yes	No	No
Lynx have been reported in and near the Project Area.	Upper Whale		Yes	Yes	Yes	No



Map 3 - Upper Whale Lynx Analysis Unit and Proposed Culvert Removal Sites



Map 4 - Coal Creek LAU and Proposed Culvert Removal Sites

Table 7 - Canada Lynx Critical Habitat Primary Constituent Element (PCE) excerpted from the Federal Register, Vol. 74, No. 36, February 25, 2009 (50 CFR Part 17).

<i>Canada Lynx Critical Habitat PCE</i>	
Boreal forest landscapes supporting a mosaic of differing successional forest stages and containing:	
a.	Presence of snowshoe hares and their preferred habitat conditions, which include dense understories of young trees, shrubs or overhanging boughs that protrude above the snow, and mature multistoried stands with conifer boughs touching the snow surface.
b.	Winter snow conditions that are generally deep and fluffy for extended periods of time.
c.	Sites for denning that have abundant coarse woody debris, such as downed trees and root wads.
d.	Matrix habitat (e.g., hardwood forest, dry forest, non-forest, or other habitat types that do not support snowshoe hares) that occurs between patches of boreal forest in close juxtaposition (at the scale of a lynx home range) such that lynx are likely to travel through such habitat while accessing patches of boreal forest within a home range.

The proposed culvert removal sites are within Unit 3 of designated lynx critical habitat and are surrounded by habitat that contains physical and biological elements essential for the conservation of the species, including its Primary Constituent Elements (Table 7) (USFWS 2009). Culvert removal sites range in elevation from approximately 4800-6000' in an area that provides deep, fluffy snow conditions in winter (PCE1b). Portions of the roadbeds with culvert removal would qualify as PCE 1a, snowshoe hare habitat. The site does not have rootwads or accumulations of down logs needed for denning (PCE1c). Portions of the roadbeds do not provide snowshoe hare habitat and would be classified as matrix habitat, PCE1d.

The Proposed culvert removal sites are located in lynx habitat mapped by the Flathead National Forest. On March 23, 2007, the U.S. Fish and Wildlife Service (USFWS) issued a Biological Opinion on the effects of the NRLA, also known as the NRLMD (U.S. Fish and Wildlife Service 2007b). The Biological Opinion was identified as the first-tier of a consultation framework, with subsequent projects that may affect lynx as implemented under the amended Forest Plans being the second tier of consultation.

Direct and Indirect Effects Analysis

- The proposed project in Shorty Creek would result in trampling of alder shrubs that provide feeding habitat for snowshoe hares (mostly stand initiation summer habitat), on approximately 4 miles of old road bed (Figure 4). Alder shrub stems, interspersed with scattered spruce and sub-alpine fir saplings, would be broken off and trampled when the excavator walks in on closed road segments, resulting in temporary loss of potential hare feeding habitat. Shrubs would begin to re-sprout the following spring and could be expected to reach their previous height and density within 3-4 years. Small spruce occurs mainly along the side of the roadbed and is beyond the path of the excavator in most road sections. The amount of shrub and small tree removal would be incidental (up to 4 acres out of 23,910 acres in the LAU; approximately .01%) (PCE1a). The middle section of Road #589 (Map 2), approximately 3 miles in length, would not be disturbed and so hare feeding habitat would be maintained in this section. Following stream restoration, the excavator would construct or reconstruct numerous berms at each end of the road and rocks/logs/brush would be placed on the first 600' of the closed roadbed to facilitate regrowth of vegetation.

- Winter activities that result in snow compaction would not occur as a result of proposed activities (PCE1b), although the area does have ongoing snowmobile use in winter.
- Removal of culverts and brush trampling on the old roadbed would not affect lynx denning habitat (PCE1c).
- The project would not affect the ability of lynx to travel through matrix habitat, would not affect habitat connectivity, and would not result in permanent destruction of lynx or snowshoe hare habitat. (PCE1d).

Cumulative Effects Analysis- ESA

There is no State or private land in the project vicinity. Other than ongoing maintenance, no other Forest Service activities are planned in these LAUs.

Determination of Effects

The proposed project "may affect, but is not likely to adversely affect" Canada lynx. The project complies with NLRMD standards and guidelines. The proposed project "may affect, but is not likely to adversely affect" Canada lynx critical habitat. This determination is based upon a short term loss of an insignificant amount (up to 4 acres or less than .01% of the affected LAU) of snowshoe hare feeding habitat on a closed road within the Upper Whale LAU. No permanent degradation or loss of habitat would occur. No conversion of the boreal forest would occur and activities would not create barriers that impede movement of lynx.

Recommendations for Removing, Avoiding, or Compensating Adverse Effects

The project design incorporates measures to reduce effects to lynx. Vegetation trampling will be to the minimal extent necessary to accomplish the project. No additional mitigation is recommended.

CONSULTATION

The Flathead National Forest will request concurrence on its determination for grizzly bear and will request concurrence on its determinations for Canada lynx and lynx critical habitat.

Prepared By:

_____ /RK/

Date: May 3, 2010

Reed Kuennen

Wildlife Biologist

Hungry Horse/Glacier View/Spotted Bear Ranger Districts

Flathead National Forest

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6. 12/5/17 SUPPLEMENT TO KEITH HAMMER'S ROADS TO RUIN/TMRD PAPERS

United States Department of the Interior



FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
MONTANA FIELD OFFICE
585 SHEPARD WAY
HELENA, MONTANA 59601
PHONE (406) 449-5225, FAX (406) 449-5339

File: M19 Flathead National Forest (I)

June 21, 2010

Chip Weber, Forest Supervisor
Flathead National Forest
650 Wolfpack Way
Kalispell, MT 59901

Dear Mr. Weber:

This is in response to your May 7, 2010 request for U.S. Fish and Wildlife Service (Service) review of the biological assessment for federally listed threatened and endangered species regarding the effects of the proposed Shorty and Coal Creek Stream Restoration Project. Your request was received on May 13, 2010. The project is located in the North Fork of the Flathead River, on the Glacier View Ranger District of the Flathead National Forest (Forest), Montana.

The proposed action is to restore segments of the Shorty Creek and Coal Creek stream channels to their proper width at locations where culverts have previously failed and to remove culverts to prevent future failures along a road that has been long abandoned. The Shorty Creek portion of the project will involve the removal of nine culverts. Culvert removal would occur between July 31 and September 1, 2010 and would take a maximum of 10 days to complete. The Coal Creek portion of the project will involve the removal of 15 culverts remaining on three closed roads. Culvert removal would occur between July 31 and September 1, 2010 and would take a maximum of 5 days to complete.

The Service has reviewed the biological assessment and concurs with the determinations that the proposed action is not likely to adversely affect the threatened grizzly bear (*Ursus arctos horribilis*), the threatened Canada lynx (*Lynx canadensis*) or designated Canada lynx critical habitat. Therefore, pursuant to 50 CFR 402.13 (a), formal consultation on these species and critical habitat is not required.

The Service bases its concurrence on the information and analysis in the biological assessment prepared by Reed Kuennen, District Biologist. Shorty Creek occurs in the Upper Whale Shorty grizzly bear subunit and Coal Creek occurs in the Coal/South Coal grizzly bear subunit within the NCDE grizzly bear recovery zone. Disturbance to grizzly bears is possible but would be very short-term and will not occur during the spring period, April 1 through July 1, when grizzly bear habitat is most limited. Activities in both subunits would only occur between July 31 and September 1. During this period, grizzly bears typically use mid to higher elevation sites that provide berry shrub fields. This habitat type is more abundant than spring habitat, in the NCDE. Some activity will occur within grizzly bear security core. Use of these road segments within

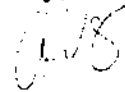
security core would result in a temporary increase in open road density and a slight decrease in the effectiveness of security core. Although the effectiveness of some areas of security core habitat in the subunits would be compromised for a very short period, 81 percent of the Upper Whale Shorty subunit and 68 percent of the Coal & South Coal subunit would continue to provide effective security core habitat during project activities. Upon completion of culvert removal activities, access management would return to pre-project conditions. Also, the duration of activity in core would be very short, no more than 10 days in Shorty Creek and 5 days in Coal Creek. Vehicle use of the area would be minimal, consisting of an excavator, and all activities would occur on or immediately adjacent to the existing road. No public use of these roads would occur. Upon completion of activities, both open road density and security core would return to pre-project numbers. Total road densities would not change during activity or post-project. Upon project completion, the on-the-ground effectiveness of existing road closures to provide secure habitat for grizzly bears would be increased.

The project is located within the Upper Whale and Upper Coal lynx analysis units in areas also designated as critical habitat for Canada lynx. Disturbance to lynx is possible but would be short-term. A small amount (approximately 4 acres) of lynx foraging habitat (PCE1a) would be impacted due to trampling of vegetation that provides feeding habitat for snowshoe hare. Most of this is in stand initiation phase and provides only summer habitat for hares, which is not considered limited. The action would not affect snow conditions (PCE1b) or lynx denning habitat (PCE1c). The project would not affect the ability of lynx to travel through matrix habitat (PCE1d), would not affect habitat connectivity, and would not result in permanent destruction of lynx or snowshoe hare habitat. The proposed action is consistent with all applicable standards and guidelines of the Northern Rockies Lynx Management Direction.

Therefore, we agree with the conclusions in the biological assessment that project-related impacts to grizzly bears, Canada lynx and designated critical habitat for Canada lynx would be insignificant. If the final proposal is changed so as to have effects on threatened or endangered species other than those described in the biological assessment, a revised biological assessment will be necessary. The Service will then issue a letter of concurrence/non-concurrence on the revised biological assessment.

We appreciate your efforts to ensure the conservation of threatened and endangered species as part of your responsibilities under the Endangered Species Act, as amended. If you have questions or comments related to this issue, please contact Katrina Dixon or me at 406-449-5225.

Sincerely,



for:
R. Mark Wilson
Field Supervisor

Krueger, Ron -FS

From: Draggoo, Michele -FS
Sent: Thursday, May 23, 2013 4:18 PM
To: Krueger, Ron -FS
Subject: FW: Shorty & Coal Creeks Stream Restoration Project - ROADS

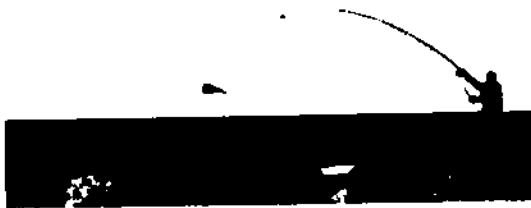
Here is the message....come talk with me some time.

From: Van Eimeren, Pat A -FS
Sent: Wednesday, February 15, 2012 8:49 AM
To: Ake, Kathy -FS; Ganiere, John -FS; Kassner, Trisha L -FS; Stevens, Richard I -FS; Draggoo, Michele -FS; DeHerrera, Jimmy -FS
Cc: Carlin, Rob -FS
Subject: RE: Shorty & Coal Creeks Stream Restoration Project - ROADS

good news! Thanks, Kathy.

Pat Van Eimeren

Fisheries Biologist
Flathead National Forest
10 Hungry Horse Drive
Hungry Horse, MT 59919
(406) 387-3863
Fax- (406) 387-3889



From: Ake, Kathy -FS
Sent: Tuesday, February 14, 2012 3:48 PM
To: Ganiere, John -FS; Kassner, Trisha L -FS; Stevens, Richard I -FS; Draggoo, Michele -FS; Van Eimeren, Pat A -FS; DeHerrera, Jimmy -FS
Cc: Ake, Kathy -FS; Carlin, Rob -FS
Subject: Shorty & Coal Creeks Stream Restoration Project - ROADS

All,

RE: Planned road management in Coal Creek drainage from the Shorty & Coal Creeks Stream Restoration Project.

Based upon a conversation with Rick this morning, this is my understanding of what the road management changes will be under this decision (at least for the roads in Coal Creek).

1) RD #5279 will have a berm at the beginning of the road, and will be made IMPASSABLE to motorized traffic. I don't have the specifics of what will be done to make the road impassable, but per Rick, that will be done. I suspect either "entrance obliterated" or "veg - live". Road remains on the system.

6. 12/5/17 SUPPLEMENT TO KEITH HAMMER'S ROADS TO RUIN/TMRD PAPERS

#5277 will have a berm at approximately mp 1.60, just before the junction with RD# 5277A at mp 1.66. Per Pat, there is a good spot for a turnaround just before the junction. This road will also be made IMPASSABLE. Again, I don't have the specifics of what will be done to make the road impassable, but per Rick, that will be done. I suspect either "entrance obliterated" or "veg - live". Road remains on the system.

3) RD #5277A will be made impassable as well due to the work on RD# 5277. Road remains on the system.

4) RD# 10802. Road is currently revegetated and impassable. After the culverts are pulled and work completed, this road will be made impassable again. Either "entrance obliterated" or "veg - live". Road remains on the system.

The work is to be completed this calendar year, 2012. Implementing these decisions will make the Coal & South Coal subunit fully meet A19 with 15% ORD, 19% TRD, and 74% CORE.

Kathy Ake
GIS Specialist, Flathead NF
650 Wolfpack Way, Kalispell, MT 59901
406-758-5358 kake@fs.fed.us

RS 1/1-1/16

End Project

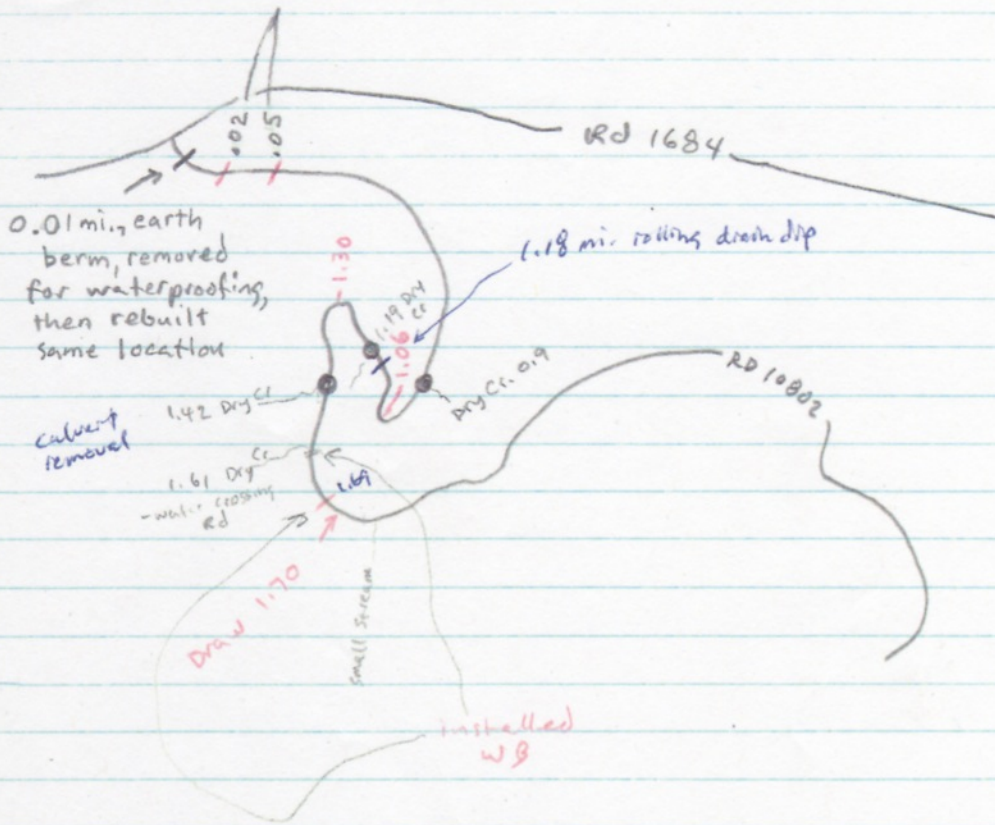
Water proofing

Rd 10802

N + Van G... KH 1-M-16
John Littlefield

10-2012

0.02 mi. - Rebuilt rolling drain dip
0.05 mi. - built new rolling drain dip



See Photos
See Forms
See Road Logs

0.0 mi. Begin Project, intersec. Rd 1684 and 10802
0.01 mi. Earth berm 50T3
0.02 mi. Rebuilt rolling drain dip 100 + 5

0.09 mi. Pull 36" CMP - restore stream ... 4 + 75
1.06 mi. switch back
1.18 mi. Rolling drain d.p.
1.19 mi. Pull 36" CMP - restore stream ...
1.30 mi. switch back
1.42 mi. Pull 36" CMP - restore stream -

1.61 mi. Install water bar
1.69 mi. Install water bar
1.70 mi. Draw

November 30, 2016

Via Certified Mail, Return Receipt Requested

Secretary Sally Jewell
U.S. Department of the Interior
1849 C Street, N.W.
Washington, D.C. 20240

Daniel Ashe, Director
U.S. Fish and Wildlife Service
1849 C. Street N.W., Room 3331
Washington, D.C. 20240

Chief Tom Tidwell
U.S. Forest Service
1400 Independence Ave., S.W.
Washington, D.C. 20250

Supervisor Chip Weber
Flathead National Forest
650 Wolfpack Way
Kalispell, MT 59901

Sixty-Day Notice of Intent to Sue

Dear Secretary Jewell, Chief Tidwell, Director Ashe, and Supervisor Weber:

In accordance with the sixty-day notice requirement of the Endangered Species Act (“ESA”), 16 U.S.C. § 1540(g), you are hereby notified that the following organizations intend to bring a civil action against the U.S. Forest Service and the officers and supervisors to whom this letter is directed (collectively the “Forest Service”), and the U.S. Fish and Wildlife Service (“FWS”) for violating Section 7 of the ESA, 16 U.S.C. § 1536. This letter also identifies violations of the Clean Water Act (“CWA”) and the National Forest Management Act (“NFMA”). Because the claims under the CWA and NFMA are actionable pursuant to the Administrative Procedure Act (“APA”), no formal 60-day notice is necessary.¹

The name, address, telephone number and email address of the organizations giving notice are:

WildEarth Guardians
Marla Fox, Rewilding Attorney
107 SE Washington, Suite 490
Portland, OR 97206
Ph: (651) 434-7737
Email: mfox@wildearthguardians.org

Swan View Coalition
Keith Hammer, President
3165 Foothill Road
Kalispell, MT 59901
Ph: (406) 755-1379
Email: keith@swanview.org

¹ See *Oregon Natural Resources Council v. U.S. Forest Service*, 834 F.2d 842, 851-852 (9th Cir. 1987) (concluding judicial review of the requirement for federal agencies to comply with state water quality standards, 33 U.S.C. § 1323(a), is available under the APA, not the CWA’s citizen suit, and therefore not subject to the CWA’s 60-day notice requirements).

Friends of the Wild Swan
Arlene Montgomery, Program Director
P.O. Box 103
Bigfork, MT 59911
Ph: (406) 886-2011
Email: arlene@wildswan.org

As described herein, the Forest Service has violated various laws by failing to remove all stream-aligned culverts from Raghorn Road 10802. The Forest Service and FWS have violated the ESA by failing to reinitiate Section 7 consultation with the FWS concerning the effects of the Forest Service's actions on grizzly bear (*Ursus arctos*), Canada lynx (*Lynx canadensis*), lynx critical habitat, bull trout (*Salvelinus confluentus*), and bull trout critical habitat in light of new information and changed circumstances that have arisen since informal consultation was completed in 2010. 50 C.F.R. § 402.16. The Forest Service and FWS also violated the ESA by failing to ensure the Forest Service's actions are not likely to jeopardize the continued existence of grizzly bear, Canada lynx, and bull trout, or result in the destruction or adverse modification of lynx critical habitat or bull trout critical habitat. *See* 16 U.S.C. § 1536(a)(2). The Forest Service has violated the CWA by failing to ensure compliance with Montana's water quality standards. *See* 33 U.S.C. § 1323. And the Forest Service has violated NFMA by failing to remove all stream-aligned culverts from Raghorn Road 10802, contrary to the requirements of Amendment 19 to the Flathead's Forest Plan. *See* 16 U.S.C. § 1604(i).

The intent of this notice letter is to spur remedial action. Remedying the violations described in this notice letter by, for example, removing culverts remaining on Raghorn Road 10802 or re-initiating and completing lawful consultation, will avoid any need for litigation. We will file suit after the 60-day period has run unless the violations described in this notice are remedied.

LEGAL BACKGROUND

Endangered Species Act

Section 2(c) of the ESA establishes that it is "the policy of Congress that all Federal . . . agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of" the ESA. 16 U.S.C. § 1531(c)(1). The purpose of the ESA is to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered and threatened species . . ." 16 U.S.C. § 1531(b).

To implement this policy, Section 7(a)(2) of the ESA requires that each federal agency consult with FWS² to ensure that any action authorized, funded, or carried out by such agency is not likely to (1) jeopardize the continued existence of any threatened or endangered species or (2) result in the destruction or adverse modification of the critical habitat of such species. *See* 16 U.S.C. § 1536(a)(2).

The ESA's consultation requirement applies "to all actions in which there is discretionary Federal involvement or control." 50 C.F.R. § 402.03. Agency actions requiring consultation are broadly

² The grizzly bear, Canada lynx, and bull trout are species under FWS's jurisdiction and were listed under the ESA subject to that jurisdiction.

defined by regulation to mean “all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies” and includes “actions directly or indirectly causing modifications to the land, water, or air.” 50 C.F.R. § 402.02. Forest Plans, programmatic amendments and interim management plans all constitute ongoing agency action requiring consultation. *E.g., Cottonwood Environmental Law Center v. U.S. Forest Service*, 789 F.3d 1075 (9th Cir. 2015); *Lane County Audobon Soc’y v. Jamison*, 958 F.2d 290 (9th Cir. 1992).

If listed species may be present in the area of agency action, the action agency must prepare a Biological Assessment (“BA”) to determine whether the listed species may be affected by the proposed action. *See* 16 U.S.C. § 1536(c)(1); 50 C.F.R. § 402.12. If the agency determines that its proposed action “may affect” any listed species, the agency must engage in “formal consultation” with the FWS. 50 C.F.R. § 402.14; *see also* 51 Fed. Reg. 19,926, 19,949 (June 3, 1986) (explaining that “may affect” broadly includes “[a]ny possible effect, whether beneficial, benign, adverse, or of an undetermined character”).

If the action agency concludes in a BA that the activity is not likely to adversely affect the listed species or adversely modify its critical habitat, and the FWS concurs with that conclusion in a Letter of Concurrence, then the consultation is complete. 50 C.F.R. §§ 402.12, 402.14(b). If, however, the action agency determines that the activity is likely to adversely affect the listed species or its critical habitat, then the FWS completes a “biological opinion” (“BiOp”) to determine whether the activity will jeopardize the species or result in destruction or adverse modification of critical habitat. *Id.* § 402.14. If the agencies determine that an action will jeopardize the species or adversely modify critical habitat, they may propose reasonable and prudent alternative actions intended to avoid such results. 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. § 402.14(g)(5).

However, an agency’s Section 7 duties do not end with the issuance of a BA or BiOp. The action agency “cannot abrogate its responsibility to ensure that its actions will not jeopardize a listed species; its decision to rely on a FWS biological opinion must not have been arbitrary or capricious.” *Pyramid Lake Paiute Tribe of Indians v. U.S. Dep’t of Navy*, 898 F.2d 1410, 1415 (9th Cir. 1990). *See also Defenders of Wildlife v. EPA*, 420 F.3d 946, 976 (9th Cir. 2005) (rev’d on other grounds). “The duty to reinitiate consultation lies with both the action agency and the consulting agency.” *Salmon Spawning & Recovery Alliance v. Gutierrez*, 545 F.3d 1220, 1229 (9th Cir. 2008) (citing 50 C.F.R. § 402.16).

Further, once consultation is complete, the agencies have a duty to ensure that it remains valid. *See Cottonwood Environmental Law Center v. U.S. Forest Service*, 789 F.3d 1075, 1084-88 (9th Cir. 2015). To this end, an agency must re-initiate consultation if certain “triggers” occur. 50 C.F.R. § 402.16. The ESA’s implementing regulations require the Forest Service and FWS to re-initiate consultation where discretionary Federal involvement or control over the action has been retained or is authorized by law and:

- (a) If the amount or extent of taking specified in the incidental take statement is exceeded;
- (b) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;
- (c) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or

(d) If a new species is listed or critical habitat designated that may be affected by the identified action.

50 C.F.R. § 402.16.

After consultation is initiated or reinitiated, ESA Section 7(d) prohibits the agency or any permittee from “mak[ing] any irreversible or irretrievable commitment of resources” toward a project that would “foreclos[e] the formulation or implementation of any reasonable and prudent alternative measures . . . ” 16 U.S.C. § 1536(d). The 7(d) prohibition “is in force during the consultation process and continues until the requirements of section 7(a)(2) are satisfied.” 50 C.F.R. § 402.09.

Clean Water Act

The CWA establishes a comprehensive program “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters” by reducing and eventually eliminating the discharge of pollutants into those waters. 33 U.S.C. § 1251(a). The CWA program includes a regulatory scheme of permits, technology controls, and water quality-based pollution controls.

States are responsible for developing water quality standards to protect the desired conditions of each waterway within a state’s regulatory jurisdiction. 33 U.S.C. § 1313(c). A water quality standard includes three elements: (1) one or more designated uses, such as fish propagation; (2) numeric and narrative criteria specifying the water quality condition necessary to protect the designated uses; and (3) an antidegradation policy that ensures that uses are protected and that high quality waters will be maintained and protected. 33 U.S.C. §§ 1313(c)(2), 1313(d)(4)(B); 40 C.F.R. §§ 131.6, 131.10-12. Waters that do not meet water quality standards are deemed “water quality-limited” and placed on the CWA’s § 303(d) list. States must develop total maximum daily loads (“TMDLs”) for all § 303(d)-listed waterbodies to bring them back into compliance with applicable water quality standards.

Montana’s antidegradation policy provides that:

(1) Existing uses of state waters and the level of water quality to protect those uses must be maintained and protected. (2) Unless authorized by the department . . . or exempted from review under 75-5-317, the quality of high-quality waters must be maintained.

MCA 75-5-303 (2015). Activities exempt from review because of their low potential for harm include “activities that are nonpoint sources of pollution initiated after April 29, 1993, when reasonable land, soil, and water conservation practices are applied and existing and anticipated beneficial uses will be fully protected.” MCA 75-5-317(2)(b).

All federal agencies must comply with state water quality standards, including a state’s antidegradation policy. 33 U.S.C. § 1323(a), *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146 (9th Cir. 1998).

National Forest Management Act

The Flathead Land and Resource Management Plan (Forest Plan) establishes management direction for the Flathead National Forest through goals, objectives, standards and guidelines. Under NFMA,

all site-specific plans must be consistent with the governing Forest Plan. 16 U.S.C. § 1604(i); *Native Ecosystems Council v. U.S. Forest Service*, 418 F.3d 953 (9th Cir. 2005).

The Forest Service implemented Amendment 19 to the Flathead Forest Plan to set enforceable standards to minimize negative impacts to grizzly bears from roads. Pursuant to Amendment 19, the Forest Service must reclaim a road before excluding that road from Total Motorized Road Density calculations. Stream-aligned culverts that flow at least seasonally must be removed for a road to be considered “reclaimed” and not included in calculations of Total Motorized Route Density. The Forest Service recognizes that under the current Flathead Forest Plan it must “reclaim” a road in addition to decommissioning it to reduce route densities, meaning all stream-aligned culverts must be removed. *See, e.g.*, USDA, Draft Environmental Impact Statement (May 2016), Glossary-26 – 27 (explaining that to decommission a road to meet Amendment 19 road density standards, the road must be reclaimed first).

FACTUAL BACKGROUND

Impacts from Roads

The best available science shows that roads cause significant adverse impacts to National Forest resources. A 2014 literature review from The Wilderness Society surveys the extensive and best available scientific literature—including the Forest Service’s General Technical Report synthesizing the scientific information on forest roads (Gucinski 2001)—on a wide range of road-related impacts to ecosystem processes and integrity on National Forest lands. *See* The Wilderness Society, *Transportation Infrastructure and Access on National Forests and Grasslands: A Literature Review* (May 2014) (Attachment C1). Erosion, compaction, and other alterations in forest geomorphology and hydrology associated with roads seriously impair water quality and aquatic species viability. Roads disturb and fragment wildlife habitat, altering species distribution, interfering with critical life functions such as feeding, breeding, and nesting, and resulting in loss of biodiversity. Roads facilitate increased human intrusion into sensitive areas, resulting in poaching of rare plants and animals, human-ignited wildfires, introduction of exotic species, and damage to archaeological resources.

Roads can harm grizzly bears through avoidance, habitat loss and fragmentation, changes in grizzly bear behavior, and direct mortality from collisions. Large expanses of un-fragmented habitat are important for feeding, breeding, sheltering, traveling, and other essential behavioral patterns. Grizzly bears tend to avoid humans and roads, leading grizzly bears to either avoid essential habitat along roads or put them at a greater risk of exposure to human-caused mortality if they do not avoid roads. Grizzly bears have been shown to avoid roads and habitat surrounding roads, even despite low levels of human use. (Mattson et al. 1987, McLellan and Shackleton 1988, Aune and Kasworm 1989, Kasworm and Manley 1990, Mace and Manley 1993, Mace et al. 1996). Management of roads in grizzly bear recovery zones is one of the most important factors in grizzly bear habitat conservation.

Roads often contribute to degraded baseline conditions in watersheds containing bull trout. Roads are a primary source of sediment impacts to developed watersheds. Accumulation of fine sediment is detrimental to bull trout habitat. Lee et al. (1997) found a pattern of decreasing strong populations of bull trout with increasing road density. Sediment delivered to streams is greatest in riparian areas where roads cross the streams. Fords and approaches to the crossings deliver sediment directly to streams. Culverts can produce a large amount of sediment if the culvert plugs and fails. Plus roads

and trails paralleling streams can interfere with large wood reaching the stream and cause increased erosion and decreased stream bank condition.

Prior Forest Service Actions Affecting Road 10802

Raghorn Road 10802 was constructed in 1983 for \$262,022 as “new construction” as part of the Coal Ridge Timber Sale. *See* Forest Service, Final Inspection Report (Sept. 2, 1983). It was assigned the system number 10802, but is later referred to as a “long-abandoned road.”

In 1992, the North Coal Salvage Timber Sale included roadwork on roads 317B, 1684, 5205, 5277, and 10802. *See* North Coal Salvage Timber Sale Decision Notice and Finding of No Significant Impact (Sept. 25, 1992), page 4 (identifying road maintenance on 10802). This decision was based on a 1992 biological assessment (BA). *See* Flathead National Forest, Biological Assessment for Federally Listed Endangered, Threatened, and Proposed Wildlife Species: North Coal Salvage Timber Sale (Aug. 31, 1992) (hereafter, 1992 BA) (assessing impacts to grizzly, gray wolf, bald eagle, and peregrine falcon).

After the Forest Service expanded the scope of work in 1994, FWS asked the Forest Service to revise its decision to include a host of road decommissioning in the area based on emerging science. FWS insisted on substantial road closures and reclamation to respond to emerging grizzly bear research and work at the IGBC level that was also being written into Amendment 19 to the Flathead’s Forest Plan. This required erosion control work, closures, culvert removals, and culvert reinforcements on about 27 roads in Coal Creek and a couple of neighboring (non-tributary) watersheds.

In response, the Forest Service forwarded to the Fish and Wildlife Service a supplemental analysis and a revised BA assessing impacts to grizzly bears from the North Coal Salvage Timber Sale. *See* Flathead National Forest, Supplement to the Biological Assessment: Grizzly Bear Security and Road Density Analysis, North Coal Salvage Timber Sale (April 19, 1994) (hereafter, 1994 BA) (analyzing road densities and road management to reclaim roads to improve grizzly bear habitat security in, *inter alia*, Coal Creek); Flathead National Forest, Revised Biological Assessment for Federally Listed Endangered, Threatened and Proposed Wildlife Species: North Coal Salvage Timber Sale (April 19, 1994) (hereafter, Revised 1992 BA) (identifying revisions to the 1992 BA).

The 1994 BA assessed the grizzly-roads-security issue using a new GIS “moving window” technology analysis. It added that after the timber sale, the road closure signs on road 10802 would be replaced with a berm and the road would be *reclaimed* to discourage access and to reclaim grizzly bear habitat security. Revised 1992 BA, page 9 (noting as to Road 10802: “After the sale, the signs will be replaced with berms and the roads *reclaimed* to discourage access (Appendix A of Supplement).”) (emphasis added).³ The road reclaiming activities were anticipated to provide secure grizzly habitat. 1994 BA at 9. For road 10802, reclamation included installing berms at the end of the sale, installing water bars, seeding grass, pulling or reinforcing culverts for up to 3 years, and pulling bans in the roads. Revised 1992 BA at Appendix A, page 2. The FWS issued a 1994 one-page letter

³ *See also id.* at 12 (explaining “[t]he proposed road *reclaiming* in BMAs C7, C8 and C9 will restore security and make habitat available after the sale is completed.”) (emphasis added); *id.* at 17 (stating “[a]fter sale activities, road closures and *reclaiming* will be implemented according to Appendix A: Road Reclaiming Plan in the Supplement to this BA.”) (emphasis added).

of concurrence, concluding, “the Service does not anticipate incidental take of listed species as a result of the proposed project. The road management direction provided through the timber sale greatly improves habitat security conditions for grizzly bears throughout the analysis area.” *See* May 5, 1994 Letter from Kemper M. McMaster, Field Supervisor, to Joel Holtrop, Forest Supervisor.

A 1995 Forest Service road and culvert inspection log for Road 10802 concludes that the road was drivable to milepost (MP) 2.25 and walkable for another 1.17 miles. *See* Mike Diemert, Sediment Source Inventory Worksheet (July 11, 1995). It notes numerous corrugated metal pipes that had plugged inlets, some failure, and one major cut slope slump at MP 2.25. It states the road will require major rehabilitation work to put it to sleep, and that the road is under a previous salvage timber sale so some rehab work may be completed.

2010 Shorty & Coal Creek Restoration Project

In 2010, the Forest Service proposed the Shorty and Coal Creeks Stream Restoration Project to restore stream channels to their proper widths at locations where culverts had previously failed, and to remove culverts to prevent future failures along four abandoned roads. *See* Shorty and Coal Creeks Stream Restoration Project Decision Memo (July 2010) (hereafter, 2010 Decision Memo). The Forest Service determined that 15 culverts remain open on Road 10802. *Id.* at 1. It stated that “[s]everal of the culverts are undersized and pose a high risk of failure.” *Id.* The Forest Service proposed to removal all culverts on Road 10802. Subtracting the one culvert each removed from roads 5277 and 5279 under the Shorty Coal Decision, this means 13 culverts were to be removed from 10802.

Impacts from 2010 Project on Grizzly, Canada Lynx, Bull Trout, and Westslope Cutthroat Trout

In support of its 2010 decision, the Forest Service prepared a BA assessing impacts to grizzly bear and Canada lynx. *See* Biological Assessment for Terrestrial Wildlife Species: Shorty and Coal Creek Stream Restoration Project, Flathead National Forest (May 3, 2010) (hereafter, 2010 BA). Part of the restoration project was in the Coal/South Coal grizzly bear subunit of the Upper North Fork Flathead River Bear Management Unit. *Id.* at 4 (noting that “[g]rizzly use is well known in the project analysis areas.”). It was also in the Upper Coal Lynx Analysis Unit. *Id.* at 9 (adding that “Canada Lynx or their sign have been recorded in or near the analysis area.”). The BA states part of the project’s purpose is “to remove culverts to prevent future failures along a road that has been long abandoned.” *Id.* at 2. This included removing 13 culverts from Raghorn Road 10802. *Id.* at 3 (noting that “[s]everal of the culverts are undersized and pose a high risk of failure.”). The Forest Service determined the restoration project may affect but was not likely to adversely affect grizzly bear, Canada lynx, or lynx critical habitat. 2010 BA at 1.

For grizzly bear, this determination was based in part on the conclusion that the project “would increase the on-the-ground effectiveness of existing road closures.” *Id.* at 8. The Forest Service stated the Coal and South Coal subunit currently meets Amendment 19 standards for open road density and core, but not for total motorized access density. *Id.* at 6-7 (stating a Total Motorized Access Density of 24%). It noted that increased effectiveness of existing road closures and elimination of future culvert maintenance needs would result “in a high habitat security and favor[] the needs of grizzly bear in the long term.” *Id.* at 9. The document states the Forest Service must prepare a revised BA if, *inter alia*, new information reveals affects in a manner or to an extent not considered in the 2010 BA, or the proposed action is subsequently modified in a manner that causes

an affect that was not considered in the 2010 BA. *Id.* at 2.

For Canada lynx and its critical habitat, the Forest Service based its determination on standards and guidelines of the FWS's 2007 Biological Opinion on the effects of the NRLA (also known as the NRLMD), to which it tiered its analysis. *Id.* at 11-12.

FWS prepared a 2010 concurrence letter that concluded implementation of the Shorty and Coal Creek Stream Restoration Project was not likely to adversely affect the threatened grizzly bear, threatened Canada lynx, or designated Canada lynx habitat and that therefore formal consultation was not required. *See* Fish and Wildlife Service Letter to Chip Weber, Forest Supervisor, File: M19 Flathead National Forest (June 21, 2010), page 1 (hereafter, 2010 FWS Concurrence). It based its determination on the information and analysis in the BA, including the "removal of 15 culverts remaining on three closed roads." *Id.* FWS based its concurrence with the Forest Service's effects determinations on the information and analysis in the 2010 BA. *Id.* FWS stated that "[i]f the final proposal is changed so as to have effects on threatened or endangered species other than those described in the biological assessment, a revised biological assessment will be necessary." *Id.* at 2.

As for impacts to bull trout, the Forest Service determined that the restoration project fit within the conditions allowable under existing ESA consultations. 2010 Decision Notice at 4. *See* Biological Assessment of Road Related Actions on Western Montana's Federal Lands that are Likely to Adversely Affect Bull Trout, National Forests and Bureau of Land Management in Western Montana (March 14, 2007) (hereafter, 2007 Bull Trout Programmatic BA); Biological Opinion of the Effects to Bull Trout and Bull Trout Critical Habitat from Road Management Activities On National Forest System and Bureau of Land Management Lands in Western Montana, U.S. Fish and Wildlife Service (April 29 2008) (hereafter, 2008 Bull Trout Programmatic BiOp). The consultation documents require all covered activities to meet the associated bull trout biological opinion. 2007 Bull Trout Programmatic BA at 3; 2008 Bull Trout Programmatic BiOp at 11. For gated and bermed roads, all stream-crossing structures must be removed or inspected annually. 2007 Bull Trout Programmatic BA at 19; 2008 Bull Trout Programmatic BiOp at 17-18, 25, 58-59, 71 (Terms and Conditions, 2). For stored or decommissioned roads, all stream-crossing structures must be removed. 2007 Bull Trout Programmatic BA at 18-22; 2008 Bull Trout Programmatic BiOp at 19-20, 59-60.

The 2008 BiOp states that reinitiation is required if any of the four factors listed at 50 C.F.R, § 402.16⁴ occur. *See* 2008 Bull Trout Programmatic BiOp at 73-74. Several of those factors are met here. First, in 2010 FWS designated new bull trout critical habitat that was not considered in the 2008 Bull Trout Programmatic BiOp. Second, the Forest Service's failure to remove the culverts identified in its 2010 decision is a change to the identified action as well as new information that may affect bull trout and its designated critical habitat. Finally, based on information available to us, there have been no recorded inspections of the stream-aligned culverts on Raghorn Road since 2012. *See* Dec. 29, 2015 FOIA Request from Swan View Coalition to Chip Weber, Flathead Forest Supervisor (requesting information about how the Flathead National Forest has or has not removed stream-aligned culverts or monitored those culverts, including documents related to Raghorn Road #10802) (Attachment F); *and* Jan. 28, 2016 FOIA Response from Chip Weber, Flathead Forest Supervisor (referring to the Shorty Creek and Coal Creeks Stream Restoration DN, consultation documents,

⁴ See above, legal background.

culvert inspections, and an email from K. Ake) (Attachment G). This is also a change to the identified action and constitutes new information.

The agency noted that its fisheries biologist determined the project is likely to adversely effect bull trout due to sediment delivered to stream channels while removing culverts, but that these impacts would be covered by the Programmatic BO by the FWS for road related actions for bull trout. 2010 Decision Notice at 4. The Forest Service explained the 2010 actions were proposed to protect important bull trout spawning areas. *Id.* at 2 (noting that “[i]f these culverts fail during a storm event, unnecessary sediment would be transported downstream jeopardizing spawning and rearing habitat for fish and impacting water quality.”). The agency expected culvert removal to take approximately 5 days in Coal Creek, between July 31 and September 1, 2010. *Id.* at 2.

In October of 2010, after the Forest Service had finalized its decision on the Shorty and Coal Creek Restoration Project, FWS designated Coal Creek as bull trout critical habitat in its Bull Trout critical habitat rule. 75 Fed. Reg. 63,898, 64,061-64,067 (Unit 31, Clark Fork River Basin). The Forest Service did not reinitiate consultation for the Shorty and Coal Creek Restoration Project following the October 2010 designation of bull trout critical habitat, despite work remaining to be completed on Coal Creek (i.e., remaining culverts on Raghorn Road #10802).

Westslope cutthroat trout also inhabit the Coal Creek watershed. Westslope cutthroat trout was designated a species of concern by Montana Fish, Wildlife and Parks due to a decline in populations relative to historic conditions. The Forest Service determined the restoration project may affect but will not lead towards a trend of Federal listing for westslope cutthroat trout. 2010 Decision Notice at 5. The agency based its determination on the fact that the project will increase sedimentation in the short term but will result in a long term benefit by reducing sediment, and because culvert removal will minimize the risk of potential future failure. *Id.*

Subsequent Forest Service Actions Affecting Road 10802

In October of 2012, John Littlefield of the Forest Service completed what appears to be a survey of Raghorn Road 10802. *See* Attachments D and E. The notes identify the removal of three 36-inch culverts and installation of water bars. *See* Attachment D. This is consistent with our observations in 2016. *See* Attachment A.

The 2016 Flathead National Forest decommissioning spreadsheet lists Road 10802 as still needing work. *See, e.g.,* Flathead National Forest, Road Decommissioning Projects spreadsheet maintained by Trisha Kassner (Feb. 18, 2016) (Attachment H), page 11. At present, Raghorn Road 10802 is an impassable road that the Forest Service does not include in its calculations for Total Motorized Route Density on the Flathead.

Changes to Identified Action & Significant New Information

Failure to Remove All Culverts

The Forest Service never removed all of the culverts identified in its 2010 decision for the Shorty and Coal Creek Restoration Project. The Forest Service relied on the proposed culvert removals to determine the restoration project may affect but will likely not adversely affect grizzly bear. FWS also relied on the culvert removal for its concurrence with that determination. 2010 FWS

Concurrence at 2 (“Upon project completion, the on-the-ground effectiveness of existing road closures to provide secure habitat for grizzly bears would be increased.”). Likewise, the Forest Service relied on the same information to reach its determination that the restoration project may affect but will not likely adversely affect Canada lynx and designated lynx critical habitat. The FWS also relied on that information in its concurrence with that determination. *See also* 2010 Decision Notice at 2 (noting “[f]isheries and wildlife biologists from the Montana Department of Fish, Wildlife, and Parks and U.S. Fish and Wildlife Service have been consulted and concurred with the benefits involved in this decision.”). The Forest Service also relied on the culvert removals in its determination that the project fit under the 2008 Programmatic Biological Assessment of Road Related Actions likely to affect bull trout.

The failure to remove all culverts from Raghorn Road 10802 is a change to the identified action that may affect grizzly bear, Canada lynx, lynx critical habitat, bull trout, and bull trout critical habitat in a manner not considered in the 2010 BA. The failure to remove all culverts from Raghorn Road 10802 is also new information revealing effects of the project that may affect listed species or its critical habitat in a manner or to an extent not previously considered. The Forest Service and FWS have not reinitiated consultation. Failing to reinitiate consultation despite this change to the identified action and significant new information violates ESA regulation 50 C.F.R. § 402.16.

Climate Change Science

New studies regarding the impacts of climate change reveal that the culverts remaining on Raghorn Road 10802 may affect bull trout and its designated critical habitat in a manner or to an extent not previously considered, and therefore constitute another reason the Forest Service must reinitiate consultation with FWS to assess impacts of the project on bull trout and designated bull trout critical habitat. New information shows that climate change is affecting bull trout and its critical habitat by warming stream temperatures, altering stream hydrology, and changing the frequency, magnitude, and extent of climate-induced events like floods, droughts, and wildfires. These new studies document the larger role of climate change in affecting the status of bull trout throughout their range:

- 1) Luce, C. H, J. T. Abatzoglou, and Z. A. Holden. 2013. The Missing Mountain Water: Slower Westerlies Decrease Orographic Enhancement in the Pacific Northwest USA. *Science* 342: 1360-1364 (Attachment I) (documenting declining trends in streamflow timing and volume attributed to orographic precipitation enhancement, in addition to increased temperatures).
- 2) Isaak, D. J., *et al.* 2016. Slow climate velocities of mountain streams portend their role as refugia for cold-water biodiversity. *Proc Natl Acad Sci*, DOI: 10.1073/pnas.1522429113 (Attachment J) (showing temperature resistance of mountain streams and highlighting their importance in buffering cold-water species from climate change).
- 3) Beechie, T., *et al.* 2013. Restoring salmon habitat for a changing climate. *River Res. Applic.* 29: 939-960, DOI: 10.1002/rra.2590 (Attachment K) (concluding restoring floodplain connectivity, restoring stream flow regimes, and re-aggrading incised channels are most likely to ameliorate stream flow and temperature changes and increase habitat diversity and population resilience of salmon, in contrast to restoration actions focused on in-stream rehabilitation).

6. 12/5/17 SUPPLEMENT TO KEITH HAMMER'S ROADS TO RUIN/TMRD PAPERS

The Forest Service's own Climate Shield website provides a wealth of new information identifying colder, high-elevation streams that serve as a refugia for native bull trout with the goal of improving the odds of preserving native trout populations:

- 4) U.S. Forest Service Rocky Mountain Research Station, Climate Shield Cold-Water Refuge Streams for Native Trout, *available at* <http://www.fs.fed.us/rm/boise/AWAE/projects/ClimateShield.html> (last accessed June 23, 2016).

The Forest Service predicts cold-water refuge streams will play an important role in the future protection of bull trout in light of anticipated climate change-related temperature increases. Coal Creek and its receiving waters may be a cold-water refuge stream for bull trout, and may be impacted by the culverts remaining on Raghorn Road 10802 in a way or to an extent not previously considered.

In addition, new methods of documenting bull trout, new documentation, and new studies on management and restoration efforts indicate the culverts remaining on Raghorn Road 10802 may affect the species to a greater extent than previously considered:

- 5) Benjamin, J.R., *et al.* 2016. Thermal Regimes, Nonnative Trout, and Their Influences on Native Bull Trout in the Upper Klamath River Basin, Oregon. Transactions of the American Fisheries Society 145:6, 1318-1330, DOI: 10.1080/00028487.2016.1219677 (Attachment L) (explaining the importance of using multiple descriptors of thermal regimes to understand the distribution and occurrence of fishes, including bull trout).
- 6) Auerbach, N. A., K. A. Wilson, A. I. T. Tulloch, J. R. Rhodes, J. O. Hanson, and H. P. Possingham. 2015. Effects of threat management interactions on conservation priorities. Conservation Biology 29:1626-1635 (Attachment M) (concluding species conservation management that does not consider interactions between actions may result in misplaced investments or misguided expectations of the effort to mitigate threats to species).
- 7) Barnas, K. A., *et al.* 2015. Is habitat restoration targeting relevant ecological needs for endangered species? Using Pacific Salmon as a case study. Ecosphere 6(7), art 110 (Attachment N) (identifying improvements for habitat management to improve efficiencies in matching identified needs for conserving a species with explicit management actions).
- 8) Meyer, K.A. *et al.* 2014. Bull trout trends in abundance and probabilities of persistence in Idaho. North American Journal of Fisheries Management 34:202-214 (Attachment O) (describing bull trout population trends and probability of persistence in Idaho).
- 9) Wilcox, T. M. *et al.* 2014. A blocking primer increases specificity in environmental DNA detection of bull trout (*Salvelinus confluentus*). Conservation Genetics Resources 6:283-284 (Attachment P) (newly developed environmental DNA survey methods are improving agencies' ability to assess bull trout distribution and identify watersheds where bull trout are at risk of extirpation).

This wealth of significant new information reveals the culverts remaining on Raghorn Road 10802 may affect bull trout and its designated critical habitat in a manner not previously considered. The

more recent studies were not available when the Forest Service finalized its 2010 Shorty and Coal Creek Restoration Project, or when the Forest Service completed its 2008 Programmatic BA assessing the impact of road activities on bull trout. Climate change effects were not considered as a factor affecting bull trout at the time of listing in 1999. U.S. Fish and Wildlife Service, Recovery Plan for the Coterminous United States Population of Bull Trout (*Salvelinus confluentus*) (Sept. 2015), page iv. Failing to reinitiate consultation despite this new information violates ESA regulation 50 C.F.R. § 402.16.

Water Quality in Coal Creek

The 2004 water quality and Total Maximum Daily Load assessment for Coal Creek determined the fishery beneficial use was impaired by sedimentation associated with historic logging practices and the forest road network, among other causes. U.S. EPA, Water Quality Assessment and TMDLs for the Flathead River Headwaters Planning Area, Montana (Dec. 31, 2004), page 147. It identified as examples of road sediment sources: plugged culverts at risk of failure, sediment slumps, and active streams eroding the road prism. It identified 96.3 miles of forest road in the Coal Creek watershed, only 34 miles of which were up to full Forest Service BMP standards. *Id.* at 148-149, *see also* Attachment B at 3 (maps). Montana DEQ's water quality standards attainment record for Coal Creek, Assessment Unit MT76Q002_070, states "[t]here has been a sharp, significant ($P < 0.001$) decline in bull trout since 1990" and that "[t]here are indications of sedimentation problems in the watershed, primarily from silviculture and roads." *See* Attachment C2, page 9.

In 2010 the Forest Service recognized that culvert removal on roads including Raghorn Road 10802 "is needed to: 1) maintain water quality and 2) prevent sediment from being transported downstream, jeopardizing important spawning and rearing habitat for Threatened bull trout as well as cutthroat trout." 2010 BA at 2. The Forest Service noted "[i]f these culverts fail during a storm event, unnecessary sediment would be transported downstream." *Id.*

Montana's water use classification for Coal Creek is B-1, meaning its waters "... are to be maintained suitable for drinking, culinary, and food processing purposes, after conventional treatment; bathing, swimming, and recreation; growth and propagation of salmonid fishes and associated aquatic life, water fowl and furbearers; and agricultural and industrial water supply." ARM 17.30.623. The applicable water quality standard states "No increases are allowed above naturally occurring concentrations of sediment or suspended sediment (except as permitted in 75-5-318, MCA), settleable solids, oils, or floating solids, which will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife." *Id.* Compliance with this narrative water quality standard in Coal Creek is achieved through attainment of TMDL targets or other appropriate water quality measures that represent current available science.

By failing to remove the culverts on Raghorn Road 10802, the Forest Service is failing to achieve TMDL targets and failing to put in place water quality measures based on current available science.

ESA VIOLATIONS

For the following reasons, the Forest Service has violated and remains in ongoing violation of the ESA. The 60-day notice requirement is intended to provide you an opportunity to correct the actions in violation of the ESA.

6. 12/5/17 SUPPLEMENT TO KEITH HAMMER'S ROADS TO RUIN/TMRD PAPERS

1. Failure to complete adequate and lawful consultation in violation of section 7(d).

The Forest Service is in violation of section 7(d) of the ESA by deciding not to remove all culverts from Raghorn Road 10802 without adequate and lawful consultation. Such actions constitute an “irreversible and irretrievable commitment of resources” and warrant an injunction ordering the removal of the culverts. *See* 16 U.S.C. § 1536(d).

The parties giving notice will seek an order to remove the culverts remaining on Raghorn Road 10802, consistent with the agency’s 2010 Decision Notice, and a declaration that the Forest Service is in violation of law, unless the Forest Service and FWS remove the culverts or reinitiate consultation on these actions. Further, reinitiation of consultation is not sufficient to cure these violations of the ESA. Rather, the Forest Service and FWS must complete the Section 7 consultation process after reinitiation has occurred.

2. Failure to reinitiate consultation under the ESA due to change to the identified action and new information as a result of not completing the restoration project as proposed.

The Forest Service and FWS have a duty to reinitiate consultation over the impacts of the Shorty and Coal Creek Restoration Project on grizzly bear, Canada lynx, designated lynx critical habitat, bull trout, and designated bull trout critical habitat because the identified action has been modified in a manner that causes an effect to these listed species and critical habitat that was not considered in the original consultation. In the alternative, the Forest Service and FWS have a duty to reinitiate consultation over the impacts of the Shorty and Coal Creek Restoration Project on grizzly bear, Canada lynx, designated lynx critical habitat, bull trout, and designated bull trout critical habitat because the failure to remove all culverts on Raghorn Road 10802 constitutes new information since the 2010 consultation.

The failure to complete culvert removal has added stress and impaired habitat for these species to an extent not considered in the 2008 Programmatic BA, 2010 BA, or FWS’s 2010 concurrence. These factors affect grizzly bear, Canada lynx, designated lynx critical habitat, bull trout, and designated bull trout critical habitat in a manner not previously considered, triggering the need to reinitiate consultation. Failure to reinitiate section 7 consultation despite significant new information is a significant violation of the ESA. 50 C.F.R. § 402.16; *Cottonwood Environmental Law Center v. U.S. Forest Serv.*, 789 F.3d 1075 (9th Cir. 2015).

3. Failure to reinitiate consultation under the ESA due to new information about climate change and impacts to bull trout and its designated critical habitat.

The Forest Service and FWS have violated section 7 of the ESA by failing to reinitiate section 7 consultation new information revealing the culverts remaining on Raghorn Road 10802 may affect bull trout and its critical habitat in a way or to an extent not previously considered. These are significant violations of the ESA. 50 C.F.R. § 402.16; *Cottonwood Environmental Law Center v. U.S. Forest Serv.*, 789 F.3d 1075 (9th Cir. 2015).

4. Failure to reinitiate consultation despite designation of bull trout critical habitat.

The Forest Service and FWS have violated the ESA and its implementing regulations, 50 C.F.R. §

6. 12/5/17 SUPPLEMENT TO KEITH HAMMER'S ROADS TO RUIN/TMRD PAPERS

402.16, by failing to reinitiate section 7 consultation regarding the effects of the restoration project on bull trout and bull trout critical habitat, after FWS designated bull trout critical habitat in the project area. *See* Attachment B at 4 (map of critical habitat designation, including Coal Creek). This is a significant violation of the ESA. *Cottonwood Environmental Law Center v. U.S. Forest Serv.*, 789 F.3d 1075 (9th Cir. 2015).

Potential ESA “No Effect” Determination

Based on information available to us, the agency did not make any further determinations regarding the affects of the Shorty and Coal Creek Stream Restoration Project on grizzly bear, Canada lynx, designated Canada lynx critical habitat, bull trout, or designated bull trout critical habitat. If the Forest Service did make a “no effect” determination, based on the information set forth herein, that determination would be arbitrary and capricious, and contrary to law.

CWA VIOLATIONS

By failing to remove the culverts as proposed, the Forest Service failed to apply reasonable land, soil and water conservation practices in violation of Montana state water quality standards. This is a violation of the CWA, 33 U.S.C. § 1323.

NFMA VIOLATIONS

By failing to remove culverts on Raghorn Road 10802, the Forest Service has failed to fully reclaim and decommission this impassible, closed road, pursuant to Amendment 19. This road is being improperly omitted from calculations of Total Motorized Route Density. As of July 2016, 10 culverts that are stream-aligned and flow at least seasonally exist on Raghorn Road 10802. *See* Attachment A. Amendment 19 requires these culverts be removed for this road to be considered “reclaimed” and not included in calculations of Total Motorized Route Density. There are also 16 Class C culverts on Raghorn Road 10802. *See* Attachment A. Therefore the Forest Service has not “reworked to eliminate ditch water flow without the aid of cross drain culverts” as required by Amendment 19 for a reclaimed road.

CONCLUSION

We appreciate your consideration of the ESA, CWA, and NFMA violations outlined in this notice letter and hope that you will take action to resolve them. Following sixty days after this notice the listed organizations may seek injunctive, declaratory, and other relief. To avoid litigation, the Forest Service should complete culvert removal on Raghorn Road 10802 or reinitiate and complete consultation with FWS over the impacts of its actions. Please contact one of the parties providing notice to discuss effective remedies and actions.

Sincerely,

Marla Fox, Rewilding Attorney
WildEarth Guardians
mfox@wildearthguardians.org

cc: Loretta E. Lynch, U.S. Attorney General

FID	RD ID	NAME	BMP	EMP	LENGTH	InvNotes	StrmAli
0	10753	LOWER WOLF	1.5	3	1.5	WEPP survey completed as part of Crystal Cedar, multiple landslides	no
1	1670A	DRY KNOB A	0	0.5	0.5	Panel group 2, no stream aligned cmps remain	no
2	11024	JIMMIE RIDGE	0.06	0.85	0.788	2008 cmp monitoring	no
3	10919	UPPER CANYON	0	0.1	0.1	unable to locate prism, likely obliterated	no
4	895B	LOST JOHNNY	5.38	5.5	0.125	no stream aligned cmp	no
5	9716	LOWER STOPHER	0	2.84	2.84	poorly aligned and undersized cmp in Stopher Creek inventoried in 2017	yes
6	9716B	STOPHER GOFOR	0	0.82	0.82	one stream aligned cmp on ephemeral stream with partially blocked inlet and crushed outlet	yes
7	5246	YEW FLATS	0	0.4	0.4	no stream aligned cmps	no
8	9503	ANNA CREEK	1.3	1.87	0.57	no stream aligned cmps	no
9	1650	LINDGERGH BLOWDOWN	0	0.4	0.4	no stream aligned cmp	no
10	549L	BUNKER CREEK L	0	0.7	0.7	Inventoried as part of BAER assessment	no
11	5279	COAL DUST ONE	0	1.72	1.72	Panel Group 2 5 stream aligned cmps some with alignment issues. see cmp monitoring data	yes
12	10916	DEEP HELL	0	0.2	0.2	Panel group 2, no stream aligned cmps remain	no
13	568E	SPOTTED BEAR RIVER E	0	0.05	0.05	no stream aligned cmp	no
14	9831	OTILA BASIN	1.35	2	0.65	HH files	no
15	1684	COAL CREEK CONNECTO	6.9	7.5	0.6	Panel Group 2, 2 stream aligned cmps. see survey point data for more information	yes
16	11024	JIMMIE RIDGE	0.85	2	1.15	2008 cmp monitoring	no
17	2820X	MIDDLE FORK X	0	0.2	0.2	no inv. call based on hs character and obs of rd 2820	no
18	549Q	BUNKER CREEK Q	0	0.2	0.2		no
19	10802	RAGHORN	0	3.69	3.69	Panel Group 2, culverts to be removed in 2017	yes
20	895L	WEST SIDE SOUTH FORK	0	0.8	0.8	2008 cmp monitoring	no
21	2801Y	CONNOR Y	0	1.1	1.1	not inventoried due to safety and logistics 2017	
22	1675A	MAHONEY	0	0.17	0.17	one stream aligned cmp near end of road	yes
23	549S	BUNKER CREEK S	0	0.9	0.9		no
24	10753	LOWER WOLF	0	1.5	1.5	WEPP surveys compl as part of Crystal Cedar, no strm aligned cmps, landslide	no
25	1636A	PETERS CREEK	0	0.45	0.451	no stream aligned cmps	no
26	9799	CZAR CREEK ONE	0	0.48	0.484	no stream aligned cmp	no
27	2860	LOST JOHNNY RIDGE	0	4.8	4.8	multiple stream aligned cmps and water on road	yes
28	2820Z	MIDDLE FORK Z	0	0.3	0.3	no stream aligned cmps	no
29	1670B	DRY KNOB B	0	0.2	0.2	Panel group 2, no stream aligned cmps remain	no
30	5251B	GRAVES POINT B	0	0.45	0.45	no stream aligned cmp	no
31	5307A	SOUTH SIDE WHALE CRE	0	0.4	0.4	Panel Group 1	no
32	90195	MEADOW 1	0	0.94	0.943	no stream aligned cmp	no
33	11495	QUINTONKON CORRALS	0	0.06	0.06	no stream aligned cmp	no
34	549P	BUNKER CREEK P	0	0.4	0.4		no

FID	RD ID	NAME	BMP	EMP	LENGTH	InvNotes	StrmAli
35	5317A	SPRING MEADOW BASIN	0	0.2	0.2	no stream aligned cmps	no
36	10818	DEEP HELLROARING CRE	2.15	2.3	0.15	panel group 2	no
37	2820A	LATE CREEK	0	0.7	0.7		no
38	5234	CENTER MOUNTAIN MO	0	1.8	1.8	non priority BT watershed but to be completed with Panel Group 1	no
39	5277	COAL DUST TWO	2.3	3.67	1.37	Panel Group 2, no remaining stream aligned cmps	no
40	9792	ELK SIDEHILL	0	0.8	0.8	one stream aligned cmp with flow around pipe.	yes
41	9693	SOUTH KNieff	0	0.25	0.25	no stream aligned cmps	no
42	2801	SOUTH FORK CONNOR	2.74	3.6	0.86	no stream aligned cmp	no
43	9698	UPPER PEARL	0	0.44	0.44	hh files if decomed	no
44	549N	BUNKER CREEK N	0	0.2	0.2	Inventoried as part of BAER assessment	no
45	90196	MEADOW 2	0	0.35	0.35	no stream aligned cmp	no
46	1670C	DRY KNOB C	0	0.1	0.1	Panel group 2, no stream aligned cmps remain	no
47	9716	LOWER STOPHER	2.84	3.1	0.26	wepp inventory from 2015 Bug Creek field work	yes
48	70722	(DSL) MORAN JEEP ROA	2.09	2.4	0.31	non BT priority watershed but completed with Panel Group 1	no
49	648D	BIG CREEK D	0	0.5	0.5	Panel group 2, no stream aligned cmps remain	no
50	568D	SPOTTED BEAR RIVER D	0	0.06	0.06	no stream aligned cmp	no
51	9767A	RIVER BEND	0.99	1.6	0.61	3 ditch relief cmps	no
52	2820Y	MIDDLE FORK Y	0	1.5	1.5	no stream aligned cmps	no
53	2817C	DOE CREEK CLAYTON CR	0	0.6	0.6	no stream aligned cmps, ditch relief cmps functioning in place	no
54	5275	WEST DEPUY CREEK	0	0.37	0.37	Panel group 2, no stream aligned cmps remain	no
55	549R	BUNKER CREEK R	0	0.6	0.6		no
56	5271C	DEPUY CREEK CONNECT	0	1.1	1.1	2 strm aligned with significant ditch water, one cmp is only 18"	yes
57	10626	NORTH FORK PARKER	0	1.95	1.95	stream aligned cmps ruled out with inventory associated with Bug Creek WEPP	no
58	317	COAL CREEK HALLOWAT	16.2	18.5	2.32	Panel Group 2, 1 strm aligned cmp bottomless arch fully functional	yes
59	11497	UNCLE SMILEY	0	0.07	0.07	no stream aligned cmp	no
60	2820U	MIDDLE FORK U	0	1.6	1.6		no
61	90962	SV 4	0.27	0.3	0.028	no stream aligned cmp marc ruby inventory	no
62	1675	HAWK CREEK	0	0.75	0.75	non priority BT watershed but completed with Panel Group 1	no
63	5251B	GRAVES POINT B	0.45	1.28	0.833	no stream aligned cmp	no
64	9694	UPPER SOUTH KNieff	0	0.22	0.22	HH files	no
65	10754	UPPER WOLF	0	3.07	3.068	WEPP comp as part of Crystal Cedar, no strm aligned cmps, landslides, heavily vegetated	no
66	2820W	MIDDLE FORK W	0	0.6	0.6	no inv. call based on hs character and obs of rd 2820	no
67	2820V	MIDDLE FORK V	0	0.8	0.8	no inv. call based on hs character and obs of rd 2820	no
68	549M	BUNKER CREEK M	0	0.7	0.7	Inventoried as part of BAER assessment	no
69	1604	SOUTH COAL RIDGE	0.7	2.7	2	Panel Group 2, no strm aligned cmps remain	no

FID	RD ID	NAME	BMP	EMP	LENGTH	InvNotes	StrmAli
70	10818	DEEP HELLROARING CRE	0	2.15	2.15	Panel group 2, no stream aligned cmps remain	no
71	5277A	COAL DUST TWO A	0	0.28	0.28	Panel Group 2, no remaining stream aligned cmps	no
72	5277	COAL DUST TWO	1.92	2.3	0.38	Panel Group 2, ditch relief cmp not stream aligned	no
73	10802	RAGHORN	0	3.69	3.69	Panel Group 2, Raghorn Road, all stream aligned cmps being removed in 2017	yes
74	1670	DRY KNOB	0	1.2	1.2	Panel group 2, no stream aligned cmps remain	no
75	9822	CZAR FLATS	0	0.92	0.915	no stream aligned cmp	no
76	9716	LOWER STOPHER	0	2.84	2.84	one stream aligned cmp	yes
77	9716B	STOPHER GOFOR	0	0.82	0.82	excavated stream crossing	no

KH Coal Dust one 1/28/12
Sent to Trish
1-16-13 w/photo
RK

FNF

MAINTENANCE WORK ORDER

PROJECT NAME Coal Creek Water proofing DATE 7/15/2012

ROAD MAINTENANCE

ROAD NUMBER 5279

BEGINNING MILEPOST 0.19 mile

ENDING MILEPOST _____

OR LENGTH IN FEET _____ AT MP _____

BRIDGE MAINTENANCE

FEATURE NAME _____

TYPE OF STRUCTURE _____ ID# _____

LOCATION _____

WORKER NAME John Littlefield - Pat VanEimeran HOURS _____

WORKER NAME _____ HOURS _____

WORKER NAME _____ HOURS _____

MAINTENANCE CODE CMRD 10

DETAILED DESCRIPTION OF WORK PERFORMED (include detail list of parts used):

Road water proofing pulled this culvert and created an impenetrable barrier - needs to be reflected on A-19 maps / Infra ...

- See attached photo

24" dia

Colvert

on 52-99

impassable

4/7/02

▶ MTPR
Pea Green Boat

Bill Allowing Bikes In Wilderness Draws Mixed Reactions In Montana

By [NICKY OUELLET \(/PEOPLE/NICKY-OUELLET\)](#) • 22 HOURS AGO

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7. 12/13/17 MTPR STORY ABOUT BIKES IN WILDERNESS

David Nickelson on a handcycle in Glacier Park.

JACOB FRANK, NATIONAL PARKS SERVICE



Listen

2:05

Bill Allowing Bikes In Wilderness Draws Mixed Reactions In Montana

Montana's Representative Greg Gianforte (<http://mtpr.org/term/greg-gianforte>) Wednesday voted for a bill that would allow bicycles in wilderness areas. The bill is drawing mixed reactions.

U.S. House Resolution 1349 would allow non-motorized bicycles, strollers, wheelbarrows, game carts and motorized and non-motorized wheelchairs in federally designated wilderness areas. Congressman Greg Gianforte sits on the House Committee on Natural Resources, which narrowly approved it for a full House vote.

But Big Sky Country wilderness advocates say the bill undermines local efforts to find compromise between backcountry users.

John Todd is the conservation director for the Montana Wilderness Association.

"There are very few places in Montana, places like the Bob, or the Selway-Bitterroot, where for 50 years we've made it a habit to leave our technology and our machines at the trailhead and experience these places as if we were the first people to ever set foot there. And that's what our wilderness areas are," Todd says.

Todd adds even national mountain biking groups have come out against the bill.

But some wilderness users, like David Nickelson, say the Wilderness Act would benefit from some clarification about what is considered permissible travel.

Bill, Allowing Bikes In Wilderness Draws Mixed Reactions In Mon... http://mtp.org/post/bill-allowing-bikes-wilderness-draws-mixed-re...
"I would like to see that passed in its current form or at least some variant that does make it clear that handcycles or off-road wheelchairs are allowed."

7: 12/13/17 MTPR STORY ABOUT BIKES IN WILDERNESS

Nickelson, a part-time Whitefish resident, is paralyzed from the waist down and uses a three-wheeled off-road handcycle to access the Bob Marshall Wilderness and Glacier National Park. Wheelchairs are allowed in wilderness areas, but Nickelson says managers often don't know how to handle some of the newer forms of adaptive recreational transport.

"When it comes to an off-road handcycle, you're kind of straddling the line because it is sort of half wheelchair, half handcycle."

The bill now moves to the House floor for a vote, no date has been set yet for that. The Senate is also considering legislation that would allow local officials to determine all permitted uses for non-motorized travel.

TAGS: [WILDERNESS \(/TERM/WILDERNESS\)](#) [PUBLIC LAND \(/TERM/PUBLIC-LAND\)](#)

[GREG GIANFORTE \(/TERM/GREG-GIANFORTE\)](#) [JOHN TODD \(/TERM/JOHN-TODD\)](#)

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 [Email \(mailto:?subject=Bill%20Allowing%20Bikes%20In%20Wilderness%20Draws%20Mixed%20Reactions%20In%20Montana&body=http%3A%2F%2Fwww.tinyurl.com%2Fy9oh8vug\)](mailto:?subject=Bill%20Allowing%20Bikes%20In%20Wilderness%20Draws%20Mixed%20Reactions%20In%20Montana&body=http%3A%2F%2Fwww.tinyurl.com%2Fy9oh8vug)

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Name **Chris Servheen** • 6 hours ago

Mountain biking in bear habitat is dangerous for bikers and dangerous for bears. This is especially true in Wilderness areas where animals (and human users like hikers and horseback riders) are used to slow travel. Allowing mountain bikes in Wilderness areas would erode the quality of these areas and put bikers and wildlife in danger. See the attached article for specifics on how mountain biking can lead to serious injury and death:

<http://missoulain.com/news/...>

^ | ▾ • Reply • Share ›

**Matthew Koehler** • 8 hours ago

More than 130 conservation and Wilderness organizations from Montana and around the country oppose this bill.

<http://wildernesswatch.org/...>

This bill is largely a smokescreen and is being sponsored by some of the most notoriously anti-Wilderness and anti-environmental members of Congress, including Rep Rob Bishop. Not one single democrat on the House Resources Committee voted in favor of this bill.

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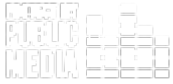
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Board of Review Recommendations

Recommendations related to mountain bike safety in bear habitat based on the fatality of Mr. Brad Treat on June 29, 2016.

March 3, 2017

Board of Review Members¹:

Chris Servheen², Adjunct Research Associate Professor, Department of Ecosystem and Conservation Science, W.A. Franke College of Forestry and Conservation, University of Montana, Missoula, MT 59812

Tim Manley, Grizzly Bear Specialist, Montana Department of Fish, Wildlife and Parks, 490 N. Meridian Road, Kalispell, Montana 59901

Deb Mucklow Starling, District Ranger, Spotted Bear RD, Flathead National Forest, 10 Hungry Horse Drive, Hungry Horse MT 59919

Amy Jacobs, Forest Wildlife Biologist, Flathead National Forest, 650 Wolfpack Way, Kalispell, MT 59901

John Waller, Supervisory Wildlife Biologist, Glacier National Park, P.O. Box 128, West Glacier, MT 59936

The unfortunate death of Mr. Brad Treat from a grizzly bear attack that was precipitated by a high-speed mountain bike collision between Mr. Treat and a bear necessitates increased attention to the dangers associated with mountain biking in black bear and grizzly bear habitat. There is a long record of human-bear conflicts associated with mountain biking in bear habitat³ including the serious injuries and deaths suffered by bike riders. Both grizzly bears and black bears have been involved in these conflicts with mountain bikers. Previous authors have noted the risk associated with mountain bikes in bear habitat:

“Safety issues related to grizzly bear attacks on trail users in Banff National Park prompted Herrero and Herrero (2000) to study the Moraine Lake Highline Trail. Park staff noted that hikers were far more numerous than mountain bikers on the trail, but that the number of encounters between bikers and bears was disproportionately high. For example, three of the four human-grizzly bear encounters that occurred along the trail during 1997-98 involved mountain bikers. Previous research had shown that grizzly bears are more likely to attack when they first become aware of a human presence at distances of less than 50 meters. Herrero and Herrero (2000) concluded that mountain bikers travel faster, more quietly, and with closer attention to the tread than hikers, all attributes that limit place on a fast section of trail that went through high-quality bear habitat

¹ These recommendations rely heavily on the input of Brian Sommers, a criminal investigator and Wildlife Human Attack Response Team (WHART) leader for Montana Fish, Wildlife, and Parks, who was the lead investigator on the this incident.

² Chair of the Board of Review.

³ See Appendix A.

with abundant berries. To reduce such incidents, they recommended reaction time for bears and bikers, and increases the likelihood of sub-fifty meter encounters. In addition, most of the bear-cyclist encounters took education, seasonal closures of trails to bikes and/or hikers, construction of alternate trails, and regulations requiring a minimum group size for bikers.” From: Herrero, J., and S. Herrero (2000) Management Options for the Moraine Lake Highline Trail: Grizzly Bears and Cyclists. Unpublished Report for Parks Canada.

The Board of Review (BOR) on the death of Mr. Lance Crosby from a bear attack in 2015 while **hiking** in Yellowstone National Park made the following recommendations to again restate agency advice on how to reduce the risk of bear attack while **hiking** in bear habitat:

- 1) **Be Vigilant** – Being vigilant for bears and bear sign (tracks, scat, feeding sites) can reduce the chances of stumbling onto a bear at a close distance, thereby reducing the risk of bear attack. Be especially vigilant if hiking off-trail. Bears may be more likely to respond aggressively in off-trail areas where they don't expect to encounter people. However, bears frequently use maintained trails and encounters may occur anywhere. The BOR encourages hikers to remain vigilant while hiking in all bear country.
- 2) **Carry Bear Spray** – Bear spray has proven to be effective at stopping aggressive bear behavior during surprise encounters when the person involved has time to deploy it. The public should be made aware of this fact and encouraged to carry bear spray and to be familiar with how to rapidly deploy it.
- 3) **Make Noise** – Making noise while hiking is an effective method of forewarning bears of your presence, thereby reducing the chances of surprise encounters and related attacks.
- 4) **Don't Run** – Running during an encounter can trigger a chase response in a bear. In addition, jogging in bear country increases the odds of surprise encounters at close distances and surprised bears are more likely to be aggressive.
- 5) **Do not Hike Alone** – Hiking in group sizes of 3 or more people or traveling by horseback is known to reduce the risks of bear attack. Larger groups are more intimidating to bears and more likely to have at least one member making noise or being vigilant, thereby reducing the risk of bear attack. Horses are more likely to smell, hear, or see a bear before a person does, reducing the likelihood of surprise encounters. Horses are also more intimidating to bears and if needed, unlike humans, are capable of outrunning and outmaneuvering bears.

This Board of Review recognizes that there is a need for enhanced messaging aimed at **mountain bikers** in bear habitat. Current safety messaging at trailheads and in the media is usually aimed at hikers. However mountain biking is in many ways more likely to result in injury and or death from bear attacks to people who participate in this activity. In addition, there are increasing numbers

of mountain bikers using bear habitat and pressure to increase mountain bike access to areas where black bear and grizzly bear encounters are very likely.

In an effort to enhance messaging about ways to increase safety for mountain bikers, this Board of Review makes the following recommendations:

- A. We recommend that mountain bike-specific signs be placed at maintained system trailheads on public lands in bear habitat. These signs should carry the specific messages below aimed directly at mountain bikers, and would provide information in addition to that deemed necessary for other kinds of trail users. Since it is not possible to post and maintain mountain bike-specific signs on every trail that might be used by mountain bikers, we also recommend the development of brochures and posters with these same messages about mountain biking in bear habitat. These brochures and posters should be distributed to all bike shops, sporting good stores that sell bikes, and bike rental shops, and should also be used in outreach presentations to recreational groups and clubs. This information should also be available on websites targeted to mountain biking groups.
- B. Suggested messages for signs and educational materials aimed at mountain bikers:
 1. **Be Vigilant** – Be alert for bears and bear sign (tracks, scat, feeding sites) where you ride. Do not ride in areas where you see fresh bear sign like scats and tracks. Avoid riding in areas where there are rich bear foods like huckleberries in late summer when bears are very likely to be present. Bears frequently use maintained trails and encounters may occur anywhere at any time of the day. The BOR encourages mountain bikers to remain vigilant while biking anywhere in bear country.
 2. **Slow Down** - Encounters with bears are much more likely to occur when riding at high speed. Surprised bears are more likely to be defensive and to cause injury to bike riders. High-speed encounters can cause enhanced aggression in bears and may cause bears to chase you and possibly knock you off your bike. Riding at high speed can be especially dangerous where there is little sight distance ahead or to the sides of the trail where you can surprise a bear at close range. Areas with curves in the trail or thick vegetation require slow speeds and making noise as you ride to alert bears to your presence.
 3. **Carry Bear Spray** – Bear spray is effective at stopping aggressive bear behavior during surprise encounters when the person involved has time to deploy it. Carry bear spray on your person, not in your pack, and in a place you can reach it in a few seconds. Should you encounter a bear, bear spray is an essential deterrent to enhance your safety. Also, should there be an incident with a

bear, riding partners can aid injured riders by deterring bears with spray and this may save their life.

4. **Make Noise** – Mountain biking is a quiet and fast activity that may cause you to get much too close to a bear before either you or the bear knows it, resulting in a surprise encounter and a defensive attack by a surprised bear. Surprised bears are more likely to be agitated, dangerous, and aggressive. Making noise while riding is an effective method of forewarning bears of your presence, thereby reducing the chances of surprise encounters and related attacks. You can make noise by riding with bells, other noisemakers, and/or shouting when in or approaching areas of thick cover or at blind corners in the trail. If you can't make noise and you are in bear habitat with limited sight distance along the trail, slow down and be alert.
5. **Do Not Ride Alone** – Single riders are much more likely to surprise a bear and be injured or killed if there is an attack. Riding in groups of 3 or more people can reduce the risks of bear attack. Larger groups are more likely to make more noise and are intimidating to bears should a bear be encountered. Also, if there is an incident with a surprised bear and there is injury to a rider, the other riders can help by deterring the bear with bear spray, going for help, and offering first aid to the victim until help arrives.
6. **Never Ride at Night or at Dusk or Dawn** – Riding at night or during early morning or before dark will greatly increase your risk of encountering and surprising a bear. Bears tend to be more active at these times. Your ability to be vigilant and aware of your surroundings is greatly reduced when you cannot see bear sign or bears in low light or in darkness.
7. **Don't think: "It won't happen to me"**. That kind of attitude is what can get you into serious trouble whether you are mountain biking or doing any other potentially dangerous activity. Be prepared and be safe. That way you can enjoy your activity and you and the bears will be safe.
8. **Remember the bears live there and you are just a visitor.** Taking these precautions will help keep you safer and reduce the stress and disturbance to bears that live in these places where you choose to occasionally recreate.

In an effort to reduce trail conflicts between mountain bikers and bears, this Board of Review makes the following trail recommendations⁴:

- A. Before new trails are opened to mountain biking in bear habitat, particularly grizzly habitat, there should be careful evaluation of the

⁴ These considerations for new trail placement and access restrictions on existing trails to reduce impacts to wildlife are supported by the International Mountain Bicycling Association (IMBA) (see Marion, J. and J. Wimpey. 2007. Environmental impacts of mountain biking: science review and best practices; in *Managing Mountain Biking: IMBA's Guide to Providing Great Riding*, available at <http://www.imba.com/>).

8. *BOR recommendations resulting from the death of Brad Treat from a grizzly bear attack - 3/3/17*

safety and reasonableness of enhancing mountain bike access in these areas where bear density is high. These evaluations should include:

1. Evaluation of the sight distance along trails due to vegetation density (i.e. does the trail traverse riparian zones with limited sight distance and high ambient noise levels from running water in streams), or dense vegetation due to early successional stage vegetation, or extremely curved trail segments (tortuosity) where surprise encounters are likely.
2. Evaluation of the productivity of bear foods along trail routes (i.e. does the trail traverse productive huckleberry fields or avalanche chutes?).
3. Evaluation of the application of seasonal closures of trails for mountain bikes during key seasons and the management capacity of agencies to maintain and manage such seasonal closures should the trail be opened for mountain bike use.

Appendix A

Some examples of mountain biker incidents with bears:

<http://www.cbc.ca/news/canada/calgary/aggressive-bear-killed-calgary-cyclist-near-b-c-resort-1.670727>

<http://www.cbc.ca/news/canada/edmonton/wildlife-conflict-specialist-describes-jasper-grizzly-attack-1.2654545> and <http://www.thejasperlocal.com/exclusive-biker-describes-grizzly-attack.html>

<http://news.nationalpost.com/news/canada/bear-spray-helped-cyclist-get-to-safety-in-the-second-bear-attack-in-southern-alberta-in-two-days>

<http://www.deseretnews.com/article/595089542/Bicyclist-escapes-grizzly-attack-without-scratch.html>

<http://www.theglobeandmail.com/news/national/cyclist-attacked-by-black-bear-near-banff/article20411501/>

Copy and paste into your browser:

<https://www.adn.com/alaska-news/article/bear-attacks-bicyclist-anchorage-trail/2010/06/15/>

<https://www.adn.com/alaska-news/article/cyclists-cool-thinking-saved-bear-attack-victim/2008/07/01/>

9. HUMAN POPULATION OF TWELVE NCDE COUNTIES

Human Population of Twelve NCDE Counties

County	Population
Missoula	114,181
Flathead	96,165
Lewis and Clark	66,418
Lake	29,457
Lincoln	19,052
Glacier	13,647
Sanders	11,336
Powell	6,840
Pondera	6,184
Teton	6,104
Mineral	4,251
Granite	3,240
Total	376,875

Sources:

http://www.montana-demographics.com/counties_by_population

Vol. 3 DEIS for Forest Plan Amendment - NCDE Grizzly Bear Conservation Strategy, page 266

Prepared 8/12/16 by Keith Hammer