Kootenai Forest Plan Revision Objection – 2013

Objector's Name: Paul C Fielder
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Name of lead objector (if more than one): _____

Name of the plan revision being objected to and the responsible official:
Kootenai National Forest Land Management Plan 2013 Revision.
Responsible Official: Faye L. Krueger – Regional Forester, Northern Region

Statement of issues and/or parts of the plan revision which the objection applies:
I object to the adoption of the "Forest Plan Amendments for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones" Record of Decision (with its road closures and road density standards intended to protect grizzly bears) into the Kootenai Forest Plan.

Statement explaining the objection and how the proposed plan should be altered:
The road density standards used in the "Motorized Access Management amendment" (Access Amendment) for the Kootenai Lolo, and Idaho Panhandle National Forests is not based on "best scientific information". Instead, the Access Amendment is primarily based on one report (Wakkinen and Kasworm 1997). This report presented results of a study conducted to determine road density standards based on grizzly bear avoidance or preference for areas with varying road densities. The study was done and report written in 1997, after the USFS began implementing road density standards (USFWS 1993). The USFS is using the Wakkinen and Kasworm 1997 report to establish road density standards in 3 national forests in Montana, Idaho, and Washington. These standards affect the economies and lifestyles in 5 counties, but they are not based upon the best scientific information on grizzly bear preference and avoidance of roads. The Wakkinen and Kasworm 1997 report:

1) was never published in a peer reviewed scientific publication, it was only printed by a committee;
2) was not vetted by true "peer review" scrutiny of the methodology and statistical analysis used, it was only reviewed by work associates and inter-departmental employees (Allen et al., 2011);
3) was based on improper statistics and a sub-standard preference/avoidance statistical probability level using (p=0.1) which increases the probability of false positives instead of standard probability levels (p=0.05) that are common to scientific publications and the Nue et al. 1974 report that is specifically referenced in the Wakkinen and Kasworm 1997 report;
4) relies on calculations that are based on the number of bear observations and not the bears themselves (according review provided by Dr. Skalski, University of Washington Professor of Biological Statistics). The real experimental unit is the animal, and the analysis should reflect that the animals are the primary sampling unit, and the observations are essentially subsamples. The binomial variance formula used in the Wakkinen and Kasworm 1997 calculations are therefore wrong and provide standard errors that are much too small;

5) inaccurately calculated grizzly bear home range sizes that were later proven to be only 30% of the actual home range sizes proven by better technology and more recent studies conducted less than 90 miles away (Waller 2005),
6) used the inaccurately calculated home range sizes to determine the amount of "core area" needed within the grizzly bear home ranges.

Basing Access Management and Forest Plans on the unpublished, statistically flawed, and inaccurate Wakkinen and Kasworm (1997) report, while ignoring the recent and more technologically advanced findings of the Waller (2005) study is in violation of the **U.S. False Statement Statute (Title 18, United States Code, Section 1001).** That statute reads, **"Whoever in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or device a material fact or makes any false, fictitious or fraudulent statement or representation, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both."**

Waller (2005) used the newer technology GPS collars and compared them to the old technology VHF radio collars (used by Wakkinen and Kasworm 1997) to monitor grizzly bear habitat use in roaded areas and to determine home range size. The Waller (2005) study occurred in the Swan Valley of Montana, within 90 miles of the Wakkinen and Kasworm study area. Waller found that VHF collars sampled less than 1% of the total number of hours available for sampling compared to 65% for GPS collars. Wakkinen and Kasworm (1997) were only able to sample bear locations with VHF collars during early morning hours once or twice a week, whereas Waller (2005) was able to sample bear locations 24 hours/day, 7 days/week. The amount and resulting quality of data provide by the two studies is hardly comparable: 389 total locations 2 male and 2 female (a mother and daughter) bears with VHF collars by Wakkinen and Kasworm in the Yaak-Cabinet Recovery Zone (all in the Yaak area) compared to 20,944 total locations of 23 bears by Waller with GPS collars. Waller (2005) found that lower sampling intensities with VHF telemetry provide questionable grizzly bear habitat selection and movement results and that optimum habitat selection results require a minimum sample of 8 bear locations/day, otherwise significant areas of concentrated use were missed. The Wakkinen and Kasworm (1997) VHF collar data is statistically biased as it is limited only to morning daylight hours with good flying conditions. Waller's data showed that bears are mostly inactive during the day with peak activity occurring after mid-night. Waller's GPS collar data found that most bears in his study area lived in the valley bottom among homes and roads all summer, rarely venturing to the high mountains and "core areas". Waller's study demonstrated that grizzly bears spend many hours in timber harvest areas, often adjacent to pristine USFS sections that received little bear use. The attached aerial photograph (Figure 1), from Waller's GPS collar study shows that grizzly bears occur, live, and move extensively throughout the Swan Valley bottom regardless of a preference or avoidance of road densities (From Servheen 2005).

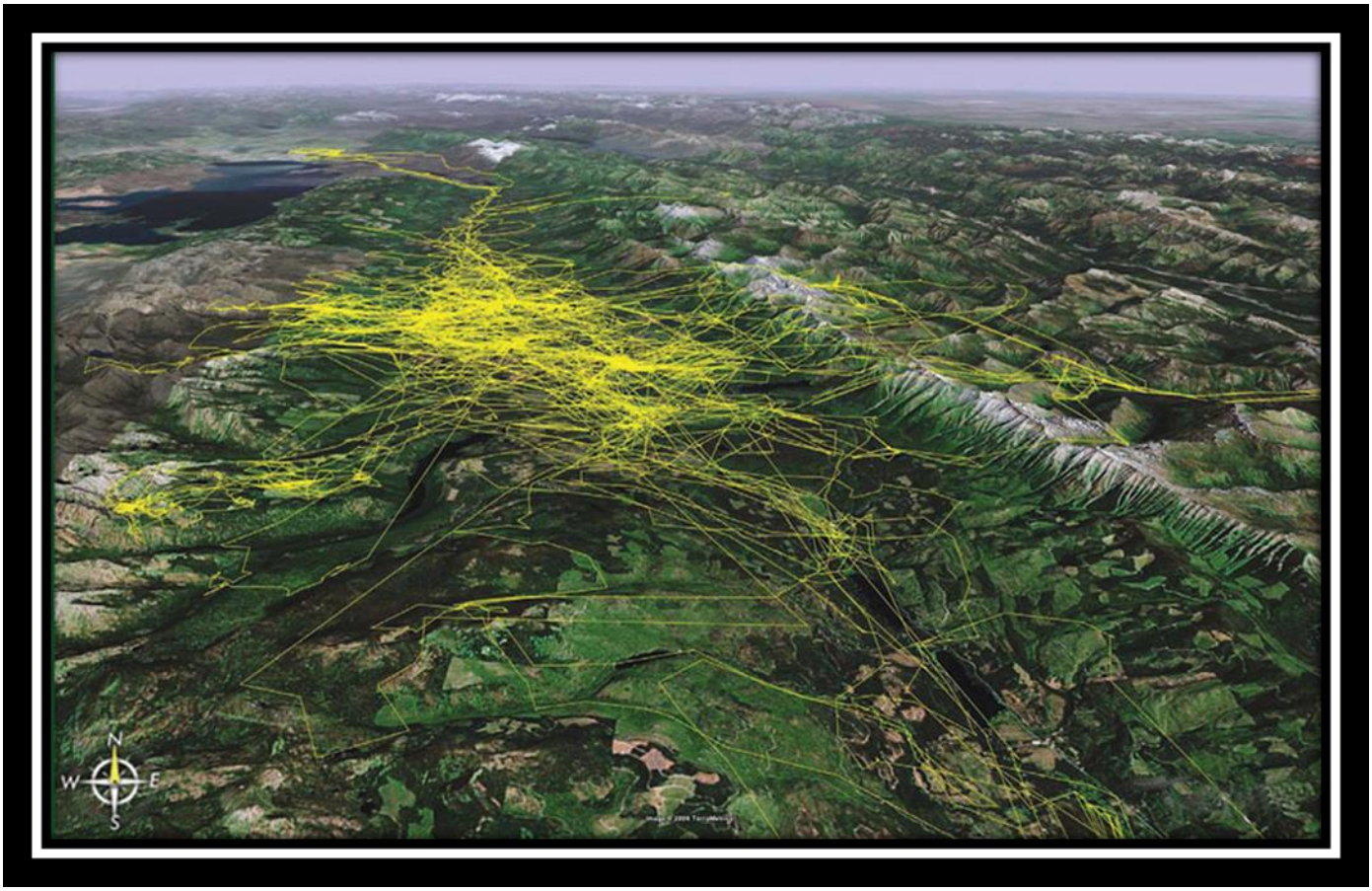

Figure 1. Grizzly bear movements based upon GPS collar telemetry studies conducted by Waller (2005) in the Swan Valley of northwest Montana (from a July 19 2005 presentation by Chris Servheen in Kalispell, MT). This photo shows the Swan Valley with highway 83 running down through the middle of it and passing through the towns of Swan Lake and Condon and the abundance of Plum Creek timber harvest lands in the floor of the valley. Flathead Lake is to the northwest, Mission Mountains to the west and Swan Range to the east. All of the yellow lines through the valley bottom are grizzly bear movements, tracked during the Waller (2005) study using modern GPS telemetry methodology. Grizzly bear avoidance of roads and timber harvest areas is not supported when the bears are intensively monitored with GPS telemetry compared to the older VHS collarmethodology.

The Allen et al.(2011) review of the Wakkinen and Kasworm (1997) printed report did not mention nor consider the findings of the Waller (2005) research in the nearby Swan Valley of Montana. On December 13, 2006, the US District Court of Montana ordered that the 2002 FEIS and 2004 Record of Decision that addressed grizzly bear management in the Selkirk and Cabinet-Yaak Recovery Zones be set aside and that the USFS prepare a new environmental analysis that complied with 40 CFR 1502.22 (a) and (b). The court also ordered that the analysis must consider the findings of other studies measuring habitat parameters "in other ecosystems". The Allen et al. (2011) review of the Wakkinen and Kasworm (1997) report did not do that. If Allen et al. (2011) had objectively used the findings from the nearby

Waller (2005) research, they would have found that the Wakkinen and Kasworm 1997 report might have been the only such information from the Yaak-Cabinet Recovery Zone but many of its findings and conclusions were incorrect and misleading, considering availability of Waller (2005) which used better GPS technology and a much broader sample size.

In 1994, the Interagency Grizzly Bear Committee directed that habitat security parameters, using local female bears, should be developed in all recovery zones. The only bears that met those criteria for the Yaak-Cabinet Recovery Zone were two female grizzlies in the Yaak portion of the Cabinet-Yaak Recovery Zone. These two female grizzlies (which the Access Amendment and the Forest Plan for the Kootenai National Forest are based upon) were a mother bear and her sub-adult female offspring. It is probable that the mother and daughter grizzly shared the same behavior and habitat use patterns, since they spent so much time together during the daughter's early years. It is also probable that this mother and daughter bear is too small and non-random of a sample upon which to base a forest plan, especially for the most productive national forest in the state of Montana that encompasses the two counties that have two of the highest unemployment rates in the state.

The Allen et al. (2011) analysis of the Wakkinen and Kasworm (1997) report was done by three employees of the Idaho Panhandle National Forest, which had been implementing grizzly bear road density standards (reducing existing roads), regardless of litigation (USFS 2011, pg 4). In October 2011, Allen et al. (2011) concluded in that "the Wakkinen and Kasworm (1997) report provides the best data available for determining recommendations for the management of grizzly bear habitat in relationship to motorized routes for the Selkirk and Cabinet-Yaak Ecosystems". The very following month, November 2011, the Kootenai, Lolo, and Idaho Panhandle (Allen et al.'s employer) was able to release the Record of Decision for Motorized Access Management Within the Selkirk and Cabinet/Yaak Grizzly Bear Recovery Zones. USFS employees performed the "peer review" which agreed with the Wakinnen and Kasworm (1997) report printed by the USFWS. Due to the close working relationships of the personnel within these agencies, this is not an unbiased, or blind peer review, and is not typical of scientific publication standards.

Linkage Zones/Corridors MA. The data from the Waller's (2005) intensive study using modern GPS location methodology for grizzly bears found no selection for or avoidance of four classifications of human impact zones and thus did not support the Linkage Zone Model proposed by Servheen and Sandstrom (1993) or Servheen et al. (2001). Waller (2005) reported that those Linkage Zone Models were developed to predict where grizzly bears might choose to traverse human impact areas, but they were not based on grizzly bear habitat use or GPS tracking studies. Rather, they were based on personal opinion and were not supported by the results of the quality of the GPS data that Waller (2005) produced. The KNF Plan included changes relative to Linkage Zones and those linkage changes should be rescinded until data from modern wildlife technology can support such linkage zones.

References Cited

Allen, L.R., B.R. Lyndaker, and G.D. Harris. 2011. A review of the Wakkinen and Kasworm (1997) report as best available science for the Selkirk and Cabinet-Yaak grizzly bear recovery zones. Idaho Panhandle National Forest, USFS, Couer d'Alene, ID. 30pp.

Neu, C.W., C.R. Byers, and J.M. Peek. 1974. A technique for analysis of utilization-availability data. Journal of Wildlife Management.

Servheen, C., and P Sandstrom. 1993. Ecosystem management and linkage zones for grizzly bears and other large carnivores in northern Rocky Mountains in Montana and Idaho. Endangered Species Bulletin 18(3).

Servheen, C., J.S. Waller, and P. Sandstrom. 2001. Identification and management of linkage zones for grizzly bears between the large blocks of public land in the northern Rocky Mountains. US Fish and Wildlife Service, Missoula, MT.

Servheen, Chris. July 19, 2005 taped public meeting in Kalispell, MT regarding grizzly bear research finding with GPS collars compared to the older radio collars in the Flathead Valley region.

US Fish and Wildlife Service. 1993. Grizzly Bear Recovery Plan. Missoula, Montana. 181 pp.

US Forest Service. 2011. Record of Decision: Forest Plan Amendments for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones. 68 pp.

Wakkinen, W.L. and W.F. Kasworm. 1997. Grizzly bear and road density relationships in the Selkirk and Cabinet-Yaak recovery zones. Interagency Grizzly Bear Committee, Missoula, MT. 28pp.

Waller, J.S. 2005. Movements and habitat-use of grizzly bears along US Highway 2 in northwestern Montana, 1998-2001. PhD Thesis, University of Montana (Chris Servheen, Committee Chairman).

Proposed Solution: Rescind and withdraw the November 2011 Record of Decision for the Forest Plan Amendments for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones which is based upon the unpublished Wakkinen and Kasworm (1997) report. Develop a new Motorized Access Management Plan based on modern GPS wildlife technology and research that will be statistically valid and publishable in a blind peer review scientific publication such as the Journal of Wildlife Management. This would increase the likelihood of "scientific integrity" for the proposed long-term extremely restrictive road density standards and core area criteria included in the access amendment and forest plan.

Stop obliterating and removing existing roads from the Kootenai National Forest and especially the BORZ areas, which are outside the designated zones identified for grizzly bear recovery. Instead, simply gate these roads, if necessary, to reserve future management options tolerable to grizzly bears that recent (Waller 2005) and new wildlife research using modern wildlife technology (GPS collars, DNA analysis) would validate as the "best available science". A road can be easily un-gated, but a road

cannot be easily un-obliterated. Best available science may indicate that seasonal or periodic use of existing roads would be tolerable by bears, desirable for natural resource utilization, management, recreation, and health, safety, and welfare of the forest and surrounding communities.

The US Forest Service must use the "the best biological information possible" if that science is to be used as the driving force behind very restrictive access management and forest plans that affect the economy and lives of the people that live near the forest or rely on a forest based economy. Findings of Waller (2005), and my discussion of statistical flaws, show that the Wakkinen and Kasworm (1997) report has incorrect findings and does not stand up to "state of the art" wildlife technology and research methodology. The Kootenai National Forest is the most productive forest in Montana, yet Sanders and Lincoln counties (within the KNF) regularly have the highest unemployment rates in the state. Page 2 of the Access Amendment Record of Decision (USFS 2011) discusses "using the best available biological information and considering the social and economic impacts of those recommendations". To do otherwise is a clear violation of the **U. S. False Statement Statute** and an offense against the people that expect responsible public access and resource management policies**.**

Remove reference to Linkage Zones/Corridors for grizzly bears from the Forest Plan until such zones and corridors are determined with modern GPS telemetry research. The Linkage Zone Models proposed by Servheen and others in the Swan Valley were based on "professional opinion" and were not supported by the Waller's (2005) study that used GPS technology. To continue to use linkage zone models that could not be supported by an intensive, highly technical GPS tracking study would be a clear violation of the **U. S. False Statement Statute**.

Statement demonstrating the link between the objection and prior formal comments:
My May 7th 2012 letter of comments to the Kootenai Forest Plan qualified me as commenter #261 and my comments were lumped in Public Comment numbers 296 and 448. At that time, I stated that the biological information which the motorized access management plan and Record of Decision are based upon can be viewed many and opposing ways. Since then I have been able to acquire statistical analysis from the University of Washington to verify my concerns with the outdated VHF technology, inaccurate results, incorrect, and substandard statistical methods utilized in the Wakinnen and Kasworm (1997) report. I have also been able to research other studies that verified the faults I found in Wakkinen and Kasworm's (1997) report (research that has never been published by any credible scientific journals). I stated that grizzly bears are selecting areas for optimum food, not to avoid roads. Waller's (2005) study supports my statement. I stated that the grizzly bear population goal (about 100 bears) for the Yaak-Cabinet Recovery Zone (based on Wakkinen and Kasworm (1997) estimated home range size) was unrealistically high. Waller (2005) confirms my statement by showing that home ranges based on VHF data are only 30% of actual home range size verified with GPS technology. I stated that the Access Amendment ROD will hurt the local economies of Sanders and Lincoln counties. The Forest Plan only uses the recent 2007-2009 period for economic analysis of the impacts of the Plan. That 3-year period is after our region's timber based industry crashed as a result of USFS road closures that began in the 1980s (USFS 2011, page 4). We need a plan with more forest access, not less.

Signature: Paul C Fielder