BEFORE THE REGIONAL FORESTER,  
REGION ONE OF THE UNITED STATES FOREST SERVICE

In Re: Objection of Hellroaring Project  
Environmental Assessment  
Bonners Ferry Ranger District

KOOTENAI ENVIRONMENTAL ALLIANCE, OBJECTOR  
P.O. BOX 1598  
Coeur d’Alene, ID  83816-1598  
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DATED this _16th___ day of June, 2015

By _/s/ Mike Mihelich  
   Forest Watch Coordinator  
   Kootenai Environmental Alliance  
P.O. Box 1598  
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Introduction

NOTICE IS HEREBY GIVEN that the Kootenai Environmental Alliance (KEA), objects pursuant to 36 CFR § 218.7 to the Regional Forester, Region One of the United States Forest Service, from the Hellroaring Environmental Assessment (EA) prepared for the Hellroaring project, located on the Bonners Ferry Ranger District of the Idaho Panhandle National Forests. Idaho Panhandle National Forest Supervisor Mary Farnsworth is the Responsible Official for this project. Legal Notice in the Newspaper of Record that states this EA is subject to objection process pursuant to 36 CFR § 218, subpart A and B. Legal Notice was published in the Newspaper of Record on May 8, 2015. On page two (2) of the Hellroaring draft DN and FONSI letter, file code 1950, dated May 6, 2015 and in the Legal Notice, it is indicated objections may be submitted by e-mail at appeals-northern-regional-office@fs.fed.us This Objection is being submitted electronically. KEA is objector (per 36 CFR§218.7(2) direction). KEA will be referred to as ‘objector’ or ‘the objector’.

KEA is a non-profit organization dedicated to maintaining, protecting, and restoring the native ecosystems of north Idaho. KEA has an organizational interest in the proper and lawful
management of the Idaho Panhandle National Forests. KEA’s members and staff participate in a wide range of recreational activities on the IPNF.

KEA claims standing to participate in the public land decision-making process on the grounds that it has been involved in National Forest management issues for over 20 years. Our members have hiked, fished, hunted and photographed in the IPNF. The procedural harm and physical impacts associated with this project detract from the ability of our members to be involved in the decision-making process of our public lands.

In addition, KEA members are taxpayers that are required to pay for the activities discussed within the Hellroaring EA. The irretrievable commitments of financial resources associated with this project are also borne by the American people as a whole. KEA claims partial ownership of the public lands covered by this project and consequently has legal standing to participate in the process and object to those projects it finds unacceptable and inconsistent with applicable laws and regulations.

Objector has participated in the comment process associated with this project. Objector is objecting to this project on the grounds the decision is legally indefensible. Objector contends that with this project, Forest Supervisor Mary Farnsworth and the IPNF violate the National Environmental Policy Act (NEPA).

Statement of Facts

The Forest Supervisor proposes to implement Alternative 2 that would log approximately 1,353 acres of National Forest System (NFS) lands. Alternative 2 would remove approximately 15 million board feet, (15 MMBF).

The objector provided substantive, written comments on July 3, 2013 and again on August 22, 2014.

Arguments

**NEPA/Best Available Science violations:**
NEPA at 40 CFR 1500.1(b) requires that environmental information is available to citizens before decisions are made and before actions are taken. 40 CFR 1500.1(b) also requires accurate scientific analysis, high quality information, and expert agency comments.

NEPA at 40 CFR 1502.24 requires both professional and scientific integrity in NEPA documents.

Objector KEA in the August 22, 2014 letter cited issues associated ArcFuels10 System, the LiDAR technology, and the ECA model being used as part of the Hellroaring aquatics analysis.
Concerning ArcFuels10 System the sentence in the KEA August 22, 2014 letter read. “If this model is currently available for use in Region 1, the final NEPA document should indicate why this model was not used for this project”. The Forest Service in the EA, Appendix D, page 49, indicated “….. there was not a need to use the Arc Fuels toolbar within ArcMap.”

The Forest Service response on page 49 did not supply expert agency comments as to whether the ArcFuels10 System is currently being used in Region 1, as is required by 40 CFR 1500.1(b). It does not seem reasonable that such an important fire model would not be used at the Regional Office and not at the Supervisors Office’s in Region 1.

Regarding the Forest Service response that there was no need to use the toolbar, the following information is being entered into the record. There is a 2013 USDA Forest Service Pacific Northwest Research Station General Technical Report PNW-GTR-875 document that contains an extensive discussion of this model. The first sentence in the Abstract of the 65 page document is as follows. “Fire behavior modeling and geospatial analyses can provide tremendous insight for land managers as they grapple with the complex problems frequently encountered in wildfire risk assessments and fire and fuels management planning.”

The Introduction of the GTR-875 document, page 1, includes the following statements.” A core strategy of ArcFuels is to facilitate the application of wildfire behavior modeling to help quantify the components of risk, especially the relative burn probability and intensity from future wildfires” and “The application of simulation models for wildfire management planning continues to grow, with case studies that span many scales and problems.”

On page 2 the following information is found regarding this model. “ArcFuels10 provides a logical flow from stand-to-landscape analyses of vegetation, fuel, fire behavior, using a number of different models (table 1, fig. 2) in a simple user interface within ArcMap.”

If this model is currently being used in Region 1, and is available for use by the IPNF, the failure to use this model for the Hellroaring project is in violation of the NEPA requirements at 40 CFR 1500.1(b) for accurate scientific analysis, and the 40 CFR 1502.24 requirement for scientific accuracy.


Concerning the use of the LiDAR model, the Forest Service response was that it was not used “… because site specific field plot (inventory) data was collected.

The May 20, 2014 Vegetation Report does not contain specific information as to when the site specific field plot data was collected. It appears that Alternative 2 consists of approximately 40 stands. In the Vegetation Report there is a list of previous timber sales that include, Hellroaring, Little Hellroaring, Upper Hellroaring, and Uproaring Salvage. These timber sales logged over
3,000 acres. It is not clear as to whether the site specific field plot data cited included any areas where the four timber sales occurred.

The April 2013 issue of the Pacific Northwest Research Station publication Science Findings is devoted to a discussion of LiDAR. Among the key findings described on page two are the following. “A novel approach for correcting intensity – a LiDAR parameter used to discern species groups- now dramatically improves the accuracy of species-group classification over mountainous terrain.” One other key finding is as follows. “The assessment of site index, which describes forest productivity, is notoriously challenging and costly to obtain. For the first time, site index maps were produced by combining data management records from private and public lands with LiDAR data.”

On page five the following statement is found. “Assuming acquisition specifications and analysis methods are adjusted to local conditions, the unprecedented ability to identify the distribution of forest resources means that LiDAR output can contribute much to forest management and planning.”

If the field plot data that was collected is out of date and does not accurately describe the actual on the ground conditions where the new logging units are proposed, the failure to use accurate and current LiDAR technology does not meet the NEPA requirement at 40 CFR 1500.1(b) for accurate scientific analysis, and does not meet the NEPA requirement at 40 CFR 1502.24 for accurate scientific methodology.

Concerning the issue of the ECA calculator, the Forest Service response in Appendix D is as follows. “The ECA calculator used for the Hellroaring analysis was the same excel spreadsheet calculator used for the Twentymile project.”

The ECA calculator cited in the Forest Service response and in numerous places in the Hydrology Report apparently is also known as the Equivalent Area Method, developed by the Flathead National Forest (FNF) in March 2012. The Hydrology Report on page four cites seven key assumptions and limitations of the ECA analysis method. These same assumptions and limitations are found on page four of the March 2012 FNF User Guide.

The first sentence in the User Guide is as follows. “This guide describes the Equivalent Area method currently in use by some National Forests in Region 1 to predict the effects of land management activities on water yield.”

The User Guide for the ECA Method on page one also includes the following sentence. “Instructions are provided on how to run one version of the method (Appendix A) in the form of an Excel worksheet.”

In the User Guide on pages one and two there is also a lengthy section titled ‘History of the ECA Method in Region 1”. The discussion on page one mentions the WATSED model and includes the following sentences. “Use of WATSED began to decline in the early 2000s. The demise of WATSED was the result of several factors. First, the changes in the Forest Service activities database and other software advances caused several compatibility issues with WATSED which made it difficult to run. Secondly, the WATSED method was not well supported by empirical research.”

“MacDonald et al. (1995) studied the relationship between WATSED-predicted water yield/peak flow increases and channel characteristics on the Kootenai National Forest. None of the channel types (pool riffle or colluvial step-pool) showed any increase in bankfull width or width-to-depth ratio with more intensive management.”

If the statement on page one of the User Guide is accurate concerning the WATSED method not being scientifically accurate, is the study by MacDonald et al (1995) relevant to ECA analysis for the Hellroaring project?

There is an additional issue relating to the use of model being used for this project. There is a Forest Service Region 6 technical report that contains a different perspective concerning the ECA model. The following statements are found on page two of the Report. “The physical model behind ECA as a cumulative-effects measure is that vegetation removal changes water yield characteristics (peak flow, timing, total yield) in rough proportion to leaf area, or basal area removed from a site. Several studies have shown that timber harvest affects water yield by reducing water loss associated with interception and evapotranspiration, or by changing snow distribution and melt rates (Hicks et al. 1991, Scherer 2001, Stednick 1996). The hydrologic changes may lead to destabilized stream channels and other adverse ecological effects (Reid 1993)."

The Report also on pages one, four, and five discusses sets of coefficients that are required as part of using an ECA model, especially in regards to using current field data. In the Hellroaring Hydrology Report there is no specific information as to whether the ECA calculator being used includes up to date coefficients for the project area, and for the Round Prairie Creek watershed. If each of the logging prescriptions associated with Alternative 2 do not include current coefficients, the accurate scientific analysis requirement at 40 CFR 1500.1(b) has not been met.


Request for Relief

Due to the violation of Federal regulations cited the objector requests relief in the form of instruction to the IPNF that:
There should be a Revised EA that specifically addresses each of the NEPA science requirements that apply to the use of the two models cited and the issue of the LiDAR technology as it applies to the Hellroaring project.