

BEFORE THE UNITED STATES DEPARTMENT OF AGRICULTURE
INFORMATION QUALITY STAFF AND PANEL

Re: Analytic Methods, Techniques and Data)
Used in Support of the Forest Service's Proposed)
Limited Timber Harvest Categorical Exclusion)

Sent via e-Mail on 9/10/2003 and
Sent via U.S. Priority Mail on 9/10/2003

REQUEST FOR RECONSIDERATION OF CORRECTION OF INFORMATION
CONTAINED IN THE INITIAL DATA SET FOR TIMBER HARVEST EFFECTS
MONITORING

Submitted to:

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I. Petitioners Request for Reconsideration

As part of the rulemaking process for the Limited Timber Harvest Categorical Exclusion (CE), John Muir Project, Heartwood, and Sierra Club filed a timely data correction request, asking for better methods of data collection and additional information to support findings of non-significant environmental impacts. In its analysis, the Forest Service overwhelmingly used a technique referred to as “observation” instead of a more reliable, accepted, or available methods, such as “measurement,” for a vast majority of its data set. In addition, information is absent that would allow a qualified member of the public to verify any of the data, analysis, or conclusions. This document constitutes a reconsideration request by a USDA panel for the adequacy of the use of this type of influential regulatory information for the purposes of creating important new public policy in the form of a new CE.

II. Introduction and Background

Ever since Federal District Judge Gilbert of Southern Illinois enjoined the use of the “category 4” exclusion for small timber sales from NEPA review¹, the Forest Service has been looking for a new way to resurrect a small tract logging CE. The dilemma faced by the Forest Service has always been that no real data was available to justify such a CE. So it chose to undertake an information gathering exercise for the creation of a new set of CEs that could perhaps withstand scientific and judicial scrutiny. At the same time, Congress passed a new law, referred to as the Data Quality Act², which instructed the Office of Management and Budget to issue guidelines for information disseminated by Federal agencies, with requirements that the information or data, among other things, be “objective”. Objectivity means that data and information must be presented in a complete, unbiased, accurate and reliable way³. But for “influential” information used to create important public policies—such as this CE—OMB outlined an even higher standard, requiring that information presented must be transparent, meaning capable of being reproduced or able to be independently reanalyzed by a qualified member of the public⁴.

As we will show with the use of our own experts, the Forest Service has failed in its task to meet these requirements for regulatory and influential regulatory information used to support the new CEs. The Forest Service has failed to meet a number of basic requirements detailed in the USDA’s Information Quality Guidelines⁵, including the use of sound analytic methods, the use of reasonably reliable data, the identification of uncertainty affecting data quality, the use of the best science or supporting studies, and the collection of data by best accepted or best available methods.

¹ Heartwood, Inc. v. United States Forest Service (230 F.3d 947 (7th Cir. (Ill.) 2000).

² P.L. 106-554, Sec. 515.

³ Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies (Federal Register / Vol. 67, No. 36 / February 22, 2002, pp. 8452, 8460).

⁴ See FN 3

⁵ Supplemental Guidelines for the Quality of REGULATORY Information Disseminated by USDA Agencies and Offices; see: http://www.ocio.usda.gov/irm/qi_guide/regulatory.html.

III. Procedure for Requesting Reconsideration of USDA's Decision⁶

Within 45 days of the initial data correction determination (in this case, 45 days from July 29, 2003), petitioners can submit a reconsideration request. For either “influential” or “regulatory” information, a 3-member panel is designated to review the reconsideration request, which should include 2 members from other USDA agencies. Since the rulemaking process for the new CE is complete, and no other public processes in play, reconsideration will be handled outside of any type of official comment period. No other administrative remedies or appeals of the new CEs are available to petitioners. The panel has 60 days to respond to the reconsideration request, which has been submitted in a timely fashion on Wednesday, Sept. 10, 2003 via e-mail and via U.S. Priority Mail on the same date.

A. Requirement for use of Panel for our Reconsideration Request

Because “Regulatory Information” is involved in this reconsideration, a 3-member panel is required, since in “requests for reconsiderations that involve *influential* scientific, financial, or statistical information, or regulatory information, USDA will designate a panel of officials to perform this function.” (USDA IQ Guidelines, emphasis added). In addition, the Limited Timber Harvest CE data must be considered “influential,” which also triggers the use of a 3-member panel.

B. Standard and scope of review

Not only must the panel review the initial agency review for data correction, but it “will review the material submitted in support of the Request for Reconsideration, the material submitted with the original request for correction, and the USDA agency's response to the original correction request and all additional relevant documentation, and then arrive at a decision regarding the Request for Reconsideration” (USDA IQ Guidelines). This panel must therefore provide a new review of both the original request and the reconsideration request, and must consider both new facts and even new claims submitted as part of the reconsideration request. We have supplemented the reconsideration request with a clarification of our original claims, new claims, and expert declarations, which must all be considered by the panel.

C. Data used for an important public policy, such as this CE must be considered “influential” information and the agency must make such a determination

According to the OMB definition, ““Influential”, when used in the phrase “influential scientific, financial, or statistical information”, means that the agency can reasonably determine that dissemination of the information will have or does have a clear and substantial impact on important public policies or important private sector decisions. Each agency is authorized to define “influential” in ways appropriate for it given the nature and multiplicity of issues for which the agency is responsible.” (OMB Definition from 2/22/2002 Fed. Register, p. 8460, emphasis added).

Because this new and important public policy will exempt hundreds or even thousands of projects in the future from detailed environmental review using this new CEs, the public's ability to participate in the process will be significantly abridged. In addition, the impact on the

⁶ Procedure to Seek Correction of Information Disseminated by USDA, see: http://www.ocio.usda.gov/irm/qi_guide/corrections.htm .

environment could be substantial because of the expedited review could add significant risk for the environment. According to the new project Appeal Regulations, all projects that are categorically excluded from detailed environmental review under NEPA are no longer subject to the notice, comment or appeal regulations.⁷ This is a significant change the public's ability to be included in, or seek redress for, projects that will adversely affect their interests.⁸ Also, according to our expert review of the data and flawed finding of non-significance,

“[i]n relying on the subjective predictions based on unknown estimation methods for 143 of the projects, less than one-third of which were visited by a soil scientist, the Forest Service is introducing a high degree of uncertainty and risk into their decision. As explained above, these issues are not addressed in any of the materials reviewed. The risk, uncertainty, and miscalculation of effects (see data1.xls, lines 35, 36) is greatly magnified when one considers that the Forest Service is proposing to categorically exclude projects such as these from environmental assessment and review by the public forever. The 154 projects were just a sample of projects from about a three year period. One could assume (explicitly) that up to 1000 projects will be proposed over the next ten years (154 times 2 = total projects in three years times 3 equals 900+ projects). With average salvage projects running about 250 acres, that is about 250,000 acres of categorically excluded timber harvest over the next ten years. If predictions are missed on just 10% (less than one half rate of missed calls on projects measured by a soil scientist), then 25,000 acres, which may now meet standards, will be affected such that they do not. These effects will be in addition to the effects of projects for which environmental assessments and environmental impacts statements are required. This is significant and needs to be addressed through quantitative data collection using an explicit method and adaptive management to prevent detrimental soil effects to thousands of acres in the near future, not through categorical exclusion.”

See Exhibit A, Purser Declaration (herein after, Purser), ¶ 19

The change in public process and individual and cumulative effects to the environment from this CE could be substantial and significant, making the data relied upon for this CE a perfect example of both the OMB's and USDA's definition for “influential” information. According to the USDA's definition of “influential,” the trigger for this CE rulemaking depends on whether there could be an adverse effect on the “environment” or “communities.”

⁷ **36 C.F.R. § 215.4 Actions not subject to legal notice and opportunity to comment.**

The procedures for legal notice (§ 215.5) and opportunity to comment (§ 215.6) do not apply to: (a) Projects and activities which are categorically excluded from documentation in an environmental impact statement (EIS) or environmental assessment (EA) pursuant to FSH 1909.15, Chapter 30, section 31; and

36 C.F.R. § 215.12 Decisions and actions not subject to appeal.

The following decisions and actions are not subject to appeal under this part, except as noted: (f) Decisions for actions that have been categorically excluded from documentation in an EA or EIS pursuant to FSH 1909.15, Chapter 30, section 31 (Federal Register / Vol. 68, No. 107 / Wednesday, June 4, 2003, pp. 33597 and 33599).

⁸ See Exhibit A (herein after Purser), ¶ 15: “Since the information presented is being used to support rulemaking which would remove the accountability of the agency to the public and involves a NEPA issue the information and monitoring techniques used to determine significance must be considered “influential.” (ref. to OMB definition)”

“In rulemaking, influential information is scientific, financial, or statistical information that will have a clear and substantial impact on the resolution of one or more key issues in an economically significant rulemaking, as that term is defined in Executive Order 12866. Executive Order 12866 defines an economically significant rulemaking as one that is likely to result in a rule that may have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities. The reference to key issues on significant rules reflects the "important" public policy language of the guidelines.”

USDA IQ Guidelines “Influential” Definition for Rulemaking (see bottom of page at: http://www.ocio.usda.gov/irm/qi_guide/January_03_report.html , emphasis added)

E.O. 12866 would not exclude this rulemaking from being “influential” simply because it’s not “economically significant”, since other factors are weighed equally with the economic provision. Both the environment, as detailed by Purser above, as well as communities adjacent to national forests could be adversely affected by these CEs, because very little analysis of environmental effects would be required. Affected publics in adjacent communities would have little oversight and input in the outcome of these types of projects, since CE’d projects would no longer be subject to the notice, comment and appeal provisions of the 36 CFR 215 Appeal Regulations.

If the data for this CE were generated for non-rulemaking purposes, a determination of “influential” would be even easier, as the USDA’s language provides clearer guidance:

“Information that affects a broad range of parties, with a low-intensity impact, or information that affects a narrow range of parties, with a high intensity impact, likely is influential.”

USDA IQ Guidelines “Influential” Definition for Rulemaking (see bottom of page at: http://www.ocio.usda.gov/irm/qi_guide/January_03_report.html)

Clearly, the information and data used for this CE affects a broad range of parties (the entire American public who are owners of their national forest and have a right to participate in their management, and thousands of communities adjacent to National Forests) either with low or high intensity impacts. Therefore, information and data used in support this CE must be determined to be “influential.”

IV. Petitioners’ Reply to the Forest Service’s (FS) 7/29/2003 Detailed Response

USDA’s Correction Reconsideration procedures require the panel to “ensure that the initial agency review of the Request for Correction was conducted with due diligence.”⁹ The simplified response in the 7/29/2003 FS letter was not conducted with due diligence, since it did not address

⁹ Procedure to Seek Correction of Information Disseminated by USDA, see: http://www.ocio.usda.gov/irm/qi_guide/corrections.htm .

petitioners 6 claims or allegations in detail, it relied completely on so-called “expert opinion,” it never addressed the higher standards for “influential” regulatory information, and it overstated petitioners’ position. Petitioner’s initial data correction request is attached as Exhibit C and the FS’ initial response is attached as Exhibit D.

A. The FS did not answer petitioner’s allegations (all 6 of our claims are left unanswered)

In our original data correction request, we included the following list of allegations of non-compliance with the USDA’s IQ Guidelines, which were left essentially unanswered.

For Regulatory Information:

1. They do not “use sound analytical methods in carrying out scientific and economic analyses” since the method of “observation” is not verifiable;
2. They do not “use reasonably reliable ... data and information (e.g., collected data such as from surveys, compiled information, and/or expert opinion) since the method of “observation” is inherently unreliable;
3. The technique of “observation” and data presented does not “ensure transparency of the analysis, to the extent possible by ... Providing transparent documentation of data sources, methodology, assumptions, limitations, uncertainty, computations, and constraints” and “Explaining the rationale for using certain data over other data in the analysis,” as well as “Presenting the model or analysis logically so that the conclusions and recommendations are well supported.”
4. The analysis does not “Clearly identify sources of uncertainty affecting data quality.”

For Influential Regulatory Information:

5. It does not “use the best science and supporting studies conducted in accordance with sound and objective scientific practices, including peer-reviewed science and studies where available;”
6. It does not “use data collected by accepted methods or best available methods.”

There is no reference in the FS’ response to any of these allegations and there was no real attempt made at answering our specific concerns. Instead, the FS simply chose to rely on so-called “expert opinion” to justify its lack of real data in support of findings of non-significance. This non-response is clearly arbitrary and the redirected justification by use of so-called experts is a capricious attempt to evade our concerns.

We hope the 3-member USDA panel not evade our claims and specific allegations, but will instead provide a specific and detailed answer and response to each, old and new. Anything less would be a disservice to the public and the time spent by the public, petitioners, and the agency to craft the rules in question.

B. The FS’ simplified response relies completely on so-called “expert opinion,” an unallowed standard for “influential” information

In its response, the FS picks out one of the examples cited parenthetically in the second requirement for objectivity of regulatory information as its justification for the lack of real data

and information upon which it relied.¹⁰ While the response doesn't address the requirement for "reasonably reliable or reasonably timely data and information," it justifies its use of "observation" solely because so-called "experts" have expressed an opinion. Unfortunately for the FS, this is not an allowable standard under either the USDA's or the OMB's IQ Guidelines for "objectivity" of "influential" information. In addition, many of the "experts," relied upon for their "opinions" aren't real experts in their field at all, especially for "opinions" or "observations" about soils.

1. "Expert opinion" is not an allowable standard for "influential" information

The OMB Guidelines are clear as it pertains to "influential" information. According to the definition of "objectivity":

"In a scientific, financial, or statistical context, the original and supporting data shall be generated, and the analytic results shall be developed, using sound statistical and research methods...If an agency is responsible for disseminating influential scientific, financial, or statistical information, agency guidelines shall include a high degree of transparency about data and methods to facilitate the reproducibility of such information by qualified third parties...With regard to analytic results related thereto, agency guidelines shall generally require sufficient transparency about data and methods that an independent reanalysis could be undertaken by a qualified member of the public."¹¹

"Expert opinion" is found nowhere in the definitions of "objectivity" or "influential."¹² The expert opinion relied upon for the CE, in the context of "influential" information, is not reliable in that it has not been generated with sound statistical and research methods.¹³ Nor is it of a high degree of transparency, so an independent reanalysis could be undertaken by a qualified member of the public.¹⁴ Finally, the USDA's IQ Guidelines only allow "expert opinion" for regulatory information that is not considered "influential." A higher standard applies for this CE, requiring the use of "data collected by accepted methods or best available methods."¹⁵ Both the accepted and best available methods for monitoring soils are by some

¹⁰ Supplemental Guidelines for the Quality of REGULATORY Information Disseminated by USDA Agencies and Offices; see: http://www.ocio.usda.gov/irm/qi_guide/regulatory.html.

¹¹ Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies (Federal Register / Vol. 67, No. 36 / February 22, 2002, pp. 8452, 8460).

¹² See Purser, ¶ 16: "...the requirements for Objectivity of Influential Regulatory Information make no allowance for the use of expert opinion."

¹³ See Purser, ¶ 12: "The techniques referred to in the data submittal form and coded in data1.xls (observation, measurement, etc.) are not methods per se. We are not informed as to what was being observed or measured. There was not found any statement of specific procedures used or references to standard methods as may be found in Methods of Soil Analysis or other soil analysis reference. The information is therefore unreliable and irreproducible. As a qualified member of the public I would be unable to reproduce any of the information."

¹⁴ See FN 13 and See Bond, ¶ 7: "I have concluded that [for wildlife]...it is virtually impossible for a qualified member of the public to independently examine the data and be able to make any conclusions regarding non-significance"

¹⁵ See FN 10.

sort of measurement technique, rather than simple observation.¹⁶ In addition, these techniques and equipment for measurement are readily available to the FS' so-called "experts," but were rarely employed in collecting data in support of the CE.¹⁷

2. Many of the FS' so-called "experts" aren't really experts and can't be relied upon

As an example, for the soils information presented, only a fraction of the so-called "experts" have the qualifications needed to make the determinations that soils were not significantly affected. Even if "expert opinion" were an allowable measure of compliance for this CE, the FS should not rely on the opinion of those that are unqualified for this analysis:

"Only 56 of the 154 projects were monitored by a "soil scientist" at all (two of these were phone interviews). Of the 11 projects measured for compliance with soil standards, nine were measured by soil scientists and two of the nine did not meet standards. This means that when soil standards were measured by a soil scientist 22% failed to meet predicted conditions. This cannot be seen as the basis for categorically excluding these types of projects from monitoring and environmental review. Worse yet, of the 143 projects where observation, no method, or a blank space was the technique (see data1.xls), only 47 were reviewed by soil scientists, less than one-third. Only two of these projects were deemed to not meet standards. If the population were truly random, it would be near impossible to select nine projects where two did not meet standards from a population of 154 where four did not meet standards. This confirms three biases: 1) bias against measuring soil properties to ascertain whether they met quantitative performance standards from Forest Plan; 2) bias against using professional soil scientists to perform the necessary monitoring, and 3) bias in the population selected for monitoring. The overarching bias, no bad news, is best exemplified by the project found on line 61 in data1.xls which was reviewed, but not measured, by a soil scientist who commented "some soil compaction/displacement visually evident within unit, but severity and extent could not be determined solely on observation" and then declared that it met standards, apparently the default assessment. In total, only 36% of projects used soil scientists for soil monitoring. This cannot be seen as monitoring by "journey-level specialists qualified to examine and draw conclusions" from their observation or other subjective method. The above described uncertainty is not to be found in the Methodology where one would expect it, as required according to the Supplemental Guidelines."

See Purser, ¶ 14

C. The FS overstates petitioner's request to rely only on "measurement" techniques

In its response, the FS stated that "[w]e find no compelling reason to exclude the use of observation in support of our analysis or to exclusively rely on the use of measurement on all

¹⁶ See Purser, ¶ 16: "These would include measurements of soil compaction by penetrometer or by bulk density methods to determine the area which has been compacted, for instance. Soil compaction has been found by researchers to persist in the subsoil for many decades and cannot be estimated by ground cover."

¹⁷ See Purser, ¶ 16: "A similar level of detail and scale is used commonly by foresters and engineers, why not soil scientists? Equipment and facilities for making these types of measurements are commonly available and have been observed in use on several Forests in the west."

parameters and data points for monitoring soils, fish and wildlife, and water quality.” The panel should know that petitioners did acknowledge that “observation” could be an appropriate technique for monitoring some of the resources involved, but contend that “observation” should not be relied upon for the overwhelming majority of data points, especially when data for this CE is considered “influential,” requiring a higher standard of objectivity.

V. Request for Reconsideration

A. Restatement of “Information That Should Be Submitted to the Appropriate USDA Agency with a Request for Correction”

Please note that items 3. through 6. have been revised and expanded from our original data correction request.

1. The following data correction reconsideration request is made on behalf of petitioners **John Muir Project of Earth Island Institute, Sierra Club, and Heartwood**, and constitutes a request for correction of information submitted under USDA's Information Quality Guidelines.
2. Our contact information is included on the cover page of this request. René Voss is Public Policy Director for the John Muir Project of Earth Island Institute; Bryan Bird is Appeals and Litigation Coordinator for the Sierra Club’s National Forest Campaign; and Jim Bensman is Forestwatch Coordinator for Heartwood.
3. This request pertains to certain information and data used in support of the proposed Categorical Exclusions (hereafter CEs) published in the Federal Register on January 8, 2003 at Pages 1026-1030, titled “National Environmental Policy Act Documentation Needed for Limited Timber Harvest.”
 - i. Specifically, petitioners are concerned by the fact that so-called FS “experts” have relied overwhelmingly on personal observation and opinion to determine the significance of environmental effects, while the IQ Guidelines require higher standards for “influential” information as well as more reliable and accepted analytic methods. The FS information is presented as results in spreadsheets found on the FS web site at <http://www.fs.fed.us/emc/lth>, and at: <http://www.fs.fed.us/emc/lth/data1.xls> (hereinafter referred to as “data1.xls”) and <http://www.fs.fed.us/emc/lth/data2.xls> (hereinafter referred to as “data2.xls”).
 - ii. In addition, the acreage calculation for timber salvage and sanitation cuts in the “Data Collection Methodology” <http://www.fs.fed.us/emc/lth/methodology.pdf> is statistically-flawed and cannot be justified either logically or using accepted methods, based on the data from data1.xls or data2.xls.
4. The “Explanation of Noncompliance with OMB and/or USDA Information Quality Guidelines” is contained in paragraph V. B., C. and D. below, as well as paragraphs I. through IV. above.
5. The effects of the alleged errors to petitioners are:
 - i. We cannot adequately assess the significance of the environmental effects from these types projects that are used to support the new CEs and cannot determine whether they should or should not be categorically excluded;

- ii. We are not presented with sufficient transparency about data and methods and it is impossible for our experts (Purser and Bond) or any other qualified members of the public to do an independent reanalysis of the information;
 - iii. We could not provide accurate comments during the public rulemaking process because of the flawed data and methods in the information presented;
 - iv. We could not provide accurate advice to our members or other constituents as to how they should comment during the proposed rulemaking;
 - v. As a result, we cannot fulfill our roles as stewards of the environment and good government;
 - vi. We will be harmed by the creation of these new CEs, since their creation will abridge our ability to petition our government for redress of grievances because any newly CE'd projects will now be excluded from administrative appeal;
 - vii. We will be harmed directly by the destruction of the environment if these CEs are implemented, which reduces our ability to study, recreate and enjoy our national forests.
6. Our "Recommendation and Justification for How the Information Should Be Corrected" is detailed in Section VI. below.

B. Requirement of De novo review by USDA panel

Our request for reconsideration consists of a review of the initial detailed FS response and a demand for a de novo review of the facts and claims by petitioners. Paragraphs I. through IV. are hereby incorporated in our request and should be considered as part of our claims, facts and arguments in support of our allegations.

Paragraph "IV. Reply to Detailed Forest Service (FS) Response" detailed above is our direction to the panel for its review of the initial detailed FS response, as required by the USDA's IQ Guidelines:

"The Reconsideration Official (or panel) will ensure that the initial agency review of the Request for Correction was conducted with due diligence."¹⁸

In addition, a new and comprehensive review by the panel is envisioned by the USDA's IQ Guidelines:

"The Reconsideration Official (or panel) will review the material submitted in support of the Request for Reconsideration, the material submitted with the original request for correction, and the USDA agency's response to the original correction request and all additional relevant documentation, and then arrive at a decision regarding the Request for Reconsideration."¹⁹ (emphasis added)

¹⁸ Procedure to Seek Correction of Information Disseminated by USDA, see: http://www.ocio.usda.gov/irm/qi_guide/corrections.htm .

¹⁹ See FN 18.

Our expert declarations and our new claims constitute “additional relevant documentation” to which the panel must respond. We will try to list each claim as a separate bullet point to make it easier for the panel to respond to each specific claim and allegation. Some of these claims are restatements from in Sections I. through IV. and will reference those pertinent sections for facts and arguments instead of restating them in their entirety.

C. Statement of claims, facts and arguments in support of allegations

We incorporate our expert declarations in their entirety as part of our claims, facts and arguments in support of our allegations as attached Exhibit A (Purser declaration) and B (Bond declaration)

CLAIMS/ALLEGATIONS

1. The initial agency review of the Request for Correction was not conducted with due diligence.
 - a. The FS did not answer petitioner’s allegations (all 6 of our claims are left unanswered)
 - b. The FS’ simplified response relies completely on so-called “expert opinion,” an unallowed standard for “influential” information
 - i. “Expert opinion” is not an allowable standard for “influential” information
 - ii. Many of the FS’ so-called “experts” aren’t really experts and can’t be relied upon
 - c. The FS overstates petitioner’s request to rely only on “measurement” techniques

Our facts and arguments in support for this claim are detailed in paragraph IV. , which includes similar paragraph headings. Please provide a response to each allegation.

2. The FS did not “use sound analytical methods in carrying out scientific and economic analyses,”²⁰
 - a. Bias in the “random” selection of projects provides flawed assumptions

“Instructions for Timber Harvest Effects Monitoring” states that monitoring can be performed on any *randomly selected* (emphasis added) timber harvest project and many units responded to this instruction... For some Forests, the Supervisor or Planning staff chose the projects, ostensibly using the other criteria, but introducing an unknown bias. Ease of access and closeness to town or Ranger Station were also given as the method of selection... All in all, the results portrayed in data1.xls are from a population that is neither random nor typical nor representative and are surely biased.” (Purser, ¶ 11)
 - b. The method of “observation” is not verifiable by qualified members of the public

“According to the data1.xls database, 88% of the projects monitored the effects on listed and sensitive wildlife using observation, defined as "observing the area, examining species occurrence lists and reviewing past documentation.”” (Bond, ¶ 9) “As a qualified member of the public with extensive experience in research on wildlife-habitat associations, I was unable to conduct an independent re-analysis of the data to determine whether the Forest Service's conclusion that "the categories of actions defined above do

²⁰ USDA IQ Guidelines for Regulatory Information, see: http://www.ocio.usda.gov/irm/qi_guide/regulatory.htm .

not individually or cumulatively have significant effects on the human environment" is substantiated given the information provided.” (Bond, ¶ 8)

c. A lack of described methodology for wildlife surveys is not “sound”

“Given the data provided, I was unable to determine whether the walk-through monitoring observations included such activities as: searching for evidence of presence (i.e., nests, feathers, pellets, and/or whitewash for raptors; runways, feces, and burrows for small mammals; etc.); qualitatively looking at habitat features such as snags, large trees, and down woody debris, or another method of detection. While observations for presence/absence and habitat quality based on visual "walk-throughs" are valuable (if, in fact, these types of observations were used: types of observations were rarely described), it is my professional opinion that this monitoring technique is seriously inadequate for quantifying actual effects of the project on listed and sensitive wildlife species. Resource specialists can visually estimate suitable habitat, but occupancy by a target species is unknown until protocol-level presence/absence surveys are conducted, and the impacts of the project on a wildlife population cannot be known without demographic studies using techniques such as capture-mark-recapture.” (Bond, ¶ 15)

d. The techniques used to measure or observe are not analytical methods, per se, since we are not informed what is being measured or observed

“The techniques referred to in the data submittal form and coded in data1.xls (observation, measurement, etc.) are not methods per se. We are not informed as to what was being observed or measured.” (Purser, ¶ 12) For wildlife, of a total of 154 project only “eight [projects] were monitored using "other" techniques, seven provided no information whatsoever on monitoring wildlife, and only four projects monitored effects using measurements.” (Bond, ¶ 8) “Clearly no field surveys were ever conducted for wildlife species for any of these projects that the data1.xls database had stated that the measurements were used as a monitoring technique. I also examined the projects for which observation was identified as the monitoring technique (see below). I was not provided with a single piece of information for which I could draw any conclusions about the effects of a project on any wildlife species.” (Bond, ¶ 11)

3. The FS did not “use reasonably reliable...data and information”²¹

a. The lack of methodology for soils makes the data unreliable

“The techniques referred to in the data submittal form and coded in data1.xls (observation, measurement, etc.) are not methods per se. We are not informed as to what was being observed or measured. There was not found any statement of specific procedures used or references to standard methods as may be found in Methods of Soil Analysis or other soil analysis reference. The information is therefore unreliable and irreproducible.” (Purser, ¶ 12, emphasis in original)

b. The lack of methodology for wildlife makes the data unreliable

“As stated above, 88% of the projects determined effects on wildlife through observation rather than measurements (although it appears that none of the projects conducted any

²¹ See FN 20.

measurements, either). For the purposes of this analysis, observation involved observing the area, examining a species occurrence list, and reviewing past documentation. While reviewing past documentation and species occurrence lists can be helpful in identifying wildlife species that are likely or unlikely to occur in the project area, this approach would not inform the project managers about the effects of the project on those species that are likely to be present. In most cases, effects were estimated by walking through the project site. However, no information was provided regarding the data collected during observations and how those data led to the conclusion that the project had no significant impact on listed and sensitive wildlife species.” (Bond, ¶ 12) “I was unable to make any determination regarding the reliability of the methods and resulting conclusion.” (Bond, ¶ 14) “As a result of these deficiencies in the wildlife monitoring analysis, I found the data to be extremely unreliable for making any conclusions about the effects of a project on wildlife species.” (Bond, ¶ 19)

4. The FS’ reliance on “observation” and other data presented fails to “ensure transparency of the analysis, to the extent possible by ... Providing transparent documentation of data sources, methodology, assumptions, limitations, uncertainty, computations, and constraints”²²

“The Supplemental Guidelines state that the agencies and offices will ensure transparency of the analysis by providing transparent documentation of data sources, methodology, assumptions, limitations, uncertainty, computations, and constraints. There is no such documentation. The technique of observation and expert opinion does not “ensure transparency of the analysis.”” (Purser, ¶ 12)

“I could not determine the specific data collected from the monitoring techniques, and projects that used "other" as a monitoring technique did not explain what that method entailed. Thus, transparency of the analysis in terms of providing a clear explanation of procedures and good documentation of data sources, methodology, assumption, etc., was by no means ensured.” (Bond, ¶ 19)

5. The FS fails in “Explaining the rationale for using certain data over other data in the analysis”²³

- a. No explanation is given for the inconsistent use of the wildlife data

“Some projects included more detailed statements about the post-project habitat quality; for example, "Habitat for species (including some sensitive) has been improved by opening up stand while maintaining sufficient structural aspects for breeding and foraging." While this statement provides some information about habitat within the project area, it is purely a subjective statement and does not include any supporting data such as survey results to verify the conclusion. Other projects noted the potential presence of several species of concern. Again, however, post-project surveys were not conducted to allow for the determination of non-significance.” (Bond, ¶ 14)

²² See FN 20.

²³ See FN 20.

- b. There's no explanation of the use of "observation" or other techniques rather than "measurement" for clearly measurable parameters

For soils, there clearly are measurable techniques for compaction that would have provided some reliability and assurance that detrimental soil conditions were or weren't significant; but observation was used in the vast majority of cases for soils, with no explanation. The same goes for wildlife, water quality and other resources. There simply are no explanations for using the different techniques and vastly differing data, and then inferring from this dataset that these types of projects are not individually or cumulatively significant.

6. The FS fails in "Presenting the model or analysis logically so that the conclusions and recommendations are well supported"²⁴

- a. The FS' conclusions of "non-significance" cannot be inferred from the data and information provided

"None of the projects actually conducted post-project wildlife surveys, and none provided detailed results of observations, other than simply stating that no negative impacts had occurred. After closely examining the available data, I have no idea how the various project managers reached their conclusions of no significant impacts to wildlife. It appears that I was expected to 'take their word for it' regarding wildlife effects. This approach is not science or adaptive management and, as I describe below, seriously violates the Information Quality Guidelines designed to ensure the objectivity of information disseminated by USDA agencies." (Bond, ¶ 11)

"The data presented for the projects which were monitored by measurement by a soil scientist [sic] are the only data with validity on this issue. These nine projects were predicted to be non-significant, that is they would meet standards for all monitorables and not add cumulatively to effects from projects with which they may interact in space and time. Two of these nine predictions were wrong. Therefore, albeit with a relatively small sample size, the rate of mis-prediction or significance is about 22%. The potential for an incorrect prediction that approaches 1 in 4 and that can result in damage to soil, forest, and water resources, cannot be seen as insignificant." (Purser, ¶ 18) "In relying on the subjective predictions based on unknown estimation methods for 143 of the projects, less than one-third of which were visited by a soil scientist, the Forest Service is introducing a high degree of uncertainty and risk into their decision." (Purser, ¶ 19)

"Merely walking through the forest and looking at habitat does not provide enough information about the use of an area by a given wildlife species to determine impacts of a project. It is scientifically unjustifiable to definitively conclude effects on listed and sensitive wildlife from mere observation." (Bond, ¶ 15)

²⁴ See FN 20.

- b. The methodology prescribed for determining the size of CE'd projects is illogical, using the "average" rather than "median" project size

In its "Rationale for Acreage Limitations," the FS claims that "Since direct, indirect, and cumulative effects arise from acres of activity and not the number of projects, average acreages were used rather than median project size."²⁵ While on its face, this may seem logical, when presented with the data of median acres (37 acres for green harvests and 50 acres for salvage harvests) versus average acres (70 acres for green harvests and 255 acres for salvage harvests) this does not make any sense. Logically, the impact in the future from larger projects based on the average acreage would be greater than that of smaller projects, based on the median acreage. The FS' ability to put out more larger projects, based on the average, will in the future affect many more acres than if the smaller, median acreage were used. In addition, as we will argue in paragraph 12. below, the average of 255 acres is skewed significantly by the inclusion of 5 projects that are significantly larger than the average. These larger projects should have been discarded from the calculation, since they could never have been categorically-excluded in the first place. This argues for use of the median, which would have approached to the average, had these 5 projects been excluded.

7. The FS' analysis does not "Clearly identify sources of uncertainty affecting data quality"²⁶

- a. No explanation is provided for missing data for individual projects

Even though roughly 75 data points or about 5% of the data is left unanswered, there's no explanation of why this data is not presented or how this lack of data may influence the analysis.

- b. For soils, no explanation of uncertainty is presented for observation vs. measurement in meeting standards

"The analysis does not "Clearly identify sources of uncertainty affecting data quality." Nor does it provide an evaluation of data quality... Clearly uncertainty is an issue as exemplified by the difference in percent of projects which did not meet standards when measured (22%) compared to the percent which did not meet standards when merely observed (< 1.5%). There are also clearly questions regarding data quality, but no effort was made to validate any of the data, even though the proposal uses and combines data from different sources, as mentioned in the Supplemental Guidelines." (Purser, ¶ 17)

- c. For wildlife, no sources of uncertainty were identified

"No sources of uncertainty affecting the data quality were identified: in fact, many of the assessments of project impacts contained sweeping statements such as "habitat for species (including some sensitive) has been improved by opening up stand while maintaining sufficient structural aspects for breeding and foraging," without any supporting evidence or indication of uncertainty in the conclusion." (Bond, ¶ 19)

²⁵ See Limited Timber Harvest CE "Data Collection Methodology" <http://www.fs.fed.us/emc/lth/methodology.pdf>.

²⁶ See FN 20.

8. For this “influential” information, the FS does not “use the best science and supporting studies conducted in accordance with sound and objective scientific practices, including peer-reviewed science and studies where available”²⁷

For soils, there is no indication that objective scientific practices were used, such as Methods of Soil Analysis. “There was not found any statement of specific procedures used or references to standard methods as may be found in Methods of Soil Analysis or other soil analysis reference.” (Purser, ¶ 12)

9. For this “influential” information, the FS did not “use data collected by accepted methods or best available methods”²⁸
- a. For soils, data was not collected by accepted or best available methods
“These would include measurements of soil compaction by penetrometer or by bulk density methods to determine the area which has been compacted, for instance. Soil compaction has been found by researchers to persist in the subsoil for many decades and cannot be estimated by ground cover. A similar level of detail and scale is used commonly by foresters and engineers, why not soil scientists? Equipment and facilities for making these types of measurements are commonly available and have been observed in use on several Forests in the west.” (Purser, ¶ 16) “The data presented for the projects which were monitored by measurement by a soil scientist are the only data with validity on this issue.” (Purser, ¶ 18) However, only 9 of the 154 projects were measured using soil scientists, 2 of which failed the forest plan standards.
- b. For Soils, the best accepted method requires the use of soil scientists for data gathering and analysis
“...the Washington Office letter dated 7/29/03 assures us that the information came from expert professionals using expert opinion based not only on observation, but local, on-the-ground knowledge, degrees in their specialty, and years of experience. Unfortunately, this is unknown in some cases or known not to be true in many.” (Purser, ¶ 13) “...of the 143 projects where observation, no method, or a blank space was the technique (see data1.xls), only 47 were reviewed by soil scientists, less than one-third... In total, only 36% of projects used soil scientists for soil monitoring. This cannot be seen as monitoring by “journey-level specialists qualified to examine and draw conclusions” from their observation or other subjective method.” (Purser, ¶ 14)
- c. For wildlife, data was not collected by accepted or best available methods
“Field measurement can be considered the most robust method for monitoring wildlife impacts.” (Bond, ¶ 9) However, “Merely walking through the forest and looking at habitat does not provide enough information about the use of an area by a given wildlife species to determine impacts of a project. It is scientifically unjustifiable to definitively conclude effects on listed and sensitive wildlife from mere observation.” (Bond, ¶ 15)
“The data were not collected by accepted methods or best available methods data, and the most reliable and timely data and information available were not utilized, because none

²⁷ USDA IQ Guidelines for “Influential” Regulatory Information, see: http://www.ocio.usda.gov/irm/qi_guide/regulatory.htm.

²⁸ See FN 27.

of the projects conducted wildlife monitoring using real quantitative measurements, many of the projects relied on old BE/BA surveys to conclude presence/absence of listed and sensitive wildlife species without conducting additional post-project surveys, and the vast majority of the monitoring efforts were conducted on only one day in the winter (which is not the optimal season or level of effort for assessing wildlife use of an area).” (Bond, ¶ 19)

10. For this “influential” information, the FS fail to provide “sufficient transparency about data and methods so that an independent reanalysis could be undertaken by qualified members of the public,” including our experts (Purser and Bond), retained for this task²⁹

a. For Soils, our expert (Purser) was not able to do an independent reanalysis with the information provided

“References are made to ground cover and percent of area in roads and other disturbed areas for two of the “did not meet standards” projects, but no methodology as to how it was done were presented, no assumptions explained, and no quantitative data was presented which was gathered by a known method. This means that the data is not “capable of being substantially reproduced” nor is it transparent. The Supplemental Guidelines state that the agencies and offices will ensure transparency of the analysis by providing transparent documentation of data sources, methodology, assumptions, limitations, uncertainty, computations, and constraints. There is no such documentation. The technique of observation and expert opinion does not “ensure transparency of the analysis.”” (Purser, ¶ 12)

b. For Wildlife, our expert (Bond) was not able to do an independent reanalysis with the information provided

“As a qualified member of the public with extensive experience in research on wildlife-habitat associations, I was unable to conduct an independent re-analysis of the data to determine whether the Forest Service's conclusion that "the categories of actions defined above do not individually or cumulatively have significant effects on the human environment" is substantiated given the information provided.” (Bond, ¶ 8) “I have concluded that 1) it is virtually impossible for a qualified member of the public to independently examine the data and be able to make any conclusions regarding non-significance, 2) the methodology utilized to determine effects of most categorically excluded projects on listed and sensitive wildlife is scientifically indefensible” (Bond, ¶ 7).

11. The FS fails the general test of “objectivity” because of the inherent bias of the methods and information provided, since “Objectivity” is defined as “being presented in an accurate, clear, complete, and unbiased manner”³⁰

“...of the 143 projects where observation, no method, or a blank space was the technique (see data1.xls), only 47 were reviewed by soil scientists, less than one-third. Only two of

²⁹ OMB Definition of “Objectivity” see: Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies (Federal Register / Vol. 67, No. 36 / February 22, 2002, pp. 8452, 8460).

³⁰ See FN 19

these projects were deemed to not meet standards. If the population were truly random, it would be near impossible to select nine projects where two did not meet standards from a population of 154 where four did not meet standards. This confirms three biases: 1) bias against measuring soil properties to ascertain whether they met quantitative performance standards from Forest Plan; 2) bias against using professional soil scientists to perform the necessary monitoring, and 3) bias in the population selected for monitoring. The overarching bias, no bad news, is best exemplified by the project found on line 61 in data1.xls which was reviewed, but not measured, by a soil scientist who commented “some soil compaction/displacement visually evident within unit, but severity and extent could not be determined solely on observation” and then declared that it met standards, apparently the default assessment.” (Purser, ¶ 14)

12. The FS fails to explain why statistically-flawed data was included in calculating the average acreage for timber salvage and sanitation cuts for this CE, making the 250 acre standard arbitrarily larger than a more statistically-supported standard

“Finally, it is curious that the Forest Service included a project, line 91, that totals nearly a third of the total acreage of all 154 projects. This salvage sale on 9000 acres, as well as four others of 1000 acres or greater, severely skews the average size of salvage projects which is then used to justify the proposed acreage limitations for the Limited Timber Harvest Categorical Exclusion. They further try to justify the inflated average size of salvage projects by referring to the average size of the 306 projects categorically excluded by the Forest Service in 1998. In other words, their justification for the proposed acreage limitation is that it is about the average size of salvage projects categorically excluded and completed by the Forest Service in the year they were enjoined from doing it further. Were these five projects (about 3% of projects reviewed) removed from the population, the average salvage project would be less than 100 acres, not 255 as reported in Methodology.³¹ In fact, only 18 total projects, including the above referred to five projects, are greater than 250 acres (see data1.xls). It is clearly significant that these projects are included in the review by the Forest Service. It is also clear that at least the 9000 acre project is an outlier relative to the other 153 projects and should not be considered in the average for this population. It is unclear why it is in the review.” (Purser, ¶ 20)

The data should be revisited based on the fact that the 9000 acre outlier project or the 4 1000 acre projects were included in the acreage calculation. These could clearly never be categorically-excluded under NEPA. In addition, as argued in paragraph 6.b. above, it makes no sense, logically, to use the average acreage to categorically exclude projects from NEPA in the future, whereas the smaller acreage figure, based on the median, makes more sense statistically to ensure that these types of project have less significant impact.

³¹ See FN 25.

D. Conclusions

From Michael Purser:

“Examination and analysis of materials referred to above and pertinent to the matter of the Limited Timber Harvest Categorical Exclusion rulemaking lead me to conclude that:

- 1) the population of “randomly selected” projects was anything but; a high level of projects (20%) had been through an environmental or biological assessment; projects were selected by many other means in addition to random; a range in project acres stretched from ¼ to 9000, well outside the range of even the proposed, biased acreage limitation;
- 2) the drastically different results of monitoring by “measurement” by qualified professional soil scientists, which yielded a significance rate of 22% and monitoring by “observation” by the largely unknown, which yielded the desired, non-significant rate of 1.5%, provide evidence that data quality is poor, reproducibility is low to nonexistent, and the monitoring effort overall was poorly planned and funded; further, the lack of explicit methods used, measurement units, quality control contributes to the irreproducibility of the “data” and makes the process completely opaque to other professionals, decision makers, and the public; worse yet it displays an ingrained bias against collection of data about soil resources, the public, and the process of environmental review; and
- 3) since there is both a high risk of making the wrong prediction as to whether a proposed project will meet Forest Plan standards, and potentially other standards as well, and a high risk of Responsible Officials agreeing with an earlier decision of non-significance even when faced with a highly significant rate of wrong predictions when monitored by measurement by professionals and which result in not meeting standards (see data1.xls), there is a justifiable need for more transparency, greater efforts at data collection and quality control, the explicit comparison of data with quantitative performance standards, and greater opportunities for the public to understand and contribute to potential projects, not less. The on-the-ground effects of projects which would be excluded from environmental review under the proposed Categorical Exclusion are significant in nature, affecting forest growth, ecosystem health, and conservation of critically-depressed populations of native fish. Further, they would be in addition to those incrementally accruing from nearby projects which, at least, are more explicit about the effects and make some effort at mitigation of those effects. The anachronistically large acreage limitation for salvage projects is seen as artificially inflated by the inclusion of outlier projects and is further “justified” by the reference to the average size of projects completed five years ago and without any other reference to other, resource-based, criteria.” (Purser, ¶ 21)

From Monica Bond:

“I have concluded that 1) it is virtually impossible for a qualified member of the public to independently examine the data and be able to make any conclusions regarding non-significance, 2) the methodology utilized to determine effects of most categorically excluded projects on listed and sensitive wildlife is scientifically indefensible, and 3) the Forest Service has committed numerous violations of the USDA Information Quality Guidelines for Regulatory Information.” (Bond, ¶ 7)

VI. Remedy Requested for the Limited Timber Harvest CE Rulemaking

1. A determination by the panel that the FS' response to our Data Correction request was not conducted with due diligence, including specific and detailed responses to our allegations in Section IV, as well a detailed response to each claim and allegation in Section V;
2. The use of sound analytical methods to carry out data collection and analysis to determine the significance of projects used to come up with a new CE, including
 - a. Random selection of projects, without bias;
 - b. Documentation of what analytical methods are being used and what will actually be monitored by measurement or other reliable and verifiable methods;
 - c. Use of analytical methods that are transparent and verifiable by qualified members of the public (for example: measurements of soil compaction by penetrometer, based on standards found in Methods of Soil Analysis and other soil parameters, as well as a comparison of the resulting data with Forest Plan standards; documentation of wildlife population changes as a result of the type of logging proposed using accepted analytical methods; documentation of impacts on stream channels, water quality, or fish habitat as a result of the logging proposed using accepted analytical methods, etc.);
3. Applying the analytical methods above, the use of the best science and supporting studies, conducted in accordance with sound and objective scientific practices, where available;
4. Applying the analytical methods above, collection of data with qualified experts (for example: only soil scientists should collect or evaluate data on soils);
5. Applying the analytical methods above, the use of only data collected by accepted or best available methods and discarding any arbitrary, questionable, or biased data;
6. Ensure transparency of the analysis by providing clear documentation of data sources, methodology, assumptions, limitations, uncertainty, computations, and constraints for each of the resources monitored;
7. Provide explanations of the rationale for using certain data over other data in the analysis (for example: explain why a certain method of data collection was used when another more reliable method was available);
8. Present a model or analysis logically so that the conclusions and recommendations for significance or non-significance for each project are well supported;
9. Provide a more logical and better "Rationale for Acreage Limitation" that is based on accepted statistical methods, explains and justifies these methods, and comes up with an acreage limitation that is conservative and non-significant, if that is possible;
10. Clearly identify sources of uncertainty affecting data quality for each of the resources monitored and analyzed, including an explanation of missing data;
11. Re-analyze the data to come up with a statistically-supported "Acreage Limitation" for salvage and sanitation that eliminates "outliers" such as the 4 projects over 1000 acres in size and the one project over 9000 acres in size;
12. A withdrawal of the 3 CEs for Limited Timber Harvesting;
13. Commencement of a new rule-making, supported by data and information that complies with the OMB's and USDA's Information Quality Guidelines.

Respectfully submitted for Petitioners by:



René Voss