

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:

Glen Contreras
USDA Forest Service
Data Quality Team Leader ORMS Staff
Mail Stop 1150 1S Yates Building
14th & Independence Avenue SW
Washington D.C. 20250-1150

Phone 202 205 2938
FAX 202 260 6539
Email gcontreras@fs.fed.us

by

John Muir Project of
Earth Island Institute
P.O. Box 11246
Takoma Park, MD 20913
(301)891-1361
www.johnmuirproject.org
rene.voss@johnmuirproject.org

Sierra Club
7 Avenida Vista Grande #173
Santa Fe, N.M. 87508
(505)466-2459
www.sierraclub.org
bryan.bird@sierraclub.org

Heartwood
585 Grove Avenue
Wood River, IL 62095-1615
(618)259-3642
www.heartwood.org
jbensman1@charter.net

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



United States
Department of
Agriculture

Forest
Service

Washington Office

14th & Independence SW
P.O. Box 96090
Washington, DC 20090-6090

File Code: 1300

Date: February 12, 2004

Mr. Rene Voss
John Muir Project/Earth Island Institute
P.O. Box 1236
Takoma Park, MD 20912

Dear Mr. Voss:

This letter provides our determination in response to your Request for Reconsideration filed under the United States Department of Agriculture (USDA) Information Quality Guidelines (IQG) and Data Quality Act (DQA) (Pub. L. No. 106-554 §515). You originally sought correction of information related to the initial data set for timber harvest effects monitoring.

We have given your Request for Reconsideration careful examination and thoroughly reviewed your concerns. According to USDA IQG, the review of your Request for Reconsideration was based on the explanation and evidence you provided. Because your Request for Reconsideration was one of the first submitted, USDA convened a panel to determine whether panels would be an effective method.

The panel was charged to determine whether the initial agency review of your Request for Correction was conducted with due diligence. The panel reviewed your request for conformity to both Office of Management and Budget (OMB) and USDA information quality guidance. Panelists examined the original request, the Forest Service response document, information provided by Forest Service and USDA websites, and the information you provided in your Request for Reconsideration. Panel members included USDA employees familiar with the Data Quality Act, and who assisted in development of Departmental guidance in this area. In order to formulate an independent review, the panel comprised two employees from other USDA agencies and a Forest Service representative.

The panel affirmed the Forest Service response dated July 29, 2003, and found no basis to support retraction or amendment of that original agency response. It determined that the initial agency response was conducted with a great deal of care and diligence. The panel carefully considered the information that was provided and concluded that the documented, on-site observations of Forest Service resource specialists provided sufficient precision to determine the individual and cumulative significance of the effects of limited timber harvest activities. The panel rejected your position regarding excluding the use of observation in support of the analysis and found no compelling reason that Forest Service should rely exclusively on the use of measurement.



Your position that the Forest Service did not use sound analytical methods for its scientific and economic analyses and that the Forest Service did not use reasonably reliable data and information are addressed by the Forest Service use of procedures developed under the National Environmental Policy Act and by agency procedures for field surveys that are found in the Forest Service Manual. You also contend that observation does not ensure transparency. However, the information was explained to the intended audience and also published in the Federal Register. Finally, you assert that the Forest Service failed to identify clearly sources of uncertainty that may affect data quality. The issue of uncertainty was treated adequately because the data provided had enough precision to determine whether Forest Plan standards were met and to determine whether there were significant environmental effects. The information you provided does not demonstrate that the challenged information is inconsistent with USDA IQG.

In conclusion, the information you provided was considered carefully. However, after full consideration and careful, thorough review, I conclude there is no substantive merit to your claims. The information you provided does not demonstrate that the information is inconsistent with USDA's Information Quality Guidelines. A copy of the panel's recommendation is enclosed for your information.

Sincerely,

/s/ Gloria Manning
TOM L. THOMPSON
Deputy Chief for National Forest System

**USDA Quality of Information
Request for Reconsideration Review Panel**

Review Panel Participants:

Gary S. Becker, Economist, Food Safety Inspection Service
Douglas J. McKalip, Director of Legislative Affairs,
USDA Natural Resources Conservation Service
David E. Sire, Ecosystem Management Coordination, USDA Forest Service

Subject of Review:

Response to Request for Correction File Code 1300/1900-1 July 29, 2003

"Request for Correction of Information Contained in the Initial Data Set for Timber Harvest Effects Monitoring" related to the Forest Service's proposed limited timber harvest categorical exclusion. The request for reconsideration and original request for correction were submitted by:

Mr. Rene Voss
John Muir Project/Earth Island Institute
P. O. Box 11236
Takoma Park, Maryland 20912

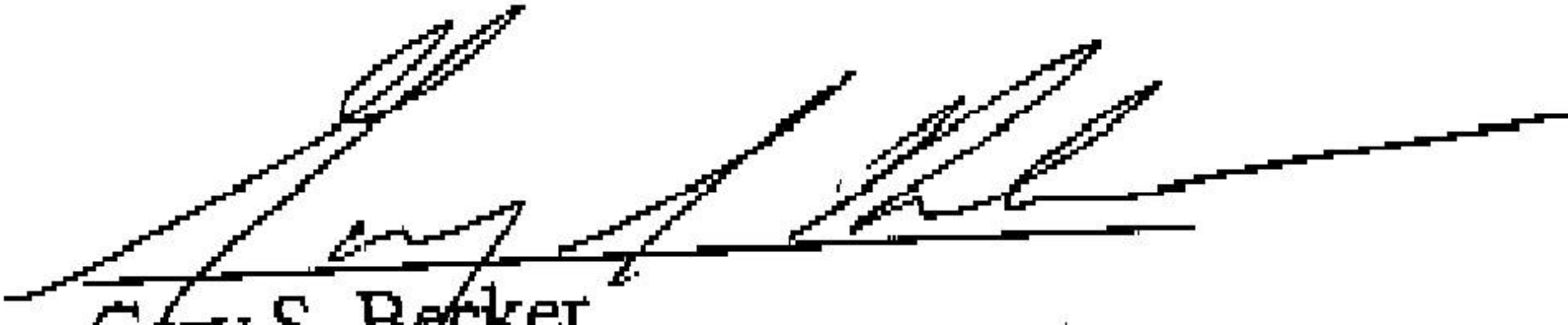
The original request pertained to certain information and data used in support of the proposed Categorical Exclusions published in the Federal Register on January 8, 2003, at pages 1-26-1030 titled "National Environmental Policy Act Determination Needed for Limited Timber Harvest."

The request for correction asked that the Forest Service correct its reliance on "observation" as a monitoring technique and instead rely on the use of measurement on all parameters and data points for monitoring soils (compaction, displacement, and ground cover), fish and wildlife (population and trends), water quality (baseline and after implementation), and measurable data for other resources where appropriate. The requestor asked that the Forest Service present the specific measurement techniques used, present the entire data set, re-evaluate the conclusions based on this data set, and start the rulemaking over.

As far as identifying sources of uncertainty affecting data quality, the Reconsideration Panel, believes that there is some uncertainty in the data as it was presented and the commenters have made some valid points. But, the issue of uncertainty was handled adequately because the data provided sufficient precision to 1) determine if the applicable Forest Plan standards were met, and 2) whether or not there were significant environmental effects. Each project was originally analyzed and subsequently reviewed against the applicable Forest Plan. Significance of the resulting environmental effects was considered pursuant to the factors of significance provided in the Council on Environmental Quality regulations at 40 CFR 1508.27 as referenced by agency NEPA procedures at FSH 1909.15.

Recommended Agency Action:

The Reconsideration Panel affirms the Forest Service response of July 29, 2003 and denies the Request for Reconsideration. As alluded to earlier, the Reconsideration Panel believes that the Forest Service could have performed a better job of characterizing the uncertainty in the final estimates. For future projects, the FS should better identify project data, model, and methods constraints to the public and explain how the use of the data will affect the generality of the conclusions.


Gary S. Becker


Douglas J. McKalip


David E. Sire

12/15/03
Date

12/15/03
Date

12/17/03
Date

- Was the original petition frivolous, submitted in bad faith, the subject of prior complaints that have been resolved, or related to stale information?

The Reconsideration Panel determined that the petition was a valid request which had not received prior review. Panelists determined that information under Review met several other criteria under the USDA information guidelines, including:

1. support for a regulation, guidance, or other decision
2. Implications for a broad range of parties or have an intense impact

The Reconsideration Panel determined that the information in question was not "stale" under USDA information quality guidelines in that it is still an important component of USDA Forest Service policy development.

Findings:

The Reconsideration Panel found no compelling evidence to support retraction or amendment of the original agency response dated July 29, 2003.

Development of the initial agency response was conducted with a great deal of care and diligence. The Forest Service carefully considered the information that was provided. After consideration and review, the Forest Service concluded that the documented on-site observations of Forest Service resource specialists provided sufficient precision to determine the individual and cumulative significance of the effects of limited timber harvest activities on the human environment. They found no compelling reason to exclude the use of observation in support of their analysis or to rely exclusively on the use of measurement on all parameters and data points for monitoring soils, fish and wildlife, and water quality.

The Reconsideration Panel, charged with the task of determining whether the initial agency review of the Request for Correction was conducted with due diligence, notes that the FS used sound analytical methods in carrying out its analysis. The environmental analyses were conducted according to agency NEPA procedures codified in FSH 1909.15 (which have Council on Environmental Quality concurrence). The Reconsideration Panel notes that appropriate field surveys such as for threatened and endangered species and for heritage resources were conducted according to agency procedures (FSM 2670.31 and 36 CFR §800 respectively). The original analysis was developed by FS personnel and was available to interested and affected parties. The original environmental analysis predictions and findings were validated by subsequent interdisciplinary team field review.

The Reconsideration Panel also believes that the analyses were explained to the intended audiences in the original environmental documentation. The subsequent field review information, data sources, methodology, and analyses were made available to the interested public through Federal Register notices (68 FR 1026 and 68 FR 44598) and agency website (<http://www.fs.fed.us/emc/lth>).

- 1) "Use the best science and supporting studies conducted in accordance with sound and objective scientific practices, including peer-reviewed science and studies where available."
- 2) "Use data collected by accepted methods or best available methods."

Summary of Reconsideration Panel charge and deliberations:

The Reconsideration Panel on the Correction of Information Contained in the Initial Data Set for Timber Harvest Effects Monitoring began work on October 20, 2003, by collecting background on the request. The charge of the panel was to determine whether the initial agency review of the Request for Correction was conducted with due diligence. The Reconsideration Panel first convened on October 29, 2003. Extensive background was provided by Forest Service personnel. Panelists outside the original agency of request performed subsequent examination of the original request, response document, and additional background information provided by Forest Service staff and Forest Service and USDA websites. Panel Members included USDA employees intimately familiar with the Data Quality Act, and who assisted in development of Departmental guidance in this area. Consideration of the request included panelists outside the original agency of request in order to formulate an independent review.

Review of Potential Disqualification of Request

The Reconsideration Panel first examined whether the initial request adhered to the requirements for reconsideration under the Data Quality Act. In this case, the information contained in the initial data set for timber harvest effects monitoring was examined to determine whether the document was subject to review. The panel considered the following:

- **Was information intended exclusively for use by government employees, contractors, grantees?**

The Reconsideration Panel determined that the information was not intended exclusively for use by government employees, contractors, and grantees.

- **Was information intended exclusively for intra-agency or interagency use?**

The Request for Reconsideration Panel determined that since the information would be utilized in cases where public comment is solicited it was not exclusively for intra-agency or interagency use.

- **Did the requestor follow and include all required items?**

The Reconsideration Panel determined that all required components and documentation had been submitted by the requestor.

The requestor notes that "affected publics in adjacent communities would have little oversight and input in the outcome of these types of projects since..." projects that are categorically excluded from detailed environmental review under NEPA are no longer subject to notice, comment, or appeal pursuant to 36 CFR 215.

Legal Authority for Request:

The request was submitted under the Data Quality Act (Pub. L. No. 106-554, Sec. 515) and subsequent USDA Information Quality Guidelines.

Timeline of Requests:

March 10, 2003 - Original request for correction received by the USDA Forest Service.

July 29, 2003 - Agency response provided to requestor, indicating no compelling reason to exclude the use of observation in support of the FS analysis or to rely exclusively on the use of measurement on all parameters and data points for monitoring soils, fish and wildlife, and water quality.

September 10, 2003 - Request for reconsideration submitted to agency.

October 29, 2003 - Reconsideration Panel convened.

Summary of Request: The requestor asserts that in its original data collection request that the following list of allegations of non-compliance with the USDA's IQ Guidelines were left unanswered.

The requestor claims that for Regulatory Information the FS does not:

- 1) "Use sound analytical methods of carrying out scientific and economic analyses: since the method of "observation" is not verifiable;
- 2) "use reasonable 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) "Clearly identify sources of uncertainty affecting data quality."

The requestor claims that for Influential Regulatory Information the FS does not:

DECLARATION OF
MICHAEL D. PURSER

3322 OAKES AVENUE, EVERETT, WA

I, MICHAEL D. PURSER, state as follows:

1. I am a consulting watershed scientist with education and experience in soil science, geomorphology, hydrology, water quality, forest management and salmonid ecology. I am also employed by the Snohomish County Department of Public Works, Everett, WA, as a principal salmonid habitat specialist. A true and correct copy of my curriculum vitae is attached hereto as Exhibit A.
2. I received a Bachelors of Science from Humboldt State University, Humboldt, CA, in Natural Resource Planning and Interpretation (Soil Science emphasis) in 1983. I received a Masters in Science from University of Washington, Seattle, WA, in Forest Hydrology in 1988. My thesis was entitled, "Effect of clearcut logging and high-lead yarding on spatial distribution and variability of infiltration capacities on a forest hillslope."
3. Since 1980 my education and experience has been in the fields of forestland soil science and hydrology, Quaternary stratigraphy (sources and processes of surficial geological deposits), erosion and sedimentation, fluvial geomorphology (the form and function of stream channels), and the effects of land management on physical and biological watershed processes. I am published in the peer-reviewed literature for research in forest hydrology, sedimentation of spawnable gravel, and Quaternary loess stratigraphy and soil formation.

4. My current professional work (1997- present) involves collecting and analyzing measured data, and developing models to evaluate current and future watershed conditions in support of salmon conservation planning for Endangered Species Act-listed chinook salmon and bull trout. I also use quantitative data collected to develop salmonid habitat restoration feasibility proposals. Further, I provide contract services on the following issues: effects of forest management operations on water quantity and quality; sediment delivery and cumulative effects of proposed conservation plans; and local land use planning proposals.
5. My past work has included: soil mapping; field-checking and boundary adjustments of USDA-Forest Service Soil Resource Inventory maps, field data collection and laboratory analysis of soil physical and chemical properties; analysis of soil properties in support of ecological assessment; field data collection of stream channel and floodplain characteristics; quantitative evaluation of timber sale proposals, including proposals for salvage; and the review of Decision Notices, Decision Memos, Records of Decision, Environmental Assessments and Environmental Impact Statements regarding timber sales and forest management plans.
6. From 1991 - 1997 I was employed as a Forest Hydrologist/Watershed Management Specialist for the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). My projects included: collaborative development of fish habitat management plan for 250,000 acre watershed using USDA-Forest Service-developed quantitative performance measures; field review and analysis of proposed forest management activities; preparation and implementation of wetland and nonpoint sources of water

pollution plans; provision of technical and policy recommendations to tribal government committees and elected officials.

7. During my tenure as a Research Technologist in the Agronomy and Soils Department at Washington State University from 1987 through 1991, I collaboratively participated in research on Quaternary stratigraphy, soil formation, and the effects of timber harvest operations on soil properties. Prior to 1987 I worked as a Water Quality Consultant for Jefferson County Conservation District in Port Townsend, WA, as a professional soil scientist for the USDA-Forest Service, and as senior soil technician in university and commercial soil laboratories.
8. The opinions I state below are based on my personal knowledge gained through my review of the materials described below and my professional experience and training.
9. In the matter of the proposed “Limited Timber Harvest Categorical Exclusion (CE)” I have reviewed and analyzed: 1) information found at the following web site: <http://www.fs.fed.us/emc/lth/>, including instructions for the data requests, sample forms, etc.; 2) the data presented as results in spreadsheets found at the same web site, with the following direct links: <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”); 3) “REQUEST FOR CORRECTION OF INFORMATION CONTAINED IN THE INITIAL DATA SET FOR TIMBER HARVEST EFFECTS MONITORING submitted to Quality of Information Officer and Dave Sire, both USDA-Forest Service by John Muir Project, Sierra Club, and Heartwood dated March 10, 2003; 4) USDA-Forest Service, Washington Office letter to Mr. Rene Voss from Frederick Norbury, file code 1300/1900-1 dated July 29, 2003 (hereinafter referred to

as “Washington Office letter dated 7/29/03”), in response to 3) above; 5) “Supplemental Guidelines for the Quality of REGULATORY Information Disseminated by USDA Agencies and Offices,” (hereinafter referred to as “Supplemental Guidelines”; 6) “Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies; Notice; Republication” published in the Federal Register Friday, February 22, 2002; and 7) “Methodology for Project Data Collection and Results of Review, Limited Timber Harvest Categorical Exclusions” (hereinafter referred to as “Methodology”).

10. I will attempt to provide an analysis of the soil information, and the information referred to above, used by the Forest Service to support a finding of non-significance for the proposed “Limited Timber Harvest Categorical Exclusion (CE).” This analysis will discuss 1) randomness of selection in accordance with “Instructions for Timber Harvest Effects Monitoring,” 2) the reliability and reproducibility of the “methodology” used; and 3) the Forest Service’s conclusion of “non-significance.”

11. Random Selection of Harvest Projects

“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. Units pulled names of timber harvest projects from hats, used random number generators, and other likely random methods. Other units had but one or two projects which met the other criteria. Many units, however, seem to have willfully not followed instructions for one reason or another (see Exhibit B, “how projects were selected” from data1.xls). This lends valuable insight into the process used to collect and analyze the information found in data1.xls and data2.xls. Some units chose typical or representative projects which may be fine, but it was not

what was requested. 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. Other selections reveal the need to minimize effort expended on monitoring (one day), which seems inconsistent with the Washington Office-level importance given this issue, but may reflect the feeling on the Forest or District regards this Washington Office program and directive. Further, quite a few had Environmental Assessments prepared, a luxury the proposed Categorical Exclusion would prevent. Finally, a few are more disturbing, basing their selection on the fact that they had previously been prepared and “held up for two years from treatment because of the Heartwood decision” or “The original salvage project was under contract to be harvested in 1999 when it had to be rescinded. The project was in response to a wind event that blew over a number of trees and the goal was to suppress the risk of spruce bark beetle moving into live trees. The NEPA analysis was complete and the timber sold approximately 1 year 5 months after the original decision. The project is ongoing currently and spruce bark beetle have begun to move into live Engelmann spruce trees inducing additional mortality. This was a relatively simple project that due to the recision (sic) and NEPA process was further delayed. Further management and tree removal will be necessary in an effort to suppress the current spruce bark beetle population. Monitoring techniques consisted of observations during site visits and timber sale administration.” 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. Projects close to town or the Ranger Station are likely to be better implemented, and

more frequently visited and monitored than projects which were unavailable because of snow.

12. **Reliability and Reproducibility¹ of the Techniques Used**

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. 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.”

¹ “Reproducibility” means that the information is capable of being substantially reproduced, subject to an acceptable degree of imprecision. For information judged to have more (less) important impacts, the degree of imprecision that is tolerated is reduced (increased). If agencies apply the reproducibility test to specific types of original or supporting data, the associated guidelines shall provide relevant definitions of reproducibility (e.g., standards for replication of laboratory data). With respect to analytic results, “capable of being substantially reproduced” means that independent analysis of the original or supporting data using identical methods would generate similar analytic results, subject to an acceptable degree of imprecision or error. OMB Terms (from Feb. 22, 2002 Fed. Register Vol. 67, No. 36, p. 8460)

13. Though one might naturally be suspect of subjective information masquerading as data collected by the (largely) unqualified (see 14 below) for a National Forest system program to rid the agency of monitoring needs and NEPA analyses, 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. A list of staff and specialties is presented in data1.xls, but we do not know of their experience, how local they are or whether or not they have a degree in soil science. They may be temporary staff called on to substitute for a permanent employee such as I once was during a timber sale interdisciplinary team meeting. They may be right out of school or recently transferred from across the country with little or no local knowledge or experience at all.
14. 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.

15. The Washington Office letter dated 7/29/03 states that the “use of reasonably reliable data and information (e.g., collected data such as from surveys, compiled information, and/or *expert opinion*)” (emphasis added) puts them in compliance with the Supplemental Guidelines referring to the section entitled “Objectivity of Regulatory Information.” 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 “influential².” As such, the rulemaking, the data, and the reliance

² “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

on the monitoring technique of “observation” violates the standards of “Influential Regulatory Information.”

16. The requirements for “Influential Regulatory Information” are higher. This information must “use the best science and supporting studies conducted in accordance with sound and objective scientific practices, including peer-reviewed science and studies where available.” It must “use data collected by accepted methods 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. Finally, the requirements for Objectivity of Influential Regulatory Information make no allowance for the use of expert opinion.
17. The analysis does not “Clearly identify sources of uncertainty affecting data quality.” Nor does it provide an evaluation of data quality. These are required by the Supplemental Guidelines whether addressing the objectivity of regulatory information or of influential regulatory information. 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 (<

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 Terms (from Feb. 22, 2002 Fed. Register Vol. 67, No. 36, p. 8460)

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.

18. **Can the Forest Service's conclusions of "non-significance" be inferred from the information (i.e., data1.xls and data2.xls) provided for soils?** The data presented for the projects which were monitored by measurement by a soil scientist 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.
19. 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. 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 ($154 \text{ times } 2 = \text{total projects in three years times } 3 \text{ equals } 900+$

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.

20. 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. 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.

21. **Conclusion**

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.

Respectfully,

A handwritten signature in black ink, reading "Michael D. Purser". The signature is written in a cursive, flowing style. To the right of the signature is a vertical line.

Michael D. Purser
3322 Oakes Ave., #11
Everett, WA 98201

Exhibit A
Curriculum Vitae

NAME: **Michael D. Purser**

CURRENT POSITION: Consulting Watershed Scientist
Principal Habitat Specialist

ADDRESS: 3322 Oakes Ave. #11
Everett, WA 98201
(425) 339-6116, email Mdpurser@aol.com

EDUCATION: B.S. 1983 Natural Resource Planning and Interpretation (Soil
Science emphasis)
Humboldt State University, Arcata, CA
M.S. 1988 Forest Resources (Hydrology)
Thesis title: "Effect of clearcut logging and high-
lead yarding on spatial distribution and variability
of infiltration capacities on a forest hillslope."
University of Washington, Seattle, WA

PROFESSIONAL EXPERIENCE:

July 1997-present Consulting Watershed/Water Quality Hydrologist

- ? Conducted research on overwinter sedimentation of chinook spawning redds in Critical Habitat for ESA-listed salmon and co-authored a peer-reviewed proceedings article;
- ? Prepared a literature review synthesis of the impacts of forest management operations on water quantity and quality;
- ? Prepared an analysis of sediment delivery, grazing management and cumulative effects of proposed Plum Creek Habitat Conservation Plan for ownership in Washington, Idaho, and Montana;
- ? Reviewed, analyzed and provided comments on the Sierra Nevada DEIS.
- ? Assisted citizen stakeholders resolve local land use planning issues;

Under contract to the Confederated Tribes of the Umatilla Indian Reservation (July 97-July 98):

- ? Co-facilitated the Umatilla TMDL Technical Committee;
- ? Prepared a technical draft On-Reservation Long-Term Range Management Plan; and
- ? Co-prepared a land management unit map with database and interpretation to assist in strategic planning, to identify restoration project priorities and needs, and to identify water quality and native plant community monitoring and evaluation projects.

July 1998 – present

Principal Habitat Specialist

Snohomish County Department of Public Works, Everett, WA.

- ? Led project which inventoried approximately 100 miles of wadable stream and approximately 70 miles of non-wadable stream; measured physical habitat conditions (i.e., pool size, wood diameter and length, percent surface fine sediments). Summarized and analyzed statistics of central tendency and variability; performed quality control on data collection (i.e., repeated random reaches with a different team). Wrote annual reports summarizing data relative to National Marine Fisheries Service Pathway and Indicators or locally developed quantitative performance criteria.
- ? Analyzed land cover and physical habitat data to evaluate salmon habitat conditions in the Stillaguamish River Basin. Addressed assumptions pertaining to historical conditions of, current conditions of and land use effects on salmon habitat.
- ? Performed field investigation and wrote the restoration, mitigation, and monitoring plan for restoration of 233 acres of leveed Snohomish River floodplain during and after breaching of the levee;
- ? Presented information on habitat conditions, chinook salmon population status, implications to landowners and communities of ESA listing of chinook salmon by NMFS to the Snohomish County Executive Task Force; local, state and federal staff; and citizen groups.
- ? Managed projects, budgets and staff for watershed and fish habitat .

April 1991-June 1997

Forest Hydrologist/Watershed Management Specialist

Confederated Tribes of the Umatilla Indian Reservation (CTUIR), Pendleton (Mission), OR.

- ? Co-authored Upper Grande Ronde River Anadromous Fish Habitat Protection, Restoration, and Monitoring Plan for management of salmon habitat on approximately one-quarter million acres of public land under the Endangered Species Act. Assisted in the development of Desired Future Conditions, and cumulative watershed effects analysis procedures to protect and restore water quality and watershed conditions on Umatilla Indian Reservation, National Forests and other lands.
- ? Reviewed, collected field data, analyzed, and prepared comments on other proposed federal activities which may degrade water quality and/or watershed conditions. These included primarily U.S. Forest Service timber sales and larger, programmatic activities such as PACFISH, ICBEMP.
- ? Co-facilitated Umatilla Total Maximum Daily Load (TMDL) Technical Committee. Chaired Temperature subcommittee and participated in Sediment and GIS subcommittees. Used instruments to monitor stream temperature and dissolved oxygen; collected samples for laboratory analysis of total suspended solids and bacteria. Gave presentation water quality status to Umatilla Basin Watershed Council.
- ? Project Leader and Editor/Co-author of CTUIR's Analysis of the Draft Environmental Impact Statement for the Columbia River System Operations Review, including summarizing and serving as the technical lead for two economic analyses of Columbia River operations and Tribal Trust Assets.
- ? Prepared Wetland Protection Plan, including development of the Wetland Policy Statement, under contract with the U.S. Environmental Protection Agency.
- ? Contributor to and reviewer of CTUIR's *Columbia River Salmon Policy*.

- ? Prepared and coordinated with tribal, local, state, and federal agencies and local watershed council in the implementation of Nonpoint Sources of Water Pollution Assessment and Management Program, Umatilla River Basin, under contract with U.S. Environmental Protection Agency.
- ? Contributor to and reviewer of Wy-Kan-Ush-Mi Wa-Kish-Wit (Spirit of the Salmon), The Columbia River Anadromous Fish Restoration Plan of the Nez Perce, Umatilla, Warm Springs, and Yakama Tribes.
- ? Provided technical and policy recommendations to Tribal Water Committee, Natural Resources Commission, Fish and Wildlife Committee, Cultural Resources Commission, General Council (electorate), and Board of Trustees (elected officials).
- ? Gave technical and policy presentations to Tribal members, the non-member public, local watershed councils, local government, and scientific meetings (e.g. Forest-Fish Conference, Calgary, Alberta, Canada, May 1996).
- ? Co-organized and –facilitated “Watershed and Stream Restoration Workshop” at 1993 American Fisheries Society National Meetings held in Portland, OR.
- ? Prepared successful grant and contract proposals for nonpoint sources of water pollution implementation, water quality standards development, Tribal Water Code administration and enforcement, and others in the amount of approximately \$1.3 million from 1993-6.
- ? Developed and managed water quality management program, including policies, projects, activities and budgets.

Oct. 1987-April 1991 Research Technologist

Department of Agronomy and Soils, Washington State University, Pullman, WA.

- ? Responsible for daily operation of soil genesis, morphology and classification laboratory. Performed chemical and physical analysis of soils, compiled and analyzed quantitative data, and wrote reports, including co-authorship of peer-reviewed journal article.
- ? Conducted research on soils, hydrology and Quaternary geology of Wallowa Valley, Oregon.
- ? Conducted research on impact of feller-buncher logging on soil properties of forest soil derived from volcanic ash and glacial till.

July 1986-Oct. 1987 Water Quality Consultant

Jefferson County Conservation District, Port Townsend, WA.

- ? Collected and analyzed stream and bay water samples for bacterial pollution.
- ? Provided natural resource education and land management assistance to landowners in wetland-dominated lowlands of east Jefferson County.
- ? Member of interdisciplinary team which addressed accelerated erosion and mass wasting on private industrial forestland.
- ? Wrote forest practices section for 1987 Department of Ecology (DOE) Water Quality Guide.
- ? Wrote reports for District and DOE regarding domestic animal survey and nonpoint source pollution, recommendations for revegetation of previously ditched lowland riparian zones.
- ? Provided technical and policy recommendations to Board of Supervisors. Developed and prepared monthly newsletter of District activities.

Oct. 1984-June 1986

Graduate Research Assistant

Univ. of Washington, Seattle, WA.

- ? Conducted research on the impacts of forestry on hillslope hydrology. Selected site, sampled, analyzed physical and hydrological properties of soil. Tested statistical significance of impact and used infiltration and storage-excess models to predict hazard of overland flow and erosion. Research served as basis for M.S. thesis and peer-reviewed journal article.
- ? Participated in interdisciplinary field study group focusing on the impacts of land management activities on earth surface processes.

July-Sept. 1985, March-Sept. 1984, June-Sept. 1983, June-Sept. 1982

Soil Scientist

USDA-Forest Service, Darrington, WA; Sonora, CA; Pacific Valley, CA; Hathaway Pines, CA

- ? Conducted a landslide survey of Canyon Creek, a tributary of the South Fork of the Stillaguamish River, WA.
- ? Conducted an Order 2 Soil Survey of two (2) 10,000 acre planning units in the Stanislaus and Tuolumne watersheds of the central Sierra Nevada Mountains.
- ? Participated in an Ecosystem Classification (USDA-FS Region 5) of coast redwood forest in the Los Padres National Forest south of Big Sur, CA.
- ? Conducted a range inventory and analysis and Order 2 Soil Survey of a range allotment near Bear Valley, CA (Stanislaus National Forest).
- ? Served as Assistant Project Soil Scientist on the Granite Burn Rehabilitation Project, Stanislaus National Forest, CA.
- ? Justified boundaries and mapping units of the Soil Resource Inventory for the Stanislaus National Forest.
- ? Performed literature review and field investigations of proposed soil series, Banderita, in the upper foothills of the central Sierra Nevada Mountains.

PROFESSIONAL ACTIVITIES AND AWARDS

Consultant, Jefferson County Conservation District, Port Townsend, WA, 1986-7.

Member, Soil Science Society of America 1984-1991.

Member, Northwest Forest Soils Council 1985-1992.

Member, Society of American Foresters 1987-1990.

Member, Washington Society of Professional Soil Scientists 1988-1991.

Member and Stream Habitat Committee Co-Chair, American Fisheries Society, Oregon Chapter, 1992-4.

Invited to join Sigma Xi, the Scientific Research Society, in 1994.

Eagle Award, recognition as a person of vision, CTUIR, 1996

Consultant, Bellevue and Everett, WA 1997-present

PRESENTATIONS, REPORTS AND PUBLICATIONS

Anderson, J.W., Beschta, R.L., Boehne, P.L., Bryson, D., Gill, R., McIntosh, B.A., Purser, M.D., Rhodes, J.J., Sedell, J.W., and Zakel, J., 1993. A comprehensive approach to restoring habitat conditions needed to protect threatened salmon species in a severely degraded river -- The Upper Grande Ronde River Anadromous Fish Habitat Protection, Restoration and Monitoring Plan. Riparian Management: Common Threads and Shared Interests, pp. 175-179, USFS Gen. Tech. Rept. RM-226, Fort Collins, Co.

Borchert, M., D. Segotta, and M.D. Purser 1988. Coast redwood ecological types of southern Monterey County, California. General Technical Report PSW-107. Berkeley, CA. Pacific Southwest Forest and Range Experiment Station, Forest Service, U.S. Dept. of Agriculture.

Busacca, A.J., K.T. Nelstead, E.V. McDonald, and M.D. Purser 1992. Correlation of Distal Tephra Layers in Loess in the Channeled Scabland and Palouse of Washington State. Quaternary Research 37, 281-303 (1992).

Frissell, C.F., G. Haas, M. Purser, and M. Scurlock, 2000. An Ecological Assessment of the Plum Creek Native Fish Habitat Conservation Plan. Final Report to Pacific Rivers Council, Eugene, OR.

Purser, M.D. 1983. Influence of soil properties on species composition on a coastal terrace, Patrick's Point, CA. B.S. Thesis. Humboldt State University.

Purser, M.D. 1988. Effects of clearcut logging with high-lead yarding on spatial distribution and variability of infiltration capacities on a forest hillslope. M.S. Thesis. University of Washington.

Purser, M.D. and E.V. McDonald 1988. Soil development on glaciofluvial outwash terraces, Wallowa Valley, Oregon. Poster presented at Soil Science Society of America national meetings, Nov. 27-Dec. 2, 1988. Anaheim, CA. Also Agronomy Abstracts, American Society of Agronomy, Madison, WI.

Purser, M.D. and E.V. McDonald 1989. Interpretation of late Quaternary stratigraphy near Wallowa Lake, Oregon by analysis of soil properties. Presented at the joint meeting of Rocky Mountain and Cordilleran sections, Geological Society of America, May 11, 1989. Spokane, WA. Also GSA Abstracts with Program, Vol. 21, No. 5, March 1989.

Purser, M.D. and T.W. Cundy, 1992. Changes in Soil Physical Properties Due to Cable Yarding and their Hydrologic Implications. Western Journal of Applied Forestry, Vol. 7, No. 2, April, 1992.

Rhodes, J.J. and M.D. Purser, 1998. Thinning for Increased Water Yield in the Sierra Nevada: Free Lunch or Pie in the Sky? Report to the Pacific Rivers Council, Albany, CA. August 1998.

Rhodes, J.J. and M.D. Purser 1998. Overwinter Sedimentation of Clean Gravels in Simulated Redds in the Upper Grande Ronde River and Nearby Streams in Northeastern Oregon, USA:

Implications for the Survival of Threatened Spring Chinook Salmon. Pages 403-412 in M.K. Brewin and D.M.A. Monita, tech. Coords. Forest-fish conference: land management practices affecting aquatic ecosystems. Proc. Forest-Fish Conf., May 1-4, 1996, Calgary, Alberta. Nat. Resour. Can., Can. For., Serv., North For. Cent., Edmonton, Alberta. Inf. Rep NOR-X-356.

Exhibit B
“how project was selected” (from data1.xls; all are direct quotes)

A fairly recent decision memo that was completed and fairly close to the Ranger Station

DM was selected because it was close to town with easy access for monitoring results

Selected by reason of proximity to existing, open road, travel time, and limited opportunity for ID Team involvement prior to snowfall

From a list of applicable projects, this project was easily accessed from open roads.

Other projects were under snow cover or behind closed gates

This project was easily accessed while other areas were under snow cover or behind seasonally closed gates

This project was originally a DM and rescinded due to the R8 Heartwood Case. An EA was prepared with the same finding of No Significant Impact. Project was chosen since it was most recent

Decision Memo had been prepared and was ready to be issued at about time of litigation of CE Authority. EA w/decision notice prepared

This sale was not randomly selected. This sale was selected because it was the only sawtimber-sale example, on the 2-district Headwaters Zone, that fell under a CE/Decision Memo within the last 5-10 years. It was the most appropriate sale example for this monitoring effort

This sale is one of two beetle treatment sale that were originally covered under a CE.

This sale was held up for two years from treatment because of the Heartwood decision. As a result hundreds of more acres of beetles have attacked (sic) surrounding NF and private lands. A landscape analysis has been completed on 8/1/01 with no appeals. Only now is harvest activities beginning on these two sale. The wood products have now major defects and loss values. Hundreds of more greens have since died and major effects to the forest have resulted in the delay of this management treatments

The DM was not randomly selected. Although this is a wildlife driven project using Cat 6, it is representative of opportunities to utilize a Cat 4 if one were available. It is the only project available that is close to a forest health purpose/objective and provides small products for personal use from a commodity context

Project was recent and met the criteria that the Forest uses to categorically exclude

The selection was made at the Forest Supervisor's office

Two Districts submitted three projects. The team visited the District with two projects in one day to minimize impacts on their time

This project was originally categorically excluded, then an EA and DN prepared due to the court's decision on the Heartwood litigation

Proximity to other monitoring projects, easy access

This project was selected on the basis of having been monitored previous to this monitoring effort. However, the previous monitoring was not as comprehensive as the questionnaire (sic), so supplemental field review was conducted to provide missing information, even though not required

Not randomly selected. This was the only sale we had available which had some monitoring and met the criteria in the W.O. 1950/2400 Aug. 3, 2001 letter. Unfortunately, this memo. did not come to our attention till October of 2001, which was too late to conduct a field review on a previously unreviewed sale. Therefore, this was our only option

The Wash Creek Salvage Sale was selected, because this sale was the Republic Ranger District most recent CE, and it was not do to the rescission bill. The area was easily accessible for all the specialists to review

Cispus HTR Thin was substituted for a randomly selected project because the randomly selected project was inaccessible due to an early snowfall. Cispus HTR Thin was chosen because of its close proximity to our other randomly selected project

Per Forest requirement in 1996, monitoring included Forest Plan implementation and sale admin monitoring. Search of files for monitored CE yielded this project

This project was selected by the Forest Planning Staff Officer from a list of small sales

Two projects were selected that were in relatively close proximity to allow efficient travel.

This project was selected because it represented a typical shortleaf pine thinning

Very few projects that meet the criteria needed exist on the forest. These two sites were selected because they could be visited by the ID Team in a single day

Most recent Category 4 project with a decision date prior to May 5, 1999

This sale was the last sale which was implemented under a DM

This proposed harvest area met the requirements for a 31.2 #4 categorical exclusion. There were no extra ordinary circumstances except steep slopes which any potential impacts to soils were mitigated by winter logging and use of winching trees off slopes greater than 35% slope. There were few issues raised by the public during scoping

DECLARATION OF

MONICA L. BOND

PO BOX 1091, IDYLLWILD, CA

I, MONICA L. BOND, state as follows:

1. I am a wildlife biologist with expertise in wildlife biology, ecology, and behavior, and seven years of field research experience. I have worked as an academic research biologist and as a private consulting biologist. I hold a B.A. degree in Biology from Duke University (May 1992) and an M.S. degree in Wildlife Science from Oregon State University's Department of Fish and Wildlife (December 1998).
2. My graduate research focused on wildlife behavior, including use of space in response to intrinsic factors such as population densities and sex ratios, and to extrinsic factors such as habitat fragmentation. I have worked on wildlife demography studies involving capture-mark-recapture of gray-tailed voles (*Microtus canicaudus*), burrowing owls (*Athene cunicularia*), and California, Mexican, and northern spotted owls (*Strix occidentalis* spp.), and conducted protocol-level surveys for marbled murrelets (*Brachyramphus marmoratus*). I am published in the peer-reviewed literature for research on wildlife behavior and demographics, and wildlife-habitat associations. I have also conducted peer reviews of manuscripts for scientific journals. In addition, I have conducted vegetation surveys for the OSU Department of Forestry and the USDA Forest Service (Deschutes National Forest).
3. For the past two years, I have been employed as a biologist for the Center for Biological Diversity wherein I monitor activities on public and private lands to determine potential effects on biological resources. In this capacity, I have become

familiar with survey protocols for numerous wildlife species as required by the U.S. Fish and Wildlife Service and the California Department of Fish and Game.

4. I am an active member of the National and Western Section of the Wildlife Society, an organization comprised of professional wildlife biologists employed in the private and public sectors, natural resource management agencies, and academia. I sit on the Western Section Wildlife Society's Conservation Affairs Committee, and am certified as a Wildlife Biologist (May 2000) by the Society. Please see attached C.V. for further details on my experience.
5. I understand from the documents available online at <http://www.fs.fed.us/emc/lth/> that various National Forests were asked to send any results from past monitoring efforts of projects that would have qualified for categorical exclusion under category 4 or, if such monitoring data did not exist, to randomly monitor at least two projects, to validate whether their original "no significant impact on the human environment" finding had been correct. Herein, I will comment on the Forest Service's analysis of their monitoring data regarding non-significance for the proposed Limited Timber Harvest Categorical Exclusion with respect to endangered, threatened, and sensitive wildlife species.
6. To formulate these comments, I reviewed the following documents:
 - ✍ Methodology for Project Data Collection and Results of Review
 - ✍ Instructions for Timber Harvest Effects Monitoring
 - ✍ Initial data - data1.xls
 - ✍ Follow-up data - data2.xls
 - ✍ USDA Information Quality Guidelines for Regulatory Information
7. 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.

8. Independent Examination of the Monitoring Data

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.

(*Methodology for Project Data Collection and Results of Review* at 4). I examined the database assembled from the monitoring reports (from <http://www.fs.fed.us/emc/lth/data1.xls> and <http://www.fs.fed.us/emc/lth/data2.xls>) to assess how the various resource specialists measured the effects of their projects on wildlife species. I looked at the monitoring techniques described in data1.xls and reviewed the more detailed information provided in data2.xls regarding the species affected by each project, the manner in which they were affected, and how the project avoided negative impacts.

9. 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." (*Instructions for Timber Harvest Effects Monitoring* at 4.) An additional eight were monitored using "other" techniques, seven provided no information whatsoever on monitoring

wildlife, and only four projects monitored effects using measurements. Field measurement can be considered the most robust method for monitoring wildlife impacts.

10. I then examined the four projects in which the project managers claimed that wildlife effects were monitored using measurements, to see what data I could obtain (i.e., methodology used to survey for wildlife, results of surveys, which wildlife species were affected, etc.) in order to make my own conclusion as to whether the project had a significant or non-significant effect on wildlife, as a qualified member of the public.

The results of my analysis are provided below:

- a. Data1.xls stated that the Twister timber sale on the Bighorn National Forest used measurements to monitor wildlife effects, but the data2.xls database, which contains more detailed information about the project, only stated that "no TES are on the Forest, and no critical habitat was identified in the project area."
- b. Data1.xls stated that the Heart Mountain timber sale on the Rio Grande National Forest used measurements to monitor wildlife effects. It appears from data2.xls that a resource specialist measured the number of snags in the project area rather than directly surveyed for wildlife species. In addition, the sale was in lynx habitat but the database stated merely that "effects on habitat were acceptable," with no further data provided.
- c. Data1.xls stated that the Rock Tank timber sale on the Lincoln National Forest used measurements to monitor wildlife effects. However, both databases provided no information whatsoever about wildlife, and in fact most of the cells in the wildlife sections were left blank.
- d. Data1.xls stated that the Cibola National Forest used measurements to monitor wildlife effects. The only information provided was from data2.xls, which noted that "no negative effects to t&e or impacts to critical habitat. project results indicate increased forest health and reduced wildfire hazard. decision was for wildlife purposes and driven by wildlife."

11. 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. 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.

12. Field Methodology Used to Determine Effects on Wildlife

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 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.

13. I attempted to determine how the observations might have been conducted by reviewing all the information in column BM of the database data1.xls, which provided commentary on impacts. The cells included statements such as:

- ✍ "Wildlife, fisheries and watershed monitoring was conducted by observations on site."
- ✍ "Snag dependant wildlife habitat standards met with reserve areas near all clearcuts."
- ✍ "Monitoring was performed throughout the life of the project, 9/25/97 - 9/29/99. Findings of no effects to the environment."
- ✍ "Monitoring techniques consisted of observations during site visits and timber sale administration."
- ✍ "All monitoring was done by observation while walking through the treatment areas."
- ✍ "Wildlife habitat was improve [*sic*] through implementation of harvest treatments and goshawk guidelines. Monitoring was completed by walking through harvested units."
- ✍ "Walkthru and tour of the treatment areas making observations as they relate to context and intensity regulation of NEPA was the monitoring technique."
- ✍ "Treatment site walk-thru by monitoring team."
- ✍ "Monitoring techniques included direct observation as well as surmised outcome back on the activity, experience, observation and professional judgment."
- ✍ " Monitoring team used visual 'observation' and 'other' monitoring techniques."
- ✍ "The project area falls within the habitat management area for the endangered red-cockaded woodper.[*sic*] This population is monitored [*sic*] annually for reproduction and predator control."
- ✍ "Wildlife - one sensitive spp. - no significant effect."

14. Clearly, by examining these statements and gleaning whatever information I could, I was unable to make any determination regarding the reliability of the methods and resulting conclusion. 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. In one case, the database noted that "The Biological Evaluation called for monitoring of the project area for use by blackbacked woodpeckers and the three sensitive bat species post-harvest. Limited KV collections did not allow funding of KV/SAI beyond essential reforestation activities. No further project specific monitoring of blackbacked woodpeckers or bats was conducted." In another case, data2.xls noted that "The biological evaluation recommended retention of the smaller diameter, submerchantable trees for black backed woodpecker habitat, as they had been observed within the project area. This was done during implementation of the project. Many of these dead trees remained standing as habitat for black backed woodpeckers approximately 5-7 years before falling to the ground." Again, no surveys for black-backed woodpeckers apparently had been conducted to verify that the project did not negatively impact the species, and that the species was in fact utilizing the habitat.

15. 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. For example, determining presence or absence of a spotted owl on my former research project by simple observation of an area rather than by protocol-level surveys would be wholly unacceptable. In some cases, presence of a roost or nest site can be determined by observations of pellets, feathers, and whitewash, but the absence of this evidence does not lead to the conclusion that an owl is not present in the area, because this evidence may not exist or may not be seen by the observer (i.e., absence of evidence is not evidence of absence). 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.

16. In addition, data2.xls contains numerous statements that surveys conducted prior to the project for Biological Evaluations or Biological Assessments had determined that there was no presence of listed or sensitive wildlife species. Perplexingly, it was then assumed that the species did not occur on the site after the project had been implemented. Surveys conducted for the BE/BAs can only determine the lack of presence at the time of the original surveys. The purpose of monitoring is to conduct additional surveys to determine impacts of the project, and to allow for adaptive

management using the information collected from the additional surveys. Merely stating that listed or sensitive wildlife species with the potential to occur on the site were not located on the project site before project implementation, does not suggest that the species would not be found on the project site after implementation, at the time of monitoring.

17. Finally, data1.xls indicates that wildlife monitoring was only conducted for one day, the vast majority of which were sometime in September, October, and November (including some in December and some in February). First, one day of monitoring is insufficient. Second, the breeding season for most forest-dependent species is spring-summer. I am unsure why a resource specialist who supposedly has expertise in the field of wildlife biology could assume that wildlife presence could be determined by observing the project area on only one day and during the winter.

18. Violation of the Information Quality Guidelines

The Forest Service's methodology used in the monitoring violated the USDA Information Quality Guidelines for Regulatory Information in several ways. In fact, an examination of the information provided in the database of monitoring reports suggests that virtually none of the following Information Quality Guidelines were adhered to in the Forest Service's analysis of projects that meet the criteria for Limited Timber Harvest Categorical Exclusions:

- ✍ Use sound analytical methods in carrying out scientific and economic analyses and in preparing risk assessments.
- ✍ Use the most reliable and timely data and information available (e.g., collected data such as from surveys, compiled information and/or expert opinion).
- ✍ Evaluate data quality and, where practicable, validate the data against other information when using or combining data from different sources.

- ✍ For quantitative assessments, clearly state the uncertainty of final estimates to the extent practicable. Data and data collection systems should, as far as possible, be of sufficient quality and precision that uncertainty in the final estimates is appropriately characterized.
- ✍ Ensure transparency of the analyses by presenting a clear explanation of the analyses to the intended audience [and] providing good documentation of data sources, methodology, assumptions, limitations, uncertainty, computations, and constraints [and] explaining why certain data were used over other data [and] presenting the model or analysis logically so that the conclusions and recommendations are well supported.
- ✍ Clearly identify sources of uncertainty affecting data quality.
- ✍ Use data collected by accepted methods or best available methods (if the reliability of the method and the nature of the decision justifies the use of the data).

19. As I described above, absolutely no quantitative information was provided regarding the effects of any of the projects on listed and sensitive wildlife species. There were no consistent standards for wildlife monitoring required in the analysis of projects, as evidenced by the variety of methods used to determine impacts on wildlife (i.e., 1-4 in data1.xls). Further, no information was given about how the observations or measurements were conducted and what the results were; given the data provided I actually would assume that no field measurements were ever conducted except in one case where snags were measured (but no information about wildlife species using the snags was offered). 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. 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. 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 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). Finally, because the most widely used method of monitoring involved a subjective, observational "walk-through" of the site with no subsequent reporting of results in an objective format, I could not determine that the data were protected from manipulation and/or falsification. 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.

20. In sum, no quantitative data were provided to allow me to determine the reliability and objectivity of the project monitoring efforts. The reliance on inadequate techniques for determining impacts to wildlife species will result in the erosion of trust in the Forest Service regarding the objectivity of their information about the impacts of Categorically Excluded projects.

Respectfully,

A handwritten signature in cursive script, reading "Monica Bond", followed by a vertical line.

Monica Bond
P.O. Box 1091
Idyllwild, CA 92549

Research Experience

- 2001-current **Biologist, Center for Biological Diversity**, Idyllwild, California
Monitor public and private lands management plans to ensure adequate protection for imperiled species.
- 1999-2001 **Research Fellow, U. of Minnesota Dept. Fisheries, Wildlife, & Conservation Biology**, Sierra Nevada, California
Studied demography and ecology of California spotted owls. During field seasons (April–August) planned and participated in data collection on occupancy and reproductive status of owls; captured, measured, and banded adult and juvenile owls; trained and supervised field assistants; and conducted independent research related to the project. During the off-seasons (September–March) assisted in data management, analysis, and reporting of results; wrote manuscripts for scientific journals; interviewed and hired field assistants; and conducted analyses of owl habitat using GIS maps.
- 2000 **Consulting Biologist, North Coast Resource Management**, Calpella, California
Conducted surveys for Northern spotted owls on private lands in Mendocino County.
- 1998 **Field Biologist, Institute for Bird Populations**, Lemoore Naval Air Station, California
Participated in a demography and toxicology study of Western burrowing owls. Captured, measured, banded, and radio-collared adult and juvenile owls; radio-tracked owls for 3 months to determine foraging ecology; assisted in developing field sampling methods, telemetry techniques, and equipment design.
- Winter 1997 **Teacher's Assistant, Principles of Wildlife Conservation, OSU Dept. Fisheries & Wildlife**, Corvallis, Oregon
Created and presented lectures and led discussions on wildlife and habitat conservation and management; maintained the student database; and proctored and graded exams.
- 1997 **Research Technician, OSU Dept. Fisheries & Wildlife**, Corvallis, Oregon
Assisted with field research on the space-use and demographic responses of gray-tailed voles to the application of the insecticide Guthion. Helped with trapping, radio telemetry, and data entry.
- 1996–1997 **Field Assistant, OSU College of Forestry**, Corvallis, Oregon
Assisted Vegetation Management Cooperative with field research investigating regrowth of trees in response to varying levels of herbicide and fertilizer. Aided Nursery Cooperative with laboratory research on root growth potential and frost hardiness of trees.
- 1996–1997 **Volunteer Intern, Blue Mountains Biodiversity Project**, Fossil, Oregon
Conducted field surveys of timber sales on public forests in eastern Oregon to ensure compliance with federal environmental regulations and to determine presence of old-growth indicator species.
- 1996–1997 **Volunteer HCP Coordinator, Corvallis Area Forest Issues Group**, Corvallis, Oregon
Monitored Habitat Conservation Plans for a local conservation organization. Coordinated meetings with HCP permittees and agency representatives; wrote comments; and attended hearings and conferences.
- Summer 1996 **Bioscience Technician, USDA Forest Service**, Sisters, Oregon
Mapped vegetation and assessed the ecological condition of the campgrounds along the Metolius River to determine compliance with the Wild and Scenic River Plan, for use in restoration efforts. Identified and quantified plant species along transects; produced maps; and created educational displays.
- Spring 1996 **Volunteer Marbled Murrelet Surveyor, Coast Range Association**, Corvallis, Oregon
Conducted field surveys for threatened marbled murrelets in the Oregon Coast Range, in partnership with the USDA Forest Service. Attended survey training and obtained certification from the Forest Service.

Organizing Experience

- 1993–1996 **Endangered Species Coordinator, National Wildlife Federation**, Portland, Oregon
Educated the public, the media, and members of Congress about protecting endangered species and developing an effective Endangered Species Act. Presented lectures and slideshows at conferences, universities, and to civic groups; trained activists; organized educational events, forums and debates; taught at camps and elementary schools; lobbied members of Congress; coordinated ecological restoration and clean-up events; arranged press conferences; and wrote journal articles and op-ed pieces about endangered species conservation.

1992–1993 **Community Organizer, Green Corps**, Portland, Oregon
Worked as a grassroots organizer for several national conservation organizations on such issues as recycling, clean air, endangered species, old-growth forests, and tropical rainforests. Organized press conferences; planned community events; directed a door-to-door canvass; and lobbied members of Congress.

Education

1996–1998 **M. S. Wildlife Science, Oregon State University**, Corvallis, Oregon
Master's Project: Density, Sex Ratio, and Space Use in Gray-tailed Voles (*Microtus canicaudus*)
Awards: Northwest Scientific Association Scholarship
Gamma Sigma Delta (The Honor Society of Agriculture) Scholarship

1988–1992 **B. A. Biology, Duke University**, Durham, North Carolina
Senior Independent Study: The Heat is On: The Hawaiian Geothermal Controversy
Honors: Dean's List 1990–1991
Dean's List with Distinction 1991–1992

Skills and Accomplishments

Certified Wildlife Biologist, The Wildlife Society, received May 10, 2000.
The Wildlife Society Western Section - Conservation Action Committee

Field research: Small mammal trapping, bird surveys, raptor trapping and banding, radio telemetry, vegetation sampling, forest habitat surveys.

Computer: Corel: WordPerfect, Paradox, Presentations; Microsoft: Word, Excel, Powerpoint, Access; SAS v8; Lotus 1-2-3; Dbase IV; SigmaPlot; Harvard Graphics; ArcView 3.2; Arc Info; MARK.

Other: Community organizing, teaching, writing, and public speaking.

Scientific presentations:

- *Density, sex ratio, and space use of male gray-tailed voles.* Northwest Scientific Association/Society for Northwestern Vertebrate Biology Annual Meeting, March 1998.
- *Sex ratio, space use, and edge effects in the gray-tailed vole: field tests of alternative hypotheses.* University of Memphis Department of Biology Seminar, March 1999.
- *Density, sex ratio, and space use in gray-tailed voles.* Humboldt State University Department of Wildlife Seminar, November 1999.
- *Density of old growth trees in the central Sierra Nevada: do spotted owl nesting areas reflect densities found in old forest areas?* Carnivores 2002, November 2002.
- *Short-term effects of wildfires on spotted owl survival, site fidelity, mate fidelity, and reproduction.* Fire 2002: Managing Fire and Fuels in the Remaining Wildlands and Open Spaces of the Southwestern United States, December 2002.

Selected scientific publications:

- Bond ML, Wolff JO 1999. Does access to females or competition among males limit home-range size of males in a promiscuous rodent? *Journal of Mammalogy* 80:1243-1250.
- Seamans ME, Gutiérrez RJ, Bond ML 2000. Population ecology of the California spotted owl in the central Sierra Nevada: annual results 1999. US Forest Service, Region 5, San Francisco, CA.
- Seamans ME, Gutiérrez RJ, Bond ML 2001. Population ecology of the California spotted owl in the central Sierra Nevada: annual results 2000. US Forest Service, Region 5, San Francisco, CA.
- Hunter JE, Bond ML 2001. Residual trees: wildlife associations and recommendations. *Wildlife Society Bulletin*. 29:995-999.
- Bond ML, Gutiérrez RJ, Franklin AB, LaHaye WS, May CA, Seamans ME 2002. Short-term effects of wildfires on spotted owl survival, site fidelity, mate fidelity, and reproduction. *Wildlife Society Bulletin* 30:1022-1028.
- Bond ML, Wolff JO, Krackow S 2003. Recruitment sex ratios in gray-tailed voles (*Microtus canicaudus*) in response to density, sex ratio, and season. *Canadian Journal of Zoology*. 81:1306-1311.
- Bond ML, Gutiérrez RJ, Seamans ME (in review) Modeling nesting habitat selection of California spotted owls (*Strix occidentalis occidentalis*) in the central Sierra Nevada: the value of Forest Inventory and Analysis metrics. *Forest Science*.

References available upon request

BEFORE THE UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE INFORMATION QUALITY STAFF

Re: Monitoring Techniques and Data used in)
Support of the Forest Service's Proposed)
Limited Timber Catagorical Exclusion)
_____)

Docket No. _____

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

Submitted to:

Quality of Information Officer
USDA Forest Service
P.O. Box 96090
Washington, D.C. 20090-6090
webmaster@fs.fed.us
fax: (202) 205-0885

Dave Sire
USDA Forest Service
P.O. Box 96090
Washington, D.C. 20090-6090
dsire@fs.fed.us
fax: (202)205-1012

by

John Muir Project of
Earth Island Institute
P.O. Box 11246
Takoma Park, MD 20913
(301)891-1361
www.johnmuirproject.org
rene.voss@johnmuirproject.org

Sierra Club
7 Avenida Vista Grande #173
Santa Fe, N.M. 87508
(505)466-2459
www.sierraclub.org
bryan.bird@sierraclub.org

Heartwood
585 Grove Avenue
Wood River, IL 62095-1615
(618)259-3642
www.heartwood.org
jbensman1@charter.net

March 10, 2003

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

1. Request and Petitioners

The following data correction 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.

On March 10, 2003, René Voss, on behalf of petitioners, contacted and spoke with Dave Sire of the USDA Forest Service via phone, the listed contact person on the Federal Register Notice for the “National Environmental Policy Act Documentation Needed for Limited Timber Harvest” (see Federal Register on January 8, 2003 at Pages 1026-1030). René Voss informed Mr. Sire that petitioners are requesting the correction of data and information used to monitor timber sales and suggested that the technique of “measurement” must be used instead of “observation” to comply with the USDA Information Quality Guidelines, as the appropriate technique to determine individual or cumulative significant effects for regulatory or influential regulatory information. Since March 10, 2003 is also the deadline for comments on the proposed rule, petitioners are submitting this data correction request concurrently with our comments in response to the Federal Register notice.

2. Requestor Contact Information. Petitioners can be reached as follows:

René Voss
John Muir Project/
Earth Island Institute
P.O. Box 11246
Takoma Park, MD 20913
(301)891-1361
www.johnmuirproject.org
rene.voss@johnmuirproject.org

Bryan Bird
Sierra Club
7 Avenida Vista Grande #173
Santa Fe, N.M. 87508
(505)466-2459
www.sierraclub.org
bryan.bird@sierraclub.org

Jim Bensman
Heartwood
585 Grove Avenue
Wood River, IL 62095-1615
(618)259-3642
www.heartwood.org
jbensman1@charter.net

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. Description of Information to Correct

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.”

In an August 3, 2001 letter from Sally Collins to Regional Foresters with Subject: “Information Needed for Creating a New Limited Tree Removal Categorical Exclusion (CE) to Replace Timber Harvest Category Number [4]” (see: <http://www.fs.fed.us/emc/lth/request1.pdf>), the Associate Deputy Chief of the National Forest System provided general protocols for monitoring forest resources in its search for projects that had or could have been CE’d under Category 4 of the Forest Service NEPA Handbook 1909.15, Chapter 31.2, in order to develop new criteria as a result of the monitoring.

The protocol for monitoring was described in an attachment titled “Instructions for Timber Harvest Effects Monitoring” or “Instructions for First Data Request” (see: <http://www.fs.fed.us/emc/lth/instructions1.pdf>) and included the following direction:

“Monitoring must be performed by journey-level specialists who are qualified to examine and draw conclusions on the occurrence of effects that meet or do not meet project standards (i.e. Forest Plan Standards or Guidelines, state water quality standards, the conditions of a Biological Opinion, etc.) for soil, water, air, vegetation, wildlife, fish, cultural and historic resources or other pertinent issue related resources... The specialists must visit the site of the DM [decision memo] to assess the effects of the project on all of the above resources... Based on the specialists’ findings the responsible line officer must give a conclusion in the web-based form about whether the project individually or cumulatively did or did not have a significant effect on the human environment (40 CFR 1508.4). The line officer must consider the context and intensity factors described in the CEQ NEPA implementing regulations, 40 CFR 1508.27, when describing the rationale for their finding.”

The tabulated data from the initial data response is posted on the Forest Service Web Site for a total of 154 projects that were monitored in the various national forests in all 9 of the Nation Forest System Regions. (see: <http://www.fs.fed.us/emc/lth/data1.xls>).

John Muir Project, on behalf of petitioners Earth Island Institute, Sierra Club and Heartwood has analyzed this data and has summarized the monitoring techniques used for each resources in Appedix A of this data correction request. The monitoring data is brokend down by the following resources for:

- Soil Monitoring
- Water Monitoring
- Air Monitoring
- Listed and Sensitive Plants Monitoring
- Listed and Sensitive Wildlife Monitoring
- Listed and Sensitive Fish Monitoring
- Other Vegetation Monitoring
- Other Wildlife Monitoring
- Other Fish Monitoring
- Cultural and Historic Monitoring
- Other Resources Monitoring

We have summarized the techniques used IN TOTAL, by all data monitoring points for all resources, and provide the following as our results:

Total Monitoring Data Points 1611 100%

<u>Technique Used</u>		
Observation	1367	85%
Photopoint	5	<1%
Measurement	46	3%
Other	118	7%
Not Answered	75	5%

JMP is concerned by the fact that FS “journey-level” specialists have relied overwhelmingly on personal observation to determine environmental effects on certain resources. We are also disturbed by the fact that 5 % of the monitoring point requirements were not even answered by these specialists, a number that exceeds the total number of “measurement” points of the survey.

Observation is considered the least reliable monitoring technique by the science community and is usually not acceptable because it is not replicable, a major requirement in the scientific process.

SOILS

For soils, 92% of the projects were monitored by observation alone rather than using normally accepted measurement techniques for porosity, compaction, displacement, or cumulative soil impacts. Soil compaction or porosity standards are written into most National Forest Land and Resources Management Plans¹ (Forest Plans), and the National Forest Management Act² and its regulations have strict requirements that timber sales not irreversibly damage soil resources.

Of the 11 projects for which the Forest Service actually measured some soil characteristics or damage³, either no data was provided or other measurements besides compaction were presented (such as ground cover). Two projects with measurements did not meet soil compaction standards. Only 2 other projects actually presented soil compaction or displacement data.

Without the appropriate measurements for soil compaction or displacement on 91% of the projects monitored, it is impossible to determine whether significant adverse effects to soils have occurred or whether cumulative soil damage is significant. And, since the Forest Service has demonstrated that it can measure soil porosity, compaction, and displacement as it presented this data for at least 2 projects, the best available techniques should be used on all other projects to

¹ NFMA, 16 USC 1604 and NFMA Regulations 36 CFR 219

² 16 USC 1604(g)(3)(E) “...insure that timber will be harvested from National Forest System lands only where (i) soil, slope, or other watershed conditions will not be irreversibly damaged;”

³ see: <http://www.fs.fed.us/emc/lth/data1.xls>, projects in row 3, 30, 33, 35, 36, 91, 96, 104, 109, 127, and 132

provide influential information to make a determination of significance for such an important rulemaking.

WATER QUALITY

Baseline measurements before and after implementation of projects that contain streams or wetlands are needed to determine if any degradation of water quality occurred. This has not occurred on the vast majority of the projects monitored.

WILDLIFE, FISH AND VEGETATION

It's hard to imagine how observation alone could determine the effects on listed, sensitive or other wildlife and fish in a project area without a longer-term effort to determine the effect on the species' population. Not only is instant data (or lack thereof) used to determine non-significance, the data requirement for listed, sensitive, or "management indicator species" is also a legal requirement under the NFMA regulations,⁴ which requires measurements and a trend analysis. Again, the vast majority data points used to monitor and plants were done only by observation.

4. Explanation of Noncompliance with OMB and/or USDA Information Quality Guidelines

The tabulated data does not provide petitioners with specifics as to the kinds of observation or measurement techniques that were used to monitor the projects' effects. It also relies heavily on a technique that is not objective or can't be validated independently.

Using the technique of "observation" is hardly useful for another specialist or a skeptical public that is already very distrustful of the Forest Service as it pertains to logging. The technique of "observation" in this analysis is fatally flawed in that it is impossible to duplicate its conclusion and provide a verifiable, objective opinion. Therefore it is conclusory to the point of being arbitrary and cannot be relied on to determine significance for a new set of CEs.

The USDA's Information Quality Guidelines, under "Regulatory Information Disseminated" require that "Environmental assessments, environmental impact statements, and associated documents prepared under the National Environmental Policy Act (NEPA)" are subject to the guidelines.

Regulatory and Influential Regulatory Information must be objective:

"Objectivity of Regulatory Information

To ensure the objectivity of information disseminated by USDA agencies and offices in conjunction with their rulemaking activities, the agencies and offices will:

⁴ NFMA Regulations 36 CFR 219.12, 219.19, and 219.26

- ? Use sound analytical methods in carrying out scientific and economic analyses and in preparing risk assessments.
- ? Use reasonably reliable and reasonably timely data and information (e.g., collected data such as from surveys, compiled information, and/or expert opinion).
- ? When using the best available data obtained from or provided by third parties, ensure transparency in its dissemination by identifying known sources of error and limitations in the data.
- ? Evaluate data quality and, where practicable, validate the data against other information when using or combining data from different sources.
- ? Ensure transparency of the analysis, to the extent possible, consistent with confidentiality protections, by:
 - o Presenting a clear explanation of the analysis to the intended audience.
 - o Providing transparent documentation of data sources, methodology, assumptions, limitations, uncertainty, computations, and constraints.
 - o Explaining the rationale for using certain data over other data in the analysis.
 - o Presenting the model or analysis logically so that the conclusions and recommendations are well supported.
- ? Clearly identify sources of uncertainty affecting data quality.
- ? For quantitative assessments, clearly state the uncertainty of final estimates to the extent practicable. Data and data collection systems should, as far as possible, be of sufficient quality and precision that uncertainty in the final estimates is appropriately characterized.
- ? For qualitative assessments, provide an explanation of the nature of the uncertainty in the analysis.
- ? Where appropriate, subject the analysis to formal, independent, external peer review to ensure its objectivity. If analytic results have been subjected to such a review, the information may generally be presumed to be of acceptable objectivity. However, in accordance with the OMB standard, this presumption is rebuttable based on a persuasive showing by a petitioner in a particular instance, although the burden of proof is on the complainant.
- ? If agency-sponsored peer review of the analysis is employed to help satisfy the objectivity standard, the review process should, where appropriate, meet the general criteria for competent and credible peer review recommended by OMB. OMB recommends that (a) peer reviewers be selected primarily on the basis of necessary technical expertise, (b) peer reviewers be expected to disclose to agencies prior technical/policy positions they may have taken on issues at hand, (c) peer reviewers be expected to disclose to agencies their sources of personal and institutional funding (private or public sector), and (d) peer reviews be conducted in an open and rigorous manner.

Objectivity of *Influential* Regulatory Information

With respect to *influential* scientific information disseminated by USDA regarding analysis of risks to human health, safety, and the environment, USDA agencies and offices will ensure, to the extent practicable, the objectivity of this information by adapting the quality principles found in the Safe Drinking Water Act Amendments of 1996. The agencies and offices will:

- ? Use the best science and supporting studies conducted in accordance with sound and objective scientific practices, including peer-reviewed science and studies where available.
- ? Use data collected by accepted methods or best available methods (if the reliability of the method and the nature of the decision justifies the use of the data).
- ? In the dissemination of *influential* scientific information about risks, ensure that the presentation of information is comprehensive, informative, and understandable. In a document made available to the public, specify, to the extent practicable:
 - o Each population addressed by any estimate of applicable effects.
 - o The expected risk or central estimate of risk for the specific populations affected
 - o Each appropriate upper bound or lower-bound estimate of risk.
 - o Each significant uncertainty identified in the process of the risk assessment and studies that would assist in reducing the uncertainty.
 - o Any additional studies, including peer-reviewed studies, known to the agency that support, are directly relevant to, or fail to support the findings of the assessment and the methodology used to reconcile inconsistencies in the scientific data. “

Petitioners allege that the Forest Service’s data disseminated in this rule-making and monitoring techniques violate many of the “Regulatory” or “Influential Regulatory” standards. Specifically, the lack of adequate data and monitoring techniques violate the following standards.

For Regulatory Information:

- ? They do not “use sound analytical methods in carrying out scientific and economic analyses” since the method of “observation” is not verifiable;
- ? 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;
- ? 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.”

- ? The analysis and does not “Clearly identify sources of uncertainty affecting data quality.

Because the data is used to create entirely new Categorical Exclusions for logging, the information and monitoring techniques used to determine significance must be considered “influential.” As such, the rulemaking, the data, and the reliance on the monitoring technique of “observation” violates the standards of “Influential Regulatory Information”:

- ? 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;”
- ? It does not “use data collected by accepted methods or best available methods.”

5. Explanation of the Effect of the Alleged Error

The effects of the alleged errors are that petitioners:

- ? Cannot adequately assess the significance of effects of these types of CEs or projects to determine whether they should be categorically excluded;
- ? Cannot provide accurate comments in the rulemaking;
- ? We cannot provide advice to our members or constituents as to how they should comment on the proposed rulemaking;
- ? As a result, we cannot fulfill our roles as stewards of the environment and of good government;
- ? We will be harmed by the creation of new CEs using faulty reasoning that will abridge our ability to petition our government for redress of grievances because these projects are proposed to be excluded from administrative appeal;
- ? 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. Recommendation and Justification for How the Information Should Be Corrected

Petitioners request that the Forest Service correct its reliance on “observation” as a monitoring technique and instead rely on the use of “measurement” on all parameters and data points for monitoring soils (compaction, displacement, and ground cover), fish and wildlife (populations and trends), water quality (baseline and after implementation) and measurable data for other resources, where appropriate, as the best available and scientifically supportable methods for this rulemaking. We request that the Forest Service present the specific measurement techniques used and present the entire data set, including all project records that include the data to the public as part of the rule-making on the Forest Service’s web site. We also request that the Forest Service require their managers to re-evaluate their conclusions based on this data set. Subsequently, the Forest Service should start the rulemaking over.

Respectfully submitted for Petitioners by: René Voss



APPENDIX A – John Muir Project Summary of Resources Data Techniques

Total Timber sales Monitored: 154

Soil Monitoring Technique by:

- Observation	140	91%
- Measurement:	11	7%
- Other	2	1%
- Not Answered	1	0%

Water Monitoring Technique by:

- Observation	140	91%
- Photopoint	3	2%
- Measurement:	3	2%
- Other	5	3%
- Not Answered	3	2%

Air Monitoring Technique by:

- Observation	122	79%
- Photopoint	0	0%
- Measurement:	0	0%
- Other	19	12%
- Not Answered	13	8%

Listed and Sensitive Plants Monitoring Technique by:

- Observation	127	82%
- Photopoint	0	0%
- Measurement:	4	3%
- Other	16	10%
- Not Answered	7	5%

Listed and Sensitive Wildlife Monitoring Technique by:

- Observation	135	88%
- Photopoint	0	0%
- Measurement:	4	3%
- Other	8	5%
- Not Answered	7	5%

Listed and Sensitive Fish Monitoring Technique by:

- Observation	127	82%
- Photopoint	0	0%
- Measurement:	1	1%
- Other	13	8%
- Not Answered	14	9%

Other Vegetation Monitoring Technique by:

- Observation	131	85%
- Photopoint	2	1%
- Measurement:	13	8%
- Other	4	3%
- Not Answered	4	3%

Other Wildlife Monitoring Technique by:

- Observation	140	91%
- Photopoint	0	0%
- Measurement:	2	1%
- Other	5	3%
- Not Answered	7	5%

Other Fish Monitoring Technique by:

- Observation	127	82%
- Photopoint	0	0%
- Measurement:	0	0%
- Other	14	9%
- Not Answered	13	8%

Cultural and Historic Monitoring Technique by:

- Observation	123	80%
- Photopoint	0	0%
- Measurement:	4	3%
- Other	21	14%
- Not Answered	6	4%

Other Resources Monitoring Technique* by:

- Observation	55	79%
- Photopoint	0	0%
- Measurement:	4	6%
- Other	11	16%

* Cumulative of “Other Resources Monitoring 1-3”

Total Monitoring Data Points 1611 100%

Technique Used

Observation	1367	85%
Photopoint	5	<1%
Measurement	46	3%
Other	118	7%
Not Answered	75	5%



File Code: 1300/1900-1

Date: July 29, 2003

Mr. Rene Voss
John Muir Project/Earth Island Institute
P.O. Box 11236
Takoma Park, MD 20912

Dear Mr. Voss:

This letter is in response to your March 10, 2003, "Request for Correction of Information Contained in the Initial Data Set for Timber Harvest Effects Monitoring," related to the Forest Service's proposed limited timber categorical exclusions. Your request was submitted under the United States Department of Agriculture (USDA) Information Quality Guidelines. You filed this Request for Correction along with the Sierra Club and Heartwood. Your comments were directed at the January 8, 2003, Federal Register Notice at pages 1026-1030. You also provided this request concurrently with your comments submitted in response to the Federal Register Notice. The Forest Service responded in summary to your petition, along with responses to other comments, in the Federal Register notice containing the final agency National Environmental Policy Act (NEPA) procedures. The Federal Register notice, published July 29, 2003, may be viewed at <http://www.fs.fed.us/emc/lth/notice.pdf>. This letter responds in more detail to your request for "the correction of data and information used to monitor timber sales and suggested that the technique of 'measurements' must be used in place of 'observation' to comply with the USDA Information Quality Guidelines."

The Forest Service has given your request for correction careful consideration and your concerns have been thoroughly reviewed. According to USDA Quality Information Guidelines, the review of your request for correction must be based on the explanation and evidence provided in your request. We reviewed: (a) processes that were used to create and disseminate the information; (b) information being challenged; and (c) conformity of the information and those processes with both OMB and USDA Information Quality Guidelines.

Your request for correction of information asks that the Forest Service correct its reliance on "observation" as a monitoring technique and instead rely on the use of measurement on all parameters and data points for monitoring soils (compaction, displacement and ground cover), fish and wildlife (populations and trends), water quality (baseline and after implementation), and measurable data for other resources where appropriate. You request that the Forest Service, in so doing, present the specific measurement techniques used, present the entire data set, re-evaluate conclusions based on this data set, and start the rulemaking over.

The Forest Service evaluated the assessment of the 154 projects that provides the basis for its categorical exclusions, and found that this assessment complies with the USDA Information Quality Guidelines. The USDA Information Quality Guidelines, under "Objectivity of Regulatory Information" include the following: "Use reasonably reliable and reasonably timely



data and information (e.g., collected data such as from surveys, compiled information, and/or expert opinion).” The challenged “observation” is the use of expert opinion as allowed by the USDA Guidelines. The USDA Guidelines permit that within available timeframes and sources of funding, sometimes expert opinion may be the best scientific answer to a specific question. In addition to expert opinion the data quality was controlled using two methods. First, in addition to the documentation of professional judgment, respondents were also asked for their rationale. Second, data compilers were used to determine whether the rationale and the judgments were consistent. Where questions arose, the respondents were queried to clarify their responses.

The use of local expert opinion in resource disciplines such as soils, hydrology, fisheries biology, and wildlife biology is documented in the information on the study of the 154 projects, available on the website <http://www.fs.fed.us/emc/lth>. The first eight documents listed under “Background Information for Categorical Exclusions for Limited Timber Harvest” on this website pertain to the information requested from, and provided by, Forest Service field units. The last of these eight documents, Data Collection Methodology, details the methodology used in the data collection and review.

Forest Service resource specialists are highly trained, usually holding degrees in their specialties at the bachelor’s or master’s level. They are also provided ongoing training to assure currency in their discipline. They are familiar with current literature relating to their specialty and local area, as well as applicable laws, regulations, policies, and land and resource management plan standards and guidelines required for protection of the environment. They also possess field knowledge of local conditions. The combination of this expertise, complemented by the interdisciplinary approach used by the Forest Service in managing environmental resources, render the specialists well qualified to make site-specific judgments as to the effects of a particular practice on a particular resource in a particular area. Such expert opinions are appropriate for determining the individual and cumulative significance of effects on the human environment.

Furthermore, expert judgment is performed within the context of many protective laws, regulations and guidelines that operate at the larger scales, such as those of watersheds, and fish and wildlife populations. These include the Clean Water Act, the Endangered Species Act, and forest plan standards and guidelines. The best available scientific information goes into these regulations and guidelines. Regulators determine what actions and guidelines are needed to protect these resources at those levels. These guidelines then are used on each project at the local level. Expert judgment tests whether these guidelines are being followed when integrated with knowledge of current literature and experience with the local conditions.

The Forest Service carefully considered the information you provided. After consideration and review we conclude that the documented on-site observations of Forest Service resource specialists provide sufficient precision to determine the individual and cumulative significance of effects of limited timber harvest activities on the human environment. We 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 parameters and data points for monitoring soils, fish and wildlife, and water quality. Accordingly, the Forest Service will not be presenting any additional

measurement techniques or new data. The Forest Service will continue to rely on the reasoned conclusions based on the current data set and will not start the rulemaking over.

You may submit a request for reconsideration, if you are dissatisfied with this decision. Details on how to file a request for reconsideration can be found on the USDA website:

http://www.ocio.usda.gov/irm/qi_guide/index/html. The request for reconsideration should reference this letter and follow the “Procedures for Requesting Reconsideration of USDA’s Decision.” Please submit written material to support your case for reconsideration, and a copy of the information originally submitted to support the request for correction, and a copy of this response. Requests for Reconsideration filed after the 45-day deadline may be denied as untimely. All requests for reconsideration must be submitted by overnight delivery service, letter, fax, or email to:

USDA Forest Service
Data Quality Team Leader ORMS Staff
Mail Stop 1150 1S Yates Building
14th & Independence Avenue SW
Washington D.C. 20250-1150

Phone 202 205 2938
FAX 202 260 6539
Email gcontreras@fs.fed.us

If you should have additional questions please contact Glen Contreras, Data Quality Team Leader at (202) 205-2938, gcontreras@fs.fed.us, or Sharon Friedman, Ecosystem Management Staff at (202) 205-0939, sfriedman@fs.fed.us. We appreciate your continued interest in Forest Service activities.

Sincerely,

/s/ Frederick Norbury
FREDERICK NORBURY
Director, Ecosystem Management Coordination