August 6, 2009

Correspondence Control Unit
Attention: Information Quality Complaint Processing
U.S. Fish and Wildlife Service
1849 C Street, NW,
Mail Stop 3238-MIB
Washington, D.C. 20240
Rowan Gould,
Acting Director U.S. Fish and Wildlife Service

Department of the Interior
1849 C Street NW, Room 3012
Washington, DC 20240

RE: Request for Correction of Information in the Final Determination

Dear Mr. Gould:

This Request for Correction of Information (Request) is hereby submitted under the Information Quality Act (IQA)\(^1\) Guidelines issued by the United States Fish and Wildlife Service (FWS)\(^2\), the Department of the Interior (DOI)\(^3\), and the Office of Management and Budget (OMB)\(^4\). The OMB Guidelines provide the blueprint for the agencies subject to the IQA mandates, and these agencies have adopted administrative measures that are primarily procedural in nature, but incorporate OMB's substantive requirements as well. Since the FWS and DOI have each adopted Guidelines of their own

\(^1\) Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. No. 106-554, H R 5658) provides in full the following:

(a) IN GENERAL —The Director of the Office of Management and Budget shall, by not later than September 20, 2001, AND WITH PUBLIC AND Federal agency involvement issue guidelines under sections 3504(d)(1) and 3516 of title 44, United States Code, that provide policy and procedural guidance to Federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by Federal agencies in fulfillment of the purposes and provisions of chapter 35 of title 44, United States Code, commonly referred to as the Paperwork Reduction Act.

(b) CONTENT OF GUIDELINES —The guidelines under subsection (a) shall (1) apply to the sharing by Federal agencies of, and access to, information disseminated by Federal agencies, and (2) require that each Federal agency to which the Guidelines apply (A) issue guidelines ensuring and maximizing the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by the agency by not later than 1 year after the date of issuance of the guidelines under subsection (a); (B) establish administrative mechanisms allowing affected persons to see and obtain correction of information maintained and disseminated by the agency that does not comply with the guidelines issued under subsection (a); and (C) report periodically to the Director (i) the number and nature of complaints received by the agency regarding the accuracy of information disseminated by the agency, and (ii) how such complaints were handled

\(^2\) Available at www.fws.gov/informationquality

\(^3\) 67 Fed. Reg. 36642 (May 24, 2002)

which incorporate OMB's in their entirety, for the sake of clarity, all references will be made to OMB Guidelines in the discussion below.

The Sage Grouse Coalition (Coalition) is an affected organization and our members are affected persons within the meaning of the OMB Guidelines. We are a coalition of industry, farmers, ranchers and affiliated businesses who use lands inhabited by sage grouse and who depend upon the availability of those lands to conduct our normal businesses in 11 Western states. The Coalition is an organization that seeks to facilitate the delivery of accurate and timely information to Congress, regulatory agencies, and our members on issues that are pertinent to the FWS determination of whether the sage grouse should be listed under the Endangered Species Act (ESA). This letter constitutes our request that the FWS, consistent with the transparency requirements of the FWS IQA Guidelines, provide sufficient data and information to enable substantial reproduction of the results of the analyses which support the scientific assessments which are part of the following 2 documents:

1. June 2008, Western Association of Fish and Wildlife Agencies (WAFWA) - conducted new population trend analyses that incorporated an additional 4 years of data beyond the Connelly et al. 2004 analysis (WAFWA 2008)

These two documents were, and continue to be, disseminated by the FWS and provide highly influential information which was used in the 2005 listing determination for the Greater Sage Grouse which in and of itself is a highly influential scientific assessment as well as the pending listing determination pursuant to the Winmill Ruling. Specifically, information included in the WAFWA 2004 Report was used in the 12-Month Finding for Three Petitions to List the Greater Sage-Grouse as Threatened or Endangered (2005 Final Listing Determination) and continues to be referenced in documents related to the current ongoing status review (FWS 2008 Interim Status Review). In addition, the WAFWA 2008 trend analysis relies on WAFWA 2004, and both documents are used in the FWS 2008 Interim Status Review. Neither WAFWA 2004 nor WAFWA 2008 currently meet the transparency requirements of the FWS IQA Guidelines for highly influential scientific assessments.

The IQA provides that agencies should not disseminate substantive information that does not meet a basic level of quality. The more important the information, the higher the quality standards to which it must be held. The Final Listing Determination for the Greater Sage Grouse is a highly influential scientific assessment written in response to requirements of the ESA and the determination is based on highly influential scientific, financial, or statistical information included in the documents referenced above. The Final Listing Determination will have substantial impact on public policies or important private sector decisions as defined in the OMB IQA Guidelines.

The ESA requires that the FWS rely solely on the best scientific and commercial data available for listing decisions. The OMB Guidelines ensure that the data and analysis used by agencies is the best available for decisions made by agencies. The standards and procedures used by the FWS must ensure that the FWS's administrative mechanisms for information resources management and administrative practices satisfy the standards and procedural requirements of the OMB Guidelines. Currently, the WAFWA 2004 Report and the WAFWA 2008 Report fail to meet the requirements of both the OMB Guidelines for transparency and substantial reproducibility and thus require correction accordingly.

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5 CA, CO, ID, MT, ND, NV, OR, SD, UT, WA, WY
6 U.S. District Court, District of Idaho, Case No. CV-06-277-E-BLW, Memorandum Decision, Western Watersheds Project v United State Forest Service
7 Specifically 16 U.S.C §1536(a) 8 70 Fed Reg, supra, at p. 2675
In the context of the Sage Grouse Listing determination, strict adherence to the IQA will ensure decision-making based solely on the best available scientific and commercial data, as required by the ESA. Further, the rigor imposed by the substantial reproducibility requirement will enhance the quality and credibility of any future FWS scientific assessments where, as here, that information, when disseminated, has a clear and substantial impact on important public policies and private sector decisions, as defined in the Final Bulletin.

BACKGROUND

The content of the listing determination is important because, as stated in Bennett v. Spear, 520 U.S. 154, 157 (1997):

*The ESA requires the Secretary of the Interior to promulgate regulations listing those species of animals that are "threatened" or "endangered" under specified criteria, and [*158] to designate their "critical habitat."* 16 U.S.C. § 1533. The ESA further requires each federal agency to "insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary . . . to be critical." § 1536(a) (2). If an agency determines that action it proposes to take may adversely affect a listed species, it must engage in formal consultation with the Fish and Wildlife Service, as delegate of the Secretary, ibid., 50 CFR § 402.14 (1995), after which the Service must provide the agency with a written statement (the Biological Opinion) explaining how the proposed action will affect the species or its habitat, 16 U.S.C. § 1536(b) (3) (A). If the Service concludes that the proposed action will "jeopardize the continued existence [*293] of any [listed] species or result in the destruction or adverse modification of [critical habitat]," § 1536(a) (2), the Biological Opinion must outline any "reasonable and prudent alternatives" that the Service believes will avoid that consequence, § 1536(b) (3) (A). Additionally, if the Biological Opinion concludes that the agency action will not result in jeopardy or adverse habitat modification, or if it offers reasonable and prudent alternatives to avoid that consequence, the Service must provide the agency with a written statement (known as the "Incidental Take Statement") specifying the "impact of such incidental taking on the species," any "reasonable and prudent measures that the [Service] considers necessary or appropriate to minimize such impact," and setting forth "the terms and conditions . . . that must be complied with by the Federal agency . . . to implement [those measures]." § 1536(b) (4) . . .

In January 2005, the FWS published the Final Determination that listing of the Greater Sage Grouse under the ESA was not warranted (2005 Final Listing Determination). In December of 2007, in response to a lawsuit challenging the 2005 Final Listing Determination, U.S. District Court Judge Winmill remanded the 2005 Final Rule back to the FWS for revision. The FWS is currently undertaking a status review of the Greater Sage Grouse pursuant to the Court's direction. As part of that review, the FWS published an Interim Status Review in October 2008. This latest publication relies directly on the 2004 and 2008 WAFWA scientific assessments for which we are requesting sufficient data and documentation to enable a third party to substantially reproduce the results in both studies. Release of the requested information will satisfy the transparency requirements and enable third party substantial reproduction of the results of the WAFWA 2004 and WAFWA 2008 scientific assessments. Substantial reproduction will result in the studies meeting the Guidelines requirement for objectivity. Failure to provide sufficient data and information to allow such independent verification

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8 Such as biological opinions and critical habitat designations, which must rely on the contents of the listing determination for their determinations if the species is listed.
9 70 Fed. Reg. *supra* at p. 2675
and sensitivity analysis will result in the studies failing to meet the objectivity and transparency requirements of the OMB Guidelines.

This Request first discusses the context in which the 2004 and 2008 WAFWA scientific assessments should be evaluated as highly influential scientific assessments containing highly influential information, then reviews the IQA requirements for transparency of such information, and finally provides specific responses to questions posed by the FWS pursuant to OMB Guidelines.

Section 4 of the ESA already mandates that the FWS base listing determinations 'solely on the basis of the best scientific and commercial data available' and does not allow the FWS or any other agency to pick and choose when such data is used, ignore superior data or substitute hypothesis, theory, or supposition for data. The OMB Guidelines and the Final Bulletin set forth standards for ensuring the quality and credibility of the government's scientific information. As refinements of the IQA, which had little detailed information, OMB's implementing bulletins contain the necessary definitions to determine what is required of the FWS to comply with the provisions of the ESA requiring the use of the 'best scientific and commercial data available'. The information included in the 2004 and 2008 WAFWA Documents violates the ESA mandate that the best available data be the basis of decisions by its reliance on information that fails to meet basic IQA standards for information disseminated by a government agency. If the 2005 Final Determination is not corrected, its contents will be incorporated in successive FWS publications and perpetuate the use of information which fails to meet the OMB standards for objectivity. That, in turn, will affect the outcome of the status review and listing determination currently underway as required by Judge Winmill's order remanding the 2005 Final Decision to the FWS.

1. The Highly Influential Nature of the 2005 Final Determination is Evident When Considered in the Context of Persons Affected and the Economic Implications of Significant Regulatory Actions Across 11 Western States.

The potential listing of the greater sage grouse is of great importance to numerous resource and agricultural industries across the 11 affected states. Both renewable and non-renewable energy supplies could be adversely affected by a listing of the species which would have national implications. Further, resource-based industries such as farming, ranching, energy development and mining could be adversely affected by a listing determination. Affected members of these industries and activities form the Coalition. If the greater sage grouse is listed, then critical habitat with its attendant regulatory costs will follow. The 11 affected states represent 945,952 square miles or 710,174,720 acres, and a population in excess of 61,841,596. States with areas considered sage grouse habitat support resource-based activities that generate over $1.3 billion in tax revenues and $76 billion in sales. If the sage grouse is listed under the ESA and reduces those figures by only 1.0%, the costs would exceed $760 million. Because of the magnitude and scope of the potential effects of the listing determination, it clearly meets the threshold for a highly influential scientific assessment. As a result, information used in the determination is subject to the most rigorous standards described in the IQA Guidelines.

If the greater sage grouse is listed, it is likely that energy production will be significantly reduced, social and economic disruptions will occur throughout the listing areas and activities.
on federal, as well as private lands, will be severely curtailed or prohibited. Because of the significant social and economic consequences, well in excess of $500 million, it is imperative that only data which meets the standard of the IQA be the basis of listing under the ESA in order:

"...to ensure that the ESA not be implemented haphazardly, on the basis of speculation or surmise."\footnote{Bennett v. Spear, 520 U.S. 154, 176 (1997)}

2. The OMB Guidelines and Final Bulletin Refine and Add Definition of Terms to Which the FWS Must Adhere

As refinements of the IQA, which had little detailed information, OMB’s implementing bulletins contain the necessary definitions to determine what is required of the FWS to comply with the law. Further, the IQA standards are in harmony with the ESA’s requirement that the best available scientific data be used for decisions. Case law supports the interpretation of the ESA requirement for rigor, with courts finding that data need not be conclusive but must support the findings, and that determinations may not be based on mere supposition.\footnote{Ibid} If the objectivity of the information included in the 2004 and 2008 WAFWA documents cannot be verified due to a lack of transparency, it may not form the basis of a highly influential scientific assessment such as a listing determination. Failure of the FWS to adhere to its own guidelines may have the effect of allowing information which does not meet the IQA Standards becoming part of a new final rulemaking on the status of the greater sage grouse with potentially devastating consequences to Coalition members as well as others in the 11 affected states and the nation more generally.

A. OMB GUIDELINES

SUMMARY: The final guidelines implement section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Public Law 106–554; H.R. 5658). Section 515 directs the Office of Management and Budget (OMB) to issue government-wide guidelines that, "provide policy and procedural guidance to Federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by Federal agencies." By October 1, 2002, agencies were required to issue their own implementing guidelines that include "administrative mechanisms allowing affected persons to seek and obtain correction of information maintained and disseminated by the agency", which does not comply with the OMB guidelines. These guidelines apply to federal agencies subject to the Paperwork Reduction Act (44 U.S.C. §3502(1)). Federal agencies are required to develop information resources management procedures for reviewing and substantiating the quality (including the objectivity, utility, and integrity) of information before it is disseminated. In addition, agencies must establish administrative mechanisms allowing correction of information disseminated by the agency that does not comply with the OMB or agency guidelines.

The OMB Guidelines stress the importance of agencies implementing the standards in a common sense and workable manner. Agencies are required to apply the guidelines in a manner appropriate to the nature and timeliness of the information to be disseminated, and incorporate them into existing agency information resources management and administrative practices.
The IQA denotes four substantive terms regarding information disseminated by Federal agencies: *quality, utility, objectivity, and integrity*. The OMB Guidelines provide definitions that are designed to establish a clear meaning so that both the agency and the public can readily judge whether a particular type of information to be disseminated does or does not meet these attributes. In the guidelines, OMB defines "quality" as the encompassing term, of which "utility", "objectivity", and "integrity" are the constituents. "Utility" refers to the usefulness of the information to the intended users. "Objectivity" focuses on whether the disseminated information is being presented in an accurate, clear, complete, and unbiased manner, and as a matter of substance, is accurate, reliable, and unbiased. "Integrity" refers to security, the protection of information from unauthorized access or revision, to ensure that the information is not compromised through corruption or falsification. OMB modeled the definitions on the longstanding definitions in OMB Circular A-130, but tailored them to fit into the context of the guidelines.

This Request addresses specific failures of the FWS to meet the transparency and thus reproducibility requirements of the OMB Guidelines which are essential to meeting the objectivity requirement of the IQA Guidelines.

The 2004 and 2008 WAFWA Documents are in and of themselves highly influential scientific assessments and contain highly influential information and are therefore subject to the requirements of the IQA Guidelines. Their continued dissemination without compliance with the requirement for transparency and substantial reproducibility requirement of the guidelines has the potential to adversely affect members of the coalition specifically and citizens of the affected states and the United States more generally. The statements presented below present the Coalition's specific concerns with respect to the studies referenced in the this request.

**B. SPECIFIC RESPONSES TO REQUEST FOR CORRECTION PROCEDURES**

The FWS’s version of the OMB Guidelines requires that specific information be provided as part of the request for correction. The following is a list of the specific information requirements and our responses.

1. *Statement that the Request for Correction of Information is submitted under FWS Information Quality Guidelines.*

   This Request is submitted under the FWS Information Quality Guidelines.

2. *Requester Contact Information. The name, mailing address, telephone number, fax number, email address, and organizational affiliation (if any). Organizations submitting a request must identify an individual to serve as a contact.*

   Chris West
   Sage Grouse Coalition
c/o Pac/West
   8600 SW St. Helens Drive, Suite 100
   Wilsonville, OR 97070
   Phone – (503) 685-9400
   Fax – (503) 685-9405
   Email – west@pacwestcom.com

3. *Description of Information to Correct. The name of the FWS publication, report, or data product, the date of issuance or other identifying information, such as the URL of the web page.*
and a detailed description that clearly identifies the specific information contained in that publication, report, or data production for which a correction is being sought.

The Coalition seeks compliance with the transparency and substantial reproducibility requirement of the IQA guidelines with respect to the highly influential information included in the 2004 and 2008 WAFWA reports. Detailed specific request are included in the attachment to this request for correction entitled 'Specific Requests for Correction'.

4. Effect of the Alleged Error. Provide an explanation that describes how the requester specifically uses the information, how the alleged error affects the requester in a material way and how a correction would resolve the error.

The Secretary’s pending 12-month finding on a petition to list the greater sage grouse is a highly influential scientific assessment, as its contents and conclusions will govern the operations of federal lands under the control of BLM and the US Forest Service, agricultural activities, both non-renewable and renewable energy development, mining, ranching and agricultural activities on both federal, state and tribal, and private lands. The listing determination could result in significant regulatory actions. As the two reports contain highly influential information that was used in each of the previous status reviews (the 2005 and 2008 Interim Status Review) and that the outcome of the Final Status Review, which is a highly influential scientific assessment, will result in a determination whether to list the Greater Sage Grouse, it is clear that that both reports are subject to the most rigorous standards of the OMB Guidelines.

The FWS has already relied on the WAFWA 2004 report for the remanded 2005 final listing determination. The FWS has relied on both the WAFWA 2004 and WAFWA 2008 Scientific Assessments in its Interim Status Review of the Greater Sage Grouse which will inform the final listing determination on the Greater Sage Grouse.

Failure to provide transparency sufficient to allow qualified third parties to substantially reproduce the findings in these two reports violates the Information Quality Requirements imposed by Congress and defined in the OMB IQA Guidelines which are incorporated into the FWS IQA Guidelines. Failure to comply with the requirements of the OMB IQA Guidelines and explicitly correct the lack of transparency will potentially lead to the FWS failing to meet the ESA requirement that listing determinations be based solely on the use of the ‘best available data’ in making their listing determination.

The Coalition represents individuals who live, work and do business in the 11 affected states. Coalition members are vitally interested in a status review that meets the quality, objectivity, utility, and integrity directed by Congress. If the data and sufficient information necessary for a third party to ascertain its substantial reproducibility of the 2004 and 2008 scientific assessments referenced above are not available, the transparency and integrity requirements of the IQA will not be met. If these standards are not met, the FWS may not rely upon the contents of the studies in its listing determination before meeting the requirements of the OMB Guidelines.

By correcting the current lack of transparency, the FWS allows affected parties to review the work and ensure its findings and analyses are substantially reproducible and to also identify any existing sensitivity to assumption or analysis. Failure to
accomplish such review could result in errors in the listing determination and consequent harm to Coalition members if the Greater Sage Grouse is consequently listed unnecessarily. The injury to the Coalition members and their communities caused by those errors can be avoided by production of this information in a timely manner which allows independent analysis. Such independent analysis will also help to avoid a listing determination based on information which fails to meet requirements of the IQA and thus the ESA.

The OMB Guidelines support the requested disclosures, and IQA requires their prompt disclosure.

5. A specific description of how the information does not comply with OMB, DOI, and/or FWS Information Quality Act Guidelines. The petitioner should cite the specific locations in the text of the document where the alleged error occurs and should state specifically how the information should be corrected and why the corrections should be made.

The IQA requires that federal agencies ensure the quality, objectivity, utility and integrity of information (including statistical information) disseminated by the agency. The guidelines promulgated as a result of the IQA by OMB, DOI, and the FWS all define ‘quality’ as being a combination of utility, objectivity, and integrity.

The FWS definition of objectivity states:\[14\]:

III-8 Objectivity means ensuring information is unbiased. Objective information is presented accurately, clearly, and completely, and any limitations are stated explicitly. Objectivity involves two distinct elements: presentation and substance.

(a) Information disseminated by the FWS will be presented accurately, clearly, and completely.

(b) Information disseminated by the FWS will be treated in an unbiased fashion. In a scientific, financial, or statistical context, we will analyze the original and supporting data and develop our results using sound statistical and research methods to ensure, to a reasonable extent, that our results are not subject to bias. Where a potential for bias is identified, the FWS will address it.

The OMB Guidelines explicitly adopted by the FWS state:

Paragraph V.3.b.ii. "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."

Paragraph V.3.b.ii.B 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. These transparency standards apply to agency analysis of data from a single study as well as to analyses that combine information from multiple studies.

\[14\] http://www.fws.gov/informationquality/topics/IQAguidelines-final82307.pdf
i. Making the data and methods publicly available will assist in determining whether analytic results are reproducible.

6. Identification of any other public proceeding, including public comments, legal proceedings, or communications in which the requester has previously or is simultaneously requesting consideration of the same or similar corrections. Failure to provide such information will be considered an indication of a bad faith submission.

The Coalition and its members commented on the proposed listing which resulted in the 2005 Final Determination and have commented on the Interim Status Review. The Coalition has an IQA request for correction related to statements regarding the inadequacy of regulatory mechanisms described in the 2005 Final Listing Determination. In addition, some of the Coalition Members were parties to the proceedings in Judge Winmill’s Court, in that instance the Coalition Members were defending the Government’s position on the 2005 Final Determination.

The Coalition requests the identified information be corrected to achieve the transparency required by the IQA, so that courts, the public, Congress and the citizens of the affected states and those the Coalition represents have accurate, unbiased, complete, and clear information as required by the ESA and the IQA as to the existing regulatory protections for the greater sage grouse.

CONCLUSION

For the reasons stated above and in the attachments, the Coalition strongly urges the FWS to adhere to the legal requirements of the ESA and the IQA in evaluating this Request for Correction of Information. As required specifically in the DOI Guidelines, please notify us within 10 business days of your receipt of this letter. Thank you for your attention.

Sincerely,

Christopher L. West
Sage Grouse Coalition

Enclosure: Detailed Transparency List – Specific Requests for Correction

cc: Hon. Nancy Sutley, Chairman, Council on Environmental Quality
Hon. Ken Salazar, Secretary, Department of the Interior
Hon. Gary Locke, Secretary, Department of Commerce
Hon. Eric Holder, U.S. Attorney General
Hon. Cass Sunstein, Administrator, Office of Information and Regulatory Affairs-OMB
Affected Members of Congress:
   Colorado Delegation
   Idaho Delegation
   North Dakota Delegation
   Nevada Delegation
   Oregon Delegation
   South Dakota Delegation
   Utah Delegation
   Washington Delegation
   Wyoming Delegation
Detailed Transparency List - Specific Requests for Correction

- Request that the current transparency failures of the WAFWA 2004 and WAFWA 2008 scientific assessments be corrected by providing the following:

  ✓ Raw data on bird counts, including all ancillary information included (such as time of start and end of count, female and males counted, time of maximum count, disturbance, location relative to other leks, number of leks surveyed per year, number of counts per lek, etc), used in preparation of both assessments;

  ✓ Sufficient information on analytical and statistical methods used for each assessment to allow for substantial reproduction of the results;

  ✓ Summaries prepared and used for each assessment;

  ✓ Correspondence communicating the data for each assessment;

  ✓ Reports or correspondence by states explaining, including, or analyzing their data used by each assessment;

  ✓ Any other information necessary to substantially reproduce the results of WAFWA 2004 and WAFWA 2008.

WAFWA 2004 and WAFWA 2008 scientific assessments acknowledge data used in the assessments was collected across states and years with no standardized protocol. Such a lack of standardization typically requires assumptions and adjustments or manipulation of the available data which fundamentally transforms it. In order to substantially reproduce the results of the WAFWA 2004 and WFWA 2008 assessments, information as to assumptions and analytical methods is necessary.

The raw data collected was also associated with ancillary information (time of start and end of count, time of max count, disturbance, location relative to other leks, etc) - and these ancillary data were used to determine whether to include or exclude particular observations or subsets of the data in the analyses. The ancillary data and its use in data manipulation decisions is essential in achieving substantial reproducibility of the WAFWA 2004 and WAFWA 2008 results.
In WAFWA 2008, sage grouse data were analyzed for different time intervals and spatial arrangements. For time intervals, they went from 1965-2007 using: 1) 5 year intervals from 1965-2007, and 2) the following intervals: 1965-1985, 1986-2007, and 1965-2007. Spatially, the following trends were analyzed rangewide (as if it were one population), by state, by management zone, and by population. The following models were applied to these time intervals and spatial arrangements:

A) a constant count model;

B) a linear trend count model; and,

C) a quadratic count trend model to the time intervals 1) and 2) to see which "fit" the data best (using model selection based on Akaike Information Criterion).

Failure to provide such information would demonstrate that the results of the assessments are not substantially reproducible leading to the conclusion that the information in the reports is not the best available data under the ESA as it does not meet the quality requirements of the IQA.

Request that the current transparency failures of the 2008 WAFWA scientific assessment be corrected by providing all data collected in conjunction with the male lek counts provided by each state to WAFWA for both the 2008 scientific assessments and the WAFWA 2004 Conservation Assessment of Greater Sage Grouse Conservation. Please provide all data including, but not limited to:

✓ Raw data on lek counts, male sage grouse occurrence, female sage grouse occurrence;

✓ Methods used for conforming data;

✓ Summaries of data or other factors;

✓ Maps;

✓ Correspondence communicating the data;

✓ And any reports by states that were based on that data;

✓ Date, time, location or coordinates of count;

✓ Number of females observed;
✓ Other species present;
✓ Disturbance(s);
✓ Duplicate records;
✓ Observer, and observer’s agency;
✓ Any other ancillary data or observations (time of start and end of count, time of max count, disturbance, location relative to other leks, the number of leks identified each year and the number of counts per lek).

The data in both the WAFWA 2004 and WAFWA 2008 scientific assessment is filtered, and there is no way to tell which data was included or excluded and the effect of that inclusion or exclusion on the analytical and modeled results. Failure to provide such information makes it impossible to substantially reproduce the results of the scientific assessments. Further, it makes it impossible to perform any analysis of the sensitivity to assumptions used in the analyses. The lack of transparency leads to questions of potential bias and erroneous results. This particular request applies only to the WAFWA 2008 scientific assessment as its population analysis contents will supersede those of WAFWA 2004.

Failure to provide such information demonstrates that the results of the assessments are not substantially reproducible leading to the conclusion that the information in the reports is not the best available data under the ESA as it does not meet the quality requirements of the IQA.

- **Request that the current transparency failures of the 2008 WAFWA scientific assessment be corrected by providing a list of the specific criteria that were used to include or exclude lek data.**

  ✓ Provide the specific criteria that were used to include or exclude lek data by the states;

  ✓ Provide the specific criteria that were used to include or exclude lek data in the WAFWA Analysis.

In order to substantially reproduce the results of the assessments in the WAFWA 2008 report, it is essential to understand whether all lek data was included, and if not all lek data was included, the basis for inclusion or exclusion. We understand that some or all of the states may have made inclusion decisions at the state level affecting the information provided to WAFWA, or that the
exclusion/inclusion decisions were also made by the authors of the WAFWA reports. Accordingly, we have asked for the raw count data, and the basis for inclusions or exclusions both on the state and the WAFWA level. This information is necessary to fully understand and reproduce the final data set used by WAFWA in their analysis.

Failure to provide such information demonstrates that the results of the assessments are not substantially reproducible leading to the conclusion that the information in the reports is not the best available data under the ESA as it therefore does not meet the quality requirements of the IQA.

- Request that the current transparency failures of the 2008 WAFWA scientific assessment be corrected by providing a description of the basis for combining data from disparate leks to count them as a single lek. This information should include:
  
  ✓ Support in the scientific literature for consolidating small individual leks into one large geographically expansive lek at each sampling location;
  
  ✓ Support in the scientific literature for using 500m as a basis for the consolidation;
  
  ✓ Description of the method(s) used to measure the 500m distance;
  
  ✓ The number of individual leks before and after the consolidation exercise.

This data is necessary to understand any assumptions and the scientific basis for assumptions used in the analysis. Further it is necessary to be able to substantially reproduce the results of the assessments and identify the sensitivity of the outcomes to the underlying assumptions.

Failure to provide such information demonstrates that the FWS failed to adequately review the WAFWA 2008 scientific assessment results and that the results are not substantially reproducible leading to the conclusion that the information in the report is not the best available data under the ESA as it does not meet the quality requirements of the IQA.

- Request that the current transparency failures of the 2008 WAFWA scientific assessment be corrected by providing the final data set that WAFWA used in its 2008 analysis.

An unknown amount of variation in data that is the natural result of multiple states collecting data using multiple collection techniques over multiple decades
requires manipulation of the data in order to reduce error and bias. Our earlier requests for the raw data and assumptions are designed to allow the public to identify the specific manipulation that occurred in order to substantially reproduce the final data set. However, in order to verify substantial reproduction has or can occur, the final data set is necessary. Further, the final data set is necessary to be able to substantially reproduce the results found in the 2008 WAFWA Trend analysis.

Failure to provide such information demonstrates that the results of the assessments are not substantially reproducible leading to the conclusion that the information in the reports is not the best available data under the ESA as it does not meet the quality requirements of the IQA.

- **Request that the current transparency failures of the 2008 WAFWA scientific assessment be corrected by allowing quantification of the sources of bias in the assessment by providing the following information:**

  ✓ Assumptions used in the analysis of the final data set;
  ✓ Unequal sampling identified in the raw data and the corrections (if any) in the final data set;
  ✓ Any other identified sources of error or bias;
  ✓ Effects of data filtering on the output of analyses if such analysis was conducted;
  ✓ Any other analysis conducted on the data to identify sensitivity to analysis type, data manipulation, or assumptions.

This information will allow the public to understand the assumptions made by the authors and to identify to what extent those assumptions affect the outcome of the assessment.

Failure to provide such information demonstrates that the results of the assessments are not substantially reproducible leading to the conclusion that the information in the reports is not the best available data under the ESA as it does not meet the quality requirements of the IQA.

- **Request that the current transparency failures of the 2008 WAFWA scientific assessment be corrected by provision of any information used by WAFWA or provided to WAFWA on detection probabilities of male sage grouse. Specifically:**
A list of states which conducted studies on detection probabilities of male sage grouse;
A list of federal agencies which conducted studies on detection probabilities of male sage grouse;
Copies of any studies on detection probabilities of male sage grouse used by or available to WAFWA in conducting the analyses.

Such information is necessary to identify any implicit assumptions in the WAFWA analysis. This information is necessary to identify sensitivity to assumptions in the various analyses. Failure to provide such information demonstrates that the results of the assessments are not substantially reproducible leading to the conclusion that the information in the reports is not the best available data under the ESA as it does not meet the quality requirements of the IQA.

- Request that the current transparency failures of the 2008 WAFWA scientific assessment be corrected by providing sufficient information to allow the calculation of the inputs for analytical parameters used in the "R" statistical program for WAFWA (2008) analyses. Specifically:

- An explanation of the calculation of the average number of males to be seen on a lek in a season;
- An explanation of the calculation of the median maximum number of males to be seen on a lek in a season;
- How and what ancillary information was used to make determinations with respect to data inclusions or exclusions.

Such information is necessary to identify any implicit assumptions in the WAFWA analysis. This information is necessary to identify sensitivity to assumptions in the various analyses.

Failure to provide such information demonstrates that the results of the assessments are not substantially reproducible leading to the conclusion that the information in the reports is not the best available data under the ESA as it does not meet the quality requirements of the IQA.

- Request that the current transparency failures of the 2008 WAFWA scientific assessment be corrected by providing information regarding the analyses:

- The basis for the decisions to use only data collected between 1965 to 2007;
✓ The basis for the following special and temporal analyses (including, assumptions, models/analytical tools/data sets):
   a) 5 year intervals from 1965-2007
   c) rangewide (as if it were one population)
   d) by state
   e) by management zone
   f) by population
✓ The rationale and biological significance of the various special and temporal configurations.

Failure to provide such information demonstrates that the results of the assessments are not substantially reproducible leading to the conclusion that the information in the reports is not the best available data under the ESA as it does not meet the quality requirements of the IQA.

- Request that the current transparency failures of the 2008 WAFWA scientific assessment be corrected by providing the parameters and data used in the application of the Akaike Information Criterion.

Such information is necessary to identify any implicit assumptions in the WAFWA analysis. This information is necessary to identify sensitivity to assumptions in the various analyses.

Failure to provide such information demonstrates that the results of the assessments are not substantially reproducible leading to the conclusion that the information in the reports is not the best available data under the ESA as it does not meet the quality requirements of the IQA.

- Request that the current transparency failures of the 2008 WAFWA scientific assessment be corrected by providing the algorithms, or other identifying characteristics of raw data, assumptions and outputs from the application of the following models referenced:

   ✓ Constant count model;
   ✓ Linear trend count model;
   ✓ Quadratic count trend model.

Such information is necessary to identify any implicit assumptions in the WAFWA analysis. This information is necessary to identify sensitivity to assumptions in the various analyses.
Failure to provide such information demonstrates that the results of the assessments are not substantially reproducible leading to the conclusion that the information in the reports is not the best available data under the ESA as it does not meet the quality requirements of the IQA.

- **Request that the current transparency failures of the 2008 WAFWA scientific assessment be corrected by providing the scientific literature which supports a correlation between lek count data and population abundance.**

The WAFWA analysis relies heavily on the assumption that lek count data and population abundance are correlated. References to all scientific literature that WAFWA relied upon as a basis for the assumption or that discusses the relationship between lek count data and sage grouse abundance will help to understand the basis for the assumption used by WAFWA in both the 2004 and 2008 analyses.

Such information is necessary to identify any implicit assumptions in the WAFWA analysis. This information is necessary to identify sensitivity to assumptions in the various analyses.

Failure to provide such information demonstrates that the results of the assessments are not substantially reproducible leading to the conclusion that the information in the reports is not the best available data under the ESA as it does not meet the quality requirements of the IQA.

- **Request that the current transparency failures of the 2008 WAFWA scientific assessment be corrected by providing a list of states which were known to have or who provided population or aerial count data, in addition to lek count data.**

Such information is necessary to identify any implicit assumptions in the WAFWA analysis. This information is necessary to identify sensitivity to assumptions in the various analyses.

Failure to provide such information demonstrates that the results of the assessments are not substantially reproducible leading to the conclusion that the information in the reports is not the best available data under the ESA as it does not meet the quality requirements of the IQA.

- **Request that the current transparency failures of the 2008 WAFWA scientific assessment be corrected by providing the following information related to the**
'rebuilt' data set from Wyoming referenced on page 6 of the 2008 WAFWA Trend Analysis:

- Copies of the raw data related to the 'rebuilt' data set;
- Copies of the corrupted data, and an explanation of why the data was not appropriate for use in the analysis;
- An explanation of the assumptions, analysis, models or other manipulations which occurred in order to rebuild the data set;
- The final "rebuilt" data set which was used in the 2008 trend analysis.

Such information is necessary to identify any implicit assumptions in the WAFWA analysis. This information is necessary to identify sensitivity to assumptions in the various analyses.

Failure to provide such information demonstrates that the results of the assessments are not substantially reproducible leading to the conclusion that the information in the reports is not the best available data under the ESA as it does not meet the quality requirements of the IQA.