

**Before the U.S. Department of the Interior**

**U.S. Fish and Wildlife Service  
Washington, D.C.**

PARTNERSHIP FOR THE WEST	)	
	)	
	)	September 23, 2004
Challenger	)	
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v.	)	
	)	
	)	<b>Information Quality Act Challenge</b>
	)	<b>to U.S. Fish and Wildlife Service</b>
U.S. DEPARTMENT OF THE INTERIOR	)	<b>Dissemination of Information</b>
	)	<b>Presented in the petition to list, the</b>
Agency.	)	<b>90-day Finding and the WAFWA</b>
	)	<b>Assessment on the Greater Sage</b>
	)	<b>Grouse</b>
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**CHALLENGE OF PARTNERSHIP FOR THE WEST  
PURSUANT TO THE INFORMATION QUALITY ACT**

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To: 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

The Partnership for the West ("PFW") hereby submits this Challenge for Correction of Information pursuant to the Federal Information Quality Act, 44 U.S.C. § 3516 note ("FIQA"), the "Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies" issued by the Office of Management and Budget (67 Fed. Reg. 8452 (Feb. 22, 2002) ("OMB Guidelines"), as well as the "Information Quality Guidelines" of the U.S. Department of the Interior

("Interior Guidelines") and the U.S. Fish and Wildlife Service ("FWS Guidelines") collectively known as (the "Guidelines").<sup>1</sup>

This Challenge is directed toward dissemination of information by the U.S. Fish and Wildlife Service ("FWS") regarding: (1) the "90-day Finding for Petitions to List the Greater Sage-grouse as Threatened or Endangered" published at 69 Fed. Reg. 2148 (April 21, 2004) (the "90-day Finding") and the petitions to list the greater sage grouse pursuant to the Endangered Species Act ("ESA") upon which it was based; and (2) the June, 2004 Western Association of Fish and Wildlife Agencies' Conservation Assessment of Greater Sage-grouse and Sagebrush Habitats (the "WAFWA Conservation Assessment").

PFW submits that certain information disseminated by the FWS in the petition, the 90-day Finding and the WAFWA Conservation Assessment, does not satisfy the FIQA nor the Guidelines. Accordingly, this Challenge asks FWS to correct, retract or supplement information referenced in the petition, the 90-day Finding and the WAFWA Conservation Assessment concurrent with its status review of the greater sage grouse, and also seeks to ensure that all information disseminated by FWS meets the requirements of FIQA and the Guidelines. The ESA, the FIQA and the Guidelines require, respectively, that the FWS rely solely on the best available information and to correct or retract information that does not meet certain standards for quality. The FWS may correct the information it disseminated by deciding a listing is not warranted by December, 2004. For many other reasons outlined below, listing the greater sage grouse is clearly without merit.

## **I. EXECUTIVE SUMMARY**

Under the ESA, the FWS must utilize the knowledge and expertise of the States in making its decisions according to the best available science. As explained more fully herein, the influential information disseminated in the petition, the 90-day Finding and the WAFWA Conservation Assessment violate the FIQA and the Guidelines in that they overstate threats to the species and understate the exhaustive conservation efforts currently underway by federal agencies, eleven Western States, local working groups, private landowners and environmental groups. These monumental efforts far overshadow conservation efforts relied upon to delist other species in the past. These are more than enough to preclude listing under the FWS' Policy for Evaluation of Conservation Efforts When Making Listing Decisions ("PECE").

As described more thoroughly herein, the unprecedented cooperative federal, State, local and private conservation efforts for the greater sage grouse now underway could be severely hindered by a listing decision. Moreover, these efforts and existing regulatory mechanisms are more than adequate to protect a species that numbers in the hundreds of thousands and inhabits tens of millions of acres of habitat in eleven Western States and two Canadian Provinces. In this Challenge, PFW respectfully requests prompt correction or retraction under the FIQA and the Guidelines. Given flaws in the scientific conclusions regarding population trends, threats to the species and the lack of cause and

effect relationships, the FWS should foster the cooperative conservation efforts across the species' range and address the uncertainties and inaccuracies herein by determining that listing is not warranted by December, 2004.

## **II. LISTING THREATENS THE GREATER SAGE GROUSE**

### **A. Application of the PECE Policy**

The FWS' PECE policy establishes a consistent set of criteria to evaluate whether formalized conservation efforts, that have yet to be implemented or to show effectiveness, will improve the status of the species such that listing is unnecessary. Conservation efforts may preclude the need to list when they are sufficiently certain to be implemented and effective so as to have contributed to the elimination or adequate reduction of one or more threats to the species. 68 Fed. Reg. 1500, 15115 (2003) (emphasis added). Such is the case here. See, e.g. Western Governor's Association compilations of conservation efforts attached hereto and described herein.

As to the certainty conservation efforts for the greater sage grouse will be implemented: (1) there is a high level of certainty that the resources necessary to carry out the conservation efforts are available; (2) the numerous federal, state and local parties have the authority to carry them out; (3) ample and extensive regulatory and procedural mechanisms are in place to carry out the efforts; (3) there is a schedule for completing and evaluating the efforts; and (4) incentives included in the efforts will ensure the level of voluntary participation needed.

As to the certainty conservation efforts for the greater sage grouse will be effective under PECE, the conservation efforts: (1) describe the nature and extent of threats to be addressed and how the threats will be reduced; (2) establish specific conservation objectives; (3) identify the appropriate steps to reduce threats to the species; and (4) includes quantifiable performance measures to monitor compliance and effectiveness.

### **B. ESA Requires Consideration of Best Available Science**

Listing decisions under the ESA must be based upon the best available science. Certain of the information disseminated by the FWS neither meets this standard nor the FIQA or the Guidelines. The FWS will consider the risk of extinction, i.e. whether a species is in decline or at risk of decline and whether current or future actions will assist or threaten the species' existence. 68 Fed. Reg. 15100, 15113 (2003). Section 4(a)(1) of the Endangered Species Act states that the FWS must determine whether a species is threatened or endangered because of any of the following five factors:

- (A) the present or threatened destruction, modification, or curtailment of its habitat or range;

- (B) overutilization for commercial, recreational, scientific, or educational purposes;
- (C) disease or predation;
- (D) the inadequacy of existing regulatory mechanisms; or
- (E) other natural or manmade factors affecting its continued existence.

6 U.S.C. § 1533(a)(1).

### **C. Role of State Agencies in ESA**

Section 4(b)(1)(A) of the Act also requires the FWS to “take into account those efforts, if any, being made by any State or foreign nation, or any political subdivision of a State or foreign nation, to protect such species, whether by predator control, protection of habitat and food supply, or other conservation practices, within any area under its jurisdiction, or on the high seas.” 16 U.S.C. § 1533(b)(1)(A). The information disseminated by the FWS fails to properly consider such issues and requires correction.

In the Interagency Cooperative Policy Regarding the Role of State Agencies in Endangered Species Act Activities, (the Interagency Policy) the FWS expressly recognizes the primary authorities and responsibilities of the states for the management and protection of fish, wildlife and plants and their habitats within their borders. Interagency policy to clarify the role of State agencies in activities undertaken by the Services under authority of the Endangered Species Act of 1973, as amended (Act), and associated regulations in title 50 Code of Federal Regulations. 59 Fed. Reg. 34275 (1994). The Interagency policy emphasizes the importance of the states in conserving species prior to listing decisions. It also outlines interaction on listing decisions, consultations and recovery planning under the Act:

State agencies often possess scientific data and valuable expertise on the status and distribution of endangered, threatened and candidate species of wildlife and plants. State agencies, because of their authorities and their close working relationships with local governments, federal land managers and landowners, are in a unique position to assist the Services in implementing all aspects of the Act. In this regard, section 6 of the Act provides that the Services shall cooperate to the maximum extent practicable with the States in carrying out the program authorized by the Act. Id.

Prior to making listing decisions, the Interagency Policy provides that the FWS will:

- (1) Utilize the expertise and solicit the information of State agencies in determining which species should be included on the list of candidate animal and plant species,

- (2) Utilize the expertise and solicit the information of State agencies in conducting population status inventories and geographical distribution surveys to determine which species warrant listing,
- (3) Utilize the expertise of State agencies in designing and implementing prelisting stabilization actions, consistent with their authorities, for species and habitat to remove or alleviate threats so that listing priority is reduced or listing as endangered or threatened is not warranted and
- (4) Utilize the expertise and solicit the information of State agencies in responding to listing petitions. Id.

#### **D. Executive Orders**

The FWS must abide by an August 26, 2004 Executive Order requires the Department of the Interior, as well as other Departments, to “implement laws relating to the environment and natural resources in a manner that promotes cooperative conservation, with an emphasis on appropriate local participation in Federal decision-making, in accordance with their respective agency missions, policies, and regulations.” Exec. Order No. 13352.

The Department of the Interior and the FWS must also comply with Executive Order No. 13211. That order directs any agency that takes an action with a “significant adverse effect” on the supply of domestic energy resources to “appropriately weigh and consider the effects of the Federal Government's regulations on the supply, distribution, and use of energy,” and to prepare and submit to OMB's Office of Information and Regulatory Affairs (OIRA) a “Statement of Energy Effects” for their “significant energy actions.” Exec. Order No. 13211, 66 Fed. Reg. 28355 (2001).

#### **E. Unprecedented Conservation Efforts at Risk**

As the State of Colorado commented:

Colorado urges the U.S. Fish and Wildlife Service not to list the Greater Sage-grouse as threatened or endangered under the Endangered Species Act. The attached data, report of conservation actions both implemented and planned, local management plans, and other documentation, demonstrate that the species is showing signs of vigor not seen for decades in Colorado. Furthermore, the State is intensifying its efforts to conserve this species and will continue to do so.

Letter from Russell George, Colorado Department of Natural Resources, to Pat Deibert (July 29, 2004) (on file with the U.S. Fish and Wildlife Service).

The Utah Division of Wildlife Resources aptly stated, “we are concerned that an eventual listing of these species under the federal Endangered Species Act will only serve to encumber and deflate possible efforts underway to conserve this species through local working groups and Utah’s Habitat Initiative.” Letter from Kevin K. Conway, Utah Division of Wildlife Resources, to Bob Morgan, Utah

Department of Natural Resources (July 19, 2004) (on file with Utah Division of Wildlife Resources).

The Western Governor's Association compiles summaries of the "unprecedented" locally-driving efforts to conserve the sage grouse. WGA Conserving the Great Sage Grouse; Telling the Private Lands Story...Conservation of the Greater Sage Grouse – A Partnership Effort. These documents provide an exhaustive list of impressive on-the-ground work that would likely be compromised should the species be listed. Due to the breadth and scope of the efforts describe, these documents are attached hereto and incorporated herein as Exhibits A and B respectively.

The North American Grouse Partnership added:

The Western Governor's Association has highlighted a number of examples of ongoing conservation efforts, and other similar projects are underway including a joint project of the Grouse Partnership and the Nature Conservancy on the Crooked Creek Ranch in Idaho. Leaders among the oil and gas industry are implementing Best Management Practices and, in many cases, going beyond standard BMPs to test innovative ways to minimize impacts of their operations on grouse and other natural resource. Most, if not all of these efforts depend for their continuation and success on close cooperation and coordination among federal and state agencies, local governments, conservation organizations, industry and private landowners. Cooperation among groups with often divergent and/or conflicting objectives is a challenge at best, and we believe that listing the sage grouse could be counter productive to these efforts, and may assure failure of some.

Letter from Dr. James A. Mosher, North American Grouse Partnership, to Pat Diebert, U. S. Fish and Wildlife Service (July 28, 2004) (on file with U.S. Fish and Wildlife Service). Similar, yet less rigorous efforts, have been relied upon by the FWS to delist several species or withdraw proposed listings.

#### **F. A Listing Decision Would Harm the Greater Sage Grouse**

Listings often restrict the ability to manage for species and could even result in harm to the species. See Amara Brook, Michaela Zint, Raymond De Young, Landowners' Responses to an Endangered Species Act Listing and Implications for Encouraging Conservation, 17 Conservation Biology 1473, 1638 (Dec. 2003) (Where an extensive survey of landowners showed that many managed their land so as to avoid the presence of a listed species). Moreover, existing regulatory mechanisms are more than adequate to protect a species that numbers in the hundreds of thousands and inhabits 110 million acres of habitat in eleven Western States and two Canadian Provinces.

### III. SUMMARY OF FIQA CHALLENGE

On December 22, 2003, the American Lands Alliance and other Petitioners filed a “Status Review and Petition to List the Greater Sage Grouse (*Centrocercus urophasianus*) as Threatened or Endangered under the Endangered Species Act” (“Petition”). The FWS subsequently published a positive 90-day Finding on this petition. Finally, the FWS commissioned and disseminated the WAFWA Conservation Assessment. This challenge pertains to all three disseminated information products.

The petition and the 90-day Finding are replete with misstatements and misinformation regarding the population numbers, dispersal and distribution of greater sage grouse and alleged threats to the species. Due to uncertainties in lek counts, and conclusions based thereon, the WAFWA Conservation Assessment does not accurately portray trend lines. Such information violates the FIQA and the Guidelines. PFW has reviewed the information disseminated, and has incorporated other, independent reviews of this information. It finds some of this information to be fundamentally flawed in its foundational elements. In its review, PFW has identified flaws, errors, inaccuracies, contradictions, misstatements, misrepresentations, unsubstantiated positions and biased opinions too numerous to list. The information presented by category below merely represents examples of the major inadequacies contained in the Petition, the 90-day Finding and the WAFWA Conservation Assessment.

Can information disseminated be legitimate if it does not accurately interpret the literature cited? PFW’s review uncovered numerous instances where these facts and terminology are not presented correctly. Moreover, information disseminated in the petition, the 90-day Finding and the WAFWA Conservation Assessment was found to be biased and non-objective through its presentation and interpretation of the data – unreliable and inaccurate data at that. Some of the information disseminated by the FWS fails to meet the standards under the FIQA and the Guidelines in that it is fraught with uncertainty, bias and a lack of objectivity.

Often, the information disseminated lacks reference to any source. Opinions should not be represented as fact or dictate decisions that need to be made on scientific data. A thorough review found that a good portion of the literature cited has not undergone any form of technical or scientific evaluation. This does not represent disseminated information based on the best available science as required by the ESA, the FIQA and the Guidelines.

Moreover, there is nothing to indicate that FWS subjected this information to “pre-dissemination review” as required by the Guidelines. The data at issue are not presented in an “accurate, clear, complete, and unbiased” manner so as to satisfy the Guidelines’ objectivity requirements. In short, some of this information fails the FIQA and Guidelines’ requirements for substantive objectivity to ensure “accurate, reliable and unbiased information.” It fails to meet either the quality or objectivity standards discussed below.

#### **IV. THE FIQA AND THE INFORMATION QUALITY GUIDELINES APPLY**

The FIQA, Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L.106-554) provides few limitations on the scope or types of information that are included. OMB issued final government-wide guidelines on February 22, 2002. 67 Fed. Reg. 8452 (Feb. 22, 2002). Each Federal agency was also charged with promulgating its own Information Quality Guidelines. Both Interior and FWS have issued their own "conforming" Information Quality Guidelines, which specifically adopt OMB's Guidelines by reference.

The OMB government-wide guidelines impose three core responsibilities on the agencies:

- First, the agencies must embrace a basic standard of "quality" as a performance goal, and agencies must incorporate quality into their information dissemination practices. OMB's guidelines explain that "quality" encompasses "utility" (usefulness to its intended users), "integrity" (security), and "objectivity." "Objectivity" focuses on whether the disseminated information is accurate, reliable and unbiased as a matter of presentation and substance.
- Second, the agencies must develop information quality assurance procedures that are applied before information is disseminated. OMB believes that the practice of peer review plays an important role in the guidelines, particularly in establishing a presumption that peer-reviewed information is "objective."
- Third, the OMB government-wide guidelines require that each agency develop an administrative mechanism whereby affected parties can request that agencies correct poor quality information that has been or is being disseminated. Furthermore, if the public is dissatisfied with the initial agency response to a correction request, an administrative appeal opportunity is provided.

The 90-day Finding, the petition upon which it was based and the WAFWA Conservation Assessment (the "information disseminated") is subject to the FIQA and the Guidelines. Moreover, as discussed herein, some of the information disseminated fails to meet the standards for quality and objectivity under the FIQA and Guidelines as it is not accurate, reliable or unbiased in the matter of presentation and substance.

##### **A. Information Dissemination Product**

The OMB Guidelines define "Information Dissemination Product" as "any books, paper, map, machine-readable material, audiovisual production, or other documentary material, regardless of physical form or characteristic, an agency disseminates to the public. This definition includes any electronic document, CD-ROM, or web page." 67 Fed. Reg. 8452, 8460 (Feb. 22, 2002). The 90-day Finding, and implicitly the petition, was

published (and thereby disseminated) in the Federal Register. The WAFWA Conservation Assessment was disseminated electronically by the Department of the Interior and the FWS on its web page. Accordingly, such documents meet the definition of “information dissemination product.”

## **B. Dissemination**

OMB Guidelines define “Dissemination” as “agency initiated or sponsored distribution of information to the public.” 67 Fed. Reg. 8452, 8460 (Feb. 22, 2002). The petition, 90-day Finding and WAFWA Conservation Assessment were disseminated by the Department of the Interior and the FWS.

## **C. Rulemakings**

That the information disseminated relates to a matter open for public comment does not excuse the FWS from compliance with the FIQA and the Guidelines. Information present in rulemaking records, both completed and ongoing, comprises much of the information disseminated by federal agencies. Neither the FIQA itself nor OMB’s February 22nd agency-wide guidelines exclude rulemaking records from coverage. The FIQA and the Guidelines apply to listing decisions under the ESA.

Not allowing a FIQA challenge to correct this information before a decision on whether or not to promulgate a proposed listing rule would violate OMB’s Guidelines (and thus the Interior and FWS Guidelines), which require a timely correction process for correcting errors in all agency information made publicly available, including “preliminary information” used in agency rulemakings:

...agencies shall establish administrative mechanisms allowing affected persons to seek and obtain, where appropriate, *timely correction of information* maintained and disseminated by the agency that does not comply with OMB or agency guidelines. These administrative mechanisms shall be flexible, *appropriate to the nature and timeliness of the disseminated information*, and incorporated into agency information resources management and administrative practices.

i. *Agencies shall specify appropriate time periods* for agency decisions on whether and how to correct the information, and agencies shall notify the affected persons of the corrections made.

ii. If the person who requested the correction does not agree with the agency’s decision (including the corrective action, if any), the person may file for reconsideration within the agency. The agency shall establish an administrative appeal process to review the agency’s initial decision, *and specify appropriate time limits* in which to resolve such requests for reconsideration.

*OMB does not believe that an exclusion for preliminary information is necessary and appropriate. It is still important that the quality of preliminary information be ensured and that preliminary information be subject to the administrative complaint and correction process. (66 Fed. Reg. 49718, 49720 (Sept. 28, 2001)).*

67 Fed. Reg. 8452, 8459 (Feb. 22, 2002) (emphasis added). Moreover, a FIQA challenge may be undertaken separate and apart from the challenger's comments in a rulemaking. James T. O'Reilly, The 411 on 515: How OIRA's Expanded Information Roles in 2002 Will Impact Rulemaking and Agency Publicity Actions, Section 54:2, Admin. L. Rev. 835 (2002). The agency has both an APA duty to respond to comments and a duty to respond to challenges filed by any person under the FIQA. *Id.* at 836. The FIQA allows businesses, organizations, nonprofits, states, and other groups to check the [information disseminated by the agency] and to compel the agency to explain the errors in that data before the rulemaking is completed." *Id.* at 846 (emphasis added). Challenges may arrive before, during or after an agency disseminates that information. *Id.* at 847.

A September 5, 2002, OMB Memorandum further clarifies that agencies should respond to FIQA challenges sooner than provided in rulemakings, adjudications or other agency actions "to avoid the potential for actual harm or undue delay." John D. Graham, OMB, Memorandum for the President's Management Council on Agency Information Quality Guidelines, (Sept. 5, 2002). OMB recommended the following language to the agencies, "In cases where the agency disseminates a study, analysis, or other information prior to the final agency action or information product in those cases where the agency has determined that an earlier response would not unduly delay issuance of the agency action or information product and the complainant has shown a reasonable likelihood of suffering actual harm from the agency's dissemination if the agency does not resolve the complaint prior to the final agency action or information product." (*Id.*). The FWS adopted similar language in its guidelines. (*available at* <http://irm.fws.gov/infoguidelines/FWS%20Information%20Quality%20Guidelines.pdf> (hereinafter referred to as FWS Guidelines)).

The FWS must respond to the petition to list the greater sage grouse no later than a listing decision is expected (December, 2004). Reliance on uncertainties, inaccuracies, bias and misrepresentation in the information disseminated could result in a positive listing decision. A positive listing decision would affect PFW members and their interest in protecting the greater sage grouse from listing under the ESA. A listing decision would also affect tens of millions of acres of private, state and public lands throughout the West and have a chilling effect on extensive and ongoing federal, state and private conservation efforts now underway. To avoid actual harm to the PFW, the Western States, local governments, private landowners and stakeholders, the FWS must respond to this FIQA challenge and retract statements and conclusions based on uncertainties and correct bias and misrepresentation of the information disseminated by December, 2004. PFW believes these retractions and corrections will lead to a December, 2004 decision that listing the greater sage grouse is not warranted.

Where, as here, non-compliance with the guidelines presents “significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts,” the agency may use existing mechanisms to remedy the situation, “such as re-proposing a rule or supplementing a NEPA analysis.” (*available at* <http://www.doi.gov/ocio/guidelines/515Guides.pdf> (DOI Guidelines)). Corrective action in this case could include a retraction of the 90-day Finding or a December, 2004 decision that listing is not warranted.

#### **D. Quality as a Mandate and Performance Goal**

**Q:** Does the FWS embrace a basic standard of “quality” as a performance goal?

The OMB Guidelines implement § 3504(d)(1) of the PRA. 44 U.S.C. § 3516. Section 3504 (d)(1) requires that “with respect to information dissemination, the [OMB] director shall develop and oversee the implementation of policies, principles, standards, and guidelines to apply to Federal agency dissemination of public information, regardless of the form or format in which such information is disseminated....” 44 U.S.C. § 3504(d)(1). Congress clearly intended OMB’s FIQA guidelines to apply to all information agencies subject to the PRA. Moreover, the Department of the Interior guidelines also provide that its agencies will consider a FIQA challenge on information which did not appear in the rulemaking or other action. The WAFWA Conservation Assessment did not appear in the petition or the 90-day Finding and is therefore subject to a FIQA challenge.

Both FIQA and the OMB Guidelines require agencies to “ensure and maximize” the quality, objectivity, utility, and integrity” of information disseminated by federal agencies. FIQA §515(a), OMB Guidelines, § 11(2), 67 Fed. Reg. at 8458. “Utility” refers to “the usefulness of the information to its intended users, including the public.” OMB Guidelines, § V(2). 67 Fed. Reg. at 8459. (emphasis added). OMB explains that: “[i]n assessing the usefulness of information that the agency disseminates to the public, the agency needs to consider the uses of the information not only from the perspective of the agency but also from the perspective of the public. As a result, when transparency of information is relevant for assessing the information’s usefulness from the public’s perspective, the agency must take care to ensure that transparency has been addressed in its review of the information.” OMB Guidelines, § V(2). 67 Fed. Reg. at 8459 (emphasis added). Both the Interior and FWS Guidelines contain identical language. See Interior Guidelines, § VII(2); FWS Guidelines, § VI(2).

PFW believes the information disseminated violates the “objectivity” standard and the “utility” standard therein because they are not useful to the public because they are made without giving the public access to the underlying information. This prohibits the public from assessing the value and usefulness of the information. The public has reason to be skeptical anytime an agency uses or relies on information it has not made available to the public.

The scope of the Guidelines is broad. It spans information related to regulatory, statistical, research, and benefits programs. It covers all Federal agencies subject to the Paperwork Reduction Act, including the independent regulatory commissions. OMB's guidelines define "information" as "any communication or representation of knowledge such as facts or data" in any medium. There are no statutory exemptions. In other words, the FIQA applies to all information disseminated by federal agencies and neither OMB nor any federal agency has discretion to create any exemptions from the FIQA requirements.

The Department of Interior's Guidelines state that:

The department will ensure that information disseminated will be developed from reliable methods and data sources, and will otherwise ensure information quality at each stage of information development... Information released by the Department will be developed only from reliable data sources based on accepted practices and policies, utilizing accepted methods for information collection and verification. It will be reproducible to the extent practicable.

Interior Guidelines, § II.

Congress clearly intended the Guidelines to apply to all information that agencies in fact make public. Consequently, all third-party information that an agency makes public is subject to the Data Quality guidelines. "If third-party submissions are to be used and disseminated by Federal agencies, it is the responsibility of the Federal Government, under the Information Quality Act, to make sure that such information meets relevant information quality standards." OMB § 11 "Information Quality: A Report to Congress" (April 30, 2004).

The agency guidelines establish performance goals and procedures to assist in the agency's evaluation of all information for which agency dissemination is under consideration, whether that information was generated by the agency or by third parties. OMB § 11 "Information Quality: A Report to Congress" (April 30, 2004). The FWS Information Quality Guidelines suggest that third party information endorsed, adopted, disseminated or relied upon, must meet the quality, objectivity, utility and integrity standards required by the Data Quality Act and should be subject to the FIQA correction process (*available at* <http://irm.fws.gov/infoguidelines/FWS%20Information%20Quality%20Guidelines.pdf> (FWS Guidelines)).

Here, the agency has used, relied upon, and by implication endorsed third-party information (the petition) in developing and disseminating the 90-day Finding. The agency has used, relied upon and endorsed third party information (the WAFWA Conservation Assessment) in its review of the status of the greater sage grouse and to formulate or support a regulation, guidance or other decision or position. Id. Further, the FWS issued no disclaimers to explain that it did not or will not use, rely upon or endorse the information disseminated. Id. Agency personnel had involvement in the preparation

of the WAFWA Conservation Assessment. See p. 7-4. In fact, many Department of the Interior and FWS employees are listed contributors to the Assessment. The FWS then has the burden of ensuring that the information disseminated in the petition, 90-day Finding and WAFWA Conservation Assessment meets the quality, objectivity, utility, and integrity standards required by the Data Quality Act and implementing guidelines.

## E. Influential Information

Q: Does the FWS consider disseminating information that could support or refute a listing decision that would drastically impact activities and habitat on 110 million acres in eleven Western States as anything but “influential?”

The information disseminated in the petition, the 90-day Finding and the WAFWA Conservation Assessment readily qualifies as influential information. As OMB states, “[T]he more important the information, the higher quality standards to which it should be held . . .” 67 Fed. Reg. 8452 (Feb. 22, 2002). Ordinary information is distinguished from “influential” information -- that is, scientific, financial and statistical information having a clear and substantial impact on important public policies or important private sector decisions. “Influential” information is subject to higher standards of quality and should be reproducible by qualified third parties. The information disseminated in the petition, the 90-day Finding and the WAFWA Conservation Assessment is information of extreme importance to states, landowners, user groups and local conservation efforts.

The OMB Guidelines provide a higher standard than even peer review applies to influential information, namely a “substantial reproducibility standard.” 67 Fed. Reg. 8452, 8457 (Feb. 22, 2002). The FWS and the Department of the Interior have adopted, and indeed must adopt, the OMB Guidelines. In appropriate cases, as can be argued here, OMB encourages the agencies to consider “confirmation” as a standard in assessing the objectivity of original and supporting data. 67 Fed. Reg. 8452, 8457 (Feb. 22, 2002).

The OMB Guidelines define “influential” requests for correction as those of a substantive nature, which sought “something more than a straightforward webpage or data fix. “Influential” has also been defined to mean “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.” 67 Fed. Reg. 8452, 8455 (Feb. 22, 2002).

The FWS Guidelines define influential information as “scientific, financial or statistical information with a clear and substantial impact on important public policies or important private sector decisions” such as “information disseminated in support of the Director’s decisions or actions (e.g., rules, substantive notices, policy documents, studies, guidance), and issues that are highly controversial or have cross-agency interest or affect cross-agency policies.” (*available at* <http://irm.fws.gov/infoguidelines/FWS%20Information%20Quality%20Guidelines.pdf> (FWS Guidelines)).

The information disseminated in the petition, the 90-day Finding and the WAFWA Conservation Assessment is information of extreme importance. It qualifies under the Guidelines as substantive notices, policy documents, studies and guidance relied upon by the agency to make a listing decision that could affect multiple federal and state agencies, local governments, Tribes and private individuals in eleven Western States and on tens of millions of acres of private and public lands. This information is clearly “influential scientific, financial, or statistical information” that crosses state and agency boundaries and affects private and public decisions under the FIQA and the OMB and agency guidelines.

Accordingly, information such as that disseminated here, “must have a high degree of transparency regarding the source of information, assumptions employed, analytical methods applied, and statistical procedures employed” (*available at* <http://irm.fws.gov/infoguidelines/FWS%20Information%20Quality%20Guidelines.pdf> (FWS Guidelines)). Disseminated information will be corrected upon consideration of the most recent or thorough information from stakeholders, the public and the scientific community. Id. This challenge constitutes the most recent and thorough information.

OMB recognizes that the FIQA may also be used to correct the inadequate treatment of uncertainty. OMB “Information Quality: A Report to Congress” (April 30, 2004) (emphasis added) at 8. OMB’s FIQA priorities, as reported to Congress, include: increasing transparency, increasing timeliness of agency responses, increasing engagement of agency scientific and technical staff, and earlier consultation with OMB. Id. The FIQA requires agencies to issue guidelines ensuring and maximizing the “objectivity” of all information they disseminate. The OMB guidelines implementing the legislation define “objectivity,” and that definition includes a requirement that information be “unbiased” in presentation and substance. “Objectivity,” along with “unbiased,” is correctly considered to be, under the OMB guidelines, an “overall” standard of quality. 67 Fed. Reg. 8452, 8458 (Feb. 22, 2002).

The petition and the 90-day Finding are biased by the use of conservative, policy-driven assumptions, inferences, and uncertainties that are not supported by scientific data. The WAFWA Conservation Assessment inadequately treats uncertainties through presumptive interpretations of data and inaccurate portrayal of threats through differential treatment of environmental factors. Accordingly, the information disseminated does not meet FIQA standards for objectivity and must be retracted or corrected.

## F. Peer Review

■ Q: Has the FWS met the OMB standards on peer review?

The OMB guidelines state that information will generally be presumed to be objective if data and analytic results have been subjected to formal, independent peer review; however, this presumption is rebuttable “based on a persuasive showing by a petitioner in a particular instance.” 67 Fed. Reg. 8452, 8454 (Feb. 22, 2002). The OMB guidelines

also specify certain standards for agency sponsored peer reviews. The issue is what will be considered a “persuasive showing” that will overcome the presumption of objectivity under the proposed agency guidelines. OMB’s April 15, 2004 Revised Information Quality Bulletin for Peer Review (*available at* [www.whitehouse.gov/omb/inforeg/peer\\_review041404.pdf](http://www.whitehouse.gov/omb/inforeg/peer_review041404.pdf)) is closely related to the FIQA. Scientific peer review is a highly regarded, long-standing quality-assurance mechanism in the scientific community. OMB’s peer review standards discourage agencies from relying on reviewers with a vested interest, financial or otherwise, in matters they are asked to review. Effective and independent peer review can protect science-based agency action from political criticism and litigation.

The FWS Guidelines commit to meet OMB’s standards on peer review guidelines (*available at* <http://irm.fws.gov/infoguidelines/FWS%20Information%20Quality%20Guidelines.pdf> (FWS Guidelines)). In this case, they have not. PFW has pointed out with specificity many uncertainties and inaccuracies in the petition, the 90-day Finding and the WAFWA Conservation Assessment. To the extent there was peer review of this disseminated information, PFW has met the standard to rebut it.

### **G. Third-Party Proprietary Models**

Q: Are the models regarding alleged human footprints disseminated by the FWS in the WAFWA Conservation Assessment reproducible?

Q: Has the FWS demonstrated to OMB that there is no other option than to use the third-party models disseminated in the WAFWA Conservation Assessment?

Federal agencies often use various models developed by third parties to formulate policies based upon influential scientific information. Third-party models are sometimes asserted to be confidential and proprietary. The OMB Guidelines require that influential scientific information be reproducible. This reproducibility standard generally requires that the models used to develop such information be publicly available. The OMB guidelines further explain that when public access to models is impossible for “privacy, trade secrets, intellectual property, and other confidentiality protections, an agency “shall apply especially rigorous robustness checks to analytic results and documents what checks were undertaken.” 67 Fed. Reg. 8452, 8457 (Feb. 22, 2002).

If federal agencies believe they must use third-party proprietary models in order to carry out their regulatory duties and functions, then they should have the burden of demonstrating to OMB that no other option is available. The WAFWA Conservation Assessment relies extensively upon models (even models built upon models) to evaluate the alleged human footprint on sagebrush habitat. Such models seem to have been created, without outside review, expressly for the WAFWA Conservation Assessment and exhibit a complete lack of transparency and reproducibility. What little background presented to the public regarding the models is presented in a confusing fashion with only

vague references to the assumptions upon which it was based. As discussed below, the models and the conclusions based thereon in the information disseminated fail to meet the standards under the FIQA and the Guidelines and require correction or retraction.

## H. Robustness Checks

Q: Have robustness checks been done by the FWS for the voluminous materials disseminated with no opportunity for public review of their sources?

Q: Has the public been afforded other mechanisms for determining the objectivity, utility, and reproducibility of information that has not been disclosed?

To the extent the agency believes it cannot disclose certain information in the petition, the 90-day Finding and the WAFWA Conservation Assessment, but which are material to information that the agency does disclose, robustness checks are required for ensuring compliance with the FIQA because the public will not be afforded any other mechanism for determining the objectivity, utility, and reproducibility of this non-disclosed information. OMB explained in its February 22nd agency-wide guidelines that the “general standard” for these robustness checks is “that the information is capable of being substantially reproduced, subject to an acceptable degree of imprecision.” 67 Fed. Reg. 8452, 8457 (Feb. 22, 2002). Moreover, agencies must disclose “the specific data sources that have been used and the specific quantitative methods and assumptions that have been employed.” *Id.* The Department of the Interior Guidelines also provide “where the public will not be provided full access to the data or methodology, the Department shall apply and document especially rigorous robustness checks” and that “[I]n all cases, Departmental guidelines require a disclosure of the specific data sources used and the specific quantitative methods and assumptions employed.” (*available at* <http://www.doi.gov/ocio/guidelines/515Guides.pdf> (DOI Guidelines)). The FWS has insufficiently disclosed data sources and methodology in the information disseminated in violation of the FIQA and the Guidelines.

## I. Deadline for Deciding a Petition

Setting an appropriate, specific timeframe for agency decisions on information correction petitions is necessary to fulfill one of the key purposes of the FIQA amendments of the PRA – enabling parties to obtain correction of information. It is also required by OMB’s guidelines. Because the FWS will rely upon the petition, the 90-day Finding and the WAFWA Conservation Assessment in its listing decision, a correction of the uncertainties and inaccuracies contained in this disseminated information must take place by December, 2004.

## J. PFW Is An “Affected Person”

OMB's Guidelines also require each agency to establish administrative mechanisms that allow "affected persons" to seek and obtain the correction of information that does not

meet the OMB Guidelines. 67 Fed. Reg. at 8452. OMB makes clear that the purpose of the administrative mechanism is to "facilitate public review" of agency compliance with the Guidelines. *Id.* FWS's Guidelines provide that "affected persons or organizations" include "those who may use, be benefited by, or be harmed by the disseminated information" (*available at* <http://irm.fws.gov/infoguidelines/FWS%20Information%20Quality%20Guidelines.pdf> (FWS Guidelines)).

The definition of an "affected person" is fundamental to the operation of the FIQA because it determines who is eligible to file an administrative petition for correction of agency-disseminated information. The OMB Guidelines concluded that "affected persons are people who may benefit or be harmed by the disseminated information. This includes persons who are seeking to address information about themselves as well as persons who use information." 66 Fed. Reg. 49718, 49721 (Sept 28, 2001). Such a definition provides the public with a right to agency-disseminated information that meets high FIQA standards; and with a right to correct any publicly disseminated information that does not meet these standards.

PFW meets the definition of "affected person or organization." PFW is a broad-based alliance of people and organizations who support a clean environment and a healthy, growing economy. PFW includes more than 375 companies, associations, coalitions and individuals who collectively employ or represent more than one million citizens across America in the following sectors: farm/ranching, coal, timber/wood products, small businesses, utilities, hard rock mining, oil & gas, construction, manufacturing, property rights advocates, education proponents, recreational access advocates, county government advocates, local, state and federal elected officials, grassroots advocates and others. Members of PFW agree to work on core issues that have broad support among the membership, including efforts to protect the greater sage grouse, and PFW members, from an ESA listing.

As an associational entity, PFW has used information regarding greater sage grouse population numbers, dispersal and distribution as well as alleged threats to the species in its efforts to ensure that FWS meets its statutory obligations concerning the use of the best available science. Moreover, PFW members have used, and will use, the information disseminated to better inform and to guide in their business decisions. Moreover, PFW members are affected by information regarding greater sage grouse numbers, dispersal and distribution as well as alleged threats to the species. Where the species is located, how it disperses, and where it is distributed could have strict regulatory consequences, particularly regarding ESA Section 7 "consultation" and Section 9 "take" liability, as our members produce agricultural products and energy and natural resources from private and public lands that could be affected by a listing decision. PFW members can be "benefited by, or be harmed by" the faulty information at issue.

Listing the greater sage grouse throughout one or all of the eleven Western States would seriously impact PFW and its members. Section 7 consultations and Section 9 take prohibitions under the ESA would result in delays or outright prohibitions of activities on

tens of millions of acres of public and private lands throughout the West, as well as harm the greater sage grouse by providing disincentives to landowners to manage for the species.

As one thorough analysis summarizes:

Finally, it is necessary to note that a positive listing decision would have very significant negative impacts on the ability of the oil and gas industry to develop critical energy resources for the nation. The sagebrush biome largely coincides with the most prospective oil and gas development areas remaining within the Onshore U.S. These reserves are of considerable strategic importance. Increasing impediments to their development would be a very serious issue, not to be undertaken without an equally demonstrated concern.

Western Governor's Association, "Greater Sage-grouse Conservation Efforts and the Oil and Gas Industry: An Analysis showing the extensive Greater Sage-grouse conservation efforts conducted by the oil & gas industry across the West," at 94 (Aug. 17, 2004) ("WGA's O & G Analysis").

PFW is coordinating an extensive campaign across the West to save the greater sage grouse from a listing under the ESA. These grassroots efforts include the collection of data and the compilation of ongoing state, local and private conservation efforts for the greater sage grouse. PFW has established its interest in ensuring that our members, as well as the public at large, have the opportunity for open and robust debate regarding the information disseminated. Our efforts have been designed to ensure that FWS adheres to its commitments to make ESA decisions on the best available science.

This Challenge is the latest step in that regard.

## **V. THE INFORMATION DISSEMINATED VIOLATED THE FIQA AND GUIDELINES**

### **A. Lek Counts and Other Uncertainties Underestimate Populations**

Q: Has the FWS taken into account that many lek counts under-represent greater sage grouse populations because they were undertaken in poor weather conditions, during the wrong season or at the wrong time of day?

Q: Has the FWS independently verified the 33% of citations disseminated in the petition that were not scientific in nature?

Uncertainties and assumptions contained in the petition, 90-day Finding and the WAFWA Conservation Assessment underestimate population numbers and trends of the greater sage grouse and require immediate correction. The WAFWA Conservation Assessment failed to even recognize leks documented by many States simply because

records of grouse attendance were not made. This clearly under-represents the number of actual leks in existence. Walsh also states, “[D]isregard for unknown leks does not allow for rigorous inference from lek-count data and will negatively bias estimates. . . .”

Walsh, D.P., G. C. White, T. E. Remington, and D. C. Bowden. 2004. Evaluation of the lek-lekcount index for greater sage-grouse. *Wildlife Society Bulletin* 32:56-68.

Moreover, the WAFWA Conservation Assessment provides:

[s]ome states provided lek data indicating leks were censused at inappropriate times. p. 6-3.

A lack of data may make it difficult to know whether there is an absence of birds or whether there is inadequate documentation of existing birds. p. 6-15.

[l]eks were sometimes counted when conditions were windy, ceiling was overcast, and during rainstorms; in some cases counts were begun greater than 1.5 hours after sunrise (M. L. Commons- Kemner, personal communication). p. 11-3.

Because it is also likely that some males do not visit leks each day (Walsh et al. 2004) and females likely outnumber males in the population (Swenson 1986), the number of greater sage-grouse in western North America is probably much greater than the previous estimate. In part, this may be due to the apparent range-wide population increase between 1997 and 2003 (Chapter 6, Fig. 6.42). p. 13-5.

An evaluation of lek data indicated that some leks were counted incorrectly, because observers collected data too early or late in the breeding season, in poor weather and/or later in the morning. p. 6-6.

Sage-grouse trends also have varied dramatically on an annual basis. Although some of this variation was related to sampling technique and intensity (particularly in early years when fewer leks were surveyed), much of this variation also may be due to unexplored factors such as weather. p. 13-4.

Walsh goes on to say “Since lek counts are the product of number of birds observed on leks and probability of detecting birds on leks, fluctuations in lek counts may be the result of changes in this detection probability rather than true variations in population size.”

Nevertheless, WAFWA uses this unreliable data to develop suspect negative trend lines and contradicts itself by saying that grouse detection rates did not vary among years.

Walsh, D.P., G. C. White, T. E. Remington, and D. C. Bowden. 2004. Evaluation of the lek-lekcount index for greater sage-grouse. *Wildlife Society Bulletin* 32:56-68.

The FIQA requires disclosure of sources. But many sources are undisclosed. As the Petroleum Association of Wyoming (“PAW”) noted, “Based on an Anonymous BLM document, it is postulated on page 83 of the Petition that ‘If time to extinction is projected linearly from these trend lines, the sage grouse *may* be extirpated from the entire state of North Dakota by 2004.’” PAW letter to Regional Director Ralph Morgenweck (March 9, 2004) (on file with U. S. Fish and Wildlife Service).

PAW also states:

Keeping in mind that vast portions of the Petition contain no citations to the literature, it is instructive to examine and evaluate those works actually cited. Only 43 percent of the materials referenced have undergone the scrutiny of a review by scientific peers. Fully 33 percent of the references were not scientific in nature. Many documents were non-professional, others non-attainable. Many citations referenced e-mails, personal communications, and, in one instance, a quote from the ABC News. Some were inadequately referenced and much of the referenced material was simply unattainable. Inadequate citations, out-of-date materials, circulars, news articles and magazines are submitted as authority documents. Out of context or non-applicable documents were also included to provide authority. One of the key references cited (Patterson's 341-page book on Sage Grouse in Wyoming, 1952) was referenced 49 times in the first one-third of the Petition, but only seven of the citations included page numbers, making it very difficult and time consuming to locate the material referenced. In general, the Petition does not incorporate much of the most recent literature, which leaves out a lot of pertinent knowledge and facts. There is not a peer-reviewed journal in the world that would accept the unprofessional and incomplete citations contained in the bibliography of the Petition. . . . because of the great number/proportion of obscure, unobtainable, and inadequately referenced documents, our team was not able to find and make a complete review of all references cited in the bibliography of the Petition. Furthermore, given this high proportion of gray, obscure, and unavailable literature, PAW questions whether or not anyone, including the Service, would be able to make a complete review of all references cited.

Id. Accordingly, the population estimates and trend lines disseminated in the petition, 90-day Finding and WAFWA Conservation Assessment must be revised upwards.

As WGA's O&G Analysis references:

The difficulties of obtaining reliable information about a secretive avian species are apparent. It is also apparent that recent data are based upon more thorough and uniform monitoring methods and that these data strongly suggest that sage-grouse population trends have stabilized in most or even increased in some areas in the past twenty years. The period of the apparent greatest decline of the species also coincides with the period during which grazing appeared to decrease, predation appeared to increase, and federal land management agencies were making maximum efforts at expanding grazing rangeland at the expense of sagebrush habitat. It is not surprising that such efforts would be reflected in declines of sagebrush-obligate species.

WGA's O & G Analysis at 93.

## B. Misleading Estimates of Historic Populations

Q: Has the FWS taken into account that historical accounts of greater sage grouse populations are vastly overstated? How can historical accounts that greater sage grouse “blackened the sky” be reconciled with other information disseminated that suggest the greater sage grouse fly three-to-four feet above the ground?

Q: Has the FWS considered that: (1) for many species that have been delisted, additional survey work identified previously reported or additional populations; and (2) that additional survey work on the greater sage grouse is likely to result in the discovery of additional populations?

The petition, 90-day Finding and the WAFWA Conservation Assessment all contain inaccurate and misleading estimates of historic populations of greater sage grouse that fail to meet quality and objectivity standards under the FIQA and the Guidelines. For example, the high (16 million bird) historic estimate disseminated in the petition, 90-Day Finding and WAFWA Conservation Assessment is based on the untenable assumption of 10 birds per km<sup>2</sup> (25 birds per square mile).

As Dr. Chad C. Gibson explained:

The Lewis and Clark expedition only encountered “mountain cock” (later purported to be sage grouse) on one occasion east of the Rocky Mountains near the mouth of the Marias River in June of 1805, Ambrose, 1996. They did not again encounter the sage grouse, until approaching the confluence of the Columbia and Yakima Rivers on October 17, 1805. Notes from the second sighting indicate, “*This bird we have seen nowhere except on this river*”. The journal of Patrick Gass dated October 17, 1805 notes, “*In the plains are a great many hares and a number of fowls, between the size of a pheasant and turkey, called heath hens or grouse.*” MacGregor, 1997. These records indicate that an estimate of 25 birds per square mile in 1800 is absurd, particularly as it may relate to the entire range of the sage grouse.

The Finding makes an equally extraordinary density assumption of 1 bird per km<sup>2</sup> or 100,000 birds in 2000. Idaho Fish and Game check stations and hunter survey data for Owyhee County Idaho show the hunter take was 1,240 birds in 2001, 1,498 birds in 2002 and 1,835 birds in 2003, Rachael, IDFG pc, (2004). Using a standard assumed range of take between 5 and 10% of the population for 2001, the nearest year to the service estimate, the IDFG information suggests a population in Owyhee County alone of 12,400 to 24,800 birds. It is incredible that between 12 and 24% of the sage grouse population estimated by the service would have resided in Owyhee County in 2001. Furthermore, population estimates for Owyhee Count, based on a 5% take rate, would be over 29,900 birds in 2002 and 36,700 in 2003.

Dr. Chad C. Gibson, Review and Comment RE: Federal Register: April 21, 2004 (Volume 69, Number 77), 50 CFR Part 17, Endangered and Threatened Wildlife and Plants' 90-day Finding for Petitions to List the Greater Sage Grouse as Threatened or Endangered. (June 14, 2004)(on file with the U.S. Fish and Wildlife Service).

Even the WAFWA Conservation Assessment admits:

[w]e often lack the information necessary to estimate those dimensions of pre-settlement landscapes for comparison to current conditions and form (Knick et al. 2003). p. 5-12.

The lack of solid data on the presence of sage-grouse in most areas precluded attempts to divide the distribution into 'originally occupied' and 'acquired' portions. p. 6-10.

The history of sage-grouse on the Colorado Plateau is poorly documented, due in part to the small number of travelers and early changes in the region associated with settlement (Brown and Lowe 1980, Miller and Eddleman 2001). p. 6-14.

A lack of data may make it difficult to know whether there is an absence of birds or whether there is inadequate documentation of existing birds. p. 6-15.

[b]ecause data collected in the 1940s and 1950s is highly variable (Fig. 6.41) and may have been collected in a somewhat haphazard fashion, there is no means of assessing the true magnitude of the population change. p. 6-67.

The results of our analysis are somewhat ambiguous. Our data indicate that lek size has decreased but populations have increased. p. 6-28.

The relatively large decrease in active leks over the assessment period may be due to inconsistent data collection (Schroeder et al. 2000), a tendency of early biologists to only census active leks or an actual decrease in the number of active leks. Most likely it was a combination of these factors. p. 6-54.

The WAFWA Conservation Assessment and the other information disseminated do not take these uncertainties properly into account. Instead, they improperly purport to make comparisons between alleged historic populations and alleged habitat to current conditions. The following statements in the 90-day finding are also erroneous or based on inadequate information and must be corrected:

Approximately one-half of the original area occupied by sage-grouse is no longer capable of supporting sage-grouse on a year-round basis (Braun 1998). (69 Fed. Reg. 21484, 21490 (April 21, 2004)).

The petition, 90-Day Finding and WAFWA Conservation Assessment underestimate greater sage grouse populations. More accurate survey information is necessary from the Western States prior to the FWS making a positive listing decision. The information disseminated also improperly suggests the average clutch (number of eggs laid) size decreased substantially because of habitat degradation. Other data, more thoroughly discussed below, clearly refutes this notion and demonstrates average clutch sizes have remained constant. Accordingly, the information disseminated must be corrected or retracted.

The PAW is highly critical of the petition. They point out several examples of bias and misleading presentation. As discussed herein, the FWS relied upon the petition in the 90-day Finding. The FWS must correct the information it disseminated related to these issues that PAW highlighted:

P. 17 Calls the sage grouse a Phasianid which is incorrect. It is a member of the family Tetraonidae not the family Phasianidae. So the species is a Tetraonid, not a Phasianid.

P. 24 The actual bias in documenting copulations is that breeding by lek masters is exaggerated because copulations “out in the sagebrush” will not be observed. So if anything our view of probable inbreeding is overstated. Indeed, the relatively high genetic variability documented in Wyoming sage grouse (Diebert 1995) would not have been likely to be maintained if it were not for additional copulations being performed by males other than the master cock. Dispersal among leks is another mechanism that can be highly effective at maintaining genetic variation. The discussion here appears to be a bit confused because it is stated, “counting of copulations per se may overpredict mating success.” This is true for individual males, but not at the population level.

P. 33 The references to the comments by Ludwig (1999) regarding population viability analysis were taken a bit out of context. Ludwig asked whether or not we can reliably estimate the risk of extinction, and the answer was clearly no. The high variance surrounding estimates of vital rates indicate that we can have little or no confidence in long-term population trajectories that form the basis for most PVAs. This is a very serious problem for PVA, and a careful read of the Ludwig paper will reveal that each and every population of organism ever studied should be listed as threatened or endangered if you were to adopt the conservative principle of always erring on the side of conservation. The point that Ludwig makes is really quite devastating to PVA implying that it cannot be used for conservation decisions given that it has no predictive capability. I believe that Ludwig’s position is overly negative and that there are excellent opportunities for application of PVA for evaluating alternative management scenarios.

P. 34 This presentation claiming that PVA generally offers more pessimistic views on population viability as we learn more about additional factors is misleading. Fact of the matter is that additional information can lead to either an

increase or a decrease in risk of extinction. Density dependence is something that we know has a huge influence on extinction risk and it can result in either an increase or a decrease in extinction depending on trajectories of habitats. Likewise, individual variation has been shown to have complex consequences, and Gary C. White (2000) has argued that individual variation in dependence upon resources has a stabilizing effect that can greatly reduce the risk of extinction. The presentation here in the petition is one sided.

P. 34 The discussion regarding the 50/500 rule is again very biased and does not do a good job of reviewing relevant literature. Population genetics theory in general offers virtually no insight into a minimum viable population. A rigorous review of effective population size models by W. J. Ewens (1990; cited in my review of PVA) reveals no basis whatsoever for the 500 number. The number of  $N_e > 50$  has an empirical basis in island bird studies and animal breeding programs, but this basis does not depend on population genetics theory.

The petition incorrectly concludes that the best available science concludes that a population of  $N_e > 5,000$  is needed based on the 1995 paper by Lande. In 1997, Gilligan et al. published empirical data that contradicted the existence of genetic mutational load, albeit in *Drosophila*, and challenged Lande's notion that exceptionally large populations were necessary to ensure long-term population viability. Curiously the bibliography for the petition lists the Gilligan et al. (1997) paper but nowhere in the petition is the paper cited, again reflecting a biased presentation related to population viability. I have reviewed the literature that has cited the Gilligan et al. paper but have not found any substantive contradiction, that the Lande (1995) was a red herring, albeit still controversial.

P. 35 I cannot accept statements like: "Mr. Terry Ireland (a FWS employee in Grand Junction, Colo. who is familiar with sage grouse) stated that "10,000 individual birds are necessary to maintain a population for 100 years" (Summary of North Park Working Group Meeting 1999, p. 6)." There simply is no basis for knowing that 10,000 birds are needed. The number could be 1,000 or 100,000. We do not have sufficient understanding of the genetics or demography of the species to make such an assertion. The basis for listing must rely on the trajectory of decline for the species, and the response should be an attempt to rectify the changes in habitats that are causing the decline. A focus on MVP is indefensible given the absence of a theoretical or empirical basis for such a number.

P. 37 The discussion about demographic stochasticity probably is irrelevant. For the population to be small enough that demographic stochasticity might kick in, the population would need to be below the critical threshold of 50-100 that Clait Braun suggested (see above). Indeed, demographic stochasticity increases the probability of extinction for small populations, but again, checking insidious habitat losses is the real issue. With current populations at least in the tens of thousands in Wyoming and Montana, demographic stochasticity would only be a relevant concern in peripheral or isolated subpopulations.

P. 40 The discussion on Allee effects is overblown, especially given that there are very few examples of Allee effects in nature. Certainly the statement “Allee effects appear ubiquitous and occur across a wide range of taxa. . .” is an exaggeration. The fact is that an Allee effect has never been documented in a Tetraonid, so to claim that it is such a ubiquitous effect does not seem credible. That said, and the reason that Allee effects are so seldom observed is that they are difficult to document.

P. 41 The discussion about cultural inheritance is also a strictly theoretical rambling that has no documented consequence to grouse population viability. The reference to trophy hunting is entirely out of place and is entirely irrelevant to the conservation of sage grouse.

P. 50 Again we find blatant speculation that is misplaced and discredits what should be an important petition: “Moreover, if sub-dominant birds are the major source of gene flow among demes, then the alleles that are introduced into these small subpopulations may well be deleterious ones, thus depressing mean population fitness and increasing the risk of extinction.” This is strictly unknown and not likely to be true. Mixing of gene pools is perhaps one of the strongest mechanisms reducing the likelihood of inbreeding and thereby reducing the risk of extinction.

Mark S. Boyce, Comments on petition to list the Greater Sage Grouse for the Petroleum Association of Wyoming (March, 15 2004) (on file with U.S. Fish and Wildlife Service).  
Dr. Chad C. Gibson seems to have agreed:

Since the Service failed to disclose the sources, data and methods used for their estimates, [in the 90-day Finding] the public cannot respond to all potential deficiencies in the population information.” The wide disparity in population change estimates reported in the Finding (69 to 99%) is highly dependent on substantially unsupported assumptions as to possible bird density and habitat area. . . . There is no information presented to suggest that sage grouse population changes (based primarily on lek count data) during recent years of frequent west-wide drought are anything more than biological population fluctuations.

In addition, the populations estimated in the Finding are now several years old and are based on point-in-time information. Since sage grouse populations fluctuate over long cycles (8-10 years or more), point-in-time estimates are unreliable as an indicator of current population status. . . .

The Service should not dwell on pre-settlement population change resulting from habitat loss to towns, cities, agricultural development and infrastructure because that habitat loss cannot be recovered. Unless the population changes have enough impact on the general sage grouse population to put the remaining population at risk due to size, which has not been established, historic population change and habitat change are not relevant to survival of the species today. The Service

should instead focus on current sage grouse populations and habitat condition changes.

There is a critical need to analyze all current information (generally good information is not available prior to the 1960s) that can provide valid indicators of population change and distinguish long term population trends from fluctuations due to normal climatic and biologic influences. Because of the normal 10 year population cycle, 5-year rolling averages relative to lek count data, reproductive rate data (wing data) and hunter take and success rate data combined may provide information as to long term population trend. The same data over shorter time frames may be useful for identifying population fluctuations but cannot provide reliable census data. The Finding failed to provide, analyze and consider such data in any meaningful manner.

. . .The wide range of population estimates presented by the Service is neither informative nor useful. The gross decline from the 1800s, even if it were known, should not be a factor in a listing decision. The real issue is whether there is any current valid threat(s) to the continued existence of the current population of sage grouse over their remaining habitat range.

There is no data presented in the Finding that accurately and reliably distinguishes between long-term population change and population fluctuation over time relative to the past 30 to 40 years. Clearly, agricultural development, urbanization and civilization infrastructure has reduced the upper limit of potential population fluctuations, but that does not, by itself, pose any threat to the species. Information relative to sage grouse populations prior to 1960 becomes highly sporadic and speculative and cannot be used to provide reliable population data for comparison. More current data must be considered relative to the security of populations remaining on many millions of acres of the sagebrush-steppe.

Dr. Chad C. Gibson, Review and Comment RE: Federal Register: April 21, 2004 (Volume 69, Number 77), 50 CFR Part 17, Endangered and Threatened Wildlife and Plants' 90-day Finding for Petitions to List the Greater Sage Grouse as Threatened or Endangered. (June 14, 2004) (on file with the U.S. Fish and Wildlife Service).

The information disseminated understates populations and trend lines due to various inconsistencies and uncertainties as described herein. Some examples of how the FWS has considered population and range data in the past may be relevant.

- The FWS recognized that estimates of black-tailed prairie dog (“BTPD”) density varied depending upon the season, region, and climatic conditions. 69 Fed. Reg. 51217 (Aug. 18, 2004). Even though most prairie dog surveys do not estimate density (due to the associated effort and cost), the FWS relied upon new survey information from the Western States in its decision not to list the BTPD, and eventually, to remove the species from the candidate list. In the case of the BTPD, survey efforts by the States used varied methodologies. Nevertheless, this new survey information convinced the FWS that the BTPD was far from

- threatened or endangered. The FWS believed that estimates of BTPD occupied habitat provide the best available and most reasonable means of gauging populations and the status of the species across the extensive range of the species. 69 Fed. Reg. 51217 (Aug. 18, 2004). Accordingly, in the case of the removal of the BTPD from the candidate list, the FWS recognized the value in surveys completed by the Western States to provide more accurate estimates of occupied habitat. 69 Fed. Reg. 51217 (Aug. 18, 2004); see also Press Release, U.S. Fish and Wildlife Service, Black-tailed Prairie Dog Removed from Candidate Species List (Aug. 12, 2004).
- Extensive studies resulted in the discovery of additional populations and higher population estimates of the Rydberg milk-vetch were sufficient to subsequently delist the species. 54 Fed. Reg. 37941 (Sept. 14, 1989).
  - The FWS delisted the pine barrens tree frog where a considerable amount of potential habitat within the range had not been investigated, and results from surveys indicated much of that habitat was very likely to harbor the species. 48 Fed. Reg. 52740 (Nov. 22, 1983).
  - Extensive monitoring of the least chub indicated the status and range of the species improved. The FWS relied in part on the inclusion of only three previously known populations in its delisting decision. 64 Fed. Reg. 41061 (July 29, 1999).
  - Finding the Chiricahua dock, a 3- to 6-foot-tall perennial, to be more abundant and widespread than originally documented, the U.S. Fish and Wildlife Service withdrew its proposal to list the plant as threatened under the Endangered Species Act on August 9, 1999. Press Release, U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service Concludes that a Southwestern Plant is not Threatened (Aug. 9, 1999).
  - When studies were completed, researchers concluded that the Dismal Swamp southeastern shrew is more widespread than originally thought and is found in a wide variety of habitats throughout southeastern Virginia and the coastal plain of North Carolina. Press Release, U.S. Fish and Wildlife Service, Dismal Swamp Southeastern Shrew No Longer Needs Endangered Species Act Protection, (Mar. 3, 2000).
  - In response to a petition, FWS biologists found listing of the sicklefin and sturgeon chub unwarranted. They relied upon new information that indicated populations are more abundant and better distributed throughout their range than previously believed. Press Release, U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service Determines Sicklefin and Sturgeon Chub Do Not Warrant Listing as Threatened or Endangered (Apr. 19, 2001).

### C. Size of Population Negates Potential Threats

Q: Has the FWS considered, as they have for many other species, that a robust population in the hundreds of thousands and a vast range in the tens of millions of acres make localized impacts insignificant?

The petition, the 90-Day Finding and the WAFWA Conservation Assessment require correction or retraction because they fail to take into the resiliency of the species as demonstrated by the vast size of the population and range of the greater sage grouse. Greater sage grouse numbers are easily in the hundreds of thousands and inhabit tens of millions of acres in the West. Many species have been delisted or removed from candidate status with far less significant population numbers and ranges.

- The FWS withdrew the BTPD from candidate status despite significant variations in certain populations. In the 12-month finding for the BTPD, the FWS noted that urbanization represents a locally substantial loss of occupied habitat, but in a range-wide context it is not significant. The FWS further stated, given population estimates in Colorado and elsewhere, urbanization cannot be considered a threat at present or in the foreseeable future, either in Colorado or range-wide despite the fact that “considerable effects due to this factor have occurred in the past.” (69 Fed. Reg. 51217 (Aug. 18, 2004)).
- The FWS removed the peregrine falcon from the list of endangered and threatened species with only 1,650 peregrine breeding pairs in the United States and Canada. Press Release, U.S. Fish and Wildlife Service, The Peregrine Falcon is Back!, (Aug. 20, 1999).
- The FWS withdrew its proposal to list the mountain plover where the current total population of mountain plovers was estimated to be between 5,000 and 11,000 individuals. 68 Fed. Reg. 53083 (Sept. 9, 2003); see also Press Release, U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service Withdraws Proposal to List the Mountain Plover as a Threatened Species, (Sept. 8, 2003).
- Due to the size of the current Aleutian Canada goose population (37,000 individuals) and the management practices on currently used goose habitats, the FWS believed that potential threats such as development, variable market conditions, changing agricultural practices, and adverse climactic conditions did not threaten the continued survival of the species. The FWS stated it believed that the size of the population was such that it would have time to intervene on behalf of the subspecies should any of these become threats to the continued survival of the subspecies. 66 Fed. Reg. 15643 (Mar. 20, 2001); see also Press Release, U.S. Fish and Wildlife Service, An Endangered Species Success Story: Secretary Norton Announces Delisting of Aleutian Canada Goose, (Mar. 19, 2001).

- The FWS stated that the historic range of the sicklefin and sturgeon chub had been reduced, but given stable, self-sustaining populations remain widely distributed throughout their range, listing was not warranted. The Service traditionally sampled chub populations using seines to collect fish in shallow water, but in 1994 biologists started conducting studies using benthic trawls to sample fish populations in deep water habitats where seines are ineffective. This change of practice resulted in significantly more captures of the species than previously expected. Press Release, U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service Determines Sicklefin and Sturgeon Chub Do Not Warrant Listing as Threatened or Endangered, (Apr. 19, 2001).

Despite estimates that the sicklefin chub currently occupies only 54 percent of its historic range in the Missouri River basin and the sturgeon chub occupies only 55 percent of its historic range in the Missouri River, and that the sturgeon chub is found in only 11 of the 30 tributaries of the Yellowstone and Missouri Rivers where they have been historically collected, the FWS declined to list the species. Despite citing a “serious decline” in the species, and the FWS’ real concern about sicklefin and sturgeon chub populations and the health of the Missouri River ecosystem, the FWS declined to list the species. The FWS did commit to continue to closely monitor the chub populations and to revisit possible listing if new information regarding the status of the species’ becomes available. *Id.*

- Mining and road construction were cited as localized threats to the Rydberg milk-vetch, “but because of the increase in numbers and range of known populations, they no longer constitute[d] a significant threat to [the species]” and the species was delisted. 54 Fed. Reg. 37941, 37942 (Sept. 14, 1989).
- The FWS determined not to list the Western sage grouse on February 7, 2003. The FWS determined not to list the Eastern sage grouse on January 7, 2004. The FWS should, then, determine not to list the greater sage grouse. “All are but parts of one stupendous whole . . . .” Alexander Pope.

#### D. Federal Laws and Federal Land and Management

Q: Has the FWS overlooked the tens of millions of acres of greater sage grouse habitat owned and/or managed by the federal government in its assessment of regulatory measures?

Q: Did the FWS err in its previous decisions to withdraw the black-tailed prairie dog from candidate status or delist the mountain plover, the pine barrens tree frog, the peregrine falcon, Aleutian Canada goose, the sicklefin chub, sturgeon chub, the Chiricahua dock, the flat-tailed horned lizard, the Hoover’s woolly-star, the McKittrick Pennyroyal, the Robbins cinquefoil and the Rydberg milk-vetch (species with far fewer protections than the greater sage grouse)?

The petition, the 90-day Finding and the WAFWA Conservation Assessment should be corrected to properly take into account the greater sage grouse inhabit tens of millions of acres of federal lands and are currently protected by a vast array of federal environmental and land management statutes and directives, including, but not limited to: the Federal Land Policy and Management Act (“FLPMA”), the National Forest Management Act (“NFMA”), the National Environmental Policy Act (“NEPA”), the Clean Water Act, the Sikes Act, the National Park Service and U.S. Forest Service Organic Acts, the Bureau of Land Management (“BLM”) Manual, the U.S. Forest Service Sensitive Species List and the efforts by the FWS and BLM with the States on the Sage Grouse Conservation Planning Framework Team. Such laudable efforts currently protect the sage grouse and its habitat. Many federal agencies, particularly the BLM, already have a long list of management activities and stipulations to protect the greater sage grouse.

The BLM is responsible for managing approximately 699.7 million acres of the oil and gas resources in the United States on lands administered by the Forest Service, Fish and Wildlife Service, Department of Defense, and BLM. BLM also oversees minerals operations on 56 million acres of Indian lands. In addition to Section 6 of the federal oil and gas lease form, the NEPA process for permitting projects and the Interagency Gold Book, WGA’s O&G Analysis outlines many important federal and state laws, policies and regulations:

**There is a high level of certainty that the legal procedural requirements will be met.** Among the more important regulations relating to management of the public lands and to regulation of oil and gas development on the public lands are:

- Mineral Leasing Act (1920) (30 USC 181-263, as amended) – Authorizing the Secretary of the Interior to issue leases for the disposal of certain minerals (currently coal, phosphate, sodium, potassium, oil, oil shale, gilsonite, and gas), including leases beneath National Forest surface.
- Mineral Leasing Act for Acquired Lands (1947) (30 USC 351-359 as amended) - Stating that all deposits of coal, phosphate, oil, oil shale, gas, sodium, potassium, and sulfur that are owned or may be acquired by the United States shall be leased by the Secretary of the Interior under the same provisions as contained in the mineral leasing laws.
- Forest and Rangeland Renewable Resources Planning Act (1974) (16 USC 1600-1614) - Which regulated the planning and management of renewable resources on national forest lands.
- Sikes Act (1974) (16 USC 670g, *et seq.*, as amended) - Directs the Secretaries of the Interior and of Agriculture to develop, maintain, and coordinate wildlife conservation programs in cooperation with state agencies.
- Federal Land Policy and Management Act (FLPMA) (1976) (43 USC. 1701 *et seq.*) - Authorizing the Secretary of the Interior to manage the public lands for multiple uses so as to protect environmental qualities and to regulate the disposal of the public lands.
- National Forest Management Act (NFMA) (1976), (16 USC 1600 *et seq.*, as amended, 36 CFR 219.6) - Authorizing the Secretary of Agriculture to develop

management programs based on multiple-use, sustained yield principles and implement a resource management plan for each unit of the National Forest System.

- Federal Onshore Oil and Gas Leasing Reform Act (FOOLGRA) (1987) (30 USC 195, 226-3) - Granting the Secretary of Agriculture expanded authority over oil and leases and approval of surface disturbance.

BLM also regulates approval of operations and manages oil and gas drilling activities on the federal public lands through its Onshore Oil and Gas Orders. Orders of particular importance to sage-grouse conservations efforts include:

- Onshore Order No.1 - Approval of Operations
- Onshore Order No. 2 - Drilling Operations
- Onshore Order No. 7 - Disposal of Produced Water

Collectively, these regulations provide authorization to the BLM and USFS to apply restrictions to oil and gas development on federal lands and on federal split-estate mineral situations. The regulations provide full authorization to institute conservation measures designed to protect sage-grouse and other species of concern.

At the state level, each of the oil-producing states has authorized oil and gas regulatory bodies to govern oil and gas development within their borders. Other state agencies, such as the departments of environmental quality, may apply additional restrictions to ensure that oil and gas industry operations are conducted in an environmentally safe manner.

Cooperation between the state wildlife agencies of the sage-grouse states and the BLM, USFS, and USFWS is authorized by the Memorandum of Understanding (MOU) of August 2000. Provisions of that agreement include (BLM, 2001):

- The States will convene working groups to develop State or local sage grouse and sagebrush conservation plans;
- An interagency Conservation Planning Framework Team will be established to develop a range-wide Conservation Framework;
- The MOU Parties will begin collecting, analyzing and distributing sage-grouse population and habitat data to the working groups for conservation planning purposes.

All of these provisions are currently being acted upon. The MOU also requires the BLM, USFS and FWS to:

- Provide for habitat protection, conservation and restoration consistent with the National Environmental Policy Act and other applicable laws, regulations, directives, and policies;

- Consider the WAFWA Guidelines for Management of Sage-grouse Populations and Habitats, State and Local Conservation Plans, and other appropriate information in their respective planning processes; and,
- Work together to identify research needs and strategies and conduct joint assessments, monitoring and research.

As will be discussed below, as recognition of threats to the sage-grouse population has become more widespread, the number and extent of conservation measures incorporated into RMPs has consequently increased.

The majority (70%) of existing sagebrush habitat is publicly owned and managed by a state or federal agency. The U.S. Bureau of Land Management (BLM) manages approximately 50% of existing U.S. sagebrush habitat (Connelly *et al*, 2004, pg. ES-1). This figure somewhat understates the importance of BLM oversight with respect to the oil and gas industry. The BLM is authorized by the federal government to be the agency solely responsible for issuing federal oil and gas leases and permitting drilling applications.

Western Governor's Association, "Greater Sage-grouse Conservation Efforts and the Oil and Gas Industry: An Analysis showing the extensive Greater Sage-grouse conservation efforts conducted by the oil & gas industry across the West," at 39-41 (Aug. 17, 2004) (emphasis in original).

Moreover, 43 CFR 1600, Planning, Programming, Budgeting, contains the regulatory authority for resource management planning, which guides the development of and revisions to BLM's land use plans which in turn designate areas of critical environmental concern and impose other measures that are utilized to manage sage grouse and other species of concern, including their habitats.

The Natural Resource Conservation Service has also prepared a strategy for focusing conservation programs that use incentives for private landowners to conserve or enhance Sage-grouse habitat. Letter from Dr. James A. Mosher, North American Grouse Partnership, to Pat Diebert, U.S. Fish and Wildlife Service (July 28, 2004) (on file with U.S. Fish and Wildlife Service).

As PAW points out in its March 9, 2004 letter to Ralph Morgenweck, reclamation practices and other requirements imposed through BLM and USFS land management plans are used to allocate land uses on federal lands. Important wildlife habitats are identified and protected in these plans through lease stipulations that define areas of year-round no surface occupancy or identify periods during which construction and drilling operations are restricted. *Id.* In addition to land use plans, all federal agencies are required to perform an environmental analysis of proposed projects on public lands. Western Governor's Association, "Greater Sage-grouse Conservation Efforts and the Oil and Gas Industry: An Analysis showing the extensive Greater Sage-grouse conservation efforts conducted by the oil & gas industry across the West," at 12 (Aug. 17, 2004). The environmental analysis is driven by the type of project that is proposed, issues identified by the public, conformance with land use plan requirements, and interagency acquisition

of and exchange of information pertinent to protection of important wildlife species and habitats. Id.

The BLM requires producers to post reclamation bonds prior to surface disturbing operations and enforces very rigid and specific interim and final reclamation requirements on areas disturbed by oil and gas drilling, roads or pipelines. The seed mix on areas disturbed by oil and gas activities must include species beneficial to wildlife, including sage-grouse. Reclamation bonds are released only after BLM or USFS certifies the success of reclamation efforts.

The BLM has also committed to several conservation efforts to protect the greater sage grouse in addition to the many statutory and regulatory measures already in place. The following examples of the numerous measures in place to conserve the greater sage grouse should be recognized by the FWS:

The vision of the National BLM Sage-Grouse Habitat Conservation Strategy is to manage public land in a manner that will maintain, enhance, and restore sage-grouse habitats while providing for multiple uses of BLM-administered public land.

Under FLPMA, “wildlife habitat management” is one of many dimensions included in BLM’s multiple use mandate. . .

The BLM has a special Status Species Policy (BLM Manual 6840) that states “...the BLM shall implement management plans that conserve candidate species and their habitats and shall ensure that actions authorized, funded, or carried out by BLM do not contribute to the need for the species to become listed” (section 6840.06C).

### **Regulations**

. . . For the BLM, there are several sets of regulations associated with implementing FLPMA and other laws. Most of the regulations that may affect BLM management guidance concerning sage-grouse management are found in Section 43 Code of Federal Regulations although some, such as the Council of Environmental Policy regulations, are found in other portions of the CFR.

43CFR Subpart C, Minerals Management 3000 Series, contains regulatory authority for BLM operations, enforcement and reclamation of minerals actions on public lands.

43CFR Subpart 4120, Grazing Management, contains the regulatory authority for grazing administration, use authorizations, permit terms and conditions for achieving resource condition objectives. Subparts 4140-4170 outline prohibited acts, enforcement, and penalties. Subpart 4180 is an example of how regulations provide direction for sage-grouse conservation. Within the scope of these grazing regulations, 43 CFR 4180.2(d), are included specific direction to the BLM State

Directors to develop standards that among other things would address:

- “(4) Habitat for endangered, threatened, proposed, candidate, or special status species; and;
- (5) Habitat quality for native plant and animal populations and communities...”

In addition, Subpart 4180.2(e) requires development of guidelines to address:

- “(9) Restoring, maintaining or enhancing habitats of Federal proposed, Federal candidate, and other special status species to promote their conservation.”

### **BLM National Policy Guidance**

Policy guidance further defines or clarifies how laws and regulations will be administered. Policy direction is in the format of either a policy statement or as manuals or handbooks. Policies are particularly useful as guidance to avoid conflicts with related laws and regulations. Federal agency policies concerning sensitive species are a good example. . . . Agency policy provides this direction for sensitive species conservation and fills this regulatory gap. There are two main sets of policy guidance that currently provide direction for sage-grouse conservation efforts.

#### **• BLM Special Status Species Management – Manual 6840**

Policy guidance for sage-grouse habitat conservation is summarized in this manual. It provides national-level policy direction, consistent with appropriate laws, for the conservation of special status species of animals and plants and the ecosystems on which they depend. *Conservation* in this Strategy, and consistent with 6840 policy, means the use of all methods and procedures necessary to improve the condition of special status species and their habitats to a point where their special status recognition is no longer warranted.

#### **• Land Use Planning Handbook - H-1601-1**

Land use plans ensure that the public lands are managed in accordance with the intent of Congress as stated in FLPMA (43 U.S.C. 1701 *et seq.*) under the principles of multiple use and sustained yield. The BLM Land Use Planning Handbook provides more detailed direction for land use planning consistent with planning regulations found in 43 CFR 1600.

As required by FLPMA, the public lands must be managed in a manner that protects the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use by encouraging collaboration and public participation throughout the planning process. In addition, the public lands must be managed in a manner that

recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands.

Land use plans are the primary mechanisms for guiding BLM activities. Land use plans guide management actions on the public lands in the planning area. Land use plan decisions establish goals and objectives for resource management; measures needed to achieve these desired future conditions; and the parameters for using BLM-managed public land (BLM Handbook H-1601-1). These plans identify lands that are open or available for certain uses, including any applicable restrictions, and lands that are closed to certain uses.

BLM, Draft: Sage-Grouse Habitat Conservation Strategy at 11 (June 21, 2003) (on file with the Bureau of Land Management).

The BLM's comprehensive conservation efforts also include (among other things): issuance of guidance to the states, rulemakings, restating policy through Instruction Memorandum applying Health Standards to BLM lands, issuing interim management guidelines, issuing supplemental planning guidance for the Land Use Planning Handbook and issuing program guidance including BMPs for sage-grouse conservation in fire, travel, and grazing plans and vegetation management plans as well as operations. *Id.* at 13-20.

Federal and State agencies have vigorously implemented conservation measures for the greater sage grouse. As WGA's O&G Analysis concludes:

**Adequacy of existing regulatory safeguards** - This study has examined sage-grouse and sagebrush management practices of the BLM and USFS, the principal public lands management agencies within the sagebrush biome. It has demonstrated that actions by these agencies, and by state land management agencies, affect the vast majority of sage-grouse habitat (70%) and will thus be the principal determinants in species recovery efforts. It has further demonstrated that these agencies, the BLM in particular, have responded to the increased perception of threats to the species with increased environmental protective measures in management plans. [along with increased monitoring by the states, the discovery of unknown breeding grounds and some mitigation activities on private lands] . . . **Such measures, taken together, eliminate or adequately reduce the threats to the species.**

WGA's O & G Analysis at 94. (emphasis in original).

Other federal agencies such as the U.S. Forest Service and the National Park Service have similar measures in place. Many species have been delisted, or withdrawn from consideration, for listing with far fewer protections.

- For example, in the case of the delisting of the pine barrens tree frog, the FWS stated that recent data did not substantiate any significant trend in habitat loss and noted that many of the known breeding sites were located on large tracts of public land. 48 Fed. Reg. 52740, 52742 (Nov. 22, 1983).

- The majority of the habitat for the Rydberg milk-vetch occurred on federal lands administered by the Forest service. 54 Fed. Reg. 37941, 37942 (Sept. 14, 1989). While no regulatory mechanism would protect the species following delisting of the Rydberg milk-vetch, the FWS relied upon the Forest Service Manual and its administrative requirement to protect and maintain viable populations of rare species. 54 Fed. Reg. 37941, 37942 (Sept. 14, 1989).
- Special management areas and state listed status helped convince the FWS to delist the McKittrick Pennyroyal. Moreover, the Forest Service agreed to monitor populations, the National Park Service agreed to protect the species on its lands and the BLM placed the plant on its list of sensitive species with a commitment for monitoring for five years. 58 Fed. Reg. 49244 (Sept. 22, 1993).
- Protection on only 286,000 acres of Federal, State, and private land was deemed sufficient to delist the Hoover's woolly-star. Press Release, U.S. Fish and Wildlife Service, California Native Plant Removed From Federal Threatened Species List, (Oct. 7, 2003).
- While management areas encompassed only approximately 35 percent of the remaining flat-tailed horned lizard habitat in the United States, the FWS found the habitat sufficient to withdraw the proposal to list the species. Press Release, U.S. Fish and Wildlife Service, Fish and Wildlife Service Concludes Flat-Tailed Horned Lizard Not Threatened With Extinction, (Jan. 3, 2003).
- While the FWS considered some Chiricahua dock populations are vulnerable to livestock and elk grazing, recreation, water diversions, road construction, and wildfire, the species did not warrant listed status because many of the newly discovered populations are not exposed to such threats and land management agencies are adding specific conservation requirements for the plant in long-term management plans. Press Release, U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service Concludes that a Southwestern Plant is not Threatened, (Aug. 9, 1999). All known Chiricahua dock populations occur on lands managed by the U.S. Forest Service and the Department of Defense. Id.
- In delisting the Aleutian Canada goose, the FWS relied in part on the Comprehensive Conservation Plan (CCP) for the Alaska Maritime National Wildlife Refuge (which indicates that the Refuge will be managed to favor indigenous populations, restore endangered species and other species to natural levels, and monitor and eradicate introduced wildlife). 66 Fed. Reg. 15643 (Mar. 20, 2001).
- In delisting the Robbins cinquefoil, the FWS relied, in part, upon an agreement between the FWS and the White Mountain National Forest to protect the species and committed to monitor the cinquefoil's status for at least five years to ensure

that any unexpected population declines could be addressed. Press Release, U.S. Fish and Wildlife Service, Rare White Mountains Plant Recovers: Endangered Species Success Story, (Aug. 28, 2002).

Accordingly, the FWS must correct or retract the information disseminated that suggests protections on federal land, and land managed by federal agencies, are insufficient to prohibit the need to list the greater sage grouse.

## E. Grazing

Q: Has the FWS overlooked that years with higher numbers of livestock grazed correspond to the highest recorded estimates of greater sage grouse numbers?

The petition, the 90-day Finding and the WAFWA Conservation Assessment inaccurately portray grazing as a threat despite significant uncertainties, and indeed, evidence to the contrary. The disseminated information, then, requires correction. As Gibson states:

The [90-day] Finding notes that all petitioners claim livestock grazing as a primary cause of degraded sage grouse habitat and cites references in the petitions to support the claims. Again, the Service should not and cannot base any scientific conclusion on citations they have not investigated for relevance, accuracy and validity. The bias and distortion of fact in the Petitions clearly requires the Service to independently verify all citations.

Instead of focusing on the negative impacts of historic grazing the Service should be evaluating the application of and results of modern proper grazing management. Historic grazing and research reports of specific grazing practices are immaterial to the question of how modern grazing management practices affect sage grouse habitat. The Finding provides no evaluation of the current use and application of proper grazing management and therefore, did not identify and evaluate the information needed to arrive at an informed conclusion relative to livestock grazing.

A 1990 US-DOI Bureau of Land Management report shows that Good condition rangeland increased by 100% and poor condition rangeland decreased by 50% between 1936 and 1989. In the 15 years since, there has been extensive progress in the implementation of proper grazing management on Federal, State and private lands. Furthermore, it is more important and useful to consider rangeland trends rather than current condition. Regardless of current ecological status, rangelands that are in an upward ecological trend also have improving sage grouse habitat.

It is well established that *“In the 1960s and 1970s, Idaho had large numbers of sage grouse and extensive livestock grazing. This suggests that healthy sage grouse populations and livestock grazing are compatible. In short, livestock grazing that results in rangeland in good ecological condition also provides*

*acceptable sage grouse nesting, chick rearing and winter habitat.*” Idaho Sage Grouse Management Plan (1997). Clearly, historic grazing activity along with management agency fire suppression policy contributed to the alteration of the sagebrush-steppe; however, it is necessary to view these facts in the context of more recent change and trend and current effects on sage grouse habitats within the sagebrush-steppe.

The Findings admit that there is little evidence linking livestock grazing to sage grouse population trends, citing Braun (1989). The Finding then speculates that grazing can reduce grass height in nesting and brood rearing habitats and thereby reduce cover needed for predator avoidance. However, the Finding discussion under factor (C) reports that nest success and survival studies indicate that predation does not limit sage grouse numbers. It logically follows that livestock grazing effects on predator avoidance has no impact on sage grouse numbers. These two elements of the Finding are clearly contradictory where in one case they suggest grazing has an impact on predation that may affect bird populations and in the second case conclude that predation does not affect bird populations.

The Finding further reports that livestock can consume forbs of importance to sage grouse and goes on to describe the nutritional needs of grouse. However, the significance of these relationships is highly questionable as indicated by the conclusion in the Idaho Sage Grouse Management Plan cited above that intensive grazing and high sage grouse populations are compatible. Since high sage grouse numbers and intensive grazing have been compatible in the past; it is difficult to conclude that the reduced grazing intensity of today is having a negative effect on sage grouse numbers or habitat. The question is not whether grazing use can impact sage grouse habitat but whether current application of proper grazing management is in fact resulting in any negative effect.

Dr. Chad C. Gibson, Review and Comment RE: Federal Register: April 21, 2004 (Volume 69, Number 77), 50 CFR Part 17, Endangered and Threatened Wildlife and Plants' 90-day Finding for Petitions to List the Greater Sage Grouse as Threatened or Endangered. (June 14, 2004) (on file with the U.S. Fish and Wildlife Service).

The information disseminated, and particularly the petition at page 118, ludicrously claims grazing is “starving” the greater sage grouse, yet complains that range management by “graminoids” encourages grasses. In addition to this contradiction, there is no such thing as a “graminoid.”

The 90-day Finding also alleged, “Due to the absence of habitat overlap, it is unlikely that sage-grouse evolved with intensive grazing by wild herbivores, such as bison.” (Connelly et al. 2000). In fact, ecosystems development is a continuous process of coevolving flora and fauna. The current landscape, including native vegetation, is partly a bi-product of the Pleistocene. Although there is some controversy, the preponderance of authoritative scientific literature reports that the Pleistocene (1.8 million to 11,000 years ago) was a period dominated by mega fauna, such as bovids, equids, carnélids, and other

large herbivores. Bison (*Bison spp*), for example, survived the Pleistocene and large herds roamed the American prairies (Roe 1970).

As PAW highlights, the information disseminated is incorrect in its conclusion that historic grazing by bison and other large ungulates did not occur in sage grouse habitat. Mark S. Boyce, Comments on petition to list the Greater Sage Grouse for the Petroleum Association of Wyoming (March 15, 2004) (on file with U.S. Fish and Wildlife Service). PAW goes on to say, “[L]ikewise, I disagree with the petition that cattle are entirely off base as a bison surrogate (see Plumb and Dodd 1993) and the role of bison in rangeland ecology can be mimicked with careful grazing management. Id. citing Full reference: Foraging Ecology of Bison and Cattle on a Mixed Prairie - Implications for Natural Area Management. Plumb, G. E. and Dodd, J. L. *Ecological Applications* 3: 631-643, 1993.

Moreover, the information disseminated in the WAFWA Conservation Assessment made no attempt to temper conclusory statements with readily available agricultural statistics (such as the U.S.D.A. National Agricultural Statistics). For example, WAFWA stated:

[s]tatistics for number of livestock registered within a county or allotment database provide no information on location or season of grazing. Consequently, we could not develop meaningful correlations with habitat information from livestock statistics obtained from these sources. p. 7-3.

We could not conduct a meaningful test for effects of livestock grazing across regions or biome-wide because we lacked the appropriate variables for the question (Milchunas and Lauenroth 1993). p. 13-9.

Livestock grazing influences sagebrush habitats although we do not know the full extent of that influence. p. 13-9.

We also lack an understanding of the way sagebrush ecosystems functioned prior to the addition of livestock grazing in the 1800s (Freilich et al. 2003). p. 13-9.

Until we collect the appropriate quantitative data on livestock numbers, grazing intensity, timing, location, and vegetation response at the relevant spatial and temporal scales, the issue will remain unresolved (West 2003b). p. 13-10.

However, press forms of disturbance (Bender et al. 1984), such as livestock grazing, which have a diffuse effect over large areas, may be more difficult or not possible to quantify. p.7-2.

The information disseminated in the 90-day Finding that, “[C]attle and sheep will consume sagebrush, as well as grass” is supported by no scientific evidence and requires correction. 69 Fed. Reg. 21484, 21493 (April 21, 2004). Ample literature supports, as does a cursory review of the range that cattle and sheep do not consume sage brush.

Moreover, the Wyoming Department of Agriculture (which opposes the listing) strongly states livestock grazing has no negative effects on the greater sage-grouse. Letter from Jim Schwartz, Wyoming Department of Agriculture, to Dr. Pat Diebert, U.S. Fish and Wildlife Service (July 30, 2004) (on file with the Wyoming Department of Agriculture).

Braun, and others, are cited in the 90-day Finding for the allegation that grazing reduces grass heights and makes grouse more susceptible to predators. In fact, there is an inverse proportion between grazing and predators. 69 Fed. Reg. 21484, 21489 (April 21, 2004). U.S.D.A. National Agriculture Statistics demonstrate that the highest recorded greater sage grouse numbers correspond to the highest numbers of livestock grazing (particularly with sheep). (Available at <http://www.nass.usda.gov:81/ipedb/report.htm>). As more livestock grazing occurs, fewer predators prey on sage grouse (as a result of ranching management) (Dennis Brinker, Jackson County Commissioner, pers. comm.). Grouse numbers, then, are inversely proportionate to predator numbers. Accordingly, the 90-day Finding requires correction.

The information disseminated, as explained above, fails to meet standards under the FIQA and Guidelines for quality and objectivity and therefore requires correction.

## F. Habitat

Q: How can the FWS disseminate information that greater sage grouse numbers are declining when there has been “no definitive range-wide assessment of sage grouse populations and habitats?”

Q: How can the FWS disseminate information that human activities threaten the greater sage grouse when WAFWA identified “no cause and effect relationships?”

Q: How can habitat fragmentation be detrimental yet a mosaic of landscapes be beneficial?

References to habitat conditions and threats to habitat in the information disseminated fail to meet the standards of the FIQA or its implementing guidelines. Retraction or correction is required. For example, the information disseminated states that nesting habitats far from leks must be maintained yet also suggests hens must not move long distances to nest. Which is it? Other contradictions and misstatements abound and require retraction or correction.

As WGA’s O&G Analysis points out:

However, the Finding does indicate that at least 98% of sagebrush habitat within the [Powder River] Basin will be undisturbed by what has often been considered the most widespread oil or gas development project in American history.

The statement in the Finding that "over 80 % of the surface ownership where coalbed methane development is occurring is private where mitigation is not required" is both incorrect and hugely misleading. Mitigation is required on private surface, even where the mineral ownership is also in private hands. Virtually no landowner would allow development on his or her lands and minerals without execution of a legally enforceable Surface Use Agreement specifying reclamation requirements, damage payments, etc. Such agreements are a standard part of private lease negotiations and a precursor to obtaining a valid drilling permit. In federal and state split estate situations, where private surface is underlain by federal minerals, the BLM requires execution of a SUA and a Surface Use Plan, including mitigation and reclamation specifications, prior to approval of APDs. Surface Use Plans are nationwide BLM requirements under terms of Onshore Order 1 (BLM, 2001a) and are not restricted to the Powder River Basin.

Finally, the oil and gas development disturbance figures cited in the WAFWA report must be questioned. The authors indicate that direct long-term disturbance from well pads and pipelines was a minimum of 4,749 km<sup>2</sup>, or approximately 1% of the sagebrush biome. However, for the purposes of computing effects from predation, noise, and the spread of exotic plants, the authors "buffered" the actual disturbance areas by distances of one to three kilometers. In this way, ultimate disturbance to the sage-grouse is estimated at 25% of the entire biome (500,276 km<sup>2</sup>) (Connelly *et al*, 2004, pg. 7-42). The justification for such a "buffering" factor is not explained and leads to at least questionable estimates of the effects of oil and gas developments on sage-grouse.

WGA's O & G Analysis at 67-69.

The WAFWA Analysis presents a very selective analyses whereby some factors that influence populations and habitats receiving greater emphasis, more review and more thorough and adequate documentation. Factors such as nonnative plants and alleged oil and gas impacts are covered intensively where predators, harvest, chemical and mechanical treatments, climate, prescribed fire and the (positive aspects of) grazing were covered in much less detail. Review of and Comments on the Conservation Assessment of Greater Sage-Grouse and Sagebrush Habitats Written by the Western Association of Fish and Wildlife Agencies By The Petroleum of Wyoming at 14 (Aug. 2004).

WAFWA provides, "[t]here has been no definitive range-wide assessment of sage-grouse populations and habitats." p.1-1. Yet the 90-day finding purports, "The distribution of sage-grouse has contracted in a number of areas, most notably along the northern and northwestern periphery and in the center of their historic range." 69 Fed. Reg. 21484, 21486 (April 21, 2004). Given no range-wide assessments have been undertaken, it is in error to disseminate information that the distribution of the species has contracted. Moreover, as stated herein, historical accounts of sage grouse numbers and habitat are notoriously unreliable.

WAFWA also stated, “[C]oncerns about the ecological status of sagebrush ecosystems have been expressed for a long time yet only cites to Patterson 1952 and Braun et al. 1976. Braun’s objectivity must be questioned. As a consultant to the proponents of the greater sage grouse listing, Braun is quoted in a press release threatening a federal listing of the species if the BLM did not undertake management changes in line with his views. Press Release, Biodiversity Conservation Alliance, Sage Grouse Takes Center Stage in Oil and Gas Controversy, (Feb. 26, 2003).

According to the petition, the 90-day Finding and the WAFWA Conservation Assessment habitat fragmentation threatens the greater sage grouse. Yet the information disseminated also claims that a mosaic of sagebrush (habitat fragmentation) is beneficial. WAFWA admits, “the ecological condition of large areas of public lands is unknown or is not surveyed with a statistically designed approach that permits an assessment over large regions (Mitchell 2000).” p. 13-9. WAFWA also admits, “[S]agebrush habitats always have contained temporal and spatial variation because of past disturbance history (Young et al. 1979, West and Young 2000).” p. 5-12.

PAW points out other deficiencies in the petition in its March 9, 2004, letter to Regional Director Morgenweck:

None of the papers cited in the Petition in the second paragraph on page 19 are about sage grouse. Moss et al. (1975), Jenkins et al. (1963), and Eastman and Jenkins (1970) deal with European red grouse. Gutowska and Parkhurst (1942) and Taylor et al. (1962) deal with poultry, and Ellis and Labisky (1966) deal with bobwhite quail. The publications cited in the last sentence of the paragraph deal with general avian embryology. The King and Murphy (1985) citation is a general paper on nutritional stress and how animals compensate for dietary deficiencies and has no direct tie to sage grouse.

On page 48 the Petitioner states that: “Sage grouse are undergoing a “range collapse”,” and cites Brown et al. (1996, p. 612). However, the paper by Brown et al. (1966) is limited to the discussion of the theoretical concept of “range collapse”, and never applies the concept to sage grouse. Therefore, for the Petitioner to cite Brown et al. (1966) in support of the Petition’s postulation that sage grouse are undergoing a “range collapse” is a blatant misapplication of the scientific literature and misleads readers of the Petition.

The petition, the 90-day Finding and the WAFWA Conservation Assessment also overstate habitat degradation and fragmentation as potential threats despite significant uncertainties, and indeed, evidence to the contrary. As the Board of County Commissioners of Jackson County, Colorado (life-long area residents and observers of sage-grouse) pointed out, predation and harvest are the biggest issues facing the species. Letter from Board of County Commissioners of Jackson County, Colorado, to Dr. Pat Diebert, Wyoming Ecological Services Office (August 20, 2004) (on file with the U.S. Fish and Wildlife Service).

WAFWA also underestimates available habitat and, more importantly, completely lacks cause and effect information related to what impacts the habitat or the species. For example, WAFWA states:

Our analysis presented in this Conservation Assessment is based primarily on correlative information. Controls on disturbances or availability of comparison regions are difficult and often not possible, particularly when comparing large-scale effects across landscapes and among populations. Few studies at regional scales are able to attribute cause and effect in relation to management action. Because of the nature of some land uses, our evaluation suffers from a lack of replication (Johnson 2002). p. 1-6.

However, we often had only data . . . from part of the region . . . or disparate data sources on which to conduct our analyses. p. 1-6.

[W]e likely have underestimated the area covered by sagebrush in Montana because silver sagebrush (*Artemisia cana*) and Wyoming big sagebrush (*A. tridentata* ssp. *wyomingensis*), the dominant sagebrush species in northeastern Montana, are distributed sparsely across much of the region among grassland habitats and are not easily mapped from satellite imagery.

We also were unable to obtain current maps of sagebrush for the eastern portions of the sagebrush biome because they had not been completed at the time of this assessment. p. 1-10.

Unfortunately, very little is known about dispersal in greater sage grouse. p.3-5.

Although sage-grouse are considered a landscape species, conclusive data are unavailable on minimum patch sizes of sagebrush necessary to support viable populations of sage-grouse. p.4-17.

Unfortunately, the distribution, configuration, and characteristics of these migration corridors is largely unknown in most portions of the sage-grouse distribution. p.4-19.

However, differences between ecosystem types and subdivisions are not always clear due to modifying effects of variable elevation and topography. p.5-4.

We caution that samples included in this analysis were collected for the purposes of generating habitat maps from satellite imagery. ... Regional gaps in sampling locations resulted from lack of sampling efforts, our inability to locate or obtain comparable data sets, or incomplete information in data that we obtained from different sources. p.5-4.

We emphasize the analysis was for differences between current and potential distribution in sagebrush habitats and was not specific to sage-grouse habitats.

p. 5-8.

Gaps in sampling distribution represented lack of sampling efforts, our inability to locate or obtain comparable data sets, or incomplete information in data that we obtained from different sources. p. 5-28.

Potential deficiencies with mapping are exacerbated by inaccuracies in habitat data and differences in the timing of landscape alteration. p. 6-14, 15.

Nevertheless, the information disseminated incorrectly implies that removal of greater than 40 percent of breeding habitat has occurred and that that can result in the loss of the breeding population. See 69 Fed. Reg. 21484, 21488 (April 21, 2004). Further, the 90-day improperly alleged that small treatments interspersed with non-treated sagebrush habitats were neutral in effects and that “all large block treatments greater than 200 ha (494 ac) negatively affect sage-grouse 2,024 (5,000 ac) (Braun et al. 2002).” 69 Fed. Reg. 21484, 21488 (April 21, 2004). Again, the FWS relied upon the petition and its citation to Braun for this proposition with no corroborative evidence.

## G. Survival

Q: How can the FWS disseminate information that survival rates are an issue when there are few populations of sage grouse with published survival and recovery estimates?

Q: Why must habitat within 20-30 miles of leks be restored for nesting when nests will likely fail if females are required to move long distances from leks?

The information disseminated in the petition, the 90-day Finding and the WAFWA Conservation Assessment contain a multitude of uncertainties and underestimate survival rates of the greater sage grouse. Retraction or correction is required. WAFWA admits:

Observed nest initiation rates may be somewhat dependent on research methodologies, but also may vary by region (Table 3.2). p. 3-10

Because there are numerous methods used for evaluating survival (bands, radio transmitters, poncho-tags, brood observations), it is difficult to obtain estimates of survival that are comparable between studies. p. 3-11.

Although food availability, habitat quality, harvest, and weather may impact juvenile survival (Rich 1985, Pyle and Crawford 1996, Sveum et al. 1998b, Holloran 1999, Aldridge 2000, Huwer 2004), the lack of adequate survival estimates has made these potential relationships difficult to test. p. 3-12.

There are few populations of sage-grouse with published survival and recovery estimates. p. 3-12.

Studies have reported somewhat conflicting results regarding nest success in relation to vegetation at nest sites. p.4-6.

Further correction is necessary in the information disseminated in the petition and the 90-day Finding. For example, PAW states the following from its review of the petition:

Patterson (1952) found that average clutch size in 1949 was 7.26 and in 1950 was 7.53. One clutch out of 154 during those two years had 13 eggs. In 1937, Girard in his thesis on the life history of the sage grouse stated that he: “— has never seen more than 12 eggs, or less than 5 eggs, in a sage grouse nest during the incubation period. “Girard cited Bent (1932) who stated that: “ Bendire (1892) found but one set of ten, and found more sets of eight than any other number.” Girard (1937) also quotes Jim Sterrett of the U.S. Biological Survey who stated that: “— during the spring in Carbon County, Wyoming, he found 19 sage-hen nests and that they averaged from 7 to 9 eggs.” On page 25 of the Petition, the reference to Patterson is an erroneous and misleading application of the literature because the sentence refers to a clutch size range from 13-17 eggs as reported by Hornaday (1916) and lists Patterson (1952) as supporting this statement. However, only Hornaday reported this number. Based on 154 nests examined, Patterson (1952) reported clutch size averages of 7.26 to 7.53 during 1949 and 1950 with a maximum of 13 eggs found in one nest during the two years. Because of the body size of the sage grouse hen in relation to the size of its eggs, it is unlikely that it can effectively cover and incubate more than the range of eggs (5 - 9) reported in most accounts. On page 25 of the Petition it is stated that: “ Schroeder et al. (1999a) suggested that these historically larger clutches might be the result of egg dumping — .” PAW was unable to find such a statement in the Schroeder et al. (1999a) reference. Never the less, any student of Gallinaceous birds knows that the abnormally large clutches of eggs that occur in such birds are the result of egg dumping by more than one hen and that this phenomenon is likely to have occurred over historical time and continues to occur during modern times. All of the credible literature examined by PAW indicates that the clutch size in sage grouse has not varied significantly since the earliest records and does not support the Petitioners contention that average clutch size has decreased since historical times.

On page 69 of the Petition it is stated that: “Sage grouse nest on or near the ground, use open nests, and have few broods per year.” (emphasis added). No reference is cited regarding this statement, perhaps because no credible research report or sage grouse scientist would agree with the part of the statement that claims sage grouse nest near the ground. It is common knowledge that sage grouse nest only on the ground, typically under a sagebrush plant 36-79 cm in height where average sagebrush cover is 15-38 percent (Patterson 1952 p.114, Klebenow 1969, Wallestad 1975a, Petersen 1980, Autenrieth 1981, Wakkinen 1990, Gregg et al. 1994, Sveum et al 1998a, and Schoeder et al. 1999). Schroeder et al. (1999) describe sage grouse nests as: “Nest bowls on ground, usually in

relatively soft soil; lined with leaves (grasses, forbs, and sagebrush), small twigs, and feathers from female's brood patch", and cite Batterson and Morse (1948), Nelson (1955), Petersen (1980), and Autenrieth (1981).

PAW letter to Regional Director Ralph Morgenweck (March 9, 2004). PAW acknowledges another inconsistency in the information disseminated in the petition, "On page 62 of the Petition it is maintained that habitats within 20 to 30 miles of a lek site must be restored to provide nesting hens adequate area in which to place nests. However, on page 25 the Petition states that if females are required to move long distances from the lek they will deplete their energy resources and the nests will fail. Id.

## H. Fire

Q: How can the FWS disseminate information that suggests that sagebrush recovery after fire could take centuries in the face of literature that concludes recovery can occur in as little as 15 years?

The information disseminated in the petition, 90-day Finding and the WAFWA Conservation Assessment overstate the risk of fire to the habitat and species. While the WAFWA Conservation Assessment recognizes the importance of past and current fire impacts, only a single and incomplete quantitative analysis of fire influence on sagebrush was conducted that utilized data for natural disturbance from 1990 to the present. See p. 13-21. WAFWA provides:

It is unlikely we will have a clear picture of the complex patterns of fire regimes that characterize the sagebrush biome within the near future. At best we can only estimate the potential of these different sites to burn based on proxy data, which include the variables that determine a fire regime. p. 7-5

WAFWA does state that recovery from burns can take "centuries or longer." p. 7-35. However, Bennett (1992) notes that chemically treated sagebrush returns to pre-treatment conditions within 15-20 years. Bennett, L. E. 1992. Soil Conservation Service (SCS) Brush Project: Final Report. University of Wyoming Fish and Wildlife Cooperative Research Unit, Laramie, Wyoming. Gibson states that even burned areas of mountain big sagebrush generally recover a substantial sagebrush component within 10-12 years. At the upper precipitation zone for Wyoming big sagebrush recovery following fire can occur in 15 to 20 years and even at the lower precipitation zone recovery will be substantial in 40 years, Winward (1991).

## I. Sagebrush Health

Q: How can sagebrush habitat be extirpated by juniper when vast areas of sagebrush do not support juniper?

Q: How can invasive plants be both bad and good for the greater sage grouse?

Q: Has the FWS overlooked successful repopulation of reclaimed coal mines in northwestern Colorado as it has disseminated information to the contrary?

Numerous threats to the sagebrush habitat, such as invasion by nonnatives and encroachment by pinyon and juniper woodlands are overstated and require correction. For example, the petition misstates, “Sage grouse will be extinct or nearly extinct in the United States because their habitat will be almost entirely extirpated from juniper invasion.” But Boyce notes vast areas in the 110 million acre sage grouse range do not support juniper.

The WAFWA Conservation Assessment also provides:

We note, however, that the results and area estimates [in regards to Cheatgrass Invasion and Expansion by Juniper and Woodlands] extend only to the Great Basin ecoregion. We were unable to model the results for the entire Conservation Assessment area because comparable GIS layers were not available. p. 7-7.

Whether these processes and patterns [pinyon-juniper displacement] will continue beyond the next 30 years was not accounted for in our model because of high uncertainties associated with longer-term changes brought about by climate change and other stochastic events that are difficult to project. p. 7-12.

Without such evaluation of model performance, management use of the model predictions may result in inappropriate action, due to the high uncertainty associated with the costs and effectiveness of management actions in relation to our results. p. 7-13.

The ability of very broad-scale models of climate changes to predict regional scenarios is limited. Therefore, projecting potential changes in vegetation across arid and semi-arid landscapes or even to functional response of individual species is limited (Reynolds et al. 1997). p. 7-18.

Estimates of the size of infestations of any of these species are subjective because of the lack of a definition of what constitutes an infestation. Thus, it is extremely difficult to ascertain a reasonable estimate of the area of lands currently occupied by invasive plants within the assessment area. p.7-20.

We did not estimate total area covered by cheatgrass because of uneven sampling distribution throughout its distribution. p.5-10.

There is a limited documentation that conifer species such as Douglas-fir (*Pseudotsuga menziesii*) have been actively expanding into mountain big sagebrush. See p. 5-10, 11.

Most studies of sage-grouse relied on published techniques for assessing range vegetation, monitoring, and trapping sage-grouse. However, published methods for assessing vegetation were not developed specifically for sage-grouse habitats. Some population monitoring techniques have not been described in detail while others were based on work done in a single area or over a relatively short time. p. 11-1.

The petition condemns invasive species of plants as harmful to the Greater Sage Grouse yet identifies certain invasive plants as a major source of the grouses' diet. How can the petitioners [and the FWS] condemn, and yet support, invasive plants at the same time? As PAW concluded in comments submitted on the petition:

The sections on "Invasive Species" (pp 131 - 133) and "Invasion of Exotics" (pp 123 -124) in the Petition, set forth a totally negative presentation on the effects to sage grouse caused by invasions of alien plant species into their habitats. However, on page 21 of the Petition it is stated that: " Martin (1970a) found that from July to September, dandelion (*Taraxacum*) comprised 45 percent of sage grouse intake —" and that: "Collectively, dandelion, sagebrush, and two legume genera (*Trifolium* and *Astragalus*) contributed more than 90 percent of the sage grouse diet." On page 28 of the Petition it is stated that: "Although sage grouse are found in alfalfa, they apparently seek out dandelion and salsify which are readily available in alfalfa fields (Peterson 1970b)." Since the common dandelion is an alien, invasive plant species along with a number of clover species (*Trifolium*), it places the Petition in the position of both condemning and supporting exotic invasive species. Depending upon land management objectives for a given area, the establishment of dandelion and a number of other alien species that are valuable to sage grouse may be viewed as a benefit to sage grouse that is facilitated or enhanced by livestock grazing. PAW is aware of the serious threat of invasive plant introductions on western rangelands, but the presentation of contradictory conclusions on the same subject, because the Petitioner failed to use important clarifying facts, is not professional or scientific.

PAW letter to Morgenweck (March 9, 2004).

WAFWA cites Braun for the proposition that sage-grouse numbers in repopulated areas may not return to levels prior to disturbance p. 7-41. The objectivity of this statement and the source upon which it relies are questionable. In fact, successful greater sage grouse repopulation in great numbers has occurred on reclaimed coal mines in Northwestern Colorado. (pers. comm. Greg Walcher, Executive Director Colorado Department of Natural Resources, 2003).

## J. Agricultural Conversion

Q: Has the FWS taken into account that agricultural conversion no longer occurs as it did in the nineteenth and early twentieth centuries?

The information disseminated in the petition, the 90-day Finding and the WAFWA Conservation Assessment do not comply with the FIQA and its implementing guidelines in that they overstate the threat of agricultural conversion. Given today's demographics and the increasing urbanization of society, these documents should be retracted or corrected to show that conversion to agricultural lands is not a threat to the greater sage grouse. The FWS has not held agricultural conversion to be a threat to species in several notable examples:

- While the FWS recognized conversion of farmlands used by migrating and wintering (Aleutian Canada) geese to other human uses as a threat, the agency stated it did not appear to have been a serious problem in recent years. 66 Fed. Reg. 15643 (Mar. 20, 2001).
- Notably, the FWS also concluded that the present or threatened destruction of habitat from agricultural conversion and other factors was no longer a threat to the black-tailed prairie dog. 69 Fed. Reg. 51217 (Aug. 18, 2004). See also Press Release, U.S. Fish and Wildlife Service, Black-tailed Prairie Dog Removed from Candidate Species List, (Aug. 12, 2004).

The 12-month finding on the BTPD noted that the current threat of habitat loss through cropland conversion is much less than in the early days of agricultural development in the Great Plains and that a considerable amount of potential unoccupied habitat remains. The Natural Resources Conservation Service quantified land cover/land use changes from 1982 to 1997 (U.S. Department of Agriculture 2000). The 11 States within the historic range of the black-tailed prairie dog experienced a 10 percent loss of cropland and a 2 percent loss of rangeland during this time period. In the case of the BTPD, the amount of current occupied habitat was contrasted with the amount of remaining rangeland (potential habitat), estimated in the hundreds of millions of acres, it is evident that sufficient potential habitat still occurs in each of the 11 States within the historic range of the species to accommodate large expansions of black-tailed prairie dog populations (U.S. Department of Agriculture 2000). This conclusion is supported by Sidle et al. (2001), who noted that, although substantial areas of grassland have been converted to cropland in the northern Great Plains, vast areas of suitable habitat for colonization and expansion of black-tailed prairie dogs remain. 69 Fed. Reg. 51217 (Aug. 18, 2004).

Further, Gibson clarifies:

The [90-day] Finding presents some information that is meaningless unless its relevance can be further defined. Such as, the (Braun 1998) citation that, "*In some states, more than 70% of sagebrush shrub-steppe habitats have been converted to agricultural crops*". What states does this refer to? How much actual sagebrush-steppe habitat is involved? What sagebrush species were involved? Even if the purported 70% loss of sagebrush shrub-steppe is factual, it is meaningless unless some portion of the loss has an

identifiable and quantifiable connection with change in the amount of useful sage grouse habitat.

#### **K. Harvest**

- Q: Does the FWS consider annual harvest of 24,000 individuals in ten of eleven Western States insignificant?
- Q: Has the FWS considered that more intensive management of harvest has significantly increased populations of other species such that delistings could occur?
- Q: How can the FWS view mortality of 24,000 individuals annually as having “no effect on greater sage grouse populations” yet consider other human activities such as oil and gas development a primary threat to the viability of the species?

The information disseminated in the petition, the 90-day Finding and the WAFWA Conservation Assessment violate the FIQA and its implementing guidelines in that they understate the effects of modifying harvest as a potential benefit to the greater sage grouse. WAFWA states:

Harvest of greater sage-grouse occurs in 10 of the 11 western states in which they reside. p. 9-1.<sup>2</sup>

Total annual harvest across the 10 states approximates 24,000 greater sage-grouse. p. 9-2.

Forty-six percent of all female mortality occurred during the hunting season (September and October) and harvest accounted for 91% of all female deaths. p. 9-4.

An appropriate harvest rate has not been determined for greater sage-grouse populations. p. 9-6.

In the WAFWA Conservation Assessment, Gibson (1998) was cited for the proposition that hunting mortality could “depress and hold population levels of sage grouse well below carrying capacity” and that this “should be of widespread concern in the light of long term population declines and range fragmentation in this species.” p. 9-4.

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<sup>2</sup> The 90-day Finding does recognize that hunting is regulated by State wildlife agencies. 69 Fed. Reg. 21484, 21490 (April 21, 2004). The 90-day finding also stated, “Connelly et al. (2000) state that most greater sage-grouse populations can sustain hunting if the seasons are carefully regulated. No hunting is permitted in Canada.” 69 Fed. Reg. 21484, 21491 (April 21, 2004).

The WAFWA Conservation Assessment states in a footnote that they “generally avoided the use of personal communications and non peer-reviewed reports” but due to a lack of information on the effects of hunting on sage-grouse and “after careful consideration and discussions with the author and a California Department of Fish and Game biologist” WAFWA decided it was in the best interest of the resource to provide information from the Gibson report. p. 9-4.

More precise management of harvest has led to delisting species from the ESA.

- Notably, the FWS considered protection from hunting as a primary factor in the recovery and delisting of the Aleutian Canada goose in North America. The FWS also stated that initial population increases of Aleutian Canada geese were likely in response to hunting closures in California and Oregon to protect the geese during migration and during winter. Establishment of areas closed to hunting was an effective conservation measure and was shown to be responsible for early increases in Aleutian Canada goose numbers. 66 Fed. Reg. 15643 (Mar. 20, 2001); see also Press Release, U.S. Fish and Wildlife Service, An Endangered Species Success Story: Secretary Norton Announces Delisting of Aleutian Canada Goose, (Mar. 19, 2001).

By the mid-1980s, populations of the cackling Canada goose and Pacific white-fronted goose (*Anser albifrons frontalis*) had plummeted from 400,000 and 500,000 to 25,800 birds and 91,700 birds, respectively. As a result of reductions in sport hunting bag limits, establishment of areas closed to hunting on the wintering grounds, and voluntary reductions in take by Alaska Natives on the breeding grounds, the population of cackling Canada geese increased to more than 200,000 birds and, Pacific white-fronted geese, to more than 300,000 birds. 66 Fed. Reg. 15643 (Mar. 20, 2001); see also Id.

- Prohibitions on hunting (along with habitat acquisition, local ordinances and management) helped bring the population of Columbian white-tailed deer from fewer than 300 in the 1930s to an estimated 5,000 animals in 2002. The subspecies was delisted in 2003 and placed on the State of Oregon’s Sensitive Species List for continued monitoring. 68 Fed. Reg. 43647 (July 24, 2003).

## L. Predation

Q: Has the FWS properly considered that greater sage grouse numbers are proportional to livestock use and inversely proportional to predator populations?

The WAFWA Conservation Assessment is often self-contradictory. Some contradictions evidence bias in the Assessment. For example, WAFWA states, “[T]here has been little range-wide effort to examine the seasonal patterns of mortality. . . . Although most mortality of sage-grouse is due to predation (see Chapter 10 for detailed assessment), a substantial amount of mortality in some areas may be associated with harvest (Connelly

et al. 2003, Zablan 2003; see Chapter 9 for detailed assessment).” p. 3-12. Amazingly, WAFWA goes on to discount both management activities to reduce predation and harvesting as significant issues for the greater sage grouse. The information disseminated in the petition, the 90-day Finding and the WAFWA Conservation Assessment violate the FIQA and its implementing guidelines in that it understates the effects of managing predator levels as a potential benefit to the greater sage grouse.

- The removal of predators was a primary factor in the recovery and delisting of the Aleutian Canada goose in North America. 66 Fed. Reg. 15643 (Mar. 20, 2001); see also FWS News Release, March 19, 2001. In delisting the Aleutian Canada goose, the FWS also recognized the removal of predators benefited not only that species, but many other bird species on the islands, including puffins, murres, and auklets. 66 Fed. Reg. 15643 (Mar. 20, 2001); see also Press Release, U.S. Fish and Wildlife Service, An Endangered Species Success Story: Secretary Norton Announces Delisting of Aleutian Canada Goose, (Mar. 19, 2001).

As to the greater sage grouse, WAFWA states:

Survival of juveniles is clearly low, [in regards to potential predation] but is also difficult to accurately assess (Crawford et al. 2004). p. 10-2.

Although there have been many observations and recommendations concerning the importance of suitable habitat for reducing predation pressure on adults, detailed statistics have been difficult to obtain (Schroeder and Baydack 2001). p. 10-2.

Although predator controls have been tried within the range of sage-grouse (Batterson and Morse [1948] removed many common ravens on an area in Oregon and there was a short-term increase in nest success), the cost effectiveness and long-term impacts of the removal on the behavior, genetics, and abundance of sage-grouse have not been examined (Schroeder and Baydack 2001). p. 10-2.

Wyoming statistics provide an interesting example. According to the U.S.D.A. National Agricultural Statistics, Wyoming sheep numbers were at or near all-time highs the same year greater sage grouse numbers were at or near all time highs (1969). (*available at* <http://www.nass.usda.gov:81/ipedb/report.htm>). Sheep numbers have dropped precipitously over the last several decades in Wyoming and other Western States. *Id.* Predator numbers have increased accordingly. In fact, the Wyoming Department of Agriculture stated, “[H]abitat alteration caused by livestock grazing (mosaic creation), as well as the predator control offered by livestock producers, have improved and benefited [sic] sage grouse.” Letter from Jim Scwharz, Wyoming Department of Agriculture, to Dr. Pat Deibert, U.S. Fish and Wildlife Service (July 20, 2004) (on file with Wyoming Department of Agriculture).

As Gibson explains:

the petition, 90-day Finding and WAFWA Conservation Assessment allege there is not substantial information available to implicate disease or predation as factors that threaten the continued existence of the species. However, there are clearly documented impacts on sage grouse populations from predation on sage grouse nests, juveniles and adult birds by a variety of ground and avian predator species.

The documents allege nest success and survival studies are impacted by predation only where poor land management (i.e. grazing) is an issue. This clearly exhibits bias and nothing is presented to quantify the habitat conditions that are purported to increase the significance of predation and nothing to identify the significance those conditions to sage grouse habitat throughout their range. Furthermore, the information disseminated concludes that, regardless of habitat conditions, predation does not affect sage grouse populations in general. But Gibson points out Connelly et al. (2000), cited ten studies of sage grouse survival and nesting success but only two that suggested habitat was a factor for nest predation and only one suggesting habitat affected chick predation.

Moreover, Leopold (1933) presented the concept that increasing ratios of predator to prey increases predator influence on prey populations. Gibson summarizes:

That concept is still valid and can result from either increasing predator populations or decreasing prey populations. In this case, the primary sage grouse predators have increased and some new predator species (such as red fox) have been introduced into sage grouse habitat areas. In Idaho, raven populations have increased at 5% annually since 1959, coyote populations are significantly higher as indicated by the change in rate of take during aerial control efforts and red fox populations are such that there is a year-long take season, Collinge, (1999). Ravens in particular have been implicated as one of the most frequent offenders in predation of sage grouse nests, Batterson and Morse (1948) Authenrieth (1981) Klebenow et al. (1990) and their numbers have continued to increase since they were first identified as significant nest predators over 40 years ago.

The Finding failed to even consider increasing predator populations and their potential effect on sage grouse populations. Even though the Finding contends that predation impacts are solely related to habitat condition, there is no information to suggest that habitat conditions alone will compensate for excessively high predator populations. Predator management should not be disregarded as a tool to assure sage grouse species survival. The Service should have concluded that “if properly managed” predation is not considered a potential threat to the species.

Dr. Chad C. Gibson, Review and Comment RE: Federal Register: April 21, 2004 (Volume 69, Number 77), 50 CFR Part 17, Endangered and Threatened Wildlife and Plants’ 90-day Finding for Petitions to List the Greater Sage Grouse as Threatened or Endangered. (June 14, 2004)(on file with Owyhee County Board of Commissioners, Idaho).

The following information disseminated requires correction:

Predator impacts to greater sage-grouse, when they occur, are a reflection of anthropogenic impacts to sage-grouse habitat and poor land management. (Schroeder and Baydack 2001). 69 Fed. Reg. 21484, 21491 (April 21, 2004).

Predation typically does not limit sage-grouse numbers (Connelly et al. 2000). However, where sage-grouse habitat has been altered, predation can become more significant...” 69 Fed. Reg. 21484, 21491 (April 21, 2004).

## M. Disease

Q: Has the FWS considered that species much more susceptible to disease, such as the black-tailed prairie dog, were not listed despite significant population impacts?

The information disseminated in the petition, the 90-day Finding and the WAFWA Conservation Assessment overstate the potential impacts to the species from disease. This violates the FIQA and its implementing guidelines and requires correction. Even where disease dramatically affects populations, the FWS has not considered disease a factor that merits a listing decision. Even the most severe outbreak of disease did not result in population level impacts to the Aleutian Canada goose. 66 Fed. Reg. 15643 (Mar. 20, 2001).

Lomolino et al. (2003) postulated that habitat fragmentation may even benefit some prairie dog populations by protecting them from plague through isolation. Currently, due to a combination of factors including habitat fragmentation, plague, and poisoning, many prairie dogs exist in much smaller complexes or in isolated colonies where the possibility for interchange is reduced. 69 Fed. Reg. 51217 (Aug. 18, 2004).

- For the BTPD, the FWS also found error in their original assumptions that population losses due to plague at certain sites were indicative of losses across the species entire range. Based on new data, the FWS concluded the BTPD was resilient to short-term, site-specific population declines. In the case of the BTPD, the FWS concluded that the threatened curtailment of habitat was a low magnitude, non-imminent threat. While occupied habitat at specific large [BTPD] complexes may experience dramatic fluctuations due to plague epizootics, they do not appear to be influencing the species’ range-wide persistence. The FWS found that even “dramatic fluctuations” in the amount of black-tailed prairie dog occupied habitat at specific large complexes due to plague epizootics or chemical control, did not appear to influence range-wide species persistence. 69 Fed. Reg. 51217 (Aug. 18, 2004).

The WAFWA Conservation Assessment provides:

Even in these cases there was high numbers of birds concentrated due to drought conditions, insufficient evidence to conclude that disease was responsible for

major declines across any extensive area of the birds' range (Patterson 1952). p. 10-3

Therefore, the role diseases and parasites play in population declines across their range is essentially unknown. p. 10-3.

Information regarding impacts of WNV [West Nile Virus] on survival of native, wild birds is sparse (Malakoff 2003). p. 10-9.

The impact of WNV on populations of other birds over larger geographic regions is just now being studied using Christmas Bird Count (CBC) and North American Breeding Bird Surveys (BBS) (Marra et al. In Review). p. 10-9.

However, the duration and variability of immunity among animals surviving WNV infection is essentially unknown (Marra et al. In Review). p. 10-9. Determining the level of resistance greater sage-grouse have to the virus, the epidemiology of the disease in greater sage-grouse, and how land-use practices (especially the addition of late-summer surface water) influence prevalence and transmission of the disease will be required prior to being able to determine the impact WNV will ultimately have on greater sage-grouse populations. p. 10-10.

The information disseminated fails to note, due to “wet cooler weather, which has slowed mosquitoes, metabolism and washed out stagnant breeding puddles,” the threat of West Nile virus this year has largely dissipated in Colorado. Bill Scanlon, *West Nile Delivers Milder Bite*, Rocky Mountain News, Sept. 7, 2004. Incidents of West Nile Virus in Wyoming have also decreased greatly in 2004. In light of the uncertainty recognized in the WAFWA Conservation Assessment, the way the FWS has treated disease for other species and the evidence that the effects of West Nile Virus are far less significant this year, the FWS should correct information disseminated in the petition, 90-day Finding and WAFWA Conservation Assessment to clarify that West Nile Virus is not a threat to the species.

WGA's O&G Analysis also highlighted the proactive efforts to ensure West Nile Virus is not a threat to the greater sage grouse:

The possibility that West Nile [v]irus could result from certain produced water disposal methods provides an excellent example of the ability of regulatory agencies to respond to new threats. Subsequent to the realization of a potential threat to the sage-grouse, in the fall of 2003, BLM began requiring mosquito control sections in mandatory Weed and Pest Management Plans accompanying drilling permit requests. Potential breeding areas can be treated with larvicides recommended by local weed and pest district personnel. Companies work closely with the BLM and local agencies and have been proactive in dealing with the West Nile virus threat (Lance Oil and Gas, 2004). As the threat was recognized, regulatory agencies and industry have responded.

WGA's O & G Analysis at 70.

#### **N. Improper Modeling and Description of the "Human Footprint"**

- Q: Has the FWS peer-reviewed the WAFWA "Human Footprint" models in accordance with OMB peer review standards?
- Q: Was a pre-dissemination review of the models undertaken by the FWS? Do the models meet the robustness checks in that they are reproducible?
- Q: What scientific basis was relied upon to create the data sets for the models and what review did the FWS undertake of such data sets to ensure quality, transparency and reproducibility?
- Q: If fragmentation and noise are inconsistent with successful greater sage grouse nesting and reproduction, how can a greater sage grouse nest and hatch successfully within twenty feet of a busy highway?
- Q: How can water developments threaten a species that has been observed, as many species have, congregating around water developments?

A meaningful inquiry would evaluate environmental influences in the periods of the greatest alleged declines in greater sage grouse (the 1960s to the mid-1980s). A review of such factors would merit further investigation into grazing, predation and harvest levels. Gibson provides, "[M]onitoring will only tell what is happening to population numbers not the cause and effect relationship. Without scientifically knowing causes and effect relationships, threats can only be hypothesized. Giles (1978) defines Wildlife Management as, "the Art and Science of making decisions and taking actions to manipulate the structure, dynamics, and relations of populations, habitats, and people to achieve specific human objectives by means of the natural resources. This definition not only applies to wildlife, but all natural resources management. Without empirical and field-tested scientific data, management cannot occur."

While the WAFWA Conservation Assessment concedes, "Sage-grouse have been observed using habitats altered by man throughout their range" p.4-18, it relies on untested models with little to no transparency in its examination of the "human footprint" in violation of the quality and objectivity standards of the FIQA and its implementing guidelines. There is no evidence the WAFWA models, nor the assumptions used in creating the models, were published, subjected to review by independent sources or the FWS.

In regards to this suspect modeling of the alleged human footprint, the WAFWA Conservation Assessment provides:

To evaluate the spatial distribution of anthropogenic disturbance patterns, we incorporated four models evaluating the influence of anthropogenic features on sagebrush habitats, and three models on the spatial distribution of sage-grouse nest predators. p. 12-1

Each of these problems in data management and analysis techniques introduce uncertainty into our assessment. Consequently, we have chosen to limit our projections of habitats and populations through modeling exercises. p. 1-7.

Such modeling exercises have seemingly been created without transparency (let alone independent or pre-dissemination review) solely to reinforce the inaccuracies and biases regarding human impacts prevalent in the information disseminated in the WAFWA Conservation Assessment.

The human footprint developed in this chapter is not an exhaustive model of anthropogenic factors influencing sagebrush habitats; rather, we selected anthropogenic factors for which we were able to acquire sufficient spatial data sets to model anthropogenic effects on ecological processes across large spatial scales (i.e., the sage-grouse habitat conservation assessment area). . . . p. 12-1.

WAFWA does not explain what anthropogenic factors were selected. Moreover, the model did not take into account grazing or predators. The model arbitrarily sets buffers around activities with no citation to scientific literature, no support and no explanation. The actual acreage of sagebrush habitat removed by oil and gas development is substantially less than the acreage listed. Moreover, WAFWA relied upon the invalid assumption that all oil and gas activity occurred on sagebrush habitat. WAFWA further provides:

The spatial data sets required to model the influence of these anthropogenic disturbance patterns are simply not available. p. 12-1.

To model the human footprint across sagebrush habitats, we first developed 13 spatial data sets (cell size 0.09 km) of anthropogenic disturbance factors: railroads, power lines, three road layers, campgrounds, rest stops, landfills, irrigation canals, oil-gas wells, human-induced fires, agricultural land, populated areas. Second, these spatial data sets were combined and/or manipulated further into grid layers before being used in the human footprint model development. Third, the spatial data sets and/or grid layers were then used to produce seven input models. Last, we used the seven input models in the development of the human footprint model. p. 12-3

[w]e therefore buffered each interstate highway by 1km. Similarly, we reasoned that the area of influence of federal and state highways, railroads and power lines extends well beyond the actual line feature . . . and buffered [them] by 0.5km. p. 12-5. Oil and gas wells were also arbitrarily buffered by a circle of 1km radius. See p. 12-5.

The model lacks transparency, objectivity and utility. Similarly, there is no credible evidence that buffers around highways, roadways, power lines or oil and gas development are appropriate. The “footprint” from oil and gas activity is far less than alleged. Moreover, the industry is heavily regulated and indeed performs many positive management actions voluntarily. The WAFWA Conservation Assessment further states:

We combined the seven models into one human footprint model using a summation approach. p. 12-5. Due to the input spatial layers used to produce each of the input models, certain anthropogenic features were given more weight in the final model due to their influence on multiple ecological processes. For example, the populated areas spatial data set was used five times, the roads and agricultural land three times, the power lines and campgrounds twice and six of the 11 spatial data sets were used only once to develop the input models. p. 12-5.

What factors were given more weight? What influences? What processes? The public has no means to evaluate such crucial factors nor to attempt to reproduce this muddy analysis.

We evaluated the influence of the human footprint in the current and extirpated sage-grouse ranges. p. 12-6. Later, WAFWA asserts, “We find that the human footprint intensity differs between areas currently occupied and those where sage-grouse have been extirpated.” (Fig. 12.13). p. 12-8.

Sagebrush (*Artemisia* spp.) habitats cannot return to some pre-settlement condition because many of the parts no longer are present or the sagebrush ecosystem has gone past a threshold from which recovery may not be possible. p. 13-1.

WAFWA states no authority for these conclusive propositions. Again, uncertainties regarding pre-settlement conditions are clearly recognized in the literature and the WAFWA Conservation Assessment itself. WAFWA shows bias here by admitting earlier in the Assessment that historic data is lacking such that comparisons of current to extirpated ranges are valueless (see description herein).

PAW was also critical of the characterization of the state of greater sage grouse habitat in the petition:

I found this discussion regarding fragmentation to be wildly speculative and detracts from more useful discussions regarding fragmentation earlier in the document. Road construction almost certainly increases fragmentation at some level. But it is unfortunate that insufficient studies exist documenting sage grouse behavior relative to roads so we do not know the magnitude of consequence.

Mark S. Boyce, Comments on petition to list the Greater Sage Grouse for the Petroleum Association of Wyoming (March, 15 2004) (on file with U.S. Fish and Wildlife Service). PAW also criticizes the petition's reference to alleged habitat fragmentation:

In the section of the Petition entitled "Habitat Fragmentation and Landscape Effects", pages 67 - 69 the claim is made that habitat fragmentation is one of the major causes of habitat loss of sage grouse. However, on page 72 it is stated that habitat mosaics are beneficial to sage grouse. Habitat fragmentation is defined in the Petition on page 67 as occurring: "— when a large tract of habitat is dissected into smaller patches isolated by other habitats or vegetation types different from the original (Wilcove, et al. 1986; Morrison et al. 1992a; Faaborg et al. 1993)." However, on page 148 the Petitioner cites Klebenow (1972) who states: "Fire that creates a mosaic of sagebrush of different ages and structures should often benefit sage grouse." On page 41 of the Vegetation Management section of the Wyoming Greater Sage-Grouse Conservation Plan (2003) it is stated that: "Historic sagebrush communities were a mosaic of successional shrub age classes created and maintained by fire cycles ranging in frequency from 10 to greater than 100 years depending on the sagebrush species and site." According to the definition of habitat fragmentation in the Petition, both historic fires and at least some current-day fires produce habitat mosaics that fit the definition of habitat fragmentation. A number of other man-produced activities (grazing, oil and gas development, mining, etc.) also produce habitat mosaics, but are described elsewhere in the Petition as categorically harmful to sage grouse habitat because they produce fragmentation. These are contradictory statements in that some habitat altering activities are acknowledged as beneficial because they produce mosaics and others as detrimental because they produce fragmentation, even though some sort of fragmentation is required to produce mosaics.

On page 167 of the Petition it is stated that: "Sage grouse are known to have suffered mortality from strychnine-laced rodent bait, toxaphene, Aldrin, and chlordane (Post 1951, Carver 1997)." These older organochlorine compounds, including DDT, were banned in the 1970's. Most of the deleterious effects of compounds on sage grouse were recorded in the 1950's and are not relevant to contemporary use of pesticides on to this Petition.

PAW letter to Morgenweck (March 9, 2004).

To the extent there are human impacts, they have been adequately addressed. For example, the BLM requires that oil and gas producers avoid surface disturbance and human activities (from 8:00 p.m. to 8:00 a.m.) near leks, avoid disruptive activities near nesting and brood rearing habitat as well as winter habitat. See BLM Instruction Memorandum No. WY-2004-0567 at 4. In fact, BLM has applied such conditions even where suitable habitat does not exist. Id. at 3. Finally, BLM committed to site-specific NEPA analysis for all recommendations, mitigation, and conservation measures. Id. at 5.

Further bias is evident in the treatment of water development and its alleged impacts to the species such that correction is justified. The petition and the 90-day Finding suggest water development threatens greater sage grouse. No scientific evidence was provided to support this. In fact, a conclusion made by respectable scientists is that if Sage Grouse congregate near water it is because they, like all animals, need the water and will likely benefit from it. PAW, in its review of the petition, states:

[t]his same literature citation (Schroeder et al. 1999a, p. 17) goes on to say that other credible sage grouse researchers do not agree and favor the provision of water to sage grouse (Autenrieth 1982, Crawford 1982b, Call and Maser 1985, Greer 1990, Welch et al. 1990, and Willis et al. 1993). Most of the credible scientific literature does not support the contention that sage grouse do not benefit from man-made sources of water. On page 22 of the Petition, Schroeder et al. (1999a) are cited as being concerned that man-made water developments may concentrate sage grouse and increase their exposure to disease. However, no literature is cited to back up this fear of disease transmission. As described below (Girard 1937), sage grouse have been concentrating at water holes since the time of G. B. Grinnel without any reports in the literature that such concentrations resulted in disease transmission. The fact that Schroeder et al. (1999, p. 17) feel that sage grouse may concentrate at man-made water developments is a good indication that they need the water and will, therefore, benefit from it.

In reference to sage grouse in the Green River Basin of Wyoming, Patterson (1952, p. 67) states: "During the summer months sage grouse are normally limited in their desert distribution to the immediate vicinities of stream courses, isolated desert springs, and water holes." Paterson (1952, p 83) also reported observing sage grouse visiting alfalfa fields to feed and: "— drinking the water from the irrigation systems." Dalke et al. (1963) observed large numbers of sage grouse that flew and walked to water. And, as stated in the Petition on page 22, Call (1979) observed sage grouse drinking water from holes in ice during winter. Girard (1937) stated that: "Even though sage grouse are commonly known as desert birds, they drink from one to three times daily and prefer running or spring water."

PAW letter to Morgenweck (March 9, 2004). PAW also pointed out:

On page 146 of the Petition, within the "Noise, Acoustic Interference, and Disturbance" subsection of the "Effects on Sage Grouse Habitat and Range" section of the document, research results of the relationship of densities of breeding male passerine birds to the proximity of roads are reported. No mention is made of how sage grouse respond to roads or what the connection between the passerine bird results and the implications to sage grouse might be. Because of the position of these statements on passerine birds in the "Effects on Sage Grouse Habitat and Range" section of the Petition, the implication is that sage grouse might be expected to respond to roads similarly to the passerine birds. This is

clearly a mis-application of passerine bird research to sage grouse and clouds whatever the facts regarding sage grouse and roads might be. In fact, there are some indications that nesting sage grouse may be little affected by proximal roads. Patterson (1952, p. 114) in discussing sage grouse nesting sites reports: “One of these nests was placed between scattered tumbleweeds (Russian thistle) in a sandy borrow pit barely 20 feet from the edge of a paved federal highway (U.S. Route 187 – I mile north of Farson). Hundreds of cars passed this nest daily and its clutch of eight eggs hatched successfully.”

Id.

**O. State and Local Management Overlooked**

**Q:** Has the FWS overlooked the extensive and unprecedented local, State and private efforts underway to conserve the greater sage grouse and its habitat?

The information disseminated in the petition, the 90-day Finding and the WAFWA Conservation Assessment violate the FIQA and its implementing guidelines in that they understate the positive role the Western States play in managing species. Retraction or correction is required. Eleven Western States actively manage greater sage grouse in partnership with federal agencies and community-based local working groups.

WGA’s O&G Analysis summarizes some of the many conservation efforts ongoing:

<b>ST</b>	<b>Begun</b>	<b>Conservation Plan/Agreement</b>	<b>Status Local Working Groups</b>
<b>CA</b>	2000	Completed with NV Jun 2004. CA expected Dec 2004	4 Planned, 2 Active
<b>CO</b>	1994	Range-wide Gunnison Sage-grouse Conservation Assessment and Plan, begin - Jul 2002; completion Mar 2004.	1 Active
<b>CO</b>	Sep 2004?	Begin - Jul 2004; completion - Jul 2005.	4 Active
<b>ID</b>		1st Plan 1997; updated completion Dec 2004.	8 Planned, 6 Active, 2 Forming
<b>MT</b>	2001	Revised Mar 2004.	11 Planned
<b>NV</b>	2000	NV completed 2001. Completed with CA Jun 2004	6 Active
<b>ND</b>	2001	CA draft expected Jul/Aug 2004	1 Planned
<b>OR</b>	2001	Draft expected Sep 2004	Contingent on State Plan
<b>SD</b>	2001	CA draft expected Jul/Aug 2004	1-2 Planned
<b>UT</b>		Completed June 2002	11 Planned <sup>3</sup>
<b>UT</b>	1994	Agreement Sep 1997; Range-wide Gunnison Sage-grouse Conservation Assessment and Plan, begin - Jul 2002; completion Mar 2004.	1 Active
<b>WA</b>	2001	Species Management Plan completed 1995. Conservation Plan completed May 2004	2 Active

<sup>3</sup> Utah now has five active local working groups. (S. Flaherty, pers. comm. 2004).

WY	2000	Completed Jun 2003	11 Planned; 3 Active <sup>4</sup>
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**Establishment of agency cooperative efforts** - The effort to recover the sage-grouse has been a demonstration of the positives to be gained from close interaction between multiple federal agencies and those of the states. The Interagency Cooperative Agreement MOU recognized the primacy of state efforts precisely because sage-grouse expertise resides in the state wildlife management agencies. Through the Agreement and through participation with many of the voluntary local working groups, USFWS has had a strong voice in conservation measures unrelated to species listing under the ESA.

Local and State involvement has been crucial to delisting species and preventing listings (the black-tailed prairie dog and the mountain plover provide prominent examples).

- For example, State wildlife agencies played a fundamental role in the recovery process and delisting of the peregrine falcon by protecting nesting habitat, carrying out releases, and monitoring populations within their borders. Press Release, U.S. Fish and Wildlife Service, The Peregrine Falcon is Back!, (Aug. 20, 1999).
- In addition, several agencies and organizations supported removal of the Dismal Swamp shrew from the endangered species list, including state wildlife agencies in Virginia and North Carolina. Press Release, U.S. Fish and Wildlife Service, Dismal Swamp Southeastern Shrew No Longer Needs Endangered Species Act Protection, (Mar. 3, 2000).

The Wyoming Department of Agriculture opposes listing in part because of the “unprecedented array of state and locally led sage grouse conservation efforts that are now underway or are planned across the West.” Letter from Jim Schwarz, Wyoming Department of Agriculture, to Dr. Pat Deibert, U. S. Fish and Wildlife Service (July 30, 2004) (on file with the U.S. Fish and Wildlife Service).

As previously stated, the Utah Division of Wildlife Resources expressed grave concern that a listing would only encumber positive conservation efforts. Letter from Kevin K. Conway, Utah Division of Wildlife Resources, to Bob Morgan, Utah Department of Natural Resources (July 19, 2004) (on file with Utah Division of Wildlife Resources).

The information disseminated purportedly links human actions to evidence that existing regulatory mechanisms, particularly at the Federal level (since most of the habitat is on Federal land), but also at the State, Provincial, and local levels, may be inadequate. 69 Fed. Reg. 21484, 21492 (April 21, 2004). As discussed herein, there are no clear causal relationships between human actions and alleged declines in the greater sage grouse. Further (and also discussed herein) the extensive federal, state and local regulatory mechanisms in place are more than sufficient to protect the species. Accordingly, the

<sup>4</sup> Wyoming now has five active local working groups. (S. Flaherty, pers. comm. 2004).

disseminated information that suggests federal, state and local conservation efforts are insufficient to protect the greater sage grouse requires correction or retraction.

## P. Conservation Activities

Q: Was the FWS unjustified in delisting a host of other species based upon far less conservation efforts than those undertaken at all levels of government for the greater sage grouse?

The information disseminated in the petition, the 90-day Finding and the WAFWA Conservation Assessment violate the FIQA and its implementing guidelines in that they fail to consider the extensive federal, state and local conservation activities currently occurring for the benefit of the greater sage grouse. These monumental efforts far overshadow conservation efforts relied upon to delist species in the past such that correction or retraction is required.

As specified in WGA's O&G Analysis:

BLM's sage-grouse habitat conservation strategy will require a significant commitment of staff and resources. The draft Plan called for requests for increased budgets and prioritization of sage-grouse conservation across all BLM programs. Responses include:

- FY 2005 BLM budget proposal set at \$1.8 billion, an increase in funding of \$53 million over FY 2004.
- FY 2005 budget allocates \$3.2 million for sage grouse conservation and restoration efforts, in accordance with the draft BLM habitat conservation strategy.
- FY 2005 budget allocates \$4.0 million for resource monitoring, an increase of 110% over FY 2004.
- Reallocation of staff and budgets are planned per the Draft Sage-grouse Habitat Conservation Strategy (BLM, 2003, pg.21). . . .

It is in the industry's interest to ensure that conservation measures are adequate and successful. The industry has, therefore, been at the forefront of private efforts to advance conservation initiatives for the sage-grouse and sagebrush habitat. In addition to compliance with numerous and increasing agency restrictions on development associated with sage-grouse protection, the industry has participated in voluntary protective efforts. **Accordingly, there is a high level of certainty that the level of voluntary participation described herein, will be successful.** Some examples are indicated in **Table 2.8**.<sup>5</sup>

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<sup>5</sup> It is important to note that the industry's efforts are not new. Numerous other voluntary projects are sponsored by the oil and gas and other industries for other species of concern.

**Table 2.8: Oil and Gas Industry Sage-grouse and Sagebrush Conservation Measures**

<b>Company</b>	<b>Location</b>	<b>Conservation Effort</b>
Bill Barrett	Corporation Utah federal land	Provided seeding and equipment for 400 acre plus burn to enhance habitat. Cost \$30,000
	Utah state land	Pinyon/juniper clearing program to enhance sage-grouse habitat. Clear 100 acres at \$10,000 cost.
	Utah state land	Installation of sediment check dams in eroding wet meadow to improve habitat for sage-grouse and other species. Cost \$10,000.
	Utah	Agreed with Utah Division of Wildlife Resources to conduct wildlife survey over expanded area greater than required for project purposes. Cost \$3,000.
	Wyoming	Funded extension of raptor survey in broad area beyond project to assist agency in resource area planning efforts. Cost \$6,000.
Burlington Resources	Wyoming - Greater Green River Basin	Federal agency-mandated wildlife survey and operational restriction requirements are followed on both federal and private acreage <sup>6</sup>
Wyoming Producer	Wyoming - Powder River Basin	Cooperative investigation with state wildlife agency and university personnel of potential effects of West Nile virus on sage-grouse populations on company-owned lands.
Lance Oil and Gas (Western Gas Resources)	Wyoming - Powder River Basin	Coordination with BLM regarding operational guidelines which follow Best Management Practices on developed lands regardless of ownership.
		Preference for mowing rather than clearing sagebrush for roads wherever possible to minimize damage to soils and sagebrush understory.
		Underground placement of electrical lines and avoidance

<sup>6</sup> It should be noted that operational restrictions are not required on private lands.

		of creation of raptor perches.
		Close coordination with county weed and pest district personnel on application of mosquito control larvicides and development of produced water management and treatment strategies which avoid creation of mosquito breeding environments.
		Reduction in spread of invasive plant species into development areas by routine washing of company and contractor vehicles.
		Company education of employees and contractors regarding procedures to minimize impacts to sage-grouse and other wildlife species.
		Commitment to working with scientific community and local stakeholders on identifying new data and responding to improve management practices and supporting local sage-grouse working groups.
		Development of long-term plan and funding methods for ongoing conservation efforts.
Questar Exploration and Production	Utah – Uinta Basin	Coordination with BLM on habitat enhancement and wildfire reduction project near existing breeding grounds. Cost \$10,000.
		Active employee participation in local sage-grouse working group, including distribution of information and assisting in annual bird counts

Sources: Zavadil, 2004; Dey, 2004; Walker, 2004; Lance Oil and Gas, 2004; Tomkinson, 2004.

**In this case, there is a high level of certainty that adequate regulatory mechanisms are in place to eliminate or adequately reduce the threats to the greater sage grouse.** This study [WGA’s O & G Analysis] as focused on an examination of federal agency management practices within the sagebrush biome over the last 24 years. These practices are listed in BLM and USFS Resource Management Plans and/or their updates and amendments. Restrictions on oil and

gas development may take the form of stipulations attached at the time an oil and gas lease is issued or in COAs attached to approved drilling permits. COAs permit the BLM to respond to newer environmental concerns which were not necessarily evident at the time an older oil and gas lease was issued and were therefore not incorporated into lease stipulations. Federal oil and gas lease standard terms allow for subsequent modification of operational requirements in this manner.

Resource Management Plans have typical lifetimes of 10-15 years. Management plans are usually specific to a particular BLM field office or USFS national forest, however some field offices may have multiple RMPs covering the field office area or multiple offices may cooperate on a common plan. During their lifetimes, amendments and updates may occur which may add to environmental restrictions on oil and gas development Conditions of Approval attached to drilling permits are less easily researched than are leasing stipulations. COAs may be found attached to NEPA compliance documents associated with major development activities. Management plans may also contain listings of guidelines or Best Management Practices that are typically attached to drilling permits as COAs. Guidelines and COAs may become stipulations in subsequent management plans.

Collectively, these restrictions on oil and gas may be considered agency-mandated conservation measures. This study [WGA's O & G Analysis] has examined 136 management plans, major NEPA documents, and BLM state office guidelines from the past 24 years (since 1980) to determine a history and current inventory of sage-grouse conservation measures imposed by BLM and USFS. Ten of the eleven sage-grouse states are included, missing only California. Although the focus of the study was on oil and gas conservation measures, the study has included areas outside of existing oil and gas development areas in an attempt to obtain a range-wide assessment. It is virtually certain that this list is incomplete. A complete inventory would have required personal contacts and timely responses from approximately 75 BLM field offices or National Forests. This study has relied upon three principal data sources:

1. Resource Management Plan information contained in the EPCA inventory of restrictions to oil and gas development within portions of the Interior West (DOI, et al, 2003).
2. Resource Management Plans and NEPA documents from major oil and gas development projects accessible online from BLM field offices and national forests during June and July, 2004.
3. Limited personal telephone contact with various BLM state and field offices and national forest offices.

WGA's O & G Analysis at 29. WGA's O & G Analysis identified some 136 existing conservation measures. Further:

The conservation measures listed in Table 2.10 represent formal commitments by the individual agency office in its management plan or other approved regulation.

These measures are, therefore, certain to be implemented unless succeeded by new plans or regulations.

In addition to existing mandated conservation measures, the history of management plans with respect to sage-grouse protective measures suggests that successor plans will be at least as environmentally restrictive as previous guidance. Analysis for this study of the level of sage-grouse restrictions over time indicates increasing restriction in several key protective measures. The trend of key indicators within management plans and guidelines, range-wide by decade, is indicated in Table 2.11.

**There is a high level of certainty that conservation efforts will be implemented and that quantifiable objectives are in place.**

**There is also a high level of certainty that the conservation efforts will be effective.**

Up until about 1980, almost all state wildlife agencies were reporting stabilized or increasing populations of the bird, in contrast to analyses from the WAFWA report (Connelly *et al*, 2004, Table 6.19). Upon recognition of potential threats to the species, in the mid- to late-1990s, regulatory agencies, private organizations, individuals, and industry commenced expanded and unprecedented cooperative efforts to conserve the species and sagebrush habitat. Conservation measures, have been matched, in most areas, by a dramatic reduction in sage grouse population declines and in many areas have coincided with stabilization or increases in populations (Table 1.1). These cooperative conservation measures have thus demonstrated effectiveness in commencing recovery of sage-grouse and sagebrush habitat and should be an important consideration in the USFWS listing decision.

**There is a high level of certainty, given the parties to the conservation efforts, their demonstrated commitments to the efforts, and their history of receiving funding for species conservation.** These programs provide matching funds to leverage investment dollars. Many programs have been or are currently being funded through these programs. Some of the programs available for sage-grouse conservation efforts, and recent funding levels, are indicated in Table 2.5.

The WGA Analysis at 94. The North American Grouse Partnership, as previously stated, expressed real concern for a multitude of cooperative conservation efforts (and indeed predicted failure for some) should a listing occur. Letter from Dr. James A. Mosher, North American Grouse Partnership, to Pat Diebert, U. S. Fish and Wildlife Service (July 28, 2004) (on file with U.S. Fish and Wildlife Service).

Similar, yet less rigorous efforts, have been relied upon by the FWS to delist several species or withdraw proposed listings.

- The FWS relied on conservation activities implemented during the last several years as significantly reducing threats to the least chub so that the proposed listing was withdrawn. 64 Fed. Reg. 41061 (July 29, 1999).
- The FWS relied, in part, on a Conservation Agreement signed by seven Federal and State agencies in withdrawing its proposal to list the flat-tailed horned lizard. Despite the admitted failure to implement some of the high-priority actions outlined in the management strategy, the FWS supported delisting where the parties to the Conservation Agreement had been working in good faith to accomplish those tasks. Press Release, U.S. Fish and Wildlife Service, Fish and Wildlife Service Concludes Flat-Tailed Horned Lizard Not Threatened With Extinction, (Jan. 3, 2003).
- On March 17, 2000, the FWS withdrew a proposal to list the Pecos pupfish as endangered under the Endangered Species Act because a conservation agreement developed by State and Federal agencies in New Mexico and Texas will remove or sharply reduce threats to the species' survival. In addition, historic habitats will be restored for pupfish reintroduction, and populations may be reintroduced on private lands if owners voluntarily agree.
- The Robbins' cinquefoil was delisted just a few years after listing due to conservation efforts of a partnership among the Fish and Wildlife Service, the U.S. Forest Service, the Appalachian Mountain Club, and the New England Wild Flower Society. Press Release, U.S. Fish and Wildlife Service, Rare White Mountains Plant Recovers: Endangered Species Success Story, (Aug. 28, 2002).
- In its decision to withdraw the proposed listing of the mountain plover, the FWS recognized that, in the last few years, federal land management agencies and state and county governments had become more actively involved in mountain plover management. For example, the FWS affirmed that formalized conservation efforts by the Colorado Division of Wildlife, in cooperation with the Colorado Farm Bureau, will improve the status of the mountain plover and that the Nebraska Game and Parks Commission, working with the Rocky Mountain Bird Observatory, has also initiated a landowner incentive program called the Shortgrass Prairie Partnership. Even though both the Colorado and Nebraska habitat conservation programs were voluntary, the FWS agreed both wildlife agencies had the authority to initiate, fund and implement them. Admitting that these conservation efforts, the FWS concluded they had shown some initial successes and were likely to provide a significant level of protection for the mountain plover. 68 Fed. Reg. 53083 (Sept. 9, 2003).
- The FWS delisted the Hoover's woolly-star because the management practices of, and commitments by, the U.S. Bureau of Land Management – on whose land a substantial number of the new populations of Hoover's woolly-star had been found – afforded adequate protection to the species. Moreover, the FWS noted

that, following delisting, BLM designated Hoover's woolly-star as a "sensitive species" to provide for continued protection and monitoring of the species on BLM lands. Press Release, U.S. Fish and Wildlife Service, California Native Plant Removed From Federal Threatened Species List, (Oct. 7, 2003).

- State and Tribal activities that helped convince the FWS to remove the black-tailed prairie dog from the candidate species list included drafting management plans, enacting laws that change the status of the species from pest to a designation that recognizes the need for special management, establishing regulations that allow for better management of recreational shooting, and setting future goals for occupied habitat that will address population management needs for disease and other threats. 69 Fed. Reg. 51217 (Aug. 18, 2004).

The Western Governor's Association summaries of the "unprecedented" locally-driving efforts to conserve the sage grouse, as discussed and attached as Exhibits A and B, provide an exhaustive list of impressive on-the-ground work that would likely be compromised should the species be listed.

The 90-day Finding should be corrected or retracted. It currently reads, "all existing State and private conservation planning efforts for sage-grouse are ineffective" because "no regulatory mechanisms or funding resources are in place to ensure these efforts are implemented." 69 Fed. Reg. 21484, 21492 (April 21, 2004).

Correction of the information disseminated is consistent with the State of Colorado's comments and with the August 26, 2004 Executive Order that requires the Department of the Interior, as well as other Departments, to "implement laws relating to the environment and natural resources in a manner that promotes cooperative conservation, with an emphasis on appropriate local participation in Federal decision-making, in accordance with their respective agency missions, policies, and regulations." Exec. Order No. 13352.

## **VI. Summary of Questions to the FWS**

1. Does the FWS embrace a basic standard of "quality" as a performance goal?
2. Does the FWS consider disseminating information that could support or refute a listing decision that would drastically impact activities and habitat on 110 million acres in eleven Western States as anything but "influential?"
3. Has the FWS met the OMB standards on peer review?
4. Are the models disseminated by the FWS reproducible?
  - a. Has the FWS demonstrated to OMB that there is no other option than to use the third-party models disseminated in the WAFWA Conservation Assessment?

5. Have robustness checks been done by the FWS for the voluminous materials disseminated with no opportunity for public review of their sources?
  - a. Has the public been afforded other mechanisms for determining the objectivity, utility, and reproducibility of information that has not been disclosed?
6. Has the FWS taken into account that many lek counts under-represent greater sage grouse populations because they were undertaken in poor weather conditions, during the wrong season or at the wrong time of day?
  - a. Has the FWS independently verified the 33% of citations disseminated in the petition that were not scientific in nature?
7. Has the FWS taken into account that historical accounts of greater sage grouse populations are vastly overstated?
  - a. How can historical accounts that greater sage grouse “blackened the sky” be reconciled with other information disseminated that suggest the greater sage grouse fly three-to-four feet above the ground?
  - b. Has the FWS considered that: (i) for many species that have been delisted, additional survey work identified additional populations; and (ii) that additional survey work on the greater sage grouse is likely to result in the discovery of additional populations?
8. Has the FWS considered, as they have for many other species, that a robust population in the hundreds of thousands and a vast range in the tens of millions of acres make localized impacts insignificant?
9. Has the FWS overlooked the tens of millions of acres of greater sage grouse habitat owned and/or managed by the federal government in its assessment of regulatory measures?
  - a. Did the FWS err in its previous decisions to withdraw the black-tailed prairie dog from candidate status or delist the mountain plover, the pine barrens tree frog, the peregrine falcon, Aleutian Canada goose, the sicklefin chub, sturgeon chub, the flat-tailed horned lizard, the Hoover’s woolly-star, the McKittrick Pennyroyal, the Robbins cinquefoil and the Rydberg milk-vetch (species with far fewer protections than the greater sage grouse)?

10. Has the FWS overlooked that years with higher numbers of livestock grazed correspond to the highest recorded estimates of greater sage grouse numbers?

11. How can the FWS disseminate information that greater sage grouse numbers are declining when there has been “no definitive range-wide assessment of sage grouse populations and habitats?”

- a. How can the FWS disseminate information that human activities threaten the greater sage grouse when WAFWA identified “no cause and effect relationships?”
- b. How can habitat fragmentation be detrimental yet a mosaic of landscapes be considered beneficial?

12. How can the FWS disseminate information that survival rates are an issue when there are few populations of sage grouse with published survival and recovery estimates?

- a. Why must habitat within 20-30 miles of leks be restored for nesting when nests will likely fail if females are required to move long distances from leks?

13. How can sagebrush habitat be extirpated by juniper when vast areas of sagebrush do not support juniper?

- a. How can invasive plants be both bad and good for the greater sage grouse?
- b. Has the FWS overlooked successful repopulation of reclaimed coal mines in northwestern Colorado as it has disseminated information to the contrary?

14. Has the FWS taken into account that agricultural conversion no longer occurs as it did in the nineteenth and early twentieth centuries?

15. Does the FWS consider annual harvest of 24,000 individuals in ten of eleven Western States insignificant?

- a. Has the FWS considered that more intensive management of harvest has significantly increased populations of other species such that delistings could occur?
- b. How can the FWS view mortality of 24,000 individuals annually as having “no effect on greater sage grouse populations” yet consider other human activities such as oil and gas development a primary threat to the viability of the species?

16. Has the FWS properly considered that greater sage grouse numbers are proportional to livestock use and inversely proportional to predator populations?

17. Has the FWS considered that species much more susceptible to disease, such as the black-tailed prairie dog, were not listed despite significant population impacts?

18. Has the FWS peer-reviewed the WAFWA “Human Footprint” models in accordance with OMB peer review standards?

- a. Was a pre-dissemination review of the models undertaken by the FWS? Do the models meet the robustness checks in that they are reproducible?
- b. What scientific basis was relied upon to create the data sets for the models and what review did the FWS undertake of such data sets to ensure quality, transparency and reproducibility?

19. If fragmentation and noise are inconsistent with successful greater sage grouse nesting and reproduction, how can a greater sage grouse nest and hatch successfully within twenty feet of a busy highway?

- a. How can water developments threaten a species that has been observed, as many species have, congregating around water developments?

20. Has the FWS overlooked the extensive and unprecedented local, State and private efforts underway to conserve the greater sage grouse and its habitat?

21. Was the FWS unjustified in delisting a host of other species based upon far less conservation efforts than those undertaken at all levels of government for the greater sage grouse?

## **VII. Conclusion of FIQA Challenge**

We commend the participating WAFWA members and the other experts that participated in this effort for undertaking a daunting task. Unfortunately, certain information disseminated in the WAFWA Conservation Assessment fails the quality and objectivity standards under the FIQA and the Guidelines and requires prompt correction or retraction. For example, as previously stated, WAFWA completely lacks cause and effect relationships between management action and habitat and population response.

The information disseminated in the petition and the 90-day Finding similarly fail. In spite of the need for review of all pertinent research, information and data, the information presented in the 90-day Finding relies heavily on the petitions, which have been documented to contain an abundance of inaccuracies, contradictions, misstatements and misrepresentations, PAW (2004). In the 90-day Finding, the FWS concedes petition deficiencies brought to their attention by PAW but labeled them “minor errors.” These flaws are significant and cannot be dismissed as minor errors. As Gibson states, “[T]here

is no credible empirical evidence that sage grouse populations have declined or are declining as a result of any recent and ongoing human activity. In fact, the WAFWA Conservation Assessment recognized, “sage-grouse have been observed using habitats altered by man throughout their range.” p.4-18.

Unfortunately, it is clear that the FWS relied heavily on information in the petitions as they failed to provide independent or corroborating evidence in the 90-day Finding. The 90-day Finding was based “primarily on the historic and current destruction, modification, or curtailment of greater sage-grouse habitat or range, and the inadequacy of existing regulatory mechanisms in protecting greater sage-grouse habitats throughout the species’ range.” 69 Fed. Reg. 21484, 21494 (April 21, 2004). Moreover, as Gibson pointed out “there is evidence in the petitions that some information was knowingly misrepresented.” The petition, the 90-day Finding and the WAFWA Conservation Assessment also presents other information that is incomplete, contradictory, irrelevant, misleading and/or speculative. Based on the information presented, and in the absence of other pertinent scientific data and information, a listing decision is not warranted. Indeed, the FWS must correct or retract inaccuracies, bias and uncertainty in the information disseminated.

The magnitude and immediacy of threats to the species should be viewed pursuant to the definitions of the Act. To be considered a threat, a factor should be shown to play a significant role in the population dynamics of the species such that it is likely to become an endangered species within the foreseeable future throughout all or a significant portion of the range. None of the five listing factors as described in section 4(a) of the ESA and further described at 50 C.F.R. 424.11 rise to this level of threat. As a result, the species is not in danger of extinction in the foreseeable future and, therefore, the petitioned action is not warranted. As previously stated, the FWS may address this challenge and correct these problems identified herein by determining a listing of the greater sage grouse is not warranted in December, 2004. As has occurred in a multitude of delisting decisions described herein, the FWS is free to monitor the extensive populations throughout their extensive range in the event today’s positive conditions change.

For all the reasons discussed above, there is no evidence of “historic and current destruction, modification, or curtailment of greater sage-grouse habitat or range.” Moreover, existing regulatory mechanisms are more than adequate to protect a species that numbers in the hundreds of thousands and inhabits 110 million acres of habitat in eleven Western States and two Canadian Provinces.

The FIQA states that the agencies must allow "affected persons to seek and obtain correction of information" that does not comply with the OMB Guidelines. FIQA, § 515(2)(B). Thus, the statute requires not only that the public be able to "seek" the correction of nonconforming information, it must also be able to "obtain" its correction. "Correction" may include supplementation of the record and other actions. OMB Guidelines § V, 3, a, 67 Fed. Reg. at 8459. Both OMB and Interior make clear that the purpose of the administrative mechanism is "[t]o facilitate public review" of agency information practices. OMB Guidelines § III, 3, 67 Fed. Reg. at 8459. Moreover,

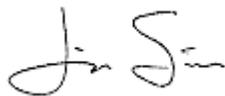
Interior's Guidelines provide that once the Department or agency determines that the challenge has merit, "...it shall take reasonable steps to withdraw the information from the public domain and from any decision making process from which it is being used." Interior Guidelines, § III, p. 4 (emphasis added). The Interior Guidelines also provide that "[I]f the bureau determines that the information does not comply with the [guidelines]...the bureau will use existing mechanisms to remedy the situation, such as re-proposing a rule..." Interior Guidelines, § III, p. 6 (emphasis added).

The 90-day finding said, "...we will perform a rigorous critical analysis of the best available scientific information, not just the information in the petition. We will ensure that the data used to make our determination as to the status of the species is consistent with the Endangered Species Act and the Information Quality Act. 69 Fed. Reg. 21484, 21485 (April 21, 2004). It is for this reason that PFW has submitted this challenge. If, as OMB stated in its report to Congress, "[T]he Bush Administration is committed to vigorous implementation of the Information Quality Act" and that "it provides an excellent opportunity to enhance both the competence and accountability of government," then PFW looks forward to FWS retractions and corrections requested herein. As OMB recognizes, an enhanced reputation for peer review, reproducibility of scientific studies and meticulous fact checking will ensure information disseminated by the agency is believable. This is the kind of quality work we expect of the Department of the Interior and the FWS.

A listing of the greater sage-grouse under the ESA in light of the many uncertainties and errors identified herein would be unconscionable. Exhaustive federal, State and private conservation efforts demonstrate certainty of implementation and certainty of effectiveness such that listing is unwarranted. A listing could negatively impact the species and, as aptly pointed out by many Western States, local governments and stakeholders, jeopardize the extensive collaborative conservation efforts currently underway.

PFW respectfully requests that you respond to this Challenge within 45 days in accordance with the FWS Guidelines. If you have any additional questions regarding this Challenge, please do not hesitate to contact me at (303) 278-4666 or Kent Holsinger of Hale Friesen, LLP at (720) 904-6000. Thank you.

Sincerely,



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