



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Washington, D.C. 20240



In Response Reply to:
FWS/ASCI/061296

SEP 17 2015

Memorandum

To: Regional Director, Mountain-Prairie Region

From: Deputy Assistant Director, Science Applications 

Subject: Response to Petitioners' IQA Challenge on the Conservation Objectives Team Report

On March 18, 2015, Holsinger Law, LLC, representing various Petitioners, submitted an Information Quality Act (IQA) Request for Correction against the Greater Sage-grouse (*Centrocercus urophasianus*) Conservation Objectives: Final Report (COT).

<http://www.fws.gov/informationquality/topics/FY2015/FWS-COT-DQA-Challenge.pdf>

On 24 July 2015, the Department of the Interior (DOI) sent a letter to the Petitioners indicating our intent to include a detailed response to their request in the Decision File for the 2015 determination on whether the Greater Sage-Grouse remains warranted for listing letter.

(<http://www.fws.gov/informationquality/2015-Greater-Sage-Grouse-Conservation-FWS-Response-to-request.pdf>).

The enclosed document constitutes that more detailed response record for inclusion in the Decision File. Please contact Seth Mott or Melanie Steinkamp if you have any questions about the enclosed materials.

Enclosure

Cc: Gary Frazer
Nicole Alt

September 21, 2015

U.S. Fish and Wildlife Service Response Record to the Request for Correction of Information under the Data Quality Act and Applicable Information Quality Guidelines, Dated March 18, 2015

In accordance with the U.S. Fish and Wildlife Service's (FWS) Information Quality Act (IQA) guidelines, this letter responds to the Petitioners' request for correction dated March 18, 2015, and received by the FWS on April 14, 2015 regarding the Greater Sage-grouse (*Centrocercus urophasianus*) Conservation Objectives: Final Report (COT Report). The FWS has prepared this record to address the allegations in the Request. This record is organized by the individual sections provided in the Petitioners' Request (<http://www.fws.gov/informationquality/topics/FY2015/FWS-COT-DQA-Challenge.pdf>). Many of the individual allegations are repetitive and are addressed in the sections where they first appear. As stated in the July 24, 2015, letter to Ms. Kathleen Sgamma (<http://www.fws.gov/informationquality/2015-Greater-Sage-Grouse-Conservation-FWS-Response-to-request.pdf>), this follow-up response record to the Request will be included in the Decision File for the 2015 determination on whether the Greater Sage-grouse remains warranted for listing.

I. "Introduction"

The allegations laid out by the Petitioners in the Introduction are repeated in other sections and will be responded to in the appropriate section.

II. "The Petitioners"

No response requested.

III. "The COT Report Violates the Quality, Objectivity, Utility, and Integrity Standards of the DQA and its Guidelines"

The COT Report does not violate the quality, objectivity, utility, and integrity standards of the DQA and its guidelines. With respect to the allegations regarding the scientific quality, objectivity, utility and integrity standards of the Data Quality Act (DQA) and its guidelines, and misusing the scientific method, an independent peer review of the draft COT Report was conducted to ensure compliance with the DQA, Office of Management and Budget's (OMB) "Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information disseminated by Federal Agencies (OMB Guidelines), Final Information Quality Bulletin for Peer Review (OMB Bulletin), the Department of the Interior Information Quality Guidelines (DOI Guidelines) and FWS Information Quality Guidelines and Peer Review (FWS Guidelines), collectively known as (the "Guidelines"). As per OMB's Bulletin, "Peer review typically evaluates the clarity of hypotheses, the validity of the research design, the quality of the data collection procedures, the robustness of the methods employed, the appropriateness of the methods for the hypotheses being tested, the extent to which the conclusions follow from the analysis, and the strengths and limitations of the overall product. The critiques provided by a peer review often suggest ways to clarify assumptions, findings, and conclusions and identify biases, oversights, omissions, and inconsistencies. Peer review may also encourage authors to more fully acknowledge limitations and uncertainties."

To address objectivity, the peer review was conducted by an external consulting firm that selected the appropriate subject matter experts based on criteria defined in the peer review agenda (posted at <http://www.fws.gov/science/pdf/Order-Statement-of-Work-for-sage-grouse-COT-report-6-6.pdf>). Expertise of reviewers was an important consideration in their selection, with the intent of spanning a variety of scientific disciplines, areas of technical expertise, and scientific perspectives.

To address utility, quality, and scientific integrity, the charge to the reviewers was to, at a minimum, consider and respond to these questions (also found at the above-referenced web link): (1) Are the methods and assumptions used in deriving conservation objectives for the sage-grouse clearly stated and logical? If not, please identify the specific methods and assumptions that are unclear or illogical; (2) Are the results presented in the COT Report reasonable? If not, please identify those that are not and the specifics of each situation; (3) Do the authors of the COT Report draw reasonable and scientifically sound conclusions from the scientific information presented in the COT Report? Are there instances in the COT Report where a different but equally reasonable and scientifically sound scientific conclusion might be drawn that differs from the conclusion drawn by the FWS? If any instances are found where that is the case, please provide the specifics of that situation; (4) Does the COT Report base its interpretations, analyses, and conclusions upon the best available science? If any instances are found where the best available science was not used, please provide the specifics of each situation; (5) Are there any significant peer-reviewed scientific papers that the COT Report omits from consideration that would enhance the scientific quality of the document? Please identify any such papers; and (6) Is the scientific foundation of the COT Report reasonable and how can it be strengthened? Please identify any options to strengthen the scientific foundations, to provide advice on the reasonableness of judgments made from the scientific evidence.

The quality, objectivity, and utility of the draft COT Report was addressed by reviewers considering and responding to these questions. The FWS, upon consideration of the peer review comments, revised the Final COT Report to address peer reviewers' comments and concerns.

III. "A. The COT Report Is Not Transparent"

The title of this heading is transparency, but the allegation references utility and objectivity. The FWS responds to both.

The information in the FWS COT Report meets the criteria of the OMB and FWS Guidelines for "transparency." Transparency applies to research design and methods and data sources and is pivotal to reproducibility. This does not indicate that the FWS must maintain data from studies conducted by other entities. With regard to analytical results, the FWS will generally require sufficient transparency about data and methods that a qualified member of the public could undertake an independent reanalysis. These transparency standards apply to our analysis of data from a single study as well as to analyses that combine information from multiple studies. However, the objectivity standard does not override other compelling interests such as privacy, trade secrets, intellectual property, and other confidentiality protections. The COT Report meets these conditions.

Quality refers to the utility, objectivity, and integrity of the report. The report meets the utility definition because it is helpful, beneficial, or serviceable to its intended users. The purpose of the report was to develop rangewide conservation objectives for the sage-grouse, both to inform the FWS 2015

determination on whether or not the Greater Sage-grouse remains warranted for listing and to inform the collective conservation efforts of the many partners working to conserve the species. The audience for the report was the Sage-Grouse Task Force, chaired by Governors Mead (WY) and Hickenlooper (CO) and the Director of the BLM, and anyone working on sage-grouse conservation. The COT Team successfully delivered conservation objectives for sage-grouse. Integrity was met because the information in the report was kept secure from unauthorized access or revision. Objectivity was met by presenting the information accurately, clearly, and completely. The COT Report provided a conservation framework, including a summary of sage-grouse population and habitat status and threats from numerous studies, a conservation goal, priority areas for conservation, and specific conservation objectives and measures. Guiding principles and definitions (e.g., redundancy, representation, etc.), sources of data used, and uncertainties or potential limitations of the data were described in the report to facilitate reproducibility of the information by other qualified scientists.

The OMB and FWS Guidelines also address transparency as it relates to peer review in the context of “influential” or “highly influential” scientific assessments. As stated under the response to section III, the FWS conducted an independent peer review of the draft COT Report to ensure compliance with OMB's Guidelines and Bulletin. The peer review was conducted by an external consulting firm that selected the appropriate subject matter experts. As per OMB's Bulletin, “Peer review typically evaluates the clarity of hypotheses, the validity of the research design, the quality of the data collection procedures, the robustness of the methods employed, the appropriateness of the methods for the hypotheses being tested, the extent to which the conclusions follow from the analysis, and the strengths and limitations of the overall product.” Comment and concerns of peer reviewers were addressed and incorporated into the Final COT Report.

The Petitioners state, “The alliance had to undergo great lengths to obtain relevant information about peer review of the COT Report” and reference the FOIA request filed by Western Energy Alliance (WEA) on May 2, 2013. The record associated with the FOIA request states, “FWS concedes that it did not respond to WEA's request until litigation commenced, but the parties stipulated to the dismissal of the case (# 10) on January 22, 2014, having "come to an agreement concerning" the FOIA request without the Court entering a single order in the case and only shortly after FWS's answer was filed.” The FWS responded to this allegation as part of the FOIA request; therefore no further response is needed. (Refer to WESTERN ENERGY ALLIANCE v. US Fish and Wildlife Service, [Civ No. 13-cv-02811-MSK](#). (Dist. Court, D. Colorado 2014))

Furthermore, as addressed by the July 24, 2015, coordinated FWS, U.S. Geological Survey, and Bureau of Land Management response to Ms. Kathleen Sgamma, Vice President of Government and Public Affairs, Western Energy Alliance, the COT Report was peer reviewed consistent with OMB's Guidelines; however, due to an oversight the FWS did not announce the forthcoming review on its Peer Review Agenda, as required. The FWS corrected this oversight by posting the completed peer review plan and associated results (http://www.fws.gov/science/peer_review_agenda.html), including the written charge to the peer reviewers, the peer reviewers' names, and peer reviewers' reports (unattributed).

III. “B. The COT Report is Not Reproducible”

The information in the COT Report meets the DQA Guidelines of OMB and FWS for

“reproducibility.” The OMB Guidelines define “reproducibility” as “the information is capable of being substantially reproduced, subject to an acceptable degree of imprecision.” [OMB Fed. Reg. 2002, 67 (36): 8460]. The studies cited in the COT Report meet the OMB Guidelines for “reproducibility” because they contain descriptions of source data, analytical methods for new analyses, methods of research and procedures for data collection and analysis.

The FWS does not reanalyze the underlying data from each publication that it reviews. Rather, the FWS depends upon the quality of the peer review processes that other organizations use to produce scientific papers. The approach is consistent with the FWS and OMB Guidelines, under which peer reviewed scientific publications carry with them the presumption of objectivity. The FWS takes seriously its commitment to its evaluations, maintaining full responsibility for how it interprets the scientific literature and for the conclusions it reaches.

The FWS has its evaluations that qualify as “influential scientific information” peer reviewed consistent with the OMB Bulletin. The COT Report was independently peer reviewed consistent with OMB standards, and this peer review process met the higher standards that the OMB and FWS guidelines require for influential scientific information. The FWS does not consider it the Service’s responsibility under the DQA to see “data and documentation” underlying the papers published in the scientific literature so that it can be provided to persons or organizations who request it. The FWS refers the Petitioners to the authors of each of the studies in which the Petitioners are interested.

III. “C. The COT Report Fails the Required Robustness Checks”

The Final COT Report meets the required robustness check. As defined by the Petitioners, robustness is referring to the DQA standards of quality, objectivity, utility, and integrity; therefore, robustness is addressed in the responses to III, III.A. (Transparency), and III.B. (Reproducibility).

III. “D. The COT Report Contains Conflicts of Interest”

In an effort to have broad representation and a diversity of perspectives, and recognizing that state wildlife agencies have management expertise and management authority for sage-grouse, the Director of the FWS developed a Conservation Objectives Team of state and FWS representatives. Each subject matter expert was selected by his or her state agency. Furthermore, as stated in responses to previous portions of section III, the FWS conducted an independent peer review of the draft COT Report to ensure compliance with OMB’s Final Information Quality Bulletin for Peer Review. The peer review was conducted by an external consulting firm who was responsible for selecting the appropriate subject matter experts based on criteria described by the peer review agenda (posted at <http://www.fws.gov/science/pdf/Order-Statement-of-Work-for-sage-grouse-COT-report-6-6.pdf>). These criteria included language stating, “In addition, the reviewers shall have no financial or other conflicts of interest with the outcome or implications of the report.” By using an external firm to conduct the peer review, the FWS made every effort to use a peer review process to select objective reviewers and safeguard against conflicts of interest.

Also per OMB’s Bulletin, “Both the NAS and federal government recognize that under certain circumstances some conflict may be unavoidable in order to obtain the necessary expertise.” See, e.g., 18 U.S.C. 208(b)(3); 5 U.S.C. App. 15 (governing NAS committees).

III. “E. Peer Review”

As stated in the preceding section, the COT Report underwent a thorough, independent peer review consistent with OMB’s Final Information Quality Bulletin for Peer Review. The peer review was conducted by an independent consulting firm that selected the peer reviewers based upon strict criteria. Using an outside entity to conduct the peer review process safeguarded against conflicts of interest. The peer review agenda established criteria requiring the selection of independent peer reviewers who were experienced senior ecologists, who had previously conducted similar reviews or regularly provided reviews of research and conservation articles for the scientific literature. The contractor assigned an experienced, senior and well-qualified manager to lead the review and select three to five well-qualified, independent reviewers. Expertise of reviewers was an important consideration in their selection, with the intent of spanning a variety of scientific disciplines, areas of technical expertise, and scientific perspectives. The expertise of the reviewers included:

1. A Ph.D. in wildlife ecology, wildlife science, conservation biology, or related field.
2. Demonstrated experience working with endangered species issues and in setting conservation objectives or recovery goals for endangered species.
3. Expert knowledge of grouse biology and population dynamics of lekking birds.
4. Experience as a peer reviewer for scientific publications.

In addition, the reviewers could not have financial or other conflicts of interest with the outcome or implications of the report.

Peer review comments on the draft COT Report were appropriately addressed and incorporated into the final report. For example, peer reviewers scrutinized use of the term “resistance” as defined by the ability of a population or habitats to withstand a threat without experiencing negative consequences. Its value relative to the conservation objectives was questioned and determined to contribute no value. Therefore, resistance is no longer discussed in the final COT Report.

III.E. “1. Peer Review Standards”

As addressed by the July 24, 2015, coordinated FWS, U.S. Geological Survey, and Bureau of Land Management response to Ms. Kathleen Sgamma, Vice President of Government and Public Affairs, Western Energy Alliance, the COT Report was peer reviewed consistent with OMB’s Guidelines; however, due to an oversight the FWS did not announce the forthcoming review on its Peer Review Agenda, as required. The FWS corrected this oversight by posting the completed peer review plan and associated results (http://www.fws.gov/science/peer_review_agenda.html), including the written charge to the peer reviewers, the peer reviewers’ names, and peer reviewers’ reports (unattributed). The FWS addressed the peer reviewers’ comments and concerns by making the appropriate changes to the Final COT Report. The conduct of the peer review was documented by the Department of the Interior’s Scientific Integrity Officer’s January 12, 2015, response to Kathleen M. Sgamma, which dismissed the allegation against the COT Report and its peer review.

III.E. “2. Conflicts of Interest in Peer Review”

As stated in responses to previous portions of section III, the FWS conducted a formal, external, independent peer review of the draft COT Report to ensure compliance with OMB’s Final Information

Quality Bulletin for Peer Review. The OMB Bulletin states, “Scientific integrity, in the context of peer review, refers to such issues as “expertise and balance of the panel members; the identification of the scientific issues and clarity of the charge to the panel; the quality, focus and depth of the discussion of the issues by the panel; the rationale and supportability of the panel’s findings; and the accuracy and clarity of the panel report. Process integrity includes such issues as transparency and openness, avoidance of real or perceived conflicts of interest, a workable process for public comment and involvement, and adherence to defined procedures.” The peer review was conducted by an external consulting firm who was responsible for selecting the appropriate subject matter experts based on criteria that met the OMB Bulletin standards and described by the peer review agenda (posted at <http://www.fws.gov/science/pdf/Order-Statement-of-Work-for-sage-grouse-COT-report-6-6.pdf>). These criteria included language stating, “In addition, the reviewers shall have no financial or other conflicts of interest with the outcome or implications of the report.” By using an external firm to conduct the peer review, the FWS made every effort to use a peer review process to select objective reviewers and safeguard against conflicts of interest.

Furthermore, per OMB’s Bulletin, “With respect to reviewers who are not federal employees, agencies shall adopt or adapt the NAS policy for committee selection with respect to evaluating conflicts of interest. Both the NAS and federal government recognize that under certain circumstances some conflict may be unavoidable in order to obtain the necessary expertise.” See, e.g., 18 U.S.C. 208(b)(3); 5 U.S.C. App. 15 (governing NAS committees).

III.E. “3. Peer Review Failed to Undergo Public Comment”

See response to section III.E.1. Furthermore, there is no requirement for peer review to undergo public review and comment, even for highly influential scientific information. Public comment is recommended when feasible.

III.E. “4. Peer Review Was Not Transparent”

See response to section III.A and III.E.1. Additionally, the written charge to the peer reviewers, the peer reviewers’ names, and peer reviewers’ reports are available at http://www.fws.gov/science/pdf/Final_Sage-grouse_Peer_Review_Report_Oct2012.pdf. As stated in the July 15, 2015, response to Ms. Sgamma, Western Energy Alliance, the draft COT Report was peer reviewed consistent with OMB’s Guidelines; however, due to an oversight the FWS did not announce the forthcoming review on its Peer Review Agenda, as required. The FWS has corrected this oversight by posting the now completed peer review plan and associated results at http://www.fws.gov/science/peer_review_agenda.html.

The primary concerns identified by the peer reviewers and how FWS addressed those concerns in the final COT Report are described in a frequently-asked-questions document, also posted at the above-referenced web link.

III.E. “5. Petitioners Have Made a Persuasive Showing that the COT Report Was Not Objective”

The FWS COT Report meets the OMB requirement for objectivity having “been subjected to formal, independent, and external peer review.”

Furthermore, the Petitioners' submitted information, including Exhibits A, B, and C, is not a persuasive showing for overcoming the presumption of objectivity. Exhibit A is a report prepared by staff of the Center for Environmental Science, Accuracy and Reliability (CESAR). It does not meet the standards and expectation of peer-reviewed science. In addition, names of authors are not provided for this report, although the "senior science advisor" [<http://www.bestscience.org/about-us.html> accessed 8/12/15] of the organization affiliated with Exhibit A is the lead author of Exhibits B and C. Exhibit B is a consultant report, without evidence of peer review. It does not disclose potential financial or other conflicts of interest. Exhibit C is a manuscript described as "open-source peer-reviewed." No supporting evidence of the legitimacy of the 'peer review' for Exhibit C is provided, and the "open-source" used is not a top-tier journal or an "open-source journal." A web search using Google Scholar on September 14, 2015, identified the source of Exhibit C as the Western Energy Alliance website, and further indicated that the manuscript had not been cited in peer-review scientific literature. In sum, these exhibits are best characterized as opinion rather than objective scientific information.

III. "F. The COT Report Was Not Based on the Best Available Science"

The Petitioners do not identify other, better supported peer-reviewed or more well-established methodologies. See also response to sections III., III.B., and III.E.5.

The COT Report used the best-available scientific and commercial information on the ecology and conservation of the Greater sage-grouse and its habitats at the time of its publication, but did not cite everything that was reviewed. The Conservation Objectives Team responsible for drafting the COT Report brought myriad scientific expertise on the Greater sage-grouse, its habitats, and its management. Further, the COT Report was expansive in its consideration of existing information as a foundation for analyses and interpretations, as supported by the approximately 110 literature citations used in its development. The majority of the citations are from peer-reviewed journals and books. Additionally, FWS states, "The report acknowledges the uncertainties associated with the delineation of these areas..." and "the Service interprets these 'options' as suggestions and examples only, not prescriptive or mandatory actions." The COT Report states, "This report is guidance only; identification of conservation objectives and measures does not create a legal obligation beyond existing legal requirements. Nothing in this plan should be construed as a commitment or requirement that any federal agency obligate or pay funds in contravention of the Anti-Deficiency Act, 31 U.S.C. 1341, or any other law or regulation. The objectives in this report are subject to modification as dictated by new findings, changes in species' status, and the completion of conservation actions."

With respect to the Petitioner's allegation, "The onerous regulatory measures recommended in the COT Report are far from justified...." The COT Report is not a regulatory document or mandatory but a guidance document with recommendations.

III. "H. Bias and Lack of Objectivity in the COT Report"

The COT Report meets DQA standards for quality and integrity. "Quality" is an encompassing term that includes utility, objectivity, and integrity. "Integrity" refers to the security and protection of information from unauthorized access or revision to ensure that the information is not compromised through corruption or falsification. "Utility" refers to the usefulness of the information for its intended audience, including the public. "Objectivity" includes whether the disseminated information is presented accurately, clearly, and completely, and in an unbiased manner. The Conservation Objectives

Team analyzed the best scientific and commercial data available to develop the COT Report to ensure to the greatest extent possible that the results were not subject to bias. Uncertainties and limitations that affected the ability of the Conservation Objectives Team to identify all threats and conservation needs, and affected the ability to prescribe a precise level of threat amelioration for grouse, were identified in the report.

III. “I. Unfounded Restrictions on Human Activities”

The COT Report provides recommendations on how to reduce or ameliorate threats to conserve sage-grouse so that it is no longer in danger of extinction or likely to become in danger of extinction in the foreseeable future. The report states (p. 31), “Due to the variability in ecological conditions and the nature of the threats across the range of the sage-grouse, developing detailed, prescriptive species or habitat actions is not possible at the range-wide scale. Specific strategies or actions necessary to achieve the following conservation objectives must be developed and implemented at the state or local level, with the involvement of all stakeholders.” This is reemphasized under the Conservation Measures section for fire (p. 41) that states, “Addressing fire, and subsequent successful restoration activities, in sagebrush ecosystems will require consideration of local ecological conditions, which cannot be prescribed on a range-wide level. Where state sage-grouse management plans already provide an effective strategy for fire, the COT Report defers to those efforts. In all other situations, the following options should be *considered* in developing a fire management strategy” (emphasis added).

The Petitioner’s allegation that “[t]he COT Report concedes a near-total lack of knowledge on how Greater Sage-grouse respond to anthropogenic disturbance...” is incorrect. The COT Report acknowledges that data or information is lacking or unavailable and that “[n]ot all threats or conservation needs are known with certainty.” The COT report continues the discussion by stating, “These uncertainties do not undermine the foundation of PACs as crucial building blocks of a successful conservation strategy, but mean that some flexibility in our strategy will be necessary to retain options for the long-term conservation of the sage-grouse as new information becomes available” (p.14). The report identifies the need to prioritize, fund, and implement research to address existing uncertainties (p. 35).

The recommendations in the report were based on the COT Team’s evaluation of the best scientific and commercial data available at the time, with an acknowledgement of the uncertainties identified above. The COT Report provided a brief summary of threats to sage-grouse (pp. 9-12) and impacts of each habitat threat (pp. 39-52), but it cross referenced the FWS 2010 warranted-but-precluded finding for Greater Sage-grouse (75 FR 13910) for more detailed information (pp. 9, 39). The recommendations described in the report were intended to provide options to reduce the threats facing the Greater Sage-grouse, as identified in the 2010 warranted-but-precluded finding.

The COT Report is built on the guiding concepts of redundancy—multiple, geographically dispersed population and habitats across a species’ range; representation—the retention of genetic, morphological, physiological, behavioral, habitat, or ecological diversity of the species so its adaptive capabilities are conserved; and resilience—the ability of the species and/or its habitat to recover from disturbances. The COT Report includes areas identified as priority areas for conservation, the most important areas needed for maintaining Greater Sage-grouse representation, redundancy, and resilience across the landscape. The conservation objectives identified in the report are targeted at maintaining redundant, representative,

and resilient sage-grouse habitats and populations. Conservation objectives such as “Avoid development of infrastructure within PACs” were included as a recommendation to prevent and reduce further habitat fragmentation in PACs, based on the available information.

III.I. “1. Standards for Sagebrush Canopies are Unsupported”

Although Knick et al. 2003 (and references within) is an acceptable source of documentation, there are other sources that support the statement that little sagebrush within the range of Greater Sage-grouse remains undisturbed. Miller et al. 2011 (p. 147) states, “The primary patterns, processes, and components of sagebrush ecosystems have been altered significantly since Euro-American settlement in the late 1800s (West and Young 2000, Bunting et al. 2003). Few, if any, landscapes remain intact and unchanged throughout the SGCA [Sage-grouse Conservation Area] (Miller et al. 1994, West 1996, Miller and Eddleman 2001).”

Since specific vegetation cover requirements for sagebrush, forbs, and grasses were not identified in the COT Report, the FWS response herein does not address the Petitioners’ discussion about literature that is frequently cited with respect to adequate vegetative habitat requirements. Similarly, the COT report did not discuss the need for 70 percent of the range within priority habitat to provide adequate habitat; therefore, no response is necessary.

The COT Report did not prescribe a number of sage-grouse or acres needed to conserve sage-grouse. Instead, the highest level objective identified in the report is to minimize habitat threats to the species so as to meet the objective of the 2006 Western Association of Fish and Wildlife Agencies’ (WAFWA) Greater Sage-grouse Comprehensive Conservation Strategy: reversing negative population trends and achieving a neutral or positive population trend. The COT Team interpreted this recommendation to mean that actions and measures should be put in place now that will eventually arrest what has been a continuing declining trend. Conservation success will be achieved by removing or reducing threats to the species now, such that population trends will eventually be stable or increasing, even if numbers are not restored to historical levels. The COT Report includes areas identified as priority areas for conservation (PACs), key areas the states have identified as crucial to maintain Greater Sage-grouse representation, redundancy, and resilience across the landscape. Although different techniques and processes were used across states to identify PACs, all used relatively similar population- and habitat-based data sources, including a combination of breeding bird density and lek counts, telemetry, nesting areas, known distribution, sightings/observations, and habitat distribution data (p. 15).

The COT Report acknowledges that there is little information available regarding a specific “minimum sagebrush patch size” required to support populations of sage-grouse (p. 8), but listed the information that is available about their home range sizes and movements that demonstrates sage-grouse can utilize large areas (pp. 8-9). The COT recommendations (not regulations), were made based on this and other data, collectively comprising the best scientific and commercial data available (as opposed to “suspect or faulty bases”). The COT Report did not rely on older research and instead cited a combination of older and newer publications, as appropriate. The COT Report acknowledges data gaps or uncertainties (pp. 14, 31), and identified the need to prioritize, fund, and implement research to address existing uncertainties (p. 35). Despite the uncertainties, to put measures in place now that can arrest the declining sage-grouse trend, the COT Team did recommend (p. 31) that, “impacts to sage-grouse and

their habitats should be avoided to the maximum extent possible to retain conservation options. This approach will ensure that potentially unidentified key components to long-term viability of sage-grouse are not lost, and that management flexibility and the ability to implement management changes will be retained as current information gaps are filled.”

In response to the statements about sagebrush removal, a citation addressing the concern with sagebrush removal and treatment was provided in the following sentences in the same paragraph (p. 44), which state: “Removal and manipulation of sagebrush may also increase the opportunities for the incursion of invasive annual grasses, particularly if the soil crust is disturbed (Beck et al. 2012). Although many treatments are often presented as improving sage-grouse habitats, data supporting the positive impacts of sagebrush manipulation on sage-grouse populations is limited (Beck et al. 2012).” Furthermore, numerous sources were provided (or referenced to the 2010 warranted-but-precluded finding) in the summary of threats to demonstrate that habitat loss and fragmentation is a primary factor in the decline of sage-grouse populations. The COT Report recognizes that other threats can negatively affect sage-grouse, such as predation, disease, and weather events (p. 11). Sagebrush elimination, agricultural conversion, fire, conifers, annual grasses/weeds, energy, mining, infrastructure, grazing, free-roaming equids, recreation, and urbanization were all addressed in the COT Report, and each of these can result in habitat loss, modification (change in quality), or fragmentation. We acknowledge that, when referencing “threat of habitat loss and fragmentation” or “habitat loss,” we could have instead stated, “threat of habitat loss, modification, and fragmentation.”

With respect to the allegation that the FWS has committed itself to an action before making a final decision, the information and recommendations provided in the COT Report are only recommendations; the report is not a policy-making document. The COT Report defers to the state and local level to develop specific strategies and actions to achieve the conservation objectives for sage-grouse (p. 31).

III.I. “2. Misrepresenting the Impact of Oil and Natural Gas Operations”

The COT Report did not purposefully omit reports or mischaracterize data. In the analysis, the Conservation Objectives Team reviewed the best scientific and commercial data available, but did not cite everything that was reviewed, including the Ramey et al. 2011 and Taylor et al. 2010 documents (p. 5 of Exhibit C). Exhibit C provides additional documents that could be considered, but were published after the COT Report was completed. The COT Report did state that dispersal is poorly understood and appears to be sporadic (p. 8), but did not omit science stating sage-grouse can move great distances. In the same paragraph (pp. 7-8), the COT Report states, “movement distances of up to 161 km (100 mi) have been recorded (Patterson 1952; Tack et al. 2011; Smith 2013); however, distances vary depending on the locations of seasonal habitats (Schroeder et al. 1999).”

The COT Report’s assertions are not biased and in error. Since population trends for sage-grouse are largely based on male lek attendance, declines in lek attendance and the extirpation of leks near oil and gas fields is information that should be considered when describing the impacts of energy development. The FWS cited Doherty et al. 2010 on p. 43 and other sources throughout the report when discussing the impacts of oil and natural gas, including declines of sage-grouse and, in some cases, local extirpations near oil and gas fields (Lyon 2000; Holloran and Anderson 2004; Holloran 2005; Kaiser 2006; Aldridge and Boyce 2007; Walker et al. 2007; Doherty et al. 2008). These references and the analysis of energy

development as a threat factor in the 2010 warranted-but-precluded finding, support the statement that oil and natural gas development results in sage-grouse population declines (p. 43).

With respect to the allegation that the COT Report mistakenly presumed that adult sage-grouse rarely switch more selected habitats, the context for this (p. 7) is: “Sage-grouse exhibit strong site fidelity (loyalty to a particular area) to seasonal habitats (i.e., breeding, nesting, brood rearing, and wintering areas) (Connelly et al. 2004; Connelly et al. 2011a). Adult sage-grouse rarely switch from these habitats once they have been selected, limiting their ability to respond to changes in their local environments (Schroeder et al. 1999).” These citations are to studies that support the statement that sage-grouse exhibit site-fidelity.

The COT Report did not cite the Naugle and Copeland 2011 and Naugle and Doherty 2011 studies mentioned by the Petitioners. However, in response to the allegation that these and other studies grossly exaggerate the potential impacts of energy when there is supposedly little overlap between energy development and habitat, the FWS has considered and recognizes that not all sage-grouse habitat is developable.

The Petitioners provided references that were published after the COT Report was released (e.g., Applegate and Owens 2014, Ramey et al. 2014, and Kirol et al. 2015), which therefore could not be considered at the time the report was written.

The allegation that Table 2 of the COT Report (threats) is based entirely on Garton et al. 2011 is incorrect. The populations and subpopulations are mostly the same as those described by Garton et al. 2011 (which was based on Connelly et al. 2004 and Stiver et al. 2006), except for Utah, which are described as management units. The population abundance and estimated quasi-extinction risk from Garton et al. 2011 was included in Table 2. Whether populations were at or below an estimated 200 individuals helped inform, along with other data, whether the population was at risk from small population size/isolation. Analysis of other threat factors in the table was based on the best scientific and commercial data available, the known occurrence of threats, existing management strategies, and professional experience (p. 14), not just Garton et al. 2011. Threats were summarized earlier in the document with a cross reference to the 2010 warranted-but-precluded finding.

The COT Report did not recommend a specific noise threshold, but did make statements such as, “design development to minimize tall structures (turbines, powerlines), or other features associated with the development (e.g., noise from drilling or ongoing operations; Blickley et al. 2012)” (p. 44).

III.I. “3. Mining”

Mining impacts are partly addressed, along with other factors, in the COT Report’s discussion of habitat loss from development. More specific information on mining was cross referenced to the 2010 warranted-but-precluded finding in the summary of threats section, which describes—with citations to scientific studies—how mining directly removes habitat, may interfere with auditory clues important to mate selection, and results in a decrease of males and inhibits yearling recruitment at leks in proximity to mining activity. That finding also provides citations to support the statement that climate change is likely to increase loss of habitat from other threats, such as wildfire. The statement referencing that habitat may take decades to restore (when reclaiming habitat) is supported by information provided

earlier in the report (p. 9), “Not all areas previously dominated by sagebrush can be restored because alteration of vegetation, nutrient cycles, topsoil, and living (cryptobiotic) soil crusts has exceeded recovery thresholds (Knick et al. 2003; Pyke 2011). Additionally, processes to restore healthy native sagebrush communities are relatively unknown (Knick et al. 2003). Active restoration activities are often limited by financial and logistical resources (Knick et al. 2003; Miller et al. 2011) and may require decades or centuries (Knick et al. 2003, and references therein). Landscape restoration efforts require a broad range of partnerships (private, state, and federal) due to landownership patterns (Knick et al. 2003).”

For threats related to recreational activities, ex-urban development, and infrastructure, the COT Report cross referenced the 2010 warranted-but-precluded finding for a more detailed description of these threat factors. Some references were included in the COT Report, such as Bergquist et al. 2007, to document how the spread of annual grasses can be facilitated by infrastructure associated with coalbed methane development.

IV. “The COT Report Misrepresents Several Key Issues”

IV. “A. Robust GRSG Populations”

The COT Report did not set targets for population sizes and lek counts. Its purpose was to provide recommendations on how to reduce or ameliorate threats to conserve sage-grouse so that it is no longer in danger of extinction or likely to become in danger of extinction in the foreseeable future. It called for the stabilization of declining sage-grouse trends by focusing conservation on PACs and by developing and implementing conservation objectives at the state or local level with the involvement of all stakeholders.

Garton et al. 2011 is only one source that has documented declining sage-grouse populations (Braun 1998, Connelly et al. 2004, Stiver et al. 2006, WAFWA 2008). Ramey et al. 2013 may have found errors with Garton et al. 2011, but those errors do not invalidate the entire peer-reviewed, published study and the citations presented are dated after the COT Report was finalized.

The COT Report acknowledges that habitats outside PACs “may also be essential, by providing connectivity between PACs (genetic and habitat linkages)...” (p. 36) and that a robust, range-wide genetics-based connectivity analysis was lacking at the time (p. 31); therefore, a “target” to “enhance genetic connections,” was not set, but recommendations on how to stabilize negative population declines by focusing conservation in the PACs were provided. The COT Report also stated that uncertainties, such as the lack of genetics information, “do not undermine the foundation of PACs as crucial building blocks of a successful conservation strategy, but mean that some flexibility in our strategy will be necessary to retain options for the long-term conservation of the sage-grouse as new information becomes available.” (p. 14).

The Petitioners note that the COT Report does not acknowledge that the large number of sage-grouse (535,542 in the 2010 finding) “sufficiently negates threats” and provided examples where other species have been delisted or removed from candidate status. The Petitioners make the false assumption that population size alone determines the status of species. Instead the COT Report systematically identified and analyzed a species’ overall life history using the best scientific and commercial information available.

IV. “B. GRSG Populations Naturally Fluctuate”

The COT Report establishes that populations of sage-grouse fluctuate and specifically describes this occurrence for at least four populations (pp. 67, 69, 77, 78). The Conservation Objectives Team considered information on fluctuating weather conditions, competition, predation, and other factors; however, the COT Report cited the 2010 warranted-but-precluded finding for a more thorough summary of threats. The COT Report could have also cross referenced the 2010 finding for a more thorough description in the sage-grouse biology and current status section. The COT report did note that “other threats that can negatively affect sage-grouse include, but are not limited to, parasites, infectious diseases, predation, and *weather events (e.g., drought or late spring storms)*. Some of these threats may be localized and of short duration, but may be significant at the local population and habitat level, particularly for small populations” (p. 11) (emphasis added). The COT Report acknowledged that the effect of climate change on the amount and distribution of future habitat is largely unknown (p. 31). The COT Report did not identify objectives for addressing the potential impacts of climate change due to the uncertainties associated with modeling the resulting future condition and distribution of sagebrush habitats. However, the COT Report states that future conservation plans should consider climate change models, using local data when available, in the management of sage-grouse habitats (p. 39).

IV. “C. Predation and Predator Control”

The COT Report considered the impacts of predation. In Appendix A: Management Zone and Population Risk Assessments, at least eight populations mention predation as a potential impact to sage-grouse. The report lists predation as one of the threats that can negatively affect sage-grouse, stating it can be localized and of short duration, but may be significant at the local population and habitat level, particularly for small populations (p. 11). Though threats such as predation may be significant at a localized level, particularly if habitat quantity and quality is compromised, predation was not identified by the FWS as a significant range-wide threat in the 2010 warranted-but-precluded finding (75 FR 13910); therefore conservation recommendations specific to predation itself were not developed for the COT Report. Predation was partially addressed in combination with other threats. One example is the conservation option to not allow landfills in sage-grouse habitats, or within 5 km of sage-grouse habitats (p. 50, under ex-urban development), recognizing that landfills attract predators such as ravens. While the COT Report did not place predation in its own category for conservation recommendations, conservation objectives can still be developed at the state or local level.

IV. “D. Hunting”

The impacts of recreational hunting were analyzed in the 2010 warranted-but-precluded finding (cited in the COT Report). Hunting is not universal across the range and varies geographically; not all populations experience the same degree of hunting pressure and some areas receive little to no hunting pressure at all. As discussed in the 2010 warranted-but-precluded finding, the FWS does not believe that recreational hunting as a singular factor poses a threat to the species across its range, though negative impacts to local populations have been demonstrated. The States have authority to adjust seasons and allowable harvest levels, including emergency closures if needed. Hunting was not addressed in detail in the COT Report because it was not found to be a factor driving population declines and is being managed closely by the states.

IV. “E. West Nile Virus”

The COT Report mentions West Nile virus once in the body of the report as one example of “other” threats to sage-grouse, including parasites, infectious disease, predation, and weather events and the occurrence and importance of each of the above threats to sage-grouse varies across the species’ range. Specifically, the outbreak of West Nile virus in 2008 in the sage-grouse population of southwestern North Dakota is used in the COT Report as an example of a local effect (page 18). The only other place West Nile is referred to in the COT Report is in Appendix A, where it is included as a local threat specific to four management zones. Neither of these inclusions of West Nile virus as potentially affecting the species (and supported by recent literature in the COT Report) results in “onerous and unfounded mitigation requirements.”

IV. “F. Existing Regulatory Mechanisms”

The COT Report acknowledges that land management agencies and states are working to develop adequate mechanisms to address threats to sage-grouse and their habitats. For example, page 11 of the COT Report reads, “While specific regulatory mechanisms are not addressed in this report, federal land management agencies, and many state and local governments across the species’ range are working to develop adequate mechanisms to address this threat.” With regard to the Petitioner’s reference to the National Environmental Policy Act (NEPA) as, “a valid regulatory mechanism to conserve Greater Sage-grouse,” NEPA does not require any particular course of action be taken after an Environmental Impact Statement has been completed and therefore may or may not lead to conservation actions.

Furthermore, the purpose of the COT Report was to develop rangewide conservation objectives for the sage-grouse, both to inform the FWS 2015 determination on whether or not the Greater Sage-grouse remains warranted for listing and to inform the collective conservation efforts of the many partners working to conserve the species; therefore, the intended use of the COT Report is to help inform both non-regulatory and regulatory actions.

IV. “G. Livestock Grazing”

The COT Report used the best available scientific and commercial data available at the time to provide recommendations on how to reduce or ameliorate threats to conserve sage-grouse so that it is no longer in danger of extinction or likely to become in danger of extinction in the foreseeable future. The conservation objectives and measures recommended in the COT Report, including those associated with grazing, are not regulatory. The threat of grazing, as described by the COT Report, is specific to improper grazing, not grazing in general, as alleged by the Petitioners. The COT Report recognizes the variability in threats and ecological conditions across the range of the species, including those related to improper grazing, and acknowledges that there is not a “one-size-fits-all” solution for reducing those threats. The COT Report conservation objective for grazing reads, “conduct grazing management for all ungulates in a manner consistent with local ecological conditions that maintains or restores healthy sagebrush shrub and native perennial grass and forb communities and conserves the essential habitat components for sage-grouse (e.g. shrub cover, nesting cover).” The COT Report recognizes that in some cases, grazing provides benefits to the habitat. For example, page 42 discusses the value grazing can add by, “...employing grazing management that maintains the perennial native grass and shrub community appropriate to the local site....”

The COT Report acknowledges the uncertainty associated with grazing impacts. For example, on page 84, the COT Report states, “Whether or not this condition is the result of historic or current livestock grazing practices and/or wild horse utilization is debatable, but the fact that it continues to exist requires more appropriate management actions to improve the condition of the habitat.”

The COT Report does cite two older studies by Young et al. (1972 and 1976) when referencing the range expansions of annual grasses and noxious perennials as facilitated by ground disturbances, such as improper grazing, but also cites a more recent study (e.g. Knick et al. 2011) which summarizes factors associated with sagebrush habitat loss and fragmentation, including grazing for livestock.

IV. “H. State, Local and Private Conservation Efforts”

The COT Report was developed with clear recognition of the conservation efforts undertaken by states. Recognizing that state wildlife agencies have management experience and management authority for sage-grouse, the FWS Director asked each state within the range of the Greater Sage-grouse to join the FWS in a collaborative approach to develop range-wide conservation objectives. The resulting COT Report is the result of the Conservation Objectives Team (COT) working together to produce recommendations regarding the degree to which threats need to be reduced or ameliorated to conserve the Greater Sage-grouse.

With respect to recognizing state conservation efforts, the highest level objective identified in the report is to minimize habitat threats to the species so as to meet the objective of the 2006 Western Association of Fish and Wildlife Agencies’ (WAFWA) Greater Sage-grouse Comprehensive Conservation Strategy: reversing negative population trends and achieving a neutral or positive population trend.

The COT Report is intended to be a guidance document whose recommendations can be used with other existing decision support tools, not as a stand-alone, prescriptive document. The COT Report states, “... the Service interprets these ‘options’ as suggestions and examples only, not prescriptive or mandatory actions.” State and local conservation efforts are not precluded by the information in the COT Report. Furthermore, the COT Report frequently-asked-questions document (http://www.fws.gov/science/peer_review_agenda.html) states, “Individual states and Federal land management agencies either have completed or are in the process of completing state and federal plans that will guide conservation efforts for the greater sage-grouse. The COT Report does not replace or supersede those efforts. Instead, it can serve as a guide to help all conservation partners focus their conservation efforts on the threat-reduction activities that will benefit the species the most.”

IV. “I. Multiple Use Mandates”

The COT Report does not conflict with statutory multiple-use mandates and does not elevate conservation above all other uses of public lands. The mission of the FWS is, “...working with others to conserve, protect and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people” and the vision is, “...to be a leader and trusted partner in fish and wildlife conservation, known for our scientific excellence, stewardship of lands and natural resources, dedicated professionals, and commitment to public service.” The COT Report is intended as a guidance document with recommendations to be considered with respect to many other mandates, sources of information, and decision support tools. The COT Report is not a policy document or mandatory. The COT Report states, “This report is guidance only; identification of conservation objectives and measures does not

create a legal obligation beyond existing legal requirements. Nothing in this plan should be construed as a commitment or requirement that any federal agency obligate or pay funds in contravention of the Anti-Deficiency Act, 31 U.S.C. 1341, or any other law or regulation. The objectives in this report are subject to modification as dictated by new findings, changes in species' status, and the completion of conservation actions.”

V. “The DQA Applies to the COT Report”

The DQA applies to COT Report. As clarified in III.E., the peer review conducted was sufficient to meet the requirements of the DQA.

V. “A. Information Dissemination Product”

In the challenge under this section the Petitioners refer to the Bureau of Land Management’s NTT report as follows, “The agency has represented the NTT Report as, and used it in support of, an official position of the agency in such a way that the Guidelines apply.” FWS has not represented BLM’s NTT report as an official position of FWS.

In addition, the COT Report states, “This report is guidance only; identification of conservation objectives and measures does not create a legal obligation beyond existing legal requirements. Nothing in this plan should be construed as a commitment or requirement that any federal agency obligate or pay funds in contravention of the Anti-Deficiency Act, 31 U.S.C. 1341, or any other law or regulation. The objectives in this report are subject to modification as dictated by new findings, changes in species’ status, and the completion of conservation actions.”

V. “B. Third-Party Information”

The COT Report meets the quality, objectivity, utility, and integrity standards required by the DQA. To ensure compliance with the DQA, the COT Report was independently peer reviewed using a process consistent with OMB’s Final Information Quality Bulletin for Peer Review and FWS Information Quality Guidelines and Peer Review.

V. “C. If Uncorrected, the COT Report Will Cause Substantial Harm”

The COT Report (USFWS 2013) provides objectives based upon the best scientific and commercial data available at the time of its release. The information in the COT Report meets the standards identified in the DQA for quality, integrity, objectivity, and utility. The COT Report is intended as a guidance document with recommendations to be considered with respect to many other mandates, sources of information, and decision support tools. The COT Report is not a policy document or mandatory.

V. “D. The COT Report is Highly Influential Information”

The peer review conducted for the COT Report met the conditions established by the OMB and FWS Guidelines for influential and highly influential information.

V. “E. Petitioners are “Affected Person(s)” Qualified to Bring a DQA Challenge”

The FWS has no position on whether the Petitioners are “Affected Persons” qualified to bring a DQA challenge.

VI. “The COT Report Does Not Comply with Other Federal Standards”

This section reads, “While scientific integrity and transparency in agency decision making are enumerated priorities for this administration, the NTT report falls short of these goals.” This allegation references the Bureau of Land Management’s NTT, therefore, no response is provided.

VI. “A. The COT Report Does Not Comply with Presidential Direction on Scientific Integrity and Transparency”

As described above in sections III.A., III.B., and III.E.4., the COT Report was prepared with the highest standards of scientific integrity and transparency and complied with OMB, DOI, and FWS standards.

VI. “B. The COT Report Fails to Comply with DOI Scientific Integrity Standards”

As described above, the COT Report was prepared with the highest standards of scientific integrity and transparency and complied with OMB, DOI, and FWS standards. See responses to sections III. A-H and section V.A.

VI. “C. Paperwork Reduction Act”

Preparation of the COT Report does not meet the Paperwork Reduction Act definition of “collection of information,” 44 U.S.C. 3502(4), therefore, FWS was not required to submit a request to OMB.

VII. “Conclusion”

Allegations presented in the conclusion are redundant with those addressed in the above sections. Refer to the information presented above for responses to the conclusion.