

April 2, 2013

United States Fish and Wildlife Service Division of Policy and Directives Management 4401 North Fairfax Drive – MS 2042-PDM Arlington, VA 22203

Docket No. FWS-R6-ES-2012-0108

Sent electronically to http://www.regulations.gov

Re: Comments in Favor of State and Local Efforts to Conserve the Gunnison Sage Grouse Rather Than a Federal Listing

Dear Sir or Madam:

The American Petroleum Institute ("API") appreciates this opportunity to comment on the U.S. Fish and Wildlife Service's ("FWS") proposed rules for endangered status for the Gunnison Sage Grouse. ("Proposed Rule"). API submits these comments concurrently with comments on the proposed critical habitat designation for the Gunnison sage grouse ("GUSG"). API hereby incorporates by reference its comments on the proposed critical habitat designation for GUSG.

API is a national trade association representing over 500 member companies involved in all aspects of the oil and natural gas industry. API's members include producers, refiners, suppliers, pipeline operators, and marine transporters, as well as service and supply companies that support all segments of the industry. API and its members are dedicated to meeting environmental requirements, while economically developing and supplying energy resources for consumers. If the FWS proceeds with the proposed listing, API members may be subjected to Endangered Species Act ("ESA") requirements and restrictions that would impact their business operations.

The most significant changes subsequent to prior decisions not to list GUSG are the implementation of <u>additional</u> conservation measures covering thousands of acres of public and private lands. In the past thirteen years, the GUSG has consistently remained on the FWS's radar, and by extension, in the federal register.³ However, only in its most recent decisions, and only compelled by litigation, has the FWS's

¹ 77 Fed. Reg. 70410 (Nov. 26, 2012).

² 78 Fed. Reg. 2543 (Jan. 11, 2013).

³ In 2000, the FWS designated the Gunnison sage-grouse as a candidate species under the ESA, with a listing priority ("LPN") number of 5. 65 Fed. Reg. 82310 (December 28, 2000). In the 2003 Candidate Notice of Review (CNOR), the FWS elevated the listing priority number for Gunnison sage-grouse from 5 to 2. 69 Fed. Reg. 24876 (May 4, 2004). In the

substantially elevated the GUSG's status under the ESA.⁴ Here, in its proposed listing rule, the FWS has departed from all of its previous reasoning and analysis which concluded that the GUSG should <u>not</u> be listed. The FWS fails to provide sufficient justification today that GUSG should be listed.

Given flaws in the scientific conclusions regarding GUSG status as a species, population trends, overstated threats 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.

I. LISTING IS NOT WARRANTED UNDER THE FIVE LISTING FACTORS

The FWS is to consider five criteria in making listing decisions.⁵ In making its listing decision, the ESA required the FWS to utilize the "best available science and commercial data available." Here, listing GUSG is not warranted. Of the five listing factors, we shall address the most relevant in these comments.

A. Threats to GUSG are Overstated

Some 54% of occupied GUSG habitat occurs on federal land: 42% under the management of the Bureau of Land Management ("BLM"); 2% under the management of the National Park Service; and 10% under the management of the United States Forest Service ("USFS"). The FWS addresses the regulatory mechanisms existing under each one of the agencies, but uniformly dismisses them as discretionary, unsubstantiated, or voluntary. This position unfairly and inaccurately casts these agencies' statutory mandates, regulations, policies, plans, and internal guidelines as nothing more than words on paper, and not codes of conduct that translate into real on-the-ground land-use decisions and consequences. As discussed in more detail below, such treatment runs afoul of the FWS's duties to adhere to the best available science and Data Quality Act. The FWS should rethink and reanalyze the substantial regulatory mechanisms already put in place by its fellow federal agencies, holding in-check any predisposition to find them lacking.

1. Alleged Threats from Residential Development are Insufficient To Merit Listing

The FWS overstates threats from residential development in the Proposed Rule. All U.S. cities and towns occupy only 3 percent of the nation's land. Alleged localized threats from residential development are insufficient to merit listing. The FWS's residential development analysis relies far too heavily on the landscape-scale spatial model predicting GUSG nesting probability developed by

subsequent 2005 CNOR, the FWS maintained the LPN for GUSG as a 2. 70 Fed. Reg. 24870 (May 11, 2005). In 2006, the Service determined that listing the Gunnison sage-grouse as an endangered or threatened species was not warranted and published the final listing determination in the Federal Register on April 18, 2006. 71 Fed. Reg. 19954 (April 11, 2006). In 2010, prior to its current proposed rule and spawned by a lawsuit and subsequent settlement agreement, the FWS again undertook review of the GUSG and determined that listing the species as endangered or threatened species was warranted but precluded by higher priority actions and maintained the GUSG's LPN of 2. 75 Fed. Reg. 59804. The current proposed rule is also the result of litigation and settlement thereof. *In re: Endangered Species Act Section 4 Deadline Litigation*, 1:10-cv-00377 (D.C. Dist. Ct. June 10, 2010).

⁵ 16 U.S.C. § 1533(I)(A)-(E).

⁶ ESA 4(b)(1)(A).

⁷ 78 Fed. Reg. 2525 – 28.

⁸ USDA 1997 Natural Resources Inventory.

Aldridge *et al.* (2011). This model was developed based exclusively on nesting data from the western portion of the Gunnison Basin (Aldridge *et al.* 2011, entire). The FWS's heavy reliance on this model is misplaced because the model extrapolates from the limited nesting data of a small sample size within one portion of the GUSG's occupied habitat to predict nesting behaviors for all GUSG throughout their entire range. Such a flawed data set and protracted extrapolation certainly cannot represent the best available science.

This model's lack of ubiquitous application is particularly suspect following the FWS extensive discussion of the unique habitat and challenges faced by each of the seven distinct GUSG populations, and can be confirmed through a cursory examination of the FWS's own GUSG proposed critical habitat maps.¹¹

The Office of Management and Budget ("OMB") Data Quality Act 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 document what checks were undertaken." 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 FWS has not done so here.

Furthermore, the FWS relies on a questionable "hypothesis" regarding housing density. In fact, the FWS acknowledges this was a preliminary analysis and that the "threshold at which impacts could be expected could be higher or lower." Finally, it is unclear how the FWS arrived at its predicted number of future housing units and related habitat loss as we could not replicate the results of the FWS's calculations. Despite these shortcomings, the FWS determines that residential development is the primary threat to the GUSG, notwithstanding the significant acreage under the federal, state and local control along with private lands enrolled in the CCAA or encumbered by conservation easements.

Greater sage grouse and GUSG have long been observed in proximity to buildings and development. And urban development, said to be the primary threat to GUSG, has increased at a far slower rate than 10-15 years ago.

⁹ 78 Fed. Reg. 2496.

¹⁰ 78 Fed. Reg. 2496.

¹¹ FWS, Colorado Ecological Services Field Office, Proposed Critical Habitat Unit Map (2013), *available at* http://www.fws.gov/coloradoes/gusg/.

¹² 67 Fed. Reg. 8452, 8457 (Feb. 22, 2002).

¹³ Id.

¹⁴ 78 Fed. Reg. 2497.

¹⁵ Pers. Comm. Dr. W. Allard (Feb. 20, 2013).

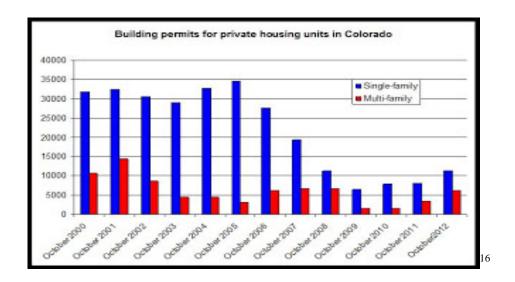


Figure 1. Building Permits in Colorado.

Nor should development be construed to threaten GUSG in San Juan County, Utah. Some 92% of residents have been living in the same house for 1 year or more. Coincident with the range of GUSG, many housing units are unoccupied (1,678 available and only 1,280 occupied.). In addition, from 2000 to 2011, the area has seen only a 3.7% change in occupied housing units.

The FWS failed to consider county regulations regarding the subdivision of land. ¹⁹ One residence in a 35+ acre parcel is a much different prospect than a dense subdivision on the same 35+ acre parcel. The Proposed Rule also includes contradictory statements in that some habitat altering activities are acknowledged as beneficial because they produce mosaics and others as detrimental because they produce fragmentation.

Accordingly, the FWS's reliance on questionable modeling and assumptions regarding housing density is contrary to the ESA and the Data Quality Act and arbitrary, capricious, and not in accordance with the law.

2. GUSG Populations are Stable and Increasing

The Proposed Rule is undermined by population trend data for the GUSG. For example, the Gunnison Sage-grouse Rangewide Conservation Plan stated that the largest GUSG population was likely to persist in the long term. As discussed below, there are also significant issues with how the FWS considers GUSG population trends. The chart below compares the year to year rate of population change of the GUSG based on the FWS's own data.

¹⁶ Colorado Division of Housing, Building Permits for Private Housing Unites in Colorado (Dec. 14, 2012), *available at*: http://www.divisionofhousing.com/2012/12/single-family-permits-in-colorado-up-41.html.

¹⁷ U.S. Census. Available at: http://quickfacts.census.gov/qfd/states/49/49037.html.

¹⁸ Available at: http://www.census.gov/2010census/popmap./ipmtext.php?fl=49.

^{19 78} Fed. Reg. 2523.

²⁰ See 78 Fed. Reg. 2531.

Years	Population Rate Change		
2001 - 2002	-510		
2002 - 2003	-907		
2003 - 2004	14		
2004 - 2005	2512		
2005 - 2006	500		
2006 - 2007	-740		
2007 - 2008	-1109		
2008 – 2009	15		
2009 – 2010	-363		
2010 - 2011	127		
2011 - 2012	471		

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It is clear from the chart above that the population of the GUSG was allegedly in decline in 2001 - 2003, 2006 - 2008, and 2009 - 2010. In contrast, the population was said to be increasing in 2003 - 2006, 2008 - 2009, and 2010 - 2012. Such population estimates clearly do not support listing GUSG as endangered today.

GUSG population estimates appear to be based upon lek counts.²² However, the FWS does not have an accurate count of leks. The FWS identifies 118 leks in occupied habitat: 67 are classified as "active"; 6 are classified as "inactive"; 11 are classified as "historic"; and 34 are classified as "unknown."²³ According to the information the FWS admittedly does not know, there could be anywhere from 67 to 101 active leks within the GUSG's occupied range.

"Active" leks are defined as leks with "at least two males in attendance during at least two of four 10 day count periods." Accordingly, at a minimum, each "unknown" lek represents at least 2 male GUSG, which equates to 68 males for all the unknown leks. The overall population of the GUSG is extrapolated from the number of males present. Thus, 68 males from the unknown leks represent a total population of 334 GUSG. Overall, this means that the FWS's population estimates may be significantly flawed.

"[D]isregard for unknown leks does not allow for rigorous inference from lek-count data and will negatively bias estimates. . . ."²⁶ 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. Sage-grouse trends also have varied dramatically on an annual basis. Although some of this variation was related to

²¹ These calculations represent an average of all the populations and is based-off of data available in 78 Fed. Reg. 2491 - 2492 (Figures 2. - 3.).

²² In other words, extrapolation of population numbers from counts of GUSG present at leks, for example, "Eleven individuals were observed on one lek in 2012, resulting in a population estimate of 54 individuals." 78 Fed. Reg. 2494.
²³ Gunnison Basin leks: 42 active, 6 inactive, 11 historic, 24 unknown; San Miguel Basin leks: 9 active; Monticello-Dove Creek: 4 active; Pinon Mesa: 3 active, 7 unknown (10 leks total, with 3 classified as active, remaining 7 leks unclassified by FWS, classified as unknown for the purposes of this analysis); 2 new "possible" leks (classified as unknown for the purposes this analysis); Crawford leks: 3 active; Cerro Summit-Cimarron-Sims Mesa: 5 active; 1 unknown; and Poncha Pass leks: 1 active. 78 Fed. Reg. 2493 – 94.

²⁴ 78 Fed. Reg. 2493.

The formula is: population estimate = $(C/0.53) + ((C/0.53) \times 1.6)$, where C = male count on lek. Gunnison sage-grouse Rangewide Conservation Plan, p. 45 (2005).

²⁶ Walsh, D.P., G. C. White, T. E. Remington, and D. C. Bowden. 2004.

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.²⁷ In the past three years, three new leks have been found. These new discoveries indicate that the GUSG may be lekking in locations unaccounted for by scientists and therefore the population estimates are even greater than represented or known.²⁸

A secondary problem with the FWS's population estimates is just that – they are estimates. As described above, overall population counts are estimated from the number of male GUSG appearing at a lek in any given year. In making its population calculations the FWS relied upon the GUSG Rangewide Conservation Plan's formula. This plan makes clear, however, that the formula is "not defensible to generate population estimates for sage-grouse from lek counts." ²⁹ Furthermore, use of the formula assumes that all leks are known and counted. ³⁰ Despite this uncertainty, the FWS improperly treats the population estimates as hard-and-fast, incontrovertible data. The FWS vaguely indicates that "there are concerns about the statistical reliability of lek counts and the resulting population estimates," but "nonetheless" it persists in its belief that the species' persistence is at risk. ³¹ However, the ESA does not require the FWS to rely on "belief" but rather the best available science to make its listing determinations. Accordingly, the FWS's population analysis fails to meet the standards of the ESA and the Data Quality Act and is arbitrary, capricious and an abuse of discretion.

Additional survey work on GUSG will likely result in the discovery of additional populations. The FWS has downlisted and delisted other species based upon discovery of additional populations and/or taxonomic or genetic confusion.³² At the same time, as discussed herein, GUSG conservation measures have been on the rise. Given population trends are on the rise and conservation measures in place for the GUSG are at an all time high, the present is a particularly inappropriate time to list the GUSG.

3. Nonrenewable Energy Development (Oil and Gas) is Not a Threat

The FWS's oil and gas analysis suffers from a want of relevant evidence. First, on its face, the analysis does not contain any information specific to the GUSG. Instead, the FWS appears to rely wholly on evidence relative to the greater sage-grouse. Second, the only area (Dry Creek), which the FWS believes "may" be impacted by oil and gas activities, has no evidence to support that there is any actual impact. Hird, although the Bureau of Land Management ("BLM") has withheld leases on GUSG habitat, the FWS remains mistrustful of the BLM despite the BLM's Resource Management Plans, National Environmental Policy Act ("NEPA") analysis, Instruction Memoranda, and statutory obligation to manage the land in order to "minimize the likelihood and need for listing of the [GUSG] under the

²⁷ *Id*.

²⁸ 78 Fed. Reg. 2494.

²⁹ Gunnison sage-grouse Rangewide Conservation Plan, p. 45 – 46 (2005).

 $^{^{30}}$ *Id*.

³¹ 78 Fed. Reg. 2531.

³² See, e.g. wood bison downlisting, 77 Fed. Reg. 26191 (May 3, 2012); not warranted finding on Johnston's frankenia, 76 Fed. Reg. 66018 (Oct. 25, 2011); not warranted finding on Nueces River shiner and plateau shiner, 76 Fed. Reg. 48777 (Aug. 9, 2011); delisting Lake Erie Water Snake, 76 Fed. Reg. 50680 (Aug. 16, 2011); Removal of Maguire Daisy, 76 Fed. Reg. 3029 (Jan. 19, 2011); not warranted finding on northern leopard frog, 76 Fed. Reg. 61928 (Oct. 5, 2011); and not warranted finding on flat-tailed horned lizard, 76 Fed. Reg. 14210 (Mar. 15, 2011).

³³ 78 Fed. Reg. 2511 – 12.

³⁴ 78 Fed. Reg. 2512.

ESA."³⁵ Nonetheless, the FWS concludes that oil and gas development would negatively impact the GUSG by causing habitat loss and fragmentation. ³⁶

The FWS goes on to contradict itself in its discussion of regulatory mechanisms relating to oil and gas, stating "we did not consider that nonrenewable energy development, based on the information available to us, rose to the level of a threat now or in the future." This contradictory statement then forms the basis for ignoring the effectiveness of the regulatory mechanisms of the oil and gas industry. This does not equate to sound and reasoned decision-making as required by the ESA and the Data Quality Act. Accordingly, the FWS's treatment of oil and gas in the Proposed Rule is arbitrary and capricious and an abuse of discretion.

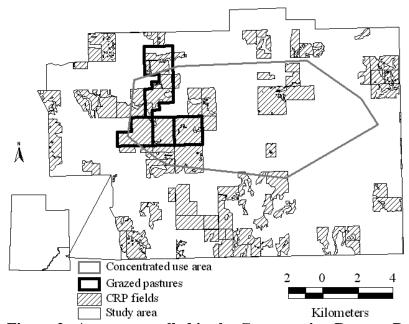


Figure 2. Acreage enrolled in the Conservation Reserve Program in San Juan County, Utah.

4. Flaws in the Analysis of Roads, Powerlines and Fences

The FWS's analysis of roads, powerlines and fences also falls short of statutory standards. For example, the FWS recognizes the "effects of direct strike mortality on populations [of GUSG] are not fully analyzed" and "[f]ences are present within all other [GUSG] population areas, but we have no quantitative information on the amount or type of fencing in these areas." ³⁸ Ultimately, the FWS determined that fences may be a threat to GUSG both directly and indirectly, even though the FWS has "no specific data on the scope of this threat."

The FWS also emphasizes that "numerous threats are likely acting cumulatively to further increase the likelihood that the [GUSG] will become extinct." Such threats include: roads, fences, power lines, and predator corridors. The FWS then ignores that many, if not most, of these threats are cumulative on a geographic and spatial level as well. Common experience confirms that fences are often located next to

⁴⁰ 78 Fed. Reg. 2534.

³⁵ 78 Fed. Reg. 2525 – 26.

³⁶ 78 Fed. Reg. 2512.

³⁷ 78 Fed. Reg. 2525.

³⁸ 78 Fed. Reg. 2505.

 $^{^{39}}$ Id

roads. Thus, the "threat" posed by a road and a fence are not two separate threats but rather one threat. By treating the road and the fence as two separate threats, the FWS artificially expands the threats analysis. The same concept also applies for power lines and predator corridors. Accordingly, the FWS's analysis of roads, fences, powerlines and predator corridors is contrary to the ESA and the Data Quality Act and is arbitrary and capricious and an abuse of discretion under the APA.

5. Disease or Predation do not Warrant Listing

The FWS understates the effects of managing predator levels as a potential benefit to GUSG. The removal of predators was a primary factor in the recovery and delisting of the Aleutian Canada goose in North America. 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. The american removal of predators benefited not only that species, but many other bird species on the islands, including puffins, murres, and auklets.

Leopold (1933) presented the concept that increasing ratios of predator to prey increases predator influence on prey populations. Increasing predator populations lead to 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. 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.

To the extent GUSG populations have declined, the Proposed Rule failed to consider management of predator populations and their potential for positive effects on GUSG populations. The Proposed Rule does contend that increased predation is somehow the result of residential development and its impacts to habitat. However, no information suggests that habitat conditions alone compensate for excessively high predator populations. Similarly, there is no quantifiable evidence that disease is a limiting factor to GUSG. The FWS's analysis of disease and predation is contrary to the ESA and the Data Quality Act as well as arbitrary, capricious and an abuse of discretion.

6. Climate Change is not a Threat

The FWS's analysis of climate change in listing decisions has received much well-deserved criticism. ⁴³ The Proposed Rule is no exception. First, analysis of climate change should be outside the scope of the threats analysis because its effects are not within the "reasonably foreseeable future." ⁴⁴ Indeed, the FWS recognizes that climate change may not take place within the time horizon considered in the Proposed Rule. ⁴⁵ The FWS then attempts to rationalize its analysis because it avers climate change "is likely to

⁴¹ 66 Fed. Reg. 15643 (Mar. 20, 2001); see also FWS News Release, March 19, 2001.

⁴² 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).

⁴³ See e.g., In re Polar Bear Endangered Species Act Listing and 4(d) Rule Litig., 818 F. Supp. 214 (D. D.C. 2011) (Where the impacts of climate change could not be predicted for the "foreseeable future" based on the available information and a lack of data and divergence of available modeling in the IPCC Fourth Assessment Report).

⁴⁴ The definition of "threatened," requires the species to be "likely to become an endangered species within the foreseeable future." Because climate change cannot satisfy the requirement for "threatened" it certainly does not rise to the level of "endangered." 16 U.S.C. § 1532(20).

⁴⁵ 78 Fed. Reg. 2509 ("It is unclear whether or not [by] the year 2050, predicted changes in precipitation and temperature will be of enough magnitude to significantly alter sagebrush community composition and dynamics.")

become an increasingly important threat to the persistence of [GUSG]."46 Such ad hoc justification falls far short of the standards the FWS must apply in the Proposed Rule.

Second, the FWS relies upon a regional model to predict the impact of climate change on the GUSG's range. Regional climate change models are problematic because they compound the inherent problems in the global models and lack verifiability due to insufficient "calibration" data necessary to perform proper statistical analysis. 47 The regional model relied upon here is particularly suspect. As stated by the FWS, "complex, mountainous topography results in a high degree of spatial variability across [Colorado]. As a result, localized climate projects are problematic for mountainous areas because current global climate models are unable to capture this variability at a local or regional scale."⁴⁸ Thus, not only does the FWS's regional model generally suffer from global uncertainties and inadequate baseline data, but because of the mountains, reliable climate projections in GUSG range are impossible to obtain.

Finally, the FWS's analysis improperly leaps to the conclusion that climate change is a "potential" threat to GUSG. Throughout its analysis, the FWS readily and repeatedly admits that that the effects of climate change are uncertain and that prohibitive limitations exist in predicting effects in GUSG range. Nonetheless, the FWS proceeds to build its analysis upon this faulty foundation and speculates as to the impacts climate change "may" have on the GUSG. Instead of taking a balanced approach to its speculation (as the preface to its analysis would suggest: the "effects [of climate change] may be positive, neutral, or negative ..."49) the FWS considers only negative impacts that might befall the GUSG. This type of destination-predetermined analysis is clearly inconsistent with the best available science standard under the ESA and the standards of quality and objectivity required by the Data Quality Act.

The ESA is *not* a proper tool to attempt to regulate climate change. As the FWS has consistently acknowledged, Congress did not intend the ESA to be used in this manner, nor does the FWS have the expertise, authority, or resources to establish a comprehensive carbon emission regulatory program through administration of the ESA. This conclusion has been reached by two Administrations and the federal courts.⁵⁰ Accordingly, The FWS's analysis of climate change is contrary to the ESA and the Data Quality Act as well as arbitrary, capricious and an abuse of discretion under the APA.

⁴⁶ 78 Fed. Reg. 2510.

⁴⁷ The global model relied upon by the FWS is the 2007 Intergovernmental Panel on Climate Change (IPCC), which recognizes its fundamental uncertainties stating, "uncertainty in climate change projections has always been a subject of previous IPCC assessments Uncertainty arises in various steps towards a climate projection (figure reference omitted). For a given emissions scenario, various biogeochemical models are used to calculate concentrations of constituents in the atmosphere. Various radiation schemes and parametrizations are required to convert these concentrations to radiative forcing. Finally, the response of the different climate system components (atmosphere, ocean, sea ice, land surface, chemical status of atmosphere and ocean, etc.) is calculated in a comprehensive climate model. In addition, the formulation of, and interaction with, the carbon cycle in climate models introduces important feedbacks which produce additional uncertainties." Available at: http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch10s10-1.html; Foley, A.M., Uncertainty in Regional Climate Modeling: A Review, Progress in Physical Geography, 34(5) 647–670, 2010. 78 Fed. Reg. 2509.

⁴⁹ 78 Fed. Reg. 2508.

⁵⁰ Remarks of Secretary Dirk Kempthorne, Press Conference on Polar Bear Listing, May 14, 2008; see Omnibus Appropriations Act, § 429, Act of March 11, 2009, Pub. L. 111-8, 123 Stat. 524, 749 (2009); Interior News Release entitled, "Salazar Retains Conservation Rule for Polar Bears," (May 8, 2009) (available at http://www.doi.gov/news/09_News_Releases/050809b.html.); 73 Fed. Reg. at 28313; In re Polar Bear Endangered Species Act Listing and 4(d) Rule Litig., 818 F. Supp. 2d 214, at 231-32 (D.D.C. Oct. 17, 2011).

7. **Invasive Species are not a Threat**

The FWS recognizes there are uncertainties related to how invasive species may impact GUSG. With respect to invasive species, the FWS notes "[q]uantifying the total amount of Gunnison sage-grouse habitat impacted by invasive plants is difficult due to differing sampling methodologies, incomplete sampling, inconsistencies in species sampled, and varying interpretations of what constitutes an infestation."51 In particular, the primary invasive species of concern for the FWS is cheatgrass; however, the FWS "do[es] not have a reliable estimate of the amount of area occupied by cheatgrass in the range of [GUSG]."52 Nevertheless, the FWS determined that invasive species will become an increasing threat in the future," and cheatgrass "could be a major limiting factor when and if disturbance is used to improve habitat conditions, unless mitigated."53 Again, these assertions are without support and contrary to the statutory framework in which the FWS must consider listing decisions. Accordingly, the FWS's analysis of invasive species is contrary to the ESA and the Data Quality Act as well as arbitrary, capricious and an abuse of discretion under the APA.

8. **Drought** is not a Threat

With respect to drought, the FWS found "the available information ... too speculative to conclude that drought alone is threat to [GUSG]."⁵⁴ However, the FWS failed to consider any information regarding precipitation, seepage, groundwater, aquifers, snow-pack, winter severity, spring thaw, or any other information that would give them some indication of the actual conditions regarding water availability in the GUSG range. Considering the vacuum of information, it is no wonder the FWS was unable to form an opinion. Moreover, mild winters are likely to benefit, rather than harm, GUSG. The FWS's analysis of drought is contrary to the ESA and the Data Quality Act as well as arbitrary, capricious and an abuse of discretion under the APA.

II. **EXISTING REGULATORY MECHANISMS ARE SUFFICIENT**

Existing regulatory mechanisms are sufficient to protect GUSG.⁵⁵ The ESA requires the FWS to make listing decisions only "after taking 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."⁵⁶ In the Proposed Rule, the FWS employs a myopic approach to conservation measures that benefit GUSG, considering only the regulatory mechanisms that are specific to GUSG. However, many of the more general conservation measures employed by federal agencies, state, and local government and land trust and private landowners also benefit the GUSG and support a not-warranted finding.

As discussed herein, significant federal, state and local efforts are in place to protect GUSG and their habitat. These protections include, among others: the Clean Water Act; Colorado Oil and Gas Conservation Commission ("COGCC") and Utah Division of Oil, Gas and Mining ("UDOGM") regulations; laws and regulations implemented by the US Forest Service ("USFS"), National Park

⁵¹ 78 Fed. Reg. 2506.

⁵² *Id*. ⁵³ *Id*.

⁵⁴ 78 Fed. Reg. 2531.

⁵⁵ Status Review, Request for Information (4); 16 U.S.C. § 1533(a)(1)(D).

⁵⁶ 16 U.S.C. § 1533(b)(1)(A).

Service and BLM; and local land use regulations. GUSG 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 BLM Manual and the USFS Sensitive Species List. Many of the agencies and the relevant states have participated in the Sage Grouse Initiative. The Gunnison Sage-grouse Rangewide Conservation Plan was adopted by the FWS, USFS, BLM, National Park Service, NRCS, Colorado Division of Wildlife and Utah Division of Wildlife in April of 2005. Tens of thousands of acres of private lands have been protected by conservation easements and fee title acquisitions. Private landowners have enrolled in a Candidate Conservation Agreement with Assurances ("CCAA") with the FWS. Finally, local governments have engaged in active conservation through county land use codes and development standards. The Interagency Policy for the Ecosystem Approach to the ESA requires FWS to consider these important conservation efforts. The FWS's failure to consider these efforts violates the standards of the ESA and the Data Quality Act such that the Proposed Rule is arbitrary, capricious, and not in accordance with the law.

A. The Clean Water Act Protects GUSG Habitat

A portion of GUSG habitat is near rivers and streams. As discussed herein, the FWS considers development, roads, fences and powerlines within GUSG habitat as threats. Development in riparian portions of GUSG habitat is already regulated by existing federal law. For example, rivers and streams of the United States are protected by the Clean Water Act ("CWA").⁵⁸ In particular, the CWA requires: 1) compliance with state and other federal pollution control rules; 2) no degradation of instream water quality needed to support designated uses; 3) control of nonpoint source water pollution by using conservation "best management practices"; 4) federal agency leadership in controlling nonpoint pollution from managed lands; 5) rigorous criteria for controlling discharge of pollutants into the waters of the United States; and 6) avoidance, minimization, and mitigation of adverse impacts to riparian habitats within jurisdictional wetlands and water of the U.S.⁵⁹ The FWS has relied upon the regulatory effectiveness of the Clean Water Act in other ESA decisions.⁶⁰ Failure to consider existing federal laws, such as the Clean Water Act, in the Proposed Rule is inconsistent with the standards of the ESA, the Data Quality Act and the APA.

B. COGCC Wildlife Rules Protect GUSG

The COGCC's rules are promulgated to protect public health, safety, and welfare, including the environment and wildlife resources, from the impacts resulting from oil and gas development in Colorado. 61 In 2007, former Governor Bill Ritter heralded sweeping changes to the COGCC through

⁵⁷ 59 Fed. Reg. 34274 (July 1, 1994).

⁵⁸ 33 U.S.C. § 1251 *et seq*.

⁵⁹ See generally, Claudia Copeland, Specialist in Resources and Environmental Policy, Congressional Research Service, Clean Water Act: Summary of the Law (April 23, 2010).

⁶⁰ Press Release, U.S. Fish and Wildlife Service, Dismal Swamp Southeastern Shrew No Longer Needs Endangered Species Act Protection, at http://news.fws.gov/NewsReleases/r4/01B3D1E7-F31D-11D4-A17F009027B6B5D3.html (March 3, 2000).

⁶¹ C.R.S. § 34-60-105(1) (Commission has the power to make and enforce rules); and § 34-60-106(2)(d) (Commission has authority to regulate "Oil and gas operations so as to prevent and mitigate significant adverse environmental impacts on any air, water, soil, or biological resource resulting from oil and gas operations to the extent necessary to protect public health, safety, and welfare, including protection of the environment and wildlife resources, taking into consideration cost-effectiveness and technical feasibility.").

the Colorado General Assembly. HB 07-1298 and HB 07-1341 dramatically changed the make-up of the COGCC and mandated new rules on wildlife and environmental issues. Following a series of public meetings, the COGCC finalized the rules on December 10, 2008. The COGCC added more than a dozen new employees to implement its rules. Wildlife issues are covered in the 1200-Series of the COGCC's rules and are intended to implement the legislative declaration stated in HB 07-1298 to "plan and manage oil and gas operations in a manner that balances development with wildlife conservation in recognition of the state's obligation to protect wildlife resources and the hunting, fishing, and recreational traditions they support, which are an important part of Colorado's economy and culture." As discussed below, the COGCC has numerous and adequate measures already in place to protect species, including GUSG. Failure to properly consider these substantial measures violates the ESA, the Data Quality Act and the APA.

1. Wildlife Resources and Sensitive Wildlife Habitat

The COGCC broadly defines "wildlife resources" as "fish, wildlife and their aquatic and terrestrial habitats." Consequently, wildlife habitat is subject to the COGCC's protection in addition to the wildlife species themselves.

In addition, the COGCC specifically designates "Sensitive Wildlife Habitat" for certain species. ⁶⁵ Prior to seeking a permit to drill or preparing a Comprehensive Drilling Plan, oil and gas developers must review Sensitive Wildlife Habitat maps (as well as Restricted Surface Occupancy maps) maintained by the COGCC and if the proposed development location falls within the designated areas, the developer must bring this to the attention of the COGCC for its consideration. ⁶⁶ These Sensitive Wildlife Habitat maps are dynamic and are subject to update on a biennial basis and may be modified through the rulemaking procedures. ⁶⁷

Comprehensive Drilling Plans are defined generally as plans created by one or more companies covering future oil and gas operations in a defined geographic area that identifies the natural features of the area, describes future oil and gas operations, identify potential impacts and develop agreed-upon measures to avoid, minimize, and mitigate the impacts.⁶⁸

2. Comprehensive Drilling Plans and Geographic Area Plans

"Geographic Area Plans are intended to enable the COGCC to adopt basin-specific rules that promote the purposes of the Act." They cover entire fields or geologic basins and could include the activities of several different companies over a period of ten (10) years or more. The COGCC may adopt a Geographic Area Plan after a public hearing, and upon consultation with CPW, the Colorado

⁶² Gargi Chakrabarty, *Oil, gas COGCC to hire 14 employees*, Rocky Mountain News, (Dec. 6, 2008), available at: http://www.rockymountainnews.com/news/2008/dec/06/oil-gas-COGCC-to-hire-14-employees/.

⁶³ C.R.S. § 34-60-102(1)(a)(IV).

⁶⁴ COLO.DEPT. of NTL. RESOURCES, OIL & GAS CONSV. COMM., COGCC Rules and Regulations, 100-Series Definitions (April 1, 2012), *available at*: http://cogcc.state.co.us/RR Docs new/Rules/Completed%20Rules.pdf
⁶⁵ *Id*.

⁶⁶ *Id.* at Rule 1201.

⁶⁷ *Id.* at 100-Series Definitions.

⁶⁸ *Id*.

⁶⁹ *Id.* at Rule 513(a).

⁷⁰ *Id.* at Rule 513(b).

Department of Public Health and Environment, and local governmental designee(s).⁷¹ They are to consider local government comprehensive plans or other local government long-range planning tools in their deliberations.⁷² Geographic Area Plans "may include alternative development scenarios, designate units, adopt spacing orders, implement sampling or monitoring plans, or require consolidation of facilities within the area covered by the Plan."⁷³

3. Consultations on Wildlife

With limited exceptions,⁷⁴ companies must consult with CPW and the COGCC to identify possible conditions of approval for drilling in Sensitive Wildlife Habitat, for increases in well density or where a company seeks a variance to the wildlife rules.⁷⁵ In many respects, the COGCC emulated the federal ESA in crafting its consultation provisions.

The procedure for consultation includes submittal of a description of the proposed well, the affected wildlife resources and proposed mitigation.⁷⁶ The company, the COGCC, the surface owner, and CPW have 40 days to conduct the consultation.⁷⁷ Rule 1202 directs the Director to determine whether conditions of approval are necessary to minimize adverse impacts in Sensitive Wildlife Habitat and to evaluate requests for variances from the wildlife provisions of the rules.

"Minimize adverse impacts" is defined to mean:

wherever reasonably practicable, to (i) avoid adverse impacts from oil and gas operations on wildlife resources, (ii) minimize the extent and severity of those impacts that cannot be avoided, (iii) mitigate the effects of unavoidable remaining impacts, and (iv) take into consideration cost-effectiveness and technical feasibility with regard to actions taken and decisions made to minimize adverse impacts to wildlife resources, consistent with the other provisions of the Act.⁷⁸

"Mitigation" is then defined as:

⁷¹ *Id.* at Rule 513(c)(2&3).

⁷² *Id.* at Rule 513(c)(3).

⁷³ *Id.* at Rule 513(c)(4).

⁷⁴ Consultation need not occur where adverse impacts have already been minimized as part of a prior COGCC action, i.e. approval of a Form 2A, variance or Comprehensive Drilling Plan, or where CPW already approved a wildlife mitigation, protection, or conservation plan for the area. According to COGCC staff's Statement of Basis and Purpose: "Consultation under Rule 306.c will also not be required where the proposed new well would involve a one-time increase of surface disturbance of one (1) acre or less per well site at or immediately adjacent to an existing well site; the COGCC determined that such activity is expected to generate only de minimis impacts. Consultation will also not be required where the CCPW has waived consultation or where the consultation would otherwise be unwarranted, such as when an operator demonstrates that the wildlife species or habitat otherwise intended to be protected is not present. . . ." COLO.DEPT. of NTL. RESOURCES, OIL & GAS CONSV. COMM., December 11, 2008 Statement of Basis, Specific Statutory Authority and Purpose (Statement of Basis and Purpose) at 80.

⁷⁵ See Colo.Dept. of Ntl. Resources, Oil & Gas Consv. Comm., Final Draft Rules: COGCC Review Copy (December 7, 2008), Rule 1202(b), http://cogcc.state.co.us/RuleMaking/FinalDraftRules/COGCCFinalDraftRules 110708.pdf.

⁷⁶ *Id.* at Rule 306(c)(2)(A).

⁷⁷ *Id.* at Rule 306(c)(2)(C).

⁷⁸ *Id.* at 100-Series Definitions. *See also* Rule 1202(a).

. . . measures that compensate for adverse impacts to such resources, including, as appropriate, habitat enhancement, on-site habitat mitigation, offsite habitat mitigation, or mitigation banking. ⁷⁹

The CPW can request consultation under the Rules where activities may occur "within areas of known occurrence or habitat of a federally threatened or endangered species, as shown on the CPW Species Activity Mapping (SAM) system." The CPW may also make written recommendations to the COGCC on conditions of approval to minimize adverse impacts to wildlife resources or on whether a variance request should be granted. 81

Where the company, the Director of the COGCC, the CPW and the surface owner agree to conditions of approval, these conditions of approval shall be incorporated into approvals.⁸² Where consultation results in permit-specific conditions of approval to minimize adverse impacts to wildlife resources, the Director shall attach such permit-specific conditions only with the consent of the affected surface owner.⁸³

Rule 1202(c) provides that conditions of approval shall be guided by a list of Best Management Practices for Wildlife Resources (BMPs) that will be maintained on the COGCC website. The list of BMPs are to be developed by a stakeholder group which is to, "develop a compilation of science-based, technologically, and economically feasible practices for minimizing adverse impacts from oil and gas operations in sensitive wildlife habitat." The stakeholder group will include COGCC and CPW staff as well as representatives of industry, environmental groups and surface and mineral owners. 85

In selecting conditions of approval from such BMPs, or other sources, the Director is to consider the following factors, among others:

- (1) Existing BMPs for the geologic basin;
- (2) Site-specific and species-specific factors;
- (3) Anticipated direct and indirect effects on wildlife resources;
- (4) The extent to which conditions of approval will promote the use of existing facilities and reduction of new surface disturbance;
- (5) The extent to which legally accessible, technologically feasible, and economically practicable alternative sites exist for the proposed new oil and gas location;
- (6) The extent to which the proposed operations will use technology and practices which are protective of the environment and wildlife resources;
- (7) The extent to which the proposed location minimizes surface disturbance and habitat fragmentation;
- (8) The extent to which the proposed location is within land used for residential, industrial, commercial, agricultural, or other purposes, and existing disturbances associated with such uses; and

⁸⁰ *Id.* at Rule 306(c)(1)(A(iii).

⁸⁵ *Id*. at 81.

⁷⁹ *Id*.

⁸¹ *Id.* at Rule 306(c)(3)(A).

⁸² See Colo.Dept. of Ntl. Resources, Oil & Gas Consv. Comm., Final Draft Rules: COGCC Review Copy (December 7, 2008), Rule 306(c)(3)(B), http://cogcc.state.co.us/RuleMaking/FinalDraftRules/COGCCFinalDraftRules_110708.pdf.
https://cogcc.state.co.us/RuleMaking/FinalDraftRules/COGCCFinalDraftRules_110708.pdf.

⁸⁴ COLO.DEPT. of NTL. RESOURCES, OIL & GAS CONSV. COMM., December 11, 2008 Statement of Basis and Purpose (Statement of Basis and Purpose) at 81.

(9) Permit conditions, lease terms, and surface use agreements that predate December 11, 2008.

Rule 1203 sets forth an extensive list of sixteen (16) general operating requirements in sensitive wildlife habitat including, with some qualifiers, wildlife crossovers and escape ramps, consolidation of new facilities, minimize rig mobilization and demobilization, share and consolidate new corridors for pipeline rights-of-way and roads, engineering new pipelines to reduce field fitting and reduce excessive right-of-way widths and reclamation, and reducing traffic associated with transporting drilling water and produced liquids through the use of pipelines, large tanks, or other measures where technically feasible and economically practicable.

Rule 1204 sets forth five (5) general operating requirements which must be adhered to statewide. These include bear-proof dumpsters, disinfection of some equipment to prevent whirling disease in cutthroat trout habitat, minimize surface disturbance and the number and length of oil and gas roads, establishing staging and chemical storage areas outside of riparian areas and floodplains, and using minimum practical construction widths for new rights-of-way where pipelines cross riparian areas, streams and critical habitats.⁸⁶

4. Restricted Surface Occupancy Areas

Even more significant restrictions apply to Restricted Surface Occupancy Areas. These are described as areas critical to the conservation of species or habitats as thereby entitled to a higher level of protection. Rule 1205(a) specifies that, "[O]perators shall avoid Restricted Surface Occupancy areas to the maximum extent technically and economically feasible when planning and conducting new oil and gas development operations, except:

- (1) When authorized following consultation under Rule 306.c.(3);
- (2) When authorized by a Comprehensive Drilling Plan;
- (3) Upon demonstration that the identified habitat is not in fact present;
- (4) When specifically exempted by CPW; or
- (5) In the event of situations posing a risk to public health, safety, welfare, or the environment.⁸⁸ (Emphasis added).

New ground disturbing activities are to be <u>avoided</u> in Restricted Surface Occupancy areas, including construction, drilling and completion, non-emergency workovers, and pipeline installation activity, to minimize adverse impacts to wildlife resources. Production, routine maintenance, repairs and replacements, emergency operations, reclamation activities, or habitat improvements are not prohibited in Restricted Surface Occupancy areas. ⁹⁰

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⁸⁶ COLO.DEPT. of NTL. RESOURCES, OIL & GAS CONSV. COMM., Final Draft Rules: COGCC Review Copy (December 7, 2008), Rule 1204 and Statement of Basis and Purpose at 83,

http://cogcc.state.co.us/RuleMaking/FinalDraftRules/COGCCFinalDraftRules_110708.pdf.

⁸⁷ COLO.DEPT. of NTL. RESOURCES, OIL & GAS CONSV. COMM., December 11, 2008 Statement of Basis and Purpose (Statement of Basis and Purpose) at 84-85.

⁸⁸ See Colo.Dept. of Ntl. Resources, Oil & Gas Consv. Comm., Final Draft Rules: COGCC Review Copy (December 7, 2008), Rule 1205(a) http://cogcc.state.co.us/RuleMaking/FinalDraftRules/COGCCFinalDraftRules_110708.pdf.

⁸⁹ *Id.* at Rule 1205(b).

⁹⁰ *Id*.

Where a company seeks to construct an oil and gas location in a Restricted Surface Occupancy area, the company must either make an affirmative showing to the Director that avoidance of the area is technically or economically infeasible, or that they fit within an exception described in Rule 1205(a). Consultation with CPW may be required to determine conditions of approval for such a location. 92

One exception allows for risks to the health, safety, welfare or the environment of the general public. The other exceptions largely mirror exceptions to consultation under Rule 1202: where activities in such an area have been authorized following consultation under Rule 306(c); where a Comprehensive Drilling Plan is in place; where the identified habitat is not present; or when specifically exempted by CPW. Any new ground disturbing activity in restricted surface occupancy areas must be avoided, unless one of the exceptions noted above applies. 95

Among others, restricted surface occupancy areas include areas within 300 feet of cutthroat trout habitat and areas within 300 feet of Gold Medal streams and lakes. The COGCC was to convene a stakeholder process to address additional riparian areas and potential designations as restricted surface occupancy areas because of their importance to fish and wildlife.⁹⁶

5. Intervention in COGCC Proceedings

Rule 509 governs intervention and participation in adjudicatory proceedings. Local governments and the Colorado Department of Public Health and Environment may intervene as of right, and without fees, to raise environmental, health, safety and welfare concerns for the general public. The CPW may likewise intervene to raise concerns about adverse impacts to wildlife resources. Other parties, i.e. environmental groups, may also file protests or intervene in proceedings by permission of the COGCC.

6. COGCC Form 2A

The COGCC Wildlife Rules are implemented, in part, through one of the agency's seminal documents: Form 2A (location assessment). The very first item on Form 2A (consultation) seeks information on whether operators are within sensitive wildlife habitat, wildlife restricted surface occupancy areas and whether the location is included in a Comprehensive Drilling Plan that addresses those issues. 101

Detailed information is then collected on the location, the facilities to be used and the methods of construction and financial assurances for reclamation. ¹⁰² Item 13 seeks information about plant

⁹¹ See COLO.DEPT. of NTL. RESOURCES, OIL & GAS CONSV. COMM., December 11, 2008 Statement of Basis and Purpose (Statement of Basis and Purpose) at 84.

⁹² *Id*.

⁹³ *Id*.

⁹⁴ *Id*. at 85.

⁹⁵ *Id*.

⁹⁶ *Id.* at 82-83.

⁹⁷ See Colo.Dept. of Ntl. Resources, Oil & Gas Consv. Comm., Final Draft Rules: COGCC Review Copy (December 7, 2008), Rule 509(a) http://cogcc.state.co.us/RuleMaking/FinalDraftRules/COGCCFinalDraftRules_110708.pdf.

⁹⁸ *Id*.

⁹⁹ *Id*.

¹⁰⁰ COGCC Rule 1201-2.

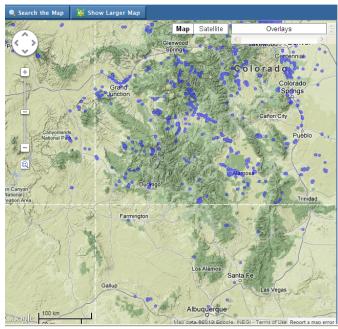
¹⁰¹ COGCC Form 2A (March 2009), available at: http://cogcc.state.co.us.

¹⁰² *Id*.

communities, including but not limited to riparian plants.¹⁰³ Item 14 on Form 2A queries on water resources at the location including: whether it is a sensitive area, a riparian area, whether Clean Water Act compliance is required, whether Rule 317B Surface Water Supply Area buffers apply, and the distance to the nearest surface water.¹⁰⁴

C. State and Local Conservation Efforts Protect GUSG

Colorado is a leader in voluntary conservation on a state, and local level. The Colorado State Wildlife Habitat Protection Program, which matches Great Outdoors Colorado ("GOCO") funds with Wildlife Habitat Stamp monies to protect habitat, has protected more than 300,000 acres of habitat across Colorado. Conservation easements in the GUSG range are identified by the National Conservation Easement Database map:



¹⁰³ *Id*.

¹⁰⁴ *Id*.

Figure 3. Conservation Easements in the range of GUSG.

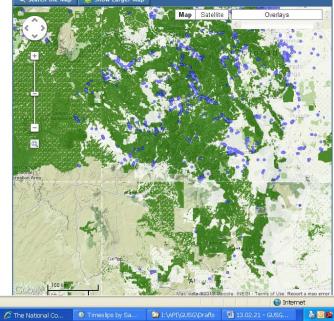


Figure 4. Protected Areas within the Range of GUSG. 105

The FWS discounts Conservation easements that are not specifically directed towards the protection of GUSG. Regardless of whether the conservation objectives specifically target GUSG, any conservation measures that conserves sage-brush habitat should be counted towards the species' persistence. In addition, the FWS's 2009 chart regarding land covered by conservation easements is outdated. ¹⁰⁶ Total acreage in conservation easements was estimated to be 49,780. ¹⁰⁷ Moreover, by our calculations, the FWS understates the acreage of occupied habitat in conservation easements by approximately 2755 acres. Incredibly, the FWS uses different figures for acreage protected by conservation easements in the Proposed Rule (49,780 acres) ¹⁰⁸ and the proposed critical habitat designation (43,160 acres). ¹⁰⁹

According to Great Outdoors Colorado ("GOCO") between 2008 and 2012, over \$50 million was spent on conservation easements and fee title acquisitions within counties in the GUSG range. These funds were used to preserve 29,624.69 acres under conservation easements and to acquire 1,473.19 acres in fee. The breakdown for each county is as follows:

National Conservation Easement Database, (updated Sept. 25, 2012), available at: http://www.conservationeasement.us/. The actual land area covered by conservation easements is available through Colorado State University's COMaP v9, private version. More information is available at: http://gis.colostate.edu/DH.php?WC=/WS/Centroid/comap.html&WebSiteID=13. The number of acres in conservation easements in GUSG Range is 49,780 and the percentage of this acreage occupied by GUSG is 5.3%, which is 2,638.34 acres. However, if the number of occupied acres for each population area is separately calculated (using the same table), the number of acres appears to be 5,392.7 acres. Logic instructs that the number of occupied acres should be identical. 78 Fed. Reg. 2529. The FWS only considered conservation easements held by Colorado Parks and Wildlife since 2009.

¹⁰⁷ 78 Fed. Reg. 2529.

¹⁰⁸ 78 Fed. Reg. 2529.

¹⁰⁹ 78 Fed. Reg. 2555.

¹¹⁰ Great Outdoors Colorado Spreadsheet (Mar. 8, 2013) ("GOGO Spreadsheet") (available upon request).

¹¹¹ *Id*.

County in GUSG Range	Total Expenditures (2008 – 2012)	Conservation Easement Acres	Fee Acres Acquired
Delta	\$1,457,060.00	Acquired 79.9	900
Dolores	\$8,894,330.00	10,519.00	0
Gunnison	\$13,685,858.00	912.69	307.77
Mesa	\$9,495,140.00	1,582.10	130
Saguache	\$12,859,400.00	9,616.00	0
San Miguel	\$4,977,888.00	1,608	135.42
Multi-	\$1,844,206.00	5,307	0
County ¹¹²			
Totals	\$53,213,882.00	29,624.69	1,473.19

The FWS has not taken these substantial efforts into account.¹¹³ By not considering these efforts, the FWS has failed in its duty to cooperate to the "maximum extent practicable" with state agencies.¹¹⁴ The FWS also apparently misunderstands the very nature of a conservation easement, "[C]onservation easements, <u>if properly managed</u>, can minimize the overall impacts to Gunnison sage-grouse."¹¹⁵ Conservation easements, by federal law, must prohibit development in perpetuity.¹¹⁶ And land trusts are charged with stewardship of the properties and heavily regulated (and certified) by the State of Colorado.¹¹⁷

Finally, the FWS misconstrues the "cost" of conservation easements as too high to impact future residential demands. In fact, the cost of acquisition of conservation easements has fallen in recent years due to declining land values. Moreover, land conservation has increased greatly. ¹¹⁸
Finally, the FWS apparently fails to understand that land held in conservation easements (as opposed to fee title acquisition) has no management cost associated to government. In other words, on-the-ground stewardship is born by landowners and is not dependent upon state budgets. Conservation easements, fee title acquisitions and CCAA coverage amounts to an impressive 51,458 acres of private lands in the Gunnison Basin alone. ¹¹⁹ According to CPW, some 62,000 acres covering 33 private parcels have been protected for GUSG and over 16,000 acres of habitat improvements have been made. ¹²⁰

¹¹² Including: Dolores, Montezuma, Saguache, and Gunnison Counties.

Conservation efforts not taken into account by the FWS include conservation easements after September 2009 not held by the CPW. There does not appear to be any separate accounting for lands under fee ownership.

^{114 16} U.S.C. § 1535(a)(1988); see also 50 C.F.R. § 424.16; Endangered and Threatened Wildlife and Plants: Notice of Interagency Cooperative Policy Regarding the Role of State Agencies in Endangered Species Act Activities, 59 Fed. Reg. 34275 (July 1, 1994); 16 U.S.C. § 1531(d).

¹¹⁵ 78 FR 2497 (emphasis added).

¹¹⁶ 26 U.S.C. §170(h)(5)(A) (A contribution shall not be treated as exclusively for conservation purposes unless the conservation purpose is protected in perpetuity.).

¹¹⁷ C.R.S. § 12-61-720.

¹¹⁸ Available at: www.goco.org.

¹¹⁹ 78 FR 2497.

¹²⁰ Pers. Comm. J. VerSteeg, Assistant Director, CPW (Mar. 21, 2013).

D. Candidate Conservation Agreements Protect GUSG

Inexplicably, the FWS seems to discount even its own participation in GUSG conservation efforts. ¹²¹ Private landowners enrolled 12,385 acres in the GUSG CCAA with the blessing of the FWS under Section 10 of the ESA. ¹²² The FWS negotiated the CCAA and could well have addressed any alleged shortcomings it now cites in the Proposed Rule.

E. Local Regulations Benefit GUSG

The FWS is required to take into account efforts made by local governments to protect species and their habitat including local regulations, programs or conservation measures that benefit species. ¹²³ Colorado counties have broad authority regarding land use planning. ¹²⁴ Among other things, counties may regulate development to protect wildlife habitat and species; regulate the locations of activities and development that may result in significant changes in population density, plan for the orderly use of land and the protection of the environment consistent with constitutional rights. ¹²⁵ In doing so, counties may use comprehensive or "master" plans; zoning regulations; and subdivision regulations.

Counties are also empowered to designate "areas and activities of state interest" under so-called 1041 authority. Finally, counties have broad authority over the use and regulation of county and certain other public roads. In fact, Gunnison County has authorized the temporary closure of certain roads for GUSG. 128

Many of the local governments within the GUSG range have land use regulations in place to protect wildlife communities and habitats, wetlands, riparian corridors, and other unique habitat features through discouraging and/or limiting development in certain sensitive areas and promoting layout, design and construction practices that take into consideration wildlife and the environment. Gunnison County, in particular, has adopted stringent rules with regards to GUSG. For example, Gunnison has adopted policies and regulations regarding land use and activities that might impact GUSG. Gunnison County Land Use Resolution § 11-106, Protection of Wildlife Areas, is specifically designed to sustain and enhance GUSG. It requires county review of activities within .6 miles of GUSG leks or occupied habitat along with consultation with CPW. Finally, Gunnison County created a position for a Gunnison County Sage-grouse Conservation Coordinator with regulatory authority under the county's land use code. As detailed in the county's comments to the FWS on the Proposed Rule, Gunnison County has undertaken hundreds of reviews in accordance with these regulations that resulted in significant conditions for GUSG including amendments to covenants and imposition of mitigation and habitat improvements.

The FWS's analysis of voluntary conservation measures falls short of the standards of the ESA and the Data Quality Act. Accordingly, this portion of the Proposed Rule is arbitrary, capricious and an abuse of discretion under the APA.

¹²¹ See 78 Fed. Reg. 2514.

¹²² 78 Fed. Reg. 2555.

¹²³ Section 4(a)(1) and 4(b)(1)(A) of the ESA; 50 CFR 424.11(f).

¹²⁴ See, e.g. C.R.S. § 30-28-101 et seq.; C.R.S. § 29-20-101 et seq.

¹²⁵ See C.R.S. § 29-20-104.

¹²⁶ C.R.S. § 24-65.1-101 et seq.

¹²⁷ See, e.g. C.R.S. § 43-2-201 et seq.

¹²⁸ Gunnison County Commissioners Resolution No. 2007-09.

III. GUSG ARE NOT THREATENED OR ENDANGERED IN A SIGNIFICANT PORTION OF THEIR RANGE

API has commented extensively on the draft policy on the Significant Portion of the Range ("SPR") and hereby incorporates its March 7, 2012, comments by reference.

GUSG "historically occurred in southwestern Colorado, northwestern New Mexico, northeastern Arizona and southeastern Utah." But GUSG were not recognized as a species until the year 2000. Accordingly, "historic" accounts of GUSG have little relevance. Moreover, consistent with the FWS's Draft SPR Policy, it is the <u>current</u> habitat of GUSG that the FWS should consider in the Proposed Rules.

Young et al. (2000) and Schroeder et al. (2004) claim that GUSG have been extirpated over more than 90% of its historic range, a conjecture that the FWS has erroneously accepted as fact. However, there are no museum specimens or sufficient detail in historic records to distinguish a Gunnison sage grouse from a greater sage grouse and test these conjectures. The historic distribution of Gunnison sage grouse is based upon speculation.

In the absence of any physical evidence, Young et al. (2000) speculated that these historic (but now extirpated) populations were GUSG rather than greater sage grouse because: 1) historic sagebrush habitat may have been nearly contiguous between the current range of the GUSG and those in southern Colorado, Utah, Arizona, and New Mexico; and 2) the historic populations in Kansas and Oklahoma were in closer proximity to that of the putative GUSG than to the greater sage grouse. Schroeder et al. (2004) also relied on speculation and selective interpretation of information as a basis for their presettlement distribution of potential GUSG habitat.

For example, Schroeder et al. (2004) state that, "Tate (1923:43) observed these sagegrouse 'strutting about, the sacs on their necks inflated and tails erect. . . hissing and buzzing.' Although the details associated with this description are ambiguous and do not fit the stereotypical descriptions of either sage-grouse species (Schroeder et al. 1999), these birds were hypothesized to be Gunnison Sage-Grouse due to their proximity to the established distribution (Young et al. 2000). Tate (1923) also differentiated between sage-grouse and the two other grouse species present in the region, Lesser Prairie-Chicken (Tympanuchus pallidicinctus) and Sharp-tailed Grouse, perhaps supporting the validity of the observations." However, without supporting physical evidence, the genetic affinities of any historic populations of sage grouse in central and southwestern Colorado, southeastern Utah, northwestern New Mexico, and northeastern Arizona are unknown, as is the extent of the presumed GUSG decline. For the FWS to accept the assumption that historic sage grouse from those regions were GUSG would be to base its listing decision and subsequent policy on speculation and an hypothesis..

GUSG are distributed in seven different populations throughout their range. Accordingly, threats do not affect GUSG viability as a whole. Localized declines in GUSG distribution or abundance may be associated with 500-year drought event that occurred in the West in 2002 and should not be construed as reasoning to list GUSG.

¹²⁹ 78 FR 2545 citing (Shroder et al. 2004, pp. 370-371).

¹³⁰ See Colorado River Cutthroat Trout v. Salazar, 09-223 (D.D.C. 2012) (Where cutthroat trout were determined not to be threatened in a "significant portion of their range").

A. The FWS should use a High Threshold for Significance

API supports the proposed "high threshold" for significance based on the "endangered" standard. This will help ensure scarce conservation dollars are spent on species truly in need of protection. The FWS has improperly applied a low standard of significance in the Proposed Rules. Such an approach fails to fulfill the ESA requirement that listing decisions be based upon the "best available scientific and commercial data." This standard entails maintaining a high threshold and stringent data quality standards.

In this case, the areas under threat are not of substantial size relative to the GUSG current range. As discussed herein, urban development is localized and has been on the decline for several years. And significant protections are in place at the local, state and federal level—particularly where the FWS believes threats are greatest. As discussed herein, additional open space acquisition, conservation easements, local government regulation, and comprehensive wildlife rules related to oil and gas provide adequate protection in GUSG habitat in Colorado. Moreover, significant federal protections are also in place in Colorado and Utah.

B. The PECE Policy Supports a Not Warranted Finding

The Policy for Evaluation of Conservation Efforts When Making Listing Decisions ("PECE") supports a not-warranted finding. PECE 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. There are multitudes of conservation strategies and conservation efforts in place that benefit GUSG. Consistent with the FWS Ecosystem Approach, conservation efforts that protect greater sage grouse and sagebrush habitat should also be considered to benefit GUSG.

Here, there is a high level of certainty that the resources necessary to carry out the conservation efforts are available and numerous federal, state and local parties have the authority to carry them out. Moreover, there are ample and extensive regulatory and procedural mechanisms already in place. The State of Utah and Colorado banned hunting GUSG in 1989 and 2000 respectively.

There is also a high level of certainty that the legal procedural requirements will be met; that adequate regulatory mechanisms are in place to eliminate or adequately reduce the threats to the GUSG; that conservation efforts will be implemented (and effective); and that the parties to the conservation efforts have demonstrated commitments to the efforts and a history of receiving funding for conservation. CPW has spent over \$30 million on GUSG conservation including fee title acquisition and conservation easements. Gunnison County levies a 1% sales tax (approximately \$300,000 annually) that funds the purchase of conservation easements. Since 2000, Gunnison County has collected an additional fee for the county landfill to support a mitigation fund for projects that benefit GUSG, including conservation easements.

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¹³¹ 16 U.S.C. § 1533(b)(1)(A).

¹³² 68 Fed. Reg. 1500, 15115 (2003).

The Gunnison Sage-grouse Rangewide Plan includes local conservation plans for all seven GUSG populations and provides for population expansions and habitat improvements to ensure the long-term survival of GUSG. CPW has three dedicated biologists that provide technical assistance to private landowners for sage grouse habitat restoration and enhancement and projects or enhance sagebrush habitat. CPW also conducts research, closes roads to protect seasonal breeding areas, relocates Gunnison Sage-Grouse for breeding purposes, and preserves and enhances habitat through other measures. CPW has also worked with BLM to close public lands during breeding times. And COGCC Wildlife Rules require consultation with CPW and mitigation measures when oil and gas development is proposed on private land in areas mapped as "sensitive wildlife habitat," which includes GUSG habitat areas. In many respects, the COGCC emulated the federal ESA in crafting its consultation provisions.

The FWS has determined listing is not warranted in similar circumstances. For example, the FWS elected not to list the dunes sagebrush lizard; the flat-tailed horned lizard; the Arizona willow; the mountain plover; the southwestern Washington/Columbia River DPS of Coastal Cutthroat Trout; and the cow head tui chub. Is In addition, 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. 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.

The Robbins' cinquefoil was also delisted just a few years after listing due to conservation efforts of a partnership among the FWS, the USFS, the Appalachian Mountain Club, and the New England Wild Flower Society. 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. 141

State and Tribal activities that helped convince the FWS to remove the blacktailed 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.¹⁴² The FWS should consider these issues and determine that listing the GUSG is not warranted. To do otherwise would be contrary to the standards of the ESA, the Data Quality Act and arbitrary, capricious and an abuse of discretion.

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¹³³ 77 Fed. Reg. 36872 (June 19, 2012).

¹³⁴ 76 Fed. Reg. 14209 (March 15, 2011).

¹³⁵ 60 Fed. Reg. 20951 (April 28, 1995).

¹³⁶ 76 Fed. Reg. 27756 (May 12, 2011).

¹³⁷ 75 Fed. Reg. 8921 (Feb. 25, 2010).

¹³⁸ 71 Fed. Reg. 59,700 (October 11, 2006).

¹³⁹ 64 Fed. Reg. 41061 (July 29, 1999).

¹⁴⁰ Press Release, U.S. Fish and Wildlife Service, Rare White Mountains Plant Recovers: Endangered Species Success Story, (Aug. 28, 2002).

Press Release, U.S. Fish and Wildlife Service, California Native Plant Removed From Federal Threatened Species List, (Oct. 7, 2003).

¹⁴² 69 Fed. Reg. 51217 (Aug. 18, 2004); see also 74 Fed. Reg. 63343 (Dec. 3, 2009).

IV. BEST AVAILABLE SCIENCE, DATA QUALITY AND SCIENTIFIC INTEGRITY

A. Best Available Science

The ESA requires the FWS to utilize the "best scientific and commercial data available." The information, studies and data included herein constitute, in part, the best scientific and commercial data available on the status of GUSG. In this case, if the FWS had appropriately considered the best available scientific and commercial data available, it would have determined that listing is not warranted.

B. Obama Administration Memoranda and Orders

On March 9, 2009, President Obama issued a Memorandum setting forth principles "for ensuring the highest level of integrity in all aspects of the executive branch's involvement with scientific and technological processes." When scientific or technological information is considered in policy decisions, the information should be subject to well-established scientific processes, including peer review where appropriate, and each agency should appropriately and accurately reflect that information in complying with and applying relevant statutory standards." ¹⁴⁵

Executive Order 13563 further echoed the President's Memorandum in calling for "objectivity of any scientific and technical information and processes used to support [an] agency's regulatory actions." Executive policy dictates that the scientific basis on which any listing decision is made be accurate, transparent, objective, and defensible.

The President's Memorandum was followed by Secretary Salazar's Order No. 3305 on September 29, 2010 regarding "Ensuring Scientific Integrity within the Department of the Interior." In his Order, Secretary Salazar warns that the agency "will not tolerate misconduct in the performance of scientific activities or in the application of the products of scientific activity to decision making. ... This policy must clearly direct that DOI employees, political and career, must never suppress or alter, without new scientific or technological evidence, scientific or technological findings or conclusions. Further, employees will not be coerced to alter or censure scientific findings...." 147

Interior's Departmental Manual (the "Manual") implements the President's Memorandum. The Secretary's Order was adopted Chapter 3, Integrity of Scientific and Scholarly Activities (effective Jan. 28, 2011). The Manual defines "scientific and scholarly integrity" to mean, "[t]he condition resulting from adherence to professional values and practices, when conducting and applying the results of science and scholarship, that ensures objectively, clarity, reproducibility, and utility that provides insulation from bias, fabrication, falsification, plagiarism, outside interference, censorship, and inadequate procedural and information security." 148

¹⁴³ 16 U.S.C. §1533(b)(1)(A).

¹⁴⁴ 74 Fed. Reg. 10671, 10671 (March 11, 2009).

¹⁴⁵ *Id*.

¹⁴⁶ *Id.* at 3822.

¹⁴⁷ Sec. of the Interior Order No. 3305 (Sept. 29, 2010), *available at*: http://www.doi.gov/news/pressreleases/upload/Sec-Order-No-3305.pdf.

¹⁴⁸ The Manual 3.5(L).

The Manual defines a conflict of interest to mean "[a]ny personal, professional, financial, or other interest that conflict with the actions or judgment of those covered by this policy when conducting scientific and scholarly activities or using scientific and scholarly data and information because those interest may: 1) significantly impair objectively; or 2) create an unfair competitive advantage for any person or organization, or 3) create the appearance of either (1) or (2)."¹⁴⁹

The Manual's code prohibits department employees, volunteers, contractors, etc. from "engaging in activities that put [them] or others in an actual or apparent conflict of interest." The same employees, volunteers, contractors, etc. are required to "clearly differentiate among facts, personal opinions, assumptions, hypotheses, and professional judgment in reporting results..." and "not withhold information that might not support the conclusions, interpretations, and applications [he or she] make[s]." ¹⁵¹

In addition, scientists and scholars are required to "place quality and objectivity or scientific and scholarly activities and report of results ahead of personal gain or allegiance to individuals or organizations." Scientists and scholars are further required to "welcome constructive criticism of [their] scientific and scholarly activities and ... be responsive to their peer review" and "provide constructive, objective, and professionally valid peer review of the work of others, free from any personal or professional jealously, competition, non-scientific disagreement, or conflict of interest." ¹⁵³

C. The Data Quality Act

The policies above align with the agency's duties under the Data Quality Act ("DQA"). ¹⁵⁴ Both the DQA and the Office of Management and Budget ("OMB") Guidelines require agencies to "ensure and maximize" the quality, objectivity, utility, and integrity" of information disseminated by federal agencies. ¹⁵⁵ "Utility" refers to "the usefulness of the information to its intended users, including the public. ¹⁵⁶ The DQA and the OMB Guidelines require 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 considered to be, under the OMB Guidelines, an "overall" standard of quality. ¹⁵⁷ The U.S. Department of the Interior has also adopted DQA Guidelines. ¹⁵⁸ Among other things, the applicable DQA guidelines favor peer-reviewed information. ¹⁵⁹

¹⁴⁹ *Id.* at 3.5(A).

¹⁵⁰ *Id.* at 3.7(A)(5).

¹⁵¹ *Id.* at 3.7(A)(7) - (9).

 $^{^{152}}$ *Id.* at 3.7(B)(1).

 $^{^{153}}$ *Id.* at 3.7(B)(5) - (6).

¹⁵⁴ 44 U.S.C. §§3504(d)(1), 3516.

¹⁵⁵ DQA §515(a), OMB Guidelines, § 11(2), 67 Fed. Reg. at 8458.

¹⁵⁶ OMB Guidelines, § V(2). 67 Fed. Reg. at 8459. (emphasis added).

¹⁵⁷ 67 Fed. Reg. 8452, 8458 (Feb. 22, 2002).

¹⁵⁸ Available at: http://www.fws.gov/informationquality/

¹⁵⁹ See OMB 2002 available at: http://www.whitehouse.gov/omb/fedreg_reproducible; OMB, Final Information Quality Bulletin for Peer Review (2004).

D. Scientific Integrity and GUSG

Section 4 of the ESA requires the FWS to consider five factors in listing or delisting. <u>The agency failed to consider such factors in the proposed rule</u>. The States do not support an endangered listing of GUSG. The FWS must also consider their input. ¹⁶⁰

Here, the proposed listing rule is fraught with assumptions and uncertainty. ¹⁶¹ Notably, one commenter identified over 600 instances where the FWS acknowledged uncertainties in its Proposed Rule. ¹⁶² As discussed above, development estimates, and the authority cited for such estimates, are grossly overstated. The FWS relies upon data from over a decade ago—when the nation was experiencing one of the largest real estate booms in its history (the late 1990s through the early 2000s). The FWS's projected increases in residential development do not take into account the state of the American economy today. The FWS makes similar assumptions in regards to other alleged threats. For example, how can the FWS consider roads a threat if all active leks in the Crawford population are acknowledged to be near an 11 km stretch of road? ¹⁶³ Such skewed data and projections are inconsistent with the ESA, the Data Quality Act and applicable standards of scientific integrity.

1. The Proposed Rule is Fraught with Uncertainties

Throughout the proposed rule, the FWS acknowledges the absence of information or gaps in information that require the FWS to engage in speculation (consider the ample use of "may," "could," "likely," etc.). Despite the FWS's willingness to recognize these evidential voids or uncertainties, it consistently reaches the conclusion that impacts are, or will be, a threat to GUSG. In so doing, the FWS draws negative conclusions with full knowledge and recognition of the lack or uncertainty of its information. This is arbitrary, capricious, and an abuse of discretion. Among the impacts subject to this treatment are: oil and gas development, residential development, climate change, invasive species, fences, roads, powerlines and disease and predation.

In its proposed rule, a substantial amount (if not the majority) of the science utilized by the FWS does not pertain to GUSG. Instead, the FWS uses information specific to greater sage-grouse and sharp-tailed sage-grouse. ¹⁶⁴ The FWS defends its use of this information by stating that there are "similarities in behavior and habitat use" between the species and it is a "practice followed by the wildlife and land management agencies that have responsibility for management of both species and their habitat." ¹⁶⁵ However, reliance on information pertaining to greater sage grouse, and particularly sharp-tailed grouse, in the Proposed Rule is questionable.

If the FWS insists upon utilizing information from the greater sage-grouse, it should reconsider its determination that the birds are two different species. Many species listed under the ESA have been found to be classified incorrectly. For example: cuneate bidens, ¹⁶⁶ the Mexican duck, ¹⁶⁷ the purple-

¹⁶⁰ See Interagency Policy Regarding the Role of State Agencies in ESA Activities. 59 Fed. Reg. 34275 (July 1, 1994).

¹⁶¹ See, e.g. 78 Fed. Reg. 2496-97.

¹⁶² Comments by the Board of County Commissioners of the County of Gunnison.

¹⁶³ 78 Fed. Reg. 2494.

¹⁶⁴ 78 Fed. Reg. 2488, 2498 – 99, 2501, 2505, 2508, 2511 – 12, 2515, 2517 – 19, 2520 – 22, 2530 – 33 (greater sage-grouse);

⁷⁸ Fed. Reg. 2532 – 33 (sharp-tailed sage-grouse).

¹⁶⁵ 78 Fed. Reg. 2488, 2505.

¹⁶⁶ 61 Fed. Reg. 4372 (Feb. 6, 1996).

¹⁶⁷ 43 Fed. Reg. 32258 (July 25, 1978).

spined hedgehog cactus, ¹⁶⁸ the Truckee barberry, ¹⁶⁹ the coastal cutthroat trout, ¹⁷⁰ and the Bahama swallowtail ¹⁷¹ were all determined not to be unique species.

Although the American Ornithologist's Union as a respected institution, the acceptance of GUSG as a distinct species by their Checklist Committee does not guarantee that the underlying data, analyses, and assumptions used in the supporting papers were rigorously peer reviewed to the same standards that are required for agency decision-making.

There are reasons for the FWS to be cautious about relying on the decisions of external committees of external scientific societies if the review by such committees is potentially not up to the standards of peer review that is required by the agency information quality guidelines. This is especially the case for highly influential scientific assessments (Office of Management and Budget 2004). For example, the 2010 decision stated that: "Based on these differences, the American Ornithologist's Union (2000, pp. 849-850) accepted the Gunnison sage-grouse as a distinct species." However, available information indicates that the reviews by AOU Committee on Classification and Nomenclature (the "checklist committee") would not meet the minimum requirements for the peer review required by the OMB, and certainly not the minimum requirements for highly influential scientific assessments (i.e., review of the underlying data, assumptions, and models). The taxonomic reviews by committee members are typically one line to a paragraph in length. A two-thirds or better vote count of the committee is necessary for taxonomic revisions to pass. ¹⁷² In the case of the Gunnison sage grouse, the record of that review and the information provided to the AOU-CCN may no longer be available.

The same concerns about information quality and the rigor of peer review detailed above extend to the journals published by scientific societies, including the *Wilson Bulletin* that is published by the Wilson Ornithological Society (the journal in which Young et al. 2000 appeared). OMB (2004) guidelines consider the adequacy of peer review by such journals to be a rebuttable presumption: "[P]rior peer review and publication is not by itself sufficient grounds for determining that no further [peer] review is necessary." The issues below, regarding Young (1994) and Young et al. (2000), clearly underscore this point.

2. GUSG should be Considered a Population of Greater Sage-Grouse at the Edge of their Range

There are a number of serious scientific issues with the publication by Young et al. (2000) and the dissertation upon which the publication is based (Young 1994). These call into question the validity of Gunnison sage grouse as a bona fide species. We detail these issues below:

a. Morphological variation: selective citation of available data in Young et al. (2000)

i. Body size

The mean body weight of GUSG is lighter than that reported for the greater sage grouse; however, the magnitude of these differences is not as great as what was reported by Young et al. (2000). In their

¹⁶⁸ 54 Fed. Reg. 4879 (Nov. 27, 1989).

¹⁶⁹ 68 Fed. Reg. 56564 (Oct. 1, 2003).

¹⁷⁰ 65 Fed. Reg. 24420 (April 26, 2000).

¹⁷¹ 49 Fed. Reg. 34501.

¹⁷² These reviews are available at the AOU-CCN's website: http://www.aou.org/committees/nacc/proposals/pending.php.

description of GUSG as a new species, Young et al. (2000) compared the Gunnison population to only the largest-bodied of the greater sage grouse populations (and using the larger of two population samples from Jackson, Colorado) while not including data for other sage grouse populations that were of intermediate size. Those greater sage grouse populations that were excluded from the comparison included: three from eastern Idaho, one from southeastern Wyoming, one from Moffat County, Colorado; two from central Montana, and an additional one from Jackson County, Colorado, although data were available from Beck and Braun (1978) and Hupp and Braun (1991). If the intermediate sized populations are included in the comparison, the difference in body weight between the Gunnison sage grouse and the greater sage grouse males is 14% rather than the 32% difference reported by Young et al. (2000).

Continuously varying traits, such as body weight, are not necessarily indicators of genetic differences unless the extent to which body weight differences due to genetic and environmental differences is quantified. Such studies have not been conducted for sage grouse, however, Hupp and Braun (1991) reported that: "Differences in body size may have a nutritional basis as Sage Grouse in North Park [Greater sage grouse] and the Gunnison Basin [Gunnison sage grouse] feed on different species of sage brush that have dissimilar chemical composition (Remington and Braun 1985; Hupp 1987)." Therefore, environmental influences appear to have an effect on development and therefore, serve as an alternative hypothesis that can explain variation in body weight among populations. To date, the extent to which the smaller body size of the Gunnison population (as well as other small-bodied greater sage grouse populations) is due to genetics or environment, is currently unknown.

Culmen and tarsus length were also reported by Hupp and Braun (1991) and Young et al. (2000) to be shorter and narrower in the Gunnison population compared to the greater sage grouse in Jackson County; however, both are correlated with skeletal (body) size so these are not independent variables. And again, only the largest-bodied population of greater sage grouse (from Jackson County) was used by Young et al (2000) in this comparison, while ignoring data from populations that were intermediate in size between the extremes.

b. Secondary sexual characteristics of males (plumage and courtship displays)

i. Plumage

Most of the male secondary sexual characteristics that are reported to distinguish the GUSG from the greater sage grouse are represented in the cited studies as paired comparisons of artist renderings, or pictures of "typical" individuals (Young 1994, Young et al. 2000). These include presumed differences in dorsal neck feathers, banding on rectrices, courtship displays, and vocalizations (presented in the form of one sonogram from each species). No statistical representations of population variation of these traits were provided. Instead, subjective descriptions were used. For example, in Young et al. (2000), rectrices are described as having "clearly defined white or cream bars" in the Gunnison sage grouse vs. "indistinct barring" in the greater sage grouse. An artist's line-drawing of two feathers from each putative species are used to illustrate barring and an artistic rendering was used to illustrate differences in dorsal neck feathers.

Qualitative descriptions were also used in Young et al. (2000) to describe male dorsal neck feathers. For example, the lengths of male dorsal neck feathers are described as "120-173mm" in the GUSG, and "generally less than 115mm" in the greater sage grouse. Similarly, the length of tail feathers of GUSG were presented as having a mean of "347±0.5", while the greater sage grouse are reported as "generally

<315mm." There was no comparison of mean, range, or sample size among putative species, and no methods were presented (e.g. specimens examined, populations sampled, or sample sizes). These are minimum conventions used for presenting measurement data.

While the above characteristics *could* represent legitimate morphological differences, there are no data presented by the authors upon which to base an analysis comparing the range of variation found within and among these putative species. It is left for the reader to assume that the differences are so great that any statistical comparisons are irrelevant. The ESA, however, requires a higher threshold on information quality, namely that decisions be based upon *data* rather than assumptions.

c. Courtship displays

Young (1994) and Young et al. (2000) reported that GUSG males possess a different mating call, in which they pop their air sac nine times instead of twice and that: "differences in male courtship vocalizations were likely a barrier to mating between Gunnison Sage-grouse and Sage-grouse. Thus Gunnison Sage-grouse appear to be reproductively isolated based on male courtship vocalizations, which act as pre-mating isolating mechanisms." The evidence for this consists of simple line drawings of the acoustic elements from two "typical" individuals, using a single sonogram from one individual of each putative species. There is no quantitative analysis of the variation of this call among the putative species. Young also presented two simplified line drawings that depicted head, filoplume, esophageal pouch, and air sac movements. Each of these was numbered to match their interpretation of acoustic elements labeled in the two sonograms. Again, while these could represent legitimate, genetically-based differences, there are no data presented by the authors upon which to base an analysis comparing the range of variation found within and among these putative species.

While it is possible that there could be acoustic and or mating display differences between these two sonograms, or variation among putative species, no additional data were presented to validate the claim that these were "typical" of each species. Instead, Young et al. (1994, 2000) relied upon a qualitative description of acoustic and display elements, but no comparison of variation within *and* among species, and claimed that "the acoustic element of the Gunnison male's strut display bears little resemblance to those from other populations studied." The only quantitative comparison between any populations was between two populations of the greater sage grouse, a comparison that yielded statistically significant temporal and frequency differences at eight of ten acoustic elements. However, no quantitative comparison was made between these populations and Gunnison populations.

Qualitative descriptions rather than quantitative comparisons were also used by Young et al. (2000) when describing "additional components" of GUSG displays, including a tail wag that "often culminated their display" and "conspicuously" used "elaborate" filoplumes.

Young (1994) and Young et al. (2000) have also reported that GUSG males display at a slower rate than males of other sage grouse populations. However, the extent of surveys to quantify variation in strut rate included only one Gunnison and two greater sage grouse populations.

d. Vocalization playback experiment

The central evidence for reproductive isolation and species status for GUSG (Young et al. 2000) was the results of a playback experiment conducted by Young (1994). These involved playing male vocalizations and measuring the responses of females to them. Playback experiments, however, are

inherently ambiguous. For example, a lack of response to a recorded vocalization does not necessarily mean that the two populations are reproductively isolated, but that attending visual components to the display may be needed as well before mating can take place. Likewise, a positive response to a recorded vocalization could be an ancestral condition, and can still be obtained between valid species.

Without direct genetic evidence of reproductive isolation (e.g. genetically based differences that are diagnostic), a discriminating response to vocalizations is questionable evidence of species status, especially where the experiment lacks a reciprocal study design in physical layout and variables measured in both populations. Stronger inferences regarding reproductive isolation may be obtained from playback experiments that utilize a reciprocal study design, and compare the same variables in both potential putative species, and sample more than one population of each putative species. In the comparison between the GUSG and the greater sage grouse conducted by Young (1994) the limitations cited above are all found: 1) only one population of each potential species was sampled, 2) a reciprocal study design was not employed, 3) data for only one response variable was collected in both species, and 4) it is unknown to what extent responses were influenced by genetically-controlled behaviors, learned behaviors, or experimental design.

As an initial matter, the recordings of the GUSG were obtained from Colorado, near to where they were used for playback in a greater sage grouse population (<80km away). The recordings of the greater sage grouse however, were obtained from Mono County, California, over 800km away from where they were used in the playback experiment.

Natural recordings were not used in the playback experiments. Instead, recordings were digitized and modified by re-recording at the rate of 6.6 struts per minute prior to playback: the average of strut rates across the one Gunnison sage grouse and the two greater sage grouse populations sampled for this trait (Jackson County, Colorado and the Mono County, California). This involved speeding up the Gunnison playbacks by approximately 8% while slowing down the greater sage grouse playbacks by approximately 13%. The modified recordings were then played back in two leks: 1) the South Parlin lek near Gunnison, Colorado (Gunnison sage grouse) and 2) the Lone Tree lek in Moffat County, Colorado (greater sage grouse). The author did not investigate the use of such modified recordings on sage grouse, as compared to natural recordings, prior to the playback experiment.

In the playback experiment, two speakers were hidden at each lek. One played the modified (sped up) Gunnison vocalizations while the other played the modified (slowed down) greater sage grouse vocalizations. No thresholds were established in advance to objectively accept or reject the hypothesis of reproductive isolation based on the results of this experiment - the results were subject to post-hoc interpretation. *Only* data on the minimum distance of females approaching the speakers was measured in *both* experimental populations. Other response variables were recorded in either one population or the other, but not both.

Although Young (1994) randomized which speaker played either call, there were many other aspects of the experiment that were not controlled, or were not consistent with a reciprocal study design. These are listed below:

1) As noted by Young (1994): "The experiment consisted of a haphazard schedule of days with playbacks and control days without playbacks." The actual schedule of playbacks in each population was not reported.

- 2) Sampling effort and dates of observation differed between the two sites.
- Four days of observations were made at the Lone Tree lek (greater sage grouse) which was sampled from 25 29 March.
- Fifteen days of observations were reported at the South Parlin lek (Gunnison sage grouse) which was sampled from 29 March 1 May.
- 3) Females were not marked, so it is unknown whether observations were independent. In other words, it is unknown to what extent some females were counted multiple times. The author relied on the following method, but did not validate its effectiveness in avoiding recounts: "To avoid sampling any female more than once per day, only females which arrived and were tracked prior to the departures of other females were counted. However, females could have been sampled more than once if they visited the lek on more than one day." (The use of marked individuals would avoid this issue.)
- 4) Physical differences between the two leks existed, and this led to a different sampling scheme for each. For example, in the South Parlin lek (GUSG), males were dispersed over 200m while in the Lone Tree lek, males were "less dispersed than those of the Gunnison males." This resulted in Young (1994) placing the playback speakers 180 m apart in the South Parlin lek but only 40m apart in the Lone Tree lek. This difference in sampling layout is important because while the playbacks in the South Parlin lek were well separated, the speakers in Lone Tree lek were closer together (40m) than the measurement distance (50m) used to record female response to the playbacks.
- 5) The results of the playback experiment presented in Table 3.1 of Young (1994) show that only one variable (*minimum distance* of females to speakers) was collected from both populations. In measuring the responses of Gunnison females (but not the responses of greater sage grouse females), *duration* and *time of arrival* were measured. In measuring the responses of greater sage grouse females (but not Gunnison females), *distance on arrival* was measured. The responses of Gunnison males to playbacks included: *minimum distance*, *duration*, *strut activity*, and *time of arrival*. However, no such comparisons were made of males from the greater sage grouse population. Thus, the author reported results from one set of response variables in one population and a different set of response variables in the other population.
- 6) Central to the claim that these putative species are reproductively isolated are these assertions about the playback experiment results by Young (2000): "Gunnison females stayed farther from [the northern playback]." The actual difference in mean distances of females from both species to the Northern playback was less than 6m (determined by comparing the minimum distance in approach to the northern playback type call in Figures 3.3a and 3.5a of Young 1994) and no females of either putative species walked right up to either playback speaker, or mated in proximity of the Northern call when it was being played (Figure 3.4). Thus it could also be concluded from Young's observations that females of both putative species avoided playbacks of the Northern call. This would seem to indicate more of a muted response to an artifically slowed (garbled) Northern call from a population 500km away, than Young's (1994) favored interpretation that it is evidence of premating behavioral isolation among putative species.
- 7) Young reported that "[Gunnison females] spent less time within 50m of the northern [greater sage grouse] playback" but did not report any results from the greater sage grouse population, thus, these results are inconclusive, as the same variable was not measured in both populations.

- 8) Young reported that "[Gunnison females] did not mate within 50m of the speakers [playing the Greater sage grouse calls that had been slowed down]" but she did not report whether greater sage grouse females mated near the speakers while either call was being played in their population. Again, these results are inconclusive as the same variable was not measured in both populations.
- 9) Young (1994) plotted results separately and used different scales for both putative species used in the playback experiment (Figures 3.3 and 3.5 from Young 1994). However, it is clear that both Gunnison and greater sage grouse females responded nearly equally to the modified greater sage grouse playback (13.4m ±1.5m; 13.7m ±1.1m respectively). And while Young (1994) reported that Gunnison females approached closer to the Gunnison call that the greater sage grouse did, she did not acknowledge that greater sage grouse females approached closer to the Gunnison playback than controls (when no calls were played at a lek). This is consistent with an alternative explanation: that physical differences in the leks resulted in greater minimum response distances in the greater sage grouse lek (where the speakers were placed 180m apart) than in the Gunnison sage grouse lek (where they were placed 40m apart and the sampling circles for each speaker overlapped).

The playback experiments of Young (1994) do not provide compelling evidence of reproductive isolation between these putative species (and therefore species status under the Biological Species Concept). Compelling evidence would start with a experimental design that includes: 1) a reciprocal study design, 2) use of unmodified calls in playbacks, 3) comparison of the *same* response variables in both putative species, 4) sampling of multiple populations of each putative species, 5) use of marked individuals to eliminate double counting (or at least validation that repeat female visits to a lek and double counting were not an issue), and 6) establishing thresholds for response variables, in advance of data collection, to objectively test the hypothesis of reproductive isolation.

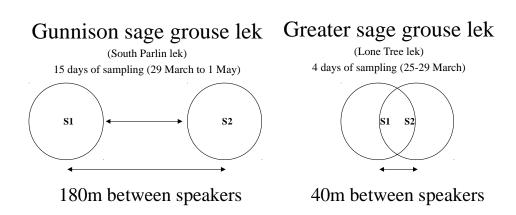


Figure 5. Schematic of playback experiment by Young (1994) illustrating the asymmetrical layout of the Greater and GUSG leks.

Circles indicate the 50m radius within which response of females was measured to playback speakers S1 and S2. The difference in sampling layout is important because the while the playbacks in the South Parlin lek were well separated, the speakers in Lone Tree lek were closer together (40m) than the measurement distance (50m) used to record female response to the playbacks at the different speakers. The speed of Gunnison playback was artificially speeded up 8.2 percent while the playback of the greater sage grouse was slowed down by a mean of 12 percent. Thus, the playback experiment not only

used calls from greater sage grouse sampled 800km away, they were unnaturally slowed down. The only response variable recorded in both leks was minimum approach distance of females to speaker making the call.

e. Genetic data (microsatellite, minisatellite, and mitochondrial DNA data)

In their description of the GUSG as a new species, Young et al. (2000) stated that Oyler-McCance (1999) found three unique alleles in the Gunnison sage grouse and that these microsatellite alleles" have remained unique to the small-bodied population [Gunnison sage grouse]." However, these early results from Oyler-McCance et al. (1999), were based on a comparison of four populations of GUSG in southwestern Colorado and five populations of greater sage grouse in northern Colorado (or approximately five percent of the range of the greater sage grouse). Only four microsatellite loci (LLST1, LLSD3, LLSD4, and LLSD8) were used in that study, providing limited resolution.

To put this "unique" variation into context, a subsequent, range-wide study of the greater sage grouse by Oyler-McCance et al. (2005), also with a limited number of loci, did not include any comparisons with the GUSG, although three of the same microsatellite loci (and the same mtDNA control region segment) were used in both studies (raw data provided by Oyler-McCance). An examination of the combined microsatellite data from Oyler-McCance et al. (1999 and 2005; after accounting for a uniform single base scoring difference between data sets), across the range of both species, shows that there was actually only *three* unique alleles in the GUSG (out of 39 total) and that all of the unique alleles were at very low frequency. For example, one allele (allele 147 from locus L8) was found in only two individuals, and another (allele117 from locus ADL230), was found in only *four* individuals in the Dove Creek population. Ignoring the fact that unique alleles are commonly found in many populations within species, including greater sage grouse, Oyler-McCance et al. (1999) nevertheless claim that these few alleles represent "further support" (i.e., confirming evidence for) the recognition of the GUSG as a unique species.

The mitochondrial DNA data are similarly unremarkable (Figure 2). GUSG are not monophyletic, and the most common mitochondrial DNA haplotype is also found in greater sage grouse. Two unique mitochondrial DNA haplotypes were found in GUSG, but unique mitochondrial DNA haplotypes can be found in other sage grouse populations as well (data provided by Oyler-McCance).

Young et al. (2000) have proposed that there is genetically-based reproductive isolation in GUSG, as a result of sexual selection acting on behavior and secondary sexual characteristics, but that the genetic markers examined have just not "caught up" yet in their levels of divergence (hereafter referred to as the "yet-to-catch-up conjecture"). Yet, at the same time, they claim that "significant" genetic differences exist and that these support the species status of the GUSG. These inconsistent conclusions regarding the same data are is symptomatic of a subjective approach to delimiting species.

Notable in its absence is any discussion of the fact that Young's (1994) results for *hypervariable* minisatellite DNA markers, showed greater divergence among GUSG leks than among putative species. These results, omitted from Young et al. (2000) and subsequent papers, are of significance to this issue. That is because minisatellite genetic markers (also known as DNA fingerprinting) are known to have an extremely high rate of mutation and large number of variants detectable, and thus, can be expected to "catch up" with conjectured adaptive divergence.

Although it is not unheard of to have morphological or behavioral divergence in the absence of mitochondrial DNA divergence in birds, the minisatellite DNA results, in combination with a shallow divergence (primarily in allele frequencies) in microsatellites and mitochondrial DNA (Figure 2) cast doubt upon the "yet-to-catch-up conjecture." To date, three genetic data sets represent the best available genetic data, whereas the genetic basis of adaptive genetic differences that purportedly result in reproductive isolation of Gunnison sage grouse, remainspeculative. Such subjective approaches to delimiting species and reliance on speculation (rather than data) are inconsistent with the Department of the Interior's Information Quality guidelines.

To remedy the situation, additional data and hypothesis testing are required. First, it is crucial that morphological and behavioral evidence be more rigorously evaluated in GUSG, along with its purported role in reproductive isolation (as described in the concluding paragraph of *Vocalization playback experiment*). Second, the degree of reproductive isolation needs to be quantified. Specifically, it is not yet know whether: 1) complete (or nearly complete) reproductive isolation exists (indicating species status), 2) if it is partial (indicating a degree of geographic isolation or incipient speciation, but not species status), or 3) does not exist (clearly refuting species status). And third, if reproductive isolation is found to exist then the following, alternative hypotheses need to be tested:1) it is a result of geographic separation (and habitat fragmentation), or 2) it is driven exclusively by sexual selection (as proposed by Young et al. 2000). By testing the alternative hypotheses above, prior to any consideration of ESA listing, the FWS could be assured that its decision is based upon the best available science, and consistent with agency Information Quality guidelines.

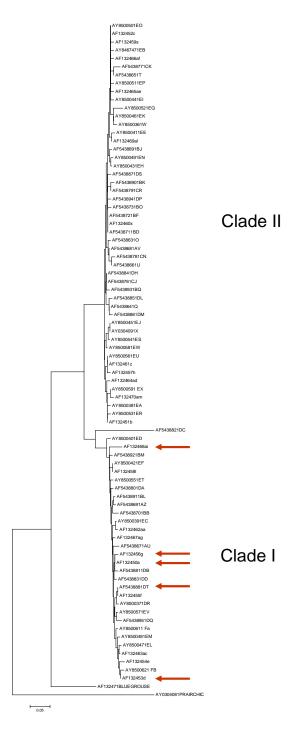


Figure 6. Neighbor-joining tree showing evolutionary relationships among most haplotypes for greater sage grouse and Gunnison sage-grouse (indicated with red arrows). 173

Given the above, the Proposed Rule does not reflect the "highest level of integrity with scientific and technological processes" required in the President's Memorandum. The FWS did not "appropriately and accurately reflect" well-established scientific processes in its listing rule consistent with the Memorandum. The Proposed Rule falls short of the best available science standard of the ESA and

¹⁷³ Source: Dr. Robert Zink.

¹⁷⁴ See 74 Fed. Reg. 10671, 10671 (March 11, 2009).

the Data Quality Act.¹⁷⁵ Executive Order 13563 also dictates that the scientific basis on which any listing decision is made be accurate, transparent, objective, and defensible. For all of the reasons cited above, the proposed GUSG listing rule does not meet those standards.

V. LISTING GUSG WOULD DO MORE HARM THAN GOOD

The FWS expressed that it "supports voluntary conservation as the most effective method to protect species and their habitats." The FWS does "recognize that listing may affect local planning efforts, due to its effect on voluntary conservation efforts." Unfortunately, there have been few successes under the ESA: fewer than two percent of all listed species have ever recovered. Because the ESA creates a disincentive to landowners, a federal listing, would do little to help (and could even harm) the GUSG.

Listings often restrict the ability to manage for species and could even result in harm to the species.¹⁷⁸ Many landowners managed their forest lands to avoid the nesting of federally-listed red-cockaded woodpeckers. For example:

Ben Cone of North Carolina managed 7,200 acres of timberland with 70-80 year harvest rotations, small cuts, and controlled burns, which . . . created habitat for the red-cockaded woodpecker. When the endangered woodpecker took up residence on Cone's land, more than 1,500 acres were placed under the control of the U.S. Fish and Wildlife Service (see Stroup 1997). In response, Cone began a harvest rotation of 40 years on the rest of his land in order to eliminate the mature pines favored by the woodpecker and also remove any possibility that the federal government would take control of his remaining land.

Ben Cone's experience is not an isolated incident, as a study by economists Dean Lueck and Jeffrey Michael (1999) confirms. Using data from hundreds of forest plots in North Carolina, they found that the more red-cockaded woodpeckers in the vicinity, the more likely the landowners were to harvest younger trees. . . . (Lueck and Michael 1999, 36). The landowners' incentive for using this shorter rotation was to ensure the birds did not move onto their property, possibly leading to land-use restrictions. Clearly, the ESA is creating perverse incentives. 179

According to BLM and USFS officials, the ESA creates "...a complex maze of processes and procedures, which field biologists and managers must attempt to negotiate on a daily basis in order to implement on-the-ground projects." In regards to the peregrine falcon, leading experts concluded, "despite having the authority for implementing the ESA, and a number of their biologists contributing importantly to the recovery program, as an agency the FWS had a limited role, and its law enforcement

¹⁷⁶ 70 Fed. Reg. 2245.

¹⁷⁵ See id.

^{177 &}lt;u>Id.</u> at 2246.

¹⁷⁸ 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).

¹⁷⁹ Holly Lippke Fretwell, <u>Forests: Do we get what we pay for</u>? Available at http://www.perc.org/publications/landreports/report2.php#tale.

¹⁸⁰ USFS and BLM, <u>Improving the Efficiency and Effectiveness of the Endangered Species Act</u>, (Dec. 15, 2003).

division, which was in charge of issuing permits as well as enforcing regulation, was <u>regularly an</u> obstacle to recovery actions."¹⁸¹

A. States and Local Governments Oppose Listing

Section 4(b)(1)(A) of the ESA 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."¹⁸²

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. 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 ESA:

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. ¹⁸⁴

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. ¹⁸⁵

In this case, the State of Colorado, in public meetings across the southwestern quarter of Colorado, has stated its preference to preclude the need to list the GUSG. Many local governments within the range

¹⁸¹ (Burnham and Cade 2003b) (emphasis added).

¹⁸² 16 U.S.C. § 1533(b)(1)(A).

¹⁸³ 59 Fed. Reg. 34275 (1994).

¹⁸⁴ *Id*.

¹⁸⁵ *Id*.

of GUSG have also opposed listing. Given the FWS has considered literature related to greater sage grouse, it should consider opposition to listing sage grouse species by affected states. For example, the Wyoming Department of Agriculture opposed listing the greater sage grouse 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." 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." Finally, the North American Grouse Partnership expressed real concern for a multitude of cooperative conservation efforts (and indeed predicted failure for some) should sage grouse listings occur. ¹⁸⁹

B. If GUSG is Listed as Threatened, Oil and Gas Should be Subject to a 4(d) Rule

An endangered listing for GUSG is clearly not warranted. Should the FWS determine to list GUSG as threatened, activities that are not recognized to be pertinent threats to GUSG should be exempted from regulatory restrictions pursuant to Section 4(d) of the ESA. Section 4(d) allows the FWS to establish special regulations for threatened species, subspecies, and DPS's. Specifically, section 4(d) of the ESA provides: "[t]he Secretary may by regulation prohibit with respect to any threatened species any act prohibited under section 1538(a)(1) of this title, in the case of fish or wildlife" As the Court of Appeals for the District of Columbia Circuit explained, this "second sentence gives the FWS discretion to apply any or all of the § 1538(a)(1) [take and other] prohibitions to threatened species without obligating it to support such actions with findings of necessity." 191

In practice, a 4(d) rules take the place of the standard ESA protections for specific species and specific activities. One use of 4(d) rules is to relax the normal ESA restrictions to reduce conflicts between people and the protections provided to the threatened species, so long as the reduced protection would not slow the species' recovery. As applied, 4(d) rules have the capability of directing resources and protections to where they are needed most and eschew the take prohibition where it is unneeded.

If the FWS lists GUSG as threatened, oil and gas development and activities that contribute to greenhouse gases should be subject to a 4(d) rule because it would reduce the conflict between people and the protection provided to GUSG and would not slow the species' recovery. Oil and gas development and activities that contribute to greenhouse gases have occurred within the range of the

¹⁸⁶ See, e.g. http://www.gisentinel.com/news/articles/feds-sage-grouse-reversal-ruffles-some-feathers/

¹⁸⁷ 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).

¹⁸⁸ 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).

¹⁸⁹ 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). ¹⁹⁰ 16 U.S.C. § 1533(d).

¹⁹¹ Sweet Home Chapter of Communities for a Greater Oregon v. Babbitt, 1 F.3d 1, 7-8 (D.C. Cir. 1993), rev'd on other grounds on reh'g 17 F.3d 1463 (D.C. Cir. 1994), rev'd on other grounds 515 U.S. 687 (1995). Under FWS regulations, the default is that the ESA § 1539(a)(1) prohibitions apply to threatened species unless exempted by special rule, 50 C.F.R. § 17.31(a), while NMFS does not apply § 1539(a)(1) prohibitions except by special rule. 50 C.F.R. § 222.307.) As the court further notes, section 4(d) contains two distinct authorities: the first to issue regulations deemed "necessary and advisable" to conserve threatened species; the second, providing discretion to determine whether or to what extent to apply the "take" prohibition. A rule issued under the first sentence requires a "necessary and advisable" finding, while a rule issued under the second sentence does not—a factor not mentioned or discussed in the Draft Policy's discussion of 4(d) rules. See 76 Fed. Reg. at 77003.

GUSG for many years. These activities are not identified as pertinent threats to GUSG conservation. Moreover, oil and gas is already pervasively regulated on a federal, state, and increasingly, on a local level. At the very least, existing oil and gas operations, existing oil and gas least and new oil and gas development not located within designated critical habitat (and other activities within the critical habitat (and other activities with

VI. CONCLUSION

A warranted finding on GUSG would violate the best available science standard under the ESA; the standards of quality and objectivity under the Data Quality Act and the APA. For all the reasons above, we urge the FWS to find listing the GUSG is not warranted. Alternatively, should the FWS decide to list the GUSG as threatened, we urge the FWS to adopt a 4(d) rule to exempt oil and gas and activities that emit greenhouse gases from regulatory restrictions under the ESA.

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Thank you for considering this request.

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Very truly yours,

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