NARDeP
National Agricultural & Rural Development Policy Center
A Regional Rural Development Centers Initiative

POLICY BRIEF
BRIEF 33/JUNE 2014

# IMPLICATIONS OF A GREATER SAGE-GROUSE LISTING ON WESTERN ENERGY DEVELOPMENT

By Temple Stoellinger (University of Wyoming)

## SUMMARY

*If you are looking for oil and gas, coal, or wind energy potential, just look for Sage-Grouse.* I've heard this tongue-in-cheek statement expressed several times lately, a result of the frustration associated with developing energy projects in Greater Sage-Grouse (Sage-Grouse) habitat. This convergence of Sage-Grouse habitat with energy development has produced a complexity that will only intensify if the Sage-Grouse is listed as an endangered or threatened species under the Endangered Species Act (ESA). This policy brief discusses potential impacts on energy development in the West that may result if the Sage-Grouse is listed, and it offers policy recommendations on actions that can be taken to reduce the impact of a listing.

## BACKGROUND

It is estimated that Sage-Grouse once inhabited 1.2 million km$^2$ in the western United States and southwestern Canada. Today, Sage-Grouse occupy only 56 percent of their historical range, a 44 percent decline (Shroeder, et. al. 2004). While total populations are hard to estimate, and vary widely, it's believed that total range-wide populations have declined 45-80 percent since the 1800's (Connelly and Braun, 1997). The remaining habitat occurs in 11 western states (California, Colorado, Idaho, Montana, Nevada, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming), primarily on federally owned lands, the result of land disposal practices during settlement (DOI-FWS, 2010).

The primary cause of the decline of Sage-Grouse is the loss and fragmentation of sagebrush habitat (DOI-FWS, 2010). Sage-Grouse are considered obligate users of sagebrush and require large, contiguous areas (DOI-FWS, 2010). Human caused habitat fragmentation, such as land conversion, urbanization, wildfires, invasive plants, grazing, and energy development will cause Sage-Grouse to avoid and or abandon an area (DOI-FWS, 2010).

As a result of declining populations, the United States Fish and Wildlife Service (FWS) received numerous petitions to list the Sage-Grouse as a threatened or endangered species beginning in 1999. In March of 2010, the FWS determined the Greater Sage-Grouse was warranted for listing under the ESA, but its listing was precluded by other higher priority listing actions, making it a candidate species. In its decision the FWS listed habitat fragmentation and the lack of sufficient regulatory mechanisms to conserve Sage-Grouse as the top threats (DOI-FWS, 2010).

Under normal circumstances, the FWS would have been required to review the Sage-Grouse's candidate designation every year to determine if an up-listing or a down-listing was appropriate. However, in September of 2010, the FWS entered into a settlement agreement with environmental groups, prompted by litigation over the agencies' failure to make sufficient progress on its backlog of 251 candidate species. The terms of the settlement agreement require the FWS to either list the Sage-Grouse under the ESA or remove it from the candidate list by September 2015.

With the option to maintain the Sage-Grouse as a candidate species off the table, many are speculating the FWS will in fact list the Sage-Grouse as threatened in 2015. This speculation is backed up by recent data suggesting Sage-Grouse numbers have continued to decline since the 2010 warranted but precluded decision (WNRDD, 2014).

## ENERGY DEVELOPMENT IN GREATER SAGE-GROUSE RANGE

One of the major concerns associated with listing the Sage-Grouse, is the potential impact the decision will have on current and future energy projects located in Sage-Grouse habitat in the West, and subsequently the impact on state and local economies. The 11 western states that contain Sage-Grouse habitat account for 27 percent of the total energy produced in the United States (EIA, Energy Information Administration, Rankings: Total Energy Production, 2011).

Wyoming is the state with largest remaining Sage-Grouse population and the largest energy portfolio. The state is the home to 54 percent of the total Sage-Grouse population, and is the second leading state in the nation in total energy production, placing first in coal production, fifth in natural gas production, and ninth in crude oil production in 2013 (EIA State Profiles, 2014). As of 2012, 81.7 percent of the total gas produced and 86.6 percent of the total coal produced in Wyoming was located within Sage-Grouse range. Wyoming and its energy producers clearly have a lot to lose if the Sage-Grouse is listed (WNRDD, 2012).

Wyoming is certainly not alone. At a Sage-Grouse conference in February of 2014, Utah Governor Gary Herbert stated a Sage-Grouse listing would cost Utah $41 billion in lost economic production from the oil and gas industry alone (O'Donoghue, 2014).

In light of the potential impact associated with a listing, states and federal land management agencies, primarily the Bureau of Land Management (BLM), have enacted regulatory mechanisms to protect the Sage-Grouse and hopefully preclude a listing. These state and federal regulatory mechanisms are not without their own impact. For example, in April 2013, the BLM provided a list of 130 projects that have been delayed, denied, altered, or deferred by BLM because of the agency's Sage-Grouse conservation measures and policies to the House Natural Resource Committee (House Natural Resource Committee Investigation, 2014). State protection plans, such as the Wyoming Core Area Strategy which limits development in core Sage-Grouse areas to five percent disturbance, are also impactful. However, there is no doubt that these impacts pale in comparison to the impacts associated with compliance with the ESA if the Sage-Grouse is in fact listed.

## IMPACT OF A SAGE GROUSE LISTING ON THE ENERGY INDUSTRIES

If the FWS lists the Sage-Grouse, the teeth of the ESA's protection mechanisms will be invoked. Those teeth include Section 7's no-jeopardy consultation requirement and Section 9's take prohibition.

The take prohibition in Section 9 is straight forward, it makes it unlawful for any person to take a listed species. Take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct" and includes significant habitat modification or degradation or actions which annoy or disrupt normal behavior of the species (16 U.S.C.A. § 1532 (19); 50 C.F.R. § 17.3).

Section 9 take liability applies to all actions that impact Sage-Grouse, regardless of land ownership. In the energy context, take liability is particularly impactful to existing projects as their ongoing operations, as is the case with any habitat disturbing activity, may take a Sage-Grouse, a civil crime with a hefty fine. To avoid take liability, companies and individuals can apply for a Section 10 Incidental Take Permit which requires the permit holder to mitigate and minimize the impact to the species to the greatest extent possible in exchange for a permit that allows for incidental take of a specified number of the listed species. This is an expensive and time consuming undertaking and will likely be initially overshadowed by other higher priorities of the FWS if the Sage-Grouse is listed.

Section 7 requires all Federal agencies that carry out, permit, license, fund or otherwise authorize activities that may affect a listed species, consult with the FWS to ensure its actions are not "likely to jeopardize the continued existence" of the species. Most typically Section 7 is triggered when a project is proposed on federal land. Through the consultation process, the FWS will determine if the proposed action will cause a jeopardy and if so it may suggest reasonable and prudent alternatives and issue an incidental take statement requiring mitigation, or it may deny the permit. Section 7 consultations can also be a lengthy undertaking. While the FWS is officially provided with a timeline of 135 days to complete the process, that timeline is rarely met and is not enforced as an enforcement action would only delay a project further.

Section 7 consultations do not apply to existing permitted federal actions (an approved oil and gas field on BLM land for example), however, they do apply to any ongoing agency decisions related to an existing facility where the agency maintains authority or control (an APD to drill an individual well within an existing oil and gas field for example). If the Sage-Grouse is listed, it is likely that a large number of existing energy projects on federal land will trigger Section 7. The sheer volume of Section 7 consultations that will be filled may overwhelm the FWS, leading to a backlog that may delay project approvals and increase costs, a potential major impact to the energy industries.

In addition to cost increases associated with delay, the mitigation measures and restrictions the FWS will place in the consultation opinions will likely restrict development and increase the costs of developing energy projects. While these impacts could be similar to those already contained in state and federal regulatory mechanisms, they could also be more restrictive. There is always the possibility that

the FWS could outright deny a permit as well.

With so many variables involved, it is difficult to speculate as to what the exact impact of a Sage-Grouse listing will be on the energy industries prior to implementation of the ESA's protective mechanisms. The biggest factor that will affect how great the impact will be is how stringent the restrictions on development placed through Section 7 consultations, will be, and how efficiently the federal agencies, particularly the FWS, are able to process the consultations and decision documents.

## POLICY RECOMMENDATIONS

- Economic impact is not a factor considered in a listing decision. Some have speculated that the negative economic impacts associated with listing the Sage-Grouse are so great that the FWS cannot, for political reasons, list the Sage-Grouse. Alternatively they argue that if it is listed, Congress will provide a remedy to reduce the negative economic impact. I disagree with both. Economic impact is not one of the 5 factors listed under the ESA that the FWS must consider when making a decision to list a species, they simply are precluded from considering the economic impact in their decision-making process. Anyone doubting the FWS's backbone to make unpopular decisions that have had huge economic consequences should study its decision to list the Northern Spotted Owl. With regard to a Congressional remedy, I am highly skeptical. Congress has been discussing ESA reform since nearly the day after the Act was passed in 1973, succeeding to pass only minor amendments. Congress did not step in and provide relief when the Northern Spotted Owl was listed, nor is there any reason to hold out hope that a bipartisan solution would be provided for Sage-Grouse given our current political climate. Instead of holding out hope for a Congressional remedy, those with a stake in the outcome should take action to minimize the impact associated with a listing.

- One of the actions that could be taken to minimize the impact of a Sage-Grouse listing is for affected states and stakeholders to consider working with the FWS to prepare a range-wide or state-wide 4(d) rule. Section 4(d) of the ESA provides the FWS with the ability to craft specific rules for threatened species that can reduce the normal ESA Section 9 take prohibitions and have recently been used in the Polar Bear and Lesser Prairie Chicken listings, among others. Section 4(d) rules however require an all-hands-on-deck approach as collaboration between federal, state, and private and industry stakeholders is essential. Crafting a 4(d) rule also takes time to develop and should ideally be released at the same time as the listing decision to maximize the benefit. With September 2015 quickly approaching, considering drafting a 4(d) rule is something that warrants immediate consideration.

- Canary in the coal mine? Environmental groups have indicated that they view the Sage-Grouse as a canary in the coal mine when it comes to protecting sagebrush ecosystem species including the pronghorn, pygmy rabbit and mule deer. The sagebrush ecosystem is considered one of the most imperiled ecosystems in North America, yet our knowledge and ability to restore sagebrush is limited (COT, 2013). More effort should be placed on understanding and improving our ability to restore and reclaim sagebrush ecosystems in order to reverse the decline of Sage-Grouse and other sagebrush dependent species, thereby reducing the potential risk of listing and the restrictions that accompany a listing.

## REFERENCES

16 U.S.C.A. § 1532 (19). Endangered Species Act. "The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Available at: http://www.law.cornell.edu/uscode/text/16/1532

50 C.F.R. § 17.3.FWS Regulations, ESA Definitions. See the definition of "Harm." Available at: http://www.gpo.gov/fdsys/pkg/CFR-2002-title50-vol1/pdf/CFR-2002-title50-vol1-sec17-3.pdf

Connelly, J.W. and C.E. Braun. 1997. Long-term Changes in Sage Grouse Centrocerus Urophasianus Populations in Western North America. Wildlife Biology 3:229-234.

Department of Interior, U.S. Fish and Wildlife Service. March 4, 2010. Endangered and Threatened Wildlife and Plants; 12-Month Findings for Petitions to List the Greater Sage-Grouse (Centrocercus urophasianus) as Threatened or Endangered. Available at: http://www.fws.gov/mountain-prairie/species/birds/sagegrouse/fr03052010.pdf. Accessed March 1, 2014.

Energy Information Agency (EIA). 2011. Ranking: Total Energy Production, Wyoming 2011. Available at: http://www.eia.gov/state/rankings/?sid=WY#series/101. Accessed May 30, 2014.

Energy Information Agency (EIA). 2014. State Profiles: South Dakota, North Dakota, Montana, Wyoming, Colorado, Idaho, Utah, Washington, Oregon, Nevada, and California. Available at: http://www.eia.gov/state/. Accessed May 30, 2014.

Greater Sage-Grouse Conservation Objectives Team (COT). 2013. Greater Sage-Grouse Conservation Objectives Report to the Director of the U.S. Fish and Wildlife Service. Washington, D.C., USA: U.S. Fish and Wildlife Service. Available at: http://www.fws.gov/mountain-prairie/species/birds/sagegrouse/COT/COT-Report-with-Dear-Interested-Reader-Letter.pdf. Accessed March 1, 2014.

House Natural Resources Committee Investigation. 2014. BLM Projects Delayed, Denied, or Altered Due to Greater Sage Grouse Guidance. Data on file with the author.

O'Donoghue, Amy Joi, 2014. Deseret News. Feb. 18, 2014. Gov. Gary Herbert: Threat of Sage Grouse Endangered Species Listing is real, Could Cost Utah Billions. Available at: http://www.deseretnews.com/article/865596744/Gov-Gary-Herbert-Threat-of-sage-grouse-endangered-species-listing-is-real-could-cost-Utah.html?pg=all. Accessed March 15, 2014

Schroeder, M.A., et al. 2004. Distribution of Sage-Grouse in North America. Condor 106:363-367.

Wyoming Natural Resource Diversity Database (WNRDD). 2014. Wyoming Sage-Grouse Lek Data By Working Group 1995-2013, based on data collected by the Wyoming Game and Fish Department. Data on file with the author.

Wyoming Natural Resource Diversity Data Base (WNRDD). 2012. Core Area Overlay Analysis. Data on file with the author.


## The National Agricultural & Rural Development Policy Center (NARDeP) is organized by the Regional Rural Development Centers to provide information about the increasingly contentious and complex agricultural and rural development U.S. policy issues.

The Center is funded by the USDA National Institute of Food and Agriculture (NIFA) under a competitive grant (Number 2012-70002-19385), and engages land-grant universities as well as national organizations, agencies, and experts to develop and deliver timely policy-relevant information around signature areas identified by our Advisory Boards.

Current signature areas are:

- Energy and the Environment
- Food Systems Development
- Self-Employment and Entrepreneurship

In addition, the Center supports research that cuts across policy issues related to the farm and agricultural sectors; the environment; rural families; households and economies; and consumers, food, and nutrition.

NARDeP's continuing objectives are to:

- Provide timely and cutting-edge research on current and emerging public policy priorities and regulations in a quantitative format
- Contribute to the development of theoretical and research methods
- Create and disseminate new datasets from secondary and our other sources to policymakers, analysts, and other interested individuals
- Serve as a clearinghouse for technology diffusion and educational resources and to disseminate impartial information web-based training and other publications
- Help to train the next generation of policy analysts

## Visit us on the web nardep.info

The POLICY BRIEFS are published by the National Agricultural & Rural Development Policy Center (NARDeP) after a blind peer review process. NARDeP was formed by the Regional Rural Development Centers in response to the increasingly contentious and complex agricultural and rural development policy issues facing the U.S. NARDeP is funded by USDA National Institute of Food and Agriculture (NIFA) under a competitive grant (Number 2012-70002-19385), and works with the land-grant college and university system and other national organizations, agencies, and experts to develop and deliver timely policy-relevant information. NARDeP is an affirmative action/equal opportunity employer. For information about NARDeP, visit the website: nardep.info.

RRDC
Regional Rural Development Centers