



Rocky Mountain Research Station

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Providing scientific knowledge and technology to sustain our nation's forests, rangelands, and grasslands

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Greater Sage-grouse and Wind Energy Development

ISSUE

Greater sage-grouse were once distributed in 12 states and 3 provinces. Populations have declined substantially over the past 35-40 years and sage-grouse currently inhabit only 56% of their pre-settlement habitat. In 2010, the U.S. Fish and Wildlife Service designated greater sage-grouse as warranted but precluded from protection under the Endangered Species Act because other species had higher priority for protection.

IMPORTANCE

Wyoming exports energy to urban areas throughout the U.S. In addition to oil, gas and coal, Wyoming has considerable potential for development of wind. Energy development often occurs within the extensive sagebrush ecosystems found in Wyoming which provide habitat to a variety of species such as sage-grouse. Often considered more environmentally friendly relative to carbon-based energy sources, wind energy development may impact some wildlife populations. No studies have quantified the immediate, short term or long term effects of wind energy on sage-grouse populations.

EXPECTED OUTCOMES

Rocky Mountain Station Research Scientists are collaborating with scientists from University of Missouri, Wyoming Game and Fish, and SWCA Environmental Consultants to determine the effects of wind energy development on greater sage-grouse. Scientists are studying many facets of the life history of sage-grouse including male and female behavioral ecology, demographics,



Photo Credit: Doug Backlund

habitat use patterns, and movements using a before and after the wind farm development study design. The research tiers into studies in Idaho, Nevada and another in Wyoming. This coordinated research effort is spearheaded by the National Wind Coordinating Collaborative's Sage-grouse Research Collaborative.

The goal of the Sage-grouse Research Collaborative is to examine the potential impacts of wind development on sage-grouse across their range and develop informed wind energy development and sage-grouse management strategies.

PARTNERS AND COLLABORATORS

- University of Missouri
- SWCA Environmental Consultants
- Power Company of Wyoming
- Wyoming Game and Fish Department
- The Overland Trail Cattle Company
- National Wind Coordinating Collaborative
- Bureau of Land Management
- National Renewable Energy Research Laboratory
- Western Association of Fish and Wildlife Agencies
- National Fish and Wildlife Foundation