BIOLOGISTS STUDYING TURBINES' EFFECT ON GROUSE

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CHEYENNE — In the high-stakes game of preserving sage grouse, biologists said they're still figuring out how the birds will react to the influx of wind turbines rising up from the wide-open sagebrush plains where the birds evolved.

The U.S. Fish and Wildlife Service 15 months ago commenced a review of whether sage grouse should be protected under the Endangered Species Act.

In Wyoming, home to more than half the bird's population, Gov. Dave Freudenthal's administration has worked to try to ensure protection of sage grouse habitat. His goal is to avert federal listing, which could have a stultifying affect on the state's lucrative oil-and-gas industry and other economic development.

Growing interest in Wyoming wind development has raised a new set of questions about protecting the ground-dwelling, chicken-like birds.

"Most of our traditional industries have been willing to forego new activities in (prime sage grouse habitat) until either populations are re-established elsewhere or technology advances to the point that industrial development and sage grouse are seen as wholly compatible," Freudenthal said last week. "I cannot speak with the same certainty with regard to wind development."

Biologists said very little research has been done on how wind turbines affect sage grouse. But they say the birds are likely affected by turbines' height, movement and noise, as well as by habitat disruption associated with building a wind farm.

A group of wind developers and government interests began the state's first study of grouse and wind turbines last month. Cheyenne consulting firm Western Ecosystems Technology Inc. trapped and radio-collared 75 sage grouse hens in an area that's home to one wind farm and two proposed wind farms, located about seven miles west of Medicine Bow.

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PROJECT MANAGER GREG JOHNSON

Project manager Greg Johnson said they hope to get up to seven years of data, including before and after the pending wind farms are constructed. The study will look at a range of issues, including survival numbers and use of habitat within four miles of the project area.

"It's a unique opportunity to actually come up with some real data that can be used to hopefully site wind energy facilities so that grouse impacts can be avoided," he said.

The study will cost about $300,000 a year and has received funding from Horizon Wind Energy, Iberdrola Renewables, the Shirley Basin/Bates Hall Local Sage Grouse Working Group and the U.S. Department of Energy, Johnson said.

Pat Deibert, the U.S. Fish and Wildlife Service's lead biologist for sage grouse, said grouse don't like tall structures because they associate them with perches for predatory raptors. While turbine towers have no place for birds to perch, it's possible that grouse avoid them anyway.

She said the noise generated by turbines might also interfere with the birds' mating songs and other communication.

Deibert said the construction of roads and structures in the sage brush plains breaks up grouse habitat and creates corridors for predators, such as foxes, that invade grouse nests.

The Fish and Wildlife Service recommends a five-mile buffer between turbines and sage grouse leks, or breeding grounds, Deibert said. The recommendation is based on the research done on prairie chickens in Oklahoma, a similar bird that lives on the grassland and relies on scrub oak shrubs.

Deibert said the five-mile buffer is meant to be conservative.

"I think there definitely can be site-specific situations where that's probably more than necessary," she said.

The recommended five-mile buffer is considerably more than the state's recommendation of six-tenths of a mile.

Tom Christiansen, sage grouse program manager for the Wyoming Game and Fish Department, said the state recommends that wind farms not be built within the state's "core sage grouse population areas," or prime habitat where more than 82 percent of the birds in Wyoming live. If wind developers choose to build within the core areas, the state recommends that roads and turbines be placed at least six-tenths of a mile from leks, Christiansen said. The state stipulations also include seasonal restrictions on construction during the spring breeding and nesting period.