

North Dakota Chapter of The Wildlife Society
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The North Dakota Chapter of The Wildlife Society (Chapter) is generally supportive of the wind industry as a renewable source of “green” energy that can be produced locally. The Chapter is concerned, however, about the impacts that wind facilities placed in grasslands, particularly extensive tracts of native prairie, have on ecosystem health and wildlife. In a 2007 report, *Environmental Impacts of Wind-Energy Projects*, by the National Research Council to the U.S. Congress, the Council recognized that the construction and operation of wind-energy facilities directly influence ecosystem structure. These influences include removal of vegetation, disturbance, compaction of soil, soil erosion, and changes in hydrologic features. Wildlife is impacted directly through mortality or indirectly through alteration of habitat and behavioral avoidance. Furthermore, research conducted in various parts of the United States indicates small-scale displacement of songbirds. Specifically, research conducted in North Dakota and South Dakota by the US Geological Survey indicates displacement of some species of grassland songbirds by wind facilities.

The Chapter is particularly concerned with the impact to wildlife of wind facilities placed on the Missouri Coteau, as the Baldwin project is. The Missouri Coteau contains large expanses of unfragmented grasslands intermixed with millions of wetlands and is a vital breeding area for many grassland and wetland nesting birds. In addition, it is a hunter’s paradise and a prime area for ecotourism potential. The Missouri Coteau is in the midst of the Central Flyway, a migratory corridor used by millions of game birds and other species during spring and fall. It is also an endangered ecosystem, even more so than tropical rainforest. Only about 30% of mixed-grass prairie remains in North America. The Missouri Coteau is critically important for wildlife in North Dakota, as well as to the hunters, outdoor enthusiasts, and operators of ecotourism industries that value these irreplaceable resources. The importance of tourism to the state’s economy is underscored by the fact that the tourism industry ranks second in its contribution to the state’s economic base; tourism generated \$3.96 billion in 2008. Hunting contributes about \$365 million annually to the state’s tourism industry.

The Chapter is most supportive of wind facilities that are placed in habitats of low value to wildlife, such as cropland in already predominantly agricultural landscapes. The Chapter is pleased that the majority of the Baldwin project is sited in cropland. In areas where turbine placement on grasslands is unavoidable, the Chapter urges mitigation in ratios exceeding 1:1. That is to say, for every acre of grassland destroyed, more than an acre should be restored or protected. Native prairie should receive the highest ratio, followed by planted grasslands. The Chapter realizes that there is no established system in North Dakota for this type of mitigation for wind facilities, but also realizes that Basin Electric Power and BP Alternative Energy and Clipper Wind Power Development (for a jointly owned South Dakota project), have committed to voluntary conservation measures. The Chapter applauds these efforts.

The Chapter does have some concerns about the larger landscape in which the Baldwin project is embedded. The Baldwin project is not the only wind facility in the immediate area. Wilton I and II, also referred to as the Burleigh County Wind Energy Center, are immediately adjacent to the Baldwin project. Because of current regulations, none of these wind facilities requires oversight by the North Dakota Public Service Commission, other than for powerline route considerations. Each limited liability corporation is registered independently, and does not trigger state regulation due to the state cutoff for regulatory review of >60 MW. Wildlife and ecosystems, however, do not recognize these cutoffs. Many plant and animal species are sensitive to anthropogenic disturbance, be it increased human presence on the landscape or the introduction of a non-native plant into the environment. These types of influences seldom work independently on wildlife. The combination of new roads, more vehicular traffic, increased human presence, alteration of wetlands, introduction of non-native plants, the building of very large structures on the landscape (i.e., the wind turbines themselves), and other anthropogenic disturbances, are

termed cumulative impacts. The cumulative impacts of wind developments and other anthropogenic pressures on wildlife are unknown. Whereas one wind facility may have no discernible negative influence on wildlife, the accumulation of numerous wind facilities built in the same area may begin to break down species' thresholds of tolerance to disturbances.

Some wind developers are beginning to write Avian Protection Plans for their facilities. The Chapter supports the development of such plans, especially if these plans are written in coordination with state and federal natural-resource agencies, address what pre- and post-operational monitoring will be conducted, how the resulting data will be used and shared, and explains how potential impacts to migratory and resident birds and bats will be avoided, minimized, and mitigated.

Because the Chapter's members are wildlife professionals, the Chapter would be happy to engage wind developers in discussions about our concerns, as well as serving in advisory capacities.

The Wildlife Society is an international, nonprofit, scientific and educational organization composed of professionals, students, and laypersons active and interested in wildlife research, management, education and administration. The NDCTWS is an active affiliate. It is specifically concerned with approaches to effective management of North Dakota's plant and animal communities. The Chapter provides expertise in advising legislative and judicial processes surrounding the controversial management of many natural resource assets. It advocates the holistic treatment of environmental questions. The Chapter was founded in 1963 and incorporated in 1981 under the laws of North Dakota. The NDCTWS would be very willing to engage the PSC in issues concerning wildlife impacts from wind facilities, as well as offer advice based on member's expertise in matters of wildlife management and impacts of human-derived disturbances.