

Game & Inland Fisheries finds bird, bat studies lacking

BY ANNE ADAMS • STAFF WRITER

RICHMOND — Highland New Wind Development had submitted bird and bat studies to supplement information in its application for an industrial wind facility in Highland. But the Virginia Department of Game and Inland Fisheries, in interpreting those studies, found much about the information failed to adequately address the possible harm that could come to bird and bat species as a result of the 20-some turbines proposed on one of the county's highest ridges.

One of the studies HNWD presented was an avian risk assessment. Some of the points DGIF made about that study included:

■ No review of data collected at other sites in the Allegheny Mountains. The study included data "from as far away as California, Denmark and Spain, but reviewed few data from the mountain range the project is located in." DGIF said such outside data "should be reviewed with caution unless presented through scientific study in a peer-reviewed journal demonstration correlation."

■ HNWD's report said Virginia had not undertaken a Breeding Bird Atlas, but DGIF said there was one conducted between 1985-89, published in 2001. "These are pertinent data the avian assessment appeared not to review," the department noted.

■ Because HNWD's assessment estimated there were enough sightings of bald eagles, DGIF said eagles could be found at the project site during breeding season. Therefore, the department said, field surveys are warranted for assessment.

■ HNWD's study found song birds were in some habitats along the Allegheny ridge and were making stopovers. DGIF said those observations, coupled with HNWD's bat report that found passage rates in the project area were much higher than at other locations in the East, suggest more review is needed.

■ DGIF said because the peregrine falcon, bald eagle and golden eagle are federally or state protected and found in great numbers along the Allegheny Front, additional work on the numbers using the ridges in the project area is warranted.

■ HNWD's study says the bald eagle would not be expected to occur in the project area during the winter, but DGIF says both bald and golden eagles have been documented there during winter. "In conducting a cursory ... search of the Virginia Bird Free Lists, we found three references to golden eagle sightings in Highland County for the month of January

2005. On Jan. 22, 2006, three golden eagles were observed flying above Snowy Mountain, approximately 9-10 miles NNE of Red Oak Knob." DGIF lists several more sightings it found during a 30-40 minute search of these lists, and concluded a more thorough search "will undoubtedly demonstrate a consistent use of ridge tops in Highland County by bald and golden eagles." The department calls for further assessment of the area.

■ HNWD's study noted that studies of wintering raptors from the Midwest and Eastern U.S. are similar to those at the Highland site. DGIF, however, said it agreed Eastern studies were similar, but not ones done in the Midwest, where the habitat is much different. "We feel the most appropriate studies conducted to date are those from Mountaineer (W.Va.), Meyersdale (Pa.) and Buffalo Mountain (Tenn.). To our knowledge, none of these projects have assessed collision fatalities of wintering raptors. The need to assess potential impacts and document fatalities is warranted," DGIF said.

■ HNWD's study maintained that bald eagles have not been recorded nesting in Highland, but DGIF says there's sufficient information to suggest they could be. "While there are no records of bald eagles nesting in Highland County, they are known to nest in adjacent Bath County," DGIF said, further citing other studies that indicate the presence of bald eagles during breeding season.

■ HNWD's assessment cited a study at the Mountaineer wind project saying only one raptor, a red-tailed hawk, was killed during a year of study. But DGIF reviewed that study, and said the dates of the study included only 26 days in the spring, two days in the summer, and 33 days in the fall. "We don't believe this constitutes a 'year of study' when no surveys were conducted in the late fall through winter, the time when wintering eagles would be present," DGIF said.

■ DGIF said HNWD's study of nocturnal migrants in the project area did not address their potential risk. The department said the cursory field visit of HNWD's consultant suggests the project site is used as a stopover for these birds who would "potentially move through the 'wind sweep' of the rotors in order to land at the site." DGIF again noted the bat study data that "suggest that this project may have greater fall migrant fatalities than any other site in the eastern U.S." and called for more study.

■ In reviewing HNWD's bat study, the DGIF consistently pointed to the study's data

indicating a potentially high risk to bats, perhaps the highest in the East. DGIF emphasized the study was not enough to understand the whole picture, and noted the unknown impacts underscore the need for standardized study efforts both before and after project construction. "Collection of pre-construction data is the only way we will get a handle on what currently exists and post-construction data will show us what we've lost. Long-term monitoring will provide data on cumulative effects," DGIF said.

■ In reviewing another overview of bat data provided by HNWD, the DGIF found the report generally lacking. "Inconsistencies were found throughout this report, raising questions as to its accuracy," DGIF said. The department referred to several studies indicating big-eared bats' presence and migration in the area, and said the HNWD project area is "well within the migratory distance of the major Virginia big-eared bat hibernacula ... This statement supports our concern that the Highland project has the potential to take Virginia big-eared bats during the migration seasons."

■ Where HNWD's bat report referred to studies at the Mountaineer and Meyersdale projects, DGIF said none of those studies were complete since they did not survey a full year. "Both of these surveys missed a significant part of the fall migration," DGIF said. "Also, some of the carcass searches were conducted only weekly. It is likely that many carcasses were not recovered but instead scavenged by other animals ... In addition, post-construction surveys have been halted at both the Mountaineer and Meyersdale sites without a complete survey ever being conducted. Limited surveys cannot depict the complete picture and should be interpreted with caution."

■ HNWD's report also noted identified a "knowledge gap" due to a lack of baseline population surveys, and said without knowing how many bats are resident or migratory near a wind turbine project, the significance of any mortality that occurs at a site cannot be accurately assessed. DGIF replied that statement "confirms the need to conduct appropriate long-term pre- and post-construction studies" and says the fact that mortality cannot be assessed "raises questions as to how the report can make a determination of 'no effect' when essential data are lacking."

■ HNWD's study says no federally endangered bats have been documented along the Allegheny Front. DGIF says that's true only because of limited and incomplete surveys. "Also, the comment is not completely true," DGIF said. "In Virginia, we have radio tagged

Indiana bats and documented their use of ridges in the Allegheny Mountains.”

■ Furthermore, DGIF said, the report doesn’t identify the position of the project site “to one of the most important hibernacula in the east, Hellhole Cave. This cave is perhaps the most important ... for Virginia big-eared bats and an important Indiana bat hibernacula. In addition, this cave contains over 170,000 other bats that could be affected by this project.”

■ HNWD’s report says there are no known Indiana bat maternity colonies or hibernacula in Highland County. DGIF said, “This statement is incorrect. Hupman’s Saltpeter Cave is located in Highland County. The number of Indiana bats in that cave has fluctuated from 0-300 individuals.”

■ The developer’s study said because little habitat will be modified in order to construct the project, there is a low potential for an indirect effect. DGIF said, “We understand the Red Oak Knob site is currently deforested. However, the Tamarack Ridge site is forested with a deforested corridor. According to the northern flying squirrel survey, the ridge top pastures contain scattered mature trees, ‘creating a savannah-type environment.’ This description appears to be appropriate for bat roosting habitat ... Any tree removal associated with this project has the potential to result in adverse impacts upon Indiana bats. Associated tree removal includes areas of forest that will be disturbed for enhancement of the existing access roads and utility line placement, as well as areas proposed for future timber harvest.”

■ HNWD’s report notes it’s one of the first to seek State Corporation Commission approval in Virginia. DGIF replied, “We understand the Highland project is the first of its kind proposed for the mountains of Virginia. However, in assessing potential impacts, the Highland project should not be considered on its own. There are currently five operating, at least four permitted, and at least 14 additional planned wind projects within the Allegheny Highlands of Virginia, West Virginia, Maryland and Pennsylvania. If constructed, that will mean over 1,500 industrial wind turbines operating in the region. One of the other projects is on Jack Mountain (Liberty Gap) less than 10 miles from the Highland project. We feel it is extremely important to consider the cumulative impacts that may result from construction of the Highland project.”

■ HNWD’s report says collecting pre-construction data remains a critical component but the inability of the studies to quantify risk makes their role in the permitting process “ambiguous” and existing data suggest it is unlikely the project would have an adverse effect. DGIF disagreed again, saying collecting such data is “anything but ambiguous” because it would not only provide a means of assessing impact, but could be used to help mitigate those impacts. “When threatened and endan-

gered species could be involved, we feel it is imperative to begin addressing mitigation as early in the pre-construction period as possible.”

■ HNWD submitted a survey report that did not document northern flying squirrels on Red Oak Knob or Tamarack Ridge, but DGIF noted they have been documented in Highland and on the project property. “In at least one location on the project property, a northern flying squirrel was captured in a nest box located on a dead spruce tree adjacent to pasture ... We understand that little disturbance to forest cover is proposed ... however, it is unclear what disturbance will be necessary to prove the existing access roads or construct the associated utility line. If any areas considered suitable for northern flying squirrels are disturbed for any aspect of this project, we recommend further coordination with us and the U.S. Fish and Wildlife Service.”

DGIF’s report also contained additional comments regarding potential impacts. The department referred to the U.S. Government Accountability Office report released last September that outlined significant bat kills at other wind facilities. GAO found that because many utilities have not been studied, it is hard to draw a definitive conclusion about the overall threat wind power may have upon wildlife, DGIF said. “This is particularly true in regard to cumulative impacts from multiple projects.”

Furthermore, DGIF said, the Blue Grass Valley and Bear Mountain “are both sites on the Virginia Birding and Wildlife Trail administered by DGIF. The impact this project will have on the surrounding viewshed may significantly impact the natural beauty and ‘secluded’ nature of Highland County, which most wildlife watchers desire. Highland County is one of the premier sites in the state for ecotourists, particularly bird watchers. Our latest statistics on visitors to the commonwealth ... show that ecotourism is an important contributor to the state’s economy. These visitors spend approximately 2.7 nights during their visits and are three and a half times more likely than the average Virginia tourist to stay in a bed and breakfast or more local establishment. A quarter of them spend more than \$750 per trip to the state, and over half of them are looking for out of the way places to visit such as parks, scenic drives, and mountains. These are well-educated, higher income people looking for travel in a natural and quiet place where they can interact with and learn about the local culture and history while also watching wildlife. Development of the project could result in many tourists going elsewhere. We request that this information be considered as part of an overall economic and social impact analysis of this project. Other issues that should be considered include wind energy subsidies, tax breaks, and local employment potential.”

More studies, please

DGIF said while it appreciated HNWD’s studies were done as part of its SCC application, “it should be noted that we were not consulted during the design of these studies. As Virginia’s wildlife agency, we feel it would have been beneficial for all parties if the applicant had come to us early in the process to discuss potential impacts and what studies we would recommend to address those impacts. The U.S. Fish and Wildlife Service and Virginia Department of Conservation and Recreation ... also should have been contacted. Also, it is unclear whether the methods used in the bird and bat studies have undergone rigorous peer review by the scientific community. Without this peer review, we must question the validity of these studies.”

DGIF recommended the following be included as conditions with the SCC permit:

■ Formal habitat assessments for endangered water shrews and rock voles at the project site.

■ All stream and wetland crossings be constructed using directional drill or conventional bore technology.

■ An additional year of pre-construction monitoring to assess flight patterns, the relative abundance of birds and bats, and potential correlations between site conditions and wildlife activity.

■ A minimum of three years’ post-construction monitoring to assess mortality, to include carcass searches conducted at least daily from April through October.

■ Annual reports submitted to DGIF and other agencies involved to help mitigate adverse impacts. DGIF says bat fatalities should be kept to 1.8 bats per turbine per year; and bird fatalities at or below 2.3 birds per turbine per year, except for endangered species. “We recommend consultation with the U.S. Fish and Wildlife Service concerning incidental take of federally listed or protected species. We note that there is no incidental take provision under Virginia’s endangered species law.”

In conclusion, DGIF said, “We support the use of alternative energy sources, including wind energy. However, we feel the full impacts of such alternatives upon wildlife must be assessed. Potential adverse impacts should be avoided and minimized where possible. This should be through proper siting of power generating facilities and use of the best available technology.”