

Reclaimed lands at Arch Coal's Hobet 21 mine rate highly as wildlife habitat, according to academic study

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Huntington, W.Va. – April 15, 1999 - In a recently completed study conducted by Dr. Edwin D. Michael, Professor Emeritus of Wildlife Management (Division of Forestry) at West Virginia University, two reclaimed operating areas at Arch Coal's Hobet 21 complex in Boone County, W.Va., received higher scores for wildlife value than two adjacent sites that had not been mined.

The two reclaimed areas, which were mined between 1983 and 1984 using mountaintop mining techniques, received scores of 79.9 and 81.8 out of a possible 100 points. In comparison, the two adjacent, unmined sites – a ridgetop forest and a streamside forest – received scores of 63.9 and 62.8, respectively.

"The U.S. District Court argued in its recent opinion blocking the Spruce Fork permit at Dal-Tex that if forest wildlife is driven away during active mining, it 'cannot be coaxed back,'" said Larry Emerson, Arch Coal's director of environmental performance. "Dr. Michael's study demonstrates the flaw in that assertion and proves that wildlife habitat is actually enhanced by the added diversity that reclaimed lands provide. As a scientist, it is very frustrating to me that important decisions are being made on the basis of unsubstantiated, emotional claims rather than on real scientific analysis."

Dr. Michael based his study on a wide range of habitat variables, including: 1) tree size class/canopy closure; 2) hard mast species; 3) percent canopy closure of hard mast trees; 4) soft mast species; 5) understory density; 6) herbaceous cover; 7) openings; 8) external edge; 9) number of snags; 10) average diameter at breast height of snags; 11) number of stumps and logs; 12) water availability; 13) vegetative cover density; 14) forb-grass cover; 15) shrub/tree cover; 16) edge vegetative cover; 17) external edge configuration; 18) diversity of seed-producing plants; 19) diversity of soft mast-producing plants; 20) potential dens and escape cover; 21) distance to hardwood forest; 22) diversity of habitat types; and 23) interspersed of habitat types.

Reclamation practices continue to improve

The industry has learned a great deal about effective reclamation practices in the past 15 years, according to Emerson. "Reclamation techniques have improved dramatically since the early '80s," Emerson said. "As a result, we are confident that our more recent reclamation work will provide even better wildlife habitat than the reclaimed sites included in the study once it reaches a similar level of maturity."

Dr. Michael's study was more than just a good report card, according to Emerson. "The real value of this study is that it provides us with the kind of scientific analysis we can use to improve our reclamation practices still further," he said.

The study included several recommendations for creating habitat with even greater value for wildlife. Among those recommendations was the creation of more wetlands, the planting of additional conifers (evergreens), and a reduction in the use of a specific type of grass called Kentucky 31 fescue, which was once used extensively at surface mines.

"We are already doing some of these things on our current reclamation work," Emerson said. "However, Dr. Michael's study further underscores their importance. We plan to intensify our efforts in each of these areas while continuing to explore new ways to improve the wildlife and pasturing value of our lands."

Emerson said the company had discontinued the use of Kentucky 31 fescue several years ago and that it is continuously exploring various grass and legume combinations in an effort to determine which species provide the greatest benefit to wildlife.

Emerson further indicated that the company would continue to make wetland creation a priority. "It is clear from Dr. Michael's analysis that wetland acreage has great value for wildlife," Emerson said. "We believe that new wetland creation is one of the principal reasons our reclamation sites are so attractive to wildlife. To date, we have created over 230 acres of

wetlands at our West Virginia surface mining complexes. As a result of Dr. Michael's findings, we intend to increase still further our emphasis on the creation of such acreage in future mine plans."

Finally, Emerson noted that the company would evaluate the benefits of planting additional conifers on its reclaimed lands. "We plant more than 200,000 trees at our West Virginia reclamation sites each year, including some evergreens," Emerson said. "In recent years, we have emphasized planting more native hardwoods. However, we will weigh carefully the potential benefits of planting more conifers as well."

Promoting further research

At present, Arch Coal is supporting a number of research projects aimed at providing better scientific data about the potential impact of surface mining on the environment. Several of these projects are being conducted by leading regional universities, including West Virginia University, Marshall University and Virginia Tech. In addition to the wildlife habitat study, research is being conducted on water quality, fish life, aquatic habitat, amphibian populations, and forest succession. The company plans to use the findings from these studies to improve its reclamation practices still further.

Arch Coal is the nation's second largest coal producer, with subsidiary operations in West Virginia, Kentucky, Virginia, Illinois, Wyoming, Colorado and Utah. More than 2,500 people are employed at Arch Coal's mining operations in West Virginia, where the company produced over 30 million tons of clean-burning, low-sulfur coal last year.