

USDA Forest Service Update

August 2011

Subject: Energy Development on National Forests



Issue: Implicit in the Forest Service mission is that energy is both a need and a benefit that can be sustainably provided while maintaining and enhancing the productivity and health of the Nation's forest and grassland resources. Challenges include mitigating and reducing the potential for direct mortality of wildlife and fish due to installation of facilities, indirect mortality due to loss of habitat, habitat fragmentation and mitigating organism and habitat losses on-site and off-site. Opportunities related to any energy development build on multi-agency coordination and communication that will develop and promote conservation of fish and wildlife and their habitats and support research that will build a better knowledge base for future management.

Key Points & Background:

Energy Corridors: Energy corridors on federal lands provide pathways for future long-distance energy transmission that will help to relieve congestion, improve reliability, and enhance the national electric grid. Future use of corridors should reduce the proliferation of rights-of-way (ROWs) across the landscape and minimize the environmental footprint from development.

- Via a Record of Decision, the Forest Service amended 38 Forest plans in the 10 Western states and designated 975 miles of energy corridors on National Forest Service (NFS) lands. Section 368 (b) of the Energy Policy Act of 2005 requires the identification of corridor opportunities in the remaining 39 states. Departments are finalizing a report to aid Federal land managers in those 39 states with future decisions on siting and amending land plans.
- ***Release of the eastern Energy Transport Corridors study is expected in late fall of 2011.***
- **Challenges:** Energy transmission lines may contribute indirectly to the loss of wildlife by altering habitats, as well as directly by increasing wildlife mortality rates through collisions, electrocution, and by serving as perches for raptors and other potential nest predators. Transmission lines may inadvertently increase raptor mortality from collisions with wind turbines, by providing structures that encourage raptors to perch in areas near turbines.
- **Opportunities:** Strategic location of transmission lines can balance the protection of unique plant and animal communities and the ecological processes important for their self-regulation. Vegetation management within identified corridors can also address issues such as wildlife movement, invasive species and wildfire suppression.

Biomass Utilization: Sustainable woody biomass utilization allows use of resources without compromising the ability of future generations to meet their needs. Using woody biomass for renewable energy and bio-based products provides opportunities to mitigate climate change, improve energy security, forest health to improve wildlife habitat and water quality, reduce energy costs, and enhance economic development across the U.S. forestry sector and rural communities.

- **Challenges:** Biomass removal reduces soil nutrients important to biodiversity and may change stand structure to the detriment of some species.
- **Opportunities:** Biomass utilization can enhance wildlife habitat by reducing overstocked stands of trees and/or changing stand structure to improve forage and cover.

Oil & Gas Leasing: Agency policy is to make domestic energy mineral resources available in a timely and environmentally responsible manner. The Agency has seen a shift toward natural gas proposals as new technological advances have made the exploration and development of gas from shale reservoirs economically feasible. Opportunities for natural gas development were identified as a bridge source of energy. The Agency will continue to facilitate processing of energy mineral lease requests and permit applications.

- *Challenges:* Oil and gas development can fragment habitat (e.g., sagebrush habitat for sage grouse, mule deer, antelope and various non-game species). Wells and well pads and additional infrastructure (roads, tanks, equipment staging areas, compressor stations shops, pipelines, power line corridors, and associated traffic and human activity) also contribute to habitat fragmentation.
- *Opportunities:* Multi-agency coordination can address landscape level habitat concerns for species such as sage grouse.

Wind: The Forest Service is in the process of issuing directives that address factors specifically associated with siting wind energy uses, processing wind energy proposals and applications, and issuing wind energy permits. The final directives provide a consistent framework and terminology for making decisions regarding proposals and applications for wind energy uses, including guidance on siting wind energy turbines, evaluating a variety of resource interests, and addressing issues specifically associated with wind energy in the special use permitting process.

- ***The final wind energy directives were published on August 4, 2011.***
- *Challenges:* Wind energy facilities that are improperly located pose direct mortality threats to birds and bats and can cause habitat fragmentation for other wildlife species. By 2030, wind farms are estimated to impact nearly 20,000 sq. mi. of terrestrial habitat.
- *Opportunities:* Recent research conducted on bats indicates some kinds of bats may be more susceptible to fatalities from wind turbines than others, and bat behavior during certain times of the year may make them more susceptible to wind turbine mortalities. Applying this kind of knowledge will help us determine better locations for wind energy facilities and help define operational periods for wind turbines to reduce future bat mortalities.

Hydropower: The FS is in the process of implementing a number of large settlement agreements, most notably in the western United States (CA, OR and WA). Those settlements yielded improved flows and integrated operations for fish, wildlife and also recreation (whitewater rafting). FS is coordinating closely with FERC, as well as state agencies, on implementing the associated settlement policies. Since implementing the National Hydropower Initiative to focus on the pending large workload in relicenses on NFS land, the FS participated in 126 proceedings from FY 1999 through 2011. Based on that initiative, FS has restored or improved fish passage in 998 miles of stream and improved flow regimes in 826 miles of stream.

- *Challenges:* Maintaining adequate stream flows and water temperatures to support aquatic species.
- *Opportunities:* Improved aquatic conditions benefits both fish and wildlife utilizing reservoirs and downstream waterways.

Contact:

Rick Swanson, Water Policy and Planning, 202-205-0886

Paul Johnson, Minerals and Geology Management, 703-605-4793