

## **POWERLINE PROJECT GUIDELINES**

### **NEW MEXICO DEPARTMENT OF GAME AND FISH**

Updated February 2007

1) TRANSMISSION LINE STRUCTURAL DESIGN All hawks, owls and vultures are protected under New Mexico state law (New Mexico Statutes Annotated, 1978, 17-2-14, as amended). Bald and golden eagles are protected under federal law. Transmission lines must be designed to prevent or minimize risk of avian collision or electrocution of raptors. A variety of alternatives are set forth in the Avian Power Line Interaction Committee (APLIC) *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006*, and *Mitigating Bird Collisions with Power Lines: the State of the Art in 1994*. These reports may be ordered from APLIC at <http://www.aplic.org>.

2) LOCATION Existing roads, trails, and rights-of-way should be followed where possible. Roads and rights-of-way should avoid critical wildlife habitat, saddles, ridge tops, riparian areas, meadows and edges of meadows, and big game migration routes. Construction using helicopters should be considered in remote critical wildlife areas where construction of new roads would otherwise be necessary.

3) CLEARING Rights-of-way clearing should be selective, leaving shrubs and brush undisturbed where possible. Clearing should be avoided in riparian areas and on steep slopes. Brush and limbs should be piled at intervals to enhance wildlife habitat.

4) STRUCTURES Bridges and culverts should be designed such that fish passage is not impeded. Hydrology and stream course should remain unchanged. Special techniques and structures should be employed as necessary to minimize erosion and sedimentation to riparian areas (e.g., catch basins, raised culverts for roads runoff, or water bars).

5) CLOSURES Roads and rights-of-way which provide access to critical wildlife area should be designed for easy and effective closure. Gates should be installed at onset of construction and closed immediately after completion of the project. Temporary roads should be obliterated and revegetated immediately after construction.

- 6) SCHEDULING Winter construction is preferred on critical big game summer range. Summer construction is preferred on big game winter range. No construction should be conducted in winter range from December 15-April 15. No construction should occur in elk calving areas from May 1-June 30. No construction should occur in deer fawning areas from June 1-August 31 (northern New Mexico) or July 1-September 31 (southern New Mexico). No construction should occur in turkey nesting areas from April 15-June 30. Construction in big game migration areas should be restricted during migration.
- 7) SPECIAL CONSIDERATION FEATURES (Areas such as seeps, springs, wet meadows, marshes, wallows, salt licks and water development areas). Protect these features from damage during construction. No roads within 200 feet of feature. Remove debris from wildlife trails. Protect rock talus areas from disturbance by heavy equipment.
- 8) RIPARIAN AREAS AND FISHERIES Develop site specific measures where appropriate. Maintain at least 100-foot buffer along streams. Debris left in streams and drainages may be detrimental or beneficial and should be assessed on a site specific basis. Prevent siltation to streams. Fine sediment (less than 0.85 mm diameter) should remain at < 20% of spawning gravel in trout streams. In streams: maintain  $\geq 80\%$  natural shade over water; maintain  $\geq 80\%$  natural bank protection; composition of sand, silt, and clay should remain within 20% of natural levels.
- 9) FENCES Provide jumps or top rails on fences, or lay-down fences, within areas of high wildlife use (e.g., travel corridors). Bottom wire should be barbless and at least 18" above ground in antelope or deer habitat. Maximum fence height should be 42". Minimum spacing between top two wires should be 10". Do not use woven wire fencing
- 10) REVEGETATION AND RESTORATION Revegetation should utilize native grasses, forbs, and shrubs beneficial to wildlife. Incremental revegetation is preferred in areas where work is conducted during spring and summer. Sections of right-of-way should be rehabilitated as construction is completed. Revegetated areas which have not become established by the end of the growing season should be treated to prevent erosion and site degradation (e.g., mulching, contouring, water bars).

## **SPECIES-SPECIFIC RECOMMENDATIONS**

- 1) **THREATENED AND ENDANGERED SPECIES** Determine which state and/or federally listed species could occur in the project area. Sources of information include:

New Mexico Department of Game and Fish  
PO Box 25112  
Santa Fe, New Mexico 87504  
(505) 476-8101 [State-listed wildlife]

New Mexico Department of Energy, Minerals and Natural Resources  
Forestry Division  
1220 St. Francis Dr.  
Santa Fe, New Mexico 87505  
(505) 476-3200 [State-listed plants]

U.S. Fish and Wildlife Service  
New Mexico Ecological Services State Office  
2105 Osuna, NE  
Albuquerque, New Mexico 87113  
(505) 346-2525 [Federally-listed plants and animals]

Contact the above agencies for assistance in determining presence or absence of threatened and endangered species and development of protective measures.

- 2) **DEER AND ELK** Protect browse and forage plants.
- 3) **TURKEY** Identify and protect roost tree groups (winter roost trees are most critical). Roost tree groups can be described as:
- Large open topped trees ( $\geq 13''$  dbh,  $> 40'$  tall, especially ponderosa pine)
  - Canopy cover  $> 55\%$ ;
  - Basal area  $> 100$  ft<sup>2</sup>/ac.
  - Accessible from clearing directly up slope, not isolated from stand.
  - Provide nesting habitat in ponderosa pine or mixed conifer where practical by creating slash piles (10' diameter x 3' high) or leaving unlopped tree tops. Nesting habitat should be within ½ mile of dependable water.
- 4) **RAPTORS** Protect known nest tree groups. Protect perch and roost trees adjacent to cliffs, major ridges and openings.
- 5) **BEAR** Protect mast (oak & juniper) and forage plants. Leave large diameter dead or down trees for insect forage.

- 6) TREE SQUIRRELS Protect stands with high squirrel activity (e.g., nest trees, large middens). Protect trees with existing cavities.
  
- 7) NON-GAME BIRDS When abandoning or realigning old electric lines, leave 10% to 30% of the abandoned poles standing for perching and cavity nesting birds, especially in areas lacking natural snags. Numbers and location of poles to be left standing should be coordinated with the U.S Fish and Wildlife Service and New Mexico Department of Game and Fish. The taller the poles the better, but under existing lines, leaving four to ten feet of the old pole standing will provide useful habitat. If poles are still sound, artificial nesting cavities can be created. Heavily creosoted, potentially toxic poles should be cut at ground level and removed. This recommendation may be retracted if the abandoned poles are within grassland ecosystems.