Mr. David P. Jolly  
Deputy Regional Forester  
U.S. Forest Service, Region 3  
517 Gold Avenue, SW  
Albuquerque, NM 87102

Dear Mr. Jolly:

This is in response to your request of December 17, 1985 for formal Section 7 consultation as provided for by the Endangered Species Act. The action under consultation concerns the approval and implementation of the Proposed Coconino National Forest Plan (PCNFP) for the Coconino National Forest (CNF) in Coconino, Gila and Yavapai Counties, Arizona.

On December 10, 1982, the CNF requested a list of threatened and endangered species that may be affected by the proposed action. The U.S. Fish and Wildlife Service (USFWS) responded to this request on February 9, 1983. The CNF requested an updated list on April 8, 1985, and the USFWS responded on May 7, 1985. The Forest Service (FS) request for formal Section 7 consultation was received by the USFWS on December 23, 1985. This consultation was mutually extended to April 1, 1986.

The following listed species were considered in this consultation: Bald eagle (Haliaeetus leucocephalus), peregrine falcon (Falco peregrinus), Arizona cliffrose (Cowania subintegra), and San Francisco Peaks groundsel (Senecio franciscanus).

In addition, the proposed Little Colorado River spinedace (Lepidomeda vittata) and spikedace (Meda fulgida) are addressed.

This biological opinion is based on information contained in the Draft Environmental Impact Statement (DEIS), PCNFP, biological assessment of the PCNFP, additional information provided by the CNF, biological information from the Arizona Game and Fish Department (AGFD), data in our files and discussions with biologist familiar with the species and the CNF.

Background Information

The intent of the PCNFP is to provide for multiple-use and sustained-yield of goods and services from the CNF in a way that maximizes long-term net public benefits in an environmentally sound manner. To accomplish this,
the FCNFP describes the major public issues and management concerns pertinent to the PNF; summarizes the analysis of the management situation including existing management, projected future use and supply conditions; establishes long-range policies, goals, and objectives; contains the specific management prescriptions planned to meet the policies and to achieve the multiple-use goals and objectives; specifies the vicinity, timing, standards, and guidelines for proposed management practices; and establishes monitoring and evaluation requirements needed to assure goals and objectives are met.

The following forest-wide management prescriptions and specific forest standards and guidelines were identified from the FCNFP.

Forest-wide Management Prescriptions for Threatened, and Endangered Species (FCNFP)

1. Improve habitat for listed threatened, endangered, or sensitive species of plants and animals and other species as they become threatened or endangered. Work toward recovery and delisting species.

2. Identify and protect areas that contain threatened, endangered, and sensitive species of plants and animals.

3. If habitat for threatened, endangered or sensitive species is threatened, ORV closures or restrictions will be implemented.

4. Inventory, evaluate, and prepare implementation plans for proposed, threatened, endangered, and sensitive plant and animal species in the first decade or as species are proposed. Monitor approved plans, reproductive success, and effects of management activities at occupied threatened, endangered, and sensitive species sites.

5. Evaluate potential resource impacts on threatened, endangered and sensitive species habitat on projects and activities through a biological assessment and conduct appropriate consultation when necessary.

6. Restrict chemical and mechanical site preparation and applications of herbicides near or within identified populations of threatened, endangered and sensitive species. Specific distances are established based on the species and the type of application through on-site analysis.

7. Habitat locations for listed plant and animal species remain confidential to prevent unnecessary disturbances or theft.

8. Provide appropriate enforcement to protect habitat for listed species.

9. Determine the need for structural improvements and maintain those needed in operable condition or replace. Give priority to maintenance of structures for threatened and endangered.
10. Improve threatened, endangered and sensitive species habitat. Improvement projects give priority to recovery of threatened and endangered species. Conform to approved recovery plans.

11. Suppress fires that threaten habitat of threatened, endangered, or sensitive species.

Forest-wide Management Prescriptions that will Benefit Threatened, and Endangered, Species (PONFP)

1. Manage habitat to maintain viable populations of wildlife and fish species and improve habitat for selected species. This is accomplished "directly" through habitat management and "indirectly" through coordination of habitat management in conjunction with other resource activities.

2. Cooperate with the AGFD to achieve management goals and objectives specified in the Arizona Wildlife and Fisheries Comprehensive Plan and on proposals for reintroduction of extirpated species into suitable habitat. No unapproved species are introduced. Support the AGFD in meeting its objectives for the state.

3. Maintain or improve riparian areas that are currently in good condition.

4. Cooperate with AGFD to achieve management goals and objectives in the Arizona Cold Water Fisheries Strategic Plan.

5. Provide a program of range development that improves watershed condition and improves wildlife habitat.

6. Manage Research Natural Areas (RNA's) for scientific research or baseline studies. Protect potential RNA's pending decision by the Chief.

7. Inventory and evaluate wildlife and fish habitat. Use the best available resource data and technical expertise to identify habitat objectives and prepare implementation plans for key habitats.

8. Provide timely public information about closures, fire danger, and other needed information of the AGFD for use in weekly news releases during hunting season.

9. Improve forage conditions through seeding forage and browse species desirable to wildlife.
10. Improve forage conditions by using prescribed fire where environmental analysis shows beneficial effects and in line with approved burning plans.

11. Develop wildlife waters where needed in accordance with approved plans and fence where necessary to protect wildlife values.

12. Construct raptor perch, roost, and nest structures where applicable to improve habitat.

13. On open storage tanks and drinkers provide entry and escape ramps for wildlife.

14. Evaluate the need for wildlife forage in timber stands and where needed, modify prescriptions to obtain it.

15. Inventory riparian communities and areas that are capable of supporting riparian species by the end of the first decade. Plan and design projects in areas of unsatisfactory or degraded condition to promote channel and streambank stability and to improve water flow and timing.

16. Locate roads, skid trails and landings out of wetlands.

17. Inspect areas proposed to be treated with chemical agents such as pesticides and herbicides to insure surface or groundwater contamination does not happen.

Specific Forest Standards and Guidelines (PCNFP)

A. Bald Eagle

1. Install structures, such as gates or barriers, necessary to manage roads to limit or restrict access into bald eagle nesting and wintering areas.

2. Sign and restrict boat landing and camping within one-half mile of active bald eagle nests.

3. Vehicular access is prohibited in the vicinity of nesting bald eagles between December 1 and June 15. Should eagles occupy a nest territory earlier or later, the closure period will be adjusted.

4. Protect bald eagle winter roosts with a 300-foot uncut buffer zone around the roost. Prohibit road development in the roost and buffer zone.

5. Give priority to managing for old-growth stands adjacent to lakes and streams in potential bald eagle wintering sites.
B. Peregrine Falcon

1. Activities likely to cause disturbance, including public use, are prohibited in the vicinity of occupied peregrine falcon nesting habitat between March 1 and August 15.

2. No trail construction is planned in areas near occupied peregrine nesting habitat.

3. Nest sites will be monitored annually.

C. San Francisco Peaks Groundsel

1. Protect Senecio franciscanus by an area closure.

2. Protect 325 acres of alpine areas to improve habitat for Senecio franciscanus by closing the area during snow free periods.

3. Senecio will be monitored on a continuing basis.

Bald Eagle

The CNF supports one nesting pair of bald eagles (Ladders breeding territory) on the Verde River. This pair has fledged 10 young in the last six years and is raising two young this year. Recreational activities included in the PCNFP could adversely impact the foraging and nesting behavior of this breeding pair. However, implementation of the forestwide management prescriptions should avoid this impact. In addition to the forestwide prescriptions, this breeding pair receives the additional protection of a special CNF closure of the breeding territory that does not allow public entry into the territory between December 1 and June 15 (breeding season); two nest wardens stationed in close proximity to the nest for the duration of the breeding season that monitor breeding activity and enforce the closure; and the protection of being located within the designated Verde Wild and Scenic area.

In 1982 the CNF fenced the Verde River on the Coconino side to exclude livestock from the riparian vegetation, and thereby protecting habitat vital to the continued existence of this species.

Approximately 50-60 bald eagles winter on the CNF-foraging on lakes, reservoirs, and stock ponds from November through April. Roosts and perches occur in ponderosa pine near foraging areas. This wintering population has remained stable over the last seven years. Recreational and timber activities included in the PCNFP could adversely impact the foraging ability of these wintering bald eagles. However, implementation of the forestwide management prescriptions should minimize this impact.

Peregrine Falcon

There are two known nest sites on the CNF located within rugged inaccessible areas that have been designated as wilderness. Activities proposed
within the PCNFP will not affect these remote nest sites. However, should some unforeseen problems arise, these falcons would be well protected by the forestwide management prescriptions.

**Arizona Cliffrose**

The largest population of cliffrose occurs on the CNF in the Verde Valley on white limestone outcrops of the Verde Formation at elevations between 3,500 and 3,600 feet. Surveys conducted in 1985 indicate there are 50,000 plants on 515 acres of habitat. The biggest threat to this species in the Verde Valley is hybridization with Cowania stansburiana. Forest management practices will neither encourage C. stansburiana or eliminate it in the Verde Valley. Forestwide standards call for monitoring the effects of management activities upon sites occupied by endangered species. This monitoring should measure the threat of hybridization to the Arizona cliffrose. Mining, road construction, and grazing activities included within the PCNFP could adversely impact habitat for this species. However, implementation of the forestwide management prescriptions should avoid these impacts.

**San Francisco Peaks Groundsel**

This species is restricted to the alpine tundra zone on the San Francisco Peaks above 11,300 feet elevation, with an estimated population of 100,000 plants occurring on 325 acres of tundra. All existing and potential habitat occurs in the Kaibab Peaks Wilderness, with critical habitat designated on the summits of Agassiz and Humphreys Peaks and the surrounding slopes of alpine habitat.

Recreational activities under the PCNFP could adversely impact this species. However, implementation of the forestwide management prescriptions should avoid these impacts. This species also receives additional protection under the alpine tundra management plan prepared and implemented in 1984.

**Little Colorado Spinadace**

This proposed threatened spinadace inhabits small streams and is characteristically found in pools with flowing water over fine gravel and silt-mud substrates. During periods of flooding they tend to distribute themselves throughout the stream, and during periods of drought, persist in intermittent pools. This species presently occurs on the CNF in approximately 35 miles of East Clear Creek downstream from the headwaters near Potato Lake to Leonard Canyon. A total of 31 miles of East Clear Creek from the confluence with Leonard Canyon to Potato Lake (excluding Blue Ridge Reservoir) has been proposed as critical habitat by the USFWS.

There are no activities in the PCNFP that would adversely impact this species, however, should some unforeseen adverse activity occur this species would be protected by applicable management prescriptions.
In addition to these prescriptions there is a CNF vehicle closure on 35 miles of East Clear Creek that will protect spinedace habitat from four-wheel and ATV impacts.

Spinedace

This proposed threatened species inhabits moderate to large perennial streams and occurs on the CNF in the Verde River at the confluence of Sycamore Creek. Critical habitat has been proposed by the USFWS that includes 0.9 miles of Sycamore Creek north of its confluence with the Verde River and 36.3 miles of the Verde River beginning 0.48 miles below the confluence with Sycamore Creek upstream to Sullivan Lake.

Crested and recreational activities included in the PCNFP could adversely impact the proposed spinedace by reducing the quantity and quality of the aquatic and riparian habitat. However, implementation of the forestwide management prescriptions should preclude those adverse impacts.

The potential impacts to the four listed species and two proposed species associated with the PCNFP include those resulting from recreation (developed and dispersed) range management (grazing) and timber management. Actions based on forestwide prescriptions, standards, and guidelines would identify, document, and correct adverse impacts from any of the impact areas with the eventual goal of enhancing and promoting the conservation of those listed and proposed species on the CNF.

Biological Opinion

Based on the preceding information, it is our biological opinion that your approval and implementation of the PCNFP for the CNF is not likely to jeopardize the continued existence of the bald eagle, peregrine falcon, Arizona cliffrose and San Francisco Peaks groundsel but would promote the conservation of these species.

Of the alternatives described in the PCNFP and DEIS documents, alternative "D" would provide management prescriptions that better promote the conservation of the bald eagle, peregrine falcon, Arizona cliffrose and San Francisco Peaks groundsel.

Further consultation is not required unless new information becomes available concerning the four listed or two proposed species, or new species are listed that may be affected by this action, or the proposed action is modified in a manner not considered in this biological opinion.
Because of the general nature of actions proposed in the PCMP, the CNF will have to consult with the USFWS on specific actions that may affect listed and proposed species.

We appreciate your interest and effort in conserving endangered and threatened species.

Sincerely,

Frank H. Baucom
Acting Field Supervisor

cc: Director, FWS, Washington, D.C. (GES)
Regional Director, FWS, Albuquerque, NM (ANR)
Director, Arizona Game and Fish Department
Forest Supervisor, Coconino National Forest, Flagstaff, AZ

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