APPENDIX P – FEDERALLY LISTED SPECIES

Forest management activities promote the continued conservation of federally listed species and the habitats on which they depend. Species listed as threatened or endangered under the Endangered Species Act and identified by the U.S. Fish and Wildlife Service as occurring on or being influenced by management activities of the SJPL were considered for this Plan. These 9 plant, animal, and fish species are displayed below.

Table P.1 - Federally listed plant species on the SJPL

Plant Species	Status	Habitat Group
Knowlton's cactus* (*Pediocactus knowltonii*)	Endangered	Sagebrush, pinyon-juniper
*This species is not known to occur on SJPL, but has potential habitat on SJPL.		

Table P.2 - Federally listed terrestrial wildlife species on the SJPL

Terrestrial Wildlife Species	Status	Habitat Group
Canada lynx (Lynx Canadensis)	Threatened	High-elevation conifer
Uncompahgre fritillary butterfly (Boloria acrocnema)	Endangered	Alpine
Southwestern willow flycatcher (Empidonax traillii extimus)	Endangered	Riparian
Mexican spotted owl (Strix occidentalis lucida)	Threatened	Douglas fir, ponderosa pine

Notes:

Canada lynx populations and habitat are maintained or improved to contribute towards the recovery of this species by implementing conservation measures in the Canada Lynx Conservation Assessment and Strategy (LCAS) (Ruediger et al. 2000). Lynx analysis units (LAUs), areas of land with lynx habitat, are used to evaluate potential direct and indirect effects of projects or activities on individual lynx and to monitor habitat changes. Each LAU contains an appropriate mix of mature and late successional spruce-fir and other high-elevation conifer for denning (at least 10%), regenerating conifer stands for winter foraging and other habitats suitable for prey species (aspen and mixed conifer of various structural stages). Timber management actions sustain lynx habitats. No more than 15% of lynx habitat within an LAU is changed to unsuitable lynx habitat conditions by timber management actions within a 10-year period, and no more than 30% of lynx habitat in an LAU is in unsuitable lynx habitat condition at any point in time as a result of management activities. Connected forested habitats allow lynx and other large- and medium-size carnivores to move long distances in search of food, cover and mates (Ruediger et al 2000) between areas of forested cover types within and between LAUs on the GMUG. Habitat connectivity is maintained or improved within identified linkage areas between mountain ranges and adjacent forests. Lynx habitat integrity is protected by minimizing snow compaction in lynx habitat. Recreation activities are concentrated within existing developed areas and there are no net increases in areas affected by future groomed or designated over-the-snow routes and play areas.

Suitable lynx habitat provided on the planning area contributes to a self-sustaining population of Canada lynx in the Southern Rocky Mountains.
Uncompahgre fritillary butterfly abundance and vigor of snow willow (Salix nivalis) habitat is maintained or enhanced. Butterfly collection does not occur in occupied habitat. All known colonies of Uncompahgre fritillary butterfly on the planning area are stable or increasing in size. Surveys for new habitats or populations and monitoring of existing habitats or populations are conducted in cooperation with the agencies and USFWS. Potential threats to habitats or populations (such as from recreation use or livestock grazing) do not become actual threats. Recovery strategies described in the Uncompahgre Fritillary Butterfly Recovery Plan (USFWS 1994) are implemented.

Willow habitats capable of supporting *Southwestern willow flycatcher* are improved or maintained in suitable condition across the planning area. Other resource uses such as range management and recreation do not degrade habitat condition. Strategies in the recovery plan for Southwestern willow flycatcher (USFWS 2002) are implemented for the planning area.

Large, steep canyons on the planning area containing mature dense pinyon-juniper, ponderosa pine and Douglas fir stands are maintained in suitable condition to provide potential habitat for potential *Mexican spotted owl* population expansion within the planning area. Suitable habitat is protected from catastrophic fire by implementing prescribed fire in surrounding areas. Strategies in the recovery plan for Mexican spotted owl (USFWS 1995) will be implemented in areas of occurrence.

Table P.3 - Federally listed aquatic species on the SJPL

Fish Species	Status	Habitat Group
Colorado pikeminnow (Ptchocheilus lucius)	Endangered	Aquatic
Razorback sucker (Xyrauchen texanus)	Endangered	Aquatic
Humpback chub (Gila cypha)	Endangered	Aquatic
Bonytail chub (Gila elegans)	Endangered	Aquatic

Notes:

Forest management activities that affect water depletions are implemented in compliance with the Section 7 Agreement and Recovery Implementation Program Action Plan (RIPRAP) (USFWS 1993) and San Juan Basin Recovery Implementation Program (USFWS 2003) for the four endangered fish species found in the Upper Colorado and San Juan river systems (Colorado pikeminnow, razorback sucker, humpback chub, and bonytail chub).