

United States Department of the Interior

U.S. Fish and Wildlife Service

2321 West Royal Palm Road, Suite 103

Phoenix, Arizona 85021-4951

Telephone: (602) 242-0210 FAX: (602) 242-2513

In Reply Refer To:

AESO/SE

02-21-04-F-0100 R2

August 29, 2006

Ms. Elaine J. Zieroth
Forest Supervisor
Apache-Sitgreaves National Forests
P.O. Box 640
Springerville, Arizona 85938-0640

Dear Ms. Zieroth:

Thank you for your request for formal consultation with the U.S. Fish and Wildlife Service (FWS) pursuant to section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544), as amended (Act). Your request was dated June 9, and received by us on June 13, 2006. At issue are impacts that may result from the proposed All Terrain Vehicle (ATV) Jamboree located in Greenlee and Apache counties, Arizona. The proposed action may affect Mexican spotted owl (MSO; *Strix occidentalis lucida*). Critical habitat occurs within the action area, however, the Forest Service determined that the proposed project would not affect designated critical habitat.

In your letter, you requested our concurrence that the proposed action was not likely to adversely affect the bald eagle (*Haliaeetus leucocephalus*), MSO, Chiricahua leopard frog (*Rana chiricahuensis*), Little Colorado spinedace (*Lepidomeda vittata*) and its critical habitat, Apache trout (*Oncorhynchus apache*), and loach minnow (*Tiaroga cobitis*). Additionally, the Forest determined the proposed project is not likely to jeopardize the Mexican gray wolf (*Canis lupus baileyi*). We concurred with your determinations for all species above except the Mexican spotted owl in a letter dated July 21, 2006.

This biological opinion is based on information provided in the June 6, 2006, biological assessment and evaluation, telephone conversations with John Wilcox of your staff, and other sources of information. Literature cited in this biological opinion is not a complete bibliography of all literature available on the species of concern, ATV use and its effects, or on other subjects considered in this opinion. A complete administrative record of this consultation is on file at this office.

Consultation history

- June 1, 2004: We provided a concurrence for effects to the jaguar, southwestern willow flycatcher, bald eagle, Mexican spotted owl, Chiricahua leopard frog, Little Colorado spinedace, Apache trout, and loach minnow from impacts that

may result from the ATV Jamboree that occurred September 8 through 10, 2004. In addition, we provided concurrence for effects to critical habitat of Little Colorado spinedace, spikedace (*Meda fulgida*), and loach minnow.

- August 25, 2005: We provided a concurrence for effects to the jaguar, southwestern willow flycatcher, bald eagle, Mexican spotted owl, Chiricahua leopard frog, Little Colorado spinedace and its critical habitat, Apache trout, and loach minnow from impacts that may result from the ATV Jamboree that occurred September 6 through 10, 2005.
- June 9, 2006: The Forest requested concurrences on the ATV Jamboree for the bald eagle, Mexican spotted owl, Chiricahua leopard frog, Little Colorado spinedace and its critical habitat, Apache trout, and loach minnow. Additionally, the Forest determined the proposed project is not likely to jeopardize the Mexican gray wolf.
- July 21, 2006: We provided a concurrence for effects to bald eagle, Chiricahua leopard frog, Little Colorado spinedace and its critical habitat, Apache trout, loach minnow, and Mexican gray wolf. We indicated that we were unable to concur with the Forest Service's determination for effects to Mexican spotted owl from the proposed project. We initiated formal consultation as requested by the Forest in your June 9, 2006, letter since we were unable to concur with your determination.
- August 17, 2006: A draft biological opinion was sent to the Forest.
- August 23, 2006: The Forest responded to the draft biological opinion via email.

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

The Springerville-Eager Regional Chamber of Commerce and Apache County ATV Roughriders have applied for a Special Use Permit to ride ATVs on Forest Service lands. The permit will be valid for five years. The ATV Jamboree will occur September 6 through 10, 2006, with trail rides occurring September 7 through 9, 2006. In years 2007 through 2010, the event will occur during the first or second week of September, for five days with three days of trail rides. All trail rides will utilize existing paved and dirt roads and designated ATV trails. There will be two night rides annually (Saffel Canyon Trail used on two nights). There are 16 routes totaling about 850 total miles (several routes join together) on the Alpine and Springerville Ranger Districts.

Each organized outing, or "ride", will be limited to 22 participants (one ATV per participant). Each group will be attended by two trailmasters, also on ATVs, who will act as guides, safety observers, and rules monitors, and are included in the 22 participants. The permit applicants anticipate up to 400 people will participate in this event in 2006. Numbers are expected to increase each year of the five year permit. The permit is therefore written for a maximum number of 600 participants per year.

In addition, there will be two night rides on the Saffel Canyon trail and overnight camping will occur at the Balke Cabin area after a day ride on the Coronado Trail loop.

Trail Rides:

Trail Name	Duration	Maximum # of Riders Expected During Event
Bill Stinson	3 rides total. One each Wednesday, Thursday, and Friday	22 per day/66 during event
Grizzly Loop	3 rides total. One each Wednesday, Thursday, and Friday	22 per day/66 during event
Robber's Roost	3 rides total. One each Wednesday, Thursday, and Friday	22 per day/66 during event
Lightening Ridge	3 rides total. One each Wednesday, Thursday, and Friday	22 per day/66 during event
Rustler's Loop	3 rides total. One each Wednesday, Thursday, and Friday	22 per day/66 during event
Saffel Canyon	2 rides total NIGHT RIDES	22 per day/644 during event
Clanton Clan	3 rides total. One each Wednesday, Thursday, and Friday	22 per day/66 during event
Ike Clanton	3 rides total. One each Wednesday, Thursday, and Friday	22 per day/66 during event
Hank Sharp	3 rides total. One each Wednesday, Thursday, and Friday	22 per day/66 during event
Ben Lilly	3 rides total. One each Wednesday, Thursday, and Friday	22 per day/66 during event
Oscar Schultz	3 rides total. One each Wednesday, Thursday, and Friday	22 per day/66 during event
Coronado Trail	One ride total (overnight campout)	22 per day/22 during event
Hannagan Loop	3 rides total. One each Wednesday, Thursday, and Friday	22 per day/66 during event
Smith Gang	3 rides total. One each Wednesday, Thursday, and Friday	22 per day/66 during event
Slaughter Circle	3 rides total. One each Wednesday, Thursday, and Friday	22 per day/66 during event
Grizzly Loop	3 rides total. One each Wednesday, Thursday, and Friday	22 per day/66 during event

Other aspects of the project mentioned in the Special Use Permit/Operation Plan include:

1. Some ATV routes will be eliminated if inclement weather occurs resulting in saturated and/or muddy roads and trails.
2. ATVs will be on roads or designated ATV trails at all times. Off-road vehicular use is not allowed.

3. One trail ride requires overnight camping at Balke Cabin area, allowing for 22 campers for one night. The Jamboree does not stipulate other overnight use and no additional overnight use is considered in this consultation.
4. To prevent degrading of stream beds, a corduroy crossing of conifer saplings will be placed within the stream and parallel with the stream bed in two drainage crossings of the trail near Roger Reservoir southeast of FR 81, as well as the Crackerjack crossing of Paddy Creek. The saplings will be removed after the event.
5. The Paddy Creek crossing will have gravel road material placed on the trail at the approach and egress to the stream to prevent bank degrading and reduce sediment.

STATUS OF THE SPECIES

Mexican spotted owl

The MSO was listed as a threatened species in 1993 (USDI 1993). The primary threats to the species were cited as even-aged timber harvest and catastrophic wildfire, although grazing, recreation, and other land uses were also mentioned as possible factors influencing the MSO population. The Fish and Wildlife Service appointed the Mexican Spotted Owl Recovery Team in 1993, which produced the Recovery Plan for the Mexican Spotted Owl (Recovery Plan) in 1995 (USDI 1995). The final MSO critical habitat rule (USDI 2004) designated approximately 8.6 million acres of critical habitat in Arizona, Colorado, New Mexico, and Utah, mostly on Federal lands (USDI 2004). Within this larger area, critical habitat is limited to areas that meet the definition of protected and restricted habitat, as described in the Recovery Plan.

A detailed account of the taxonomy, biology, and reproductive characteristics of the MSO is found in the Final Rule listing the MSO as a threatened species (USDI 1993) and in the Recovery Plan (USDI 1995). The information provided in those documents is included herein by reference. Although the MSO's entire range covers a broad area of the southwestern United States and Mexico, the MSO does not occur uniformly throughout its range. Instead, it occurs in disjunct localities that correspond to isolated forested mountain systems, canyons, and in some cases steep, rocky canyon lands. Surveys have revealed that the species has an affinity for older, uneven-aged forest, and the species is known to inhabit a physically diverse landscape in the southwestern United States and Mexico.

The U.S. range of the MSO has been divided into six recovery units (RU), as discussed in the Recovery Plan. The primary administrator of lands supporting the MSO in the United States is the Forest Service. Most owls have been found within Forest Service Region 3 (including 11 National Forests in Arizona and New Mexico). Forest Service Regions 2 and 4 (including two National Forests in Colorado and three in Utah) support fewer owls. According to the Recovery Plan, 91 percent of MSO known to exist in the United States between 1990 and 1993 occurred on lands administered by the Forest Service.

The Upper Gila Mountains RU is a relatively narrow band bounded on the north by the Colorado Plateau RU and to the south by the Basin and Range-West RU. The southern boundary of this RU includes the drainages below the Mogollon Rim in central and eastern Arizona. The eastern boundary extends to the Black, Mimbres, San Mateo, and Magdalena mountain ranges of New

Mexico. The northern and western boundaries extend to the San Francisco Peaks and Bill Williams Mountain north and west of Flagstaff, Arizona. This is a topographically complex area consisting of steep foothills and high plateaus dissected by deep, forested drainages. This RU can be considered a "transition zone" because it is an interface between two major biotic regions: the Colorado Plateau and Basin and Range Provinces (Wilson 1969). The Kaibab, Coconino, Apache-Sitgreaves, Tonto, Cibola, and Gila National Forests administer most habitat within this RU. The north half of the Fort Apache and northeastern corner of the San Carlos Indian reservations are located in the center of this RU and also support MSO.

The Upper Gila Mountains RU consists of pinyon/juniper woodland, ponderosa pine/mixed conifer forest, some spruce/fir forest, and deciduous riparian forest in mid- and lower-elevation canyon habitat. Climate is characterized by cold winters and over half the precipitation falls during the growing season. Much of the mature stand component on the gentle slopes surrounding the canyons had been partially or completely harvested prior to the species' listing as threatened in 1993; however, MSO nesting habitat remains in steeper areas. MSO are widely distributed and use a variety of habitats within this RU. Owls most commonly nest and roost in mixed-conifer forests dominated by Douglas fir and/or white fir, and canyons with varying degrees of forest cover (Ganey and Balda 1989, USDI 1995). Owls also nest and roost in ponderosa pine-Gambel oak forest, where they are typically found in stands containing well-developed understories of Gambel oak (USDI 1995).

Historical and current anthropogenic uses of MSO habitat include both domestic and wild ungulate grazing, recreation, fuels reduction treatments, resource extraction (e.g., timber, oil, gas), and development. These activities have the potential to reduce the quality of MSO nesting, roosting, and foraging habitat, and may cause disturbance during the breeding season. Livestock and wild ungulate grazing is prevalent throughout Region 3 National Forest lands and is thought to have a negative effect on the availability of grass cover for prey species. Recreation impacts are increasing on all forests, especially in meadow and riparian areas. There is anecdotal information and research that indicates that owls in heavily used recreation areas are much more erratic in their movement patterns and behavior. Fuels reduction treatments, though critical to reducing the risk of catastrophic wildfire, can have short-term adverse effects to MSO through habitat modification and disturbance. As the population grows, especially in Arizona, small communities within and adjacent to National Forest System lands are being developed. This trend may have detrimental effects to MSO by further fragmenting habitat and increasing disturbance during the breeding season. West Nile Virus also has the potential to adversely impact the MSO. The virus has been documented in Arizona, New Mexico, and Colorado and preliminary information suggests that owls may be highly vulnerable to this disease. Unfortunately, due the secretive nature of owls and the lack of intensive monitoring of banded individual birds, we will most likely not know when owls contract the disease or the extent of its impact to MSO range-wide.

Currently, high-intensity, stand-replacing fires are influencing ponderosa pine and mixed conifer forest types in Arizona and New Mexico. MSO in the southwestern United States has been shaped over thousands of years by fire. Since MSO occupy a variety of habitats, the influence and role of fire has most likely varied throughout the owl's range. In 1994, at least 40,000 acres of nesting and roosting habitat were impacted to some degree by catastrophic fire in the Southwestern Region (Sheppard and Farnsworth 1995). Between 1991 and 1996, the Forest Service estimated that approximately 50,000 acres of owl habitat has undergone stand-replacing

wildfires (Sheppard and Farnsworth 1995). However, since 1996, fire has become catastrophic on a landscape scale and has resulted in hundreds of thousands of acres of habitat lost to stand-replacing fires. This is thought to be a result of unnatural fuel loadings, past grazing and timber practices, and a century of fire suppression efforts. The 2002 Rodeo-Chediski fire, at 462,384 acres, burned through approximately 55 PACs on the Tonto and Apache-Sitgreaves National Forests and the White Mountain Apache Reservation. Of the 11,986 acres of PAC habitat that burned on National Forest lands, approximately 55% burned at moderate to high severity. Based on the fire severity maps for the fire perimeter, tribal and private lands likely burned in a similar fashion. We define moderate severity burn as high scorch (trees burned may still have some needles) and high severity burn as completely scorching all trees (trees completely dead).

Currently, catastrophic wildfire is probably the greatest threat to MSO within the Upper Gila Mountains RU. As throughout the West, fire intensity and size have been increasing within this geographic area. Table 1 shows several high-intensity fires that have had a large influence on MSO habitat in this RU in the last decade. Obviously the information in Table 1 is not a comprehensive analysis of fires in the Upper Gila Mountains RU or the effects to MSO. However, the information does illustrate the influence that stand-replacing fire has on current and future MSO habitat in this RU. This list of fires alone estimates that approximately 11% of the PAC habitat within the RU suffered high-to moderate-intensity, stand-replacing fire in the last ten years.

Table 1. Some recent influential fires within the Upper Gila Mountains Recovery Unit, approximate acres burned, number of PACs affected, and PAC acres burned.

Fire Name	Year	Total Acres Burned	# PACs Burned	# PAC Acres Burned
Rhett Prescribed Natural Fire	1995	20,938	7	3,698
Pot	1996	5,834	4	1,225
Hochderffer	1996	16,580	1	190
BS Canyon	1998	7,000	13	4,046
Pumpkin	2000	13,158	4	1,486
Rodeo-Chediski	2002	462,384	55	~33,000
TOTAL		525,894	84	~43,645

A reliable estimate of the numbers of owls throughout its entire range is not currently available (USDI 1995) and the quality and quantity of information regarding numbers of MSO vary by source. USDI (1991) reported a total of 2,160 owls throughout the United States. Fletcher (1990) calculated that 2,074 owls existed in Arizona and New Mexico. However, Ganey et al. (2000) estimates approximately $2,950 \pm 1,067$ (SE) MSOs in the Upper Gila Mountains RU alone. The Forest Service Region 3 most recently reported a total of approximately 989 protected activity centers (PACs) established on National Forest lands in Arizona and New Mexico (USDI 2005). Based on this number of MSO sites, total numbers in the United States

may range from 989 individuals, assuming each known site was occupied by a single MSO, to 1,978 individuals, assuming each known site was occupied by a pair of MSOs. The Forest Service Region 3 data are the most current compiled information available to us; however, survey efforts in areas other than National Forest System lands have likely resulted in additional sites being located in all Recovery Units. Currently, we estimate that there are likely 12 PACs in Colorado (not all currently designated) and 105 PACs in Utah.

Researchers studied MSO population dynamics on one study site in Arizona (n = 63 territories) and one study site in New Mexico (n = 47 territories) from 1991 through 2002. The initial publication of the findings reported that both study populations were declining at $\geq 10\%$ a year and that owl survival rates in Arizona may be declining over time (Seamans et al. 1999). The authors noted two possible reasons for the population decline were declines in habitat quality and regional trends in climate. The Final Report, titled "Temporal and Spatial Variation in the Demographic Rates of Two Mexican Spotted Owl Populations," (*in press*) found that reproduction varied greatly over time, while survival varied little. The estimates of the population rate of change ($\Lambda = \text{Lamda}$) indicated that the Arizona population was stable (mean Λ from 1993 to 2000 = 0.995; 95% Confidence Interval = 0.836, 1.155) while the New Mexico population declined at an annual rate of about 6% (mean Λ from 1993 to 2000 = 0.937; 95% Confidence Interval = 0.895, 0.979). The study concludes that spotted owl populations could experience great ($> 20\%$) fluctuations in numbers from year to year due to the high annual variation in recruitment. However, due to the high annual variation in recruitment, the MSO is then likely very vulnerable to actions that impact adult survival (e.g., habitat alteration, drought, etc.) during years of low recruitment.

Since the owl was listed, we have completed or have in draft form a total of 176 formal consultations for the MSO. These formal consultations have identified incidences of anticipated incidental take of MSO in 366 PACs. The form of this incidental take is almost entirely harm or harassment. These consultations have primarily dealt with actions proposed by the Forest Service, Region 3. However, in addition to actions proposed by the Forest Service, Region 3, we have also reviewed the impacts of actions proposed by the Bureau of Indian Affairs, Department of Defense (including Air Force, Army, and Navy), Department of Energy, National Park Service, and Federal Highway Administration. These proposals have included timber sales, road construction, fire/ecosystem management projects (including prescribed natural and management ignited fires), livestock grazing, recreation activities, utility corridors, military and sightseeing overflights, and other activities. Only two of these projects (release of site-specific owl location information and existing forest plans) have resulted in biological opinions that the proposed action would likely jeopardize the continued existence of the MSO.

In 1996, we issued a biological opinion on Region 3 of the Forest Service adoption of the Recovery Plan recommendations through an amendment to their Land and Resource Management Plans (LRMPs). In this non-jeopardy biological opinion, we anticipated that approximately 151 PACs would be affected by activities that would result in incidental take of MSOs, with approximately 91 of those PACs located in the Upper Gila Mountains RU. In addition, on January 17, 2003, we completed a reinitiation of the 1996 Forest Plan Amendments biological opinion, which anticipated the additional incidental take of five MSO PACs in Region 3 due to the rate of implementation of the grazing standards and guidelines, for a total of 156 PACs. Consultation on individual actions under these biological opinions resulted in the harm and harassment of approximately 243 PACs on Region 3 National Forest System Lands. Region

3 of the Forest Service reinitiated consultation on the LRMPs on April 8, 2004. On June 10, 2005, the FWS issued a revised biological opinion on the amended LRMPs. We anticipated that while the Region 3 Forests continue to operate under the existing LRMPs, take is reasonably certain to occur to an additional 10 percent of the known PACs on Forest Service lands. We expect that continued operation under the plans will result in harm to 49 PACs and harassment to another 49 PACs. To date, consultation on individual actions under the amended Forest Plans, as accounted for under the June 10, 2005, biological opinion has resulted in 9 PACs adversely affected (12 PACs harmed and 5 PACs harassed), with 10 of those in the Upper Gila Mountains RU.

ENVIRONMENTAL BASELINE

The environmental baseline includes past and present impacts of all Federal, State, or private actions in the action area, the anticipated impacts of all proposed Federal actions in the action area that have undergone formal or early section 7 consultation, and the impact of State and private actions which are contemporaneous with the consultation process. The environmental baseline defines the current status of the species and its habitat in the action area to provide a platform to assess the effects of the action now under consultation.

DESCRIPTION OF ACTION AREA

The action area includes the 16 routes totaling approximately 850 miles and the surrounding areas between routes.

The routes proposed for use for the ATV Jamboree pass through various vegetative and habitat types on the Alpine and Springerville Ranger Districts. The routes range in elevation from approximately 7,500 feet to over 9,000 feet. No quantitative assessment of miles per habitat type was estimated for this project. However, the biological assessment notes that the various existing roads and designated ATV trails on which the proposed action will be implemented traverse grasslands, pinyon-juniper woodlands, ponderosa pine forest, and high-elevation coniferous forests (including mixed-conifer, spruce-fir, and aspen inclusions). The proposed action will also occur adjacent to, and will cross, riparian corridors and perennial streams. The proposed action will also include trails in close proximity to waterbodies including reservoirs, natural wetlands, ponds, springs, and stock tanks.

The routes proposed for use by the ATV Jamboree lie within 5 major watersheds:

1. Upper Little Colorado River Watershed (including Coyote Creek on the east side, and Mineral Creek on the west side, Rudd Creek, Nutrioso Creek, West, East, and South forks Little Colorado River);
2. Upper San Francisco River Watershed (including Stone Creek, Little Creek, Luna Lake, and San Francisco River);
3. Upper Blue River Watershed (a very small portion of upper Coleman Creek drainage);
4. Upper Black River Watershed (East Fork drainages include: Boneyard Creek, Coyote Creek, upper North Fork East Fork Black River, Deer Creek, Open Draw, and Buffalo Crossing. West Fork drainages include: upper and lower mainstem Black River, upper

Home Creek, Burro Creek, Stinky Creek, Hayground Creek, Boggy Creek, and Centerfire Creek);

5. Upper White River watershed (including a small portion of upper Horseshoe Creek above Horseshoe Lake, and a small portion of Snake Creek upstream of Sunrise Lake.

A. STATUS OF MSO WITHIN THE ACTION AREA

ATV routes have been designated on existing roads that pass through 6 PACs. The Grizzly Loop ATV trail passes through the JC Tank PAC, and Bob Thomas Creek PAC. The Oscar Schultz Circle Route passes through the Cambell Blue PAC, Bull Canyon PAC, Turkey Hunt PAC, and JC Tank PAC. The Hannagan Meadow Loop passes through the JC Tank PAC. The Coronado Trail Loop passes through the JC Tank PAC, Bob Thomas Creek PAC, and the Colby PAC. The ATV routes are also along established roads that are adjacent to or within 0.25 mile of 7 PACs. Additionally, an undetermined amount of unsurveyed suitable habitat is in proximity or adjacent to the routes. There are a total of 12 PACs within 0.25 mile of ATV routes within the action area (Appendix A). Survey information for the known PACs in the action area is included in Table 2.

PAC	Survey Information
Colby PAC	Occupied in 2004, No recent surveys
Rogers Reservoir PAC	Occupied 1996, No recent surveys
Benton Creek PAC	Occupied 2000, No recent surveys
Campbell Blue PAC	Occupied 1990, No recent surveys
Tenney PAC	Occupied 1992, No recent surveys
Bull Canyon PAC	Occupied 1994, No recent surveys
Flat PAC	Occupied 1995, No recent surveys
Molly’s Nipple PAC	Occupied 2001, No recent surveys
Butler PAC	Occupied 1997, No recent surveys
Bob Thomas PACs Creek	Occupied 1997, No recent surveys
Turkey Hunt PAC	Occupied 1999, No recent surveys
JC Tank PAC	Occupied 2001, No recent surveys

B. FACTORS AFFECTING SPECIES ENVIRONMENT WITHIN THE ACTION AREA

Since the action area for the proposed project is quite large, we have provided a brief overview of some of the larger projects and programs that are occurring within the action area. Please refer to the specific projects for more detailed information.

There are 32 timber sales or related treatments that have been completed by the Forest, are under analysis, or could be completed in the future in the Upper Little Colorado Watershed which composes a portion of the action area. A complete list of these projects can be found in Appendix B. Incorporation of BMPs for soil and water conservation have been required on all timber sales and other activities since 1991.

The Arizona Department of Transportation (ADOT) plans to treat noxious plants (herbaceous and woody) and hazardous vegetation in the right-of-way along US Highway 180/191 utilizing

herbicides. Treatments are scheduled along the highways (180/191) from the community of Nutrioso north to the Forest boundary. However, herbicide application will be an ongoing treatment year to year. Other ongoing ADOT actions include the use of chemical de-icer on the highways during winter and early spring months.

Also included in the environmental baseline are grazing actions previously consulted on in the project area. Allotment Management Plan decisions have included a number of measures to limit impacts to listed species and their habitats but most are expected to impact the watershed. Appendix A contains a map of all of the allotments within the action area.

The action area is also used for many types of forest recreation. Fishing, hunting, dispersed camping, hiking, mountain biking, horseback riding, and motorized off-highway driving are common activities. Increased recreation during the summer months can adversely affect the MSO within the action area. Numerous roads are also found in the watershed.

EFFECTS OF THE ACTION

Effects of the action refer to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated and interdependent with that action, that will be added to the environmental baseline. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration. Indirect effects are those that are caused by the proposed action and are later in time, but are still reasonably certain to occur.

The ATV Jamboree passes through portions of six PACs (JC Tank, Bob Thomas, Bull Canyon, Campbell Blue, Turkey Hunt, and Colby PACs). The ATV Jamboree is also adjacent to or within 0.25 mile of 12 PACs. Additionally, there is an undetermined amount of suitable habitat that has not been inventoried for the species in proximity or adjacent to the ATV routes. The owls within the action area may be affected by noise and disturbance from the proposed ATV Jamboree. Because of the use of trail guides, impacts to MSO habitat is expected to be insignificant.

Four routes (Grizzly Loop, Oscar Schultz Circle, Hannagan Meadow, and Coronado Trail) pass through the JC Tank PAC. There is the possibility for 10 groups to go through the JC PAC. The historical nest site of the MSO in the PAC is in excess of 0.75 mile from the ATV trail. However, the last formal monitoring of this PAC was in 2001. No recent records exist for the owls within this PAC. Even though there is a significant distance between the route and the historical nest location it is not known if noise disturbance due to the large numbers of groups that will pass through the PAC during the four days of the proposed ATV Jamboree will negatively affect the individual owls.

The breeding season of Mexican spotted owls is from March 1 through August 31. According to the Final Rule listing the species, "owlets become increasingly proficient at flight throughout the summer and are 'semi-independent' by late August or early September, although juvenile begging calls have been heard as late as September" (USDI 1993). Additionally, dispersal of fledglings from breeding areas usually occurs from mid-September to early October (USDI 1995). Adult spotted owls may remain within an area year-round, while others exhibit long

migrations or shift their use of habitats seasonally (USDI 1995). Although the proposed action will not occur during the breeding season, during the first few weeks of September spotted owls, especially juvenile birds, will likely still be present in PACs or in unsurveyed, suitable habitat. The event occurs only one week after the breeding season. Though the proposed action will technically occur outside the breeding season, it is possible juveniles may be harassed due to the project. A sudden increase in disturbance to juvenile owls may limit foraging opportunities or result in increased predation risk or injury, as noise may cause owls to flee from roost areas.

The proposed action will affect some of the MSOs by causing the disruption of various diurnal behaviors of individuals. Most activities associated with the proposed action will occur during the daytime, greatly reducing the likelihood of disrupting foraging activities of any MSOs. However, two night rides are scheduled on the Saffel Loop which may disrupt foraging activities of spotted owls in the area.

Delaney et al. (1997) reviewed literature on the response of owls and other birds to noise and drew the following conclusions: 1) raptors are more susceptible to disturbance-caused nest abandonment early in the nesting season, 2) birds generally flush in response to disturbance when distances to the source are less than approximately 200 ft and when sound levels are in excess of 95 dBA, and 3) the tendency to flush from a nest declines with experience or habituation to the noise, although the startle response cannot be completely eliminated by habituation. FWS recommends limiting disturbing activities within 1,320 ft of MSO nest sites during the breeding season (March 1-August 31). In addition, Delaney et al. (1997) found that ground-based disturbances elicited a greater flush response than aerial disturbances. The proposed ATV Jamboree will permit groups of ATVs in close proximity to MSO PACs, within PACs, and unsurveyed habitat. We are unaware of any sound monitoring done at previous events to determine expected noise levels from the proposed project. Noise generated from 22 ATVs up to three times during the week is likely significant enough to result in disturbance to Mexican spotted owls, especially juveniles owls, as we described above.

Owls have more sensitive hearing than other birds (Bowles 1995). If loud sound arouses an animal, it has the potential to affect its metabolic rate by making it more active. Increased activity can, in turn, deplete energetic reserves (Bowles 1995). Loud human activity can cause raptors to expand their home ranges, but often the birds return to normal use patterns when the humans are not present (Bowles 1995). Such expansions in home ranges could affect the fitness of the birds, and thus their ability to successfully reproduce and raise young. Species that are sensitive to the presence of people may be displaced permanently.

These actions will likely generate noise and commotion at varying levels and durations during the daytime. In general, these effects are likely to be of fairly short duration (approximately 5 days) and may include awakening owls from daytime sleep or causing owls to flush from one perch site to another or flush from the nest. Increased activity of MSOs during the daytime may expose individuals to diurnal predators such as northern goshawks (*Accipiter gentillis*) and may result in reduced foraging ability at night. The magnitude and probability of these effects occurring depend on the proximity of roost or nest locations in these PACs. The nest and roost locations for many of these PACs is not known, so the degree of disturbance is unknown. Overnight camping is planned for the Balke Cabin area. This is not an established campground, so there is a potential for increased noise due to overnight use.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act. Since the entire project area is within the Apache-Sitgreaves National Forests, all legal actions likely to occur are considered Federal actions.

CONCLUSION

After reviewing the current status of MSO, the environmental baseline for the action area, the effects of the proposed action and the cumulative effects, it is our biological opinion that the proposed action is not likely to jeopardize the continued existence of MSO. Critical habitat occurs within the action area, however, the Forest Service determined that the proposed project would not affect designated critical habitat. In making our determination we considered the following:

- The proposed project is short-lived and will not occur during the MSO breeding season, as recommended in the MSO recovery plan.
- The implementation of the proposed action is not expected to impede the survival or recovery of MSO within the Upper Gila Mountains Recovery Unit.

The conclusions of this biological opinion are based on full implementation of the project as described in the Description of the Proposed Action section of this document, including any Conservation Measures that were incorporated into the project design.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulations pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. “Take” is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. “Harm” is defined (50 CFR 17.3) to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. “Harass” is defined (50 CFR 17.3) as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to breeding, feeding or sheltering. “Incidental take” is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as the part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

Amount or Extent of Take Anticipated

We do not anticipate that incidental take is reasonably certain to result from the proposed action for the reasons given below.

Using available information as summarized within this document, we have identified conditions of adverse effects to the MSO associated with implementation of the ATV Jamboree. However, based on the best available information concerning the MSO, habitat needs of the species, the project description including the information furnished by the Forest Service, and the lack of knowledge of nest and roost sites, we cannot be certain where or when the disturbances within PACs or in adjacent restricted habitat is reasonably certain to affect MSOs to the point where incidental take occurs. We expect the Forest Service to carefully monitor the ATV Jamboree to ensure that the proposed action occurs as described in the BAE.

DISPOSITION OF DEAD, INJURED, OR SICK MSO

Upon locating a dead, injured, or sick spotted owl, initial notification must be made to the Service's Law Enforcement Office, 2450 West Broadway Suite #113, Mesa, Arizona 85202 (telephone: 480/967-7900) within three working days of its finding. Written notification must be made within five calendar days and should include the date, time, and location of the animal, a photograph, if possible, and any other pertinent information. The notification shall be sent to the Law Enforcement Office with a copy to this office. Care must be taken in handling sick or injured animals to ensure effective treatment and care and in handling specimens to preserve the biological material in the best possible state. If possible, the remains of intact owl(s) shall be provided to this office. If the remains of the owl(s) are not intact or are not collected, the information noted above shall be obtained and the carcass left in place. Injured animals should be transported to a qualified veterinarian by an authorized biologist. Should the treated owl(s) survive, the AESO should be contacted regarding the final disposition of the animal.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

1. We recommend that the ATVs do not slow to 5 miles an hour while within 300 ft of a nest or roost site.
2. We recommend that the Forest Service work with the Fish and Wildlife Service to collect baseline information on ambient noise from ATV use and recreation in areas of high human use.
3. We recommend that you monitor (at least MSO presence) in the action area for at least five years, as funding and safety allow, and include your results in an annual report to us.
4. We recommend that the Forest Service work with the Fish and Wildlife Service and others to develop studies that determine the effects of recreation on MSO. This research should include monitoring PACs to determine occupancy and reproduction.

In order for the FWS to be kept informed of actions minimizing or avoiding adverse effects or benefiting listed species or their habitats, the FWS requests notification of the implementation of any conservation recommendations.

REINITIATION NOTICE

This concludes formal consultation on the effects of proposed issuance of a permit for the ATV Jamboree as outlined in the Forest Service's June 9, 2006, letter on the Mexican spotted owl. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

We appreciate the Forest Service's efforts to identify and minimize effects to listed species from this project. For further information please contact Jennifer Graves (x232) or Debra Bills (x239). Please refer to the consultation number, 02-21-04-F-0100 R2, in future correspondence concerning this project.

Sincerely,

/s/ Steven L. Spangle
Field Supervisor

cc: Assistant Field Supervisor, Fish and Wildlife Service, Flagstaff, AZ (Attn: Shaula Hedwall)

Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ

LITERATURE CITED

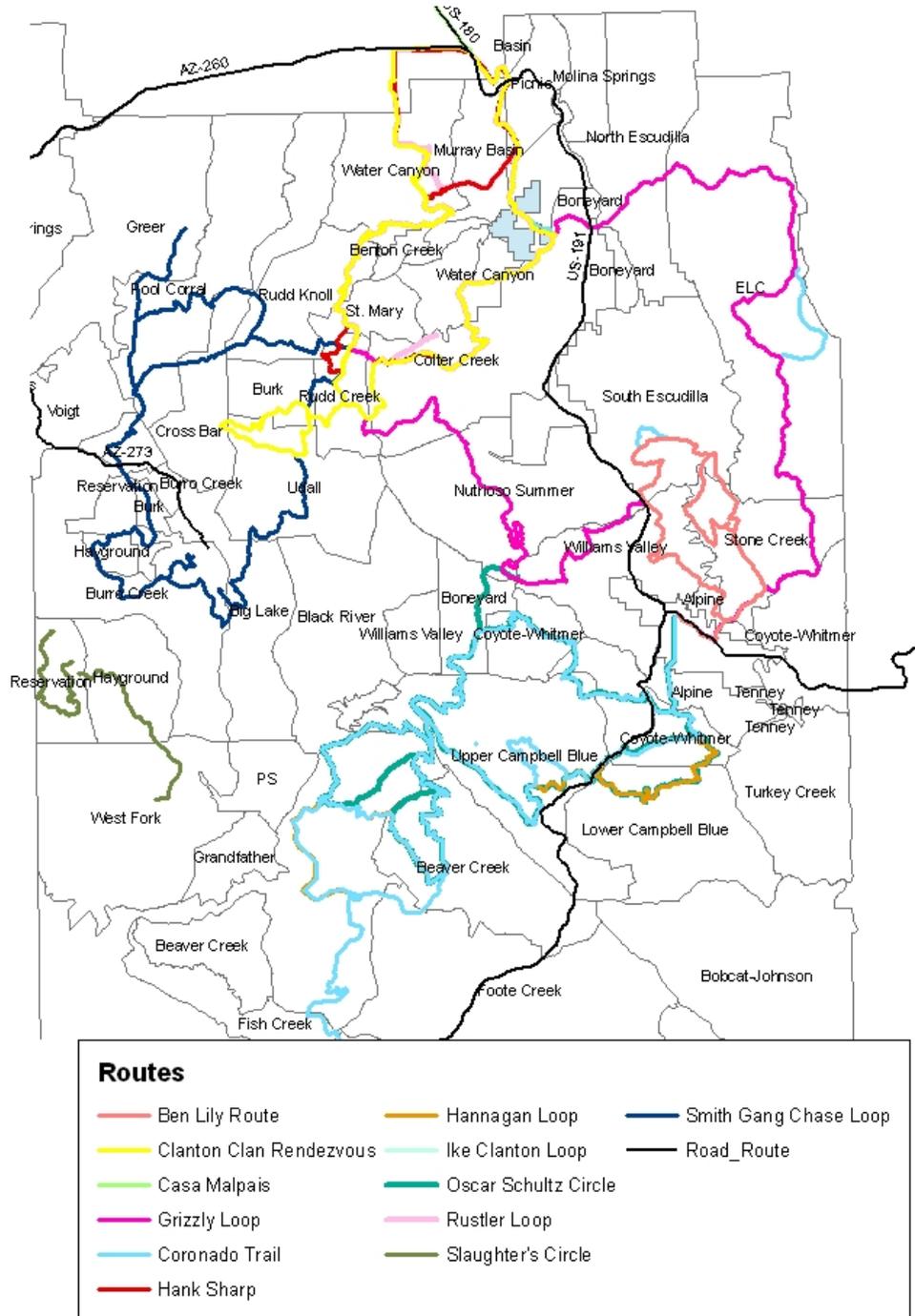
- Bowles, A. E. 1995. Responses of wildlife to noise. *In* Wildlife and Recreationists: Coexistence Through Management and Research. Knight, Richard L. and Kevin J. Gutzwiller, editors. Island Press, Washington, D.C. 372 pp.
- Delaney, D. K., T.G. Grubb, and L. L. Pater. 1997. Effects of helicopter noise on nesting Mexican spotted owls. A report to U.S. Air Force 49 CES/CEV, Holloman Air Force Base. Project order No. CE P.O. 95-4. 49 pp.
- Fletcher, K. 1990. Habitat used, abundance, and distribution of the Mexican spotted owl, *Strix occidentalis lucida*, on National Forest System Lands. U.S. Forest Service, Southwestern Region, Albuquerque, New Mexico. 78 pp.
- Ganey, J.L., G.C. White, A.B. Franklin, J.P. Ward, Jr., and D.C. Bowden. 2000. A pilot study on monitoring populations of Mexican spotted owls in Arizona and New Mexico: second interim report. 41 pp.
- Ganey, J.L. and R.P. Balda. 1989. Distribution and habitat use of Mexican spotted owls in Arizona. *Condor* 91:355-361.
- Seamans, M.E., R.J. Gutierrez, C.A. May, and M.Z. Peery. 1999. Demography of two Mexican spotted owl populations. *Conservation Biology* 13(4):744-754.
- Sheppard, G. and A. Farnsworth. 1995. Fire effects and the use of prescribed fire in Mexican spotted owl habitat. *In* Proceedings First Conference on Fire Effects on Rare and Endangered Species and Habitats Conference, November 13-16, 1995. Coeur d'Alene, Idaho. Pgs 131-135.
- U.S. Department of the Interior (USDI), Fish and Wildlife Service. 1991. Mexican spotted owl status review. Endangered species report 20. Albuquerque, New Mexico.
- U.S. Department of the Interior (USDI), Fish and Wildlife Service. 1993. Endangered and Threatened Wildlife and Plants; final rule to list the Mexican spotted owl as threatened. *Federal Register* 58(49):14248-14271. March 16, 1993.
- U.S. Department of the Interior (USDI), Fish and Wildlife Service. 1995. Recovery Plan for the Mexican Spotted Owl. Albuquerque, New Mexico.
- U.S. Department of the Interior (USDI), Fish and Wildlife Service. 2004. Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for the Mexican Spotted Owl; Final Rule. *Federal Register* 69(168):53182-53297. August 31, 2004.

U.S. Department of the Interior (USDI), Fish and Wildlife Service. 2005. June 10, 2005. Biological opinion on the Forest Service's continued implementation of the land, resource, and management plans for the 11 southwestern region national forests and grasslands, R2/ES-TE, 02-21-03-F-0366. U.S. Fish and Wildlife Service, Region 2, Albuquerque, New Mexico.

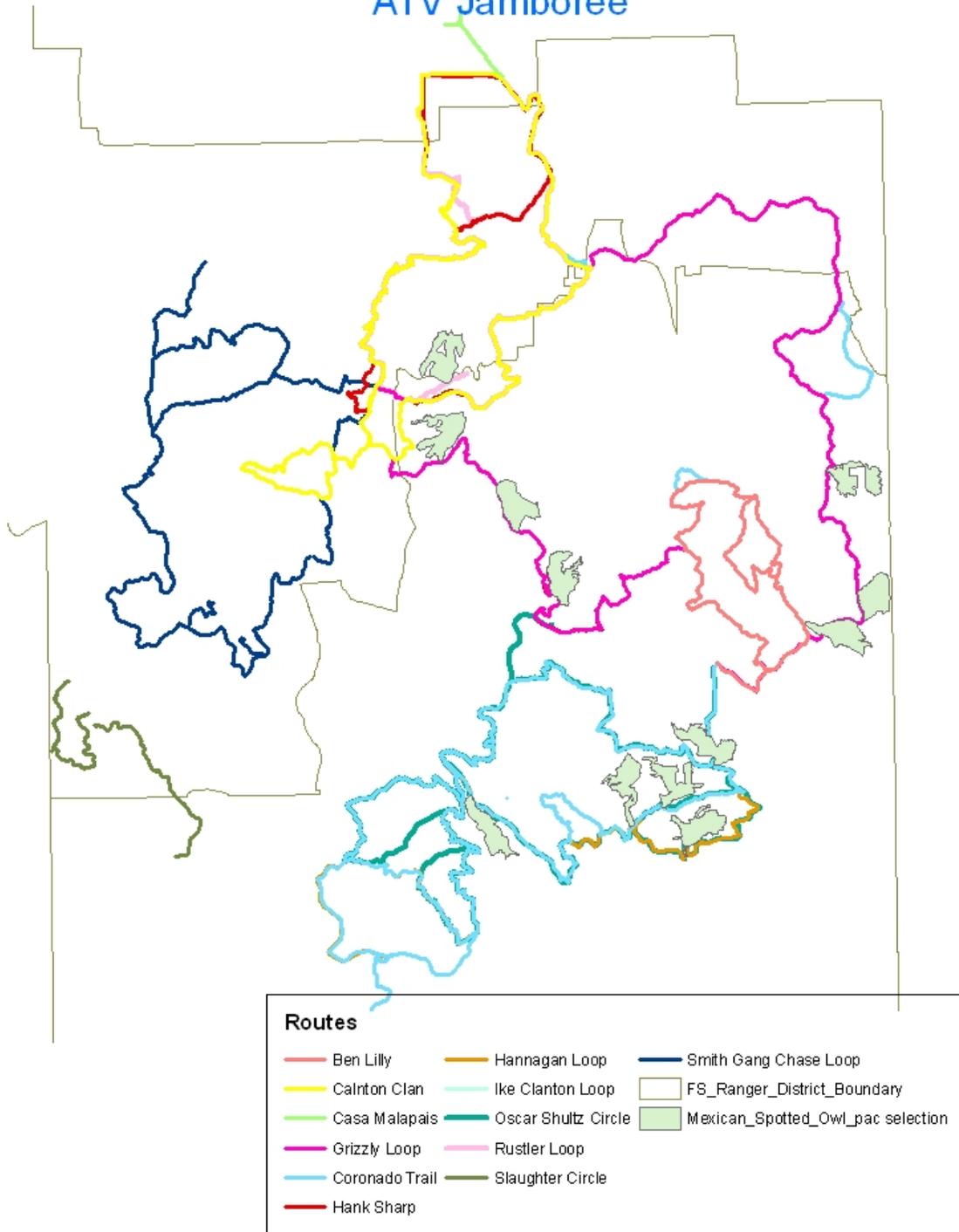
Wilson, E.D. 1969. A resume of the geology of Arizona. University of Arizona Press, Tucson. 140 pp.

APPENDIX A: MAPS

Grazing Allotments, Roads, and ATV Routes within Action Area of ATV Jamboree



Mexican Spotted Owl PACs within 0.25 Mile of ATV Routes ATV Jamboree



APPENDIX B:

Timber Treatments on the Apache-Sitgreaves National Forests completed or under analysis in the Upper Little Colorado Watershed.

Timber Treatment Proportional Extent						
Upper Little Colorado River						
Timber Sale Name	Year Completed	Treatment*	Volume MMBF Or *CCF	Project Area Acres	Upper Little Colorado WS Acres	% of WS
Auger	1984	Saw	24.2	12,204	6,147	1.9
Badger Knoll/OD/Hay	2001	NCT	+	154	154	0.05
Beehive	Open	Multi	#	7,502	4,971	1.5
Benny-Hide	2003	NCT	+	71	71	0.02
Burro	2001	Multi	+	649	649	0.2
Burro/Spruce Spring Canyon	1987	Saw	25	8,377	1,780	0.6
Canyon	1977	Saw	10.5	9,333	9,333	2.9
Circe	1977	Multi	N/A	13,785	2,588	
Dry Valley	1987	Saw	12.5	12,128	12,128	3.8
Fish Creek	2003	NCT	+	400	400	0.1
Greer	1999	+	724*	398	398	0.1
Greer WUI	#	NCT	#	19,121	19,121	6.2
Hay	1999	Multi	12.0	9,202	8,794	1.3
Iris Springs Meadow Restoration	1998	NCT	+	100	100	0.03
Iris Springs	1984	Saw	26	15,444	11,358	3.5
Loco Pasture	2001	NCT	+	170	170	0.05
Long Point/Greer Lookout	2001	NCT	+	111	111	0.04
Marble	1989	Saw	4.4	2,810	2,810	0.9
Mexican Hay	1987	Saw	15.0	6,992	6,992	2.2
Montlure	2002	NCT	+	170	170	0.05
North Unit	1995	Saw	3.9	6,118	6,118	1.9
Nutrioso WUI	#	NCT	#	30,032	27,439	8.9
OD Ridge	2001	Multi	5.8	6,609	3,206	1.0
Riley/Hay Lake	1998	NCT	+	337	337	0.1
Phoneline	1999	NCT	758*	320	320	0.1
Pole Knoll	1976	Saw	+	6,311	6,311	2.0
Potato Patch	+	+	+	10,004	330	0.1
Riggs	+	+	+	5,180	3,603	1.1
Seed Cut 1/South Fork Tank	2000	NCT	+	93	93	
South Fork	1987	Saw	13.6	15,946	15,946	5.0
Watts	1990	Saw	14.4	10,806	7,301	2.3
West Fork/Marble	1987	+	+	1,436	1,436	0.5

N/A indicates sale has not been completed or not planned in 5 year plan

Future TS volume in CCFs

Analysis is not in progress

+ No Records Available

* NCT: Non-commercial thinning; Saw: Saw timber; Multi: Multi-product