

# Appendix G • Transportation Plan

## Roads Analysis For GREATER FLAGSTAFF FOREST PARTNERSHIP KACHINA VILLAGE PROJECT

**Audience:** The primary audience of this report is members of the Grand Canyon Forest Partnership to assist them in making recommendation to the District Rangers. This report will also be used by the partnership in the public scoping process.

**Scale:** On January 19<sup>th</sup>, 2001, Peaks District Ranger Gene Waldrup and Mormon Lake Ranger Bruce Greco sent out the project initiation letter to members of the Interdisciplinary team and set the scale for this analysis at the project level.

### Analysis Reviews

#### Existing Situation

**Land Ownership:** The project is composed of 10,419 acres, of which 2,687 acres are either State of Arizona or private and the remainder is National Forest lands.

**Existing Conditions:** The currently inventoried system consists of 33.9 miles of road. 9.7 miles are listed as maintenance level III, suitable for passenger cars, and 24.2 miles are maintenance level II or suitable for high clearance vehicles. 6.7 miles receive regular road blading and the remainders have not received maintenance under the Forest's annual maintenance schedule for at least 10 years. Approximately 16 miles were identified under the Pumphouse EA to be used in product removal and would receive some maintenance type work. Some of the roads in this system were user created and adopted into the system and others were poorly located to begin with. Coupled with the lack of routine maintenance, the majority of the roads in this system are in poor condition and are rutted and have some degree of soil movement due to failed drainage features. The existing road density is 2.8 miles per square mile.

**Road Management and Maintenance regimes:** Through the 1980s, the road system grew to accommodate ranching, utilities, recreation, private land access and forest product extraction needs. The maintenance and reconstruction of the forest roads

were accomplished by both product purchasers and forest crews. As the emphasis has shifted away from forest products, the maintenance responsibility fell to forest crews. At the end of product extraction emphasis, a reduction in Forest Service staffing was initiated. This resulted in less maintenance type personnel able to perform the work. The system has grown through the creation of non-classified or social roads. We now have a system that is too large to be adequately maintained by the personnel and funding available.

**Forest plan direction:** In this vegetation type, 2 miles per square miles is plan direction.

**Key Public Groups and individuals served by this road system:** This system lies south of Flagstaff and has several access points off Interstate 17 and State highway 89. This provides an opportunity for the public traveling the Interstate to easily access National Forest Lands. It also serves as overflow camping areas when campgrounds in Oak Creek Canyon are full. Forest Road 237 is used by Kachina and Mountaineer subdivision residents as an access to State Highway 89 from the housing, to avoid going through Flagstaff to travel to Sedona. The local residents also use the road system for firewood gathering.

**Summary of concerns by managers and specialists:** Road density was listed as the major concern by the ID team as it affects old growth stands, wildlife habitat and populations and negative affects to the three canyons within the project boundary. Fire risk reduction, archaeological site protection were also issues listed by the group.

**Summary of Concerns by stakeholders and General Public:** Road density, rutting of roadbeds and trash were mentioned most frequently by this group, with concerns of fire starts also indicated by the homeowners north of the project boundary.

**Synthesis of Issues:** Road density and recreation use and their affect on old growth and wildlife and the threat of wildfire on the population of Kachina Village/Forest Highlands communities.

## Benefits, Problems and Risks

*Previous Analysis:* The work of the Resource Access Travel Management (RA/TM, which is amendment NO. 4 of the Forest Plan), Pumphouse EA, Ritter EA and the ongoing Flagstaff, Lake Mary(FLEA) were used in this analysis.

*Benefits of the current system:* Variety of recreational experiences, administrative access, fuelwood gathering for local residences.

*Environmental, social and economic problems and risks, both current and future:* Areas with many roads and trails and high amounts of human use are considered at high risk for fire ignition. Noxious weeds tend to become established along roadsides, gravel pits and in high use recreation areas. Kachina area watersheds are less healthy that could be, due in part to increasing interception of ground-water and site specific erosion and increased run-off caused by roads. Wildlife is impacted from heavy recreational use part of which occurs because of higher road density allowing heavy recreational use. Wildlife corridors are affected by road patterns. Continuous areas have been fragmented roads. The remote recreational experience is affected by the number of roads and the additional people they bring.

## Opportunities

*Summary of opportunities to address the environmental, economic and social problems and risks.*

The proposed Forest road system for the Kachina Village project areas was identified in an interdisciplinary approach with member of the public and Greater Flagstaff Forests Partnership. See Report #2 which is a spreadsheet and map which documents environmental, social and risk factors for future road maintenance level and status.

## Summary of Report #2

Open Level II	Open Level III	Closed	Obliterated
8.55	6.9	6.4	14.6

It is recommended that user created roads, not designated part of the Forest road system, should be obliterated through management activities or self-healing and is not part of the calculated densities.

*Projected budget concerns:* We still do not have budgets to support the current road proposal, however, the proposal does bring the road system much closer to meeting money available to maintain the system Level II and Level III roads proposed.

*Ability to satisfy current and future access needs:* The proposed road system has been reviewed by Forest Service resource specialists and it will provide for the needs of recreation, local citizens and provide for adequate fire protection.

## Priorities

Reduce road density in the southern portion of the area to protect wildlife habitat and reduce fire risk south of Kelly Canyon. The gate needed for closing FSR 631 is very critical. Elimination of roads in other high fire risk areas is critical, this would include Mexican Pocket, and social roads that are located off of FSR237. Closure of social roads off 237 will also begin to reduce trash, which was a major concern to local residents.

## Appendixes

Maps: Transportation System Map for the Kachina Village Forest Health Project "Map 1"

Detailed analytical reports: Report No.1.

Current Road System Statistics and Needs for the Coconino National Forest.

Report No. 2 Road Maintenance Level and Status

- Existing and Proposed for the Kachina Village Forest Health Project

## Report No.1. Current Road System Statistics and Needs for the Coconino National Forest.

In March of 1997, Robert H. Powell, road manager for the Coconino National Forest prepared a report on the existing road systems for the Forest and the funding it would take to maintain that system. A portion of that report is duplicated below:

	Miles	Work Needed	Dollars Needed
Maintenance Level I	315	none	none
Maintenance Level II	5440	260 miles per year at \$300 per mile	\$78,000
Maintenance Level III +	626	1,565 miles per year at \$180 per mile (2.5 bladings per year)	\$290,000
Total 6,380 Miles			
Arterials/Collectors (1,230 miles of arterial/collector roads)  (1,230 miles — 604 miles of either level II or done by others equals 626 miles of aggregate or imp. surface to reconstruct)		10 Yr. Rotation of Reconstruction	\$1,300,000
Decommissioning		100 miles/year @ \$500/mile	\$50,000
Signs			\$20,000
Total Need			\$1,738,000

In FY1997, only \$550,000 was available, or only 32% of what was needed to take care of our current system. These cost were upgraded in FY 2001 and a total cost of \$1,946,560 was needed to maintain the existing system and only \$583,968 was available or 30% of the funding needed.

### Report No. 2 Road Maintenance Level and Status – Existing and Proposed for the Kachina Village Forest Health Project

Date	5/9/01	KACHINA		GCTP		Watershed		Partnership		RAATM		Clear Nips		Pumphouse Filter		maintenance level/ operational/objective		Kachina Recommendations		mileage	
Road Number	File	arcty	engr	Recr	Range	Watershed	USFW	Co Trust	RAATM	FLEA	Pumphouse Filter	operational/objective	Recommendations	mileage							
9459D		ob		ob								2&2	ob	0.3							
533												2&2	ob	0.2							
9075L												2&2	ob	0.3							
237A												2&3	ob	0.5							
631 O												2&3	ob	0.3							
237 O												2&2	ob	5.4							
553E												2&2	ob	1.2							
553F												2&2	ob	1							
9442W												2&2	ob	0.1							
237E												2&2	ob	1.15							
9484W												2&2	ob	0.2							
9462H												2&1	ob	0.4							
9462V												2&2	ob	0.2							
9462U												2&2	ob	1							
9462M												2&1	ob	1.1							
9462N												2&1	ob	0.4							
9469U												2&2	ob	0.9							
9468C												2&2	ob	0.3							
9463K												2&1	ob	1.2							
9461S												2&2	ob	0.55							
9461U												2&1	ob	0.6							
9461R												2&2	ob	0.6							
9466A												2&2	ob	2							
9466C												2&2	ob	2							
9468B												2&2	ob	1							
9462S												2&2	ob	0.4							
9462R												2&1	ob	0.5							
9462P												2&2	ob	0.2							
9462Q												2&1	ob	0.7							
631E												2&2	ob	0.2							
631B												2&2	ob	0.25							
631D												2&2	ob	0.1							
631C												2&2	ob	0.1							
9465W												2&2	ob	0.4							
9461B												2&2	ob	0.4							
9461W												2&2	ob	0.4							
9462U												2&2	ob	0.4							
9420L												2&1	ob	0.8							
9465B												2&2	ob	0.3							
9467Q												2&2	ob	0.8							
9465A												2&2	ob	0.4							
9453A												2&1	ob	0.9							
253D												2&1	ob	0.8							
253C												2&2	ob	0.79							
9497B												2&2	ob	0.35							
9462X												2&2	ob	0.2							
9496W												2&1	ob	0.2							
935 O												2&2	ob	1.2							
935 O												2&2	ob	1							
935 O												2&3	ob	1							



