

Prescott National Forest
Forest Level Roads Analysis Report

PRESCOTT NATIONAL FOREST

FOREST LEVEL ROADS ANALYSIS REPORT

January 10, 2003

/s/ Michael King

Michael R. King, Prescott National Forest Supervisor

Prescott National Forest Forest Level Roads Analysis Report

Table of Contents

Introduction	1
Executive Summary	1
Products of the Analysis	2
Scope of the Analysis	2
Existing Condition	3
PNF Forest Level Roads Analysis Process	5
Analysis Results	12
Conclusion	14

Appendix

- Appendix A: Risk/Value assessment Table, D1, D3, D5
- Appendix B: Ecological, Social and Economic Considerations
- Appendix C: Right of way needs and priorities (list)
- Appendix D: IDT membership
- Appendix E: Road Maintenance Level Changes
- Appendix F: Location Map
- Appendix G: Roads on Analysis Maps

Prescott National Forest Forest Level Roads Analysis Report

Introduction

This forest level Roads Analysis addresses passenger car roads at objective maintenance level (ML) 3, 4 and 5. Maintenance level 1 and 2 roads (closed and high clearance vehicle roads) will be addressed at the watershed and project scale. An interdisciplinary team in March-April conducted internal scoping and October-December 2002 analyzed roads, using the procedure in FS-643 Roads Analysis: *Informing Decisions About Managing the National Forest Transportation System* and following the process used by the Lincoln National Forest. Since the current transportation system has been in operation for many years and significant changes were not anticipated, the IDT felt that formal public input was unnecessary and was not conducted.

The objective of roads analysis in the Forest Service (FS) is to provide line officers with critical information to implement road systems that are safe and responsive to public needs, are affordable and efficiently managed, are adequate for management activities, have minimal negative ecological effects on the land, and are in balance with available funding.

Executive Summary

This analysis provides information that will help the Prescott National Forest to more efficiently and effectively manage the transportation system within existing and anticipated funding levels. Recommendations are made that will improve maintenance of high value roads, reduce road maintenance program costs, reduce adverse ecological road-related effects, and focus cooperative efforts with County and State transportation departments. The analysis provides general information to guide the next level of area or project analysis.

The roads analyzed are important for primary access to the multiple uses of the Prescott National Forest. 1050 miles of roads were analyzed. This analysis recommends reduction of maintenance level on 5.8 miles of the FS jurisdiction roads currently classified as objective maintenance level 3 that have a “low value” and 8.4 miles of maintenance level 3 FS roads identified by resource specialists. This reduction saves in annual maintenance costs and in risk associated with roads classified for passenger car access. Also, recommended is the reduction of maintenance level on 0.5 miles of FS roads currently classed as objective level 4 and 5 to account for reduced public use, removal of maintenance responsibility on 5.7 miles of County Road and 1.7 miles under special use permit to Waste Management for access to the regional landfill. It also recommends an increase in maintenance level on 3.7 miles of level 4 campground access roads to reflect their upgrade to paved roads and to increase maintenance level on 1.3 miles of level 3 road to level 4 to accommodate increased public use (see Appendix F).

Of the 1050 miles analyzed, about 100% (1049 miles) of the roads miles present a

Prescott National Forest Forest Level Roads Analysis Report

high risk for wildfire, or to wildlife, watersheds or cultural resources, 32% (332 miles) of these high-risk roads are FS jurisdiction, the remaining 68% (717 miles) are State and County roads. The assessment of these roads will guide efforts at mitigation and cooperation with the State and Counties.

Risk and value assessment done for this analysis provides information to guide area analysis or project analysis. Each road was screened for its effect to wildfire, wildlife, cultural resources, and watershed conditions. Each road was categorized as “high” or “low” value for access to recreation, forest facilities, resources and safety/protection. This risk and value assessments provide information to focus transportation analysis and other planning efforts, and will guide the need for gathering of field data on affected resources and road condition and use.

Products of the Analysis

- A report for line officers and the public that documents the information and analysis used to identify opportunities and set priorities for the future National Forest road system.
- Maps displaying the main road system for the entire Forest.
- Other maps and tables necessary to display specific priorities and recommended changes in the road system.

Scope of the analysis:

Geographic Scale	Forest-wide
Roads	Roads on existing inventory in the following categories: National Forest System roads, objective maintenance level 3, 4 and 5. Public and private roads, maintenance level 3, 4 and 5 on PNF.
Analysis period	20 year outlook on needs, effects and implications
Specialist Information	Forest level analysis will be done using existing information and the judgment of the technical specialists. The analysis will proceed without information that cannot be obtained within the analysis period, acknowledging what uncertainties remain.
Public participation:	Report will be available for review on the PNF internet web site

Prescott National Forest Forest Level Roads Analysis Report

Internal review	R3 RO Transportation Engineers, Bill Woodward and Mike Noland, Forest Supervisor, Rangers and Staff.
-----------------	--

Existing Condition

Miles of roads in the analysis and in the Prescott National Forest inventory:
Miles in analysis (Miles in PNF Inventory)

Objective Mtc Level	Total	County	FS	Local	Other Agency	Private	State
1	0 (627.7)	0 (0)	0 (574.4)	0 (0)	0 (0)	0 (53.3)	0 (0)
2	0 (1329.6)	0 (17.9)	0 (1108.2)	0 (0)	0 (15.8)	0 (187.8)	0 (0)
3	659.2 (659.2)	338.7 (338.7)	307 (307.0)	0 (0)	0.9 (0.9)	12.6 (12.6)	0 (0)
4	129.7 (129.7)	114.3 (114.3)	15.4 (15.4)	0 (0)	0 (0)	0 (0)	0 (0)
5	261.3 (261.3)	131.8 (131.8)	10.2 (10.2)	1.1 (1.1)	0 (0)	0 (0)	118.3 (118.3)

Approximately 256 miles of PNF roads have been decommissioned since 1987.

Management Plan Road Information

The Prescott National Forest Plan (PNFP) and amendments provide direction for roads management. The recommendations in this roads analysis complement this direction, and provide information for future Forest level management planning. Some of the PNFP information is highlighted here; please refer to the plan and amendment document for complete and specific information.

Road Reconstruction: PNFP Amendment No. 4, (Table 10, page 18-1) listed 39 road reconstruction projects by priority. This page has been removed from the PNFP by other amendments but the list has been kept as a working document. Eight of these projects have been completed to date.

Road Maintenance: PNFP calls for road maintenance to meet use needs and safety.

Road Closure: PNFP page 6 (Amendment No. 4) shows a proposed forest road system of 2258 miles in all jurisdictions and MLs. The current system has 3007 miles in all jurisdictions and MLs. The difference in PNFP and current inventory road miles is due to addition of public roads on forestlands, refinement of the inventory, road decommissioning, and changes in jurisdiction since 1989, when the plan amendment was prepared. There are 519 miles of Forest Service jurisdiction roads that have been identified for closure.

Road Density: Existing road density on the PNF is 1.4 miles per square mile based on current (2002) inventory (3007 miles/2187 mi²).

Resource Coordination: PNFP Amendment No. 7 page 12-1 “Integrate wildlife habitat management activities into all resource practices through

Prescott National Forest Forest Level Roads Analysis Report

intensive coordination.”

Road operation/maintenance funding and costs

Road operation and maintenance funding on the Prescott ranges from about \$800,000 to \$1,220,000 per year and is expected to stay in that range in the foreseeable future.

In addition to maintenance funding, the Forest may be funded for road reconstruction projects; the most recent project was 1.0-mile section of the Mingus Mountain Camp Ground (National Forest System Road #104), being constructed in 3 phases over 4 years for a total cost of about \$1,300,000.

Road condition surveys conducted in 1999, 2000, 2001 and 2002, documented the work and associated costs needed to maintain roads to the industry standards for safety and assigned traffic service level. Those surveys reveal:

Deferred Maintenance:

- \$35,463,000 - FS roads, all maintenance levels (1-5)
- \$25,696,000 – FS roads maintenance level 3, 4 and 5
- \$26,848,000 – Critical health and safety ML 1-5
- \$23,877,000 – Critical health and safety ML 3, 4 and 5

Annual maintenance:

- \$3,021,000 – FS roads, all maintenance levels (1-5)
- \$2,308,000 – FS roads maintenance level 3, 4 and 5
- \$ 924,000 – Critical health and safety ML 1-5
- \$ 776,000 - Critical health and safety ML 3, 4 and 5

A cooperative maintenance agreement between the County and the FS help to address our combined road maintenance needs. The FS maintains and provides materials towards maintenance of the roads under the cooperative agreements.

Risks and Benefits of Roads

Roads on the PNF provide access for many uses. Their presence has effects on the natural and cultural resources of the National Forest. See Appendix B for a more detailed discussion of the ecological, social and economic considerations associated with PNF roads.

Hazard and risk assessment:

The interdisciplinary team (IDT) selected a method of analysis that would assess the Value and the Risk associated with each road.

The following values and risks were identified by the IDT. These also represent, in broad terms, the “issues” associated with the PNF main transportation system.

Prescott National Forest Forest Level Roads Analysis Report

Values: Roads are valued for Forest management because they provide access to:

FACILITIES
RESOURCES
RECREATION
SAFETY (escape from populated areas, access for wildfire response)

Risks: The presence or conditions of roads present risks associated with:
HUMAN CAUSED FIRE
WATERSHED CONDITION
WILDLIFE
CULTURAL RESOURCES

Roads were placed in categories of high or low value combined with high or low risk. The overall risk assessment will be “high” if any of the four risk criteria under them are assessed as high. The overall value will be “high” if any of the four criteria under them are assessed as high.

Recommendations were made for each of four categories based on this assessment.

Value Assessment Criteria

Facilities: Access to FS administrative facilities and special use facilities. Access to private land and associated facilities is not a criteria used to assess the value of a FS operated road. The FS cooperates with State or County agencies in accessing private land, but access to private land is not a primary value determining operation of Forest Service jurisdiction roads.

HIGH - A high value road has Forest Service related facilities that require access by passenger car. Examples are Ranger District main offices, offices or locations that offer public information services, locations with crew quarters, facilities, and special-use facilities that require access by the general public.

LOW - A road accessing no facilities, facilities not open to the public, and facilities where high clearance vehicle access is adequate. Examples are roads to lookouts, some special-use sites or FS communication sites.

Resources: Access to vegetative treatment areas, wood product management and harvest, and access to range resources.

HIGH – Roads that are the primary access to several planned or potential vegetative management projects, or large amounts of high-value commercial wood resources. These roads will be used many times for vegetative management in the 20-year analysis period. These road’s improved conditions reduce haul time/cost or improve safety significantly.

or

Roads that are the primary access to permitted grazing allotments where a

Prescott National Forest Forest Level Roads Analysis Report

maintenance level 3 road is needed to safely accommodate cattle trucks or larger trailers on a regular and recurring basis.

LOW - Roads that do not provide access to high value wood resources, or where consistent or recurring access by low clearance hauling vehicles is not needed.

or

Roads that do not provide access to permitted grazing allotments or roads where high clearance vehicle access is adequate for resource use and management.

Recreation: Access to dispersed recreation areas, trailheads, campgrounds, picnic grounds, touring routes.

HIGH – Access to recreation uses that require access by passenger car. Examples are developed sites in the urban, rural or roaded natural Recreational Opportunity Spectrum (ROS) class, main touring routes, and main routes to many (10 or more identified) dispersed recreation sites.
LOW – High clearance vehicle access is adequate for use and management of the recreation resource. Examples are trailheads in roaded natural or semi-primitive motorized ROS class, and access to 9 or fewer dispersed camp areas.

Safety: Access for fire suppression, evacuation routes and emergency medical response.

HIGH – Roads that provide alternate emergency egress from populated areas. Roads that provides access to areas at high risk of wildfire, with high resources or human values that makes response time critical.
LOW- Roads to areas that are not populated or where access by high clearance vehicle will be adequate for fire suppression.

Risk Assessment Criteria

Human Caused Fire:

HIGH – Roads that access areas that have a recorded pattern of human caused fire ignitions, or that access areas where use, landownership, vegetation and fuel conditions indicate a high potential for human caused fire ignition.
LOW - Roads that are not evaluated as high risk.

Watershed Condition (effect to water quality and inherent erosion hazard):

HIGH – The road management situation will hinder attainment of state water quality standards or the road is within 100 feet of an impaired stream. Road exists in highly erosive soils or is on a cross slope exceeding 40%.
LOW – State water quality standards can be achieved through assigned road management standards. Road is located mostly in inherently stable soils and is on a cross slope less than 40%.

Prescott National Forest Forest Level Roads Analysis Report

Wildlife Risk Assessment Criteria

Impacts from road use, maintenance, development and reconstruction will have varying degrees of risks (i.e. effects) depending on the spatial distribution, maintenance level, and distance of roads from critical wildlife habitats. For this Forest Road Analysis (FRA), the criteria for evaluating risk to wildlife are presented below. The criteria addresses risk from Forest Level 3, 4 and 5 roads on wildlife and serves to rank the risk as either High or Low. Wildlife used for this analysis will be species that are, in order of priority,

Endangered, Threatened, Proposed, and Sensitive. The reason for selecting these species over others such as game species are due to the fact that they influence forest management activities more than other species. In addition, critical winter range for big game will also be evaluated, since road densities tend to affect winter range habitat more than other factors (i.e. weather) in the southwest.

Federally threatened and endangered species:

Scientific Name	Common Name	Status
<i>Purshia subintegra</i>	Arizona cliffrose	E
<i>Haliaeetus leucocephalus</i>	Bald eagle	T
<i>Empidonax traillii extimus</i>	Southwestern willow flycatcher	E
<i>Strix occidentalis lucida</i>	Mexican spotted owl	T
<i>Cyprinodon macularis macularis</i>	Desert pupfish	E
<i>Meda fulgida</i>	Spikedace	T
<i>Ptychocheilus lucius</i>	Colorado squawfish	E
<i>Xyrauchen texanus</i>	Razorback sucker	E
<i>Poeciliopsis occidentalis occidentalis</i>	Gila topminnow	E
<i>Oncorhynchus gilae gilae</i>	Gila trout	E
<i>Tiaroga cobitis</i>	Loach minnow	T

Federally threatened and endangered species habitat: Presence, Occupancy, and Effects:

If NO habitat is present, then there are NO effects.

Species Common Name	Occupied Habitat Present	Suitable Habitat Present	Occupied Habitat effected	Suitable Habitat effected
Arizona Cliffrose	NO			
Bald Eagle	NO	NO		
SWW Flycatcher	NO	NO		
Mexican Spotted Owl	YES	YES	NO*	NO*
Desert pupfish	NO	NO		
Spikedace	NO	NO		

Prescott National Forest Forest Level Roads Analysis Report

Colorado squawfish	NO	NO		
Razorback sucker	NO	NO		
Gila topminnow	NO	NO		
Gila trout	NO	NO		
Loach minnow	NO	NO		

*Based on review of the wildlife atlas and personal knowledge of the area, the only threatened or endangered species or their habitats known to occur in the

project area or potentially be impacted by the project is the MSO. With the stipulations limiting activities to occur outside of the MSO breeding season, this project would have no impact to the MSOs known to occupy the area. There is no habitat change that would impact MSO.

Regional Forester's sensitive animal and plant species:

Scientific Name	Common Name
<i>Rana yavapaiensis</i>	Lowland leopard frog
<i>Bufo microscaphus microscaphus</i>	Southwestern (Arizona) toad
<i>Accipiter gentilis</i>	Northern goshawk
<i>Buteogallus anthracinus</i>	Common black hawk
<i>Alco peregrinus</i>	American peregrine falcon
<i>Coccyzus americanus occidentalis</i>	Western yellow-billed cuckoo
<i>Gila intermedia</i>	Gila chub
<i>Gila robusta</i>	Roundtail chub
<i>Cicindela oregona maricopa</i>	Maricopa tiger beetle
<i>Thamnophis eques megalops</i>	Mexican garter snake
<i>Pyrgulopsis glandulosa</i>	Verde Rim springsnail
<i>Agave delamateri</i>	Tonto Basin agave
<i>Chrysothamnus molestus</i>	Tusayan rabbitbrush
<i>Erigeron saxatalis</i>	Rock dwelling fleabane
<i>Eriogonum ericofolium</i> var. <i>ericofolium</i>	Heatherleaf wild buckwheat
<i>Eriogonum ripleyi</i>	Ripley wild buckwheat
<i>Hedeoma diffusum</i>	Flagstaff pennyroyal
<i>Heuchera eastwoodiae</i>	Eastwood alumroot
<i>Lupinus latifolius</i> spp. <i>leucanthus</i>	?
<i>Phlox amabilis</i>	Arizona phlox
<i>Polygala rusbyi</i>	Hualapai milkwort
<i>Salvia dorii</i> spp. <i>mearnsii</i>	Mearns sage / Verde Valley sage
<i>Arenaria abberrans</i>	Mt. Dellenbaugh sandwort

Regional Forester's sensitive animal and plant species habitat:

Presence, occupancy, and effects:

If NO habitat is present, then there are NO effects.

Prescott National Forest Forest Level Roads Analysis Report

Species Common Name	Occupied habitat present	Suitable habitat present	Occupied habitat effected	Suitable habitat effected
Lowland leopard frog	NO	NO		
Southwestern (Arizona) toad	NO	NO		
Northern goshawk	NO	NO		
Common black hawk	NO	NO		
American Peregrine Falcon	NO	NO		
Western yellow-billed cuckoo	NO	NO		
Gila chub	NO	NO		
Roundtail chub	NO	NO		
Maricopa tiger beetle	NO	NO		
Mexican garter snake	NO	NO		
Verde Rim springsnail	NO	NO		
Tonto Basin agave	NO	NO		
Tusayan rabbitbrush	NO	NO		
Rock-dwelling fleabane	NO	NO		
Heathleaf wild buckwheat	NO	NO		
Ripley wild buckwheat	NO	NO		
Flagstaff pennyroyal	NO	NO		
Eastwood alum root	NO	NO		
<i>Lupinus latifolius</i> spp.	NO	NO		
<i>Leucanthus</i>				
Arizona phlox	NO	NO		
Hualapai milkwort	NO	NO		
Mearns Verde Valley sage	NO	NO		
Dellenbaugh sandwort	NO	NO		

Based on review of the wildlife atlas, field recon and personal knowledge of the area, no sensitive species or their habitats are known to occur in the project area or be impacted by the proposed action.

Cultural Resources Risk Assessment Criteria: Risk assessments for roads analysis are guided by the following questions:

- Has the road been surveyed for cultural resources?
- Does the road impact any cultural resources?
- Is the road located in a high, moderate, or low site probability area?

HIGH - The road has been surveyed for cultural resources and the road impacts identified sites, or the road has not been surveyed but is located in an area with high or moderate site density.

LOW - The road has been surveyed for cultural resources and the road impacts no sites, or the road has not been surveyed but is located in a low site density area.

General Recommendations for Value/Risk Categories:

High Value/High Risk

These roads are the “main transportation system” for the Forest. Recommend continued Forest Service or cooperative agency maintenance for passenger car access.

High risk and value indicate these are the *highest* priority for investment of

Prescott National Forest Forest Level Roads Analysis Report

time and funds to mitigate or eliminate risk and accommodate uses. Recommend mitigation of risk. Mitigation depends upon the specific risks and may include, but is not limited to: additional maintenance effort, reconstruction, relocation, seasonal maintenance restriction, and seasonal road closure.

Low Value/High Risk

Passenger car access for enjoyment or use of National Forest resources is not needed on these roads.

Short term (~1 month to 1 year) improvement of these roads may be needed for improved access to project areas during project activities.

Recommend mitigation of risk. High risk indicates these roads are second priority (behind the high value/high risk roads) for investment of time and funds to mitigate or eliminate risk. Mitigation depends upon the specific risks and may include additional maintenance efforts, reconstruction, relocation, seasonal maintenance restrictions, and road closure.

Recommend reducing maintenance costs by reducing maintenance level of FS jurisdiction roads to high clearance (ML 2), or administratively closed (ML 1).

Coordinate with county government or private landowners to determine maintenance responsibility on roads needing passenger car access to private lands. On roads where the primary use is access to communities, request public roads agencies (county, towns, state government) to assume road operational jurisdiction. On roads where exclusive need is access to private land, issue a special use permit for the road. On roads or road segments not open to the public, and not required for access to private land, close or decommission the road. Additional information may be needed to determine level and type of use.

High Value/Low Risk

These roads are the “main transportation system” for the Forest. Recommend continued Forest Service or coop agency maintenance for passenger car access.

Low risk indicates low priority for investment of time and funds to mitigate risk.

Low Value/Low Risk

Passenger car access for enjoyment or use of National Forest resources is not needed.

Short term (~1 month to 1 year) improvement of these roads may be needed for improved access to project areas during project activities.

Recommend reducing maintenance costs by reducing maintenance level of FS jurisdiction roads to high clearance (ML 2), or administratively closed (ML 1).

Prescott National Forest Forest Level Roads Analysis Report

Coordinate with county government or private landowners to determine maintenance responsibility on roads needing passenger car access to private lands. On roads where the primary use is access to communities, request public roads agencies (county, towns, state government) to assume road operational jurisdiction. On roads where exclusive need is access to private land, issue a special use permit for the road. On roads or road segments not open to the public, and not required for access to private land, close or decommission the road. Additional information may be needed to determine level and type of use.

Risk and Value Analysis Results

Total Miles analyzed = 1050

High Risk/High Value 99 percent/1043 total miles 326 miles FS jurisdiction	High Risk/Low Value 1 percent/6 miles 6 miles FS Jurisdiction
Low Risk/High Value 0 percent/1 total miles 1 miles FS jurisdiction	Low Risk/Low Value 0 percent/0 total miles 0 miles FS jurisdiction

Reducing Maintenance Need

Reducing the maintenance level on the “low value” FS jurisdiction roads that are objective ML 3 (5.8 miles) to ML 2 would reduce the annual maintenance need by an estimated \$42,000. Reducing from ML 3 to ML2 on 8.4 miles of “high value” roads as recommended by resource specialists can save an additional \$ 59,800. These costs assume all roads are maintained to standard, which costs an average of \$403/mile/year for a ML 2 road and \$7,518/mile/year for a ML 3 road.

An assessment of historic operational/maintenance jurisdiction has been completed on these roads. The current mix of traffic on the Forest Service roads, and documentation of the origination of the road would indicate the share that each agency or private party has in the operation of a road. Approximately 198.5 miles on 49 FS jurisdiction roads in this analysis provide the primary access to private lands. For many of these roads, the type and level of access needed for use of the private land is a higher standard than the level of access needed for the

Prescott National Forest Forest Level Roads Analysis Report

use or management of the National Forest lands. If the prevailing amount of traffic is due to accessing private lands, then jurisdiction of the road by a public road agency, such as State or County is indicated. The interest the County has in PNF road operations is recognized by the cooperative agreement between the Yavapai County and the PNF, covering 798 miles of County jurisdiction roads, 585 miles of which are included in this analysis. Determining amount and the generator of use on these roads is an important step in defining appropriate maintenance responsibility.

Mitigating Risk

Risk assessments for this analysis were based on resource specialist knowledge and information contained in the Forest's Geographic Information System. The assessment provides a screening level indication of the likelihood a risk is present. This indication is a useful tool in guiding issue development and planning additional data collection. Field analysis will be required to determine the most appropriate mitigation measures for each road or road segment.

Right-of-Way Needs and Priorities

Appendix C lists the roads analyzed as "high" value that lack right-of-way through private land. In the past two years, several private landowners bordering PNF have locked gates on roads that lack legal right-of-way for the FS and public to cross their land. Additional closures are likely and may result in large portions of National Forest becoming inaccessible to the general public and to land managers.

Ecological, Social, and Economic Considerations

Appendix B provides information on ecological, social and economic considerations that were addressed by the interdisciplinary team. This information provided the basis for the development of the risk and value assessment used in the analysis.

Additional Roads Analysis

Watershed Analysis: The PNF is currently implementing condition assessments by fifth code watershed. Roads analysis should be integrated with the assessment efforts for these watersheds. In the past this was not accomplished, so most watersheds that have had a completed assessment did not include a complete roads analysis. Roads analysis should to be completed on the priority watersheds listed:

Hells Canyon, and
Verde

Conclusion

1. Future road management on the PNF should be guided by this Forest-level roads analysis.
2. This analysis provides for more efficient and effective road operation and

Prescott National Forest Forest Level Roads Analysis Report

- maintenance, reduced road-related environmental effects and safe, appropriate access for forest use and management.
3. Site-specific information on road effects and effective risk mitigation will be gathered during area or project planning.
 4. Forest Service road system operation costs can be reduced by a reduction in maintenance level and by further resolution of jurisdiction questions. Site-specific traffic analysis and coordination with County government is needed to support this effort.
 5. Most road alignments have not been surveyed for cultural resources, resulting in a “high risk” rating for many roads that have a “low risk” potential based upon the assessment results of other resources. Survey priority should be based on this, so that more informed recommendations about maintenance levels can be made.
 6. Changing MLs to reflect actual changes in road condition, jurisdiction, and public use will better reflect the actual maintenance needs of the Forest.

Appendix

Appendix A: Risk/Value assessment Table, D1, D3, D5

Appendix B: Ecological, Social and Economic Considerations

Appendix C: Right of way needs and priorities (list)

Appendix D: IDT membership

Appendix E: Road Maintenance Level Changes

Appendix F: Location Map

Appendix G: Roads in Analysis Map

**APPENDIX A – RISK AND VALUE ASSESSMENT
PRESCOTT NATIONAL FOREST
FOREST LEVEL ROAD ANALYSIS**

ROAD NUMBER	NAME	SEGMENT LENGTH	JURISDICTION	OBJECTIVE MAINT LEVEL	FUNCTIONAL CLASS	RANGER DISTRICT	RISK					VALUE				
							HUMAN CAUSED FIRE	WILDLIFE	WATERSHED	CULTURAL RESOURCES	OVERALL RISK	RESOURCE ACCESS	FACILITY ACCESS	RECREATION ACCESS	SAFETY	OVERALL VALUE
000007	Pine Springs	7.9	FS	3	L	1	L	H	H	H	H	H	L	H	L	H
000008	Cienega Ranch	3.4	C	3	L	1	L	H	H	H	H	H	H	H	H	H
000009	Seven Up	13.2	FS	3	A	1	L	H	L	H	H	H	L	L	L	H
000011	WHITE SPAR FOREST CAMP	0.7	FS	5	L	3	H	L	L	H	H	L	H	H	H	H
000045	IRON SPRINGS SUMMER HOMES	0.2	FS	5	L	3	H	L	L	H	H	L	L	L	H	H
000049	Willow Creek	1.0	P	3	L	3	H	L	L	H	H	L	H	L	H	H
000051B	Pearlstein North	0.4	P	3	L	3	L	L	L	H	H	L	H	L	H	H
000051C	Pearlstein South	0.3	P	3	L	3	L	L	L	H	H	L	H	L	H	H
000052	Senator	36.5	C	3	C	3	H	L	H	H	H	H	H	H	H	H
000052A	Spruce Mountain	3.9	FS	3	L	3	H	H	L	H	H	L	H	H	H	H
000052C	Tower Mtn Lo	3.1	FS	3	L	3	H	L	L	H	H	L	H	H	H	H
000052F	Turney Gulch	1.1	FS	3	L	3	H	L	L	H	H	L	H	H	H	H
000052G	Horsethief S H Area	1.5	FS	3	L	3	H	L	L	H	H	L	H	H	H	H
000052H	Kentuck Springs C. G.	0.3	FS	3	L	3	H	L	L	H	H	L	H	H	H	H
000052J	Horsethief Lake Rd	0.4	FS	3	L	3	H	L	L	H	H	L	H	H	H	H
000052K	Hazelett Hollow	0.3	FS	3	L	3	H	L	L	H	H	L	H	H	H	H
000062	Schoolhouse Gulch	4.8	FS	3	L	3	H	L	H	H	H	L	L	H	L	H
000064	Maripai	4.1	FS	3	L	3	L	L	L	H	H	L	H	H	H	H
000065	Wood Spring	5.3	FS	3	L	3	L	L	L	H	H	H	L	L	L	H
000065A	Sycamore Tank	2.8	FS	3	L	3	L	L	L	H	H	H	L	L	L	H
000068	DOUBLE T	9.4	FS	3	C	5	H	L	L	H	H	H	L	H	H	H
000068A	West Ranch	0.9	C	3	L	5	H	L	L	H	H	H	H	H	H	H
000068D	REIMER	12.9	FS	3	A	5	H	L	L	H	H	H	L	H	H	H
000068F	Sycamore Station	1.6	FS	3	L	5	L	L	H	H	H	L	H	L	H	H

**APPENDIX A – RISK AND VALUE ASSESSMENT
PRESCOTT NATIONAL FOREST
FOREST LEVEL ROAD ANALYSIS**

ROAD NUMBER	NAME	SEGMENT LENGTH	JURISDICTION	OBJECTIVE MAINT LEVEL	FUNCTIONAL CLASS	RANGER DISTRICT	RISK					VALUE				
							HUMAN CAUSED FIRE	WILDLIFE	WATERSHED	CULTURAL RESOURCES	OVERALL RISK	RESOURCE ACCESS	FACILITY ACCESS	RECREATION ACCESS	SAFETY	OVERALL VALUE
000068G	Tule Mesa	9.9	FS	3	C	5	L	L	L	H	H	H	L	L	L	H
000072	OROFINO	9.3	FS	3	C	3	H	L	H	H	H	H	L	H	L	H
000076	OLD MINER'S ROAD	0.8	P	3	L	3	H	L	L	H	H	L	L	L	H	H
000078	Camp Fire Girls	0.5	FS	3	L	3	H	L	L	H	H	H	H	H	H	H
000079	Big Pine	2.5	C	3	L	3	H	L	L	H	H	H	H	H	H	H
000080	Sundance	1.7	C	3	L	3	H	L	L	H	H	H	H	H	H	H
000085A	Spider Ranch	3.8	C	3	L	1	L	L	L	H	H	H	H	H	H	H
000087	Grapevine Gulch	1.9	C	3	L	3	L	L	L	H	H	H	H	H	H	H
000087A	Grapevine Gulch	0.4	P	3	L	3	L	L	L	H	H	L	L	L	H	H
000087A	Grapevine Gulch	5.6	FS	3	L	3	L	L	L	H	H	H	L	H	L	H
000088	Groom Creek School House	0.1	FS	3	L	3	H	L	L	H	H	L	H	H	H	H
000094	Crooks Canyon	6.9	C	3	L	3	H	L	H	H	H	H	H	H	H	H
000095	WALNUT CREEK	11.0	FS	3	A	1	H	H	H	H	H	H	H	L	H	H
000095C	Hyde Mtn Lo	2.2	FS	3	L	1	L	H	L	H	H	L	H	L	H	H
000095D	CAMP WOOD HELISPOT	0.3	FS	3	L	1	L	H	L	H	H	L	H	L	H	H
000095E	Walnut Ck Adm Site	0.2	FS	3	L	1	L	L	L	H	H	L	H	L	H	H
000097A	Indian Cr Forest Cp	1.2	FS	3	L	3	H	L	H	H	H	L	H	H	H	H
000097C	Wolf Cr Pic Area	0.2	FS	5	L	3	H	L	L	H	H	L	H	H	H	H
000097D	Wolf Creek Fc Upper	0.3	FS	4	L	3	H	L	L	H	H	L	H	H	H	H
000104	Mingus Mtn	3.2	FS	4	C	5	H	L	L	H	H	H	H	H	H	H
000104A	Dry Lake	1.2	FS	3	L	5	H	L	L	H	H	L	H	H	H	H
000104B	Mingus Lo	0.4	FS	3	L	5	H	L	L	H	H	L	H	L	H	H
000104C	MINGUS SNOW PLAY	0.1	FS	5	L	5	H	L	L	L	H	L	H	H	H	H
000104D	Playgrounds	0.1	FS	3	L	5	H	L	L	L	H	L	H	H	H	H

**APPENDIX A – RISK AND VALUE ASSESSMENT
PRESCOTT NATIONAL FOREST
FOREST LEVEL ROAD ANALYSIS**

ROAD NUMBER	NAME	SEGMENT LENGTH	JURISDICTION	OBJECTIVE MAINT LEVEL	FUNCTIONAL CLASS	RANGER DISTRICT	RISK					VALUE				
							HUMAN CAUSED FIRE	WILDLIFE	WATERSHED	CULTURAL RESOURCES	OVERALL RISK	RESOURCE ACCESS	FACILITY ACCESS	RECREATION ACCESS	SAFETY	OVERALL VALUE
000104E	MINGUS	1.4	FS	3	L	5	H	L	L	H	H	L	L	H	H	H
000105	Kendall Camp	1.5	FS	3	L	5	H	H	H	H	H	H	H	H	H	H
000106	Potato Patch	0.9	FS	4	L	5	H	L	L	L	H	L	H	H	H	H
000106F	POTATO PATCH PARKING LOT	0.3	FS	5	L	5	H	L	L	L	H	L	H	H	H	H
000110	Sycamore Point	0.9	FS	3	L	1	L	L	L	H	H	L	L	L	L	L
000132	Cherry Trail	10.7	FS	3	A	5	H	L	L	H	H	H	L	H	L	H
000136	Copper Canyon	7.9	FS	3	L	5	H	H	H	H	H	H	L	H	H	H
000147	Sheeps Crossing	1.1	FS	3	L	5	L	L	L	H	H	H	H	H	H	H
000147A	Bignotti	1.6	FS	3	L	5	L	L	L	H	H	L	H	H	H	H
000151	Mingus Watershed	0.9	FS	3	L	5	H	L	H	H	H	H	H	L	H	H
000160	Willow Cr Pasture	0.6	FS	3	L	3	L	L	L	H	H	L	H	L	H	H
000174	Spring Canyon	6.3	FS	3	C	1	L	L	H	H	H	H	H	H	H	H
000181	Henderson	13.7	FS	3	C	1	L	L	L	H	H	H	L	H	H	H
000186	Barney Winter Camp	5.9	FS	3	L	1	L	H	L	H	H	H	L	L	H	H
000186A	Barney Draw	1.5	FS	3	L	1	L	L	L	H	H	H	L	L	H	H
000196A	COLD SPRINGS	0.3	FS	3	L	3	H	L	L	H	H	L	L	H	H	H
000196A	COLD SPRINGS	0.3	P	3	L	3	H	L	L	H	H	L	L	L	H	H
000259	Crown King	0.6	FS	3	C	3	H	L	L	H	H	H	H	H	H	H
000259A	CROWN KING WORK CENTER	0.3	FS	5	L	3	H	L	L	H	H	L	H	L	H	H
000261	Poland	1.5	FS	3	L	3	H	H	L	H	H	L	H	H	L	H
000300	MELVILLE ROAD	0.7	L	5	L	3	H	L	L	H	H	L	H	L	H	H
000306A	MCNARY PLACE	0.2	FS	3	L	3	L	L	L	H	H	H	L	L	L	H
000318A	NARROW GAUGE	7.5	FS	3	C	1	H	L	L	H	H	H	L	H	H	H
000318A	NARROW GAUGE	6.3	P	3	C	1	L	L	L	H	H	H	L	H	H	H

**APPENDIX A – RISK AND VALUE ASSESSMENT
PRESCOTT NATIONAL FOREST
FOREST LEVEL ROAD ANALYSIS**

ROAD NUMBER	NAME	SEGMENT LENGTH	JURISDICTION	OBJECTIVE MAINT LEVEL	FUNCTIONAL CLASS	RANGER DISTRICT	RISK					VALUE				
							HUMAN CAUSED FIRE	WILDLIFE	WATERSHED	CULTURAL RESOURCES	OVERALL RISK	RESOURCE ACCESS	FACILITY ACCESS	RECREATION ACCESS	SAFETY	OVERALL VALUE
000334	BEASLY FLAT REC. AREA	1.1	C	5	L	5	L	L	H	H	H	H	H	H	H	H
000334	BEASLY FLAT REC. AREA	1.5	FS	5	L	5	L	L	H	H	H	L	H	H	H	H
000354	Perkinsville	5.4	FS	3	C	1	L	L	H	H	H	H	L	L	H	H
000359	Quail Spring	4.2	FS	3	L	5	L	L	L	H	H	L	L	L	H	H
000360	Goat Camp	4.9	FS	3	L	5	H	L	L	H	H	L	L	L	H	H
000361	Smoke Area	7.8	FS	3	C	5	L	L	H	H	H	H	L	L	H	H
000362	Minnehaha	3.6	FS	3	C	3	H	L	H	H	H	H	L	L	H	H
000362	Minnehaha	1.5	P	3	C	3	H	L	H	H	H	H	L	L	H	H
000372A	Powell Spring Cg	0.4	FS	3	L	5	H	L	H	H	H	L	H	H	H	H
000373	THUMB BUTTE LOOP	4.6	FS	4	A	3	H	H	L	H	H	H	H	H	H	H
000373E	Thumb Butte Pic Area	0.2	FS	5	L	3	H	H	L	H	H	L	H	H	H	H
000374	Granite Basin	4.3	FS	5	L	3	H	L	L	H	H	L	H	H	H	H
000374A	Caldwell Canyon Vista	0.0	FS	3	L	3	H	L	L	H	H	L	L	H	H	H
000374B	MATATE	0.1	FS	5	L	3	H	L	L	H	H	L	H	H	H	H
000374C	GRANITE BASIN SUMMER HOMES	0.4	FS	4	L	3	H	L	L	H	H	L	H	H	H	H
000374D	Granite Basin Cg	0.8	FS	5	L	3	H	L	L	L	H	L	H	H	H	H
000374E	Rifle Range	0.3	FS	3	L	3	L	L	L	L	L	L	H	H	H	H
000374F	Camp Le Beau	0.3	FS	3	L	3	H	L	L	H	H	L	H	H	H	H
000374H	BOAT LAUNCH	0.1	FS	3	L	3	L	L	L	L	L	L	H	H	H	H
000374J	YAVAPAI	0.5	FS	5	L	3	H	L	L	L	H	L	H	H	H	H
000374L	CAYUSE	0.4	FS	5	L	3	H	L	L	L	H	L	H	H	H	H
000374R	WECUVDE	0.1	FS	5	L	3	H	L	L	L	H	L	H	H	H	H
000374S	PLAYA	0.0	FS	5	L	3	H	L	L	L	H	L	H	H	H	H
000413	Allen Spring	20.2	FS	3	C	5	H	L	L	H	H	H	L	L	H	H

**APPENDIX A – RISK AND VALUE ASSESSMENT
PRESCOTT NATIONAL FOREST
FOREST LEVEL ROAD ANALYSIS**

ROAD NUMBER	NAME	SEGMENT LENGTH	JURISDICTION	OBJECTIVE MAINT LEVEL	FUNCTIONAL CLASS	RANGER DISTRICT	RISK					VALUE				
							HUMAN CAUSED FIRE	WILDLIFE	WATERSHED	CULTURAL RESOURCES	OVERALL RISK	RESOURCE ACCESS	FACILITY ACCESS	RECREATION ACCESS	SAFETY	OVERALL VALUE
000492A	Bear Siding	5.1	FS	3	C	1	L	L	H	H	H	H	L	H	L	H
000493	Copper Chief	5.5	FS	3	L	5	H	L	L	H	H	L	L	H	L	H
000501A	Mingus Heliport	0.3	FS	3	L	5	H	L	L	H	H	L	H	L	H	H
000573	Bullock	11.8	C	3	A	1	L	L	L	H	H	H	H	H	H	H
000574	Brown Springs	7.9	C	3	C	5	H	L	H	H	H	H	H	H	H	H
000605	Camp Verde A S	0.2	FS	4	L	5	L	L	L	H	H	L	H	L	H	H
000611	Lynx View Pt	0.4	FS	4	L	3	H	L	L	H	H	L	H	H	H	H
000622	LYNX CREEK FOREST CAMP	1.6	FS	4	L	3	H	H	H	H	H	L	H	H	H	H
000623	Lynx Creek Landing	1.7	FS	4	L	3	H	H	H	H	H	L	H	H	H	H
000623A	Hilltop Campground	1.1	FS	4	L	3	H	H	L	L	H	L	H	H	H	H
000643	Texas Gulch	0.9	OF	3	C	5	L	L	L	H	H	H	H	L	L	H
000665	Conger Water	6.4	FS	3	C	1	H	L	L	H	H	H	L	L	L	H
000670	Walker Big Bug	5.9	FS	3	C	3	H	L	L	H	H	H	H	H	H	H
000677	Silver Cr	6.7	FS	3	C	5	L	H	L	H	H	H	L	L	L	H
000686	Prescott Yard	0.0	FS	5	L	3	L	L	L	L	L	L	H	L	H	H
000689	Chino Valley	0.3	FS	5	L	1	L	L	L	L	L	L	H	L	H	H
000702	South Mesa	4.0	FS	3	L	1	L	L	L	H	H	H	L	L	L	H
000705	SHERIDAN MOUNTIAN	18.3	FS	3	C	1	H	L	H	H	H	H	H	L	H	H
000732	Squaw Peak	9.5	FS	3	C	5	H	H	H	H	H	H	H	H	H	H
000C005	WILLIAMSON VALLEY	57.0	C	5	A	3	L	L	L	H	H	H	H	H	H	H
000C010	Iron Springs Road	9.9	C	5	A	3	L	L	L	H	H	H	H	H	H	H
000C035	General Crook Highway	3.8	C	5	A	5	L	L	L	H	H	H	H	H	H	H
000C056	SENATOR HIGHWAY	11.1	C	4	A	3	H	L	L	H	H	H	H	H	H	H
000C057	WALKER ROAD	11.8	C	5	A	3	H	L	L	H	H	H	H	H	H	H

**APPENDIX A – RISK AND VALUE ASSESSMENT
PRESCOTT NATIONAL FOREST
FOREST LEVEL ROAD ANALYSIS**

ROAD NUMBER	NAME	SEGMENT LENGTH	JURISDICTION	OBJECTIVE MAINT LEVEL	FUNCTIONAL CLASS	RANGER DISTRICT	RISK					VALUE				
							HUMAN CAUSED FIRE	WILDLIFE	WATERSHED	CULTURAL RESOURCES	OVERALL RISK	RESOURCE ACCESS	FACILITY ACCESS	RECREATION ACCESS	SAFETY	OVERALL VALUE
000C058	POLAND ROAD	8.9	C	3	C	3	H	H	H	H	H	H	H	H	H	H
000C059	CROWN KING ROAD	18.5	C	4	A	3	H	L	L	H	H	H	H	H	H	H
000C060	CHERRY CREEK ROAD	29.5	C	4	A	3	L	L	H	H	H	H	H	H	H	H
000C064	COPPER BASIN	16.0	C	4	A	3	L	L	H	H	H	H	H	H	H	H
000C065	THUMB BUTTE ROAD	4.4	C	4	A	3	H	L	L	H	H	H	H	H	H	H
000C066	TONTO	15.0	C	3	A	3	L	L	L	H	H	H	H	H	H	H
000C067	Fair Oaks	1.2	C	3	C	1	L	L	L	H	H	H	H	H	H	H
000C068	CAMP WOOD ROAD	55.8	C	3	A	1	L	H	L	H	H	H	H	H	H	H
000C070	PERKINSVILLE ROAD	31.1	C	3	A	1	L	H	L	H	H	H	H	H	H	H
000C071	Drake Road	11.8	C	5	A	1	L	H	L	H	H	H	H	H	H	H
000C072	MUNDS DRAW ROAD	15.3	C	3	A	5	L	L	L	H	H	H	H	H	H	H
000C073	SOUTH ROAD	21.9	C	5	A	1	L	L	L	H	H	H	H	H	H	H
000C074	OLD BLACK CANYON	7.2	C	4	A	3	L	L	H	H	H	H	H	H	H	H
000C075	CHERRY ROAD	25.3	C	3	A	5	H	L	L	H	H	H	H	H	H	H
000C101	PONDEROSA PARK	6.8	C	4	C	3	H	L	L	H	H	H	H	H	H	H
000C102	Groom Creek Cutoff	1.5	C	3	L	3	H	L	L	H	H	H	H	H	H	H
000C110	SYCAMORE CANYON	14.7	C	3	A	1	L	L	H	H	H	H	H	H	H	H
000C117	POVERTY FLAT ROAD	4.9	C	3	L	3	H	L	L	H	H	H	H	H	H	H
000C120	Sky Line Drive	3.2	C	5	L	3	H	L	L	H	H	H	H	H	H	H
000C121	TONTO FLAT ROAD	9.0	C	3	C	3	L	L	L	H	H	H	H	H	H	H
000C122	CONTRERAS ROAD	3.8	C	4	A	3	L	L	L	H	H	H	H	H	H	H
000C123	Rancho Moana	4.4	C	3	L	3	L	L	L	H	H	H	H	H	H	H
000C124	Fair Oaks	8.1	C	3	A	1	H	L	H	H	H	H	H	H	H	H
000C125	Baca Float	8.7	C	3	A	1	L	L	H	H	H	H	H	H	H	H

**APPENDIX A – RISK AND VALUE ASSESSMENT
PRESCOTT NATIONAL FOREST
FOREST LEVEL ROAD ANALYSIS**

ROAD NUMBER	NAME	SEGMENT LENGTH	JURISDICTION	OBJECTIVE MAINT LEVEL	FUNCTIONAL CLASS	RANGER DISTRICT	RISK					VALUE				
							HUMAN CAUSED FIRE	WILDLIFE	WATERSHED	CULTURAL RESOURCES	OVERALL RISK	RESOURCE ACCESS	FACILITY ACCESS	RECREATION ACCESS	SAFETY	OVERALL VALUE
000C137	VERDE RANCH ROAD	9.8	C	3	C	1	L	L	H	H	H	H	H	H	H	H
000C139	TAPCO ROAD	3.2	C	5	L	5	L	L	L	H	H	H	H	H	H	H
000C145	QUAIL SPRINGS RANCH	5.6	C	3	C	5	L	L	L	H	H	H	H	H	H	H
000C163	Salt Mine	8.1	C	5	C	5	L	L	L	H	H	H	H	H	H	H
000C168	PETERS RANCH ROAD	4.5	C	3	L	5	L	L	H	H	H	H	H	H	H	H
000C169	ORMES RANCH ROAD	12.4	C	3	A	5	L	L	L	H	H	H	H	H	H	H
000C171	DUGAS ROAD	7.7	C	3	C	5	L	H	H	H	H	H	H	H	H	H
000C173	HORSE SHOE RANCH	4.4	C	3	L	5	L	L	L	H	H	H	H	H	H	H
000C177	OLD BOLADA ROAD	11.2	C	4	A	3	H	L	L	H	H	H	H	H	H	H
000C179	Old Black Canyon Hwy	3.3	C	4	A	3	L	L	L	H	H	H	H	H	H	H
000C261	MARAPAI	2.0	C	4	L	3	H	L	L	H	H	H	H	H	H	H
000C328	BEASLEY FLAT ROAD	1.1	C	3	L	5	L	L	L	H	H	H	H	H	H	H
000C367	SCHOOL HOUSE GULCH	1.7	C	3	L	3	H	L	H	H	H	H	H	H	H	H
000C382	Old School House Gulch	0.4	C	4	C	3	H	L	H	H	H	H	H	H	H	H
000I017	Interstate 17	18.2	S	5	A	5	H	L	L	L	H	H	H	H	H	H
000S089	Us 89 White Spar	58.4	S	5	A	3	H	L	L	L	H	H	H	H	H	H
000S169	Cherry Cut Off	8.8	S	5	A	5	H	L	L	H	H	H	H	H	H	H
000S260	260 Cottonwood Road	9.7	S	5	A	5	L	L	L	H	H	H	H	H	H	H
000S89A	Mingus Mtn Road	23.2	S	5	A	5	H	L	L	H	H	H	H	H	H	H
009001G	P6 Ranch	0.9	P	3	L	1	L	L	L	H	H	L	L	L	H	H
009002S	Yaeger Mine	0.2	FS	3	L	5	H	L	L	L	H	L	L	L	L	L
009004M	River Side	0.3	FS	3	L	1	L	H	H	H	H	L	L	H	L	H
009097U	Prospect	2.5	FS	3	L	1	L	L	L	H	H	L	L	H	L	H
009200A	Granite Basin SH well	0.2	FS	3	L	3	H	L	L	H	H	L	H	L	H	H

**APPENDIX A – RISK AND VALUE ASSESSMENT
PRESCOTT NATIONAL FOREST
FOREST LEVEL ROAD ANALYSIS**

ROAD NUMBER	NAME	SEGMENT LENGTH	JURISDICTION	OBJECTIVE MAINT LEVEL	FUNCTIONAL CLASS	RANGER DISTRICT	RISK					VALUE				
							HUMAN CAUSED FIRE	WILDLIFE	WATERSHED	CULTURAL RESOURCES	OVERALL RISK	RESOURCE ACCESS	FACILITY ACCESS	RECREATION ACCESS	SAFETY	OVERALL VALUE
009200B	GRANITE BASIN SUMMER HOME EAST	0.1	FS	3	L	3	H	L	L	H	H	H	H	H	H	H
009263K	SURPRISE SPRINGS	0.4	FS	3	L	3	H	L	L	H	H	H	H	H	H	H
009267X	E. BETH ROAD	0.5	C	3	L	3	H	L	L	H	H	H	H	H	H	H
009270K	Hay Burner By Pass	1.5	C	3	L	3	H	L	L	H	H	H	H	H	H	H
009271A	Iron Springs RR Grade	3.6	FS	3	L	3	H	L	L	H	H	L	L	L	L	L
009273G	Escape Route	0.9	FS	3	L	3	H	L	L	H	H	L	L	L	H	H
009273L	Power Line	0.6	FS	3	L	3	H	L	L	H	H	L	L	L	L	L
009273M	Pine Hurst back way	0.4	FS	3	L	3	H	L	L	H	H	L	L	L	H	H
009273S	New Horse Camp	1.0	FS	4	L	3	H	L	L	H	H	L	H	H	H	H
009400W	Happy Valley Road	1.5	C	3	L	3	H	L	L	H	H	H	H	H	H	H
009401D	WILLOW SPRINGS GIRL SCOUT CAMP	0.7	FS	3	L	3	H	L	L	H	H	L	L	H	H	H
009401T	LYNX CREEK ROAD	1.0	FS	3	L	3	H	L	H	H	H	L	L	H	H	H
009401W	Lynx Creek Ruin Road	0.2	FS	3	L	3	H	L	L	L	H	L	H	H	H	H
009401X	THE RANCH TRAIL HEAD	0.1	FS	4	L	3	H	L	L	L	H	L	L	L	L	L
009403W	OLD HORSE CAMP	0.4	FS	3	L	3	H	L	L	H	H	L	H	H	H	H
009404C	EMPIRE ROAD	0.7	C	3	L	3	H	L	L	H	H	H	H	H	H	H
009406D	WHISPERING PINES	0.3	FS	3	L	3	H	L	L	H	H	L	H	H	H	H
009406J	Wamatochick Service Road	0.3	FS	3	L	3	H	L	L	H	H	L	H	H	H	H
009406Q	BANNON DRIVE	0.5	C	3	L	3	H	L	L	H	H	H	H	H	H	H
009406R	Loba Drive	0.3	FS	3	L	3	H	L	L	H	H	H	H	H	H	H
009418K	RESERVOIR ROAD	0.1	FS	3	L	3	H	L	L	H	H	L	L	L	L	L
009422D	OLD CCC CAMP	0.4	P	3	L	3	H	L	L	H	H	L	L	L	H	H
009602R	Little Ash Creek	0.3	FS	3	L	5	L	L	L	H	H	L	L	L	L	L
009602V	Orme Ranch Entrance	0.2	C	3	L	5	L	L	L	H	H	H	H	H	H	H

**APPENDIX A – RISK AND VALUE ASSESSMENT
PRESCOTT NATIONAL FOREST
FOREST LEVEL ROAD ANALYSIS**

ROAD NUMBER	NAME	SEGMENT LENGTH	JURISDICTION	OBJECTIVE MAINT LEVEL	FUNCTIONAL CLASS	RANGER DISTRICT	RISK					VALUE				
							HUMAN CAUSED FIRE	WILDLIFE	WATERSHED	CULTURAL RESOURCES	OVERALL RISK	RESOURCE ACCESS	FACILITY ACCESS	RECREATION ACCESS	SAFETY	OVERALL VALUE
009602V	Orme Ranch Entrance	0.7	C	3	L	5	L	L	L	H	H	H	H	H	H	H
009603C	West Ranch north	0.1	P	3	L	5	L	L	L	H	H	L	L	L	H	H
009603M	SHORT CUT	0.5	C	3	L	5	L	L	L	H	H	H	H	H	H	H
009603U	Mahoney Road	3.0	C	3	L	5	L	L	L	H	H	H	H	H	H	H
009604B	Hermits Hideout	0.5	C	3	L	5	L	L	L	H	H	L	L	L	L	L
009604G	Race Track Wash	1.7	FS	3	L	5	L	L	H	H	H	H	L	L	L	H
009604P	Yaber Springs	0.2	P	3	L	5	H	L	L	H	H	L	L	L	H	H
009606J	BLACK CANYON SLIF	0.7	FS	3	L	5	H	L	H	H	H	L	H	H	H	H
009606K	RIGHT OFF PRAIRIE LANE	0.5	FS	3	L	5	L	L	H	H	H	L	H	H	H	H
009607B	SKIDMORE SLIF	0.1	FS	3	L	5	L	L	H	H	H	L	H	H	H	H
009607C	PRAIRIE LANE SLIF	0.1	FS	3	L	5	L	L	H	H	H	L	H	H	H	H
009607G	WHITE BRIDGE SLIF	0.1	FS	3	L	5	L	L	H	H	H	L	H	H	H	H
009607H	BIGNOTTI SLIF SITE	1.4	FS	3	L	5	L	L	H	H	H	L	H	H	H	H
009607J	CLEAR CREEK SLIF	0.0	FS	3	L	5	L	L	H	H	H	L	H	H	H	H
009625G	South Camp Ground	0.5	FS	3	L	5	H	L	L	H	H	L	H	H	H	H
009650C	Grief Hill Trail Head	0.1	FS	4	L	5	L	L	L	L	L	L	L	H	L	H
009705A	OSTRICH FARM	0.3	FS	3	L	3	H	L	L	L	H	L	L	H	L	H
009708T	Estate Drive Spur	0.2	C	3	L	3	H	L	L	L	H	H	H	H	H	H
009709S	CAMP VERDE ACRES	0.3	C	3	L	5	L	L	H	L	H	H	H	H	H	H
009713E	Goldwater Rec Area	0.4	L	5	L	3	H	L	L	H	H	L	H	H	H	H
009803C	Harris Road	1.4	FS	3	L	1	L	L	L	H	H	L	L	L	H	H

1050.2

**APPENDIX B - ECOLOGICAL, SOCIAL AND ECONOMIC CONSIDERATIONS
PRESCOTT NATIONAL FOREST
FOREST LEVEL ROADS ANALYSIS**

Ecological, Social and Economic Considerations

Ecosystem Functions and Processes (EF)

EF(1): *What ecological attributes, particularly those unique to the region, would be affected by roading of current unroaded areas?*

At present, there are no plans to build any roads within inventoried roadless areas. Any decisions to do so will be covered by project-level analysis and design features.

EF(2): *To what degree do the presence, type, and location of roads increase the introduction and spread of exotic plant and animal species, insects, diseases, and parasites? What are the potential effects of such introductions to plant and animal species and ecosystem function in the area?*

The presence of roads increases the risk of spread of existing and new noxious weeds to the forest and surrounding landscapes. The higher the assigned maintenance level and subsequent frequency of road maintenance increases the chances for spread of many noxious plants into new areas. These noxious weeds will often displace the habitat of existing native species. The end result is ecosystem function can be dramatically altered by the introduction and spread of noxious weeds and our road system provides a major opportunity for introduction of new species from other states.

To deal with the problem of noxious weeds negatively affecting the ecosystem function along roads, the Prescott, Coconino and Kaibab National forests are developing a 3-Forest noxious weed EIS to treat existing and future weed populations and the Federal Highway Administration is working with the Regional Office to develop treatments within highway- rights-of-way.

EF(3): *To what degree do the presence, type, and location of roads contribute to the control of insects, diseases, and parasites?*

The presence of roads allows access to the areas so that various treatments can be accomplished. The type and location of those roads help determine what type of treatments can best be accomplished whether it be prescribed burning, mechanical crushing, chemical spraying, or what ever.

EF(4): *How does the road system affect ecological disturbance regimes in the area?*

The disturbance system roads cause has already occurred in the construction of the roads, and all are well-established roads. These existing roads have already committed the disturbance and now we deal with the effects of the presence, use and maintenance of the roads.

The most common disturbance regimes on the Prescott National Forest are fire, drought, insects and disease, and grazing in the Ponderosa pine, woodland, and grassland types. These regimes are interrelated since drought often leads to increased incidences of fire and outbreaks of insects and disease in the forest and woodland types while grazing and browsing tend to reduce the incidence of fire in grassland types. Grazing is thought to be the most significant disturbance regime on the forest with fire next.

In terms of grazing the forest system roads provide easier access for grazing permit holders to grazing areas that in turn allows for more efficient utilization monitoring and livestock movement.

While road access provides risk for man-caused fires on the forest, roads also allow rapid response opportunity for fire suppression activities. Even though it is acknowledged that road access in the forest increases risk for human caused fire, this risk can be minimized through administrative means such as smoking and campfire restrictions and complete closures during high and extreme fire danger periods.

EF(5): *What are the adverse effects of noise caused by developing, using, and maintaining roads?*

Noise from developing, using and maintaining roads may affect people and wildlife within hearing distance. There is no specific data on the effects of noise from PNF roads on people or wildlife although intuitively we know it has an effect.

Aquatic, Riparian Zone, and Water Quality (AQ)

AQ(1): *How and where does the road system modify the surface and subsurface hydrology of the area?*

Roads have three main effects on water: 1) they intercept rainfall directly on the road surface and road cutbanks and subsurface water moving down the hillslope or springs; 2) they concentrate flow, either on the surface or in an adjacent ditch or channel; and 3) they divert or reroute water from normal flow paths had the roads not been built. With increasing road density increases the impact to a watershed and it's waterways. For example, by intercepting surface and subsurface flow, and concentrating and diverting it into culverts, ditches, gullies, and channels, road systems effectively increase the density of streams in the landscape, thereby changing the amount of time it takes for water to enter a stream channel, altering the timing of peak flows and hydrograph shape. Usually the change in the hydrograph's shape is a quicker runoff response time (i.e. "flashier" flow response), which produces a taller and sharper shape in the hydrograph's peak flow design.

AQ(2): *How and where does the road system generate surface erosion?*

Different parts of the road system and their adjoining cutbanks and fillslopes behave quite differently hydrologically. All roads do not perform equally during storms, and the same road segment may behave quite differently during storms of different magnitudes. As storms become

larger or soil becomes wetter, more of the road system contributes water and sediment directly into streams. Road gradient has a profound effect on the magnitude of hydrologic change on roads and to surrounding areas. Discharge from hillslopes, cutbank height, density of stream crossings, soil properties, and response to storms all differ by slope position or watershed aspect. The most important consideration of how roads impact the watershed is the number of roads and miles built as well as the type of road whether it's paved, graveled, or dirt. The number of miles of roads per area in a watershed is known as road density. The greater the road density value, the greater the potential impact to a watershed and its hydrologic system caused by those roads. Proper design and maintenance of roads can reduce the amount of sedimentation. The amount of traffic on a road can affect the FS ability to properly maintain the road. As more private lands are developed, there will be an increase of use on the maintenance level 3-5 roads.

AQ(5): How and where does the road system create potential for pollutants, such as chemical spills, oils, de-icing salts, or herbicides, to enter surface waters?

Clear and open pathways for pollutants to enter surface waters are either at road crossings such as fords and roadside culverts that pipe near or directly into surface waters. The potential for pollutants to enter surface waters is also based upon the design of the road system such as out-sloped vs. in-sloped road designs, the incorporation of broad road dips, and the number of culvert installations along road-side ditches. Other factors are the roads' proximity to streams and the amount of vegetation such as grasses that can serve as "pollutant traps" between the road and stream water. If the road is designed poorly or there is a lack of vegetation materials to serve as a "buffer strip" between the road and stream water, movement of pollutants into surface waters is likely to occur. Proximity of the road to a stream is the strongest controlling variable in determining problems on water quality in streams. However, paved road systems are likely to be the pollution source areas due to the higher public vehicular use, greater attention on road maintenance requirements, and accidental spills, while unpaved road system are likely to be the source for sedimentation problems to nearby streams.

AQ(6): How and where is the road system "hydrologically connected" to the stream system? How do the connections affect water quality and quantity (such as, the delivery of sediments and chemicals, thermal increases, elevated peak flows)?

See AQ(1), (2) for additional information. For thermal increases, roads that are closely parallel to stream systems have the potential to increase greater sunlight exposures to streams due to the lack of sheer number of trees between roads and stream channels that act as shade corridors and immediate source of litter fall into stream channels. These areas are essentially riparian zones where riparian plant communities thrive close to a water source. Trees on stream banks have the potential to lose its soil materials due to the undermining or undercutting action by floods where weakened stream banks or fillslope areas slump into streams thereby introducing woody materials. These actions can reduce shade coverage and expose surface waters to more sunlight and potentially increase water temperature.

Recreational uses such as fishing, water diversions for agriculture and range uses, drinking water, stock ponds, and impoundments are the beneficial uses. Perennial stream systems support

aquatic and wildlife species, and riparian plant species. Intermittent streams may support these as well during wetter seasons.

AQ(9): How does the road system alter physical channel dynamics, including isolation of floodplains: constraints on channel migration; and the movement of large wood, fine organic matter, and sediment?

Roads affect geomorphic and channel dynamics from four different mechanisms: 1) accelerating erosion from the road surface and prism itself by both mass and surface erosion processes that adds or changes the equilibrium dynamics in a channel through sediment loading and erosional processes; 2) directly affecting channel structure and geometry by constraints to the floodplain or stream that have a natural tendency for lateral (or vertical) migration; 3) altering of surface flow paths and increasing stream density, leading to increased landscape dissection or channelization onto previously unchannelized portions of the landscape; and 4) causing complex interactions among water, sediment, and woody materials (see question #5 also about woody materials and roads) where an increase in sediment movements, road side failures, slumpings, stream bank failures, landslides, and changes in streamflow dynamics will occur. These mechanisms involve different physical processes, have varying effects on erosion rates, and are not uniformly distributed either within or among landscapes or watersheds. As variable as climatic results will occur, so will the responses of a watershed or landscape containing a road system

AQ(11): How does the road system affect shading, litterfall, and riparian plant communities?

See AQ(5). The nature, frequency, and intensity of organic or non-organic materials inputs in different zones between road and riparian areas occur as a result in the introduction of a road system in a natural setting. A road ecosystem does exist and may provide ecological niche areas for plant communities in some locations as a result. A road system can exacerbate conditions by altering an already dynamic environment. For example, road systems can increase noxious weeds or non-native plants into riparian areas introduced via vehicles or people. Or cause a change in the nature of lateral migration in a channel affecting riparian plant communities.

AQ(12): How and where does the road system contribute to fishing, poaching, or direct habitat loss for at-risk aquatic species?

The existing road system on the Prescott National Forest is currently more than adequate to allow access to fishing waters by sportsmen. The majority of fishing occurs in the urban lakes near Prescott and in the Verde River. Access to Lynx Lake, Granite Basin Lake, and Verde River developed access sites are available year round, while access to Mingus Lake, Horsethief Lake, and other Verde River access points may not be available during wet or winter periods.

It is unknown how much poaching of fish occurs on the Prescott National Forest. Poaching would primarily be on stocked trout in Lynx Lake, Mingus Lake, or the Bignotti/Verde River access site (winter stocking). The amount of poaching on lands managed by the Forest Service is likely very low due to high presence of other sportsmen, Forest Service, or Arizona Game and Fish Department personnel. The majority of warmwater sportfishing occurs within the Verde River where there is unlimited take/harvest on bass and catfish species.

Habitat loss for at-risk aquatic species occurs where the road prism results in direct or indirect loss of habitat. Direct loss of habitat results from the placement of roads in or near streams and riparian areas. Encroachment of the road prism along streams also indirectly affects habitat by reducing riparian habitat that provides food, and shade that helps cool stream waters. In addition, added silt from roads that run parallel to streams affects spawning habitat by covering gravel beds and suffocating eggs and larvae. Roads that rank as a high risk for watershed values will likely be a high risk for aquatic species as well.

AQ(13): How and where does the road facilitate the introduction of non-native aquatic species?

The introduction of non-native aquatic species will likely be greater where access to waters is made easier. The introduction of non-natives, such as bullfrogs, gold fish, and bait bucket minnows often occurs where access is made easier and faster. Waters located along passenger roads are more likely to receive non-native introduced species than waters located in back country areas or along more rugged high clearance roads. In addition, waters with high recreational fishing use will tend to receive more bait bucket introductions than waters located in back country areas where access is limited to foot travel.

Economics (EC)

EC(1): How does the road system affect the agency's direct costs and revenues? What, if any, changes in the road system will increase net revenue to the agency by reducing cost, increasing revenue, or both?

At the Forest scale, this question can be answered in broad terms, as a detailed cost/benefit economic assessment is not feasible. The “back-bone” road system for the Prescott National Forest consists of roads that were developed over the years for a variety of access needs, and considerable capital investments were incurred to construct these roads. Most of these roads were analyzed in some form, which likely included use needs, construction design standards, environmental considerations, and economic assessment. The system was identified as the “main” system during the late 1980’s as part of the RA/TM process. The Forest FLT has decided that most of these roads would always be kept open for obvious reasons—they access private property, or are arterial or collector roads that have been used for a number of years without major ecological concerns.

The County has assumed maintenance of many roads as the private land area has become more and more developed. Once removed from Forest maintenance needs costs for maintenance of the remaining Forest maintained roads could be transferred thereby increasing efficient use of maintenance dollars.

EC(2): How does the road system affect the priced and non-priced consequences included in economic efficiency analysis used to assess net benefits to society?

This is a project-level question, not a forest scale question.

EC(3): *How does the road system affect the distribution of benefits and costs among affected people?*

This is a project-level questions, not a forest scale question.

Commodity Production

Timber Management (TM)

TM(1): *How does road spacing and location affect logging system feasibility?*

This is a project level question.

TM(2): *How does the road system affect managing the suitable timber base and other lands?*

Only 35,182 acres were identified as lands suitable for timber production when the Forest Plan was signed in 1987, thus timber production has not been a major component of the Forest. Firewood from the woodland component and grazing have been much more important in terms of demand and availability. The current main system provides access to all woodland, grasslands, and timbered areas and has served the Forest well for a number of years. Without this access active management on most of the Forest would not be possible due to the need to use vehicles to accomplish desired activities.

TM(3): *How does the road system affect access to timber stands needing silvicultural treatment?*

The PNF has an active program of planned treatments for the purpose of watershed improvements, reducing fire hazard, and treating drought-damaged areas. Fire hazard reduction and drought treatments, mainly within the Wildland Urban Interface (WUI), and watershed treatments in the woodland areas need to be continued for community protection, reducing insect activity, and increased water yield and biomass production and the material cut needs to be removed and utilized if possible.

Minerals Management (MM)

MM(1): How does the road system affect access to locatable, leasable, and salable minerals?

As with the Timber Base lands above, the maintenance level 3, 4 and 5 roads in this analysis serve as access to general areas and provide adequate access. Most mineral operations occur on maintenance level 1 or 2 roads.

Range Management (RM)

RM(1): *How does the road system affect access to range allotments?*

The road system is vital for efficient administration and management of permitted grazing allotments. Forest Service personnel must be able to monitor, inspect and evaluate range conditions on a regular basis to effectively administer existing grazing permits. The current road system allows for access to allotments to react to the numerous public issues challenging the range program today.

Grazing permit holders, also, need reasonable vehicular access within allotments to maintain existing range improvements and to manage and care for permitted livestock. Care for livestock often includes transporting large trailers and truckloads of cattle and sheep on Forest Service roads.

As the road network on the Prescott National Forest has advanced from a few maintained roads to many miles of good roads, so has the dependency on those roads for range management and livestock grazing to manage livestock operations to the intensity that is required today. Without these roads there is no doubt the cost of managing the range allotments and the cost to permittees would skyrocket.

Water Production (WP)

WP(1): How does the road system affect access, constructing, maintaining, monitoring, and operating water diversions, impoundments, and distribution canals or pipes?

There are only a few of these situations on the forest but certainly the level 3, 4 and 5 roads on the forest provide the needed access to administer these facilities.

Special Forest Products (SP)

SP(1): How does the road system affect access for collecting special forest products?

The current maintenance level 3 and 4 road system provides adequate access for collecting special forest products such as mushrooms, seed cones, transplants, Christmas trees, firewood, etc.

Special-Use Permits (SU)

SU(1): How does the road system affect managing special-use permit sites (concessionaires, communications sites, utility corridors, and so on)?

The maintenance level 3, 4 and 5 roads in this analysis serve as general access that are adequate for management and administration of special use permits.

General Public Transportation (GT)

GT(1): How does the road system connect to public roads and provide primary access to communities?

National Forest system roads connect to numerous public roads managed and operated by the U.S. DOT, State of Arizona, county governments and private special-use holders. Forest Service jurisdiction roads create the sole or primary access to many parcels of private land within the Forest Boundary, although the County has assumed maintenance for most of the larger developments. No Forest Service jurisdiction roads serve as the primary through-routes that connect the larger communities.

GT(2): How does the road system connect large blocks of land in other ownership to public roads (ad hoc communities, subdivisions, inholdings and so on)?

Private lands are widely interspersed with National Forest land within the Prescott National Forest and arterial and collector public roads access much of those private lands. However, some are accessed by lower standard local FS roads and some by no roads at all. Access needs to inholdings are addressed on an individual basis as requests are received.

GT(3): How does the road system affect managing roads with shared ownership or with limited jurisdiction? (RS 2477, cost-share, prescriptive rights, FLPMA easements, FRTA easements, DOT easements)

The amount of private land inside or bordering the PNF and pattern of population growth indicate a need to increase road management cooperation, and refine road jurisdictions and maintenance responsibilities.

Numerous roads crossing the National Forest fall under the jurisdiction of State, County or private organizations. When desirable, cooperative agreements should be established to share road improvement and maintenance responsibilities when all partners can benefit.

The Forest Service, Federal Highway Administration and the Arizona State Department of Transportation have Memorandum of Understanding (MOU). This document set forth general procedures for planning, programming, environmental studies, design, construction and maintenance of highways.

The PNF has several road use and maintenance agreements with private landowners on the Forest.

Rights of access by law, reciprocal rights, or easements are recorded in Forest files and county courthouse documents. The Forest recognizes these rights and works with the owners to preserve access while protecting the natural resources and facilities on adjacent National Forest Lands. There is also an understanding by the Forest Service that individuals or entities may have established valid rights, unknown to the Forest Service at this time, to occupy and use National Forest lands and roads. The courts have established that such valid outstanding rights may be subject to some federal regulation. See *Sierra Club v. Hodel*, 848 F 2d. 1068 (10 th Circuit, 1988). This analysis recognizes that such valid outstanding rights may exist and the Forest Service will certainly honor such rights when it is subsequently determined that the specific facts surrounding any claim to such rights meet the criteria set forth in any respective statute granting

such occupancy and use (see *Washington County v. The United States*, 903 F. Supp. 40 [D. Utah, 1955]).

GT(4): *How does the road system address the safety of road users?*

In 1975, the Forest Service developed a Memorandum of Understanding with the Federal Highway Administration that required the Forest Service to apply the requirements of the National Highway safety program, established by the Highway Safety Act, to all roads open to public travel. In 1982, this agreement was modified to define "open to public travel" as "those roads passable by four-wheeled standard passenger cars and open to general public use without restrictive gates, prohibitive signs..." Most roads maintained at level 3, 4, and 5 meet this definition. Design, maintenance, and traffic control on these roads emphasizes user safety and economic efficiency.

The largest proportion of road maintenance and improvement funds allocated to the Forest is spent on these higher standard roads. Safety work such as surface maintenance, roadside clearing and installation and maintenance of warning and regulatory signs are performed on an annual basis. Traffic control signing follows standards set forth in the Manual on Uniform Traffic Control Devices (MUTCD). Funding for road maintenance is not adequate to address safety needs on all roads.

When accidents occur on Forest roads, often the Forest Service may not be immediately informed. Accidents are usually reported to the local sheriff or state patrol, if reported at all. When the Forest becomes aware of an accident, an investigation is initiated to attempt to identify the cause. If a feature of the road is found to be unsafe, addressing the condition becomes a high priority. Presently, there is no comprehensive program on the Lincoln National Forest for identifying or tracking accident locations and for maintaining surveillance of those locations having high accident rates or losses as is required by Highway Safety Act. The Forest needs to address this area of non-compliance.

With increased use by more urbanized visitors, expectations have changed. Forest users expect to be safe, to have ready access to emergency medical services and evacuation routes.

Administrative Use (AU)

AU(1): *How does the road system affect access needed for research, inventory, and monitoring?*

For the Prescott NF, the main road system appears to provide adequate access for research, inventory, and monitoring.

Protection (PT)

PT(1): *How does the road system affect fuels management?*

The maintenance level 3, 4 and 5 roads in this analysis provide adequate access to the general areas where fuels management activities occur.

PT(2): How does the road system affect the capacity of the Forest Service and cooperators to suppress wildfires?

Minimizing response time to suppress wildfires is very important to keeping the size of the burned area down. Road condition affects the response time to wildfires. Currently the main road system is sufficient to provide for access by responding units, heavy equipment, and provide for egress by the public.

PT(3): How does the road system affect risk to firefighters and to public safety?

The road system affects risk by its ability to provide evacuation routes and by its level of safety for the vehicles using the road.

PNF jurisdiction roads provide the main access to several occupied private lands. Location, rate and direction of travel of a fire and inadequate road conditions could combine to create a dangerous situation for the life safety of occupants of these private lands and the firefighters responding to suppress the wildfire or protect the structures in its path.

Evacuation routes for growing communities can be provided by existing or new roads on the PNF. These roads need to be in such a condition that they can pass a passenger car without damage.

Driver safety can be affected by the road construction/design and by its condition, including those drivers who are firefighters responding to suppress a fire

PT(4): How does the road system contribute to airborne dust emissions resulting in reduced visibility and human health concerns?

Unpaved roads whether native soil or graveled can contribute airborne dust during times of dry weather conditions, especially during extended drought periods. Dust emissions also increase with traffic and vehicle weight. Winds can pick up fine dust from unpaved roads and release them whenever winds die out. Winds can also transport fine dust at appreciable distances close to active road use areas such as nearby resident houses or campgrounds affecting those who are particularly sensitive to the fine dust. Reduced visibility may result from unpaved roads, especially graveled roads, during windy periods. Higher road density values of graveled roads have the potential to reduce visibility and, in some cases, increase health concerns in localized areas.

Some FS jurisdiction roads on the PNF also provide primary access to private land. With subdivision of these lands, traffic may increase significantly on these Forest roads, increasing the dust emissions. Dust emissions can be reduced with dust abatement, or paving unpaved roads.

Recreation

Unroaded Recreation (RR)

UR(1): *Is there now or will there be in the future excess supply or excess demand for unroaded recreation opportunities?*

The supply of large unroaded recreation opportunities in the inventoried roadless and designated wilderness areas will be unchanged. As world, national and local human populations increase, demand for all types of recreation, including unroaded, is expected to increase.

UR(2): *Is developing new roads into unroaded areas, decommissioning of existing roads, or changing the maintenance of existing roads causing substantial changes in the quantity, quality, or type of unroaded recreation opportunities?*

None of these are causing substantial changes on the Prescott..

UR(3): *What are the adverse effects of noise and other disturbances caused by developing, using, and maintaining roads, on the quantity, quality, and type of unroaded recreation opportunities?*

None, there are plenty of unroaded opportunities.

UR(4): *Who participates in unroaded recreation in the areas affected by constructing, maintaining, and decommissioning roads?*

All Forest users (such as hunters, bicyclists, OHV users) travel the arterial/collector roads (level 3-5 maintenance levels). Road decommissioning would be contentious for these users, depending on the road. Conversely, some users would not welcome a road into their favorite unroaded area.

UR(5): *What are these participants' attachments to the area, how strong are their feelings, and are alternative opportunities and locations available?*

Users are pretty attached to existing roads to access their favorite spots. Their feelings are strong and any change or potential change in access receives an emotional response. There are few if any alternatives to someone's favorite spot or to any change that is acceptable to everyone.

UR(6): *How is developing new roads into unroaded areas affecting the Scenic Integrity Objective, SIO(s)? Note: Some forests are still using the Visual Management System (VMS). If that is the case, substitute Visual Quality Objective (VQO) for SIO. (Region 2 added this question. There is no corresponding National direction).*

Since this is not a consideration in this process, any effects would be addressed in project level analysis.

Road-Related Recreation (RR)

RR(1): *Is there now or will there be in the future excess supply or excess demand for roaded recreation opportunities?*

No excess supply. Current supply should meet next 50-year demand.

RR(2): *Is developing new roads into unroaded areas, decommissioning of existing roads, or changing maintenance of existing roads causing substantial changes in the quantity, quality, or type of roaded recreation opportunities?*

No, all of the Recreation Opportunity Spectrum are offered somewhere nearby.

RR(3): *What are the adverse effects of noise and other disturbances caused by constructing, using, and maintaining roads on the quantity, quality, or type of roaded recreation opportunities?*

None

RR(4): *Who participates in roaded recreation in the areas affected by road construction, changes in road maintenance, or road decommissioning?*

Sightseers, hunters, almost all recreation users.

RR(5): *What are these participants' attachments to the area, how strong are their feelings, and are alternative opportunities and locations available?*

As with unroaded recreation users roaded user's are attached to existing recreation opportunities and hence the main road system (level 3-5 roads).

RR(6): *How does the road system affect the Scenic Integrity Objective, SIO(s)? Note: Some forests are still using the Visual Management System (VMS). If that is the case, substitute Visual Quality Objective (VQO) for SIO. (Region 2 added this question. There is no corresponding National direction).*

There would be no significant effect.

Passive-Use Value (PV)

PV(1): *Do areas planned for road constructing, closure, or decommissioning have unique physical or biological characteristics, such as unique features and threatened or endangered species?*

The area being assessed for this road analysis includes several threatened and endangered species. The species that were used in this analysis and for development of the risk assessment

include; Mexican Spotted Owl, Northern Goshawk, Peregrine Falcon, and Bald Eagle. Each road was individually assessed for risk to each species.

PV(2): *Do areas planned for road construction, closure, or decommissioning have unique cultural, traditional, symbolic, sacred, spiritual, or religious significance?*

Many groups claim affinity for the land that is now the Prescott National Forest, among them people who have lived on, hunted, gathered, ranched, logged or farmed in the area. Specific groups who have expressed this relation are the Yavapai –Apache and Yavapai-Prescott tribes, the Hopi Tribe and the Zuni Tribe. Local ranchers have expressed a value for their traditional land-based lifestyle. No "traditional cultural properties" (TCPs) have been identified.

PV(3): *What, if any, groups of people (ethnic groups, subcultures, and so on) hold cultural, symbolic, spiritual, sacred, traditional, or religious values for area planned for road entry or road closure?*

See PV(2)

PV(4): *Will constructing, closing, or decommissioning roads substantially affect passive-use value?*

See PV(1)

Social Issues (SI)

SI(1): *What are people's perceived needs and values for roads? How does road management affect people's dependence on, need for, and desire for roads?*

People's needs and values for roads are very diverse. Some people become very attached to the road access that is available, and tend to desire the status quo. Some people prefer that roads be available, but be in a condition that makes driving them a challenge. Some people would like to reduce the amount of roads, and therefore vehicles and other people in the Forest. Some people want certain roads improved. Many people hold deep and strong feelings about roads and road management. Change in road management is often upsetting to some people if it results in a change in any one-road user's previous behavior.

SI(2): *What are people's perceived needs and values for access? How does road management affect people's dependence on, need for, and desire for access?*

People's needs and values for access is diverse. It ranges from people who want to be able to access all areas of the National Forest on motorized vehicles to people who want no (human) access at all. Most people's needs or values fall somewhere in the middle, valuing a mix of motorized and non-motorized access. Many people hold deep and strong feelings about roads and road management. Change in road management is often upsetting to some people if it results in a change in any one's previous behavior.

SI(3): *How does the road system affect access to paleontological, archaeological, and historical sites?*

The existing Prescott National Forest road system increases access to both identified and unidentified historic and paleontological sites. Increased or improved access can result in vandalism, illegal collection activities, and possibly illegal excavation of historic or paleontological resources.

SI(4): *How does the road system affect cultural and traditional uses (such as plant gathering, and access to traditional and cultural sites) and American Indian treaty rights?*

The road system neither prohibits nor encourages access to, or use of, traditional areas. Currently, no locations of traditional use have been identified on the Prescott National Forest and no known Treaties exist that include Treaty Rights on lands managed by the Prescott National Forest.

SI(5): *How are roads that constitute historic sites affected by road management?*

In a general sense road management, within existing alignments, helps to preserve the location and use of historic roads.

SI(6): *How is community social and economic health affected by road management (for example, lifestyles, businesses, tourism industry, infrastructure maintenance)?*

Road management is subtle, yet necessary to forest management. Use of the Prescott National Forest is dependent on proper, timely road management. Commodity users rely on the existing road system, just as pleasure seekers do. For many communities in the West, the road system is the backbone of commerce, providing for the movement of products, services, and people through the Forest. Most of the roads on the Forest were built to facilitate grazing management and accessing homesteads. Today, recreation traffic is added to the importance of these roads.

Access to the PNF by tourists is an amenity advertised by the chamber of commerce departments of local communities and is important to economic health. Recreation traffic includes local and non-local users, many of whom are sight seeing. Across the National Forest system, managers have indicated that nearly 40% of Forest use is by people who never get out of their vehicles.

In addition to increasing uses, the demographics in the U.S. indicate an ever-increasing urban population (NRSE 2001). These travelers expect to go long distances in short amounts of time and to be able to get through the Forest in comfort. Maintenance is increasingly important to facilitating the demands of these users, who are replacing commodity production in the overall economic health of the local communities.

SI(7): *What is the perceived social and economic dependency of a community on an unroaded area versus the value of that unroaded area for its intrinsic existence and symbolic values?*

Unroaded areas within the Prescott National Forest have a variety of social values. Some people value natural resources existing in unroaded areas for the economic contribution that could be afforded by their extraction such as timber, minerals, and roaded access. Other people value roadless areas for the contributions they provide in an undeveloped state such as increased solitude, quiet, and refugia for plants and animals.

SI(8): *How does road management affect wilderness attributes, including natural integrity, natural appearance, opportunities for solitude, and opportunities for primitive recreation?*

Possible effects are dust and unauthorized motorized use facilitated by the road system. There is no information that shows the maintenance level 3-5 roads have any effect on wilderness attributes.

SI(9): *What are traditional uses of animal and plant species in the area of analysis?*

Use of animal and plant species on the Prescott National Forest dates back to hunters and gatherers that occupied areas on the forest. Hunter-gatherer groups used upland areas where they could find a variety of edible plants and wildlife habitats within a relatively small area. With the advent of more permanent settlements and the advent of agriculture, people supplemented their crops by hunting local game. Settlers and miners utilized the timber resources for mine props, fuelwood, railroad ties, and house logs. Available forage species were used for livestock.

SI(10): *How does road management affect people's sense of place?*

People's sense of place is directly tied to the aspects of an area, including the area within a road corridor, that invoke a special feeling or attachment to the area. Factors include the area's vegetation, the amount of sunlight available, the views, the solitude, the opportunities that make it a destination, and the overall familiarity. The road itself facilitates a person's enjoyment of the area by providing for driving comfort, the amount and type of use, and any number of aesthetic attributes visible alongside the road. These attributes are directly related to road management. Any change in road management of the development of a road without taking these things into consideration will create a change in current use.

Examples of these effects include those used in the discussion in recreation. If a road is managed as a Level 3 and the decision is made to upgrade it, more and different users might begin to use the area. This will change the character for users who consider the area to be special; it will change their experience and may displace current users to other areas for their recreation. Likewise, if a road is currently managed as a Level 5 and the decision is made to downgrade maintenance, the road will not be drivable, and the area becomes inaccessible for some current users. This problem is especially evident for the elderly, a group that has used the area for years. Rough roads are hard on bones, and users have to be considered in these decisions. Because a variety of different people use the existing road system, they need to be considered before changing road management.

Civil Rights and Environmental Justice (CR)

CR(1): *How does the road system, or its management, affect certain groups of people (minority, ethnic, cultural, racial, disabled, and low-income groups)?*

The road system is used by all groups of people. There is a lack of known data to document effects of different groups of people. It is possible that closing a road, if it is then used (legally or illegally) as a motorized trail, provides forest access to people with more disposable income. Low-income groups who cannot afford to have and use recreational motorized all-terrain vehicles (ATVs) will not enjoy this same level of access to the Forest.

**APPENDIX C – PRIORITY RIGHT OF WAY NEEDS
 PRESCOTT NATIONAL FOREST
 FOREST LEVEL ANALYSIS**

ROAD NUMBER	NAME	SEGMENT LENGTH	ROW NEEDED	JURISDICTION	OBJECTIVE MAINT LEVEL	FUNCTIONAL CLASS	RANGER DISTRICT
000007	Pine Springs	7.9	4.6	FS	3	Local	1
000009	Seven Up	13.2	0.2	FS	3	Arterial	1
000052A	Spruce Mountain	3.9	0.9	FS	3	Local	3
000052C	Tower Mtn Lo	3.1	0.7	FS	3	Local	3
000065	Wood Spring	5.3	1.5	FS	3	Local	3
000068D	Reimer	12.9	0.1	FS	3	Arterial	5
000068F	Sycamore Station	1.6	0.7	FS	3	Local	5
000095	Walnut Creek	11.0	0.5	FS	3	Arterial	1
000151	Mingus Watershed	0.9	0.4	FS	3	Local	5
000174	Spring Canyon	6.3	0.7	FS	3	Collector	1
000261	Poland	1.5	0.7	FS	3	Local	3
000413	Allen Spring	20.2	0.4	FS	3	Collector	5
000493	Copper Chief	5.5	2.0	FS	3	Local	5
000702	South Mesa	4.0	0.3	FS	3	Local	1
000705	Sheridan Mountain	18.3	1.3	FS	3	Collector	1
000732	Squaw Peak	9.5	0.4	FS	3	Collector	5
009604G	Race Track Wash	1.7	0.8	FS	3	Local	5

**APPENDIX D – IDT MEMBERSHIP
PRESCOTT NATIONAL FOREST
FOREST LEVEL ROADS ANALYSIS REPORT**

WILDLIFE/FISHERIES/RARE PLANTS: Sue Schuhardt, Noel Fletcher, and Albert Sillas

SOILS/WATERSHED: Dave Moore

HERITAGE RESOURCES: Jim Mckie

TRANSPORTATION: Bill Townsend, Rick Eis

PLANNING: Craig Steedman

FIRE/FUELS: Denny Nelson, Dugger Hughes

**APPENDIX E – ROAD MAINTENANCE LEVEL CHANGES
PRESCOTT NATIONAL FOREST
FOREST LEVEL ROADS ANALYSIS**

RESOURCE SPECIALIST RECOMMENDED

ROAD NUMBER (segment miles)	NAME	OBJECTIVE MTC LEVEL	RANGER DISTRICT	REMARKS
000052F (0.5)	Turney Gulch	3	3	Mtc level should be reduced to L2 beyond what was Horsethief Resort which no longer exists
000052H (0.3)	Kentuck Springs C.G.	3	3	Road should be removed from system. Campground is being closed and access road converted to trail.
000078 (0.5)	Camp Fire Girls	3	3	Mtc level should be reduced to L2 road not critical to access camp or NF
000088 (0.1)	Groom Creek School House	3	3	Visitor/admin access has increased. Increase to L4
000097A (1.2)	Indian Cr Forest Camp	3	3	Mtc level upgrade to L4 due to increased visitor use
000106 (0.9)	Potato Patch	4	5	Increase to L5 as road and campground have been paved
000147 (1.1)	Sheeps Crossing	3	5	Thousand Trails Road - ROW now held by County and is paved.
000360 (4.9)	Goat Camp	3	5	Access onto Hwy 260 is closed. The rest is open but Mtc level can be reduced to L2.
000373 (4.6)	Thumb Butte Loop	4	3	This can be removed from list. This road is County Rd 65 with Mtc L4
000374L (0.4)	Cayuse (Trailhead)	5	3	Reduce to L4. No plans to pave
000622 (1.6)	Lynx Creek Forest Camp	4	3	Road is currently paved – increase to L5
000623A (1.1)	Hilltop Campground	4	3	Road is currently paved – increase to L5
000677 (6.7)	Silver Creek	3	5	Part of Great Western Trail. Current use only by high clearance vehicles. Reduce to L2
009406J (0.3)	Wanatochick Service Road	3	3	Current use is consistent with high clearance vehicle use. Reduce to L2
009604G (1.7)	Race Track Wash	3	5	Access to Grey Wolf landfill Currently under SUP at Mtc level 5

**APPENDIX E – ROAD MAINTENANCE LEVEL CHANGES
 PRESCOTT NATIONAL FOREST
 FOREST LEVEL ROADS ANALYSIS**

RESOURCE SPECIALIST RECOMMENDED (CON'T)

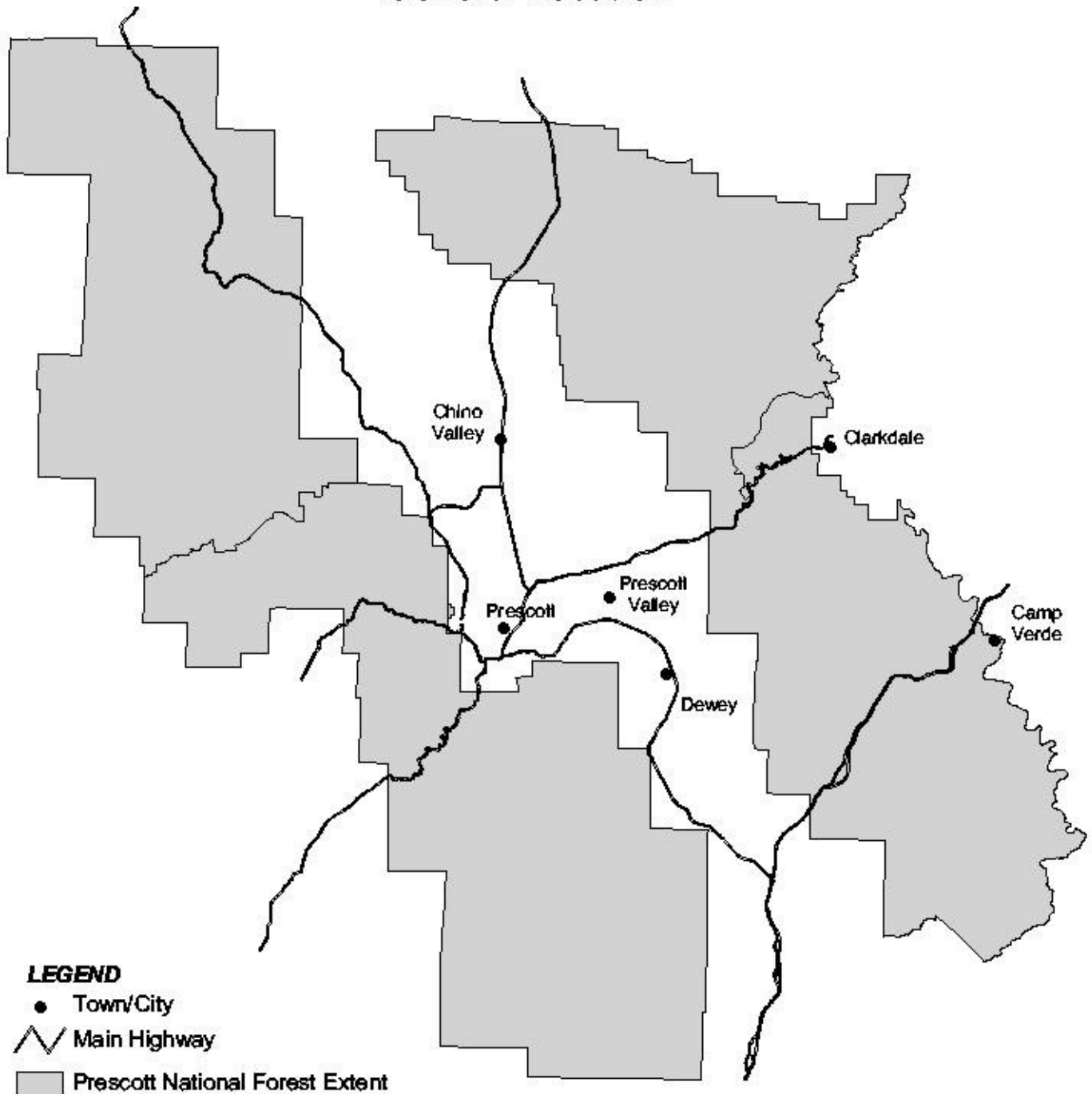
009607G (0.1)	White Bridge SLIF	3	5	Upgrade to L5 as currently paved
00965C (0.1)	Grief Hill Trailhead	4	5	Lightly used trailhead can be reduced to L3

“LOW VALUE” ROADS

ROAD NUMBER	NAME	OBJECTIVE MTC LEVEL	RANGER DISTRICT	REMARKS
000110 (0.9 miles)	Sycamore Point	3	1	Recommend reducing to ML2.
09002S (0.2 miles)	Yeager Mine	3	5	“ “.
09271A (3.6 miles)	Iron Springs RR Grade	3	3	“ “.
09273L (0.6 miles)	Power Line	3	3	“ “.
09401X (0.1 miles)	The Ranch Trailhead	4	3	“ “.
09418K (0.1 miles)	Reservoir Road	3	3	“ “.
09602R (0.3 miles)	Little Ash Creek	3	5	“ “.
09604B (0.5 miles)	Hermits Hideout	3	5	“ “.

Prescott National Forest

General Location

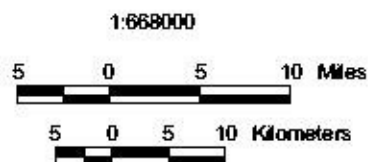


Purpose: Illustrate general Forest location.

Disclaimer: Legend features are general in nature and should not be used as legal boundaries. Data may be of differing accuracy, incomplete or under revision.

Source: Prescott National Forest

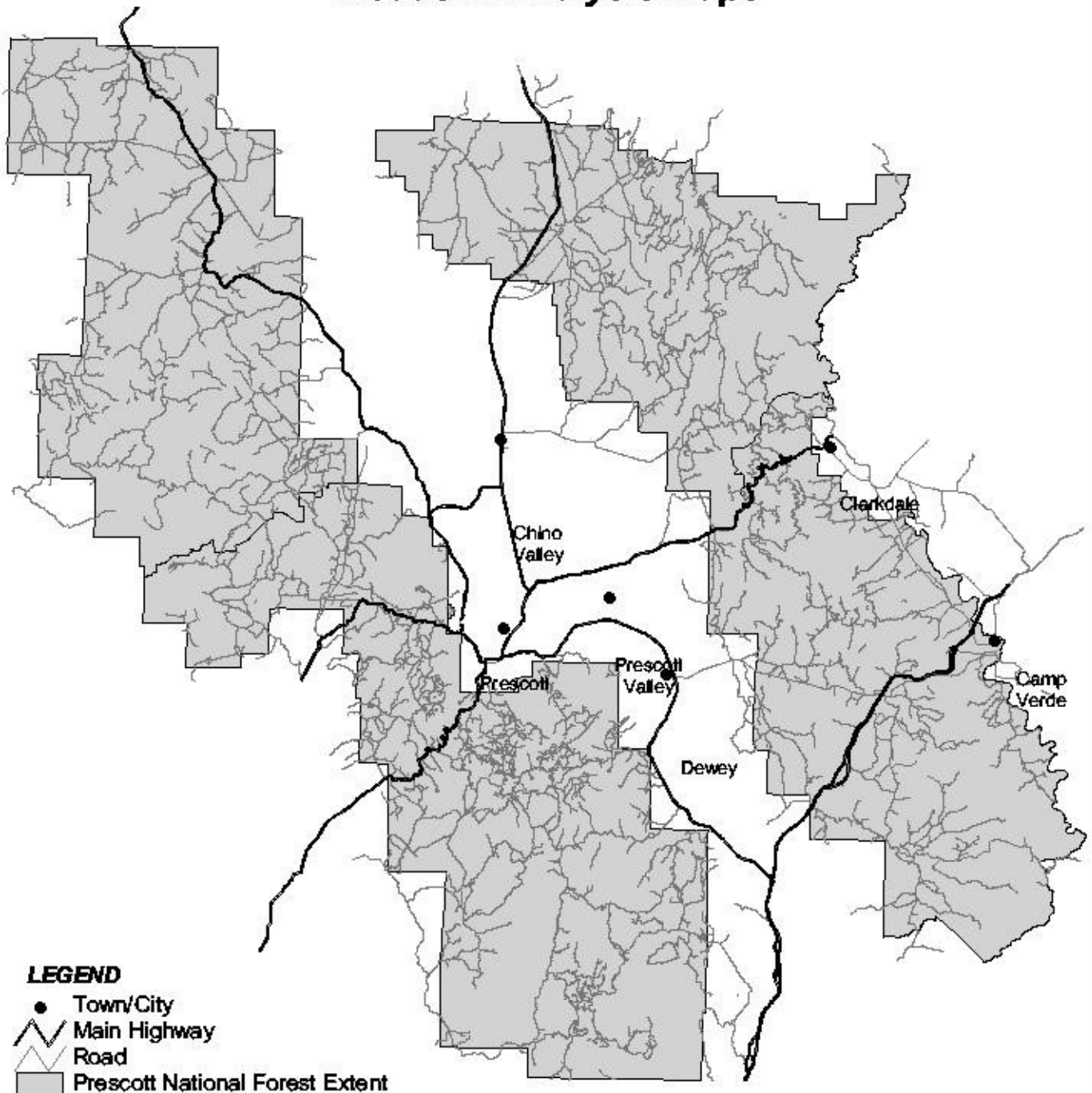
Date: January 8, 2003



1927 North American Datum
UTM Zone 12 N

Prescott National Forest

Roads in Analysis Maps

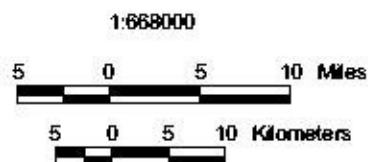


Purpose: Illustrate general road locations.

Disclaimer: Legend features are general in nature and should not be used as legal boundaries. Data may be of differing accuracy, incomplete or under revision.

Source: Prescott National Forest

Date: January 8, 2003



1927 North American Datum
UTM Zone 12 N