

*Wallowa-Whitman National Forest*

# **Forest Roads Analysis**

for  
Maintenance Level 3-5 Roads

**October 21, 2003**

Recommended \_\_\_\_\_ Date \_\_\_\_\_

Approved \_\_\_\_\_ Date \_\_\_\_\_

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## **Step 1**

# **Setting up the Analysis**

## **Introduction**

This roads analysis follows the process found in, *Roads Analysis: Informing Decisions about Managing the National Forest Transportation System*. Although this document concludes the analysis process, additional iterations of analysis will be needed as conditions change.

## **Objective**

The overall purpose of this road analysis is described in the Forest Service Manual (FSM) at 7712.1. “Conducted by an interdisciplinary team, the science-based roads analysis process provides Responsible Officials with critical information needed to identify and manage a minimum road system that is safe and responsive to public needs and desires, is affordable and efficient, has minimal adverse effects on ecological processes and ecosystems health, diversity, and productivity of the land, and is in balance with available funding for needed management actions.” This roads analysis follows the specified science-based process describe in Roads Analysis: Informing Decisions About Managing the National Forest Transportation System (USDA Forest Service, 1999, Miscellaneous Report FS-643).

This analysis will identify issues and assess benefits, problems, and risks associated with the Forest’s primary transportation system. The roads being addressed are generally the forest’s arterials and collectors, with some emphasis on other roads which present certain, special concerns. These include roads which are candidates for modification of their maintenance levels, or roads which may have jurisdictional or agency concerns and are considered essential to Forest operations. Particular emphasis will be given to Forest Highways, Scenic Byways, and County Road systems.

Specific purposes for this analysis are as follows:

1. Meeting the requirement for a Forest-Scale Road Analysis as specified at FSM 7712.15 (2).
2. Determine the minimum (appropriate) road system for maintenance level 3-5 roads. This objective is twofold: a) Which roads are needed to be maintained to level 3-5 standards for resource management objectives, and b) Are the appropriate maintenance levels assigned to the current or proposed maintenance level 3-5 roads?
3. Set funding priorities for maintenance of level 3-5 roads.

The analysis needs to consider the guidance found in FSM 7700WO Amendment 7710-2001-3, sections 7712.13a and 7712.13b (pages 15 & 16).

The analysis will also set general guidelines for management of Level 1 & 2 level roads and provide information for the Watershed Restoration And Prioritization Process (WRAPP).

## Interdisciplinary Team

The Forest Supervisor appointed a Steering Committee to provide oversight to the process, and make strategic recommendations concerning this Forest-Scale Roads Analysis. Membership of the Roads Analysis Steering Committee is described in the table below. Based on recommendations from the Steering Committee, the Forest Supervisor directed the interdisciplinary team listed below be organized to work on the roads analysis. Additional support was provided by additional resource specialists listed below as the Support Team. The interdisciplinary team (IDT) conducting this roads analysis consisted of appropriate technical experts supervised by line officers. This structure provided effective integration of technical and policy roles in the conduct of the analysis.

**Table 1-1. Participants**

<b>Steering Committee</b>	<b>Responsibilities</b>
Bob Rock	Natural Resource Staff Officer
John Denne	Public Affairs Officer
Dave Schmitt	Pine District Ranger
Jimmy Roberts	Recreation, Engineering, Lands, Heritage Staff Officer
Dee Hines	Planning Staff Officer
<b>Interdisciplinary Team</b>	<b>Resource Area</b>
Dana Taylor/Jimmy Roberts	Transportation Engineer / Forest Engineer
Tim Schommer	Wildlife
Craig Kendall	Hydrology
Dan Ermovick	Recreation
Victoria Rockwell	Silviculture
Mitch Bulthuis	Range/Plants
Ralph Browning	Fisheries
Mike Braymen	GIS
Dee Hines	Interdisciplinary Team Leader
<b>Support Team</b>	<b>Resource Area</b>
Elaine Kehrman	Economics/Sociology
Greg Visconty	Minerals
Carla Monismith	Timber
Ken Rockwell	Fire

## **Scale**

This Roads Analysis will be evaluated at the Forest Level with emphasis on the watershed subdivisions at the HUC 5 scale. Evaluation utilizing the watershed scale was established to better assess impacts, track project activity, prioritize work, and monitor actions which may effect the ecosystems within these watersheds. Many of the identified roads cross multiple watersheds and thus, the Forest Level scale was determined by the steering committee as appropriate.

## **Analysis Area**

The Wallowa-Whitman National Forest (WWNF) is located in the Pacific Northwest Region (R6) of the Forest Service and is approximately 2.5 million acres in size. Of these, approximately 89,500 acres of private land and 3000 acres of land are managed by other governmental agencies within the National Forest boundary. In addition, the WWNF administers about 141,000 acres of land lying within the Nez Perce and Payette National Forests in Region 1 and Region 4, respectively. These lands are designated as part of the Hells Canyon National Recreation Area. The forest also contains all or portions of 4 Wilderness Areas: Eagle Cap, North Fork John Day, Monument Rock, and the Hells Canyon). There is also a small tract (approx. 10,000 ac) of Nez Perce tribal land lying within National Forest boundaries. Although not within the forest boundary, it is significant to note that the Umatilla Indian Reservation land lies directly adjacent to the northeastern boundary of the forest.

There are 35 watersheds encompassed wholly or in part by the Wallowa-Whitman National Forest or lands administered by the forest.

## **Timeline**

It is anticipated that this Roads Analysis will be utilized over a time period of up to 10 years, or until the completion of the Land Management Planning Revision process is complete.

## **Existing Data**

This analysis utilized existing data and information developed by multi-agency specialists, scientists, and cooperating partnerships. Approximately 2/3 of the Forest has had watershed analyses completed, with numerous environmental and biological analyses completed at the subwatershed or project scale. In addition, several environmental impact statements have been developed over the past few years. New information generated through research efforts and applied science was also included where applicable. Much of the data was evaluated based on ongoing and dynamic operations such as deferred maintenance assessments, culvert evaluations, fish passage surveys, road inventories and logs, and road management objectives. Other available information is contained in previous roads analyses, project level EAs, Water Quality Management Plans, and Corridor Management Plans.

Concurrently with the Forest Roads Analysis, a Comprehensive Management Plan (CMP) Revision for Hells Canyon National Recreation Area was being developed. This Roads Analysis utilized information generated throughout the interdisciplinary process for the CMP to address issues within Hells Canyon National Recreation Area.

The Forest Land and Resource Management Plan provided information which was utilized to generate recommendations to modify decisions or amend the plan, as appropriate.

## **Information Needs**

Although the information used during this roads analysis is recent and often generated using state-of-the-art technology, it may not be perfect or complete. It is the team's acknowledgment that new or more complete information may present itself in the future, and decision makers should utilize this information when considering any recommendations set forth in this document. This information includes, but is not limited to, new local, state, or federal administrative policies, laws, scientific developments, and/or funding changes.

## **Review**

Review of the roads analysis will be through various internal and external organizations. The Forest Leadership Team will review the document as well as the staffs of individual units and districts. Other reviews will include discussions with individual counties and the Oregon State Department of Transportation. The Northeast Area Commission on Transportation (NEACT) will make a final review. NEACT is a State Charter Organization with the mission to "discuss, understand and coordinate long range transportation issues affecting the Northeast Oregon region." NEACT makes recommendations to the Oregon Transportation Commission regarding investments, strategies, and policies affecting Northeastern Oregon's transportation system. NEACT has representation from each of these 5 counties: Baker, Morrow, Umatilla, Union, and Wallowa, as well as a representative from the Confederated Tribes of the Umatilla Indian Reservation.

It is expected that the Forest Service Regional Office (R6) will also provide a review. An independent consultation and review will be made by the Nez Perce Tribe.

Certain road designations are in place for management of the Forest's Transportation System. These designations include the Public Forest Service Roads (PFSRs), Scenic Byway Designations, Forest Highways, Special Designations, and State and County Scenic Byways. Roads designated in one of these programs has special significance to the administration of the Wallowa-Whitman National Forest. Chapter 2 describes these items in detail.

## Step 2

### Current Situation

## Background Information

There has always been a close association between human transportation corridors and naturally occurring bodies of water. Transportation routes from ancient history to current day show a trend for following waterways. Civilizations tended to settle near lakes, rivers and streams in an effort to be close to water to meet their daily needs. As transportation systems developed, water channels were the preferred location as terrain tended to be gentler, grades less steep, and roads were generally easier to build and to traverse. This road building traditionally emphasized protecting the road from all manner of deterioration with concern for the surrounding area being secondary. (R. Copstead, December 1997)

Roads and trails have a long history on the Wallowa Whitman National Forest. Roads evolved over the past centuries as expeditions passed through this area. There are several places where the original Oregon Trail can be traced – its template intact. Many historic trails have now become roads. These trails date back to prehistoric times as evidenced by petroglyphs in Hells Canyon. Indian migration routes are well documented through the stories of Chief Joseph and the Nez Perce tribe. Many of these ancient routes have been generated into roads or portions of roads which are in use today.

As the west became inhabited with the advance of the European Americans, cities and communities grew. In some cases, such as with the towns of Auburn and Whitney, these once-bustling communities also died. Commerce developed in conjunction with the cities. Mining, logging, trapping and grazing became more dominant activities, each producing long-term, sometimes irreparable, impacts to the land.

In 1905, the federal government established the National Forest Reserves, from which the present Wallowa-Whitman has evolved. The history of the Wallowa-Whitman's Road System has basically developed based on the same extractive resource management activities as was taking place in the past – logging and mining producing the majority of the roads now in place. Early development of the transportation system essentially followed these logging and mining operations. Most roads were located directly adjacent to streams and rivers. Prior to the dependency on trucks, the railroads had entered and developed the access into the area. Railroad logging can be traced as far back as 1901 and signs of this activity remain today as evidenced by the numerous railroad grades



throughout the Forest. The historic Sumpter Valley Railroad's main line is still intact in several isolated places.

Timber harvest through the past century left its mark on the landscape. Around the era of World War II, partial harvest activities prevailed utilizing tractor skidding operations. Some of these skid trails remain today and have since become jeep (4x4) roads, especially in the flatter terrain. Later, in the 1950's and 1960's, as more wood and minerals were needed, and as the trucks and logging systems became more sophisticated, the locations of many roads became mid-slope and ridgetop. In the 1970's through the 1980's, timber harvest became more intense with clear cutting, cable logging and other mechanized harvest operations leaving long-term scars on the landscape. It was during this time that the majority of the road system network that exists today was developed, especially outside of the vicinity of streams.

During the end of the 1980's and early 1990's, environmental concerns regarding past management of forest lands became a paramount issue for the Forest Service. The Wallowa-Whitman Forest Land and Resource Management Plan (LMRP) was released in 1990, directing that soil and water resources be managed at levels designed to meet forest management objectives. During this time, numerous Environmental Analyses were completed, in compliance with the National Environmental Protection Act (NEPA), eventually covering the majority forest, although much of the wilderness and roadless areas were covered through the LMRP process. Though each one of these became successively more elaborate in scope and intensity, none completely addressed the biological and physical effects of the transportation system in the watershed.

During the early 1990's, in an attempt to balance ecosystem sustainability with the ability to provide for commercial opportunities and recreational experiences, watershed analyses were completed for most of the 35 watersheds. These identified roads and road use (as well as other resources) as a serious concern to water quality. Through these studies, it became apparent that the road system was a dynamic entity, even though new construction had dwindled nearly nothing. The transportation system was in a constant state of flux due in part to the concept of road density and the associated initiation of road closures and decommissioning taking place concurrently with project and administrative activities.

It was perceived that this constant change, and the ground disturbance associated with these and past management activities, was contributing detrimentally to the ecosystem as a whole. Wildlife, soils, and water quality were affected by the existence and use of the transportation system. Because these (management) activities can be managed to some extent, administrative decisions for these activities could significantly impact, and preferably reduce the problems. It became apparent that there needed to be an analysis of the road system and its use based on scientific information to guide those persons responsible for making these decisions.

## Current Situation

The past 20 years has seen more emphasis on recreation. Roaded recreation in the form of sightseeing and guided tour routes has developed into one of the highest levels of social activity. With roads being closed or decommissioned for resource concerns, the open roads available for such recreation use is limited. Roads once built for logging or mining use now find a higher level of use and with multiple user types. RV's use roads concurrently with commercial vehicles and OHV's (4-wheelers), creating serious concerns for the safety of the road users.

In many areas, the road system is serving as access to private lands inside the Forest and is limited to the "right of reasonable access". If a public road agency, county, or state provides alternative routes, or if there is already a National Forest Road which enters the property in a preferred location, the Forest Service may not be obligated to provide any additional access across National Forest lands.

The Forest currently has one of the largest road systems in the Forest Service at 9291 miles of inventoried roads. The following tables display the functional class, maintenance level, traffic service level, and surface type by unit.

<b>Road Surface Type</b>	<b>Miles</b>	<b>Percent of Total</b>
Paved	<b>96.52</b>	<b>1.0%</b>
Asphalt	<b>68.65</b>	<b>0.7%</b>
Aggregate	<b>1376.23</b>	<b>14.8%</b>
Improved Native	<b>688.29</b>	<b>7.4%</b>
Native	<b>7060.99</b>	<b>76.1%</b>
<b>Totals</b>	<b>9290.67</b>	<b>100%</b>

**Table 2-2. Road functional class and miles of Forest Service roads**

Functional Class	Miles	Percent of Total
Arterial	447	4.8%
Collector	1539	16.6%
Local	7305	78.6%
<b>Totals</b>	<b>9291</b>	<b>100%</b>

Functional classification is seldom used to describe the transportation system. Road managers and engineers use maintenance levels and traffic service levels to more accurately describe the road system in general terms. These terms are specifically a part of the road management objectives.

Road Management Objectives are to:

- Establish the specific intended purpose of a road based on management needs as determined through land and resource management planning;
- Contain operation and maintenance criteria for existing roads; and
- Contain design, operation, and maintenance criteria for new roads.

Road Maintenance Levels and mileage summaries are briefly described in Table 2-3, below. A more detailed description of maintenance levels may be found in Appendix I.

**Table 2-3. Maintenance levels and total miles of Forest Service Roads**

Maintenance Level	Miles	Percent of Total
1 - Basic custodial care (Closed)	4293.37	46.2%
2 - High Clearance Vehicles	4199.33	45.2%
3 - Passenger Vehicles – Surface not Smooth	634.36	6.8%
4 - Passenger Vehicles – Smooth Surface	15.94	0.2%
5- Passenger Vehicles – Smooth Surface, Dust Free, Possibly Paved	147.66	1.6%
<b>Totals</b>	<b>9290.67</b>	<b>100%</b>

The following Pictures show various examples of the maintenance levels on some typical forest roads.

**Figure 2-1. Examples of Maintenance Levels**

**Maintenance Level 5**



**Maintenance Level 4**



**Maintenance Level 3**



**Maintenance Level 2**



**Maintenance Level 1**



Traffic service levels summarize operational and design objectives for a road. A brief description of these levels follows. Table 2-4 shows the mileages by traffic service level for the Forest.

<u><b>TSL</b></u>	<u><b>Description</b></u>
<b>A</b>	Free flowing, mixed traffic; stable, smooth surface; provides safe service to all traffic.
<b>B</b>	Congested during heavy traffic, slower speeds and periodic dust; accommodates any legal- size load on vehicle.
<b>C</b>	Interrupted traffic flow, limited passing facilities, may not accommodate some vehicles. Low design speeds. Unstable surface under certain traffic or weather.
<b>D</b>	Traffic flow is slow and may be blocked by management activities. Two-way traffic is difficult, backing may be required. Rough and irregular surface. Accommodates high clearance vehicles. Single purposed facility.

<b>Traffic Service Level</b>	<b>Miles</b>	<b>Percent of Total</b>
A	<b>85.31</b>	<b>0.9%</b>
B	<b>181.10</b>	<b>1.9%</b>
C	<b>824.63</b>	<b>8.9%</b>
D	<b>8199.65</b>	<b>88.3%</b>
<b>Totals</b>	<b>9290.67</b>	<b>100%</b>

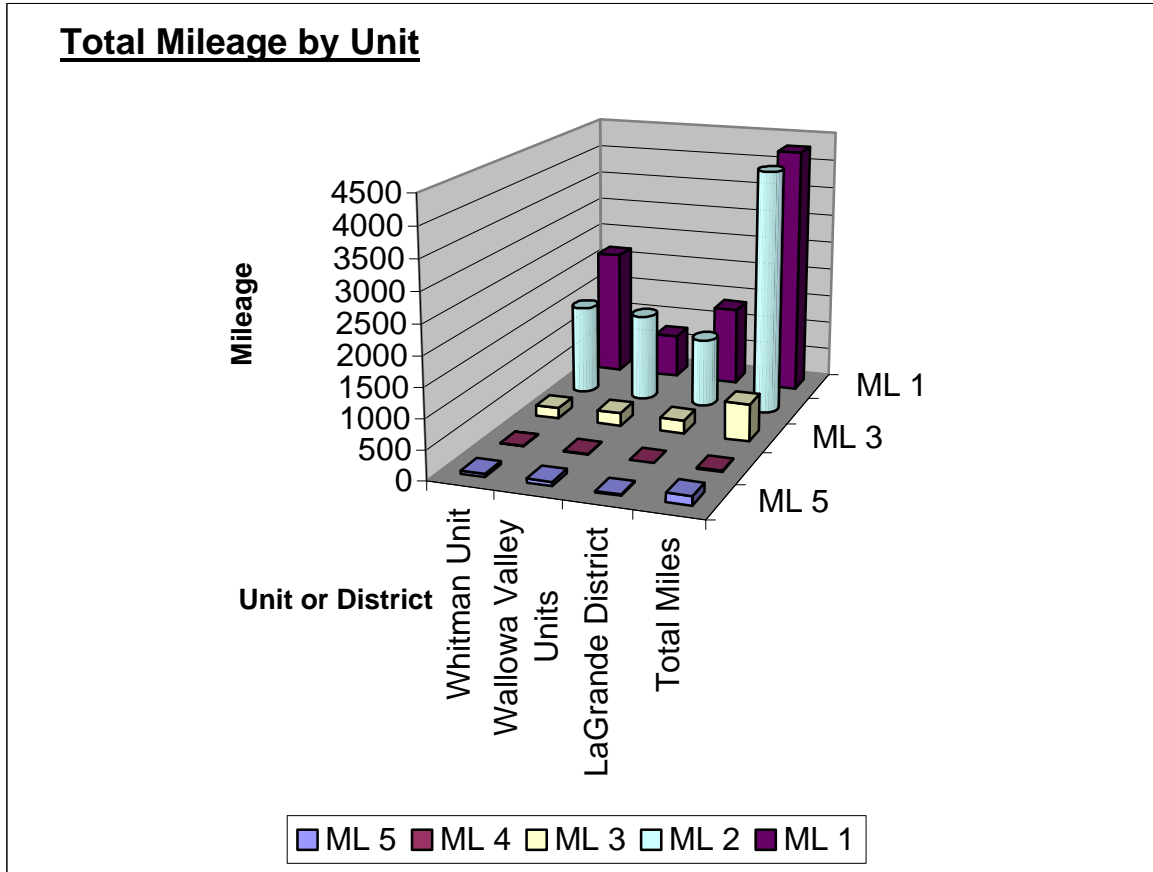
The breakdown of these tables by district is illustrated in Table 2-5, below. Due to rounding of numbers generated in the INFRA database, discrepancies exist within the hundredth of a mile range.

**Table 2-5. Road Summary by Unit**

Attribute	Unit							Total
	Whitman			Wallowa Mountains			LaGrande	
	Baker	Pine	Unity	Eagle Cap	Wallowa Valley	HCNRA		
<b>Functional Class</b>								
Arterial	77.75	54.15	50.32	0.00	65.97	49.85	148.98	447.02
Collector	301.15	158.01	265.35	40.94	252.01	158.74	362.77	1538.97
Local	1349.75	661.62	1046.59	117.18	1339.95	520.34	2269.25	7304.68
Subtotal	1728.65	873.78	1362.26	158.12	1657.93	728.93	2781.00	9290.67
<b>Surface Type</b>								
Paved	26.70	0.00	10.91	0.41	9.60	48.79	0.01	96.42
Asphalt	20.59	0.38	0.20	2.42	18.91	4.12	22.13	68.75
Aggregate	168.31	180.04	165.87	20.34	200.61	85.54	555.52	1376.23
Improved Native	61.25	94.19	102.85	20.12	165.40	35.39	209.09	688.29
Native	1451.81	599.18	1082.44	114.81	1263.41	555.10	1994.24	7060.99
Subtotal	1728.66	873.79	1362.27	158.10	1657.93	728.94	2780.99	9290.68
<b>Maintenance Level</b>								
5	45.47	0.38	9.03	0.00	18.59	52.18	22.01	147.66
4	1.00	0.00	2.60	2.40	9.93	0.00	0.00	15.93
3	50.78	86.52	45.12	14.67	150.99	59.23	227.05	634.36
2	579.80	336.59	621.93	75.46	990.88	420.61	1174.06	4199.33
1	1051.60	450.29	683.58	65.58	487.54	196.91	1357.88	4293.38
Subtotal	1728.65	873.78	1362.26	158.11	1657.93	728.93	2781.00	9290.66
<b>Traffic Service Level</b>								
A	44.60	0.38	0.00	0.00	8.69	12.57	19.07	85.31
B	7.50	8.43	11.64	4.95	16.84	40.09	91.65	181.10
C	60.06	94.46	100.51	39.12	243.72	91.43	195.33	824.63
D	1616.50	770.52	1250.12	114.04	1388.68	584.84	2474.95	8199.65
Subtotal	1728.66	873.79	1362.27	158.11	1657.93	728.93	2781.00	9290.69

The following figure breaks down the total mileage with respect to management unit and maintenance level.

**Figure 2-2. Road Summary**



**Additional Road Programs**

As mentioned in Chapter 1, there are some special road designations in place for management of the Forest’s Transportation System. These designations include Public Roads (PFSRs), Scenic Byways, Forest Highways, and State and County Scenic Byways. A road designated in one of these programs has special significance to the administration of the Wallowa-Whitman National Forest, and most rate highly on the list of roads with which to place emphasis on for safety, user comfort, and resource management.

## **Public Forest Service Roads**

The Public Forest Service Road (PFSR) program was developed in 1998 recognizing those roads that provide more than the arterial or collector route. These roads are generally critical or significant to more than the Forest Service, often they are Scenic Byways, and are generally essential to the County or State transportation systems.

PFSR candidate roads on the Wallowa-Whitman National Forest include Road 39 (Wallowa Mt. Loop Road), Road 51 (Grande Ronde River Road), and Road 73 (Anthony Lakes Highway).

Road 39 is located within Wallowa Valley Ranger District and the Hells Canyon National Recreational Area. It is considered a national, state and local road of significant importance (see Scenic Byway section). It also provides major access portals to the Eagle Cap and Hells Canyon wildernesses, as well as access to over 500,000 acres of National Forest in the Eagle Cap Ranger District and the Whitman Unit. This road also provides connections between Baker and Wallowa counties. This is the same connection that ties together the eastern ends of Oregon State Highways 82 and 86. It is of critical importance to Wallowa County, as it is the 3<sup>rd</sup> point of ingress and egress from the County. It is just as important to the communities in the far eastern section of Baker County. Should State Highway 86 become impassable, it is one of only 2 alternate routes out of the area.

Road 51 ties Oregon State 244 to the Anthony Lakes Highway, Road 73, and Road 52 into Umatilla National Forest and lies entirely within Union County. It is very important to the local transportation systems, as it provides access to approximately 250,000 acres of National Forest on LaGrande Ranger District and the Whitman Unit. Additionally, it provides access to a large parcel of private land (a 10,000 acre ranch), as well as several summer homes.

Road 73 is also considered a national, state and local road of significant importance (see Scenic Byway section). It is located on both the Wallowa-Whitman and Umatilla National Forests, though it is completely administered by the Whitman Unit of the Wallowa-Whitman. Road 73 traverses through three counties: Baker, Union and Grant county, and provides a 105 mile loop beginning and ending in Baker City. It provides access to approximately 300,000 acres of National Forest land. It is also the only access to one of the most significant recreational areas in eastern Oregon – the Anthony Lakes Recreational Area, where there is a Ski Area, over 30 summer homes, numerous trailheads, campgrounds, and lakes accessible to the area. The road also provides major access portals to the North Fork John Day wilderness and the Elkhorn Crest trail, as well as connections to the town of Granite and the Blue Mountain Scenic byway.

## **Scenic Byways**

Roads 39 and 73 are somewhat unique as they are parts of the National and State scenic byway systems.

Road 39 has two national and one state designation as part of the Hells Canyon Scenic Byway. The Forest Service designated this road as a National Scenic Byway in 1992, then, in 2000, the Federal Highway Administration designated it as an All American Road. The byway begins in Baker City and ends in LaGrande with direct ties to Interstate 84.



All-American Scenic Byway:

This designations includes all of State Highway 82 and most of State Highway 86 and part of State Highway 350. The road to McGraw Overlook, FDR 3965 is also a portion of the All-American Byway.

National Forest Scenic Byway:

This is the All- American route plus two sidetrips off the main route. The first route continues 23 miles on State Highway 86 (past the junction of 39) and crosses the Hells Canyon Reservoir at Oxbow, then travels on the Idaho side of the river on Idaho Power road 454 to Hells Canyon Dam, then across to the Oregon side where it terminates at the Hells Canyon Visitor Center. The second route leaves the main route of Road 39 near the Imnaha River and heads north on FDR 3955 to County Road 727 and into the town of Imnaha, then up to Hat Point on Forest Road 4240.

State Scenic Byway:

This byway follows the All-American route plus includes one side trip from State Highway 86 into the town of Oxbow, Oregon.

**Figure 2-3. Hells Canyon Scenic Byway**



Road 73 is part of the State and National Forest scenic byway known as the Elkhorn Drive. It also includes Baker County Road 1146 and Grant County Road 24, in addition to Oregon State Highways 7 and 30. The Elkhorn drive begins in Baker City and makes a loop through the Elkhorn Range of the Blue Mountains (to an elevation of over 7300 feet), passing alongside the North Fork John Day Wilderness and past the junction of Umatilla National Forest's Blue Mountain. Scenic Byway, into the towns of Granite and Sumpter, then back into Baker City. There is direct access between Interstate 84 and the Byway.

**Figure 2-4. Elkhorn Drive Scenic Byway**



### **Forest Highways**

Several County and State roads have been identified as Forest Highways. This is a designation made by the Federal Highway administration and generally applies to public roads which provide direct access to National Forest lands. The Forest has been quite successful in the past in assisting in obtaining funds for upgrading these roads. As the counties and states continue to have less resources to expend, it becomes critical that this system of roads be reevaluated to determine the needs of those roads accessing National Forest Land. Table 2.6 shows the Forest Highways within the outer boundaries of the Wallowa-Whitman National Forest.

**Table 2.6. Forest Highways Accessing Wallowa-Whitman National Forest**

County Road No.		State Highway No.
<b>Baker County</b>		
520	667	7
529	722	26
535	852	245
553	891	413
575	969	
600	999	
654	1009	
656	1146	
<b>Grant County</b>		
24		
<b>Union County</b>		
1	71	203
7	101	204
42	102	244
59	104	
62	149	
65		
<b>Wallowa County</b>		
500	735	3
530	774	350
551	787	
633	798	
727	806	

**Special Designations**

Three Oregon State Highways have received special designations under other programs. These are Highways 3, 7, and 26. The Bureau of Land management has designated Highways 7 and 26 as a backcountry route called “Journey Through Time.” This route is located on the southern end of the Forest. State Highway 3 out of Enterprise to the Washington border has been designated a special route by the Forest Service. It is called the “Ne-Mee-Poo Auto Trail.” It has been so designated in recognition of the Lewis and Clark expedition. Although only minutely tied to National Forest land, there is also a special designation by the State called the “Grand Tour Route” which includes all or portions of Highways 203 & 237.

## **Step 3**

### **Identifying the Issues**

#### **Introduction**

Roads and road-related activities have generated many issues in management of the Wallowa-Whitman National Forest. These issues vary from lack of access for motorized recreation and fire suppression to road density and adverse impacts on wildlife and water quality. Many of these concerns are shared by the public as well as management and specialists.

One of the most important issues is that all roads are not the same and each has to be evaluated on its own merit within its specific environmental and economic conditions. As described in Step 1, this analysis will only consider roads to be maintained at the Level 3 through 5 standard, with a few other selected roads.

The selected other roads were determined by a management need or through a different analysis or assessment process such as a watershed analysis or the Hells Canyon Comprehensive Management Plan. Further assessment and analysis of the road system will be accomplished through watershed assessments, project analyses, or other comparable decision-making documents.

#### **Public Concerns and Issues**

Formal public input was minimal as most, if not all, the general issues and concerns have been identified in previous EA's, EIS's, and various assessments. Specific road issues, unless identified as one of the listed roads in this analysis, will be addressed at the local or project level.

## **Management Concerns and Issues**

Management concerns and issues were identified during the disciplinary process. The predominant issues were brought forth through reviews of other analyses and assessments.

### **A. Environmental**

The following environmental concerns were identified: fish passage, water quality and the associated sediment delivery, air quality (as identified through the Environmental Compliance Audit Program, ECAP), wildlife impacts, and noxious weed promulgation.

### **B. Social**

The social concerns involve the interaction of the public and the adjacent communities with the Forest road transportation system and the access provided for recreational experiences or opportunities.

### **C. Economic**

The following concerns were discussed during the interdisciplinary process, which affect the economics associated with the transportation system:

- 1) Road maintenance funding is insufficient to maintain roads to meet current standards for the existing transportation system.
- 2) A minimum road system needs to be identified to determine what is essential for public access and land management objectives.
- 3) Directional and warning signs do not meet legal standards on all roads.
- 4) Critical deferred maintenance appears to lack priority or funding with respect to other road maintenance needs.
- 5) Road spacing (density) and location have direct effect on the cost of doing business. The ML 3-5 roads increase efficiency in project work, thus reducing the cost of business (both commercially and administratively). Generally, the local road system has a larger impact on road densities and will be addressed at the project level scale.

### **D. Commodity Production**

Commodity Production involves a variety of issues ranging from harvest of timber to wildflowers, firewood to mushrooms. The road system provides for access and opportunities to manage and administer these types of commodities.

## **E. General Transportation**

- 1) Road jurisdictional needs should be evaluated. Some roads have been under Forest Service jurisdiction for many years. It may be more appropriate to place these roads under County jurisdiction and vice versa.
- 2) The Forest needs to assess and evaluate the transportation system that existed prior to the establishment of the National Forest as to proper jurisdiction and responsibility. Transfer of jurisdiction of these roads may be a recommendation resulting from this analysis, though implementation of such an action may not be possible due to Congressional moratoriums regarding recognition of the jurisdiction on these roads.
- 3) The Forest has identified three roads as candidates for Public Forest Service Roads (PFSR's). Are these roads sufficient to serve the purpose of the program and do they meet the standards associated with the designation of "public roads"?
- 4) Road access may not be adequate to serve future management needs. The road system evolved over decades of exploratory and project-related activities. As individual roads exhibited a high concentration of use and funding was directed towards improvements on these roads, these became the core (arterials and collectors) of the transportation system. This analysis needs to identify opportunities for comprehensive planning of this system.

## **F. Administrative Use**

The arterial and collector road has a direct impact on the cost effectiveness and efficiency in administering National Forest lands. These roads generally provide the most effective means of travel for administration of resource management on the Wallowa-Whitman. Additionally, law enforcement and fire suppression (see Protection below) are dependent on the road system for their operations and implementation of their responsibilities. This analysis needs to determine the most efficient system for completion of administrative activities.

## **Step 4**

### **Assessing Benefits, Problems, and Risks**

## **Introduction**

Step 4 is one of the most important sections of this analysis. This step is outlined in the Roads Analysis process and contains 71 sample questions. These questions are intended to serve as examples of the types of questions to be used in assessing benefits, problems, and risks associated with the Forest's roads. "*Benefits* are the potential uses and socioeconomic gains provided by roads and related access. *Problems* are conditions for certain environmental, social, and economic attributes that managers deem to be unacceptable. *Risks* are likely future losses in environmental, social, and economic attributes if the road system remains unchanged" (USDA Forest Service. 1999. Miscellaneous Report FS-643. Roads Analysis: Informing Decisions About Managing the National Forest Transportation System.)

In order to establish consistency with the approved process as outlined in Miscellaneous Report FS-643 (FSM 7712.1), each of the 71 questions were considered in this analysis. For each question, the interdisciplinary team determined which were best addressed during this road analysis and which were best addressed at a watershed or project level scale. The following is a discussion relating to the questions determined pertinent to this analysis.

## **TERRESTRIAL WILDLIFE (TW)**

### **TW 1: What are the direct effects of roads on terrestrial habitat?**

The primary effect of roads on wildlife is habitat fragmentation and loss of habitat. The impact of the effect is directly related to the density and standards of roads within the affected ecosystem (Forman et al 1997, Reed et al 1996).

This analysis considers only ML 3-5 roads thus road density is not an issue. However, road density does need to be addressed at the watershed and project scales.

The degree of wildlife impacts by roads is influenced by factors such as road width and traffic volume. Fragmentation affects an area's suitability for species sensitive to human disturbance. Loss of trees creates canopy gaps, which affects those species sensitive to changes in canopy cover. Species such as interior neotropical migratory birds, are negatively affected by roads either directly or indirectly because they avoid fragmented habitats or are subject to nest predation and parasitism within road edges. Other species that prefer "edge effects," roads can create or enhance their habitat. Roads can negatively affect their habitat as well, because roads are used as hunting corridors by predators and human hunters (Marcot et al 1994, Forman et al 1997, Mader 1984, Reed et al 1996).

The roadway width directly affects terrestrial species, because their travel distance and probability of being injured increases as the roadway width increases.

Road construction and annual maintenance of the traveled way for maintenance activities tends to promote exotic or non-native vegetation plants displacing native vegetation. Vehicles utilizing the road system can carry invasive plant seeds and cuttings into accessed areas.

Effects resulting from the operation and maintenance of level 3-5 roads on the Wallowa-Whitman National Forest are not providing any substantial negative or positive direct effect on the terrestrial wildlife habitat.

## **TW 2: How does the road system facilitate human activities that affect habitat?**

Access, provided by roads, is utilized by resource managers and researchers for the purposes of inventory, project development, and monitoring habitat for the benefit of wildlife. That same access may also be detrimental to wildlife habitat by providing access for forest users that may cause damage resulting from negligent use.

Additional adverse impacts include loss of snags or areas of snags resulting from removal as hazards to humans using the roads or conducting harvest operations. Removal of snags also comes from people utilizing roads providing more direct and easier access for fuelwood gathering (Hann et al 1997, Quigley et al 1996).

These recreationists cause further detrimental impacts by traveling off road to gather fuelwood, berries, camping, and OHV use. These impacts include loss of down, woody material, trampling of vegetation, and creation of new unauthorized motorized trails (Hann et al 1997, Quigley et al 1996).

There is an increased loss of habitat resulting from human caused fires. The Wallowa-Whitman does not have a large or even significant problem with fires started from humans that is not planned.

The existing road system classified as Maintenance Levels 3-5 have a direct affect in expediting and facilitating human activities in the National Forest. The activities range from timber harvest to recreation (such as camping, hunting, fishing, and day drives).

## **TW 3: How does the road system facilitate human activities that affect species?**

Roads provide access for legal and illegal human activities to occur. The activities included in these effects are hunting and poaching, trapping, and live animal collections. (Bailey et al 1986, Hodgeman et al, Cole et al 1998, McLellan and Shakelter 1988, and Nursebarum et al 1983.)

Roads and systems of interconnected roads aid in the occurrence of illegal hunting and trapping activities.



Straight and wide roads that are well maintained often result in drivers traveling at higher speeds increasing the potential for encounters or kills of wildlife to occur (Blumton 1989, Boarman and Sazalar 1996, Vestgens 1973).

Human and motorized use on roads have a direct interference of reproduction functions at specific sites on wildlife. Roads also preclude dispersals, migrations and other movements not only from the associated human uses but as the result of the road structures (Forman 1995, White 1974, Bennett 1991, Mader 1984).

## **ECOSYSTEM FUNCTION and PROCESSES (EF)**

### **EF 1: What ecological attributes would be affected by roading of currently unroaded areas?**

This issue is not applicable to the Forest scale being used to assess the benefits, problems, and risks of Level 3 through Level 5 roads.

On May 3, 2001, the Forest Roads Analysis Steering Committee met to discuss Steps 1 and 2 of the Roads Analysis Process. At that time, the appropriate interdisciplinary teams and proper analytic scales were determined. The Team agreed that *unroaded areas* would best be addressed at the watershed and sub-watershed scale. The Forest Supervisor will provide direction and will develop a process for districts to use in assessing and identifying unroaded areas.

### **EF 2-4 (Modified): To what degree does the presence, abundance, type, and location of roads affect forestland, rangeland, and aquatic integrity?**

High integrity is defined as a mosaic of plant and animal communities consisting of well connected, high-quality habitats that support a diverse assemblage of native and desired non-native species, the full expression of potential life histories and taxonomic lineages, and the taxonomic and genetic diversity necessary for long-term persistence and adaptation in a variable environment (Quigley et al, 1996).

#### **Forestland integrity**

Measures of forestland integrity include such elements as:

- 1) the proportion of an area in dry and moist forest plant association groups and the consistency of tree stocking levels with long-term disturbance typical for the forest vegetation present;
- 2) the amount and distribution of exotic species;
- 3) the amount of snags and down woody material present;
- 4) the degree of disruption to the hydrologic regimes;
- 5) the absence or presence of wildfire and its effect on the composition and patterns of forest types; and,
- 6) the degree of change in fire severity and frequency from historical (early 1800's) to the present;

## Rangeland integrity

Measures of rangeland integrity include such elements as:

- 1) the influences grazing has on vegetation patterns and composition;
- 2) the degree of disruption to the hydrologic regimes;
- 3) the expansion of exotic species;
- 4) the degree of change in fire severity and frequency;
- 5) the amount and distribution in bare soils; and,
- 6) the expansion of woodlands into herblands and shrublands;

## Aquatic integrity

High aquatic integrity most closely resembles natural, fully functional aquatic ecosystems that:

- 1) support large, often contiguous blocks of high-quality habitat and watersheds with strong populations of multiple species;
- 2) provide general, unimpeded connectivity among watersheds and through the mainstream river corridor;
- 3) all life histories, including migratory forms, are present and important; and,
- 4) native species predominate, though introduced species may be present;

The Wallowa-Whitman National Forest Watershed Restoration Assessment and Prioritization Process (WRAPP) was developed to help determine where investments should be made across landscapes to maintain or improve the baseline condition (health) of watersheds on the Forest. The Forest staff developed watershed priorities based on a concept of “*Stressors*” and “*Indicators*”.

***Stressors*** are effects that push the ecosystem to the outer limits of the historic range of variability (HRV). High stressor levels are associated with an ecosystem that is at the outer limit of HRV. Low-level stressors are associated with an ecosystem more often found within the center of the natural range of variability bell-shaped curve. Systems with high stressor levels are more likely to experience large-scale readjustment through disturbance events such as fire or insect and disease.

The stressors selected to represent the primary factors that push ecosystems to the outer limits of the HRV were fire, insect and disease, noxious weeds, road-wildlife security, and road-stream connectivity. Although other stressors exist, these are thought to be the most influential.

**Fire:** Fire risk is based on ecological fire regime and not on the current hazard rating. At the landscape scale, assumptions exist as to the variability of stand structural components and how they exist today as compared to how they would have existed prior to settlement of the area. Biophysical environments (Dry, Moist, Cold forest types) and current vegetative conditions (canopy closure and numbers of trees per acre by canopy layers) were assessed to develop a fire-risk rating of H-M-L for each watershed based on Historic Range of Variability.

**Insect & Disease:** By using 15 of the most commonly occurring insect and disease agents in the Blue Mountains, the UPEST model was used to calculate an individual risk rating for each stand within a watershed. The risk is based on current vegetation type and condition that could lead to potential insect and disease outbreaks, not on actual infestation or damage

occurrence of that specific causal agent. A composite score was determined from the 15 individual risk-rating scores with more weight given to those agents causing mortality than to those causing damage. An overall H-M-L ranking by watershed was developed.

**Noxious Weeds:** Biophysical environments (Dry, Moist, Cold forest and rangeland types), proximity to existing noxious weed infestations, proximity to roads, and grazing activity were individually rated by watershed and then integrated into an overall H-M-L rating for each watershed.

**Roads-Stream Connectivity:** By using proximity of roads to stream networks, location of roads within sensitive landforms, and location of roads within the rain-on-snow zone, a H-M-L risk rating by watershed was developed to measure the magnitude or risk of road-related effects on hydrologic function, sediment delivery, water quality, channel morphology, and riparian ecosystems.

**Roads-Wildlife Security:** Road densities were used as a measure of how road-associated human use significantly affects wildlife security by displacing animals and reducing habitat quality. A stress rating of H-M-L was developed using miles of road per section. For those watersheds where roads were concentrated in one part of the watershed and devoid of roads in other areas, the overall rating may have been adjusted when security for wildlife was being adequately provided on a watershed basis.

*Indicators* are measures of integrity that provide an indication of relative ecosystem function (health). An indicator ranked as low is often associated with a system that is under stress. An indicator ranked as high is more frequently found when the ecosystem is functioning properly. Aquatic, vegetation, terrestrial wildlife, and hydrologic function were the indicators selected to serve as “proxies” for ecosystem integrity.

**Aquatic:** The aquatic indicators selected were bull trout, summer steelhead, and Chinook salmon (TES fish species). Threatened, endangered, and sensitive species needs for high quality water and stream systems with high habitat integrity make a logical indicator of aquatic condition. In addition to presence of these species, the connectivity of the habitat and relative abundance of the species was also considered in developing a H-M-L ranking by watershed.

**Vegetation:** Similar to the HRV analysis used in project planning and Watershed Analysis, current vegetation conditions are compared to a desired “target” condition. This target condition recommends a range of percentages by structural stage for each biophysical group, with the premise being that as stands develop through time, a watershed is more resilient to large-scale disturbance and sustainable if those structural stage percentages are maintained across the watershed. It is recognized that Late and Old Structure (LOS) is the structural stage most deficient currently, therefore LOS is used as a proxy for sustainability and resiliency to disturbance. The amount of departure of LOS was used to rank sustainability among the watersheds.

**Terrestrial Wildlife:** A multi-species terrestrial wildlife rating was developed using factors such as old-growth abundance, availability of hiding cover and security areas, riparian integrity, presence and amount of snags and downed wood. A high rating of terrestrial

wildlife integrity is given to those watersheds that are in a vegetative condition that have undergone little change from pre-settlement times (within HRV) and where modifications to habitat structure in both forestlands and rangelands through human activities have not been extensive. A moderate rating goes to those watersheds with moderate change to habitat structure, quality habitat, and resiliency to disturbance. And finally, a rating of low indicates that there have been large modifications to HRV and habitat structure within the watershed.

**Hydrologic Function:** Three factors (water quality, stream channel characteristics, and soil-hydrologic function) were used to determine an overall watershed integrity rating for hydrologic function. Water quality refers to conditions in relation to beneficial uses and standards, with the Oregon 303(d) list being used as the primary data source. Morphological characteristics (pattern, dimension, and profile) of stream channels can measure a streams resilience and ability to transport water and sediment while maintaining current dimensions. The soil-hydrologic function refers to the watersheds ability to store and release water relative to its natural potential. The three individual ratings were combined to produce an overall composite rating of H-M-L for each watershed.

An individual score of HIGH, MEDIUM, or LOW was assigned to each Stressor and Indicator for each of the forty 5<sup>th</sup> field HUC watersheds analyzed across the Forest. Once all of the individual stressor and indicator parameters were ranked, each watershed was assigned a composite stressor value and a composite indicator value, providing very general insight into the relative condition of each watershed. In this way, WRAPP is used to identify the existing broad-scale baseline condition of watersheds and provides a measure of forestland, rangeland, and aquatic integrity across the Forest. The following table is the Composite Indicator and Composite Stressor Rankings by Watershed:

**Table 4-1. Watershed Rankings**

Watershed Name	Watershed No.	Acres	Composite INDICATORS	Composite STRESSORS
Lower Joseph Cr	2	97,433	H	H
Catherine Cr	12	60,901	H	M
Eagle Cr	14	105,511	H	M
Pine Cr	15	112,732	H	M
Upper Imnaha River	9	164,281	H	M
Beaver/Rock Cr	16	43,767	H	L
Lostine River/Deer Cr	5	88,776	H	L
Lower Imnaha River	8	119,610	H	L
Minam River	10	136,869	H	L
North Powder River/Wolf Cr	18	61,562	H	L
Rapid River	41	13,932	H	L
Snake River/Hat Point	56	139,166	H	L
Snake River/Homestead	55	24,798	H	L
Snake River/Pittsburg	54	112,829	H	L
Snake River/Rogersburg	53	47,189	H	L
Upper North Fork John Day River	94	42,163	H	L
Upper Wallowa River	6	56,434	H	L

<b>Watershed Name</b>	<b>Watershed No.</b>	<b>Acres</b>	<b>Composite INDICATORS</b>	<b>Composite STRESSORS</b>
Grande Ronde River/Hilgard	87	56,599	<b>M</b>	<b>H</b>
Meadow Cr	86	83,203	<b>M</b>	<b>H</b>
Upper Joseph Cr	26	75,982	<b>M</b>	<b>H</b>
Wildcat/Mud/Courtney Cr	24	54,402	<b>M</b>	<b>H</b>
Big Sheep Cr	7	100,085	<b>M</b>	<b>M</b>
Indian/Clark Cr	11	22,839	<b>M</b>	<b>M</b>
Upper Grande Ronde River	85	116,825	<b>M</b>	<b>M</b>
Upper Powder River	20	81,768	<b>M</b>	<b>M</b>
Grande Ronde River/Rondowa	88	6,164	<b>M</b>	<b>L</b>
Phillips/Willow Cr	84	3,625	<b>M</b>	<b>L</b>
Powder River/Haines	1	29,590	<b>M</b>	<b>L</b>
Burnt River/Bridgeport	22	29,177	<b>L</b>	<b>H</b>
Camp Cr	27	21,994	<b>L</b>	<b>H</b>
North Fork Burnt River	83	91,753	<b>L</b>	<b>H</b>
Powder River/Keating	29	26,299	<b>L</b>	<b>H</b>
Powder River/Pondosa	13	24,107	<b>L</b>	<b>H</b>
Powder River/Salisbury	25	25,846	<b>L</b>	<b>H</b>
South Fork Burnt River	21	56,569	<b>L</b>	<b>H</b>
Upper Camas Cr	97	6,706	<b>L</b>	<b>H</b>
Ladd/McAllister/Spring Cr	19	2,351	<b>L</b>	<b>M</b>
McKay Cr	99	4,296	<b>L</b>	<b>M</b>
Upper Willow Cr	23	2,889	<b>L</b>	<b>M</b>
Granite Cr	93	40,671	<b>L</b>	<b>L</b>

When developing the various ranking systems, three of the five Stressors (Noxious Weeds, Roads-Stream Connectivity, and Roads-Wildlife Security) incorporate roads as an integral part of the criteria or calculator to determine the individual rankings by watershed. The construction and use of roads has contributed to the expansion of noxious weed populations throughout the Forest. It is common to find small populations of noxious weeds along roads. Road densities that exceed 2.5 miles per section significantly displace terrestrial wildlife and reduce habitat quality. The proximity of roads to the stream network, the location of roads within sensitive land types, and the location of roads within rain-on-snow zones are some of the road-related effects to hydrologic function. And finally, as road access is created on the Forest, some increase in the number of human-caused fires is expected.

In summary, roads do not directly affect ecological disturbance regimes, but they are necessary for management access when human-induced disturbance events are part of active resource management.

The presence, abundance, type, and location of roads can also, however, be a benefit. In general, road access facilitates the detection, prevention, and suppression, or control of forest insects, diseases, and parasites, as well as, the spread of exotic plants (noxious weeds) and animals.

Whether the type of control is direct (such as spraying insecticides or herbicides) or indirect (altering stand conditions to reduce insect and disease impacts and susceptibility), road access certainly facilitates these control efforts by allowing crews and equipment to easily access and treat sites.

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

Traffic on roads can be a disturbance both to people (in campgrounds or at recreational sites) and to sensitive wildlife. Since this issue is generally recognized as a social and wildlife issue, noise will be addressed within the Recreation (UR & RR), the Social Issues (SI), and the Terrestrial Wildlife (TW) questions discussed elsewhere in this Forest Roads Analysis.

## **ECONOMICS (EC)**

The questions specifically listed in the national format for a Roads Analysis cannot be adequately addressed at this scale. The interdisciplinary team modified the traditional cost analysis to a road value/impact analysis.

### **EC 1 (Modified): What is the capacity of current and projected budgets to meet annual and deferred maintenance needs?**

Opportunities were evaluated to modify the system, but in general, the IDT determined that these roads would always be kept open. Most of these roads have developed over the last 30-40 years with considerable capital investment and maintenance funding supporting those objectives. These roads have been analyzed, resulting in the identification of needs based on use, environmental considerations, design standards, and economic evaluations.

The question of what is the capability of current and projected budgets to meet annual and deferred needs becomes one of strategy and operational needs. The Forest currently faces a program of work identified by a \$40 million deferred maintenance and approximately \$17 million in the annual maintenance program (costs obtained from the 3/2003 INFRA reports). Management must evaluate the need to maintain the infrastructure and protect the investment of public funding in this transportation system, with the knowledge that environmental and social considerations may conflict with the economic viability of the need. In all cases, though, safety of the road user must remain paramount in any considerations.

Opportunities to improve, upgrade, reestablish standards, provide maintenance or even to “de-construct” a road may present themselves in several forms such as timing, frequency, other project activities, and Capital Investment. Developing a priority list based on the Watershed Restoration and Prioritization Process (WRAPPS) and coordinating with other resource or administrative projects, it appears that considerable progress could be made towards meeting Forest Road Management Objectives.

## COMMODITY PRODUCTION (TM) Timber Management

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

Road spacing and location have direct effects on yarding costs of wood fiber. In general, close road spacing results in quick turn around times and higher production that reduces yarding costs and increases stumpage value. Although closer road spacing can increase the total road cost due to more roads, the cost can be reduced with the use of temporary roads or offset by reduced yarding costs.

This issue is not applicable to the Forest scale being used to assess the benefits, problems, and risks of Level 3 through Level 5 roads. These questions would be better answered during project analysis when taking a closer look at the Level 1 and Level 2 system roads.

### **TM 2-3 (Modified): How does the road system affect access to forested stands in need of vegetation management across all land allocations?**

Without an adequate road system, management objectives cannot be accomplished. Road systems provide for faster and less expensive access to national forest lands for inventory, monitoring, maintenance (administration), planning and implementation work, as well as numerous other forest management activities.

Looking at the Level 3 through Level 5 roads on a Forest scale, general access to individual watersheds will depend on the arterial and collector road system. In general, one *arterial road* is recommended to adequately access watersheds 50,000 to 100,000 acres in size. In addition, one *collector road* is needed for every 20,000 to 50,000 acres in order to provide adequate access (personal communication with Jim Roberts, WWNF Forest Engineer). Based on the above assumptions, a typical 100,000 acre watershed would generally require one main arterial road and one to two collector roads that were strategically located respective to the local topography within a particular watershed.

In order to facilitate vegetation management activities, the following table shows which 5<sup>th</sup> field HUC watersheds are adequately roaded with Level 3 through Level 5 arterial and collector roads (=), which watersheds are inadequately roaded with arterial and collectors (-), and which watersheds are excessively roaded with arterial and collectors (+).

**Table 4-2. Watershed Roaded Evaluation**

Watershed Name	Watershed No.	Arterials	Collectors
Powder River/Haines	1	-	=
Lower Joseph	2	=	=
Lostine River/Deer Cr	5	=	=
Upper Wallowa River	6	-	-
Big Sheep Cr	7	=	=
Lower Imnaha River	8	-	-
Upper Imnaha River	9	NR	NR
Minam River	10	=	=
Indian/Clark Cr	11	=	-
Catherine Cr	12	=	=
Powder River/Pondosa	13	+	+
Eagle Cr	14	=	+
Pine Cr	15	=	=
Beaver/Rock Cr	16	=	=
North Powder River/Wolf Cr	18	=	=
Ladd/McAllister/Spring Cr	19	=	=
Upper Powder River	20	=	+
South Fork Burnt River	21	=	=
Burnt River/Bridgeport	22	=	=
Upper Willow Cr	23	NR	NR
Wildcat/Mud/Courtney Cr	24	=	=
Powder River/Salisbury	25	=	=
Upper Joseph Cr	26	=	+
Camp Cr	27	=	=
Powder River/Keating	29	=	=
Rapid River	41	NR	NR
Snake River/Rogersburg	53	NR	NR
Snake River/Pittsburg	54	NR	NR
Snake River/Homestead	55	NR	NR
Snake River/Hat Point	56	NR	NR
North Fork Burnt River	83	=	+
Phillips/Willow Cr	84	NR	NR
Upper Grande Ronde River	85	=	+
Meadow Cr	86	=	=
Grande Ronde River/Hilgard	87	=	=
Grande Ronde River/Rondowa	88	NR	NR
Granite Cr	93	=	=
Upper North Fork John Day River	94	=	=
Upper Camas	97	=	=
McKay Cr	99	=	=

KEY: = Adequate ; - Inadequate ; + Excessive ; NR Not Rated



The watersheds within the table that display an “NR” were not rated in this analysis. Those watersheds were included in other recent roads analysis conducted on the Forest that were more site-specific. The recommendations based on those other roads analysis were brought directly into the conclusions of this analysis.

## **SPECIAL FOREST PRODUCTS (SP)**

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

Collecting special forest products often depends on existing forest roads. Employment opportunities are limited and typically do not support developing or maintaining roads. The current maintenance Level 3 through Level 5 roads provide adequate access for collecting special forest products such as mushrooms, floral greens and boughs, transplants, Christmas trees, and firewood. If road closure or seasonal closure is considered in a project or watershed analysis, access needs for special forest products will be considered. This issue is not applicable to the Forest scale being used to assess the benefits, problems, and risks of Level 3 through Level 5 roads.

## GENERAL TRANSPORTATION (GT)

There are several roads on the Wallowa-Whitman National Forest which have special concerns that need to be addressed. Some of these concerns relate to wildlife interaction, jurisdiction, safety of the user, soils and hydrologic function, or even location with respect to sensitivity of other resources. Some of these high profile roads are listed below and though they may or may not fall under the questions addressed in this section, they should each be addressed on an individual basis during the environmental analysis process.

**Table 4-3. Special Road Concerns**

Road #	Road Name	Road #	Road Name
11	Skyline Road	4600595	Teepee Butte Road
132	Kirkwood Road	4600596	Wildhorse Road
16	E. Camp Creek / Eldorado Ditch Road	4620	Crow Creek Road
21	Spring Cr. Road	4625	Chesnimnus Road
31	Mt. Emily Road	51	Grande Ronde River Road
39	Wallowa Mountain Loop Road	5125	Rainbow Road
3965	McGraw/Overlook Road	66	Fish Lake/Duck Creek Road
3955	Innaha River Road	67	Big Creek Road
420	Dixon CorralsRoad	70	Forshey/Balm Cr. Road
4230	Freezeout Road	73	Elkhorn Drive
4260	Dug Bar Road	77	Eagle Creek Drive+
43	Ladd Canyon Road	3021	Whiskey Creek Road
46	Wellamotkin Drive	8210	Lostine River Road

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

The interdependency of Forest Service and County/State systems becomes apparent when looking at the roads under Forest Service jurisdiction that provide access to several counties and communities where the forest road provides alternate ingress or egress in case of emergencies.

With the Hanford Nuclear Site and Umatilla Army Depot close enough in vicinity to the forest as to be a concern, some forest roads are listed as crucial routes for emergency evacuation from adjacent counties such as Umatilla and Morrow County.

The Wallowa-Whitman National Forest is important to many communities for their livelihood as well as for recreation. The Forest is important for timber, ranching, mining, water, and tourism, and recreational activities such as hunting, fishing, camping, hiking, canoeing, whitewater rafting, sightseeing and more. Additionally, the Forest manages land on which a major power supplier in the Pacific Northwest (Idaho Power) is permitted to manage hydroelectric power generators located in

the Hells Canyon Dam. Table 4-3 shows a summary by county of the communities within Northeastern Oregon, *Southeastern Washington* and Western Idaho which are tied to activities of the Wallowa-Whitman.

**Table 4-4. Communities Relying on National Forest Access**

County	Communities
Baker (OR)	Baker City, Haines, Halfway, Richland, Unity, Hereford, Bridgeport, Sumpter, Greenhorn, Durkee, Huntington, & Oxbow
Union (OR)	La Grande, Cove, Union, Elgin, Imbler, North Powder, Medical Springs, Telocaset, Summerville, Starkey & Perry
Wallowa (OR)	Enterprise, Joseph, Wallowa, Lostine, Troy, Imnaha
Grant (OR)	Granite, Prairie City, John Day
Idaho Co. (ID)	Riggins, Grangeville, Whitebird
Nez Perce Co. (ID)	Lewiston
Asotin Co. (WA)	Clarkston

**GT 2: How does the road system connect large blocks of land in other ownership to public roads?**

The amount and distribution of private land (or other inholdings) and adjacent lands varies across the Forest. The majority of the private lands are Industrial Timber Lands (Boise Cascade, Crown Pacific, and RY Timber), patented mining claims, and ranches or livestock operations. One 10,000-acre tract of Nez Perce Tribal Land is also included within the National Forest Boundary. Over the past 10 years, the Forest has been very active a land exchange program to consolidate ownership within or adjacent to National Forest land.

The private lands, with the exception of a few isolated parcels, are accessed by National Forest Roads, the majority of which are maintenance level 3-5 with a few level 2 roads. Forest Service policy is that access will be allowed to a level that is reasonable and suitable for the uses occurring on the land. When warranted, the Forest will enter into a road use or special use permit with landowners, dependent upon the reason, duration, and type of use expected. This agreement (special use permit) is normally used when it has been determined that there is no need for Forest Service or general public access.

Access to private land inside the Forest is usually limited to summer or non-snow periods, but occasionally permits are issued for snowplowing during the winter. If a public road agency, county, or state provides access, or if there is already a National Forest Road which accesses the property, the Forest Service may not be obligated to provide any additional access across National Forest lands.

**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 Wallowa-Whitman has a full spectrum of roads crossing National Forest lands ranging from Interstate and State Highways to historical trails and old mining roads. Limited use of cooperative agreements have been established when all partners can benefit.

Cooperative Agreements (MOU's ) were established in 1977 with Baker, Union, Grant, and Wallowa Counties. Use of these agreements has been extremely limited to actual project level activity, however, in the past few years, agreements with Federal Highways has seen a marked increase.

Recently, the counties and various communities along the Hells Canyon Scenic Byway signed a Memorandum of Understanding (MOU). This MOU created a partnership in the development and management of the Scenic Byway. Additionally, the Northeast Area Commission on Transportation (NEACT) recognized the Scenic Byway Committee as a viable subcommittee of NEACT and chose to support and integrate it into their charge.

The Forest, along with Baker, Union, and Wallowa Counties and the State of Oregon, have been very active in the Forest Highway Program.

Rights of access by law, reciprocal rights, or easements are recorded in Forest files and in the various 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<sup>th</sup> Circuit, 1988). This analysis recognizes that such valid outstanding rights may exist and the Forest Service will 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. United States*, 903F., Supp. 40 [D. Utah, 1955]).

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

The Forest Service developed a Memorandum of Understanding with the Federal Highway Administration in 1975 that required the Forest to apply specific requirements of the National Highway Safety Program, established by the Highway Safety Act, to all roads open to public travel. The agreement was modified in 1982 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 3-5 meet this definition. Emphasis is given to user safety and economic efficiency through design, maintenance, and traffic control on these roads.

The largest proportion of available road maintenance funding is spent on these Level 3-5 roads. Safety work, such as surface maintenance, roadside clearing, and installation and maintenance of warning and regulatory signs are to be performed on an annual basis. During the winter, unless

designated otherwise, these roads are not plowed open and some are subject to seasonal or resource protection restrictions to prevent road damage or other management objectives.

Traffic control signing follows standards set forth in the Manual on Uniform Traffic Control Devices (MUTCD). Exceptions are permitted where state or county practices on similar public roads deviate from those guidelines. Signing should conform with local practice in those situations where use of MUTCD guidelines would be confusing to the motorist.

Accidents on Forest roads are often not reported to the Forest Service unless an employee is involved. Accidents involving only public motorists are reported to the local Sheriff or State Police, if reported at all. Investigations are currently haphazard unless a fatality is involved with the accident. Investigations should be made of all accidents, regardless of time lapse between accident and notification, on Forest roads to identify cause. This investigation is necessary in determination of unsafe conditions. Addressing unsafe road conditions has become a top priority for the Forest. Currently, the Wallowa-Whitman does not have a comprehensive program identifying accident locations or monitoring high accident locations or losses as required by the Highway Safety Act. As the process of officially designating roads as Public Forest Service Roads continues, the Forest will be implementing an accident monitoring program. .

Road condition surveys conducted over the past 3 years have indicated a backlog of over \$3MM in deferred health and safety work items on Level 3-5 roads on the Wallowa-Whitman National Forest. A significant portion of the deferred backlog is a result of deteriorated surfacing both of pavement and aggregate. Resurfacing programs in the past were dependent on the commercial timber sale program. The decline of the timber program in the past decades has reduced the direct and indirect funding available to project work. This lack of timber sale and declining capital investment funding has the Forest deferring work until it becomes a major project.

The deferred resurfacing activities, although a major funding issue, are by no means the only concern. Hazard tree mitigation, routine brushing, signing, and shoulder maintenance have all been deferred. All of these activities contribute to safety issues for the users on these roads.

## **ADMINISTRATIVE USE (AU)**

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

The Wallowa-Whitman currently has several designated Research Natural Areas (RNAs), 1 general research unit (the Starkey Experimental Forest), and conducts a variety of monitoring activities. Access to RNAs and the Experimental Forest are adequate and do not pose undo concern or issues to management. Monitoring activities currently have satisfactory access. Several monitoring activities review the impacts of roads on various resources.

### **AU 2: How does the road system affect investigative or enforcement activities?**

Investigative and enforcement activities on the Wallowa-Whitman National Forest have acceptable access to the Forest via the level 3-5 system. The Forest also has significant designated restricted areas without roads, such as Wildernesses, Unroaded Areas, Roadless Areas, and various management areas with seasons of restricted use (ref. FLRMP).

The major issue on the concerning law enforcement and the road system is related to recreational activities. Use of ATV's on the Forest, in general, and more specifically on the Level 3-5 road system (both from use and access) has increased dramatically over the past 10-20 years, especially noticeable after the initiation of road closure activities on the Forest in the early 1990's. Another area of concern is access by hunters. Many Hunters use ATV's to access their hunting camps, trails, and lands they traverse.

Most of the unauthorized uses are in the form of illegal outfitting and guiding. These roads also provide access to the backcountry trailheads where non-permitted commercial snowmobiling and hunting activities occur.

Theft of firewood, Christmas Trees, and commercial sawtimber is related to the Level 3-5 system. Other criminal activities that occur are increasing incidences of alcohol and illegal drug activities on the Forest. Isolated timber areas with primitive access have been found to be preferred locations for methamphetamine labs, many of which have ties to urban communities hundreds of miles away. However, while the road system on the Forest facilitates illegal activities, there are no known direct road-related causes of significant illegal activities.

## PROTECTION (PT)

### PT 1 : How does the road system affect fuels management?

Fuels management objectives are addressed for the Forest in the Fire Management Plan and the Forest Plan. The ongoing fuels management program of work is closely tied to vegetative practices that reduce risk of high intensity or stand replacement fires in fire regimes I and III.

Fire Regime I (27% of the Forest) includes lower and mid elevation forests of ponderosa pine, Douglas-fir, western larch, and dry grand fir. These areas have been most affected by human activities over the past century. These areas have historically occurred as multiple-aged stands with limited regeneration in the understory because of the short fire return interval of 10 to 35 years with low intensity fires that burned away accumulated ground fuels and understory vegetation. During the last 50 years fuel accumulations have mounted as fires were kept small. Over the last 20 years several large wildland fires have occurred and burned outside of historical intensities which damaged watersheds (Coronet (1986), Dooley Mountain (1989), Monument (2002)).

Most of the fuels management work under the National Fire Plan is currently being accomplished in Fire Regime I, condition class II or III areas.

Fire Regime III (20% of the Forest) includes mid elevation forests of Douglas-fir and moist grand fir. These areas have historically occurred as multiple-aged stands with regeneration in the understory because of the longer fire return interval of 50 to 100 years with higher intensity mosaic fires that burned away accumulated ground fuels and understory vegetation along with creating small openings in the forest pattern. During the last 50 years fuel accumulations have mounted as fires were kept small. Over that last 20 years several large wildland fires have occurred and burned outside of historical intensities which damaged watersheds (TeePee Butte (1988) and Boundary (1994)).

Fire regime IV (25% of the Forest) includes mid to high elevation forest of lodgepole pine, spruce, and subalpine fir. These areas would have greatest time period between fires, sometimes 100 to 300 years between fire periods. When fires do occur, they are rare events and burn at high intensities resetting large areas back to a single age and species. These areas are the lowest priority for treatment except where they are key watersheds for municipal drinking water.

The Wallowa-Whitman National Forest road system provides overall good access for fuels management. Fuels reduction work has been increasing over the last ten years and should continue into the future. The focus has been fuels reduction in the urban interface and in Fire Regime I areas. Those areas have adequate road systems to meet National Fire Plan objectives. It is highly unlikely that future fuels reduction work in unroaded areas would be proposed that would require road access. If commercial harvest of trees is associated with fuels reduction it would utilize current level 3, 4, and 5 system roads and would be adequate for future needs. Some road relocation is anticipated. Retaining a sufficient density of open roads is a critical factor in the safety, efficiency, and effectiveness of fuels reduction program. The fuels program would not be significantly affected by the closure of drainage bottom roads or roads within riparian zones. Road access to low to moderate stands (fire regime I and III) will continue to be needed in the future for periodic maintenance (thinning/burning) on an approximate 15 year cycle. Road closure rather than road obliteration is

preferred to reduce road density outside of riparian areas. Closed roads can be temporarily reopened to provide short term access for fuels reduction work.

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

Most Level 3, 4, and 5 roads provide excellent access for the Wallowa-Whitman National Forest fire resources and Oregon Department of Forestry personnel. These roads sometime serve as control lines for prescribed burns or wildland fires. Access to private lands is accomplished from all level roads, but most commonly from level 2 roads. Access to portions of the Wallowa-Whitman National Forest is limited because of private land which the Forest Service does not have right of way through. Often these land owners must be contacted before access is granted across private land. Half of the level 2 and level I roads were closed over the last ten years and this has significantly reduced the access for fire fighting vehicles. The area with the longest response times is the Wallowa Valley Ranger District. The Eagle Cap Wilderness is located so accesses to certain portions of the Wallowa Valley District require increased response times due to topography and roadless features.

**PT 3: How does the road system affect risk to fire fighter and public safety?**

The slower the response time (due to closed roads or poor road access) combined with high risk areas adjacent to wildland urban interface could increase the overall risk to fire fighter and public safety. The potential for high intensity wildland fires adjacent to wildland urban interface, where structure loss may occur, would be the highest in the Mt. Emily, Sumpter, and Wallowa Lake areas on the Wallowa-Whitman National Forest. The road system provides an escape route for vehicles and personnel if located in or near wildland fires.

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

The road system contributes to the airborne dust emissions generally when the surface type is gravel or a non-asphalt material. Forest roads are usually unpaved and are used for recreational purposes, as well as resource management practices related to timber harvest or mining. The potential for airborne dust emissions increases from July to October when rainfall is at its lowest and volume of traffic is at its peak. These effects are typically localized and temporary. Dust abatement chemicals or asphalt surface reduces emissions that affect visibility and human health conditions.



## UNROADED RECREATION (UR)

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

#### Background Information

An Unroaded Recreation Opportunity can be defined differently by many people. Some of the more common definitions may be, any recreational activity:

- a) Off of a designated road.
- b) Away from the sight and sound influences of a designated road.
- c) In a designated unroaded or unmotorized area (ie. wilderness area).

For purposes of this analysis, unroaded recreation opportunities will be defined as (b) above.

*Unroaded Recreation Opportunities: Recreation activities occurring off of designated Forest Service roads including Maintenance Levels (ML) 2-5 (open) and ML1 (closed) roads. This does not equate to a non-motorized opportunity.*

#### Existing Forest Plan Direction:

The 1990 Wallowa-Whitman National Forest- Land and Resource Plan (Forest Plan) discloses that there is “adequate capacity to meet projected recreation demands in all Recreation Opportunity Spectrum (ROS) classes until the year 2000. After 2000, shortages appear and gradually increase in most primitive and semiprimitive ROS classes, due to development of presently unroaded area and gradual increases in demand” (Forest Plan page 3-3).

To identify the recreation resource environment, the Forest is classified into various categories of Recreation Opportunity Spectrum (ROS). ROS is based on three principle components – activities, setting and experience. These classes are summarized in Appendix R1. This table shows that in the fifth decade (ie. 2050) the Forest will be able to meet the demand for the major “unroaded” ROS classes of Semiprimitive non-motorized outside of wilderness (SPNM), Primitive out of wilderness (P), and semiprimitive (SP) in wilderness. Only the Primitive inside of wilderness ROS class will be exceed current capacity. This is due in part to the popular areas within the wilderness areas which are destinations for many wilderness travelers.

There is however an existing Forest Plan Standards (Chapter 4 “Transportation System” standard 21) which allows for all-terrain vehicles (ATVs) and over –snow vehicles to be on blocked or closed roads unless they are found to be incompatible with resource objectives. This standard affects a users experience even though they may be in an “unroaded” ROS classified area.

Analysis

To analyze the existing unroaded recreation opportunity as defined above , a 1/2 mile remoteness buffer was applied to all existing ML1-5 roads on the Forest. (One half mile remoteness buffer is recommended in determining ROS classes). This buffer assumes that the recreationist would generally have the opportunity to be away from sight, and somewhat from the sound of developed roads and motorized road use.

**Table 4-5. ML 1-5 Roads buffered**

Acres outside 1/2 mile buffer (“unroaded”)	Acres inside 1/2 mile buffer (“roaded”)	Total Forest Acres *
949,034	1,445,249	2,394,283
40%	60%	100%

\* = information derived from Wallowa-Whitman NF (WW) GIS 8/3/2001

This analysis shows that currently the Forest is providing 40% or over 949,000 acres of unroaded recreational opportunities exist on the Forest. Much of this is due to wilderness designation, as well as the ruggedness of the Snake River/Hells Canyon, Elkhorn and Wallowa Mountain ranges.

In comparison to the assumptions in the Forest Plan, the current agency direction is to close or decommission roads in responds to environmental concerns, not construct new roads. Various on-going activities which increase the unroaded recreational opportunities on the Forest throughout the year include:

- Seasonal road closures for purposes such as big game hunting seasons.
- Limited road use permits into domestic watersheds closed for water quality protection.
- Temporary emergency road closures (ie. fire suppression, flood damaged roads)
- Additional road closure projects based on watershed and ecosystem restoration plans. These are usually permanent road closures implemented in response to resource protection concerns.

It is estimated that these seasonal/emergency activities combined with additional permanent road closures decisions contribute to an additional estimated 10-15% of increase in unroaded opportunities each year.

### Future Recreation Trends

Future demand or supply of unroaded recreation opportunities is variable and based on many factors such as;

- Recreationists: Users expectations of an area, Historic uses, Personal values and physical condition; Tolerance for roaded or unroaded uses
- New technologies in motorized recreation equipment
- Changes in user demographics (urban/rural origins, age, physical abilities, etc).

In Projections of Outdoor Recreation Participation to 2050 (Bowker, English, Cordell, 1999), the authors projected long-term trends in the following outdoor activities across the US.

**Table 4-6. 5 Fastest growing - 2050 projected Outdoor activities**

Outdoor Activity	Top 5 Fastest Growing Outdoor Activities	Roaded (R)/ Unroaded (UR) activity
Visiting Historic Places	116%	R and UR
Downhill skiing	110%	UR
Snowmobiling	99%	UR and R
Sightseeing	98%	UR and R
Non-consumptive wildlife (photography, birdwatching, etc)	97%	UR and R

As displayed above, these activities are a blend of roaded and unroaded based recreation, and show that both types will be in demand in the future.

To compare more specific regional trends, a review of the 2001 National Forest Visitor Monitoring Results for the Nez Perce and Ochoco National Forest was also done. These 2 forests were selected due to their proximity to the Forest. (The monitoring for the Wallowa-Whitman NF will not be initiated until 2003).

**Table 4-7. NF Visitor Monitoring – Popular activity participation**

Forest	Top 5 Activity Participation
Ochoco	<ol style="list-style-type: none"> <li>1. Viewing wildlife fish, bird, etc</li> <li>2. Viewing natural features, scenery, flowers, etc</li> <li>3. Fishing – all types</li> <li>4. Primitive Camping</li> <li>5. General- relaxing, hanging out, escaping noise and heat, etc</li> </ol>
Nez Perce	<ol style="list-style-type: none"> <li>1. Viewing wildlife fish, bird, etc</li> <li>2. General- relaxing, hanging out, escaping noise and heat, etc</li> <li>3. Driving for pleasure on roads</li> <li>4. Hiking or walking</li> <li>5. Visiting historic and prehistoric sites</li> </ol>

Although different from national trends, the top recreational activities are similar to those anticipated for the Wallowa-Whitman NF and include a mix of roaded and unroaded activities, with many of the them occurring in both settings.

Conclusion: It is anticipated that the popular activities on the Wallowa-Whitman NF will be very similar to those listed above on the neighboring Forests. These activities will be mix of road and unroaded recreational pursuits. Due to the amount of wilderness, designated and undesignated unroaded areas, the Forest is capable of providing reasonable future demands of unroaded recreation opportunities over 949,000 acres.

**UR2: 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?**

Existing Condition

As stated above in the response to UR (1), the forest currently provides over 949,000 acres of unroaded recreation opportunities. Of this 949,000 acres, over 580,000 acres (approximately 25% of Forest) are within designated wilderness areas and not influenced by current or future road management decisions.

The remaining 369,000+ acres are currently over 1/2 mile from a designated road, however this setting could change based on future road construction decisions. Likewise the 1.44 million acres of roaded setting acres on the Forest are available to closures, decommissionings, and changes in maintenance levels in response to resource and social criteria.

Current Trends

Currently many watershed-scale decisions across the Forest include analysis of road and trail use, as well as cross country travel. Factors such as protection of threatened, endangered or sensitive (TES) fish and wildlife species, water quality, soil productivity; and reduction in wildlife harassment drive the rationale for modifications in motorized use and road retention.

An existing Forest Plan standard also influences unroaded recreation opportunities by allowing ATV and over-snow machine use on ML1 (closed) roads, unless closed specifically for resource protection. This use is restricted to those vehicles less than 40 inches in width thereby eliminating full size vehicles

Conclusion

Any of the above mentioned changes will affect user experiences in an area. Those changes however are not easy to quantify since they are based on social values of a recreationists experience. The Forest is a mixture of motorized, non-motorized and

combination users so closing a road or altering the road maintenance objectives affects a variety of users. Examples would be:

*Decommissioning a road may improve a bow hunters experience off road, while limiting a family's opportunity to pick huckleberries adjacent to the same road. Changes can also be noted in altering the road maintenance levels. An urban family with a passenger car may be limited from accessing a historic site up a ML 3 road if it is modified to a ML2. In the same way a Class 2 (jeep) OHV enthusiast may enjoy having more challenging roads to explore the back country based on the same decision.*

Substantial changes across the Forest however, are not expected since the majority of road decisions are based on either resource concerns or financial obligations. Social responses to constructing roads or decommissioning/closing roads are uncommon, and the Forest's road construction program is very minimal due to a decreases in commodity based resources removal.

**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?**

Existing Condition

As stated above in the response to UR(1), the forest currently provides over 949,000 acres of unroaded recreation opportunities. Of this 949,000 + acres, over 580,000 acres (approximately 25% of Forest) are within designated wilderness areas and not influenced by current or future road management decisions.

**Conclusion**

The affects of roads and roaded recreation use can be detected at both a site specific and subwatershed scale. Some of these adverse affects include:

- Noise – user stress, noise pollution, wildlife harassment and displaced use; reduced site occupancy, decrease in non-motorized use adjacent to roadsides loss of solitude.
- Fumes/Dust – stress, localized air pollution, reduced site occupancy,
- Visual – loss of vegetation along roadside, loss of solitude

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

Existing Condition

Listed in Appendix R2 are the common recreational activities which occur on the Forest. They are categorized by motorized and unmotorized emphasis, or a combination of both. The unmotorized activities recognize that roaded use is necessary to gain access to the site.

The use on the forest is fairly well balanced between motorized and non-motorized activities due to terrain, elevation differences, amount recreational of water bodies, traditional uses, and seasonal interests in the area.

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

Recreational use is valued for it's opportunity to conduct a variety of activities such as:

- Relive memorable experiences,
- Challenges ones physical ability,
- Relax,
- Seek solitude and self renewal
- Recreate with a family or friends.
- Enjoy a natural setting.

Due to it's nationally known areas of interest in the Eagle Cap Wilderness, Snake River and Hells Canyon national Recreation Area, the forest attracts recreationists from local, national and international audiences. Although it may appear that many alternate sites may be available for generic activities such as hunting, hiking, and ATV use, this is not the situation.

Recreationists typically come to a specific area to conduct a specific activity that have planned out in advance. Due to an increase in disposable income and decrease in work time off, users are not favorable to being displaced to another area.

## ROADED RECREATION (RR)

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

#### Background Information

A Roaded Recreation Opportunity can be defined differently by many people. Some of the more common definitions may be, any recreational activity:

- d) On a designated road.
- e) Within sight and sound influences of a designated road.
- f) In any area not specifically designated as unroaded or unmotorized area (ie. wilderness area).

For purposes of this analysis, roaded recreation opportunities will be defined as (b) above.

*Roaded Recreation Opportunities: Recreation activities occurring within ½ mile of designated Forest Service roads including Maintenance Levels (ML) 2-5 (open) and ML1 (closed) roads.*

#### Existing Forest Plan Direction:

The 1990 Wallowa-Whitman National Forest- Land and Resource Plan (Forest Plan) discloses that there is “adequate capacity to meet projected recreation demands in all Recreation Opportunity Spectrum (ROS) classes until the year 2000. After 2000, the Forest Plan projected that road construction activities would increase due to development of presently unroaded areas. (Forest Plan page 3-3).

To identify the recreation resource environment, the Forest is classified into various categories of Recreation Opportunity Spectrum (ROS). These are summarized in Appendix R1. This table shows that in 1990 over 63% of the forests 2.3 million acres were classified as Roaded, Roaded Modified, Roaded Natural, or Semi-primitive Motorized classification. In the fifth decade (ie. 2050) the Forest will be able to meet the demand for the major “roaded” ROS classes of Roaded, Roaded Modified, and Roaded Natural. It will not be able to meet the needs expected in the Semi-primitive Motorized areas.

#### Analysis

To analyze the existing roaded recreation opportunity as defined above, a ½ mile buffer was applied to all existing ML1-5 roads on the Forest. Recreationist using these ML 1-5 roads with motorized equipment would influence the roaded buffer when using the motorized equipment (via sight and sound). This roaded buffer would be the area on the Forest where a roaded recreational experience could occur.

**Table 4-8. ML 1-5 Roads buffered**

Acres within 1/2 mile buffer ("roaded")	Acres outside 1/2 mile buffer ("unroaded")	Total Forest Acres *
1,445,249	949,034	2,394,283
60%	40%	100%

\* = information derived from Wallowa-Whitman NF (WW) GIS 8/3/2001

This analysis shows that currently the Forest is providing 60 of a roaded recreational opportunities.

As mentioned above however, the current agency direction is to close or decommission roads in response to environmental concerns, not construct new roads. Various on-going activities which decrease the roaded recreational opportunities on the Forest throughout the year include:

- Seasonal road closures for purposes such as big game hunting seasons.
- Temporary emergency road closures (ie. fire suppression, flood damaged roads)
- Additional road closure projects based on watershed and ecosystem restoration plans. These are usually permanent road closures implemented in response to resource protection concerns.

It is estimated that these seasonal/emergency activities combined with additional permanent road closures decisions contribute to an additional estimated 10-15% decrease in roaded opportunities each year.

#### **Future Recreation Trends**

Future demand or supply of unroaded recreation opportunities is variable and based on many factors such as;

- Recreationists: Users expectations of an area, Historic uses, Personal values and physical condition; Tolerance for roaded or unroaded uses
- New technologies in motorized recreation equipment
- Changes in user demographics (urban/rural origins, age, physical abilities, etc).

In Projections of Outdoor Recreation Participation to 2050 (Bowker, English, Cordell, 1999), the authors projected long-term trends in the following outdoor activities across the US.



**Table 4-9. 5 Fastest growing - 2050 projected Outdoor activities**

Outdoor Activity	Top 5 Fastest Growing Outdoor Activities	Roaded (R)/ Unroaded (UR) activity
Visiting Historic Places	116%	R and UR
Downhill skiing	110%	UR
Snowmobiling	99%	UR and R
Sightseeing	98%	UR and R
Non-consumptive wildlife (photography, birdwatching, etc)	97%	UR and R

As displayed above, these activities are a blend of roaded and unroaded based recreation, and show that both types will be in demand in the future.

To compare more specific regional trends, a review of the 2001 National Forest Visitor Monitoring Results for the Nez Perce and Ochoco National Forest was also done. These 2 forests were selected due to their proximity to the Forest. (The monitoring for the Wallowa-Whitman NF will not be initiated until 2003).

**Table 4-10. NF Visitor Monitoring – Popular activity participation**

Forest	Top 5 Activity Participation
Ochoco	<ol style="list-style-type: none"> <li>6. Viewing wildlife fish, bird, etc</li> <li>7. Viewing natural features, scenery, flowers, etc</li> <li>8. Fishing – all types</li> <li>9. Primitive Camping</li> <li>10. General- relaxing, hanging out, escaping noise and heat, etc</li> </ol>
Nez Perce	<ol style="list-style-type: none"> <li>6. Viewing wildlife fish, bird, etc</li> <li>7. General- relaxing, hanging out, escaping noise and heat, etc</li> <li>8. Driving for pleasure on roads</li> <li>9. Hiking or walking</li> <li>10. Visiting historic and prehistoric sites</li> </ol>

Although different from national trends, the top recreational activities are similar to those anticipated for the Wallowa-Whitman NF and include a mix of roaded and unroaded activities, with many of them occurring in both settings.

**Conclusion:**

It is anticipated that the popular activities on the Wallowa-Whitman NF will be very similar to those listed above on the neighboring Forests. These activities will be mix of road and unroaded recreational pursuits. Retention of roads and associated motorized uses however are a challenge for many resources. Additional listings of threatened and endangered species, water and soil quality impacts, and past management activities require that a reduction of roads and restriction son motorized uses are necessary to enhance their restoration.

In accordance with the National Forest Service “*The Recreation Agenda*”, the Forest is currently working on an Off-Highway Vehicle management strategy in conjunction with the adjacent two Forests in NE Oregon. The goal for the strategy is to seek a consistent approach to OHV use in balance with sensitive resource and unroaded recreational activities. Due to the existing roaded recreational settings, the Forest can provide reasonable future demands of roaded recreation opportunities on over 1.44 million acres.

**RR 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 roaded recreation opportunities?**

Existing Condition

As shown above in Table UR1a, the forest currently provides over 1.44 million acres of roaded recreation opportunities. These areas however are analyzed during resource restoration projects and review existing roads needs, and motorized uses. In general the result of these restoration projects is to close or decommission roads, and restrict motorized uses to meet resource objectives. The objectives include; protection of threatened, endangered or sensitive (TES) fish and wildlife species, water quality, soil productivity; and reduction in wildlife harassment.

Various road activities will affect the quantity, quality and type of roaded recreation experience.

**Table 4-11. Road Activity Effects upon Roaded and Unroaded Recreation**

<b>Road Activity</b>	<b>Effects on Unroaded Rec Opportunity</b>	<b>Effects on Roaded Rec Opportunity</b>	<b>General Effects upon Unroaded (UR), and Roaded (RR) Rec Opportunites</b>
Develop new roads	-	+	UR -Decrease in existing experiences and settings. RR - Opportunities for increased motorized uses in new areas.
Decommission roads	+	-	UR - Possible increase in existing experiences and settings. RR - Decreased opportunities for motorized uses .
Change maintenance Level (ML) to a lower standard (ie ML 2)	N/A	-	UR -Motorized use still results on roads regardless of ML – no net change in Unroaded Rec. RR -Possible decrease in use with passenger vehicle travel opportunities due to lower ML
Change maintenance Level to a higher standard (ie ML 3-5)	N/A	-	UR – same as above RR - Possible increase in use with passenger vehicle travel opportunities due to higher ML
Restrict motorized use	+	-	UR -Motorized use still results – no net change. RR – Less opportunities for some motor vehicles (ie. ATVs)

The existing developed recreation sites on the Forest are dependant upon a road system to allow access for a majority of the sites. (Some developed sites along the Snake River are not dependant upon the road system as access is by motor boat, float, horse or hiking).

A sample of the 161 (89%) Forest developed recreation sites, such as campgrounds, trailheads, and day use areas, indicate that 85% of the travel routes utilize maintenance level (ML) 3-5 roads. These roads are suitable for passenger vehicles. The remaining access is by ML 2 roads for high clearance vehicles. (GIS analysis 28 Aug 2001)

### **Conclusion**

Any of the above mentioned changes will affect user experiences in an area. Those changes however are not easy to quantify since they are based on social values of a recreationists experience. The Forest is a mixture of motorized, non-motorized and combination users, so closing a road or altering the road maintenance objectives affects a variety of users. Examples would be:

*Decommissioning a road may improve a bow hunters experience off road, while limiting a family's opportunity to pick huckleberries adjacent to the same road. Changes can also be noted in altering the road maintenance levels. An urban family with a passenger car may be limited from accessing a historic site up a ML 3 road if it is modified to a ML2. In the same way a Class 2 (jeep) OHV enthusiast may enjoy having more challenging roads to explore the back country based on the same decision.*

Substantial changes across the Forest however, are not expected since the majority of road decisions are based on either resource concerns or financial obligations. Social responses to constructing roads or decommissioning/closing roads are uncommon, and the Forest's road construction program is very minimal due to a decreases in commodity based resources removal.

**RR 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 roaded recreation opportunities?**

The affects of roads and roaded recreation use can be detected at both a site specific and subwatershed scale. Some of these adverse affects include:

- Noise – user stress, noise pollution, wildlife harassment and displaced use; reduced site occupancy, decrease in non-motorized use adjacent to roadsides loss of solitude.
- Fumes/Dust – stress, respiratory problems, localized air pollution, reduced site occupancy.
- Visual – loss of vegetation along roadside, loss of solitude
- Presence of Motorized equipment – safety for children, increased stress, anger/confrontation.

**RR 4: Who participates in roaded recreation in the areas affected by constructing, maintaining, and decommissioning roads?**

Existing Condition

Listed in Appendix R2 are the common recreational activities which occur on the Forest. They are categorized by motorized and unmotorized emphasis, or a combination of both. The unmotorized activities recognize that roaded use is necessary to gain access to the site.

The use on the forest is fairly well balanced between motorized and non-motorized activities due to terrain, elevation differences, amount recreational of water bodies, traditional uses, and seasonal interests in the area.

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

Recreational use is valued for it's opportunity to conduct a variety of activities such as:

- Relive memorable experiences,
- Challenges ones physical ability,
- Relax,
- Seek solitude and self renewal
- Recreate with a family or friends.
- Enjoy a natural setting.

Due to it's nationally known areas of interest in the Eagle Cap Wilderness, Snake River and Hells Canyon national Recreation Area, the forest attracts recreationists from local, national and international audiences. Although it may appear that many alternate sites may be available for generic activities such as hunting, hiking, and ATV use, this is not the situation.

Recreationists typically come to a specific area to conduct a specific activity that have planned out in advance. Due to an increase in disposable income and decrease in work time off, users are not favorable to being displaced to another area.

## **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?**

Perceived needs and values for roads on the Wallowa-Whitman vary as diversely as the people who use them. The range of variance encompasses those who feel they need improved and increased access, to those who value the forest national attributes and favor lower standards and less roads.

Roads are an integral part of some users (recreationists, gatherers, commercial ventures) activities. Many users in this group desire and value the more highly developed systems of well maintained, surfaced, safe, and provide for comfort and convenience. Owners of in-holdings often favor a modestly developed road system.

Roads are not always viewed or valued as necessary or beneficial. These users value the forest for its natural characteristics and view the roads as a detrimental impact. Their preference is to decommission existing roads and road systems.

The variation of perceived needs and values for roads exists across the breadth of the Wallowa-Whitman NF as the diversity of its users. The ML 3-5 roads existing on the WWNF provide that diversity of need. The more direct impact of standards and density is better addressed at the watershed or project level.

**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.**

Population increases have placed a need for more access to the National Forest Lands to recreate, travel to and from destinations, and as place of commercial activity. Population increases also increase diverse needs and wants for the Forest.

Access of the National Forest continues to be and will so in the future, very controversial. The costs in terms of funding to maintain and operate the road system, the costs in terms of environmental impacts to the forest ecosystems, and the changes in land use are just a few of the more debated subjects.

Road management or operations and maintenance has a direct bearing on the access needs. Maintenance has the most direct effect in how people perceive the access to the National Forest. Generally the road conditions set the stage for perception of how the Forest is being managed overall.

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

The existing road systems affects access to paleontological, archaeological, and historic sites directly and indirectly.

The direct impacts are the results of road on the land by going through or over sensitive sites. Emphasis has been made to avoid or mitigate these sites for the past 30 years. Many of these roads were first located and built prior to any evaluation and in doing so some sites have been lost or destroyed.

Indirect impact can occur when the road system provides ready access to sites. This access is conducive to increased vandalism and theft. Management and enforcement programs have been developed and implemented to reduce these impacts. Conversely, this road access allows for maintenance of historic sites and buildings, as well as monitoring sites for illegal activities and disturbance and damage.

The indirect impact is that road systems provide ready access to those sites that are left. The ready access is conducive to increased vandalism and theft. Management and enforcement programs have been developed and implemented to reduce these impacts.

**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?**

Road system affects on cultural and traditional uses are both positive and negative. Positively, the road system provides access for tribal elders to traditional use areas in which they can exercise their Treaty rights to gather roots and berries hunt and conduct ceremonies in usual and accustomed places.

Negatively, the road system also provides access to these areas that can cause damage to plants and sacred sites. However, over the past decades, extensive effort has been made to coordinate road activities with Tribes of interest. Known sites are avoided if at all possible and damage is mitigated if necessary.

The Wallowa-Whitman road system provides motorized access for a variety of hunting and fishing opportunities on the Forest. These activities include elk, deer, and bear hunting as well as several species of game birds such as chukar, quail, pheasant, wild turkey, and ducks. Fishing includes salmon, trout, sturgeon, and steelhead.

Forest roads also provide access for activities that include fuel wood gathering, berry picking, wild mushrooms, post and poles, fencing material, and ornamental and medicinal plants.

**SI 5: How are roads that are historical sites affected by road management?**

Some historic roads and/or trails, such as the Union – Cornucopia Wagon Road on Pine and La Grande districts and the Birch Creek/Grande Ronde Military Wagon Road and even the parts of the Oregon Trail on the La Grande District have been in continuous use since they were first created. Consequently, although the route may be historic the roadway has been updated and maintained over the years and no longer maintains any historic character. However, other portions of historic roads have been bypassed and the remaining roadway(s) do reflect their historic nature. Additionally, many miles of historic railroad grades have been converted to road use. Most of these grades have not required significant modification. However, in many instances, additional roadway has had to be constructed to bypass railroad trestles.

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

Commodity and recreation industry as well as the private recreating citizen rely on the existing road system for economic benefit as well as leisure. The Wallowa-Whitman road system is adjusting from roads built for logging, mining, and ranching to one that is being used by recreationists, and the recreation industry.

The communities adjacent to or within the National Forest are becoming more dependent on the recreation industry and associated activities. The communities are also more dependent on the National Forest to supply clean water as the headwaters and community watersheds are located within them. Roads and resource management can have direct impacts upon the water supplies to those communities as well as the recreation experience.

**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.**

Generally the unroaded areas established in the current Forest Land Management Plan that have not received special designations such as wilderness, wild and Scenic River, or national recreation area have very little community social and economic dependency.

Economic benefits are derived through the user of the unroaded areas for recreation particularly hunting and fishing but they do not provide dependency. Some economic benefits have been cost to reduction of timber.

What is of most concern to the communities is the threat of wildfire either starting in these areas are transporting and intensifying fire.

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

Designated Wilderness Areas on the Wallowa-Whitman National Forest do not contain any open roads. Old roads may exist and have generally been converted to trails in the same location. In non-wilderness land, the greater the number of roads in an area, the fewer opportunities for solitude exist; natural appearance, natural integrity, and primitive recreation opportunities are also impacted.

**SI 9: What are the traditional uses of animal and plant species within the area of emphasis?**

The Wallowa-Whitman road system provides motorized access for a variety of hunting and fishing opportunities on the Forest. These activities include elk, deer, and bear hunting as well as several species of game birds such as chukar, quail, pheasant, wild turkey, and ducks. Fishing includes salmon, trout, sturgeon, and steelhead.

Forest roads also provide access for activities that include fuel wood gathering, berry picking, wild mushrooms, post and poles, fencing material, and ornamental and medicinal plants. The Native Americans also use the forest for traditional "root gathering" areas.

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

Many of the roads within the Wallowa-Whitman have a long established history and ownership by the local communities as well as the visitors that return annually to recreate. Most of the level 3-5 roads were established to provide access for logging, mining, ranching, and were also used for hunting, fishing, and firewood gathering.

Not only did the roads provide access to opportunities for employment but the roads themselves provided an opportunity to get away from it all and drive to provide enjoyment. The road attributes contribute significantly to the enjoyment through road attributes. These attributes include the amount and type of traffic, roadside aesthetics, and surfacing.



Road management can have direct impact on the person's sense of place. Any change in road management or development of a road may change current use or how people feel about the road. It is sometimes necessary to override these factors for other management objectives.

### **PASSIVE-USE VALUES (PV)**

This analysis considered, in general, decommissioning roads as a tool, but did not go into further detail. Decommissioning will be addresses at the project level of roads analysis. This analysis objective was to review and assess Maintenance Level 3 through 5 roads.

### **CIVIL RIGHTS AND ENVIRONMENTAL JUSTICE (CR)**

No new road entries were considered nor were any proposals made to decommission roads. Essentially, this analysis has no effect on Civil Rights and Environmental Justice issues.

**Step 5**  
**Describing Opportunities and Setting Priorities**

**Describing Opportunities**

Many opportunities to modify the road system surfaced during the analysis. These opportunities may be classified into broad categories and the further subdivided into actions. Resource opportunities include road improvements, maintenance standard modifications, traffic service level changes, and reconstruction. Administrative opportunities range from developing and implementing an access and travel management plan, to changes of jurisdiction, and/ or restricted use. Each of the recommended opportunities is listed in Table 5-1 by individual road. Note: references to RS2477 are notes to the reader to make them aware of the potential for historic significance and/or strong public opinion with regards to management practices. The Forest Service does not in any manner acknowledge or condone the validity of this statute.

**Table 5-1. Road Opportunities**

Wallowa-Whitman NF	Roads Analysis				3/5/2003
Watershed/Road	Current Objective MIL	Recommended Management Level	Change in Surface	Remarks	Reference/ Recommendations
<b>Camp Creek</b>					
1600000	5	4	Evaluate need to retain paving.	Move out of RHCA as opportunity allows. Minimize impact to RHCA. East Fork Camp Cr to Malheur NF Bdry; retain pavement if funding becomes available. There may be potential to swap jurisdiction of portions of road outside of NF Boundaries.	MT3, MT4, RC1, RC5
1600965	3			Move road and campground out of RHCA as opportunity allows.	
1684000	3		Consider changing native to aggregate.	Emphasize aquatic needs in maintenance.	RC1
<b>South Fork Burnt River</b>					
2600575	4		Consider aggregate.	Yellow Pine CG - paved roads. Only portions in RHCA. Evaluate retention of surface.	RC1
2600600	4		Consider aggregate.	Wetmore CG. Evaluate retention of surface.	RC1
2600700	4			Coordinate with facilities plan.	MT 0
2600710	4			Coordinate with facilities plan. RHCA impact overstated.	MT 0

Watershed/Road	Current Objective ML	Recommended Management Level	Change in Surface	Remarks	Reference/Recommendations
2600800	4		Add pavement	Unity Compound. Should be paved, especially if Office is renovated	MT 0, RC5
2640000	3			Retain 3 due to RHCA. Retain remainder as ML2.	MT 1, MT 4
2640990	3			Road is on Prairie City RD	MT0
2646000	3			Consider ML 2 portion going to 3.	RC 2
2665000	3			Road recently reconstructed to ML 3 with only approx. 2 miles in the center remaining @ ML2.	RT2
2665105	3			Road maintains itself over projects. Dropping ML would have no impact to \$\$	MT 4
6005000	3		Consider asphalt	Consider paving and upgrading to ML4 (AQ benefit) if outlook for funding improves.	MT1, RC4
6005020	3			Project scale: be sure OBML is met for AQ concerns	MT1
6005058	3		Consider aggregate	Consider adding surfacing for AQ benefit	RC1
6005060	3			Elk Creek CG.	MT1
<b>North Fork Burnt River</b>					
1035000	3			Potential RS2477. Middle portion is part of County Road, and consideration of changing this jurisdiction to FS should be considered. Surfacing has been depleted.	MT 1, MT3,
1100000	3			Skyline Road. Most of it was reconstructed to standard. Fish Crossings need to be evaluated. Road has middle portion that does not meet standard.	RC2, MT 1, MT 4
1305000	3			Potential RS2477. Access to numerous mining claims and connects Baker County and Grant County roads. Parallels Olive Creek. Landslide potential for major wasting.	MT1, MT4, RC 2, RC4
1900000	3			Camp Creek Rd. Original County road under FS jurisdiction, RS2477, recently reconstructed to standard. May be fish passage concerns.	MT1, MT4
1905000	3			Dooley Gulch Road. Private Property Access. Small community access (Wood Tick Village). Native surfaced.	RC2
2600550	4			Oregon Campground. Paved roads. Need to retain surface.	MT 0
2624000	3/2			Road is managed adequately at 2 mtce levels. Some aquatic concerns, and deferred mtc needed.	MT1, MT4
2665105	3			High levels of mixed use. Some safety concerns for sight distance, but excellent subgrade and base course material in place.	MT 4
2675000	3			Road parallels creek. Surfacing is deteriorating for approx. half its length, and brushing is needed.	MT1, MT4

Watershed/Road	Current Objective ML	Recommended Management Level	Change in Surface	Remarks	Reference/Recommendations
<b>Burnt River/ Bridgeport</b>					
1100000	3	2		Road would need extensive reconstruction to upgrade. It is a good 4x4 experience. May consider re-numbering for mapping concerns.	MT3
1145000	3			This portion would need restoration (additional rock) to be consistent w/ remainder of road's ML.	RC 2
<b>Granite Creek</b>					
1305000	3			Potential RS2477. Access to numerous mining claims and connects Baker County and Grant County roads. Parallels Olive Creek. Landslide area - potential for major wasting.	MT1, MT4, RC 2, RC4
1900000	3			Agreement w/ Grant Co. to revert back to County when no longer needed for FS use.	RC2
7300000	5			Elkhorn Drive Scenic Byway	MT1, MT4, RC4, RC5
7300916	5	4		Blue Springs Snopark	MT3
<b>Powder River/Haines</b>					
6510000	3			From old Lime Quarry to top would need restoration to meet OBML	RC2
6510100	3	2		Unless CG is determined to be upgraded, lower to ML2	MT3
<b>Powder River/Salisbury</b>					
1145000	3			Crosses Mason dam and is crucial access to private land. Road is critical to fire access.	MT1, MT4
2200100	5			Check mileage: this should only be 0.1 mi in length - it is the PR trail interpretive site - in State ROW. The remainder of this road is ML 2	MT0
2200150	5			Pavement needs to be extended to the far junction of the PR Accessible (toilet) parking lot	RC2
2200150	3			Road accesses Mason Dam and a small picnic site	MT4
7220000	3			Old Auburn to Union Creek, RS2477- consider upgrading native surface portion between 2225 & county road for consistency of ML	MT 1, MT4
<b>Upper North Fork John Day</b>					
5100000	5			Grande Ronde River Road	MT1, MT4, RC4, RC5
5200000	5			Blue Mt. Scenic Byway	MT1

Watershed/Road	Current Objective ML	Recommended Management Level	Change in Surface	Remarks	Reference/Recommendations
7300000	5			Elkhorn Drive Scenic Byway	MT1, MT4, RC4, RC5
<b>North Powder River/Wolf Creek</b>					
4300000	3			Half (Grande Ronde Lk area to 5Corners) the road barely meets Level 2	RC2
4300950	3			Grande Ronde Lk CG	RC5
4315000	3			Wolf Creek Road. Fire response access.	MT1, MT4
4330000	3			Last 1-2 miles would need improvement to meet OBML, remainder has safety & aquatic concerns	MT4
7300000	5			Elkhorn Drive Scenic Byway	MT1, MT4, RC4, RC5
7300159	5	4		Elkhorn Crest TH - enhancement \$ w/ PFSR program may pave	MT3, RC5
7300160	3			Upgrading to meet OBML should consider SUPs	MT1, MT4
7300161	3			Upgrading to meet OBML should consider SUPs	MT1, MT4
7300170	4			Anthony Lakes CG boat launch road	MT1, MT4
7300170	3			Anthony Lakes CG boat launch(gravel portion)	MT1, MT4
7300172	4			Anthony Lakes Picnic Sites	MT1, MT4
7300172	3			Anthony Lakes Picnic Sites (gravel portion)	MT1, MT4
7300175	4			Anthony Lakes CG	MT1, MT4
7300180	3			Emphasize surfacing/upgrading because of proximity to riparian area.	RC4
7300184	3	4		Manage according to ALMR plan / EIS	MT2, RC5
7300190	3		consider returning to gravel	Grand Ronde snopark - do not put any \$\$\$ into maintaining Paved surface, unless rehabbed by supplemental funding.	RC1, RC5
7312000	3			serious safety concerns	MT1, MT4
<b>Upper Powder River</b>					
1100000	3			Skyline Road - TSL C - road was recently reconstructed to this level. TSL D portion is 4X4 road - high on ridge.	MT1
1145000	3			Crosses Mason dam and is crucial access to private land. Road is critical to fire access.	MT1, MT4
1145400	3	2		Phillips Lake boat launch SE shore (by dam).	MT1, MT3
1160000	3			Dean Creek rd.- Fire access. Potential RS2477 - upper portion in native condition would need reconstruction to meet OB ML	MT 1, RC2
1160110	3	2		Cutoff road bypasses bad portion of skyline road - is fire access- lowers travel time to 1170 area significantly	MT3

Watershed/Road	Current Objective ML	Recommended Management Level	Change in Surface	Remarks	Reference/Recommendations
2200200	5			Mason Dam (paved) boat launch - deferred maint. needed to maintain standard - look for supplemental funding w/ BOR	RC5
2200300	3	1 (last 0.1mi)		Social Security Point - consider closing road from toilet to lake to meet current area closure objectives	MT4, RT2
2200400	5	4		Mowich Loop - FWHA reconstructed - look for partnership opportunities w/ FWHA to maintain/chip seal	MT0, MT3
2200900	3	2/1 - past campground		Seek partnership opportunities for maint of rd. past campground by SUP (City of Sumpter). Reconst to CG to accommodate overflow of Sumpter campers and address aquatic concerns.	MT1, MT 3, RC2
2200910	3	2		Gravel/ address aquatic concerns as is the campground access, in RHCA entire length, but want to retain rustic characteristics.	MT1, MT3
2220000	3			South Shore road to 2 campgrounds (Union Cr. CG overflow). Accesses 1160. Private land access.	MT4
2220460	3	2		Miller Lane CG - keep rustic characteristics...campground parking needs definition to reduce overland travel.	MT1, MT3
2220480	3			South Shore campground. Accesses boat launch.	RC2
2220485	3			South Shore campground. Accesses boat launch.	MT 1, RC2
2225000	3			Union Creek road	MT1, MT3, MT4
2230000	5			Union Creek Campground main loop	RC2, RC5
2230021	5			Union Creek Campground loop/spur	RC2, RC5
2230022	5			Union Creek Campground loop/spur	RC2, RC5
2230023	5			Union Creek Campground loop/spur	RC2, RC5
2230024	3			Road to sewer lagoons...may need upgrade if SVRR upgrades happen - GT/partnership opps exist if this occurs	RC2, RC5
2230025	5			Union Creek Campground loop/spur	RC2, RC5
6530000	3	2		Currently Level 2, keep to lower standards	MT 1, MT3, MT4
6530100	3	2		Deer Creek Campground. Consider reducing services to use as forest camp/dispersed rec site.	CO1, MT3
6540000	3			May want to consider a lower mtce level to be consistent w/ rest of road and the objectives associated w/ Deer Cr. CG. Title 2 (RAC) monies being used to replace Lake Cr. Arch.	MT1, MT3
6550000	3			Deer Creek rd to Sumpter - accesses a lot of land	MT1, MT3, MT4

Watershed/Road	Current Objective ML	Recommended Management Level	Change in Surface	Remarks	Reference/Recommendations
7220000	3			Old Auburn to Union Creek, RS2477- consider upgrading native surface portion between 2225 & county road for consistency of ML	MT 1, MT4
<b>Upper Camas</b>					
2100000	3			Spring Creek Road; aquatic concerns; private land access; all xings need to be evaluated to fish passage, aquatic concerns, 100yr events, bridge problems-needs surfacing.	MT1
5160000	3			Access to Umapine CG	MT1, MT4
<b>Ladd/McAllister</b>					
4300000	3			Ladd Canyon Rd; Coop Road,	MT1, MT4
4305000	3			Ladd Canyon to Beaver -Rock area access; Coop Road? Private Land Access.	MT1, MT4
<b>Little Malheur</b>					
1600000	5	4		Move out of RHCA as opportunity allows. Minimize impact to RHCA. East Fork Camp Cr to Malheur NF Bdry; retain pavement if funding becomes available. There may be potential to swap jurisdiction of portions of road outside of NF Boundaries.	MT3, MT4, RC1, RC5
<b>Beaver/Rock Creek Tributaries</b>					
4300000	3			Ladd Canyon Rd; Coop Road,	MT1, MT4
4305000	3			Ladd Canyon to Beaver -Rock area access; Coop Road? Private Land Access.	MT1, MT4
<b>Meadow Creek</b>					
2100000	3			Spring Creek Road; aquatic concerns; private land access; all xings need to be evaluated to fish passage, aquatic concerns, 100yr events, bridge problems-needs surfacing.	MT1
2105000	3	2		Inside Starkey Exp. Station, Bear Creek area north of Starkey; approx. 1 mi needs resurfacing, very low volume road, consider lowering maint. Level	MT1, MT3, RC1
2120000	3	3/2		Starkey Exp. Station Road to headquarters - consider dropping to ML2 from 2nd junct. of 2105 to junct. of 21.	MT1, MT3
2120731	3			driveway to headquarters	MT0
5155000	3			Fly Valley North road - high recreation use, timber , and admin.	MT 1, MT4
5160000	3			road to Umapine & snomo route	MT 1, MT4

Watershed/Road	Current Objective ML	Recommended Management Level	Change in Surface	Remarks	Reference/Recommendations
OR99061-1	3			FS portion is Rd. #2137	MT1
<b>McKay Creek</b>					
2100000				Spring Creek Road; aquatic concerns; private land access; all xings need to be evaluated to fish passage, aquatic concerns, 100yr events, bridge problems-needs surfacing.	MT1
<b>Grande Ronde River/Hilgard</b>					
1843000	5			Road to Oregon Trail Park. Road showing a lot of wear, safety concerns (narrow bridge, striping probs). Consider coop. agreement to widen tunnel under I84.	MT 4, RC 3, RC2
2100000	3			Spring Creek Road; aquatic concerns; private land access; all xings need to be evaluated to fish passage, aquatic concerns, 100yr events, bridge problems-needs surfacing.	MT1
3120000	3			Fox Hill Road to Indian Cr. Overlook- 2 TSLs ( B for 5 mi, D for 1.2 mi) - Whole road should be listed as a ML3/TSLC road	MT1, MT4
<b>Catherine Creek</b>					
2036000	3	2		Road could use surfacing for aquatic concerns. Private land access.	MT1, MT3
6200000	3			High recreation use, administrative access. Bridge across Indian Cr. and all other xings should be evaluated for aquatic concerns. Jt. Use issues w/ mixed traffic (OHV area) could be safety concerns - consider TSL-C. RC3: some stabilization/slide problems and surfacing issues exist.	MT1, MT4, RC3
6220000	3			Cove to Moss Springs road. Some aquatic concerns. Safety issues are large.	MT1, MT4
6220400	3	2		Moss Springs TH & Campground - could reduce ML to 2 w/ gravel surfacing. TH parking needs to be expanded	RC5, MT3
7700000	3			Snowpark to West Eagle. High Rec. use. Snowmobile route.	MT1
7785000	3	2		NF Catherine Creek road. Goes to picnic area, TH & campground. Private land access. Could reduce maint. level if gravel surfacing is added. If 2, TSL needs to be reduced accordingly. Road washouts in 1997.	MT 1, MT3, MT 4, RC3
<b>Indian/Clark Creek</b>					
6200000	3			High recreation use, administrative access. Bridge across Indian Cr. and all other xings should be evaluated for aquatic concerns. Jt. Use issues w/ mixed traffic (OHV area) could be safety concerns - consider TSL-C. RC3: some stabilization/slide problems and surfacing issues exist.	MT1, MT4, RC3



Watershed/Road	Current Objective ML	Recommended Management Level	Change in Surface	Remarks	Reference/Recommendations
<b>Lower Minam</b>					
6200000	3			High recreation use, administrative access. Bridge across Indian Cr. and all other things should be evaluated for aquatic concerns. It. Use issues w/ mixed traffic (OHV area) could be safety concerns - consider TSL-C. RC3: some stabilization/slide problems and surfacing issues exist.	MT1, MT4, RC3
6220400	3	2		Moss Springs TH & Campground - could reduce ML to 2 w/ gravel surfacing. TH parking needs to be expanded	RC5, MT3
<b>Upper Grande Ronde</b>					
4300000	3			Ladd Canyon Rd; Coop Road,	MT1, MT4, RC2
4300950	3			Grande Ronde Lake CG road	MT1, RC5
4305000	3	2		Ladd Canyon to Beaver -Rock area access; Coop Road? Private Land Access, consider relocating out of RHCA where possible and lowering Mtce level.	MT1, MT3, MT4
5100000	5			Grande Ronde River Road	MT1, MT4, RC4, RC5
5100050	4	3		consider gravel - Spoolcart CG	MT1, MT3
5100051	4	3		consider gravel - Spoolcart CG	MT1, MT3
5100052	4	3		consider gravel - Spoolcart CG	MT1, MT3
5100185	3	1 or 0 in some areas		River CG access: Maintain gravel surface for aquatic concerns. Review existing use/possibly enhance a few existing sites, but eliminate others...obliterate one side or the other	RC5, CO1
5125000	3			Rainbow Road road. Consider dropping dropping the TSL and ML to 2D - add/ replace surfacing & crossings for aquatic concerns. Potential RS2477.	MT1, MT3
5138000	3	2		Access to 1850 TH and Aurelia mine. Consider whether this road is needed at all - if mining is active (close/decomm).	MT1, MT3
5155000	3			Fly Valley North road - high recreation use, timber , and admin.	MT 1, MT4
5160000	3			road to Umapine & snomo route	MT 1, MT4
7300000	5			Elkhorn Drive Scenic Byway	MT1, MT4, RC4, RC5
<b>Powder River / Keating</b>					
6700000	3		Replace w/ dense graded aggregate	Big Creek Road. Potential RS2477. Crossings need to be evaluated for aquatics. Smaller, dense graded aggregate needed to reduce extreme corrugations on surface due to high traffic volumes and steep grades.	MT 1, MT4, RC2
7000000	3			Balm Creek Road. Potential RS2477.	MT 1, MT 3, MT4
7045	3	2		Cutoff Road between 67 & 70. Maintain for safety and aquatics. Lower ML.	MT 1, MT3, MT4

Watershed/Road	Current Objective ML	Recommended Management Level	Change in Surface	Remarks	Reference/Recommendations
7700000	3			Potential RS2477. Heavy mixed traffic.	MT 1, MT4, RC2
<b>Powder River / Pondosa</b>					
6700000	3			Big Creek Road. Potential RS2477. Xings need to be evaluated for aquatics	MT 1, MT4, RC2
7000000	3			Balm Creek Road. Potential RS2477. Evaluate lowering mtce level as indirectly parallels 67.	MT 1, MT 3, MT4
7000475	3	2		Cutoff Road. Maintain for safety and aquatics.	MT 1, MT3, MT4
<b>Eagle Creek</b>					
6700000	3		Replace w/ dense graded aggregate	Big Creek Road. Potential RS2477. Crossings need to be evaluated for aquatics. Smaller, dense graded aggregate needed to reduce extreme corrugations on surface due to high traffic volumes and steep grades.	MT 1, MT4, RC2
7000000	3			Baker Co. Road (as of 2001). Potential RS2477.	
7015000	3			RS2477 Potential. Landslide potential.	MT 1, MT 4, RC 3
7020000	3	2		RS2477 Potential. Review viability of downgrading to Level 2. Strong Public opinion...accesses East Eagle Homes. Upgrade to ML3 if \$\$\$ available.	MT 1, MT 4, RC 3
7020160	3	2	aggregate	Lily White Guard Station. Downgrade to level 2 , but w/ gravel surfacing	MT1, MT3
7700000	3			Potential RS2477. Heavy mixed traffic. CGs, Wild & Scenic River, commercial use.	MT 1, MT4, RC2
7700150	3	2		McBride CG. Some riparian concerns. Maintain lower, primitive look, but ensure adequate parking.	MT 1, MT 3, RC5
7700160	3	2		McBride CG. Some riparian concerns. Maintain lower, primitive look, but ensure adequate parking.	MT1, MTt3
7700430	3			Tamarack CG	MT1
7715000	3	2/1		Summit Point LO & TH. Evaluate long term use if LO is dismantled (check Facility Master Plan). Close past TH if not needed.	MT 3, MT4, RC5
7720000	3			Maintain gravel surface and address aquatic concerns.	MT1
7735000	3			Wagon Road. Potential RS2477. Bridge problems.	MT1, RC2
7735800	3			Eagle Forks CG & TH. Evaluate for adequacy for existing use.	RC5
7745000	3			RS2477 Potential. East Eagle Road. High private and recreational access, w/ several active mines at the end, some bridge probs.	MT1, MT4, RC2
7755000	3			2-Color CG road, access to boulder park TH.	MT1, MT4
7755030	3	2	aggregate	2 -Color road to CG - redesign to accommodate use/W&S river, including adding surfacing	MT1, MT3, RC5

Watershed/Road	Current Objective ML	Recommended Management Level	Change in Surface	Remarks	Reference/Recommendations
7755060	3			2-Color cabin road	MT 0
<b>Pine Creek</b>					
3900000	5			Hells Canyon Scenic Byway	MT1, MT4, RC4, RC5
3900750	5	4		Lake Fork CG - retain pavement, look for adequacy for existing uses	MT1, MT3, MT4, RC4, RC5
3992000	3			Recently reconstructed by TS, retain investment. Cutoff road between 39 & Halfway	MT1, MT4
6600000	3		look to add surfacing between 39 and Fish Lake	Potential RS2477. Accesses Lakes, TH, look for enhancement opportunities and maintain as Level 3	MT1, MT 4, RC5
6600040	3			Clear Creek Snopark - need to evaluate parking and safety concerns (ice forming off draw onto parking area)	RC5
6600400	3			Fish Lake CG - parking spurs may be too short for motor homes, boat launch should be reviewed for adequacy	MT1, RC5
6600500	3	2		Twin Lakes CG & TH -parking needs to be defined - This area could go down to level 2 as long as gravel surface is retained for sediment/recreational concerns.	MT3, RC5
6625000	3			Potential RS2477. Recently Reconstructed most it	MT0, MT1
6628000	3			Recently reconstructed 1/2 by TS, retain investment.	MT1, MT4
7710000	3			RS2477. Coop road. Most doesn't meet standards.	MT1, MT4, RC2
<b>Upper Imnaha River</b>					
3900000	5			Hells Canyon Scenic Byway	MT1, MT4, RC4, RC5
3900420	3	2		Old cutoff road to 3955 - Staging Area, Fire Camp Area	MT0, MT3
3900440	3			Blackhorse Campground	MT1, RC4
3900450	3		pave	Ollokot Campground - needs pavement	RC4, RC5, MT1
3900452	3			Ollokot Campground - needs pavement - access storage/dump	MT1, RC4
3930000	3			Harl Butte; 15.4 mi level 3, 8.4 miles level 2	MT4, RC5
3935000	3			Jaynes Ridge - 7.3 miles level 3, 6.7 miles level 2	MT4
3935320	3	2		Makin Camp - 2.1 miles level 3, 2.6 miles level 2	MT3
3955000	3			Upper Imnaha Road – Consider maintenance agreement with Wallowa County.	MT0
3960000	5			Indian Crossing road - several campgrounds & trailheads	MT1, MT4
3960100	3			Coverdale Campground	MT0, MT1
3960200	3			Hidden Campground	MT0, MT1

Watershed/Road	Current Objective ML	Recommended Management Level	Change in Surface	Remarks	Reference/Recommendations
3960300	3			Evergreen Campground	MT0, MT1
3960393	2	3		Indian Crossing Campground	MT2, RC2, RC5
3960395	2	3		Indian Crossing Campground	MT2, RC2, RC5
3960400	3			Indian Crossing Campground	MT0, MT1
3965000	2	3		McGraw/Overlook Road. Increase ML for user safety	MT1, MT2, MT4, RC2
4200200	3			College Creek Admin Site	MT0, MT1
4230000	3			Freezeout - <b>recommend change in jurisdiction (to County)</b>	MT0, MT4
4240000	3			Hat Point Road - part of Hells Canyon Scenic Byway (FS)	MT0
6600000	3			Fish Lake Road	RC2, MT4
<b>Big Sheep Creek</b>					
3900000	5			Hells Canyon Scenic Byway	MT1, MT4, RC4, RC5
3915000	5/3			Divide Road. Ends at the snopark. Maintain investment.	MT0, RC5
3915010	5			Salt Cr. Summit Snopark	RC5
3930000	3	3/2		Harl Butte LO road. Private land access. Lower the section with the TSL B to TSL C. From 3980 to termini, lower to ML2	MT 1, MT 3, MT 4
3930280	3			Harl Butte LO access.	MT0
<b>Snake River /Homestead</b>					
3965000	5			Hells Canyon Overlook. Part of the Hells Canyon Scenic Byway. Possible Interpretive opportunities available.	MT 0, RC 5
<b>Lower Imnaha River</b>					
4240000	3			Hat Point Road - part of Hells Canyon Scenic Byway (FS)	MT0
4240310	3			Memaloose Administrative Site	MT0
4240325	3			Sacajawea Campground	MT0
4240335	3			Hat Point Road Loop (campground)	MT0
4260000	2	3		Dug Bar Road. Propose change in ML for safety	RC2, RC3, MT2, MT4
4600000	5/3	4/3		Wellamotkin Dr. Potential PFSR. Private Land access. Road should be maintained to ML4, TSL B	MT 1, MT3, MT4 - MT 1&4 for the ML3 section
4600780	3			Cemetery Ridge: ML 3 to 4600810	MT4
4600810	3			Buckhorn Lookout Access	MT4

Watershed/Road	Current Objective ML	Recommended Management Level	Change in Surface	Remarks	Reference/Recommendations
4600880	3			Indian Village	MT4
<b>Snake River /Rogersburg</b>					
4600000	5/3	4/3		Wellamotkin Dr. Potential PFSR. Private Land access. Road should be maintained to ML4, TSL B	MT 1, MT3, MT4 - MT 1&4 for the ML3 section
4600780	3			Cemetery Ridge: ML 3 to 4600810	MT4
4600783	3			Buckhorn Campground	MT4, RC2
4600810	3			Buckhorn Lookout Access	MT4
4680000	3			Cold Spring Ridge Road	RC2, RC3, RC4, MT4
<b>Upper Joseph Creek</b>					
4600000	5/3	4/3		Wellamotkin Dr. Potential PFSR. Private Land access. Road should be maintained to ML4, TSL B	MT 1, MT3, MT4 - MT 1&4 for the ML3 section
4600361	3			Red Hill LO. Potential rec area/picnic site. Maintain road to TSL-C.	MT 0
4600580	3			Daugherty CG Loop. Maintain to TSL C. Needs reconstruction of mudhole	RC4, RT 5
4600780	3	3/2		Cemetery Ridge Road (past Buckhorn LO). High rec use. Consider lowering ML to ML 2 past the LO	MT3
4600880	3			Indian Grove TH access road. Tribal significance.	MT 0
4620000	3	4		Crow Cr. Road. Now a 3-B. School bus route, mail route, private land access. Considering transferring Jurisdiction and raising ML to 4.	MT 1, MT 4, MT2
4625000	4/3	3		Chesnimnus Rd. Needs surface evaluation...asphalt is deteriorating. If funding becomes available, then the pavement could be restored and ML could be raised to 4.	MT1, MT 3, MT 4, RC1
4625265	3			Vigne CG - Campground sites need to be evaluated for aquatic concerns...possibly relocate spurs.	MT1 , RC4
4650000	3			Coyote CG/Table Mountain. High Rec & mixed uses. Maintain 3-C designation. 1st portion is Nez Perce tribe access road.	MT1
4665000	3	2		Peavine Loop - could be lowered to ML2, but maintain gravel surface for aquatics.	MT1, MT3
4670000	3			McCarty Road. Billy Meadows Admin. Site	MT 1, MT4
4670025	3			Billy Meadows Admin Site - increase TSL to C	MT0
4680000	3	3/2		Cold Springs Road. 4 THs in the NRA. Access to Asotin, WA plus access to Cache Cr - Maintain road as TSLC to frog pond, but consider dropping to ML 2 TSL D status beyond this point. Increase signs & warnings about road condition.	MT 3, MT 4

Watershed/Road	Current Objective ML	Recommended Management Level	Change in Surface	Remarks	Reference/Recommendations
4690000	3			Poison Creek Road, emphasize aquatic concerns due to proximity to creek, safety concerns. Investment into creek rehab needs to be maintained.	MT 1, MT4
<b>Lower Joseph Creek</b>					
3000150	3	2		Davis Cr. tie thru road. Should be maintained to ML 2, TSL D... Noxious weed concerns.	MT3, RC2
3000174	3			Chico TH. Road needs to be reconstructed to a TSL C, TH needs to be defined (site plan)	RC2, RC5
4600000	5/3	4/3		Wellamotkin Dr. Potential PFSR. Private Land access. Road should be maintained to ML4, TSL B	MT 1, MT3, MT4 - MT 1&4 for the ML3 section
4600361	3			Red Hill LO. Potential rec area/picnic site. Maintain road to TSL-C.	MT 0
4600580	3			Daugherty CG Loop. Maintain to TSL C. Needs reconstruction of mudhole	RC4, RT 5
4650000	3			Coyote CG/Table Mountain. High Rec & mixed uses. Maintain 3-C designation. 1st portion is Nez Perce tribe access road.	MT1
4650015	3			Coyote Cr. CG Loop - needs controlled access loop - needs to be maintained to TSL C	RC5
4680000	3	3/2		Cold Springs Road. 4 THs in the NRA. Access to Asotin, WA plus access to Cache Cr - Maintain road as TSLC to frog pond, but consider dropping to ML 2 TSL D status beyond this point. Increase signs & warnings about road condition.	MT 3, MT 4
<b>Lower Wallowa</b>					
3021000	3			Whiskey Cr. Road. Recommend transfer of jurisdiction to County (not a costshare road). Primary dispatch route for ODF fire. Mostly on state land.	MT0
<b>Lostine Deer</b>					
8210000	4/3	3		Lostine River Road. Part reconstructed by FWHA was built to double lane. High mixed traffic use. TH access. Enhancement opps. Maintain both ML & TSL designations.	MT1, MT4, RC5
8210020	3			Pole Br. Picnic area	RC4, RC5, MT4
8210030	3			Williamson CG	MT1, MT4
8210140	3			Maxwell Lake TH & CG. Need to evaluate adequacy of accommodations for existing use.	RC 4, RC5
8210150	3			Twopan TH & CG, recently reconstructed	MT1, MT4
8250000	3			Bear Cr. Road to Boundary CG & TH.	MT1, MT4

Watershed/Road	Current Objective ML	Recommended Management Level	Change in Surface	Remarks	Reference/Recommendations
8250040	3	2		All in riparian. Huckleberry TH is primitive in nature. Maintain this primitive-ness by lowering ML to 2	MT3
<b>Upper Wallowa</b>					
8205000	4			Hurricane Cr. TH & Wilderness Access. High level of recreation use. History of Landslides. Recently reconstructed w/ slide stabilization.	MT1, MT4
8205100	3			Hurricane CG - evaluate campground for adequacy of use & aquatic concerns.	RC4, RC5
<b>Wildcat / Mud / Courtney Creeks</b>					
3000150	3	2		Tie thru road. Should be maintained to ML 2, TSL D... Noxious weed concerns.	MT3, RC2
3000174	3			Chico TH. Road needs to be reconstructed to a TSL C, TH needs to be defined (site plan)	RC2, RC5
3021000	3			Whiskey Cr Road - evaluate camp xings for aquatics	MT 1, MT 4
3035000	3			Sled Springs Road	MT1, MT4
3035010	3			Sled Springs Admin Site	MT0
3035020	3			Sled Springs Admin Site	MT0
3040000	3	2		Kuhn Ridge Road, Private Land access, seed orchard, historic schoolhouse structure - consider dropping to ML 2. No ROW past house, but land is included in Blue Mt. Land Exchange	MT3
3040125	3	2		Cutoff road between hwy & Kuhn Ridge - evaluate dropping to level 2-D	MT3
<b>Snake River/ Pittsburg</b>					
001819	3			Wilderness access points. Possible future overlooks.	MT 4, RC5
002060	3			Wilderness access points. Possible future overlooks.	MT 4, RC5
002060A	3			Wilderness access points. Possible future overlooks.	MT 4, RC5
002062	3			Wilderness access points. Possible future overlooks.	MT 4, RC5
<b>Snake River/ Hat Point</b>					
001819	3			Wilderness access points. Possible future overlooks.	MT 4, RC5
002060	3			Wilderness access points. Possible future overlooks.	MT 4, RC5
002060A	3			Wilderness access points. Possible future overlooks.	MT 4, RC5
3810000	5	4		Hells Canyon Launch	MT 3, MT 4, RC5
4240000	3			Hat Point Road	MT 4
4240325	3			Sacajewea Campground	MT 4, RC5
4240330	3			Hat Point Campground	MT 4, RC5
4240332	3			Hat Point Campground	MT 4, RC5

Watershed/Road	Current Objective ML	Recommended Management Level	Change in Surface	Remarks	Reference/Recommendations
<b>Rapid River</b>					
00517C	3			Heavens Gate Lookout	MT 4, RC 3, RC5

The following lists the key to the abbreviations shown in the last column, above.

**MAINTENANCE:**

- MT0 Current maintenance is adequate; status quo.
- MT1 Emphasize maintenance items to meet Aquatic concerns
- MT2 Change ML to higher level
- MT3 Change ML to lower level
- MT4 Emphasize maintenance items to meet safety concerns (Site distance, brushing, pullouts, etc)

**RECONSTRUCTION/RESTORATION:**

- RC1 Consider maintenance at current Objective ML yet rehabilitate surface to gravel.
- RC2 Reconstruct/restore to met Objective ML.
- RC3 Reconstruct sections of road for roadside stabilization
- RC4 Reconstruct road to mitigate aquatic concerns.
- RC5 Reconstruct to accommodate existing uses and/or enhance opportunities.

**RE-ROUTE:**

- RT1 Consider closing existing route and re-routing use to alternate ML2 road with possible upgrade to ML2.

**CLOSE/OBLITERATE/ABANDONMENT:**

- CO1 Close/obliterate sections or all of the road for resource concerns (see table for details of affected resources).
- CO2 Close/obliterate sections or all of the road for social concerns (see table for details of affected social values).



## Setting Priorities

The road system was evaluated and prioritized using four key issues established by the ID team. Although more issues were addressed in the roads analysis, each important to consider, the ID team agreed that the following were the key issues for use in prioritizing and managing the road segments:

- ✓ Aquatic, riparian zones, and water quality
- ✓ Economics
- ✓ General public transportation
- ✓ Recreation

A fifth issue, protection, was considered however, it is impacted only when roads are removed, decommissioned, or permanently closed. There will be minor impact from those roads proposed for reclassification to lower maintenance standard, and roads recommended for upgrades will not substantially affect protection factors such as response time.

Priority will be given to roads identified to change jurisdiction with another agency. Scenic byways and public forest service roads (candidates) will also have top priority although non-critical maintenance may be deferred to other top priority safety and environmental impacts.

The current system of ML 3-5 roads provide the minimum system needed to manage safe and efficient travel for the administration, protection, and utilization of the Wallowa-Whitman National Forest.

The ID team is recommending minor adjustments in maintenance levels combining both upgrades and downgrades. These recommendations are further discussed in the opportunities section.

Priorities for the remainder of the existing system were established using the above issues for individual road segments, watershed priorities established using the WRAPP's process, identified deferred critical maintenance (safety) and environmental impacts

Establishing priorities for individual segments consisted of evaluating each segment for impacts and benefits using the criteria for the four key issue areas. The higher the ranking the more adverse impacts were estimated, the higher the ranking for benefits the impacts were considered positive.

Negative impacts included location to stream, number of stream crossings, and road surface type. Positive benefits included economic efficiency, regional network or community dependency, access to recreation sites or inholdings.

## Rankings

Watersheds were ranked 1-3 in order of highest to lowest priority (high, medium, low)

Road segments were ranked 1-9 based on how they fell into decision matrix below.

**Table 5-2. Road Segment Priority**

Impacts (H-L)	Benefits (H-L)	Ranking
L	H	1
M	H	2
L	M	3
M	M	4
L	L	5
H	H	6
H	M	7
M	M	8
H	L	9

Two other factors were evaluated to further subdivide overall rankings:

- Critical deferred maintenance that has been field verified
- Fish passage barriers that have been field verified

Not all of the critical deferred maintenance has been field verified nor have all of the fish passage barriers been identified. The recommendations still need further work but there is sufficient information to develop initial priorities and maintenance planning. Bridge deficiencies and major culverts may come under both critical deferred and environmental concern.

All critical health and safety issues with respect to road users or forest resources receive the highest priority, regardless of the above rankings. Additionally, scenic byways and public forest service roads will be considered the next priority, with the remainder of the roads being categorized utilizing the Road Prioritization Matrix shown in Appendix 4.

# APPENDICES

## APPENDIX 1: Definitions

- **Arterial:** Provides service to large land areas. Connects with other arterials or public highways. In 1984, the original guidance provided arterials would service areas generally 50,000 acres in size.
- **Collector:** Serves smaller land areas than arterials. Connects with other arterials or public highways. In 1984, the original guidance established that collectors would service areas generally 20,000-50,000 acres in size.
- **Local:** Single purpose road. Connects terminal facilities with arterials and collectors. In 1984, the original guidance established that local roads would generally service areas less than 20,000 acres in size.
- **Maintenance Level.** Defines the level of service provided by, and maintenance required for, a specific road, consistent with road management objectives and maintenance criteria. (FSH 7709.58, Sec 12.3 – Transportation System Maintenance Handbook)

**Maintenance Level 1:** Assigned to intermittent service roads during the time they are closed to vehicular traffic. The closure period must exceed 1 year. Basic custodial maintenance is performed to keep damage to adjacent resource to an acceptable level and to perpetuate the road to facilitate future management activities. Emphasis is normally given to maintaining drainage facilities and runoff patterns. Planned road deterioration may occur at this level. Appropriate traffic management strategies are “prohibit” and “eliminate”. Roads receiving level 1 maintenance may be of any type, class or construction standard, and may be managed at any other maintenance level during the time they are open for traffic. However, while being maintained at level 1, they are closed to vehicular traffic, but may be open and suitable for non-motorized uses.

**Maintenance Level 2:** Assigned to roads open for use by high clearance vehicles. Passenger car traffic is not a consideration. Traffic is normally minor, usually consisting of one or a combination of administrative, permitted, dispersed recreation, or other specialized uses. Log haul may occur at this level. Appropriate traffic management strategies are either (1) discourage or prohibit passenger cars or (2) accept or discourage high clearance vehicles.

**Maintenance Level 3:** Assigned to roads open and maintained for travel by a prudent driver in a standard passenger car. User comfort and convenience are not considered priorities. Roads in this maintenance level are typically low speed, single lane with turnouts and spot surfacing. Some roads may be fully surfaced with either native or processed material. Appropriate traffic management strategies are either “encourage” or “accept.” “Discourage” or “prohibit” strategies may be employed for certain classes of vehicles or users.

**Maintenance Level 4:** Assigned to roads that provide a moderate degree of user comfort and convenience at moderate travel speeds. Most roads are double lane and aggregate surfaced. However, some roads may be single lane. Some roads may be paved and/or dust abated. The most appropriate traffic management strategy is “encourage.” However, the “prohibit” strategy may apply to specific classes of vehicles or users at certain times.

**Maintenance Level 5:** Assigned to roads that provide a high degree of user comfort and convenience. Normally, roads are double-lane, paved facilities. Some may be aggregate surfaced and dust abated. The appropriate traffic management strategy is “encourage.”

• **Traffic Service Levels.**

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
<b>Flow</b>	Free Flowing with adequate parking facilities.	Congested during heavy traffic such as during peak logging or recreation activities.	Interrupted by limited passing facilities, or slowed by the road condition.	Flow is slow or may be blocked by an activity. Two way traffic is difficult and may require backing to pass.
<b>Volumes</b>	Uncontrolled; will accommodate the expected traffic volumes.	Occasionally controlled during heavy use periods.	Erratic; frequently controlled as the capacity is reached.	Intermittent and usually controlled. Volume is limited to that associated with the single purpose.
<b>Vehicle Types</b>	Mixed; Includes the critical vehicle and all vehicles normally found on public roads.	Mixed; Includes the critical vehicle and all vehicles normally found on public roads.	Controlled mix; accommodates all vehicle types including the critical vehicle. Some use may be controlled to vehicle types.	Single Use; Not designed for mixed traffic. Some vehicles may not be able to negotiate. Concurrent use traffic is restricted.
<b>Critical Vehicle</b>	Clearances are adequate to allow free travel. Overload permits are required.	Traffic controls needed where clearances are marginal. Overload permits are required.	Special provisions may be needed. Some vehicles will have difficulty negotiating some segments.	Some vehicles may not be able to negotiate. Loads may have to be off-loaded and walked in.
<b>Safety</b>	Safety features are a part of the design.	High priority in design. Some protection is accomplished by traffic management.	Most protection is provided by management.	The need for protection is minimized by low speeds and strict traffic controls.
<b>Traffic Management</b>	Normally limited to regulatory, warning, and guide signs and permits.	Employed to reduce traffic volume and conflicts.	Traffic controls are frequently needed during periods of high use by the dominant resource activity.	Used to discourage or prohibit traffic other than that associated with the single purpose.
<b>User Costs</b>	Minimize; transportation efficiency is important.	Generally higher the "A" because of slower speeds and increased delays.	Not important; efficiency of travel may be traded for lower construction costs.	Not Considered.
<b>Alignment</b>	Design speed is the predominant factor within feasible topographic limitations.	Influenced more strongly by topography than by speed and efficiency.	Generally dictated by topographic features and environmental factors. Design speeds are generally low.	Dictated by topography, environmental factors, and the design and critical vehicle limitations. Speed is not important.
<b>Road Surface</b>	Stable and smooth with little or no dust, considering the normal season of use.	Stable for the predominant traffic for the normal use season. Periodic dust control for heavy use or environmental reasons. Smoothness is commensurate with the design speed.	May not be stable under all traffic or weather conditions during the normal use season. Surface rutting, roughness, and dust may be present, but controlled for environmental or investment protection.	Rough and irregular. Travel with low clearance vehicles is difficult. Stable during dry conditions. Rutting and dusting controlled only for soil and water protection.

**APPENDIX 2: Forest Recreation Opportunity Spectrum (ROS) Summary**

<b>ROS Class *</b>	<b>Acres</b>	<b>% of Forest</b>	<b>Current capacity RVDs and WFUDs</b>	<b>Projected Demand RVDs &amp; WFUDs Decade 5</b>
<i>Nonwilderness</i>				
R	1,500	<0.1%	172,700	172,700
RM	242,100	10.3%	1,209,800	6,932,000
RN	985,600	42.0%	4,925,000	RM & RN combined above
SPM	260,200	11.1%	573,700	339,000
SPNM	269,000	11.5%	322,800	200,200
P	8,115	0.3%	7,000	7,000
subtotal	1,766,515	(75.2%)	7,211,00	7,650,700
<i>Wilderness</i>				
P	515,200	21.9%	276,400	300,200
SP	67,500	2.9%	56,400	32,600
subtotal	582,700	(24.8%)	332,800	332,800
<b>TOTAL</b>	<b>2,349,215</b>	<b>100%</b>	<b>7,543,800</b>	<b>7,983,500</b>

**\* ROS Classification Key**

- R = Rural
- RM = Roaded Modified
- RN = Roaded Natural
- SPM = Semiprimitive Motorized
- SPNM = Semiprimitive Non-motorized
- P = Primitive
- SP = Semiprimitive

RVD = Recreation Visitor Day, WFUD = Wildlife and Fish User Day

## **APPENDIX 3: Summary of Ongoing Recreational Activities on Wallowa-Whitman NF**

### **I. LAND-BASED: ROADED SETTING**

#### **A. Motorized activity:**

- ATV (Class 1-3)
- Sightseeing
- Hunting (big game, small game , bird, gun or archery)
- Trapping
- Snowmobile riding
- Nature Study (insects, botany, geology)
- Historic study (ghosts towns, old mines, railroad, prehistoric)
- Forest Product gathering (berries, wood, mushrooms, antlers)

#### **B. Non-motorized activity:**

- Hiking
- Horseback riding and packing (includes llamas, packstock)
- Camping (tent, trailer, RV)
- Backpacking
- Hunting (big game, small game , bird, gun or archery)
- Trapping
- Picnicking
- Mtn Bike
- XC Skiing & snow shoeing
- Alpine Skiing and snow boarding
- Snow sledding
- Dog sledding
- Photography
- Seeking solitude, personal vision quest, spiritual insight
- Nature Study (insects, botany, geology)
- Historic study (ghosts towns, old mines, railroad, prehistoric)
- Forest Product gathering (berries, wood, mushrooms, antlers)
- Rock climbing (bouldering, technical, peak ascents)

### **II. LAND-BASED: UN-ROADED SETTING**

#### **A. Motorized:**

- ATV (Class 1-3)
- Sightseeing
- Hunting (big game, small game , bird, gun or archery)
- Trapping
- Snowmobile riding
- Nature Study (insects, botany, geology)
- Historic study (ghosts towns, old mines, railroad)
- Forest Product gathering (berries, wood, mushrooms, antlers)

**B. Non-motorized:**

Hiking  
Horseback riding and packing (includes llamas, packstock)  
Camping (tent, trailer, RV)  
Backpacking  
Hunting (big game, small game , bird, gun or archery)  
Trapping  
Picnicking  
Mtn Bike, road touring  
XC Skiing & snow shoeing  
Alpine Skiing and snow boarding  
Dog sledding  
Snow sledding  
Photography  
Seeking solitude, personal vision quest, spiritual insight  
Nature Study (insects, botany, geology)  
Historic study (ghosts towns, old mines, railroad, prehistoric)  
Forest Product gathering (berries, wood, mushrooms, antlers)  
Rock climbing (bouldering, technical, peak ascents)

**III. WATER-BASED: UN-ROADED SETTING**

**A. Motorized activities:**

Jet boating  
Fishing (summer and ice)  
Sightseeing (scenery, wildlife, etc)  
Personal water craft (ie. jet skiis)  
Water skiing

**B. Non-motorized activities:**

Rafting  
Kayaking  
Fishing (summer and ice)  
Sightseeing (scenery, wildlife, etc)  
Canoeing  
Sailing  
Swimming, Water -play, wading  
Snorkeling, scuba diving

UNKNOWN -  
Hangliding, mtn boarding,



**APPENDIX 4: Prioritization of Roads**

Criteria: Watershed priority (WRAPP's), road priority, critical deferred or maintenance and environmental impact (fish passage barriers or other unacceptable impacts)

**Maintenance Level 3-5 Roads:**

Watershed Priority	Road Priority	CDM (Hazard)	Environmental Impact	Priority
1	1	1	1	1 H
1	1	1	0	2 H
1	2	1	1	3 H
1	2	1	0	4 H
2	1	1	1	5 H
2	1	1	0	6 H
2	2	1	1	7 H
2	2	1	0	8 H
3	1	1	1	9 H
3	1	1	0	10 H
3	2	1	1	11 H
3	2	1	0	12 H
1	3	1	1	13 H
1	3	1	0	14 H
1	4	1	1	15 H
1	4	1	0	16 H
2	3	1	1	17 H
2	3	1	0	18 H
2	4	1	1	19 M
2	4	1	0	20 M
3	3	1	1	21 M
3	3	1	0	22 M
3	4	1	1	23 M
3	4	1	0	24 M
1	5	1	1	25 M
1	5	1	0	26 M
1	6	1	1	27 M
1	6	1	0	28 M
2	5	1	1	29 M
2	5	1	0	30 M
2	6	1	1	31 M
2	6	1	0	32 M
3	5	1	1	33 M
3	5	1	0	34 M
3	6	1	1	35 M
3	6	1	0	36 M
1	7	1	1	37 L

<b>Watershed Priority</b>	<b>Road Priority</b>	<b>CDM (Hazard)</b>	<b>Environmental Impact</b>	<b>Priority</b>
1	7	1	0	38 L
1	8	1	1	39 L
1	8	1	0	40 L
2	7	1	1	41 L
2	7	1	0	42 L
2	8	1	1	43 L
2	8	1	0	44 L
3	7	1	1	45 L
3	7	1	0	46 L
3	8	1	1	47 L
3	8	1	0	48 L
1	9	1	1	49 L
1	9	1	0	50 L
2	9	1	1	51 L
2	9	1	0	52 L
3	9	1	1	53 L
3	9	1	0	54 L

**APPENDIX 5: Questions Addressed in Accordance with FS-643**

<b>Question Number</b>	<b>Addressed in Analysis (Yes/No)</b>	<b>Addressed as Modified Question **</b>
<a href="#">EF1</a>	Yes	
EF2	Yes	Modified question
EF3	Yes	Modified question
EF4	Yes	Modified question
EF5	No	
<a href="#">AQ1</a>	*	Aquatics addressed in Ecosystem Functions (EF)
AQ2	*	Aquatics addressed in Ecosystem Functions (EF)
AQ3	*	Aquatics addressed in Ecosystem Functions (EF)
AQ4	*	Aquatics addressed in Ecosystem Functions (EF)
AQ5	*	Aquatics addressed in Ecosystem Functions (EF)
AQ6	*	Aquatics addressed in Ecosystem Functions (EF)
<a href="#">AQ7</a>	*	Aquatics addressed in Ecosystem Functions (EF)
AQ8	*	Aquatics addressed in Ecosystem Functions (EF)
AQ9	*	Aquatics addressed in Ecosystem Functions (EF)
AQ10	*	Aquatics addressed in Ecosystem Functions (EF)
AQ11	*	Aquatics addressed in Ecosystem Functions (EF)
AQ12	*	Aquatics addressed in Ecosystem Functions (EF)
AQ13	*	Aquatics addressed in Ecosystem Functions (EF)
AQ14	*	Aquatics addressed in Ecosystem Functions (EF)
<a href="#">TW1</a>	Yes	
TW2	Yes	
TW3	Yes	
TW4	No	
<a href="#">EC1</a>	Yes	Modified question
EC2	No	
EC3	No	
TM1	Yes	
<a href="#">TM2</a>	Yes	Modified question
TM3	Yes	Modified question
<a href="#">MM1</a>	No	
<a href="#">RM1</a>	No	
<a href="#">WP1</a>	No	
WP2	No	
WP3	No	
<a href="#">SP1</a>	Yes	
<a href="#">SU1</a>	*	Special Uses addressed in GT and RR
<a href="#">GT1</a>	Yes	
GT2	Yes	
GT3	Yes	

GT4	Yes	
<a href="#">AU1</a>	Yes	
AU2	Yes	
<a href="#">PT1</a>	Yes	
PT2	Yes	
PT3	Yes	
PT4	Yes	
UR1	Yes	
<a href="#">UR2</a>	Yes	
UR3	Yes	
UR4	Yes	
UR5	Yes	
RR1	Yes	
<a href="#">RR2</a>	Yes	
RR3	Yes	
RR4	Yes	
RR5	Yes	
PV1	Yes	Modified question
<a href="#">PV2</a>	No	
PV3	No	
PV4	No	
<a href="#">SI1</a>	Yes	
SI2	Yes	
SI3	Yes	
SI4	Yes	
SI5	Yes	
SI6	Yes	
SI7	Yes	
SI8	Yes	
SI9	Yes	
SI10	Yes	
CR1	Yes	Modified Question

## **APPENDIX 6: Laws and Regulations**

### **Laws**

1. National Trails System Act of October 2, 1968 (16 U.S.C. 1241-1249, Pub. L. 90-543). Establishes the National Trail System, including planning, right-of-way acquisition, and construction of trails designated by Congress or the Secretary of Agriculture.
2. Federal Aid Highway Act of 1968 as amended (23 U.S.C. 109(a) and (h), 144, 151, 351, and 319) (Pub. L. 90-495, 97-424, and 97-134). Establishes the National Bridge Inspection Standards (Title 23, Code of Federal Regulations, Part 650 (23 CFR Part 650)) and the requirement that each state have a current inventory of bridges on all public roads, including those on forest development roads open to public travel (FSM 1535.11).
3. Forest Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C.1601, Pub. L. 93-378) as amended by the National Forest Management Act of 1976 (16 U.S.C. 1608, Pub. L. 94-588). Directs the designing of roads to standards appropriate for intended uses and prescribes the revegetation of unnecessary roads.
4. Surface Transportation Assistance Act of 1978 as amended (23 U.S.C. 101a, 201-205, Pub. L. 95-599 and 97-424). Supersedes the Forest Highway Act of 1958 (Pub L. 85-767). Authorizes appropriations for forest highways and public lands highways. Establishes criteria for forest highways; defines forest roads, forest development roads, and trails (amended by Pub. L. 97-424), and limits force account project size for forest roads. Establishes the Federal Lands Highway Program.
5. Alaska National Interest Lands Conservation Act of 1980 (16 U.S.C. 3210, Pub. L. 96-847. (This does not apply to the Duck/Swains Area.)
6. The Economy Act of 1932 (31 U.S.C. 1535). Allows the Federal Highway Administration (or other agencies) to cooperate in work for the Forest Service to develop cost estimates, to conduct surveys, to prepare designs, and to perform construction upon written request of the Regional Forester.
7. Granger-Thye Act of April 24, 1950 (16 U.S.C. 504a, 571c, 580c-5801, 581, and 5811). Authorizes cooperation and assistance to public and private agencies, organizations, and persons in performing work on land situated within or near National Forests, including activities related to the transportation system (FSH 7709.59, sec. 20.11).
8. National Forest Roads and Trails Act of October 13, 1964 as amended (16 U.S.C. 532-538, Pub. L. 88-657). Authorizes road and trail systems for the National Forests. Authorizes the granting of easements across Forest Service administered lands, the construction of maximum economy roads (FSM 7705) and methods for financing them, and the imposing of requirements on road users for maintaining and reconstructing roads, including cooperative deposits for such work.
9. Highway Safety Act of 1966 (23 U.S. C. 4-2, Pub. L. 89-564). Directs states and participating Agencies to identify and survey accident locations; to design, construct, and maintain roads in accordance with safety standards; to apply sound traffic control principles and standards; and to promote pedestrian safety.
10. Annual Department of the Interior and Related Agencies Appropriations Act. Appropriates funds for the Forest Roads Program.

11. National Flood Insurance Act of 1968 (Pub. L. 90-448, 83 Stat. 476). Outlines the unified program for national floodplain management.

### **Code of Federal Regulations**

Eight regulations (Title 36, 23, and 48 Code of Federal Regulations) also apply to National Forest Transportation management. These rules are as follows:

1. Title 36, Code of Federal Regulations, Part 212 (36 CFR Part 212). These rules establish requirements for the administration of the forest development transportation system and provisions for acquisition of rights-of-way (FSM 5460, FSM 1010).
2. 23 CFR 625.4(b), 23 CFR 650, Subpart C. These rules promulgated by the Federal Highway Administration establish national bridge design specifications and guides, and bridge inspection standards, and are applicable to bridges on forest development roads as provided in FSM 7722 and FSM 7736 (FSM 1535.11).
3. 23 CFR Part 1230. These rules promulgated by the Federal Highway Administration establish standards for highway safety.
4. 36 CFR Part 223. These rules establish policy and procedures for Forest Service timber purchase road construction related to timber appraisals and contracts.
5. 36 CFR 261.12 and 261.54. These rules establish prohibitions on forest development roads that are enforceable by the Forest Service and other Federal law enforcement official(s).
6. 36 CFR Part 228. These rules establish access requirements for mining claims. 36 CFR 219.13. These rules require transportation access to be addressed in the land management planning process.
7. 23 CFR 668, Subpart B. These rules promulgated by the Federal Highway Administration, set forth procedures for the Emergency Relief-Federally Owned (ERFO) program that are applicable to transportation system facilities (FSM 7705) owned by Federal agencies.
8. 48 CFR Part 48. These rules promulgated by the Office of Federal Procurement Policy, set forth the requirements for value engineering clauses in construction contracts (Federal Acquisition Regulations (FSH 6309.32 - FAR, part 48).

## **APPENDIX 7: Interdisciplinary Team Process and Determinations**

The following pages are generated from an Oracle database query and reflect the discussions, evaluations, and analyses of individual road segments within the watersheds. This is an abbreviated version showing only roads with high, critical concerns or roads within watersheds which are rated high on the list of priorities based on the WRAPPS process.

The complete list of roads is available from the Forest Roads Analysis files.