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# Payette National Forest Forest-wide Travel Analysis Report

**Payette National Forest**

**Idaho**

-ACTING

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# Executive Summary

The travel analysis process is intended to identify opportunities for the national forest transportation system to meet current and future management objectives, and to provide information that allows integration of ecological, social, and economic concerns into future decisions. The travel analysis process is tailored to local situations and landscape/site conditions as identified by forest staff members and coupled with past public input.

The outcome of the travel analysis process is an identification of potential opportunities for changing the way certain parts of the forest transportation system are managed to address administrative and public issues. A thorough travel analysis supports subsequent National Environmental Policy Act (NEPA) processes, allowing individual projects to be more site-specific and focused, while still addressing cumulative impacts.

A series of District Transportation Analysis Reports (TAR), one for each district of the Payette National Forest has been completed between 2013 and 2015. The recommendations from the District TARs have been compiled to develop this Forest-wide TAR that identifies the minimum road system and makes recommendations for future treatments of National Forest System Roads (NFSR), and inform future analyses, decisions, and specific actions on the Payette National Forest.

## Summary of Issues

Issues were identified using previous public involvement and internal Forest Service input.

- Affordability of road system
- Access to recreational opportunities for the public
- Access to private lands for landowners
- Access to authorized uses such as grazing allotments, mining claims, and other permitted uses
- Access for general forest administration
- Access to firewood and other forest products gathering areas
- Public access increases the risk of spreading invasive plants
- Public access increases the risk of human caused fires
- Roads have an effect on watershed condition
- Roads have an effect on fish and wildlife habitat
- Roads have an effect on cultural resources
- Roads have an effect on botany resources (sensitive plants)

## Summary of Recommended Actions Responding to Issues

- Reduce the number of road miles that need to be maintained or reduce the maintenance level to reduce maintenance costs.
- Leverage funds/efforts to increase maintenance capabilities.
- Prioritize roads that are good candidates for transfer of jurisdiction to counties.
- Reduce the number of roads located in habitat for species-of-concern and species-of-interest.
- Place seasonal restrictions on roads going through critical habitat.
- Reduce the road width and maintenance level to minimum needed for safe vehicle passage and to meet the intended need in sensitive wildlife areas.

- Reduce stream crossings to improve (reduce) fish habitat fragmentation.
- Reduce miles of road within RCAs, by relocating or decommsioning, to improve fish community integrity and reduce riparian ecosystems impacts.
- Implement the guidelines for mitigating road risks to reduce soil and drainage impacts from roads.
- Provide information and education about motor vehicle regulations and responsible use of motorized vehicles on the National Forest. Install information boards at area trailheads, recreation sites, and parking areas.
- Install route numbers on all system roads at junctions with system and unauthorized routes to assist users with compliance of motor vehicle use regulations.
- Focus maintenance and improvement activities on areas identified as having impacts from roads and road use.
- Reduce total miles of road within watersheds to improve watershed function.
- Rehabilitate areas damaged by off-route driving.
- Maintain access to recreation sites that are provided by the Forest Service for public use.
- Maintain road signage in accordance with handbook direction.
- Focus maintenance funds on the high priority roads identified in Step 4 of the analysis to provide long-term service on the roads that are needed the most.
- During the NEPA process for management activities, consider closing (ML1) other open roads in the project area where a reduced maintenance cost would be realized.
- Maintain and update the Motor Vehicle Use Map as roads are closed to administrative use only.
- Increase mitigation efforts, when relocation is not feasible, to decrease detrimental impacts to riparian areas.
- Seasonally restrict use or allow administrative use only on roads with reduced riparian function due to roads.
- Educate the public on spread of noxious weeds through the Motor Vehicle Use Map.
- Seasonally restrict roads with known infestations to reduce further spread to other roads.
- Restrict motorized vehicle use on the forest to a designated road system through travel management.
- Maximize cooperation from landowners by proposing to issue reciprocal easements.
- Enter into special use agreements with landowners, stipulating that the permittee has maintenance responsibilities.
- Transfer jurisdiction and maintenance to permit holders as appropriate.
- Utilize traffic devices such as signs and physical barriers that discourage use of unauthorized roads.
- Monitor unauthorized roads after the installation of barriers and other mitigation measures.
- Educate the public to create an understanding of the problems created by off-road driving.

## Analysis Performed

A multi-disciplinary working group used a risk-benefit assessment to rank roads based on risks (impacts to flora, fauna, soils and water) and benefits (access to facilities, recreation and timber). The road risk/benefit issues were identified by the working group. The working group was then asked to review the questions pertinent to their specialty and use them to build issue statements and evaluation criteria for evaluating the risk or benefit for each road on their specialty resource.

## Key Results and Findings

Through the travel analysis process, the working group ranked routes based on their risks to natural and cultural resources and their benefits to recreation use, permittee access, and vegetation management access.

- 240 miles or 8 percent of roads in the current system have been assessed to have a greater risk than benefit and should be considered for decommissioning.
- 151 miles or 5 percent of roads in the current system have been assessed to have low benefit and low risk and should be considered for closure or conversion to trail, or mitigated to reduce resource risk.
- 980 miles or 33 percent of the current system are roads with medium benefit and require further review at the project level to make a recommendation.
- 1,597 miles or 54 percent of the current system are roads with high to medium benefits and should be considered for continued routine maintenance, additional maintenance to mitigate resource risk, or used only for administrative needs.

Step 4 includes a section on opportunities for making changes to the road system and the map in Appendix E shows the opportunities identified by the working group. A complete list of the individual recommendations for each road can be found in Appendix A. A breakdown of miles and percent of miles for the transportation system are shown in the Scoring and Rating section of Step 4 (p. 30).

## How the Report Will Be Used

Travel analysis process results will assist the Payette National Forest in addressing issues related to roads. It will be used to inform future analyses, decisions, and specific actions.

## Project Introduction

Areas that were considered for analysis under the Forest-level travel analysis process for the Payette National Forest include both the East Zone (Krassell and McCall Ranger Districts), the Central Zone (New Meadows Ranger District), and the West Zone (Weiser and Council Ranger Districts) totaling about 2.3 million acres. Terrain encompassed by the analysis area is quite varied in respect to slope, aspect, and elevation. All aspects are represented as the landscape is composed of numerous mountains, valleys, and ridges that vary in size. This travel analysis process analyzed all 1682 roads on the Payette National Forest.

The Payette National Forest will use this travel analysis process for future NEPA projects where the laws, regulations, manual and handbook direction governing the transportation system requires that a travel analysis process be completed prior to the NEPA projects inception. This travel analysis process will assist Forest Line Officers in their proposals and analysis of future NEPA projects. Future NEPA projects include combinations of vegetation management treatments, including commercial thinning, prescribed burning and both mechanized and non-mechanized fuels treatments that will reduce hazardous fuels. Additional NEPA projects may include transportation access to mining activities, access to recreation sites and areas, access to authorized users of special use permits including easements.

# Step 1: Setting up the Analysis

## Purpose

The purpose of this section is to:

- Identify the project area and state objectives
- Clarify the roles of technical specialists
- Develop a process plan and an analysis plan
- Address information needs

## Project Area and Objectives

The travel analysis process will be conducted for all Maintenance Level (ML) 1 to 5 roads on the Payette National Forest. (For additional information on the definition of Forest Service maintenance levels, please see Appendix D, Glossary of Travel Management Terminology). The objective of the analysis is to provide scientific information for managing a transportation system that is safe and responsive to public needs, conforming to the Payette National Forest Land and Resource Management Plan, efficiently administered, in balance with funding available for needed management actions, and has minimal negative ecological effects on the land.

The travel analysis process is intended to be a broad scale comprehensive look at the transportation network. The main objectives of the travel analysis process are to:

- Identify opportunities for making changes to the forest transportation system that balance the need for access while minimizing risks by examining important ecological, social, and economic issues related to roads;
- Develop maps, tables, and narratives that display transportation management opportunities and strategies that address current and future access needs, and environmental concerns;
- Identify the need for changes by comparing the current road system and areas to the desired condition;
- Identify opportunities for change that will inform travel management decisions in subsequent NEPA documents; and to

- Provide a list of opportunities and analysis background necessary for the identification of the minimum road system needed for safe and efficient travel and for administration, utilization, and protection of National Forest System (NFS) lands per 36 CFR 212.5(b)(1).

The analysis area for this travel analysis process encompasses the entire Payette National Forest (2,327,000 acres) which includes parts of the Frank Church-River of No Return Wilderness (777,000 acres) and the Hells Canyon Wilderness (24,000 acres). See map in Appendix E.

## Roles of Specialists

A multi-disciplinary working group (working group) of forest specialists were assigned to the travel analysis process. The team members and their primary analysis role are listed below:

| Resource | Council/Weiser | New Meadows | McCall | Krassell |
|---|---|---|---|---|
| **Leader** | Jason Wright | Leigh Bailey | Brian Davis | Jeff Hunteman |
| **Hydrology** | Malanie Vining | Leigh Bailey | n/a | Jim Fitzgerald |
| **Transportation** | Jason Wright | Marti Wegner | Mike Dixon | Mike Dixon |
| **Wildlife** | Jon Almack | Russ Richards | Brian Davis | Russ Richards |
| **Fire/Fuels** | Dave LaChapelle | Dave Vining | Dave Vining | Tom Bates |
| **Range & Noxious Weeds** | Andy Bumgarner | Donna Reed | Donna Reed | Amy Baumer |
| **Timber** | Mary Bresee | Lynn Wilson/ Paul Klasner | Lynn Wilson | Paul Klasner |
| **Recreation** | Jascha Zeitlin | Susan Jenkins | Susan Jenkins | Clem Pope |
| **Heritage** | Morgan Zedalis | Erik Whiteman | Erik Whiteman | Gayle Dixon |
| **Fisheries** | Trisha Giambra | Jason Greenway | Caleb Zurstadt | Caleb Zurstadt |
| **Sensitive Plants** | Alma Hansen | Alma Hansen | Alma Hansen | Alma Hansen |
| **Special Uses** | Kathryn Nash | Kathryn Nash | Kathryn Nash | Kathryn Nash |
| **Minerals** | Jim Egnew | Jim Egnew | Jim Egnew | Jim Egnew |
| **Data Resources** | Becky Wroblewski | Cassandra Kollenberg | Cassandra Kollenberg | Cassandra Kollenberg |
| **Writer/Editor** | Jason Wright | Leigh Bailey | Brian Davis | Jeff Hunteman |

## Process Plan

The travel analysis process will follow the same six-step process outlined in the roads analysis process, as described in FS-643, Roads Analysis: Informing Decisions about Managing the National Forest Transportation System (USDA Forest Service 1999).

## Analysis Plan

The working group followed these steps in order to carry out the analysis:

- Review and assemble existing data.
- Verify accuracy of system road locations on maps.
- Identify and document discrepancies between on-the-ground conditions, the Forest's INFRA database, and current management direction.
- Where possible, verify the current conditions of roads and associated features including surface type and impacts on other resources.
- Identify preliminary access and resource issues, concerns, and opportunities.
- Identify road safety issues.
- Identify additional issues, concerns, and opportunities through previous public involvement and internal resource staffs.
- Identify opportunities for making changes to the road system based on the findings of this analysis in response to the issues identified.

## Information Needs

The following information was required to proceed with the analysis.

- Accurate location of all system roads within the analysis area. For each road, the following information is needed:
    1. Any existing public, permittee, or agency use.
    2. Any right-of-way dedication to the FS.
    3. Any additional right-of-way required.
    4. Maintenance responsibility for the road.
- Assessment of current opportunities, problems, and risks for all roads in the analysis area.
- Soil, water resources, invasive species, environmental issues, and biological communities.
- Public access and recreational needs and desires in the area, including access for nearby landowners.
- Current observed road uses.
- Current road management objectives.
- Areas of special sensitivity, resource values, or both.
- Best management practices for the area.
- Current forest plan and other management direction for the area.
- Agency objectives and priorities.
- Interrelationship with other governmental jurisdictions for roads.
- State laws that regulate motor vehicle use on and off public roads.
- Applicable federal, state, and local laws.
- Public and user group values and concerns.
- Forest scale and any project level roads analysis process.
- Cultural resources.

# Step 2: Describing the Situation

## Purpose

The purpose of this step is to:

- Describe the existing road system
- Describe the existing direction
- Describe road maintenance levels

## Existing Road System

Currently the Payette National Forest has an extensive system of roads and motorized trails. The motorized trails are not addressed in this travel analysis process. This travel analysis process will review and analyze the ML1 through ML5 roads on the Payette National Forest. These roads are shown in Appendix E.

## Existing Direction for Roads

### A. General

Travel analysis is focused on identifying needed changes to the forest transportation system; identifying the existing direction is an important first step. The existing direction includes the National Forest System roads currently managed for motor vehicle use. Restrictions, prohibitions, and closures on motor vehicle use are also part of the existing direction. Existing direction from laws and regulations, official directives, forest plans, forest orders, and forest-wide or project-specific roads decisions, determine the motorized routes and areas open to public motorized travel. This information about the managed system is documented in road management objectives, maps, recreation opportunity guides, tabular databases, and other sources.

### B. Roads

#### *Open Road*

Existing roads open to both administrative and public motorized use are forest system roads, which are currently in the Forest's INFRA database (an Oracle Database containing information on all roads and improvements on Forest Service lands) with the following attributes:

- System = National Forest System Road
- Jurisdiction = Forest Service
- Route Status = Existing
- Operational Maintenance Level = 2-5

#### *Closed Road*

Closed roads have been closed to vehicle traffic for at least a year but are necessary for future activities. They appear in the Forest's INFRA database under the following categories:

- System = National Forest System Road
- Jurisdiction = Forest Service
- Route Status = Existing
- Operational Maintenance Level = 1

### *Decommissioned Road*

Decommissioned roads are no longer part of the forest transportation system. They may have some type of physical closure at their entrance (berm, etc.) or may be completely obliterated. They appear in the Forest's INFRA database under the following categories:

- System = National Forest System Road
- Jurisdiction = Forest Service
- Route Status = Decommissioned
- Operational Maintenance Level = 1-5[1]

In order to return a decommissioned road to service as a system road the NEPA process must be followed even when no physical work is required to allow motorized traffic back on the road

### *Unauthorized Road*

An unauthorized road is a road, which exists on the forest, but is not included in a forest transportation atlas or database. These roads are usually established by various users over time. Currently, these roads are not in the Forest's INFRA database, nor are they part of the NFS roads.

## C. Motorized Trails

Currently, the designated motorized trails on the Payette National Forest are shown on the Motor Vehicle Use Map – Payette National Forest dated 2015.

## D. Areas

There are no designated motorized areas on the Payette National Forest.

## E. Previous Travel Management Decisions

The June 2003 Roads Analysis Report has been used as information by the Payette National Forest Line Officers to add to their understanding of the transportation system on the Forest. Modifications to the transportation system are often made as a result of part of project level NEPA analyses. The Mill Creek – Council Mountain (April 2012) and Lost Creek – Boulder Creek (March 2014) Landscape Restoration Project decisions were used to inform the forest-wide analysis. Designations of roads open to different types of motor vehicles, including off-highway vehicles are made as a result of implementation of 36 CFR 212, Subpart B – Designation of Roads, Trails, and Areas for Motor Vehicle Use.

# Road Maintenance Levels

The Forest Service differentiates forest roads into five maintenance levels, which define the level of service, and maintenance required. Refer to Appendix D for a more detailed description of the maintenance levels.

**Road Maintenance Level 5 (ML5) –** roads are managed and maintained for a high degree of user comfort. These roads are generally paved and are suitable for passenger vehicles.

[1] The maintenance level of decommissioned roads is the level they were maintained at prior to decommissioning.

**Road Maintenance Level (ML 4)** – roads are managed and maintained for a moderate degree of user comfort. These roads are generally paved, but sometimes may be surfaced with stabilized aggregate surfacing and are suitable for passenger vehicles.

**Road Maintenance Level (ML3)** – roads are managed and maintained for a moderate degree of user comfort. These roads are generally gravel surfaced and are suitable for passenger vehicles.

**Road Maintenance Level 2 (ML2)** – roads are managed and maintained for use by high-clearance vehicles; passenger car traffic is not a consideration.

**Road Maintenance Level 1 (ML1)** – roads are kept on the transportation system for intermittent project uses and are closed to vehicular traffic between projects. The closure period must exceed 1 year for the road to be ML 1 status.

**Table 1. Road summary of miles by type for the analysis area**

| Maintenance Level | Number of Roads* | Miles of Road |
|---|---|---|
| 1 – Basic Custodial Care (Closed) | 823 | 847 |
| 2 – High Clearance Vehicles | 885 | 1651 |
| 3 – Suitable For Passenger Vehicles | 109 | 430 |
| 4 – Moderate Degree of User Comfort | 7 | 36 |
| 5 – High Degree of User Comfort | 1 | 4 |
| **Totals** | **1825** | **2968** |

* Maintenance levels may change along a route increasing the total road count.

# Step 3: Identifying Issues

## Purposes

The purposes of this step are to:

- Identify resource concerns
- Identify key issues related to management of existing road system

## Resource Concerns

Motor vehicle use on the Payette National Forest has increased in recent years as local and out of area visitor use increased. Increased use has increased the maintenance needs for all road Maintenance Levels (ML). As maintenance costs have increased, allocated maintenance funds have remained static or been significantly reduced. This causes a disproportionate shift of maintenance funds to the ML 3-5 roads. The increased use coupled with the decreased funds has resulted in degraded soil, water, vegetation, and wildlife habitat conditions.

Increased road use coupled with decreased maintenance has resulted in more disturbance or displacement of wildlife, habitat fragmentation, habitat loss, reduction of habitat productivity, and in some cases, wildlife mortality from collisions. In some places, improper user rerouting of eroded road portions, non-compliance with the Motor Vehicle Use Map, and use of ML 1 roads has led to loss or reduced productivity of important wildlife habitats.

Heritage resources are a concern throughout the project area as they are important considerations in all management activities on the Forest. There has been human occupation in the local area for thousands of years. Roads can significantly impact heritage sites.

There is fire risk wherever people use the National Forest. This risk can come from many sources, including smoking, vehicles, and campfires.

Motor vehicle use on roads can also facilitate the spread of invasive plants and aquatic species and put floral and faunal diversity at risk.

## Key Issues

The key issues were identified through past public involvement and comments that addressed the Payette National Forest road system as well as from input from Forest Service personnel. The following roads issues were identified and are in random order and do not represent a hierarchy of importance.

**1) Insufficient resources for maintenance of the existing system roads**

Inadequate maintenance reduces access for National Forest users and management. Funding for road maintenance is not adequate to maintain the existing system and perform needed monitoring. See Appendix F for more information on Road Maintenance Costs.

**2) Roads have effects on Fish and Wildlife Habitat**

Reduced maintenance, new construction, improper user rerouting of eroded road portions, and non-compliance with road closures causes a reduction of habitat productivity.

**3) Roads have effects on Watershed Conditions**

Erosion and sediment from improperly maintained roads reduces watershed conditions and introduces sediment into streams.

**4) Roads provide access to the public for recreational purposes**

Forest roads access developed recreation sites, and are used for a variety of recreational purposes such as camping, hunting, fishing, hiking, mountain biking, horseback riding, etc.

**5) Roads provide access for general forest management**

Access to the forest is needed by the agency for general forest management reasons such as vegetation management and forest monitoring.

**6) Roads have effect on Riparian Function**

Roads located within riparian areas limit riparian functions such as woody recruitment, temperature moderation, and sediment filtration.

**7) Roads are vectors for spread of noxious weeds**

Road use provides a vector for the introduction and spread of noxious and invasive weeds into and within public lands.

# Step 4: Assessing Benefits, Problems and Risks

## Purposes

The purposes of Step 4 are to:

- Describe the analysis process
- Describe the criteria used in the risk and benefit analysis process
- Describe the scoring and rating
- Summarize the risk and benefit of existing motorized routes
- Discuss the statistical distribution of risk and benefit assessment
- Identify opportunities for roads
- Provide guidelines for mitigating road risks

## The Analysis Process

The issues described in Step 3 were addressed by the working group in the following assessment. The risk and benefit criteria categories (Step 4, Table 2) were developed by considering the issues from Step 3 and the suggested resource questions for roads analysis described in FS-643 Roads Analysis: Informing Decisions about Managing the National Forest Transportation System . The working group reviewed these resource questions (see Appendix B of this report) and used them to develop criteria to use in ranking the risks and benefits of each road. Each road was then evaluated against the identified risks and benefits.

**Table 2. Resource categories for roads**

| Risk | Benefit |
|---|---|
| The presence or conditions of motorized use present risks associated with these categories: | Motorized uses benefit Forest management because they provide opportunities for these categories: |
| Wildlife | Recreation |
| Soils | Range |
| Water Quality | Vegetation-Fuels |
| Riparian | |
| Fisheries | |
| Noxious Weeds | |

# Criteria Used in the Risk and Benefit Analysis Process

Roads provide access for many uses. They also provide the infrastructure to facilitate motorized recreation and vegetation management. However, their presence has possible negative effects on the natural and cultural resources of the National Forest. The following categories for risks and benefits were identified by the working group as the most important resource issues for managing the forest transportation system.

The road risk/benefit issues which were identified by the team were assigned to individual specialists based on the resource area affected. For each issue, the specialist was tasked to produce a succinct statement describing the issue, and the criteria by which they would rank the impact of each road for that issue. Tables 3 and 4 detail the issue and ranking statements and evaluation criteria to be used for the Payette National Forest travel analysis process. Roads were scored with values of high, medium, or low risk combined with high, medium, or low benefit. Each resource specialist was asked to develop criteria for characterizing high, medium, or low values for roads in their resource area.

Additional categories were identified to inform decision makers of special concerns associated with a particular road. Table 5 details the special concerns brought forth and the criteria used to identify roads with such associated concerns. The following tables detail these criteria.

**Table 3. Benefit statements and criteria**

| | |
|---|---|
| **Recreation** | |
| **Benefit: Recreation Access** | |
| Road provides access to dispersed recreation areas, trailheads, campgrounds, resorts, boat ramps, and rental cabins, firewood collection, berry and mushroom picking, hunting. | **HIGH** - Access to recreation uses that require access by passenger car. Examples are developed sites such as picnic areas or campgrounds, rental cabins, trailheads and ski areas. Level 3-5 |
| | **MEDIUM** - Access to regularly used dispersed recreation sites and areas where high clearance vehicle are acceptable for access. Level 2-3 roads |
| | **LOW** - Limited access to seldom used dispersed recreation sites and roads with no access to developed facilities. Level 1-2 roads |
| **Benefit: Recreation Opportunities** | |
| Road provides a recreation opportunity. This includes driving for pleasure and scenic viewing, 4-wheel driving. | **HIGH** - Scenic roads that are heavily used for driving for pleasure and scenic viewing. These will include commonly publicized routes in recreation opportunity publications. Also could include 4 wheel drive roads popular for 4 wheel driving. Level 4-5 roads, some level 2-3 roads if good 4-wheeling roads. |
| | **MEDIUM** - Routes sometimes used as a recreation opportunity for motorized activities. Routes often used and receive maintenance every 3 years. Level 2-3 roads |
| | **LOW** - Roads seldom used as a recreation opportunity for motorized activities. Level 1-2 roads |
| **Range** | |
| **Benefit: Range Management** | |
| The need of roads to manage range improvements and for access and administration of allotments. | **HIGH** - Needed for allotment access for administration of term grazing permit/lack of access will make administration of permit very difficult. |
| | **MEDIUM** - Needed for allotment access for administration of term grazing permit/ lack of access could make administration of permit somewhat difficult. |
| | **LOW** - Not within an active or vacant allotment/Sheep Allotment/Limited Access Needs/Temp Road (N/A)/Spur Road/Loop Road/Adjoins Two Roads/Road to nowhere |

| **Vegetation-Fuels** | |
|---|---|
| **Benefit: Vegetation and Fuels Management** | |
| The ability to access areas for vegetative treatments through system roads is important. A combination of system roads and slopes conducive to ground based harvesting methods will provide greater economic returns and allow the Forest to accomplish a larger variety of restoration work as compared to other harvesting methods. Vegetative treatments are conducted for a variety of objectives including enhancing wildlife habitat, fuel reduction, insect and disease prevention, as well as to meet other restoration needs.<br><br>**Key Assumption**<br><br>NFSR's needed within the next 30 years to conduct forest restoration treatments that would meet a variety of Forest Plan goals and objectives. | **HIGH -**<br>**Quantitative**<br>1) NFSR is generally within MPC's 5.1, 5.2 and 4.2.<br>2) Roughly half of the NFSR should access ground based systems that would operate on slope less than 45%.<br>3) NFSR should serve as an arterial or collector road for vegetation management purposes and be roughly ½ mile or more in length.<br>**Subjective**<br>4) PVG overlay – focusing on PVG's 2-6<br>5) Past activity overlay |
| | **MEDIUM -**<br>**Quantitative**<br>1) NFSR is generally within MPC 3.2.<br>2) Roughly half of the NFSR should access ground based and aerial systems that would operate on slopes less than 70%.<br>3) NFSR should serve as a collector road for vegetation management purposes and be roughly ¼ mile or more in length.<br>**Subjective**<br>4) PVG overlay – focusing on PVG's 2-6. |
| | **LOW -**<br>**Quantitative**<br>NFSR does not meet a High or Medium definition by analysis.<br>**Subjective**<br>Generally no need to conduct subjective analysis |

**Table 4. Risk statements and criteria**

| **Wildlife** | |
|---|---|
| **Risk: Habitat Fragmentation of Listed and Sensitive Species and other Species of Concern (SOC)** | |
| Rank effects of authorized, open road density on the following categories (Note: most data is available from the WCS-analysis database):<br>• Family 1 SOC & MIS Source Habitat<br>• Family 2 SOC & MIS Source Habitat<br>• Listed Species: Lynx<br>• Listed Species: NIDGS<br>• Riparian Area Habitat | **HIGH** - Road density > 1.7 mi./sq. mi. |
| | **MEDIUM** - Road density 0.7 to 1.7 mi./sq. mi. |
| | **LOW** - Road density < 0.7 mi./sq. mi. |
| **Risk: Elk Habitat Effectiveness (EHE)** | |
| EHE based on recommended approach in LRMP, Appendix E of retaining 30% or more of an analysis area in nonlinear blocks of secure areas ≥ 250 acres | **HIGH** - <30% area in EHE |
| | **MEDIUM** - >30 & <40% area in EHE |
| | **LOW** - >40% area in EHE |
| **Risk: Road Specific Impacts to Known Nest Sites** | |
| Road location in relation to known nest sites of sensitive species, SOC, and/or MIS | **HIGH** - Road within 1/8 mile known nest site |
| | **MEDIUM** - Road within 1/4 mile known nest site |
| | **LOW** - Road within 1/2 mile known nest site |
| **Risk: Road Specific Impacts to Family 1 Source Habitat** | |
| The effects of specific road on Family 1 source habitat | **HIGH** - Road within Family 1 source habitat |
| | **MEDIUM** - Road within ¼ mile of Family 1 source habitat |
| | **LOW** - Road within Family 1 source habitat |
| **Risk: Road Specific Impacts to NIDGS** | |
| The effects of specific road on NIDGS source habitat | **HIGH** - Road within occupied NIDGS Habitat |
| | **MEDIUM** - Road within 1/2 mile occupied NIDGS Habitat |
| | **LOW** - Road within 2 miles occupied NIDGS Habitat |

| | |
|---|---|
| **Risk: Road Specific Impacts to Elk Habitat Effectiveness (EHE)** | |
| The effects of specific road on EHE | **HIGH** - Road is part of series of roads that keep EHE <30% |
| | **MEDIUM** - Road is part of series of roads that keep EHE <40% |
| | **LOW** - other |
| **Risk: Road Specific Impacts to Wildlife Corridors** | |
| Specific road location in relation to known wildlife (e.g., deer, elk, bear, bighorn sheep, mountain goat) crossings | **HIGH** - Identified on IDFG crossing map as high crossing potential |
| | **MEDIUM** - Identified on IDFG crossing map as low-moderate crossing potential |
| | **LOW** - No known crossings |
| **Risk: Road Specific Impacts to Riparian Area Habitats** | |
| The effects of specific road on riparian area habitat | **HIGH** - Road within riparian area habitat as defined by RCA |
| | **MEDIUM** - Road within 1/8 miles of riparian area habitat as defined by RCA |
| | **LOW** - Road within 1/4 miles of riparian area habitat as defined by RCA |
| **Soils** | |
| **Risk: Soil Erosion** | |
| Inherent Erosion Hazard. Rated for bare soil conditions based on the ability of the soils to take in water, resistance of the soil surface to dispersion under the impact of rainfall and surface water movement, effect of coarse fragments that reduce surface detachment and effect of topography.<br><br>LSI Inherent Erosion Ratings.<br>• Very High<br>• High<br>• Mod. – High<br>• Mod.<br>• Mod. – Low<br>• Low<br>• Very Low.<br>[If more than one rating is assigned to a landtype the highest rating will be used]. | **HIGH** - Equal or greater than 50% of route occurs on Landtypes identified in the Land System Inventory (LSI) with an assigned Inherent Erosion Risk Rating Class of 1) Mod.-High, 2) High, and 3) Very High. |
| | **MEDIUM** - Equal or greater than 50% of route occurs on Landtypes identified in the Land System Inventory (LSI) with an assigned Inherent Erosion Risk Rating Class equal to Moderate.<br><br>If all are rated less than 50% than rate as medium. (ex. Low 40%, Moderate 20%, High 40%) |
| | **LOW** - Equal or greater than 50% of route occurs on Landtypes identified in the Land System Inventory (LSI) with an assigned Inherent Erosion Risk Rating Class equal to Low or Moderately Low. |

| | |
|---|---|
| **Water Quality** | |
| **Risk: Water Quality** | |
| Road Maintenance. Lack of annual road maintenance and effective road Best Management Practices (BMPs) can result in sediment routing to streams, cut and fill slope instability, and failure of culverts at stream crossings. | **HIGH** - Level 1 Roads (default) |
| | **MEDIUM** - Level 2 Roads (default), OR<br>Level 1 Roads with documented BMPs implemented (Implementation and Effectiveness Monitoring Reports), OR<br>Level 3-5 Roads with documented erosion and sediment delivery concerns (Road Condition Inventory) |
| | **LOW** - Level 3-5 Roads (default), OR<br>Level 2 Roads with documented BMPs implemented (Implementation and Effectiveness Monitoring Reports). |
| **Risk: Watershed Condition Function** | |
| Road Density. The cumulative effects of road density on the geomorphic, hydrologic, and biotic integrity of a 6th Level HUC subwatershed. | **HIGH** - Road density > 1.7 miles/sq. mile. |
| | **MEDIUM** - Road density 0.7 to 1.7 miles/sq. mile. |
| | **LOW** - Road density < 0.7 miles/sq. mile. |
| **Riparian** | |
| **Risk: Riparian Function** | |
| Proximity to Water. Roads located in the RCAs affect riparian function and water quality (sediment, nutrients, and temperature), as well as aquatic habitat (woody recruitment). | **HIGH** - Greater than 25% of route in RCA. |
| | **MEDIUM** - 10-25% of route in RCA. |
| | **LOW** - Less than 10% of route in RCA. |

| **Fisheries** | |
|---|---|
| **Risk: Total Road Density and Location WCI** | |
| | **HIGH** - Weighted mean total road density > 1.7 miles/square mile of subwatersheds, many roads within RCAs. |
| | **MEDIUM** - Weighted mean total road density 0.7-1.7 miles/square mile of subwatersheds, few roads within RCAs. |
| | **LOW** - Weighted mean total road density < 0.7 miles/square mile of subwatersheds, no roads within RCAs. |
| **Risk: Fish Community Integrity** | |
| | **HIGH** - More than one listed or sensitive species, relatively high fragmentation, coldwater species predominant but species indicative of degraded conditions may occur (weighted average <20 crossings per subwatershed). |
| | **MEDIUM** - At least one listed or sensitive species, exotic species may predominate but native species common, moderate to high fragmentation (weighted average 20-50 crossings per subwatershed). |
| | **LOW** - No listed or sensitive species, exotics abundant, warm-water species common, high fragmentation (weighted average >50 crossings per subwatershed). |
| **Risk: Dominant Management Prescription Category** | |
| | **HIGH** - Road within MPC 1.1, 1.2, 2.1, 2.2, 3.1 |
| | **MEDIUM** - Road within MPC 3.2, 4.1, 5.1 |
| | **LOW** - Road within MPC 4.2, 5.2 |

| | |
|---|---|
| **Risk: Riparian Ecosystem Impacts** | |
| | **HIGH** - More than 25% of route is within 300 feet of a perennial or important intermittent stream or is within 150 feet of an unimportant intermittent stream. |
| | **MEDIUM** - Between 15% and 25% of route is within 300 feet of a perennial or important intermittent stream or is within 150 feet of an unimportant intermittent stream. |
| | **LOW** - Less than 15% of route is within 300 feet of a perennial or important intermittent stream or is within 150 feet of an unimportant intermittent stream. |
| **Risk: Access Impacts** | |
| | **HIGH** - Route accesses stream with listed or sensitive species and directly and significantly impacts DCH (e.g., has crossings, recreational sites [including dispersed], is poorly maintained, etc.). |
| | **MEDIUM** - Route accesses stream with listed or sensitive species but does not significantly and directly impact DCH (e.g., terminates near stream, few or no crossings, low dispersed use). |
| | **LOW** - Route does not access stream with listed or sensitive species and does not directly affect DCH. |
| **Risk: Dominant ACS Priority/WARS Class** | |
| | **HIGH** - ACS Priority, Active High, Active Moderate |
| | **MEDIUM** - Active Low, Passive High |
| | **LOW** - Passive Moderate, Passive Low |

| | |
|---|---|
| **Risk: Fragmentation** | |
| | **HIGH** - 75% of crossings on route are unimproved fords or non-simulation crossing of fish-bearing streams (streams are presumed to be fish-bearing in the absence of evidence to the contrary). |
| | **MEDIUM** - 25%-50% of crossings on route are unimproved fords or non-simulation crossing of fish-bearing streams (streams are presumed to be fish-bearing in the absence of evidence to the contrary) or condition is not clearly either class 1 or 3. |
| | **LOW** - <25% of crossings on route are unimproved fords or non-simulation crossing of fish-bearing streams (streams are presumed to be fish-bearing in the absence of evidence to the contrary) or crossings are in intermittent flow, particularly in headwaters positions. |
| **Invasive Weeds** | |
| **Risk: Noxious Weed** | |
| The effects of roads on spread of noxious weeds | **HIGH -** >50% of route in weed susceptible habitats, inventoried and not present, OR<br>>25% of route in weed susceptible habitats and weeds present, OR<br>>25% of route in weed susceptible habitats and no inventory. |
| | **MEDIUM -** 25-49% of route in weed susceptible habitats, inventoried and not present, OR<br>0-25% of route in weed susceptible habitats and weeds present, OR<br>10-25% of route in weed susceptible habitats and not inventory |
| | **LOW -** 0-24% of route in weed susceptible habitats, inventoried and not present, OR<br><10% of route in weed susceptible habitats and not inventory |

**Table 5. Special concerns criteria**

| **Special Concerns** | |
|---|---|
| **Noxious Weed Treatment** | |
| The need of roads to access and treat invasive weed populations | **HIGH** - Needed for invasive weed treatment; invasive weeds inventoried and present |
| | **MEDIUM** - Unknown if needed for invasive weed treatment; unknown if route has been inventoried for invasive weed presence. |
| | **LOW** - Not needed for invasive weed treatment; invasive weed inventory negative |
| **Rare Plants** | |
| The effects of roads on Rare Plant communities | **HIGH** - Road or trail intersects/accesses rare plant habitat, and species presence has either been confirmed by field surveys/occurrence data or surveys have not been conducted. |
| | **MEDIUM** - Road or trail intersects/accesses rare plant habitat and survey/occurrence data does not confirm presence of individuals, OR road or trail intersects/accesses habitat and either survey/occurrence data has confirmed presence of individuals or surveys have not been conducted. |
| | **LOW** - Road or trail does not intersect/accesses rare plant habitat although individuals may still be present, OR road or trail intersects/accesses habitat and survey/occurrence data does not confirm the presence of individuals. |
| **Special Uses** | |
| Roads provide access for use of or administration of special use permits | **HIGH** - Road provides access to uses of, or improvements located on National Forest lands or provides access to private property or other land jurisdiction, and the use of the road is authorized with a special use authorization (includes cost share easements). |
| | **MEDIUM** - Road provides access to private property or other land jurisdictions and is not authorized (special use authorization is needed). |
| | **LOW** - Road does not provide access to uses of or improvements located on National Forest lands and does not provide access to private property or other land jurisdiction. |

| | |
|---|---|
| **Minerals** | |
| Roads provide access to mineral resources for exploration and development as well as administration of current mineral operations. | **HIGH** - Road provides access to known mineral resource with active or frequent exploration/development. |
| | **MEDIUM** - Road provides access to area with known mineral potential. |
| | **LOW** - Road provides access to area with unknown or limited mineral potential. |
| **Research Natural Areas (RNAs)** | |
| A road or motorized trail within or adjacent to a Research Natural Area (RNA) has the potential to disrupt ecological processes (i.e. changes in erosion processes, fluvial processes, fire ignitions, etc.), directly impact plant communities, act as a vector for directional spread of noxious weeds, and provide access for human activities that can disrupt the objectives of an RNA (i.e. recreational use, firewood gathering, collection of plant products, wildlife disruption, changes in fire regimes, and direct impacts to plants through trampling). | **HIGH -** All roads and motorized trails within a Research Natural Area (RNA) |
| | **MEDIUM -** All roads and motorized trails immediately adjacent to or providing access to Research Natural Area (RNA) |
| | **LOW -** Roads and motorized trails not within, adjacent to, or providing access to a Research Natural Area (RNA) |
| **Human Caused Fire** | |
| Risk assessment of probability of Human Caused wildfire from public use of Forest Service roads. | **YES -** Roads, open yearlong or seasonally, that access areas where the use of Forest Service land has a pattern of human caused fire ignitions or access areas where use, land ownership, vegetation and fuel conditions indicate a high potential for human caused fire ignition. |
| | **NO** – Roads closed yearlong. |
| **Cultural Resources** | |
| Identification of roads with potential to damage cultural resources through public use or management of the road. | **YES –** Roads pass through or near a cultural resource |
| | **NO** – Roads do not pass through or near a cultural resource. |

# Scoring and Rating

The overall risk and benefit assessment for each road was based on scores averaged from separate risk and benefit assessments completed by specialists on the working group. Each road generated a high, medium, or low rating based on the criteria stated in the previous section, which produced the road's score. The scores were averaged to find the overall risk and benefit ranking of each road.

There are 20 resource risk criteria grouped into 6 categories (Wildlife, Soils, Water Quality, Riparian, Fisheries, and Invasive Weeds) and 4 benefit criteria grouped into 3 categories (Recreation, Range, and Vegetation-Fuels) for each road analyzed. Scores were based on a point system in which a high rating yielded 3 points, a medium rating yielded 2 points, and a low rating yielded 1 point. Therefore, the overall scores for risk range from 6 (1 point for each criteria) and 18 (3 points for each criteria) and the overall scores for benefits range from 3 (1 point for each criteria) to 9 (3 points for each criteria). Refer to example below in Tables 6 and 7.

It was decided that the ranges for overall high, medium, and low benefits would be based on the number of resources or benefits affected by the road and the intensity of those effects as described by the specialist's rankings. The working group set the criteria for a road to be elevated from low to medium and from medium to high.

These categories did not consider the severity of the impact beyond the criteria presented in the previous section. The working group identified 6 special concern categories that are intended to identify roads with known concerns for future decision making processes.

**Table 6. Example of the risk scoring system for a road**

| | Risk Criteria | H, M, and L Rating | Points for each Criteria | Points for each Category |
|---|---|---|---|---|
| 1 | Habitat Fragmentation of Listed Species | M | 2 | |
| 2 | Elk Habitat Effectiveness | M | 2 | |
| 3 | Impacts to Nest Sites | M | 2 | |
| 4 | Impacts to Family 1 Source Habitat | L | 1 | 14/8=1.75 |
| 5 | Impacts to NIDGS | M | 2 | M |
| 6 | Impacts to EHE | L | 1 | |
| 7 | Impacts to Wildlife Corridors | H | 3 | |
| 8 | Impacts to Riparian Area Habitats | L | 1 | |
| 9 | Soil Erosion | M | 2 | M |
| 10 | Water Quality | H | 3 | 4/2=2 |
| 11 | Watershed Condition Function | L | 1 | M |
| 12 | Riparian Function | M | 2 | M |
| 13 | Total Road Density | L | 1 | |
| 14 | Fish Community Integrity | M | 2 | |
| 15 | Dominant MPC | M | 2 | 13/7=1.857 |
| 16 | Riparian Ecosystem | H | 3 | M |
| 17 | Access Impacts | M | 2 | |
| 18 | Dominant ACS /WARS | L | 1 | |
| 19 | Fragmentation | M | 2 | |
| 20 | Noxious Weed | L | 1 | L |
| **Total Points:** | | | **36/20=1.8** | **M** |

**Table 7. Example of the benefit scoring system for a road**

| | Benefit Criteria | H, M, and L Rating | Points for each Criteria | Points for each Category |
|---|---|---|---|---|
| 1 | Recreation Access | L | 1 | 3/2=1.5 |
| 2 | Recreation Opportunities | M | 2 | L |
| 3 | Range Management | L | 1 | L |
| 4 | Vegetation and Fuels Management | H | 3 | H |
| **Total Points:** | | | **7/4=1.75** | **M** |

Based on this example, the overall score would be “medium” for risk and “medium” for benefit.

# Statistical Distribution of Risk and Benefit Assessment

**Risk and Benefit Matrix for Roads**

Of the 2,968 miles of roads that constitute existing National Forest System roads (ML1 – ML5) on the Payette National Forest, approximately 87 percent of the roads rated as a medium or high benefit, meaning that these roads have several purposes that are important to Forest Service management or public use. Of those roads that ranked as high benefit, 579 miles or 19 percent of those roads were also a high risk due to resource concerns. These high risk/high benefit roads should be the focus of road maintenance funds because mitigating their adverse effects will be the most efficient way to lower the impact of the forest transportation system on the surrounding natural resources.

**Table 8. Recommendations matrix for the existing National Forest System roads**

| ROADS - OPERATIONAL ML1 TO ML5 | | | | |
|---|---|---|---|---|
| | **BENEFITS** [2] | | | |
| **RISKS** [1] | **Scores** | **Low <1.6** | **Medium 1.6-2** | **High >2** |
| | **High >2** | (HL) Decommission **(46)**[3] **or (2%)**[4] | (HM) IDT Evaluate **(480) or (16%)** | (HH) Improve **(579) or (20%)** |
| | **Medium 1.6-2** | (ML) Decommission **(194) or (6%)** | (MM) IDT Evaluate **(500) or (17%)** | (MH) Maintain or Improve **(717) or (24%)** |
| | **Low <1.6** | (LL) LTC, Convert to Trail **(151) or (5%)** | (LM) Maintain **(57) or (2%)** | (LH) Maintain **(244) or (8%)** |
| **TOTAL OPERATIONAL ML1 TO ML5 = 2,968 MILES** | | | | |

1 Risks represent the range of average risk scores assigned to each category.
2 Benefits represent the range of average benefit scores assigned to each category.
3 Represent the number of road miles assigned to each box in the matrix.
4 Represent miles of road in matrix box as a percentage of the total miles of roads in these operational maintenance levels.

# Opportunities for Roads

Below are the recommendations based on the risk and benefit assessment. Final decisions on the disposition of roads are site-specific and require the appropriate level of NEPA analysis. A complete list of the roads and their specific recommendation are located in Appendix A.

**Table 9. Recommendations for risk / benefit categories for roads**

| Recommendation | Opportunities for Roads |
|---|---|
| **Decommission**<br><br>**194 miles of ML1 Roads**<br>**44 miles of ML2 Roads**<br>**2 miles of ML3 Roads** | **Decommission**<br><br>Vehicle access is not recommended based on the Risk/Benefit Analysis. Roads in this category should be decommissioned.<br><br>General public motorized access is not recommended for these roads, unless the road is essential for the management of the overall public access.<br><br>Most of these roads should be closed or restricted to administrative use only depending on the access needs.<br><br>If there is no compelling administrative or public need for the road in the long-term, then it should be decommissioned.<br><br>If roads or road segments are not open to the public and not under permit, decommission the road. |
| **Convert to UTV Trail**<br><br>**5.6 miles of ML1 Roads**<br>**6.2 miles of ML2 Roads** | **Convert to Motorized Trail**<br><br>If there is no compelling administrative or public need for the road in the long-term, and is primarily used for motorized recreation, then consider conversion to a motorized trail.<br><br>The low risk associated with these routes indicates low priority for investment of time and funds to mitigate risk. Drainage features should be inspected before each closure to prevent resource impacts. |
| **Long-term Closure**<br><br>**78 miles of ML1 Roads**<br>**61 miles of ML2 Roads** | **Close**<br><br>There is a future need for the road but no immediate need, the road should remain on the system as a closed (ML1) road. Closed roads are closed for at least a year and are most effectively managed for short-term uses.<br><br>The low risk associated with these routes indicates low priority for investment of time and funds to mitigate risk. Drainage features should be inspected before each closure to prevent resource impacts. |

| Recommendation | Opportunities for Roads |
|---|---|
| **IDT Evaluate**<br><br>**499 miles of ML1 Roads**<br>**458 miles of ML2 Roads**<br>**22 miles of ML3 Roads** | **Evaluate at Project Level**<br><br>Site specific data was not adequate to make an informed recommendation and further evaluation will be required at the project level.<br><br>The majority of these roads should remain open for an administrative use or open for the general public, depending on which type of access is appropriate to meet resource management and recreation objectives.<br><br>For routes within this category that do not have a public benefit, restrict access to administrative use.<br><br>The risks associated with these routes may require some mitigation activities. Mitigation depends upon the specific risks and may include, but is not limited to: additional maintenance, reconstruction, relocation, seasonal road closure. The scale and frequency of these activities will depend on the severity of the risk and the availability of funds. |
| **Maintain**<br><br>**57 miles of ML1 Roads**<br>**200 miles of ML2 Roads**<br>**43 miles of ML3 Roads**<br>**2 miles of ML4 Roads** | **Maintain – Low Priority**<br><br>The majority of these roads should remain open for administrative use or open for the general public, depending on which type of access is appropriate to meet resource management objectives. The low risk associated with these routes indicates low priority for investment of time and funds to mitigate risk.<br><br>Maintenance of drainage features and preventing erosion are the highest priority issues for these roads.<br><br>For roads in this category that are important for public access, the Forest Service should work with cooperating agencies to provide adequate maintenance, where appropriate. |

| Recommendation | Opportunities for Roads |
|---|---|
| **Maintain or Improve**<br><br>**4 miles of ML1 Roads**<br>**423 miles of ML2 Roads**<br>**263 miles of ML3 Roads**<br>**27 miles of ML4 Roads** | **Mitigate and Maintain – Medium Priority**<br><br>The majority of these roads should remain open for administrative use or open for the general public, depending on which type of access is appropriate to meet resource and recreation management objectives.<br><br>The risks associated may require some mitigation. Mitigation depends upon the specific risks and may include, but is not limited to: additional maintenance, reconstruction, relocation, seasonal maintenance restriction, and seasonal road closure. The scale and frequency of these activities will depend on the severity of the risk and the availability of funds. Roads that are ranked within the High Risk/High Benefit categories take a higher priority in the allocation of mitigation and maintenance funding. |
| **Improve**<br><br>**5 miles of ML1 Roads**<br>**395 miles of ML2 Roads**<br>**169 miles of ML3 Roads**<br>**7 miles of ML4 Roads**<br>**4 miles of ML5 Roads** | **Maintain and Mitigate - Highest Priority**<br><br>Most of these routes are appropriate for general public access to the Forest. Some routes may be open for administrative use only in order to control access to sensitive cultural or biological resources.<br><br>The risks associated with them may require some mitigation activities. Mitigation depends upon the specific risks and may include, but is not limited to: additional maintenance effort, reconstruction, relocation, seasonal maintenance restriction, seasonal road closure. The scale and frequency of these activities will depend on the severity of the risk and the availability of funds. |

# Guidelines for Mitigating Road Risks

The general guidelines for mitigating the risks discussed in the previous section are listed below. These guidelines should be used for existing roads or when a road needs to be relocated due to unacceptable resource risks.

**Road Management:**

- close or seasonally restrict road use to minimize adverse impacts to wildlife species that require solitude or tolerate only minimal disturbance
- control road use over perennial streams
- continue inventory efforts to evaluate the extent of noxious weed and invasive plant species of concern
- incorporate non-native invasive species prevention and control into road maintenance
- treat non-native invasive species before roads are decommissioned; follow-up based on initial inspection and documentation
- close or seasonally restrict road use when the roads are impassable due to wet conditions to minimize adverse resource damage

# Step 5: Describing Opportunities and Priorities

## Purpose

The purpose of this step is to:

- Identify management opportunities and priorities and formulate proposals for changes to the forest transportation system that respond to the issues, risks, and benefits identified previously in the analysis.
- Compare existing motor vehicle use with desired conditions, and describe options for modifying the forest transportation system that would achieve desired conditions.

## Actions that Respond to the Issues

The following section describes strategies that the Forest may choose to employ in projects and situations where the issues occur (see Step 3). The scale at which these actions may be implemented is dependent on the site and the compatibility of the action with the overall management focus of the surrounding area. The list below is intended to provide options that project leaders and decision-makers may consider when implementing changes to the road system.

**Issue 1: Insufficient resources for maintenance of the existing road system**

**Action:** Reduce the number of road miles that need to be maintained or reduce the maintenance level to reduce maintenance costs. Reducing the miles of roads that need to be maintained by converting closed roads into motorized trails would effectively increase trail maintenance costs and is not a recommended action solely to address this issue.

**Action:** Leverage funds/efforts to increase maintenance capabilities. Continue to seek opportunities within the Forest, with other Forests, with counties and private individuals to increase the amount of maintenance accomplished through cooperative efforts. For trails there are opportunities to work with volunteers to maintain them.

**Action:** Prioritize roads that are good candidates for transfer of jurisdiction to counties, which reduces the number of road miles requiring maintenance with NFS funds. NFS roads that provide access to private inholdings would be good candidates to transfer to county jurisdiction.

**Issue 2: Roads have effects on Fish and Wildlife Habitat**

**Action:** Reduce the number of roads located in habitat for species-of-concern and species-of-interest.

**Action**: Place seasonal restrictions on roads going through critical habitat.

**Action:** Reduce the road width and maintenance level to minimum needed for safe vehicle passage and to meet the intended need in sensitive wildlife areas.

**Action:** Reduce stream crossings to improve (reduce) fish habitat fragmentation.

**Action:** Reduce miles of road within RCAs, by relocating or decommsioning, to improve fish community integrity and reduce riparian ecosystems impacts.

**Issue 3: Roads have effects on Watershed Conditions.**

**Action:** Implement the guidelines for mitigating road risks to reduce soil and drainage impacts from roads.

**Action:** Provide information and education about motor vehicle regulations and responsible use of motorized vehicles on the National Forest. Install information boards at area trailheads, recreation sites, and parking areas.

**Action:** Install route numbers on all system roads at junctions with system and unauthorized routes to assist users with compliance of motor vehicle use regulations.

**Action:** Focus maintenance and improvement activities on areas identified as having impacts from roads and road use.

**Action:** Reduce total miles of road within watersheds to improve watershed function.

**Action:** Rehabilitate areas damaged by off-route driving.

**Issue 4: Roads provide access to the public for recreational purposes**

**Action:** Maintain access to recreation sites that are provided by the Forest Service for public use.

**Action:** Maintain and update the Motor Vehicle Use Map.

**Action:** Maintain road signage in accordance with handbook direction.

**Issue 5: Roads provide access for general forest management.**

**Action:** Focus maintenance funds on the high priority roads identified in Step 4 of the analysis to provide long-term service on the roads that are needed the most.

**Action:** During the NEPA process for management activities, consider closing (ML1) other open roads in the project area where a reduced maintenance cost would be realized.

**Action:** Maintain and update the Motor Vehicle Use Map as roads are closed to administrative use only.

**Issue 6: Roads have effects on Riparian Function**

**Action:** Relocate roads outside of riparian areas to improve riparian function.

**Action:** Increase mitigation efforts, when relocation is not feasible, to decrease detrimental impacts to riparian areas.

**Action:** Seasonally restrict use or allow administrative use only on roads with reduced riparian function due to roads.

**Issue 7: Roads are vectors for spread of noxious weeds**

**Action:** Educate the public on spread of noxious weeds through the Motor Vehicle Use Map.

**Action:** Seasonally restrict roads with known infestations to reduce further spread to other roads.

**Action:** Restrict motorized vehicle use on the forest to a designated road system through travel management.

# Desired Conditions for the future Road System

## The Minimum Road System

The 2005 Travel Management Rule at 36 CFR 212.5 (b) states:

> "…b) Road system--(1) Identification of road system. For each national forest, national grassland, experimental forest, and any other units of the National Forest System (Sec. 212.1), the responsible Official must identify the minimum road system (MRS) needed for safe and efficient travel and for administration, utilization, and protection of National Forest System lands. In determining the minimum road system, the responsible official must incorporate a science-based travel analysis at the appropriate scale and, to the degree practicable, involve a broad spectrum of interested and affected citizens, other state and federal agencies, and tribal governments. The minimum system is the road system determined to be needed to meet resource and other management objectives adopted in the relevant land and resource management plan (36 CFR part 219), to meet applicable statutory and regulatory requirements, to reflect long-term funding expectations, to ensure that the identified system minimizes adverse environmental impacts associated with road construction, reconstruction, decommissioning, and maintenance."

This report documents the science-based travel analysis to be used by the responsible official for identification of the forest's minimum road system following appropriate NEPA analysis. The working group has identified a variety of opportunities for making changes to current road management practices that would meet the direction in 36 CFR 212.5 (b). Based on the matrix recommendations in Step 4, approximately 953 miles of ML1 and ML2 roads could be closed, decommissioned, or converted to a trail. The working group identified 364 roads totaling 252 miles could be decommissioned or converted to trails and removed from the system. Refer to Appendix A for roads recommended for inclusion in the MRS and Appendix E for the location of the roads.

A final consideration in developing the MRS is road maintenance. Based on funding levels over the previous five years, the Payette National Forest can only afford to maintain approximately 75% of the road system. This trend is decreasing and by next year the federally appropriated funding will maintain less than 74% of the road system. A road system that is economically in balance with funds available for maintenance will not result in a road system that meets the access needs for public or for administrative purposes.

# Step 6: Reporting

## Purpose

The purpose of this step is to report the key findings of the analysis.

## Key Findings of the Analysis

Through the travel analysis process, the working group does not recommend constructing additional roads. The working group ranked routes based on their risks to natural and cultural resources and their benefits to recreation use, permittee access, and management access. The working group identified opportunities where about 30 percent (891 miles) of NFS roads analyzed could be decommissioned, closed, or converted to a trail, and 70 percent (2,017 miles) of the current road system could be mitigated to reduce resource risk and then maintained. The map in Appendix E shows the travel analysis process recommendations. A complete list of the individual recommendations for each road can be found in Appendix A.

# Literature Cited

USDA Forest Service. 1999. Roads Analysis: Informing decisions about managing the National Forest Transportation System. Misc. Rep. FS-643. Washington, D.C.: U.S. Dept. of Agriculture Forest Service. 222 pp.