

Appendix K

Forest Scale Roads Analysis



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Chequamegon-Nicolet National Forests

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In August 1999, the U.S. Forest Service published *Road Analysis: Informing Decisions about Managing the National Forest Transportation System* (USDA FS-643), to assist individual National Forests in evaluating their road systems in response to changing management priorities, environmental concerns, funding levels, and public needs (USDA FS- 1999). The Forest Service Transportation Policy, adopted in 2000, directed National Forests to conduct a roads analysis when it is likely that road management decisions could affect access or produce negative environmental effects (USDA FS Roads Analysis Info Sheet 2002). This summary briefly describes the results of the analysis. See the December, 2002 Roads Analysis for the Chequamegon-Nicolet National Forest(s) for a complete details on the analysis and results.

The focus of the Chequamegon – Nicolet National Forest Roads Analysis is the primary transportation system within the Chequamegon-Nicolet National Forest (CNNF), which includes all Forest Service defined Maintenance Level 3, 4, and 5 roads drivable by passenger cars. Analysis of lower level, local roads (Maintenance Levels 1 and 2) will occur on a project-level scale. The roads analysis is intended to be a scientifically-based planning document that reflects an assessment of present road conditions, road related issues, access needs, environmental impacts, and road costs versus benefits. The Analysis will help prioritize roads and forest areas that need further analysis and management in the future. The roads analysis is not meant to be a decision making document, but rather a tool for addressing road related opportunities at the project level.

The roads analysis provides a physical, social, cultural, and economic description of the existing CNNF road system. Several issues related to current Maintenance Level 3, 4, and 5 roads within the CNNF have been identified as follows: public, private, and administrative access provided by roads; effects of roads on the aquatic environment and quality; role of roads in the proliferation of non-native and invasive species; effects of roads on threatened, endangered and sensitive (TES) plant and animal species; and the maintenance cost and environmental effects of placing roadways on slopes. These issues are addressed both scientifically and quantitatively in a Geographic Information System (GIS) based analysis. The roads analysis also addresses many other road related issues pertaining to the CNNF. The results of the GIS analysis are used to assess the primary benefits, problems and risks associated with forest roads, and to identify opportunities and priorities for future management of the primary transportation within the CNNF.

Although the scope of the roads analysis includes the entire CNNF, in some cases, the analysis extends beyond the administrative boundaries of the forest. The analysis was extended to these areas because discussion of social, economic, and cultural issues often refers to county boundaries, information regarding water quality is provided within watershed boundaries, and analysis of biological issues is often at a landscape or regional scale that covers multiple counties and ecological subsections.

The objective of the roads analysis is to consider opportunities in project level proposals, from the forestwide scientific and quantitative review of the Maintenance Level 3, 4, and 5 road systems, and to integrate environmental, social, and economic concerns with transportation planning for both existing and future roads. This information is intended

to support the CNNF Forest Plan revision, future Forest Plan amendments, transportation planning, and project level roads analysis. The information will support the decision making process in defining optimum land stewardship needs and management objectives.

A summary of an evaluation of the relative resource impacts and usage of the road system can be found in the Roads Analysis Matrix in Appendix D of the analysis. The Roads Analysis Matrix identified a score for each issue defined in Section 3.0, Identification of Issues. The scoring results were then illustrated in the matrix. The scores are indicators that identify potential problems and risks posed by the existing roadway. The score for each issue in Section 3.0 represent a numeric indicator. The higher the numeric indicator, the greater the potential for resource impacts caused by the roadway and the lower the numeric indicator, the lower the potential for resource impacts. These indicators were used to score each issue per roadway. After each issue was scored per roadway, the scoring results were further sorted to identify the highest overall score per roadway. The overall score per roadway is ranked as “high”, “medium”, “low”, and “none”. The highest overall score per roadway is illustrated in Figures 6A – 6F of the analysis for each Ranger District.

The scoring results for the Park Falls – Medford Ranger District indicated that 63 roads with a combined mileage of approximately 297 miles scored high; 23 roads with a combined mileage of approximately 82 miles scored medium; and 37 roads with a combined mileage of approximately 83 miles scored low for potential resource impacts. Specific roadway results are identified in the Roads Analysis Matrix in Appendix B.

A summary of opportunities to minimize impacts and improve the road system in the Medford Park Falls Ranger District includes an opportunity to pave various roadways that have high traffic volumes to minimize dust, decrease washouts and increase roadway stability. Other roadway surfaces are in poor condition and an opportunity to re-gravel and re-grade them to reduce erosion and runoff exists.

The scoring results for the Great Divide Ranger District indicated that 67 roads with a combined mileage of approximately 383 miles scored high; 26 roads with a combined mileage of approximately 79 miles scored medium; and 45 roads with a combined mileage of approximately 108 miles scored low for potential resource impacts.

Opportunities to minimize impacts and improve the road system in the Great Divide District include relocating roadway intersections to avoid environmental impacts and replacing existing road/stream crossing structures to reduce erosion and sedimentation while increasing fish passage opportunity.

The scoring results for the Eagle River - Florence Ranger District indicated that 136 roads with a combined mileage of approximately 447 miles scored high; 89 roads with a combined mileage of approximately 18 miles scored medium; and 142 roads with a combined mileage of approximately 140 miles scored low for potential resource impacts. Specific roadway results are identified in the Roads Analysis Matrix in Appendix B.

A summary of opportunities to minimize impacts and improve the road system in the Eagle River-Florence Ranger District includes paving various roadways to decrease washout and increase road stability and replacing existing road/stream crossing structures to reduce erosion and sedimentation while increasing fish passage opportunity.

The scoring results for the Lakewood - Laona Ranger District indicated that 197 roads with a combined mileage of approximately 623 miles scored high; 115 roads with a combined mileage of approximately 127 miles scored medium; and 192 roads with a combined mileage of approximately 154 miles scored low for potential resource impacts. Specific roadway results are identified in the Roads Analysis Matrix in Appendix B.

Opportunities to minimize impacts and improve the road system on the Lakewood-Laona District include improving roadway drainage by ditching and replacing existing culverts and increasing safety by modifying the alignment of certain roads.

The scoring results for the Washburn Ranger District indicated that 42 roads with a combined mileage of approximately 232 miles scored high; 27 roads with a combined mileage of approximately 88 miles scored medium; and 15 roads with a combined mileage of approximately 44 miles scored low for potential resource impacts. Specific roadway results are identified in the Roads Analysis Matrix in Appendix B.

Washburn District opportunities for minimizing impacts and improving the road system include replacing existing road/stream crossing structures to reduce erosion and increase fish passage.

Detailed opportunities for addressing problems and risk for specific Forest Service roadways identified in the Roads Analysis Matrix are attached in Appendices C – G of the analysis. The opportunities listed for specific roadways will be reviewed and considered for inclusion in future project proposals when the geographic area being studied includes all or portions of those roads.

