



### 3.0 STEP 3: IDENTIFICATION OF ISSUES

The purpose of this step is to identify important road-related issues that were identified by the IDT, local governments, Native American tribes and the general public. These issues will be considered later in this analysis in terms of how the existing transportation system may affect them.

#### 3.1 Issues Identified by the IDT

The Chequamegon-Nicolet National Forest IDT identified five road-related issues. They include: access; aquatic/water quality; non-native invasive species; slope; and threatened, endangered, and sensitive (TES) species. Each issue was assigned scoring criteria, with the lowest number indicating no or a low percentage of resource impacts caused by the roadway, and the highest number indicating a high percentage of resource impacts caused by the roadway. These scoring criteria, along with existing digital resources and infrastructure data were analyzed using a GIS computer model. The results of this analysis are provided in the Roads Analysis Matrix, which is attached in Appendix B. The Roads Analysis Matrix provides a scientific and quantitative evaluation of the relative resource impacts and usage of the road system.

Each of the five road-related issues identified by the IDT is identified and described in detail below. The scoring criteria that were used as part of the Roads Analysis Matrix is illustrated for each issue.

##### 3.1.1 Access

The National Forests are public lands, owned by the American people and managed by the USDA Forest Service for the enjoyment of the public. In order to fulfill these management responsibilities, it is essential that the CNNF roads analysis determine if the present road system is responsive to current public, private, and administrative access needs and desires.

##### Administrative Access

This issue examines the road system level of use for USDA Forest Service administrative needs; including access to general administrative sites; rock sources; heritage sites; radio repeater sites; weather stations; and areas of the forest affected by ecosystem management and fire management activities.



**Table 3-1. Administrative Access Scoring Criteria**

Point Value	Definition of Qualifying Road Segment
0	Road segment serves as the primary access to Forest Service administrative sites, rock sources, heritage sites, repeater sites, weather stations, or fire/ecosystem management areas.
1	Road segment serves as an alternate access to Forest Service administrative sites, rock sources, heritage sites, repeater sites, weather stations, or fire/ecosystem management areas.
2	Road segment does not contribute, in any way, to access to Forest Service administrative sites, rock sources, heritage sites, repeater sites, weather stations, or fire/ecosystem management areas.

**Public Access**

This issue examines the usage of the road system by the general public for activities such as recreation and harvesting forest products. Road segments are rated on the type of activities the segment supports; including dispersed or developed recreation (campgrounds, trailheads, viewing areas), traditional forest activities (woodcutting, forest products gathering), and civil and municipal activities (postal routes and school bus routes).

**Table 3-2. Public Access Scoring Criteria**

Point Value	Definition of Qualifying Road Segment
0	Road serves as the primary access to a developed recreation site, or road is a primary mail route, primary bus route, or a town gas tax road.
1	Road serves as an alternate access to a developed recreation site, or road has an established traditional use for non-developed recreational areas.

**Private Access**

This issue examines the usage of the road system by private interest, including landowners; power lines; rock sources; communication sites; and other special use permit sites. The USDA Forest Service is legally obligated by the Alaska National Interest Lands Conservation Act of 1980 (ANILCA; P.L. 96-487, 94 Stat. 2371) to provide access to private landowners if their land is surrounded by Federal land and no other access options exist. Specifically, this legislation mandates:

“The Secretary (of Agriculture) shall provide such access to non-Federally owned land within the boundaries of the National Forest System as the Secretary deems adequate to secure to the owner the reasonable use and enjoyment thereof: provided, that such owner comply with rules and regulations applicable to ingress and egress to or from the National Forest System” (ANILCA; 16 U.S.C. 3210 Section 1323 (a)).



**Table 3-3. Private Access Scoring Criteria**

Point Value	Definition of Qualifying Road Segment
0	Road segment lies within ½ mile of non-Forest Service managed land, or a special use permit site (power line, communication site, private rock source, etc.).
1	Road segment does not lie within ½ mile of non-Forest Service managed land, or a special use permit site (power line, communication site, private rock source, etc.).

**3.1.2 Aquatic and Water Quality**

There are probable environmental impacts to aquatic environments and water quality from the present road system on the CNNF. Roaded areas most affecting aquatic health must be prioritized for future study and sub-forest scale analyses. In order to determine effects of CNNF roads on aquatic ecosystems, the following indicators will be analyzed:

- Number of roads that cross streams
- Extent or length of forest roads in riparian management zones (RMZ)
- Extent or length of forest roads in wetland areas

**Table 3-4. Aquatic and Water Quality Scoring Criteria**

Point Value	Definition of Qualifying Road Segment
0	No stream crossings, or no length of road within a riparian management zone (within 100 feet of a water body), or no length of road within a wetland.
1	0 to 1.5 stream crossings per mile, 0 to 5 percent length within a riparian management zone (100 feet of a water body), or 0 to 25 percent length within a wetland.
2	1.5 to 3 stream crossings per mile, 5 to 10 percent length within a riparian management zone (100 feet of a water body), or 25 to 50 percent length within a wetland.
3	More than 3 stream crossings per mile, more than 10 percent length within a riparian management zone (100 feet of a water body), or more than 50 percent length within a wetland.

This biological and hydrological factor is based on the proximity of transportation corridors to lakes and streams and the associated potential negative impacts caused by these roads. Thus, the greater the point value, the higher the potential risk a road segment poses to aquatic health and water quality.

**Riparian Management Zone**

Roads located in riparian areas can be sources of sediments, and at locations where they parallel streams, can permanently remove riparian vegetation and the floodplain. Wisconsin’s Forestry Best Management Practices call for no roads or skid trails within riparian management zones (i.e. within 100 feet of streams or



lakes) except where they must cross a stream. Therefore, a road should only exist in a riparian area where it is needed to cross a stream.

The potential for adverse impacts to aquatic ecosystems increases as the percentage of roadway in riparian areas increase.

### **Stream Crossings**

At locations in which a road crosses a stream there is potential for impacts to the aquatic ecosystem. These potential impacts include: sedimentation from road surfaces, ditches and culvert failure; upstream channel aggradations from culverts set too high; restriction of the upstream movement of fish and other aquatic organisms because water in the culvert is too fast, too shallow, or there is a drop at the outlet; and upstream channel down-cutting from straightening of streams at crossings.

As the number of stream crossings increase, the potential for aquatic impacts also increases. In addition, stream crossings are costly both to construct and maintain.

### **Wetlands**

The CNNF contains approximately 347,000 acres of wetland, which comprise 23 percent of all National Forest ownership and represent ten different palustrine wetland types (USDA FS 1999a). Soil type and water levels affect aquatic or hydrophytic plants that are able to inhabit a particular wetland. Roads primarily affect wetlands by restricting cross drainage (thus affecting water levels) and may change the type of wetland that occurs above or below the road.

Roads can also result in direct loss of wetland where fill is placed in the wetland during construction. Loss of wetlands is an important issue because they are very important in providing habitat for floral and faunal communities (USDA FS 1999a). It is estimated that 43 percent of all Federally listed threatened and endangered (T&E) species use wetlands during their life cycles and that 32 percent of Wisconsin T&E plant and animal species are dependent on wetlands (USDA FS 1999a). Wetlands are also important in filtering pollutants such as sediments, chemicals, and nutrients from water, thus reducing their impact on streams, lakes, ponds, and groundwater (USDA FS 1999a).

The potential for adverse impacts to wetlands increases with greater length of road contained within a wetland. Thus, risk ratings for roads also increase as wetlands are exposed to more roadways.

### **3.1.3 Non-Native Invasive Species**

This issue is based on the propensity for transportation corridors to facilitate the spread of non-native invasive species (NNIS). At locations in which a NNIS is present, there is potential for biological and ecological impacts. The potential impacts are dependent on the type of species and impacts are often greater along existing roadways and at locations that have soil disturbance.



Recent studies have related abundance of exotic species to frequency of road usage; however, frequency of road use is often difficult to estimate (Brown et al. 2001). It is estimated that 12 percent of all known vascular plants in the forest are now NNIS (USDA FS 2000a). As the number of NNIS locations increase, the potential for biological and ecological impacts also increases.

**Table 3-5. Non-Native Invasive Species Scoring Criteria**

Point Value	Definition of Qualifying Road Segment
0	No existing NNIS present along road, or within 20 miles.
1	No NNIS along road, but present within 20 miles.
2	Less than one mile of the road length has NNIS present.
3	More than one mile of road length has NNIS present.

### 3.1.4 Slope

This issue represents the general slope of the land. At locations where the slope is steeper, the potential for erosion may occur, thus effecting aquatics and water quality. The potential impacts are dependent on soil type, vegetation, rainfall, and disturbance.

Slope is also an important issue relating to roadways because it can affect the cost to construct and maintain the roadway. Roadways on steeper slopes require more cross-drain culverts, improved road surfaces (i.e. asphalt) and have more cut and fill excavation. This causes higher construction and maintenance costs.

**Table 3-6. Slope Scoring Criteria**

Point Value	Definition of Qualifying Road Segment
0	0% of the road is on slopes greater than 15% and 0%-25% of the road is on slopes of 5%-15%
1	0%-5% of the road is on slopes greater than 15% or 25%-50% of the road is on slopes of 5%-15%
2	5%-10% of the road is on slopes greater than 15% or greater than 50% of the road is on slopes of 5%-15%
3	Greater than 10% of the road is on slopes greater than 15%

### 3.1.5 Threatened, Endangered, and Sensitive Species

This issue addresses the potential negative impacts to TES species caused by proximity of transportation corridors. When a road is located in an area where a TES species occurrence has been documented, there is potential for negative effects to occur to these species. The potential for negative impacts to TES species increases as the road proximity to a TES species location increases.



The majority of Maintenance Level 3, 4, and 5 roads addressed in this document have been in existence for a minimum of 50 years. TES species with close proximity to these travelways have survived and/or moved into these areas in spite of the roadways.

**Table 3-7. Threatened, Endangered, and Sensitive Species Scoring Criteria**

Point Value	Definition of Qualifying Road Segment
0	Road is not present within ½ mile of a documented TES species plant occurrence, or within ½ mile of a nesting, denning, or breeding site for TES animals species.
1	Road lies within ½ mile of at least one documented TES plant occurrence, or within ½ mile of at least one nesting, denning, or breeding site for TES animals.
2	Road lies within ¼ mile of at least one documented TES plant occurrence, or within ¼ mile of at least one nesting, denning, or breeding site for TES animals.

### 3.2 Issues Identified by Others

As part of the Roads Analysis process, comments were sought from local government agencies, tribal groups, and the general public. Informational meetings were held with each group to describe the process and request comments on road-related issues within the CNNF. Issues identified by others include environmental concerns, which consist of ecosystem functions and process, aquatic, riparian zone and water quality, and terrestrial wildlife; sociocultural concerns, which include general public transportation, protection from wildfire and human health and safety hazards, recreation, passive use values, and social issues; and economic concerns, which include commodity production and general economic issues.

#### 3.2.1 Government Information Meetings

On February 27, 2002, the USDA Forest Service sent a letter to local townships, county and state government agencies inviting them to attend one of six government informational meetings. The objective of the meetings was to outline the Roads Analysis process and goals, while obtaining input from the government agencies regarding issues, recommendations, or ideas that they have concerning the existing main road system within the CNNF.

The meetings were held March 18, 2002 in Florence; March 19 in Eagle River; March 20 in Park Falls; March 21 in Medford; March 22 in Ashland; and March 25 in Wabeno.

Many of the government agencies provided written comments on the existing road system. Road related comments and opportunities that pertain to specific Forest Roads are outlined in Appendix C - G. Minor maintenance related concerns are not identified in this document; however that information was forwarded to the USDA Forest Service to be used during routine maintenance operations.



On September 17, 2002, the USDA Forest Service sent another letter to the local townships, county and state government agencies inviting them to attend a government informational meeting. The objective of the meetings was to get comments on the 'Draft' Roads Analysis document and to request additional comments on the existing road system within the CNNF.

The meetings were held October 7, 2002 in Wabeno; October 8 in Eagle River; October 9 in Florence; October 10 in Park Falls; October 11 in Medford; and October 15 in Ashland.

Some of the government agencies provided written comments during the second comment period. General comments included a concern about the long-term use of the roadways by heavy logging trucks, which shorten the life of the roads. Others have stated a need to develop additional gravel sources. Commenters also stated the importance of roadways in providing access to public and private lands.

### **3.2.2 GLIFWC Tribal Information Meetings**

Under the MOU referenced in Section 2.6, GLIFWC was contacted for comments related to intertribal off reservation ceded territory perspective. Comments were received from the GLIFWC, which represent the Bad River Band, Bay Mills Community, Keweenaw Bay Community, Lac Courte Oreilles Band, Lac du Flambeau Band, Lac Vieux Desert Band, Mille Lacs Band, Red Cliff Band, St. Croix Chippewa, and Sokaogon Chippewa tribal groups. Comments have been submitted from an intertribal, off reservation ceded territory perspective and should not be construed as precluding comments by GLIFWC member tribes pursuant to their individual sovereign prerogatives. A copy of the written response has been placed in the project file and is available upon completion of this analysis.

### **3.2.3 Public Information Meetings**

A public information meeting was held on Wednesday, April 3, 2002 in Crandon, Wisconsin to discuss the roads analysis process and to request public comment on the forest-wide roads analysis project that covers maintenance level 3, 4, and 5 roads within the CNNF. Several procedural questions related to the roads analysis were posed regarding the need for a separate forest-wide roads analysis due to ongoing *Forest Plan* revision; the rationale for excluding Maintenance Level 1 and 2 roads from the analysis; public meeting notification procedures; and participation of the local governments and the public in forest planning efforts. The main public sentiment of the audience was that, due to potential adverse effects on local economies, safety concerns, and adverse effects on recreation, no CNNF forest roads should be closed.

A second public information meeting was held on Thursday, April 4, 2002 in Park Falls, Wisconsin to discuss the roads analysis process and to request public comment. Several concerns raised at this meeting related to the role of local townships in forest road management. The public requested clarification of the



following: percentage of township roads within the CNNF; agreements between the Forest Service and local townships regarding road maintenance; and possible jurisdictional changes of forest roads. Several maintenance-related concerns were expressed regarding conditions of specific forest roads (Forest Road 566, Forest Road 137, Highway 70, Hemlock Road) and seasonal maintenance (snow plowing etc.) of certain roads. Other public issues rose included; the forest road numbering system, road conditions following timber sales, rustic road designations, restrictions on right of way signs near forest roads, and a request for an additional snowmobile trail.

A second series of public information meetings was held on October 16, 2002 in Crandon, Wisconsin and October 17, 2002 in Park Falls, Wisconsin. The objective of the meetings was to present the 'Draft' Roads Analysis document and to request additional road related comments from the public. The general concern voiced from the public was not to close trails or roadways on the CNNF.

### **Public Comment**

Public comments that are specific to a Forest Road are included in the Roads Analysis Matrix as Appendix B and a description of the comments and opportunities are provided in Appendixes C - G. Copies of the written responses have been placed in the project file and available from the project file at the CNNF headquarters.

Public comments from local government agencies also addressed minor maintenance concerns that related to specific Forest Roads. Those issues are not identified in this document; however the information collected was forwarded to the Forest Service to be considered during routine maintenance operations.

Other public comments included the need to clarify vehicle regulations and parking procedures on forest roads; the need for new roads signs on the existing roadways; standards for road density specific to TES species; maximum allowable open road density; total road density; and a request to consider maintenance level 2 roads in this forest wide Roads Analysis. These issues will be addressed at the project level Roads Analysis.

### **Issues Identified by the Public**

The public was given an opportunity during March and April 2002 to comment on the road related issues that pertain to Maintenance Level 3, 4, and 5 roads on the CNNF. Their comments are summarized under three major components, which are environmental, sociocultural, and economic issues. Each issue is identified and described in detail below.

#### **Environmental**

The environmental issues are summarized under three categories that include; ecosystem functions and processes; aquatic, riparian zone, and water quality; and terrestrial wildlife.



## 1. Ecosystem Functions and Processes

This issue identifies ecological attributes and discusses how roads in the region affect these attributes. The road system may adversely affect sensitive wildlife and natural ecosystems; can contribute to the spread of insects, disease, parasites, and non-native invasive species; may fragment animal and plant populations; creates edge effects; blocks movement of some animals; may disrupt normal breeding, feeding, and sheltering habits of species; potentially exposes threatened and endangered species to hazards from vehicular and foot traffic; and directly destroys habitat through the creation of roadways.

Four respondents commented on this issue. Commenters suggested reducing road densities, limiting access to areas that have sensitive plant communities, and obliterating roads that bisect wilderness areas. Commenters also stated that roads act as corridors for invasive species.

## 2. Aquatic, Riparian Zone, and Water Quality

This issue identifies how the road system affects aquatic communities, riparian zones, and water quality on the CNNF. The road system adversely affects local hydrology because water flow is restricted by compacted gravel or paved roadways. Petroleum and road salt runoff from the pavement degrades water quality. Roadway traffic that passes through sensitive areas may cause erosion and sedimentation, which degrades aquatic communities.

Seven respondents commented on activities that relate to this issue. The majority of commenters indicated specific roads have drainage problems that would affect the aquatic community, riparian zone, and water quality of the area. Others suggested not paving specified roads and removing roadways that have considerable potential for causing water quality degradation, slope erosion, and stream sedimentation.

## 3. Terrestrial Wildlife

This issue identifies how the road system affects wildlife and wildlife habitat on the CNNF. The road system adversely affects terrestrial wildlife by improving access to habitats, which leads to increased hunting pressure, poaching, and harassment; potential increases in animal/vehicle collisions; and fragmentation which disrupts breeding behaviors and may hinder access to food and shelter. Road construction could destroy wildlife habitat, disrupt normal wildlife behavior, and impact the viability of wildlife populations.

Three respondents commented on activities related to this issue. Some suggested a reduction of road densities in wilderness areas, while others stated that they use the roadways for hunting and fishing purposes. One commenter stated that a culvert along Forest Road 566 provides a den for a fox.



## Sociocultural

Sociocultural issues are summarized under five categories that include; general public transportation, protection, recreation, passive use values, and social issues.

### 1. General Public Transportation

Changes in access would affect a variety of stakeholders. Currently, access is needed by private landowners, public visitors, tribal groups, utility companies, and for administrative uses such as timber and maple sugar harvesting. Increases in public access may result in accelerated resource damage; greater chance of fire caused by careless human behavior; fragmentation; and the spread of invasive species, insects, disease and parasites.

One hundred and forty-six respondents commented on this issue. Ninety of the commenters recommended maintaining accessibility to all roads and trails on the CNNF. Other comments were divided between supporting and opposing increased public access on USDA Forest Service land. The majority of respondents who live in the area discussed improving access. One respondent indicated that it is the Forest Service's legal obligation to provide access to landlocked parcels of private land. Commenters were concerned about necessary roadway maintenance being delayed, causing the roads to lapse to a lower roadway Maintenance Level. Others discussed the resource damage that the existing roadways are causing and recommended reducing road density. They recommended closing, obliterating, and revegetating some of the existing roadways, thereby reducing road density.

Additional comments were concerned with opening road access to harvest maple sugar located in the Argonne Experimental Forest area; providing road access to tribal groups, townships, and non-tribal citizens; and providing access for the handicapped, fire prevention, emergency vehicles, disease prevention, timber harvest, tourism, and recreation activities such as four-wheel drive vehicle usage. Other commenters suggested reducing road access and road density to preserve natural resources and wildlife habitat.

### 2. Protection

This issue identifies how the road system provides access for fire prevention and suppression in the forest, while identifying road features that may be a safety issue to the general public. The road system provides protection in the CNNF by facilitating emergency vehicle access, while acting as a firebreak for fire prevention and suppression. However, some comments referred to the increased chance of fire due to careless human behavior associated with roadways. These commenters indicated that the road system itself may be a safety issue if it is not properly constructed and maintained.

Twenty-nine respondents commented on activities that affect this issue. The majority of commenters suggested paving a couple of roads with high usage to



reduce dust and washboard effects. High dust levels reduce visibility and could cause respiratory problems. The washboard effect develops when the existing gravel surface erodes due to travel patterns and rain. Results of the washboard effect include ruts in the roadway, loss of traction for vehicles, and drainage problems that may cause standing water or ice. Commenters also suggested that the roadways in areas with high pedestrian traffic should have low speed limits posted for the safety of the pedestrians. The speed of logging trucks is another safety concern. Some commenters indicated that ATV usage on roadways could be dangerous, especially with reduced visibility in dusty conditions. One commenter indicated a concern that the current detour route for Forest Road 561 is too narrow and not providing a safe alternative for fire equipment, school buses, emergency vehicles, postal carriers, and general vehicular traffic.

### **3. Recreation**

This issue identifies how the road system provides access to recreational areas and how recreational activities contribute to the local economy. Recreational activities include biking, boating, camping, cross country skiing, fishing, four-wheel drive vehicle usage, hiking, hunting, traveling scenic routes, snowmobiling, swimming, and other outdoor activities. These activities bring people to the area who utilize local products or services, thereby providing stimulus to the local economy.

One hundred and ten respondents commented on activities that affect this issue. Commenters stated that they visit and access the CNNF frequently to enjoy various recreational activities. The majority of commenters stated that they enjoy traveling via four-wheel drive vehicles and use the existing road and trail system to access off road trails. Some suggested paving some roadways to handle higher traffic volumes; to improve access and public riding comfort to recreational areas; or to reduce dust, which has a negative affect on other recreational activities. Other comments suggested disallowing ATV usage on all USDA Forest Service roadways. One commenter suggested additional road maintenance in the winter to allow for more winter recreation activities to occur, which would expand the local economy. Another commenter requested lower road densities and minimal reconstruction projects near the Ice Age National Scenic Trail area, because low road density is critical to the natural quality of the trail experience.

### **4. Passive Use Values**

This issue identifies the cultural, traditional, symbolic, sacred, spiritual, or religious significance of an area and potential effects roads have on their heritage sites. The road system may provide access to the sites or may adversely affect their value.

Three respondents commented on activities that affect this issue. Commenters indicated that the existing road system is needed year round to provide tribal groups access to tribal territories, food and forest product gathering locations, as



stated by their treaty rights. Another commenter indicated that the roads themselves or engineering structures may be heritage sites and should be protected during road construction, utility construction, and general maintenance activities.

## **5. Social Issues**

This issue identifies how people perceive and value the road system on the CNNF. The road system affects peoples livelihood because it provides individuals with an opportunity to earn a living by improving access to employment and consumers; it provides routes for goods and services to be transported within and through the CNNF; and it provides access for people to enjoy the resources of the forest. Unfortunately, roads also are utilized by individuals who choose to adversely affect the resources of the forest by means of trash dumping, starting fires, poaching, and other illegal activities.

Six respondents commented on activities that relate to this issue. Some commenters stated that the forest roads provide them an opportunity to earn a living and gather resources to supplement their food requirements, while others indicated the importance of providing access for the handicapped to the forest. Two commenters voiced their concern regarding trash that is deposited along the trails and roadsides in the forest. One indicated that they instituted a roadside clean up every spring, which reduced roadside rubbish.

## **Economic**

The economic issues are summarized under two categories that include commodity production and general economic issues.

### **1. Commodity Production**

This issue identifies how the road system provides access to public and private land for the management of timber, minerals, range, water production, and special forest products. Four respondents commented on the issue. The commenters indicated that the logging industry provides an economic advantage to the local communities. One commenter suggested repairing a portion of Brush Creek Road (FR 561), which had fallen into the adjoining Lake Kathryn, because this route has been and will be used for logging operations.

### **2. General Economic Issues**

This issue identifies the financial benefits that come from the road system and the costs of maintaining the road system. Financial benefits of the road system include access, which brings business, tourist, and recreational activities. Costs of the road system include the financial requirement to construct and maintain the roadways.



Thirteen respondents commented on the issue. Commenters indicated that roads provide access to their business. Other commenters indicated that the roads provide access and routes for the timber industry, which provides economic support for the local communities. Some commenters suggested paving a few roads that are in poor condition and have high vehicle and pedestrian traffic, as long as the cost is not assessed to the property owners. Some commenters suggested cooperating with the townships to carry out some of the maintenance work associated with the roadways. Others suggested obliterating some of the existing roadways and restoring habitat at those locations to reduce long-term maintenance costs, since the current budget does not allocate adequate funds to cover existing maintenance needs.