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## Chapter 3

# Affected Environment and Environmental Consequences

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## 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

### 3.1 INTRODUCTION

This chapter describes the existing physical, biological, and social resources that may be affected by the alternatives presented in Chapter 2. It also presents the direct, indirect, and cumulative effects that the alternatives may have on those resources. The discussion of the affected environment and environmental effects was combined into one chapter to provide a clear picture of what the resources are and what could happen to them under the alternatives. The analysis of environmental effects provides the basis for comparison of alternatives that appears at the end of Chapter 2 and discloses the environmental effects of the alternatives described in Chapter 2. Chapter 3 includes:

- Adverse environmental effects which cannot be avoided should the proposal be implemented
- Relationship between short-term uses of the human environment and the maintenance and enhancement of long-term productivity
- Irreversible or irretrievable commitment of resources which would be involved in the proposal should it be implemented Possible conflicts between the proposal and other agency or tribal land use plans, policies, and controls within the Project Area
- Possible conflicts between the proposal and other agency or tribal land use plans, policies, and controls within the Project Area
- Tribal communities
- The resources discussed include:
  - Recreation
  - Access
  - Effects to Wilderness Character
  - Soil and Water
  - Threatened, Endangered and Sensitive Species
  - Non-native Invasive Species
  - Special Uses
  - Heritage Resources
  - Economics

The environmental effects related to each of the resource and issue areas are discussed immediately following the presentation of the affected environment for each resource. The Environmental Effects sections provide the scientific and analytical basis for the comparison of the alternatives presented in Chapter 2. They present the expected effects on the physical, biological, social, and economic environments associated with implementation of each of the alternatives. The direct, indirect, and cumulative effects on each resource are disclosed. Effects are quantified when possible, although

qualitative discussions are sometimes necessary. In general, short-term effects are those within the next 10 years and long-term are effects that may last longer than 10 years.

The Interdisciplinary Team (IDT) examined and analyzed data to estimate the effects of each alternative. The data and level of analysis were commensurate with the importance of the possible impacts (40 CFR 1502.15). The effects are quantified where possible, although qualitative discussions also may be included. Acreage figures are estimates based on information from the Superior National Forest Geographic Information System (GIS) database. Acres may vary slightly in implementation based on field verification using Geographic Positioning System (GPS) data. The accuracy of the estimated acreage is sufficient for the analysis.

The IDT is aware of possible inaccuracies and limitations of the data. The forest is highly variable and constantly changing and not all stand data is current. However, the IDT concluded that it is the best available forest information and is adequate for analysis and drawing conclusions. Additional data and accuracy would add precision to estimates or better define a relationship; however, the basic data and central relationships are sufficiently well-established in the respective sciences that additional accuracy is unlikely to reverse or nullify understood relationships. Thus additional information would be welcomed and add precision but it is not considered essential to provide adequate information for the decision-maker to make a reasoned choice among alternatives.

Road and trail data used in the analysis is from the INFRA tabular database in conjunction with the GIS Travel Routes spatial database. These databases are continually updated. Editing generally involves correcting errors between the INFRA and GIS Travel Routes such as inconsistent lengths and locations and inventorying unclassified roads.

During the Forest Plan Revision process, the Superior National Forest identified the minimum road system needed to minimize adverse environmental impacts associated with road construction, reconstruction, decommissioning, and maintenance (36 CFR 212.5(b)(1)) and unneeded roads for decommissioning (36 CFR 212.5(b)(2); Road and Data Quality Paper, planning record). After administrative review, the Forest Service Chief found that the Superior's road and trail data quality was adequate for analyses in the Forest Plan Revision Environmental Impact Statement, and for subsequent project-level NEPA analyses conducted pursuant to the Revised Plan.

### **3.2 ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED SHOULD THE PROPOSAL BE IMPLEMENTED**

Implementation of any of the action alternatives could potentially result in some adverse environmental effects that cannot be effectively mitigated. The interdisciplinary procedure used to identify actions in the alternatives was designed to eliminate or reduce the potential adverse effects. Although the development of alternatives included avoidance of potentially adverse environmental effects, some adverse effects to the environment that cannot be totally mitigated may occur. These effects are disclosed in applicable resource sections. In addition, the application of Forest Plan standards and guidelines, Minnesota Forest Resource Council (MFRC) Voluntary Site-level Forest Management

Guidelines, design features, and mitigation measures are intended to further limit the extent, severity, and duration of these effects.

The intensity and duration of these effects depends on the alternative and the mitigation measures applied to protect resources. Most unavoidable effects are expected to be short term. In all cases, the effects would comply with established legal limits.

Ground-disturbing activities (such as new trail construction) could result in temporary, short-term, small increases in sediment loads in some streams. Forest Plan standards and guidelines, MFRC Voluntary Site-level Forest Management Guidelines, and Project design features and mitigation measures are designed to prevent adverse effects to soil and water. However, small short-term effects are unavoidable. For example, if a culvert or other crossing structure is needed for a road or trail, the portion of a streambed occupied by the crossing may result in short-term small impacts to fish habitat.

All of the action alternatives will result in less overall roads on the Superior National Forest than the existing situation (Alternative 1), resulting in a corresponding reduction of potential adverse effects on resources when compared to the existing situation.

### **3.3 RELATIONSHIP BETWEEN SHORT-TERM USES OF THE HUMAN ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY**

All action alternatives would comply with the mandate of the Multiple Use and Sustained Yield Act of 1960, which requires the Forest Service to manage National Forest System land for multiple uses, including timber, recreation, fish and wildlife, range, and watershed. All renewable resources are to be managed in such a way that they are available for future generations.

Maintaining the productivity of the land is a complex, long-term objective. All alternatives protect the long-term productivity of the Project Area through the use of specific standards and guidelines, mitigation measures, and the Minnesota Forest Resources Council's Voluntary Site-level Forest Management Guidelines.

Soil and water quality are two key elements of ecosystem productivity. These two resources would be protected in all alternatives in order to avoid long-term damage that could otherwise take many decades to rectify. No long-term effects to the water resource are expected to occur as a result of resource activities proposed.

Specific indicators were selected for those individual species that are of concern with regard to the activities proposed in this project. The effects of the Project on these species are disclosed in the wildlife section of this chapter.

Opportunities for developed and dispersed recreation use, including hiking, hunting, canoeing, skiing, and fishing, would be maintained for future generations. The forest setting in which these activities occur varies, but the long-term potential for the Project Area to provide a spectrum of recreation opportunities would be maintained in all alternatives.

### **3.4 IRREVERSIBLE OR IRRETRIEVABLE COMMITMENT OF RESOURCES WHICH WOULD BE INVOLVED IN THE PROPOSAL SHOULD IT BE IMPLEMENTED**

*Irreversible commitments* are decisions affecting nonrenewable resources such as soils, wetlands, and heritage resources. Commitments are considered irreversible when recovery of the resource would occur only over a long period of time or at great expense. Commitments are also considered irreversible when the resource would be destroyed or removed.

Loss of soil due to erosion is an example of an irreversible commitment of resources. However, due to the incorporation of MFRC Voluntary Site-level Forest Management Guidelines, standards and guidelines, design features, and mitigation measures specified in this document, it is not anticipated that there would be any substantial soil loss under any of the alternatives.

Loss of cultural resource sites resulting from accidental damage would be an irreversible commitment of resources. The standards and guidelines, surveys performed prior to activities, design features, and mitigation measures specified for the alternatives provide reasonable assurance that there would be no loss of cultural resources.

*Irretrievable commitments* of natural resources are commitments that result in the loss of productivity or loss in use of resources due to management activities proposed in the alternatives. Such opportunities are foregone for the period of time that the resource cannot be used.

The construction of new ATV/OHM trails would take land out of forest production and would be considered an irretrievable loss of site productivity during the period the trails are used. Designation of some existing unclassified roads as National Forest System roads would not take land out of forest production because these roads currently exist. However, this would be considered a long-term commitment of the land as a National Forest System road. The alternatives vary in the number of unclassified roads that would be decommissioned, and therefore in the amount they would return existing roadways back toward productive forest lands.

### **3.5 POSSIBLE CONFLICTS BETWEEN THE PROPOSAL AND OTHER AGENCY PLANS, , POLICIES, AND CONTROLS WITHIN THE PROJECT AREA**

The Forest Plan EIS discusses policies and control in relation to others on page 3.10-5. As described in Chapter 1, the Forest Service coordinated planning with the State, County and Tribal Governments in developing the proposed action for this project.

### **3.6 TRIBAL COMMUNITIES**

Tribes are considered to be sovereign nations; the United States government and its departments have a responsibility to recognize this status. The federal relationship with each tribe was established by, and has been addressed through, the Constitution of the United States, treaties, executive orders, statutes, and court decisions. Government-to-government consultation between the federal government and federally recognized American Indian tribal governments acknowledges the sovereign status of these tribes. This consultation supports Executive Order 13175 (November 6, 2000), which recognizes the sovereignty of federally recognized American Indian tribes and the special government-to-government relationship.

Beginning in the mid-nineteenth century, the government of the United States made treaties with the Ojibwe that ceded areas of land in northern Minnesota to the federal government. In return, specific reservations were created for the tribes' use and other considerations specified. The treaties also preserved the right of the Ojibwe bands to hunt, fish, and gather off the reservations within the treaty area. Tribal interests and uses on National Forest lands are protected through various statutes. The federal trust doctrine requires that federal agencies manage the lands under their stewardship with full consideration of tribal rights and interests, particularly reserved rights, where they exist.

The Superior National Forest has a role in maintaining these rights because it is an office of the federal government responsible for natural resource management on lands subject to these treaties. The Superior National Forest is located on lands ceded by the Ojibwe to the United States in 1854 and 1866. Three bands - Grand Portage, Fond du Lac, and Bois Forte (Nett Lake) – live in proximity to the Forest and are directly affected by the treaties. The tribes consider many areas in the Superior NF important to them for cultural, historic, traditional, and spiritual reasons.

Article 11 of the 1854 treaty states that Ojibwe within the treaty area would continue to have the right to hunt and fish on lands they ceded. A court decision (*Fond du Lac Band of Chippewa v. Carlson*) has confirmed this right to hunt, fish, and gather without regulation by the State of Minnesota.

This guarantee is important in the context of natural resource management. Forest Plan direction is to generally assure the availability of resources to support the continued exercise of treaty rights and cultural practices, including access to such resources and places of traditional practices. The objective is to maintain sufficient availability of resources for the continued harvest or utilization needed to satisfy tribal needs. Important considerations include trends in species viability and watershed conditions as well as changes in access to traditional places. The area of consideration includes lands of other ownerships within and adjacent to the National Forest System boundaries. Tribal interests extend beyond National Forest System land. This larger area lends a broader landscape perspective to maintaining ecological sustainability on the forests of northeastern Minnesota.

### **The 1854 Ceded Territory**

On September 30, 1854, a treaty was concluded at La Pointe, Wisconsin, between the United States and Bands of Lake Superior and Mississippi Chippewa (Ojibwe). The Lake Superior Bands included the La Pointe Band, the Ontonagon Band, L'Anse Band, Vieux De Sert Band, the Grand Portage Band, the Fond Du Lac Band, the Lac Court Oreille Band, the Lac Du Flambeau Band, and the Bois Forte Band. The Mississippi Bands ceded their interest in the territory in consideration for the Lake Superior Bands ceding their interest in lands farther west.

The territory ceded by the Treaty of La Pointe encompasses much of the Arrowhead Region of Minnesota. The north boundary is the international boundary with Canada and the eastern boundary is generally Lake Superior; the south boundary was set at the "southern boundary-line of the Chippewa country." The western boundary is more complicated, consisting of lines connecting the Snake, St. Louis, East Swan, and Vermilion Rivers. All of Lake and Cook Counties is included, as well as most of Carlton and about two-thirds of St. Louis County. Small portions of Aitkin and Pine Counties are also included. Most of the Superior National Forest is within this area.

Rights were retained under the Treaty of 1854 to hunt and fish within the Ceded Territory. Article 11 states "And such of them [Chippewas of Lake Superior] as reside in the territory hereby ceded, shall

have the right to hunt and fish therein, until otherwise ordered by the President.”

Reservations for all the Bands of Lake Superior Chippewa except the Bois Forte Band were established in Article 2. Of the nine bands, three reside in Minnesota within or adjacent to the ceded territory and the other six in Wisconsin. The Fond du Lac Band has a reservation in Carlton and southern St. Louis Counties. The Grand Portage Band has a reservation in Cook County in the extreme northeastern tip of the Ceded Territory. The Bois Forte band has reservations on Vermillion Lake in St. Louis County and at Nett Lake in St. Louis and Koochiching Counties.

### **Tribal Cultural, Economic, and Governmental Interests**

Culture is the whole set of learned behavior patterns common to a group of people at a certain period of time, as well as their interactive behavior systems, material goods, or thoughts and beliefs. People rely on their culture in order to live, relate to others as collective groups, and know how to both understand and function in their world. On the Superior National Forest, the Ojibwe tribal culture is dominant.

The continued availability of traditionally utilized natural resources is crucial to Ojibwe culture. Now, as in the past, many places throughout the landscape are visited during a yearly cycle to collect food, medicines, and other materials, as well as for religious practices and social gatherings. Plants and animals gathered from prairie openings, aquatic environments, and forests provide sustenance. The traditions of gathering these and other natural resources continue to be economically and spiritually important. Because of their concern with the continuation of this aspect of Ojibwe culture, the bands take an active role in the protection and restoration of many species of plants, animals, and fish. The bands also claim that access to these resources and traditional cultural places is an inherent right.

Use of the natural resources for economic benefit is important to many band members through employment and the operation of various forest product businesses. The Forests, State, county and tribal governments themselves provide employment opportunities in natural resource management and there is interest in job training, fire fighting, contracts for construction and forest management, and State and private forestry rural assistance opportunities. There is also widespread use of forest products tied to the gathering for personal, traditional and treaty purposes. This includes fishing, hunting, trapping, harvesting wild rice, tree boughs, saps, roots, bark, berries, medicines, firewood and other items.

There are numerous areas throughout the Forest that have traditional, cultural, and spiritual significance to the bands. The use and protection of these areas is a way of maintaining traditional links to past generations. Traditional use areas often have some aspect of spiritual significance. The bands believe that archaeological sites and past cemetery areas, many of which are unplatted, are sacred and should be protected.

The Ojibwe interest in the Forest goes beyond that of spiritual and cultural to the unique legal relationship that the United States government has with tribal governments. These federally recognized tribes have sovereign status.

### **Project Effects on Tribal Concerns**

During development of the proposed action, members of the Forest Service met with personnel from the 1854 Authority and members of the individual bands. A key interest expressed was maintaining access to opportunities for hunting, fishing, and gathering. Tribal representatives were involved in

initial planning of routes that would be proposed for motorized use. In addition, forest access was included as an issue to be addressed in the analysis. Under all action alternatives, there would be relatively fewer miles available for motorized access to National Forest lands, than under the existing condition. This may affect some individuals who use specific roads that would be closed or decommissioned. However, much of the change in access from the existing condition is related to motorized access on unclassified roads, a situation that cannot continue under the National Travel Management rule. The action alternatives are not anticipated to have a large effect on motorized access for hunting and gathering use when viewed in the context of the entire Forest and the number of roads available for motorized use. The access section of this chapter provides further information on the effects to access for exercise of 1854 treaty rights.