
3.10 OTHER DISCLOSURES

3.10.1 Unavoidable Adverse Effects

The application of Forest-wide standards and guidelines and resource protection measures would limit the extent and duration of any adverse environmental effects. Nevertheless, some adverse effects are unavoidable. For detailed disclosure of all effects, including unavoidable adverse effects, see the preceding Environmental Consequences discussions for each resource area (vegetation, recreation, etc.).

This section describes those adverse effects that cannot be avoided as a result of probable management activities on Chippewa and Superior NFs. Implementation of any of the alternatives would generally move the landscape and ecosystem towards greater productivity and improved condition, but adverse environmental effects may occur even with standards and guidelines to control the effects. Most notably, the unavoidable effects would be to air quality, plant and animals, water, and soil productivity.

Air Quality

Road construction, timber harvest, prescribed burning, and some recreational activities would cause temporary and localized reductions in air quality due to dust, exhaust fumes, and smoke.

Soil Productivity

Development and restoration activities such as constructing parking lots or roads would adversely affect soil productivity on the occupied site (see Section 3.10.2 Short-term Effects and Long-term Productivity). Where vegetation cover and soils are disturbed, there is some short-term erosion. Activities involving vehicles or heavy equipment cause soil compaction.

Water Resources

When vegetation cover is removed, or soils are disturbed or compacted, there is a short-term increase in sedimentation (movement of soil particles into water). Natural precipitation and flood events also cause sedimentation. Natural occurrences of chemical compounds in surface water reduce water quality. Mining operations have the potential to contaminate surface and ground water.

Providing additional access to lakes and rivers would increase the potential for water pollution and spreading exotic species.

Vegetation

Removing vegetation cover and disturbing soils during forest management activities result in loss of vegetative productivity. Depending on the duration of the project, the lost may be short- or long-term.

Wildlife

Public use of land may result in unavoidable disturbance of native plants, birds, or other species near travel routes, trails, or recreational facilities. For example, the presence of a trail and activity on the trail may result in trampling of bordering vegetation, loss of nesting habitat along the trail corridor, or local elimination of predators. Such effects would be avoidable only by complete elimination of all travel routes and facilities. Visitor presence may also contribute to dispersal or increased populations of non-native or invasive plant species, undesirable insect species, rodents, or other species.

Forest management activities, such as timber harvesting and road construction, cause short-term disturbance and displacement of some wildlife species. Continual activity, such as traffic on a highway or

hiking on a trail, may cause long-term displacement from local areas. Individual animals are accidentally killed by human activities. Fish habitat is degraded by low-pH water, sediment, or contaminants.

Insects and Diseases

Endemic (restricted to one area) levels of forest insects and diseases will continue. Epidemic (widespread) levels of insect infestations will occur occasionally.

Heritage Resources

Both human activities and natural events have the potential to disturb or destroy heritage resources.

Recreational Opportunities

Activities, such as timber harvest and road construction, temporarily disrupt recreational uses. Other activities, such as road closures, permanently reduce or change the opportunities available. Some kinds of developments (such as hiking trails) or activities (such as motorized recreation use) may displace other recreation uses that are incompatible and create user conflicts.

Scenic Quality

Both human activities and natural events that alter the landscape can reduce scenic quality. These activities and events include such as removing vegetative cover during timber harvest, disturbing soils while constructing roads and facilities, windstorms, and smoke from fires. The effects of timber harvest and other management activities along high quality scenic corridors will be mitigated with standards and guidelines. Scenic quality for people traveling in other areas with these types of management activities will be reduced. Reduced scenic quality due to vegetative management; facility and road construction; windstorms; and fires are relatively short-term (over five to 20 years). The effects and results of these and other activities, such as mining operations, roads, facilities, and utility corridors, will persist for many more years.

Income and Employment

Changes in income and employment may result from both human decisions and natural events. Reductions in timber harvest levels may cause corresponding reductions in local and regional timber industry-related employment and income. Reductions in scenic quality may cause corresponding reduction in local service industries employment and income. Reduction or modifications in recreational opportunities may also result in adjustments within the local service industries and income.

Individual and Community Social Factors

Traditional and cultural practices and activities of local and regional residents have the potential to be disturbed by human decisions or natural events. Important locations and/or landscape opportunities directly or indirectly associated with individuals and/or communities may be affected by, but not limited to, changes in forest access opportunities, natural resource management, and/or natural events such as fire and windstorms.

Hazardous Materials

There is potential for accidental spills of hazardous materials within the National Forests. Transportation of hazardous materials (such as manufacturing chemicals and gasoline), on public and forest service roads carries the potential for accidental spills. Small, localized spills may also occur on project sites, such as motor oil on a timber harvesting or road construction site. There is also potential for accidental leakage from gas and oil pipelines that cross the forests.

Unknown past practices of any entity or individual related to disposal of chemicals and other hazardous material may result in sites on the National Forests that are discovered and should be investigated for potential concerns.

3.10.2 Relationship between Short-term Uses of the Environment and Long-term Productivity

Short-term uses are those expected to occur on the Forest over the next ten years. These uses include, but are not limited to, recreation use, mineral development, timber harvest, and prescribed burning. Long-term productivity refers to the capability of the land to provide resource outputs for a period of time beyond the next ten years.

The minimum management requirement established by regulation (36 CFR 219.27) provides for the maintenance of long-term productivity of the land. Minimum management requirements prescribed by the Forest-wide standards and guidelines will be met under all alternatives. Minimum requirements assure that long-term productivity of the land will not be impaired by short-term uses.

Although all alternatives were designed to maintain long-term productivity, there are differences among alternatives in the long-term availability or condition of resources. There may also be differences among alternatives in long-term expenditures necessary to maintain desired conditions. These types of

differences among the alternatives are described in the EIS, Chapters 2 and 3.

Forest management on the Chippewa and Superior NFs will involve ground-disturbing activities that can affect the short-term and long-term conditions of soils. The following activities will result in short-term ground disturbance with long-term loss of soil quality or productivity: construction of camping areas, permanent trails, roads, and other facilities. Other ground-disturbing activities will result in short-term soil dislocation and potential for erosion but will enable long-term recovery of soil properties and productivity: demolition and removal of buildings, removal of roads and rail beds, removal of drain tiles and ditches, removal of fencerows, planting vegetation. Forest-wide standards and guidelines as well as site-specific mitigation during implementation will eliminate or reduce short-term impacts of ground-disturbance. Guidance on the location and design of roads, trails, and facilities will reduce the potential long-term effects.

3.10.3 Irreversible and Irretrievable Commitment of Resources

Irreversible and irretrievable commitment of resources is defined as follows in Forest Service Handbook 1909.15 (2/21/95):

The *irreversible commitment* of resources means that nonrenewable resources are consumed or destroyed. Examples include mineral extraction, which consumes nonrenewable minerals and potential destruction of such things as heritage resources by other management activities. These consumptions or destructions are only renewable over extremely long periods of time.

The *irretrievable commitment* of resources are opportunities foregone. They represent trade-offs

in the use and management of forest resources. Irretrievable commitment of resources can include the expenditure of funds, loss of production, or restrictions on resource use.

Decisions made in a forest plan do not represent actual irreversible or irretrievable commitment of resources. A forest plan determines what kind and levels of activities are appropriate on the Forest; it does not make site-specific or project decisions. The decision to irreversibly or irretrievably commit resources occurs:

- When the Forest Service makes a project or site-specific decision.

- At the time Congress acts on a recommendation to establish a new Wilderness or to include a river in the Wild and Scenic river system.

Examples of irretrievable resource commitments associated with the Forest Plan decision are:

Commodity outputs and uses (such as motorized recreation) would be curtailed or eliminated in areas recommended for and subsequently designated as Wilderness Study Areas and Potential Research Natural Areas.

Opportunities for non-motorized recreation, solitude, and primitive or wilderness experiences would be foregone if portions of the Forests are not allocated or recommended for and subsequently designated for these purposes.

Timber volume outputs would be foregone on land determined as not suitable for harvest.

Commodity outputs would be reduced or foregone in areas allocated to specific uses or purposes, such as developed recreation sites.

Non-commodity values, including scenic resources, may be reduced or foregone in areas allocated to commodity uses.

To the degree that an alternative preserves or encourages the development of mature and old-growth habitat, opportunities to develop early successional habitat are reduced. The reverse is also true, to the degree that an alternative preserves or encourages the development of early successional habitat, opportunities to develop mature and old-growth habitat are reduced.

3.10.4 Energy Requirements for Implementing the Alternatives

The following is a list of the energy required for implementing the alternatives:

- Energy would be consumed in timber harvesting and regeneration (including felling, skidding, loading, hauling, site preparation and planting), road maintenance, and industrial traffic associated with harvest activities.
- Energy consumed that relates to recreation would be based on the estimated number of dispersed and developed recreation visitor

days, estimated trip lengths, and facility construction.

- Energy consumed in road and facility construction and reconstruction activities would be that used by contractors in completing the projects.
- Energy consumed by Forest Service administrative activities would include vehicle use, lighting, heating of buildings, and fuel used in such equipment as small engines and propane burners.

3.10.5 Effects on Prime Farmland, Rangeland, and Forest Land

All alternatives are in keeping with the intent of Secretary of Agriculture Memorandum 1827 for prime land. The Chippewa and Superior NF do not contain any prime farmlands or rangelands. Prime forestland does not apply to land within the National Forest

System. In all alternatives, land administered by the Forest Service would be managed with sensitivity to the effects on adjacent land.

3.10.6 Relationship to the Plans of Others

The Forests have coordinated with various agencies the development of goals, desired conditions, objectives, standards and guidelines, formulation of alternatives and other important aspects of the revision process. Consultations have occurred with the Leech Lake Band of Ojibway; Bois Forte, Fond du Lac, and Grand Portage Bands and other agencies including the Environmental Protection Agency; U.S. Fish and Wildlife Service; Minnesota Department of Natural Resources; and Beltrami, Itasca, Cass, Cook, Lake, and St. Louis Counties. Many of these agencies participated in meetings throughout the process. The planning record, located at the Forest Supervisor's Office in Duluth, Minnesota, contains proceedings of each of the coordination efforts.

The Chippewa and Superior NFs coordinated with the Minnesota Forest Resources Council in collecting and

analyzing ecological information and human use in the larger landscape. The revision process also considered the biological and physical capabilities of the land and the predicted needs of people in the future. Through the Council, the major landowners in northern Minnesota have agreed to follow a common set of voluntary site-level guidelines for forest management. The major landowners have also agreed on general forest composition and other goals for all ownerships.

The alternatives, associated effects, Forest-wide standards and guidelines, and the allowable activities in each management area are generally compatible and complement the goals and objectives of land management agencies and land owners within or adjacent to the Forests. Under some alternatives, the State and the National Forests would have different restrictions on RMV use.

3.10.7 Effects on Consumers, Civil Rights, Minority Groups, and Women

Forest Service activities must be conducted in a discrimination-free atmosphere. Forest management activities that are contracted will include specific clauses offering civil rights protection. The Forest Service will make a concerted effort to enforce these policies.

Executive Order 12898 of February 11, 1994, Environmental Justice as part of National Environmental Policy Act, calls for consideration of the environmental, health, and economic effects on minority and low-income areas including the consumption patterns for fish and wildlife.

Implementing the revised Forest Plans would have direct, indirect, and cumulative affects on minorities and low-income populations. The nearest minority populations to the Chippewa NF are the Leech Lake

Band of Chippewa. The nearest minority populations to the Superior NF are the Bois Forte Band of the Chippewa Tribe of Tower, Grand Portage Band of Chippewa, and the Fond du Lac Band of Chippewa. It is not anticipated that any of the alternatives would have a negative impact on their use of the National Forests. There will be degrees of effects in terms of Tribal support of forest management decisions based on Tribal needs and desires of lands within and adjacent to the reservations. See Section 3.9 for more detail.

It is not anticipated that implementing the revised Forest Plans would adversely affect consumers or women.

3.10.8 Urban Quality and Historic and Heritage Resources

The direct, indirect, and cumulative effects of the alternatives on urban quality as well as historic and heritage resources have been evaluated. Section 3.9.1 discloses the effects to urban areas. Section 3.9.2 discloses the effects to historic and heritage resources.