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## 3.8 RECREATION

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### 3.8.1 Recreational Opportunities and Forest Settings

#### Issue Statement

There are differing opinions about which recreational opportunities and forest settings should be emphasized on the Chippewa and Superior National Forests. Forest Plan revision will establish objectives for recreational opportunities and associated forest settings, specifically the quantity and location of each forest setting.

#### Indicator - Recreation Opportunity Spectrum Class Objectives

The Forest Service uses a nationally recognized classification system called the Recreation Opportunity Spectrum (ROS) to help describe different recreation settings, opportunities, and experiences and to help guide management activities. The amount and location of each Recreation Opportunity Class objective provide an effective way to compare the forest settings and recreation opportunities emphasized in each alternative. Recreation settings vary from primitive – where there is little evidence of other people, more difficult access, and more opportunities for self-reliance – to more developed rural areas which offer more facilities, better access, and opportunities to interact with other recreationists. Table ROS-4 describes the characterizations of each ROS class for the Minnesota National Forests.

ROS is referred to in two different ways. The first is as an inventory tool to describe the existing array of recreation settings. This application describes the existing condition of the Forests and is referred to as the ROS inventory. The second way ROS is used is to

set prescriptive management objectives and those are referred to as the ROS class objectives.

The 1986 Forest Plans used national ROS inventory mapping criteria that resulted in classification of a high percentage of the roaded natural class. Since that time, the Chippewa and Superior National Forests have modified the national ROS inventory criteria to represent the northern Minnesota Forests' unique landscapes in providing recreation opportunities in remote natural settings.

The Minnesota National Forests reduced the National ROS criteria specifications for size and distance from road. Due to the flat topography and dense vegetation on the Chippewa and Superior National Forests, areas closer to roads and areas that have low maintenance level roads meet the characterizations for semi-primitive ROS classes. The Minnesota National Forest ROS inventory distance from road and size criteria can be found in Appendix B of the Forest Plans. Table ROS-1 summarizes the results of the Minnesota National Forest ROS inventory for each Forest. (Also see Figures ROS-1 and ROS-9.)

In brief, this indicator includes the acres assigned to ROS class objectives along with a description of recreation settings, opportunities, and experiences expected in each alternative. Few effects of implementing ROS would be evident in the short-term (10 to 15 years). For example, there may be some immediate effects for areas where motorized uses are prohibited. Most effects would become more and more noticeable in the long-term (15 to 50 years).

## Scope of Analysis

The analysis area includes all federal land managed by the Chippewa and Superior National Forests. This area represents National Forest System land where recreation resources exist, and the land where those resources could receive impacts from management activities. The discussion of direct and indirect effects on National Forest System land includes the recreation emphasis using ROS class objectives. Opportunities within the BWCAW are included in some discussions; however, the Plan Revision process did not include making changes in BWCAW management.

The affected area for cumulative effects includes land administered on other ownerships, both public and private, which provide recreation opportunities within and near the Minnesota National Forests.

### 3.8.1.a Affected Environment

The Chippewa and Superior National Forests are important recreation destination areas in the State of Minnesota, as well as the nation. The Forests' niche is that they provide unique forested and water related developed, dispersed, and remote recreation opportunities within northern Minnesota. Although both Forests provide developed recreation opportunities, they place an emphasis on activities appropriate to remote natural settings.

#### ROS Inventory

The ROS inventory system helps characterize the existing condition of the Forests. The Minnesota National Forest ROS inventory indicates that current National Forest conditions can provide a variety of opportunities, settings, and experiences. See Table ROS-1 and Figures ROS-1 and ROS-9 for ROS inventory data and maps.

A very small percentage of each Forest is in an inventoried rural or urban ROS class where some of

the most highly developed recreation facilities may occur.

About 62 percent of the Chippewa National Forest and about 14 percent of the Superior National Forest currently meet roaded natural characterizations. Within the roaded natural areas, each Forest provides a variety of developed recreation opportunities at campgrounds, water access sites, picnic sites, observations areas, visitor centers, and other facilities.

Both Forests have a large proportion of land inventoried in the semi-primitive motorized class: about 34 percent of the Chippewa National Forest and about 44 percent of the Superior National Forest. The Forests differ most in the amount of inventoried semi-primitive non-motorized and primitive classes. About one percent of the Chippewa National Forest is in semi-primitive non-motorized and about 19 percent of the Superior National Forest meets semi-primitive non-motorized and 22 percent meets primitive.

Within the semi-primitive and primitive inventoried areas, the Forests offer a wide variety of trails and dispersed recreation opportunities such as hiking, camping, hunting, fishing, berry picking, trapping, bird watching, and many other remote recreation activities.

The BWCAW is inventoried and managed as primarily primitive and semi-primitive non-motorized ROS classes with some semi-primitive motorized ROS classes near the motorized lakes.

#### Existing Facilities

The ROS inventory section above described common recreation opportunities associated with the ROS classes. This section summarizes the primary recreation facilities on the Forests.

The Chippewa National Forest maintains about 178 developed sites. The Superior National Forest maintains about 229 developed sites outside the BWCAW. The majority of these sites on each Forest (about 80 percent) are developed boat access sites. About 10 percent are campgrounds; beaches, picnic areas and rustic campgrounds make up the remainder of developed recreation sites.

<b>Table ROS-1: Minnesota National Forests ROS Inventory (percent)</b>		
<b>ROS Inventory Class</b>	<b>Chippewa NF</b>	<b>Superior NF</b>
Primitive	0	22
Semi-primitive Non-motorized	1	19
Semi-primitive Motorized	34	44
Roaded Natural	62	14
Rural and Urban	3	1
<b>TOTAL</b>	<b>100</b>	<b>100</b>

Source: Percents of National Forest land derived from Minnesota National Forest inventory criteria and GIS mapping, project file. Water acres are not included. BWCAW acres are included in the Superior NF data.

The Chippewa National Forest provides about 681 miles of trail, 380 dispersed sites, and many user developed campsites, water accesses, and other sites. Fifty-six percent (378 miles) of the trail miles are maintained for motorized snowmobile use. Only 20 miles of the snowmobile trail are maintained for ATV use. The remaining 44 percent of the trail mileage is maintained for non-motorized recreation use such as hiking, hunting, fishing, biking, and nature study.

The Superior National Forest provides about 1,962 miles of trail, 277 backcountry sites outside the BWCAW, and many user developed campsites, water accesses, and other sites. The BWCAW has nearly 2,000 campsites and about 400 miles of portages and trails. Thirty-eight percent of all trail miles are maintained for motorized snowmobile primary use (705 miles) and ATV secondary use (40 miles). The remaining 62 percent of the trail mileage is maintained for non-motorized recreation use such as hiking, hunting, fishing, biking, and nature study. (Data summaries are from the October 2003 Superior National Forest Trail Management Plan.)

Each Forest includes a regionally/nationally significant trail. The Chippewa NF manages a portion of the

North Country National Scenic Trail. The Superior NF manages the Superior Hiking Trail as a National Recreation Trail. Both trails are managed primarily for hiking and backpacking. In all action alternatives, the trails would be managed for high scenic quality. The Forests coordinate management of the trails with other agencies and entities as much as possible.

### Recreation Use

Recreation use is measured using the National Visitor Use Monitoring (NVUM) Results for each Forest. The National Visitor Use Monitoring project is a permanent recreation use sampling system designed to collect data on all National Forests over a four year cycle. Data collection includes on-site interviews and sampling of recreation visitors. Proxy data is also used if available, such as for use in the BWCAW. The Superior NF was sampled in 2000 and the Chippewa NF in 2001.

Two units of measure are useful to provide an overall picture of the numbers of Forest visitors. A recreation visitor day (RVD) is defined as one person recreating in an activity for 12 hours. A national forest visit is the entry of one person upon a national forest to participate in recreation activities for an unspecified period of time. A national forest visit can be composed of multiple site visits, such as to a campground, trail, or other facilities all on one trip.

Results of the National Visitor Use Monitoring on the Chippewa NF for 2001 were 2.1 million national forest visits and 5.5 million RVDs. Results on the Superior NF for 2000 were 4.0 million national forest visits and 9.3 million RVDs. Of the total for the Superior NF, the BWCAW accounts for 0.3 million visits or 1.3 million RVDs.

NVUM categories were consolidated into 10 topic areas as prescribed by the Resource Planning Act. See Table ROS-2 for Forest RVDs by category.

Category	Chippewa NF	Superior NF
Camping, picnicking, swimming	175,558	1,200,803
Mechanized travel and viewing scenery	56,564	969,855
Hiking, horseback riding, and water travel	81,903	149,400
Winter sports	1,746,913	187,995
Resorts	622,269	2,371,725
Wilderness	0	1,350,000
Other	54,729	99,600
Hunting	1,203,622	840,375
Fishing	1,545,703	2,016,900
Non-consumptive wildlife use	6,335	89,640
<b>TOTAL</b>	<b>5,493,596</b>	<b>9,276,293</b>

Source: Project files summarize how categories were summarized from the CNF and SNF NVUM Reports.

**Demand**

Overall, the trend for outdoor recreation participation indicates continued growth in the demand of outdoor recreation opportunities, facilities, and services. (Cordell 1997) Potential future recreation demand on a regional and national level is addressed in Cordell’s *Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends, 1999*. According to the report, the five fastest growing outdoor recreation activities through the year 2050 measured in activity days are expected to be: visiting historic places, downhill skiing, snowmobiling, sightseeing, and non-consumptive wildlife activity. These activities tend to occur in the more developed ROS classes.

According to Cordell, days spent and numbers of participants in winter, water-based, and developed land activities will, in general, grow faster than the population. These activities generally occur in roaded natural and semi-primitive motorized ROS classes. Hunting and fishing, along with other dispersed land activities, which occur in all ROS classes, are not expected to increase in activity days or participation numbers as fast as the population is growing. Non-consumptive wildlife activities, such as bird watching, are an exception to this trend; however, non-consumptive wildlife activities are not limited to dispersed settings. That is, non-consumptive wildlife activities would also occur in all ROS classes year-round and can occur in conjunction with other forms of outdoor recreation.

**Supply**

The overall recreation supply on the Forests can be described in terms of “practical maximum capacity”. Practical maximum capacity is defined as the level of use that would not degrade the physical capabilities and natural resources of the Forests. Table ROS-3 depicts the maximum practical capacity for each Forest.

Total current recreation use is less than the total practical maximum capacity. All alternatives would be within the total practical maximum capacity in the long-term (50 years).

ROS	Chippewa NF	Superior NF
Primitive	0	519,313
Semi-primitive Non-motorized	51,054	2,175,895
Semi-primitive Motorized	1,685,083	5,612,512
Roaded Natural	7,551,995	5,227,268
Rural and Urban	1,204,700	1,681,680
<b>TOTAL</b>	<b>10,492,832</b>	<b>15,216,668</b>

Source: Project files summarize how capacities were determined.

<b>Table ROS-4: Description of Recreation Opportunity Classes for MN National Forests</b>		
<b>ROS Class</b>	<b>ROS Class Acronym</b>	<b>Description</b>
Primitive	P	<ul style="list-style-type: none"> <li>• Unmodified environment</li> <li>• Large size (generally greater than 2,500 acres*)</li> <li>• Minimal evidence of human use</li> <li>• Minimal developed trails and management activities</li> <li>• Very low visitor interaction</li> <li>• Minimal restrictions and controls</li> <li>• Motorized use prohibited</li> </ul>
Semi-primitive Non-motorized	SPNM	<ul style="list-style-type: none"> <li>• Mostly natural environment - subtle modification</li> <li>• Moderate to large size (generally greater than 1,500 acres*)</li> <li>• Evidence of other users uncommon</li> <li>• Low visitor interaction</li> <li>• Minimum on-site controls and restrictions</li> <li>• Motorized use prohibited; minimal forest management roads</li> </ul>
Semi-primitive Motorized	SPM	<ul style="list-style-type: none"> <li>• Mostly natural environment</li> <li>• Moderate to large size (generally greater than 1,500 acres*)</li> <li>• Often evidence of other users</li> <li>• Minimum on-site controls and restrictions</li> <li>• Low standard, natural surface roads and trails</li> <li>• Some motorized recreational trails</li> </ul>
Roaded Natural	RN	<ul style="list-style-type: none"> <li>• Mostly natural environment - moderate modification</li> <li>• No minimum size</li> <li>• Moderate to high visitor interaction</li> <li>• Evidence of other users common</li> <li>• Motorized use allowed and designed into construction of facilities</li> </ul>
Rural	R	<ul style="list-style-type: none"> <li>• Environment considerably altered by development or vegetative manipulation</li> <li>• Sights and sounds of people common</li> <li>• No minimum size</li> <li>• Moderate to high visitor interaction</li> <li>• Facilities designed for large numbers of people and special activities</li> <li>• Extensive motorized use, parking available</li> </ul>
Urban	U	<ul style="list-style-type: none"> <li>• Environment dominated by human-made structures</li> <li>• Vegetation often exotic and manicured</li> <li>• No minimum size criteria</li> <li>• The sights and sounds of people dominant</li> <li>• Large numbers of users</li> <li>• Facilities for highly intense motor use and parking, sometimes with mass transit</li> </ul>

Source: United States Department of Agriculture, Forest Service, August 1982, *ROS Users Guide*.  
 Note: \* Acreages listed are the MN NF ROS criteria and not the national ROS inventory criteria.

### 3.8.1.b Environmental Consequences

#### Effects Common to All Alternatives

Current Forest Plans (Alternative A) provide little general direction for managing recreation opportunities and settings using ROS class objectives. The rest of the alternatives emphasize use of ROS class objectives to a much greater degree in project level planning and specify the ROS class objective for each management area. ROS class objectives were developed using the theme of the management area as well as the theme of the alternative. The management area ROS class objectives for each alternative are summarized in Table ROS-7. Urban ROS class objectives were not allocated to any of the alternatives because that class is not typically offered on National Forest System land. Although the inventoried Urban ROS classes are shown on all the maps for reference, those areas would be managed with a Rural ROS class objective in all alternatives.

In all alternatives, management activities may move the Forests towards but not exceed the ROS class objectives. This means that management activities may meet a less developed ROS class but cannot meet a higher developed ROS class than the mapped ROS class objective for an area. Existing facilities, access, services, and use levels that exceed the ROS class objective would generally be permitted until they can be managed to meet the intended ROS class objective.

It is important to note the differences between semi-primitive ROS class objectives for a management area and the Semi-primitive Motorized Recreation and Semi-primitive Non-motorized Recreation Management Areas. The Semi-primitive Motorized Recreation and Semi-primitive Non-motorized Recreation Management Areas not only have semi-primitive motorized and non-motorized ROS class objectives; they are also managed with a recreation emphasis. Some of the other management areas such as Potential Research Natural Areas, and Alternative B's Special Management Complexes would also have semi-primitive non-motorized ROS class objectives. However, in those areas, recreation use would

generally not be emphasized. The ROS class objective would provide a guideline for recreation opportunities that may be managed or proposed within the management area. It would also provide direction for management of the forest setting as it relates to recreation opportunities.

All alternatives would emphasize providing both developed and dispersed sites and areas considering health and safety standards, resource protection, cost effectiveness, efficient maintenance, and user accessibility. The focus would be on maintaining existing facilities before constructing new facilities due to budget constraints and backlog of work. For example, it is unlikely that any new campgrounds would be constructed, but existing campgrounds may undergo improvements to address accessibility or facility reconstruction needs.

Remote recreation activities would be encouraged because the Forests' niche emphasizes providing quality sustainable recreation opportunities and benefits with an emphasis on activities appropriate to remote natural settings. However, user developed or constructed campsites, water accesses, and trails are not encouraged even though they are present on the Forests. Therefore, to help meet the emphasis on activities suitable for remote settings, existing user developed sites would be analyzed and, depending on the social and resource impacts, would be removed and the site rehabilitated or they would be managed at an appropriate level.

Finally, Forest management activities in all alternatives would generally meet recreation objectives while minimizing conflicts with recreation uses. Techniques to minimize conflicts include avoiding use of trails for skidding logs, minimizing the crossing of skid trails over designated recreation trails, placing safety signing to warn recreationists of activities in an area, piling slash and other logging debris out of view of recreation roads and trails, and scheduling activities during low recreation use periods.

#### *General Effects Common to Alternatives B, C, Modified E, F, and G*

These alternatives would emphasize providing a range of quality recreation opportunities to satisfy diverse public interests while maintaining sustainable ecosystems. The Forests would also stress providing

recreation activities and opportunities appropriate to remote natural settings. Remote natural settings are characterized by their predominantly natural appearance and low to moderate evidence of human sights and sounds.

In order to meet the desired condition of providing remote recreation opportunities, the following Forest Plan guideline was developed. During project level planning, the Minnesota National Forest ROS inventory criteria will generally be used in General Forest, General Forest - Longer Rotation, and Recreation Use in a Scenic Landscape Management Areas. Where roaded natural is the primary ROS objective in those MAs, the following guideline would apply.

Project level planning will generally use the Minnesota National Forest ROS inventory criteria (Forest Plan Appendix B). Inventoried semi-primitive motorized and non-motorized portions of the project area will generally be managed to retain remote character. Management activities to retain remote character may include:

1. Close some existing and all new roads to all motor vehicles. Construct only temporary and OML 1 roads.
2. Emphasize semi-primitive recreation activities and opportunities.
3. Manage forest settings using roaded natural ROS criteria along with the Scenic Integrity Objectives (SIOs).

It is important to note that managing for remote character is a guideline that may not always be achieved and is not an objective that must be achieved. Changes in the forest setting due to forest management activities would not exceed the roaded natural ROS class objective along with the SIOs. Such changes to the forest setting are often short-term; therefore the natural feel to the surroundings would be retained over the long-term. Recreation facilities in this setting, however, could be managed for mostly semi-primitive types of activities. For example, dispersed single occupancy campsites and native surface trails in this setting could be favored over large campgrounds and paved trails in order to retain the existing remote character. These remote opportunities would offer some challenge and risk where there are low concentrations of users.

Again, it is important to note that the areas within General Forest, General Forest - Longer Rotation, and Recreation Use in a Scenic Landscape Management Areas managed for their remote character would also differ from management within the Semi-primitive Motorized Recreation and Semi-primitive Non-motorized Recreation Management Areas. As stated previously, the designated Semi-primitive Motorized Recreation and Semi-primitive Non-motorized Recreation Management Areas not only have semi-primitive motorized and non-motorized ROS objectives; they are also managed with recreation as a primary emphasis. In addition to promoting semi-primitive recreation activities and opportunities, the forest management activities would have to meet the setting requirements for those classes. However, in areas where forest management is to retain remote character (Minnesota National Forest inventoried semi-primitive ROS areas), recreation use would be allowed but not the primary emphasis and vegetation management activities would not necessarily be designed to meet semi-primitive setting descriptions.

In addition to the above guideline to manage for remote character, the following desired condition statement addresses public concerns regarding management of use conflicts, particularly in remote settings: Through project level planning, the Forest will consider management of some inventoried semi-primitive ROS areas for separate non-motorized or motorized recreation uses. A current example is grouse management areas where the areas and associated hunter-walking trails are closed to motorized use. Through site-specific analyses, additional areas could be designated for motor uses such as ATVs or non-motor activities such as bird-watching.

## Direct and Indirect Effects

Tables ROS-5 and ROS-6 summarize the allocation of recreation opportunities and forest settings based on the percent of each ROS class objective identified for the alternatives on the Chippewa and Superior National Forests. Also refer to Figures ROS-2 through ROS-8 and ROS-10 through ROS-16 for maps that visually display ROS class objectives by alternative for each Forest.

The acres of each ROS Class Objective generally reflect the motorized and non-motorized experiences available in each alternative. Areas with primitive and semi-primitive non-motorized objectives reflect areas on the Chippewa and Superior National Forests that would provide only non-motorized recreation experiences.

All other ROS class objectives, semi-primitive motorized, roaded natural, rural, and urban, would provide motorized experiences, although they may contain inclusions of areas where motorized use is prohibited or restricted to specific routes. Tables ROS-5 and ROS-6 include summaries of the percent of motorized and non-motorized classes.

Although the alternatives place different emphases on the kind and amount of motorized and non-motorized recreation opportunities, none of the alternatives are expected to exceed the total practical maximum capacity of the Forests.

Most changes in recreation opportunities and associated recreation use, resulting from resource management activities, would not be immediately evident. There may be some immediate effects for areas where motorized uses are prohibited. For the most part direct and indirect effects of opportunities provided and associated use would become more noticeable towards the end of the Revised Plan period (10 to 15 years) and in future decades. If the theme of each alternative were to be implemented in the long-term (20 or more years), there would likely be changes to the ROS inventory. It is anticipated that those changes would reflect the ROS objectives identified for each alternative. Therefore, the following section summarizes the direct and indirect effects of the alternatives in the long-term based on the amount of ROS class objective allocations and associated recreation settings, activities, and experiences. (Also, see the Scenic Quality section 3.8.2.b for a complete scenic description of the forest setting in each alternative.)

<b>National Forest</b>	<b>2002 Inventory</b>	<b>Alt. A No Action</b>	<b>Alt. B</b>	<b>Alt. C</b>	<b>Alt. D</b>	<b>Mod. Alt. E</b>	<b>Alt. F</b>	<b>Alt. G</b>
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Primitive	0	0	0	0	0	0	0	0
Semi-primitive non-motorized	1	2	29	2	58	4	3	5
Semi-primitive motorized	34	0	1*	0	34	2	1*	16
Roaded Natural (Estimated percent of Remote Character in RN)	62 N/A	95 (0)	68 (36)	95 (36)	5 (0)	91 (34)	94 (33)	76 (36)
Rural	3	3	3	3	3	3	3	3
Total	100	100	100	100	100	100	100	100
Non-motorized classes	1	2	29	2	58	4	3	5
Motorized classes	99	98	71	98	42	96	97	95

Source: GIS, project file  
Notes: The percentages do not include water acreage.  
\* Less than one percent, but does have an allocation to SPM.

<b>National Forest</b>	<b>2002 Inventory</b>	<b>Alt. A No Action</b>	<b>Alt. B</b>	<b>Alt. C</b>	<b>Alt. D</b>	<b>Mod. Alt. E</b>	<b>Alt. F</b>	<b>Alt. G</b>
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Primitive	22	5	5	5	5	5	5	5
Semi-primitive non-motorized	19	29	60	29	65	31	31	30
Semi-primitive motorized	44	5	4	5	28	7	8	15
Roaded natural (Estimated percent of Remote Character in RN)	14 N/A	60 (0)	30 (72)	60 (76)	1 (0)	56 (75)	55 (74)	49 (74)
Rural	1	1	1	1	1	1	1	1
Total	100	100	100	100	100	100	100	100
Non-motorized classes	41	34	65	34	70	36	36	35
Motorized classes	59	66	35	66	30	64	64	65

Source: GIS, project file  
Note: The percentages do not include water acreage. The percentages include the BWCAW.

*Alternative A*

This alternative has the least potential of all the alternatives to meet the Forest's niche to manage for remote recreation activities and opportunities. A roaded natural ROS class objective covers most of the Chippewa National Forest and much of the Superior National Forest. Management activities would move the inventoried semi-primitive areas towards roaded natural. Alternative A does not provide for management of any areas with remote character.

The public would continue to find motorized and non-motorized recreation opportunities in a forest setting with even-aged stands where younger age classes dominate. There would be predominantly early successional species such as aspen and birch with lesser amounts of northern hardwoods and conifers when compared to the other alternatives. Little standing dead or fallen trees would be found in the actively managed forest areas.

The Forests would provide a variety of recreation opportunities with an emphasis on motorized recreation and developed opportunities such as campgrounds, picnic areas, and motorized trails. Compared to Alternatives B, D, F, and G, more access to recreational opportunities on roads and trails would

be provided. There would also be more opportunities for development of motorized recreation use and access.

Compared to all the action alternatives, visitors would have the fewest opportunities for experiencing remoteness, independence, closeness to nature, and self-reliance with challenge and risk because there would be more motorized recreation access and development and no areas managed for retention of their remote character.

*Alternative B*

Semi-primitive ROS class objectives are allocated on both Forests in Alternative B to a much greater degree than in Alternatives A, C, Modified E, F, and G, but not as much as in Alternative D, which provides the most. Alternative B also includes many acres managed for retention of remote character.

The public would find more non-motorized than motorized recreation opportunities in forest settings with un-even aged stands that have older and larger trees than Alternative A. Over time, there would be a shift toward late-successional species such as red pine, white pine, northern hardwoods, spruce and fir. Managed forest composition would include standing dead and fallen trees.

Compared to Alternatives A, C, Modified E, F, and G, there would be less access to and in some areas reduced development at existing recreational facilities. The Chippewa and Superior National Forests would emphasize activities such as hiking, canoeing, backpacking, and wildlife viewing with a small amount of additional designated motorized trail.

Visitors would have more opportunities for experiencing remoteness, independence, closeness to nature, and self-reliance with challenge and risk than in Alternatives A, C, Modified E, F and G, but not quite as many as in Alternative D which would have the most.

#### *Alternative C*

Similar to Alternative A, a roaded natural ROS class objective covers most of the Chippewa National Forest and much of the Superior National Forest. However, there would be more emphasis on retaining remote character than in Alternative A because Alternative C, like Alternatives B, Modified E, F, and G includes many areas managed for retention of remote character.

The public would continue to find motorized and non-motorized recreation opportunities in a forest setting that includes large tracts of trees that are all of the same age. Particularly in the first two decades, there would be predominantly early successional species such as aspen and birch. As decades pass, there would be an increasing number of stands with later successional species such as red pine, white pine, northern hardwoods, spruce, and fir that include standing dead or fallen trees in the actively managed forest areas.

Similar to Alternatives A and Modified E, the Chippewa and Superior National Forests would provide a variety of recreation opportunities, from hiking to hunting to developed site camping, with an emphasis on motorized recreation and developed opportunities such as campgrounds, picnic areas, and additional designated motorized trails.

Compared to Alternative A, visitors would have somewhat more opportunities to experience remoteness, independence, closeness to nature, and self-reliance with challenge and risk because management would strive to manage areas with remote

character for semi-primitive activities and opportunities. However, these opportunities would be greater in all the other action alternatives.

#### *Alternative D*

Semi-primitive ROS class objectives are allocated on both Forests more in Alternative D than in any of the other alternatives. The very small percent allocated to the roaded natural class matches its inventoried class so those areas would not be managed for remote character. In areas with semi-primitive ROS class objectives, existing facilities that were developed at a higher ROS class would generally be permissible until they can be altered to meet the lower ROS class objectives delineated for this alternative.

The public would find mostly non-motorized recreation opportunities in forest settings with un-even aged stands that have large tracts of older and larger trees than Alternative A. Over time, there would be a shift toward late-successional species such as red pine, white pine, northern hardwoods, spruce, and fir. This alternative would have the greatest diversity of shrub and ground layer species.

Compared to the other alternatives that provide a variety of motorized and non-motorized recreation opportunities, Alternative D would provide recreation opportunities in primarily semi-primitive non-motorized settings. Activities such as hiking, canoeing, backpacking, and wildlife viewing would be emphasized.

Visitors would find the most opportunity, when compared to the other alternatives, to experience remoteness, independence, closeness to nature, and self-reliance with challenge and risk because there would be less access and development.

#### *Modified Alternative E*

Similar to but slightly less than Alternatives A and C, a roaded natural ROS class objective covers most of the Chippewa National Forest and much of the Superior National Forest. However, there would be more emphasis on retaining remote character than in Alternative A because Modified Alternative E, like Alternatives B, C, F and G, includes many acres managed for retention of remote character.

The public would continue to find motorized and non-motorized recreation opportunities in a forest setting that includes large tracts of same-age trees. Particularly in the first two decades, managed areas of the Forests would be made up of early successional species such as aspen and birch. As decades pass, there would be an increasing number of stands of later-successional species such as red pine, white pine, and northern hardwoods. Areas of longer rotation would have more diversity in shrub and ground layers with more snags and downed woody material.

Alternatives C, Modified E, and F have similar percentages of ROS classes. However, Modified Alternative E has a much larger portion of land allocated to the Recreation Use in a Scenic Landscape Management Area than Alternatives C and F. The theme of the Recreation Use in a Scenic Landscape Management Area is to emphasize land and resource conditions that provide a scenic landscape for recreational activities in natural-looking surroundings.

Compared to all the other alternatives, Modified Alternative E would provide the widest variety of recreation opportunities, with emphasis on retaining existing remote character. Opportunities would range from developed opportunities such as campgrounds, picnic areas, boat landings, and additional designated motorized trails to dispersed opportunities such as hiking, canoeing, wildlife viewing, and hunting.

Visitors may or may not encounter others depending on the areas of the Forests they choose to visit. There would be somewhat more opportunity for independence, closeness to nature, and self-reliance with challenge and risk than in Alternatives A and C, but less than in the other alternatives.

#### *Alternative F*

Similar to but slightly less than Alternatives A, C, and Modified E, a roaded natural ROS class objective covers most of the Chippewa National Forest and much of the Superior National Forest. However, there would be more emphasis on retaining remote character than in Alternative A because Alternative F, like Alternatives B, C, Modified E, and G, includes many acres managed for retention of remote character.

The public would continue to find motorized and non-motorized recreation opportunities in a forest setting

that includes a mix of younger and older age classes with a trend toward large tracts of continuous canopy of older, larger trees. Late-successional species such as white pine, spruce, fir, and northern hardwoods would eventually dominate. Forest composition would include a greater diversity of shrub and ground layer species along with standing dead and fallen trees.

A variety of recreation opportunities would be emphasized such as hiking, canoeing, hunting backpacking, and wildlife viewing with some additional designated motorized trail. The Chippewa and Superior National Forests would also provide recreation opportunities in developed settings where facilities such as campgrounds, picnic areas, and boat landings would be common.

Visitors would have slightly more opportunities compared to Alternative A and similar opportunities to Alternatives C and Modified E to experience remoteness, independence, closeness to nature, and self-reliance with challenge and risk because areas with remote character would be managed for semi-primitive activities and opportunities, and there would be less access and development.

#### *Alternative G*

Similar to but slightly less than Alternatives A, C, and Modified E, and F, a roaded natural ROS class objective covers most of the Chippewa National Forest and much of the Superior National Forest. However, there would be more emphasis on retaining remote character than in Alternative A because Alternative G, like Alternatives B, C, Modified E, and F, includes many acres managed for retention of remote character. Compared to Alternatives A, C, Modified E, and F, Alternative G provides more semi-primitive ROS classes.

The public would continue to find motorized and non-motorized recreation opportunities in a forest setting that includes a mix of younger and older age classes with a trend toward large tracts of continuous canopy of older, larger trees. Late-successional species such as white pine, spruce, fir, and northern hardwoods would eventually dominate. Forest composition would include a greater diversity of shrub and ground layer species along with standing dead and fallen trees.

A variety of recreation opportunities would be emphasized such as hiking, canoeing, hunting, backpacking, and wildlife viewing with some additional designated motorized trail. The Chippewa and Superior National Forests would also provide recreation opportunities in developed settings where facilities such as campgrounds, picnic areas, and boat landings would be common.

Visitors would have more opportunities than Alternative A and slightly more than Alternatives C, Modified E, and F to experience remoteness, independence, closeness to nature, and self-reliance with challenge and risk because areas with remote character would be managed for semi-primitive activities and opportunities, and overall there would be less access and development.

### **Cumulative Effects of all Alternatives**

Cumulative effects are discussed using the recreation emphases on non-NFS land within and near the National Forests. (Also see the Economic and Social Sustainability sections 3.9.1.b and 3.9.2.b for more information on the impact of recreation in northern Minnesota.)

Providing outdoor recreation opportunities is a public-private partnership in Minnesota. All levels of government are involved from federal to State to local. Each level has its own particular niche. The federal, State, and county levels focus primarily on opportunities that require large land bases such as wildlife areas, developed sites with few amenities, and primitive areas. Local governments tend to focus on population-oriented facilities, such as athletic fields and community parks. The private sector is a large provider too, as demonstrated by Minnesota's thriving recreation-oriented tourism industry.

In general, the National Forests have the greatest ability to provide more remote forms of recreation due to their large land bases. State Forests and counties are not able to supply quite as many remote forms of recreation because their lands are often intermixed with other ownerships. Where federal, State, and county lands are adjacent, remote recreation opportunities are enhanced with the combined acreage. State Parks generally provide a higher level of

development than federal developed camping and recreation facilities.

State and county public recreation management is similar enough to any of the National Forest alternatives as to be complementary and not adversely competitive. This increases the likelihood that National Forests will maintain a draw as destination areas and not simply thoroughfares to other areas.

The primary challenge for National Forest recreation managers is how to maintain the unique high quality natural settings and remote recreation experiences that the public seeks on federal land. In the future, supply and demand for kinds of recreation may shift, but the variety that can be accommodated on National Forest system lands with their large land bases would ensure some level of user satisfaction. Maintaining an array of forest settings and opportunities helps level fluctuating responses to weather, travel distance, or societal values about when or what recreation activities to pursue.

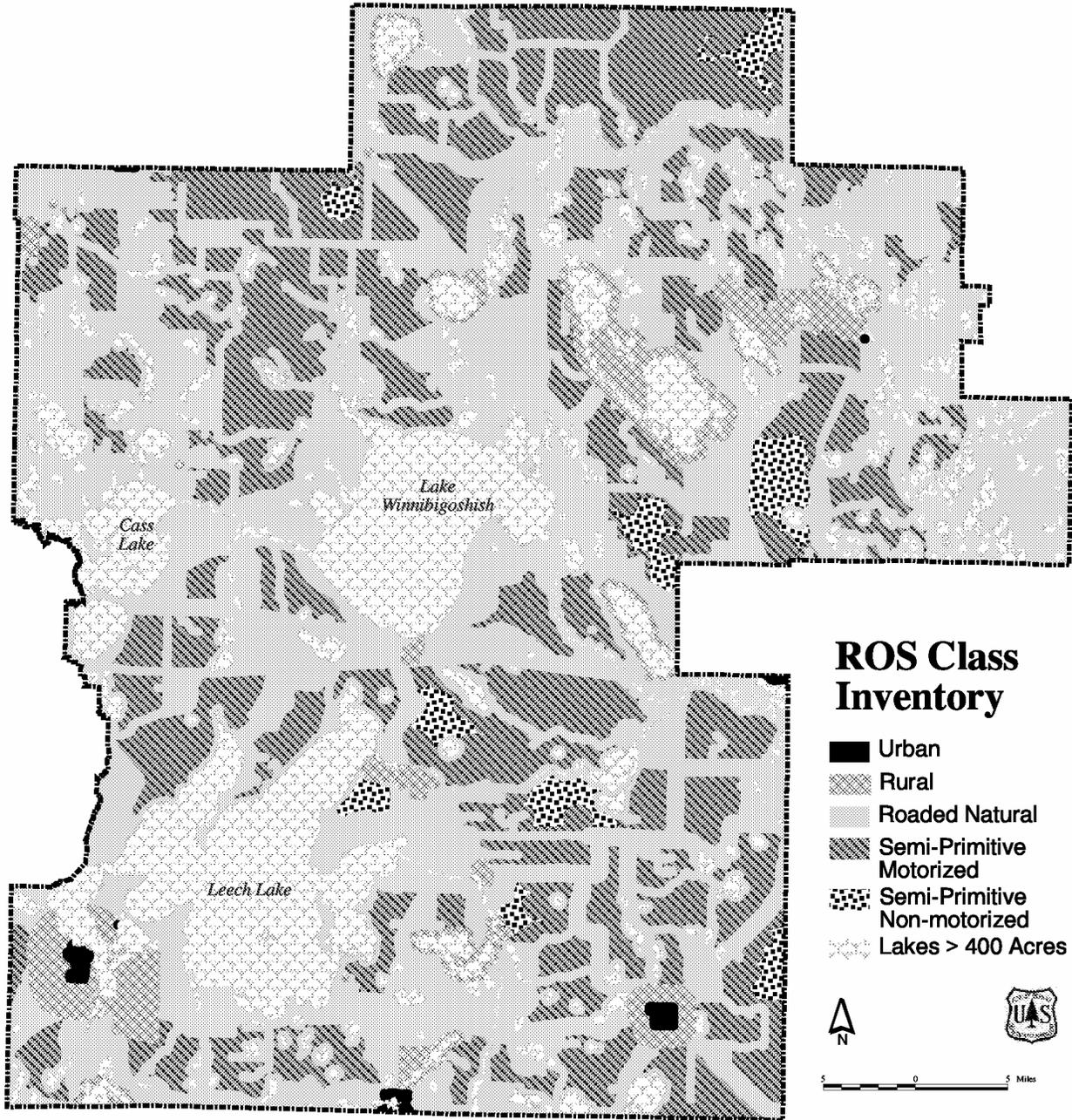
If any of the alternatives were implemented, land-based recreation opportunities would be sustained for a growing population. The alternatives, to varying degrees, provide remote recreation experiences that provide a unique experience within northern Minnesota. Societal expectations of finding a recreation experience that relies on large remote land bases on National Forest lands would be met.

All alternatives tend towards meeting the National Forests' niche and desired condition to provide a range of quality recreation opportunities to satisfy diverse public interests with an emphasis on providing recreation activities and opportunities appropriate to remote natural settings. Alternatives A and C would provide more developed and motorized forms of recreation and Alternatives B and D would provide less developed and non-motorized forms of recreation. Alternatives Modified E, F, and G provide a more balanced mix within the Forests of developed and remote forms of recreation activities and opportunities.

<b>Table ROS-7: ROS Class Objectives for Alternatives by Management Area</b>							
<b>Management Areas</b>	<b>Alt. A</b> No Action	<b>Alt. B</b>	<b>Alt. C</b>	<b>Alt. D</b>	<b>Mod. Alt. E</b>	<b>Alt. F</b>	<b>Alt. G</b>
General Forest	RN		RN		RN	RN	RN
General Forest - Longer Rotation		RN	RN		RN	RN	RN
Eligible Wild Rivers (SNF only)	SPNM	SPNM	SPNM	SPNM	SPNM	SPNM	SPNM
Eligible Scenic Rivers	SPM	SPM	SPM	SPM	SPM	SPM	SPM
Eligible Recreation Rivers (SNF only)	RN	RN	RN	RN	RN	RN	RN
Recreation Use in a Scenic Landscape	RN	SPM*	RN	SPM	RN	SPM*	SPM*
Semi-primitive Non-motorized Recreation	SPNM	SPNM	SPNM	SPNM	SPNM	SPNM	SPNM
Semi-primitive Non-motorized & Motorized Recreation (CNF Alt. D)				SPM SPNM			
Semi-primitive Motorized Recreation	SPM		SPM		SPM	SPM	SPM
Minimum Management Natural Area				SPNM			
Unique Biological, Geological, or Historical Areas (CNF/SNF)	RN/ SPM	RN/ SPM	RN/ SPM	RN/ SPM	RN/ SPM	RN/ SPM	RN/ SPM
Riparian Areas		SPM*			SPM*	SPM*	SPM*
Special Management Complexes		SPNM					SPM
Existing Research Natural Areas Inside BWCAW and CNF	SPNM	SPNM	SPNM	SPNM	SPNM	SPNM	SPNM
Outside BWCAW	SPM	SPM	SPM	SPM	SPM	SPM	SPM
Potential Research Natural Areas		SPNM	SPNM	SPNM	SPNM	SPNM	SPNM
Experimental Forest (CNF only)	RN	RN	RN	RN	RN	RN	RN
Pristine Wilderness (BWCAW)	P	P	P	P	P	P	P
Primitive Wilderness (BWCAW)	SPNM	SPNM	SPNM	SPNM	SPNM	SPNM	SPNM
Semi-primitive Non-motorized Wilderness (BWCAW)	SPNM	SPNM	SPNM	SPNM	SPNM	SPNM	SPNM
Semi-primitive Motorized Wilderness (BWCAW)	SPM	SPM	SPM	SPM	SPM	SPM	SPM
Wilderness Study Areas		SPNM		SPNM			SPNM
Minimum Intensity Management (SNF Alt. A only)	RN						

Source: Project file. Refer to Table ROS-4 for definitions of acronyms.  
Notes: MAs not included in an alternative were left blank. All inventoried Rural and Urban areas were included as a Rural ROS objective for each alternative.  
\* Indicates that the inventoried RN corridors were included as ROS class objectives.

## Figure ROS-1 ROS Class Inventory using Minnesota NF Criteria on the Chippewa National Forest



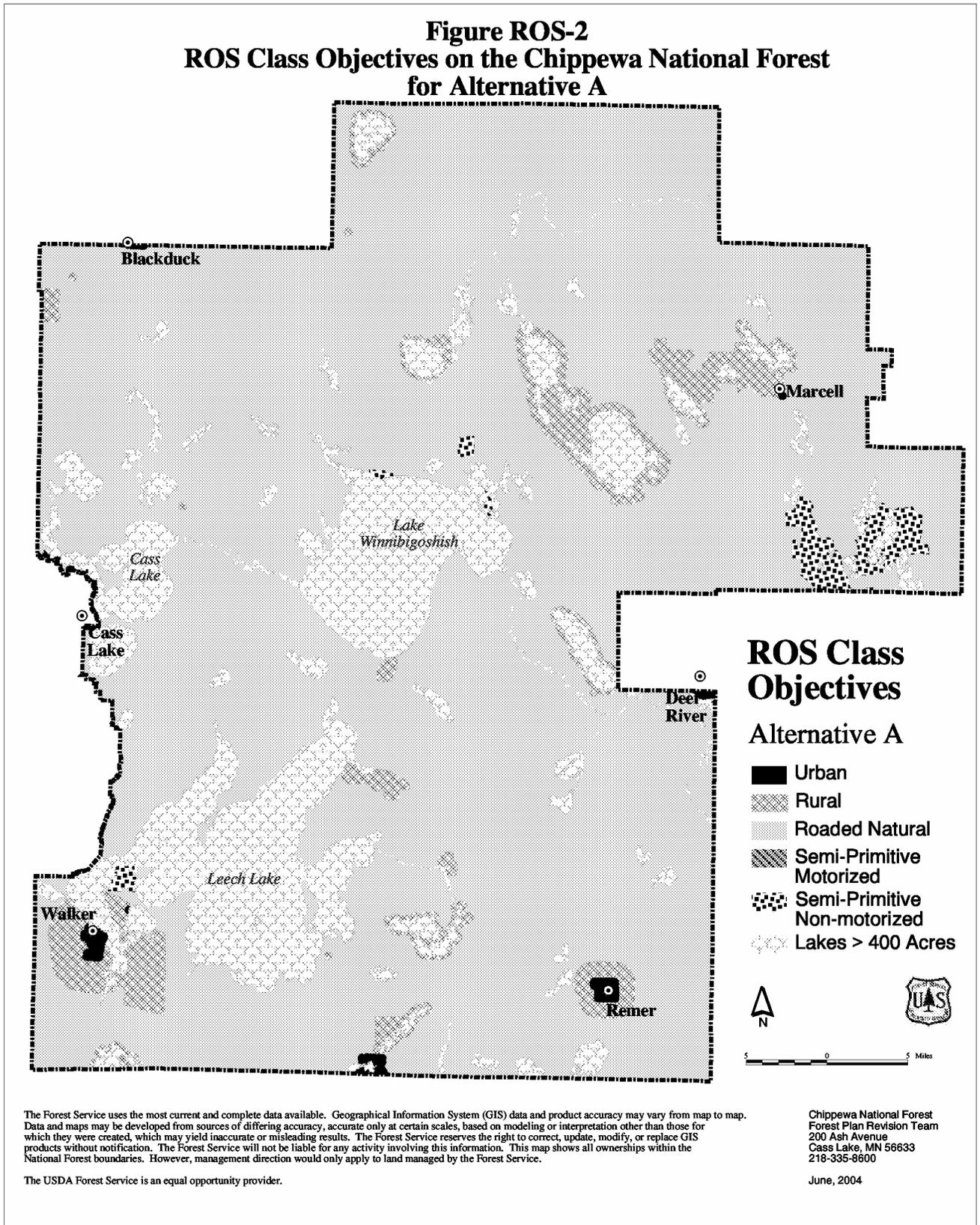
The Forest Service uses the most current and complete data available. Geographical Information System (GIS) data and product accuracy may vary from map to map. Data and maps may be developed from sources of differing accuracy, accurate only at certain scales, based on modeling or interpretation other than those for which they were created, which may yield inaccurate or misleading results. The Forest Service reserves the right to correct, update, modify, or replace GIS products without notification. The Forest Service will not be liable for any activity involving this information. This map shows all ownerships within the National Forest boundaries. However, management direction would only apply to land managed by the Forest Service.

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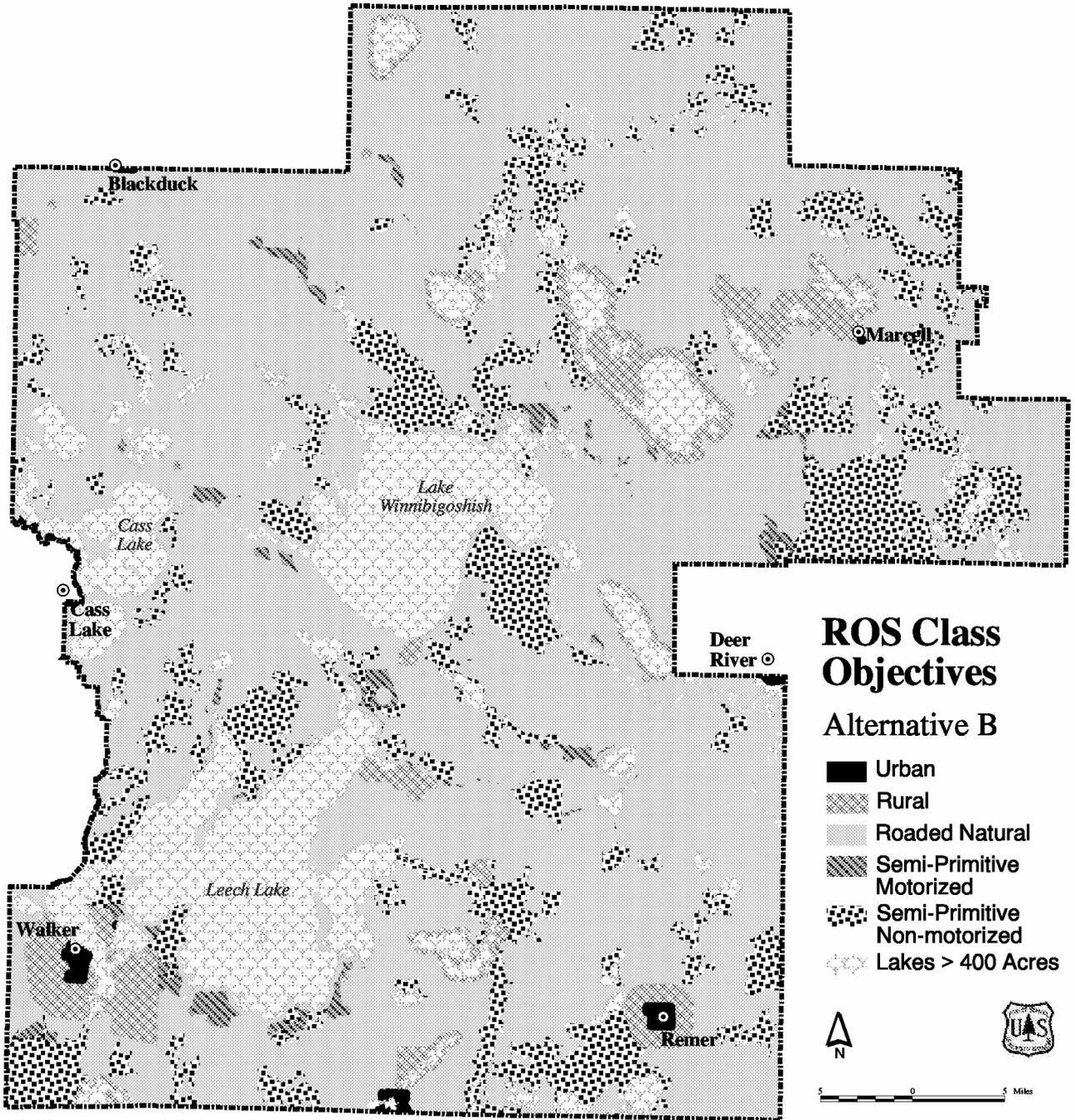
Chippewa National Forest  
Forest Plan Revision Team  
200 Ash Avenue  
Cass Lake, MN 56633  
218-335-8600

June, 2004

**Figure ROS-2  
ROS Class Objectives on the Chippewa National Forest  
for Alternative A**



**Figure ROS-3  
ROS Class Objectives on the Chippewa National Forest  
for Alternative B**



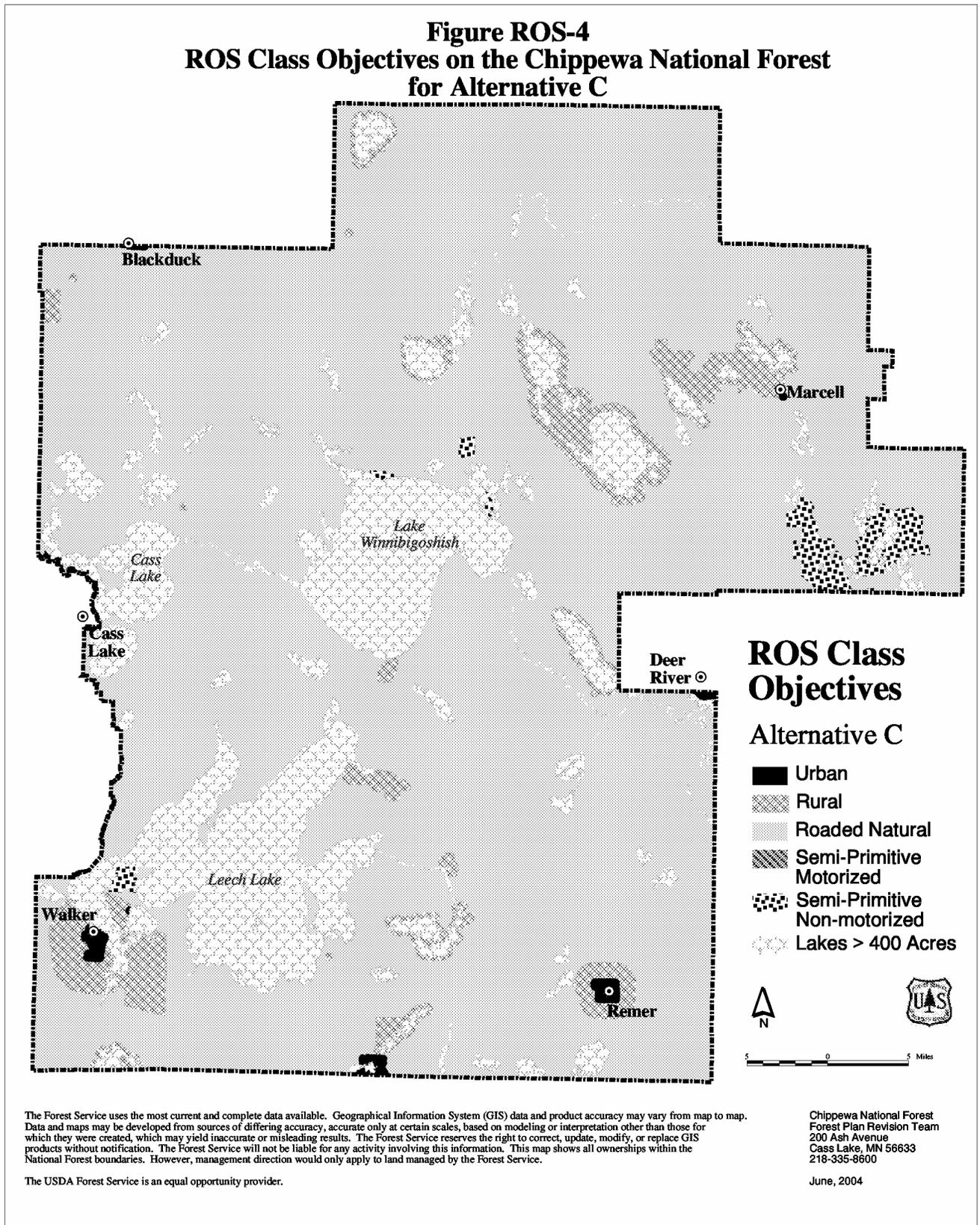
The Forest Service uses the most current and complete data available. Geographical Information System (GIS) data and product accuracy may vary from map to map. Data and maps may be developed from sources of differing accuracy, accurate only at certain scales, based on modeling or interpretation other than those for which they were created, which may yield inaccurate or misleading results. The Forest Service reserves the right to correct, update, modify, or replace GIS products without notification. The Forest Service will not be liable for any activity involving this information. This map shows all ownerships within the National Forest boundaries. However, management direction would only apply to land managed by the Forest Service.

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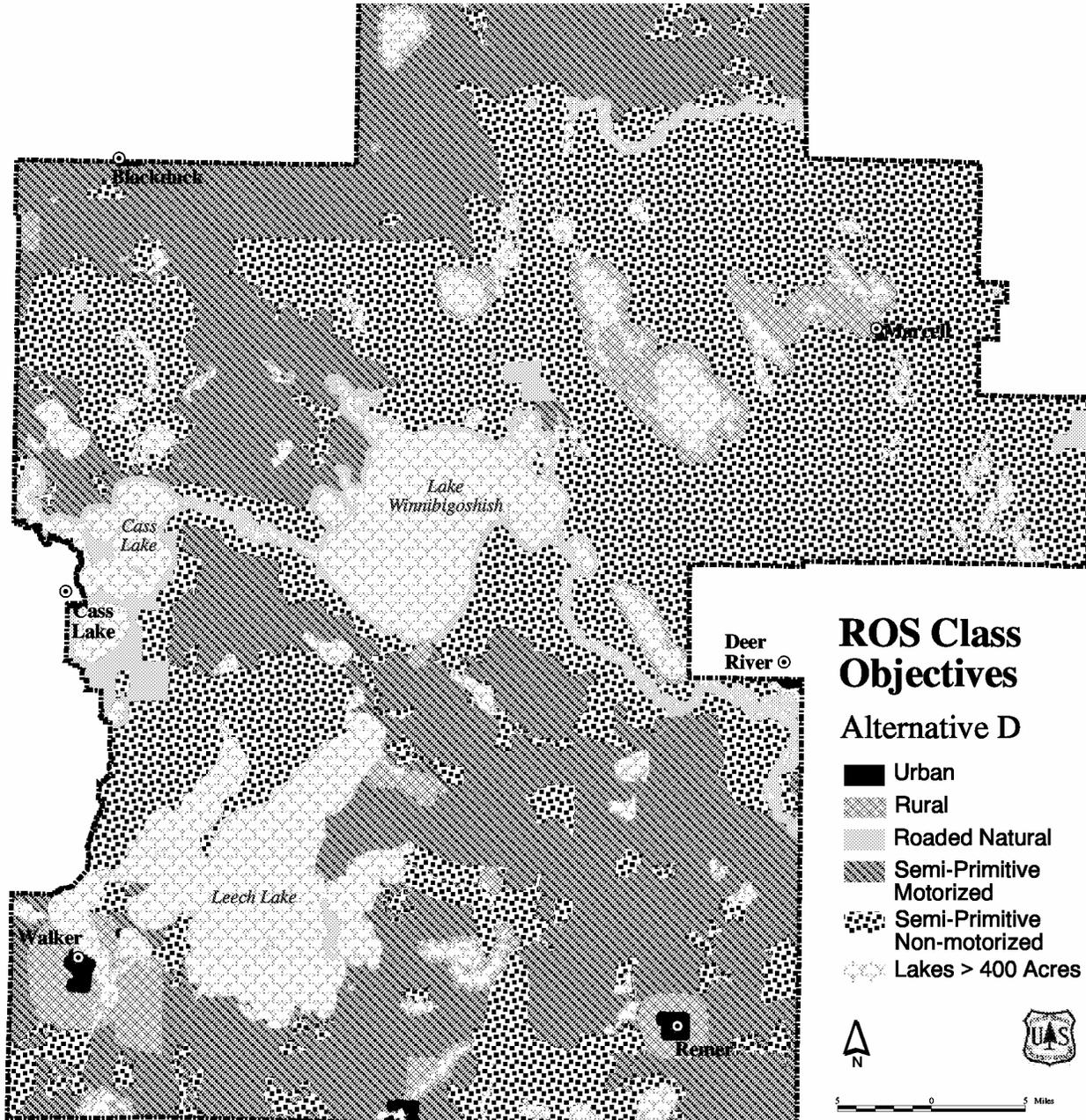
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**Figure ROS-4  
ROS Class Objectives on the Chippewa National Forest  
for Alternative C**



**Figure ROS-5  
ROS Class Objectives on the Chippewa National Forest  
for Alternative D**



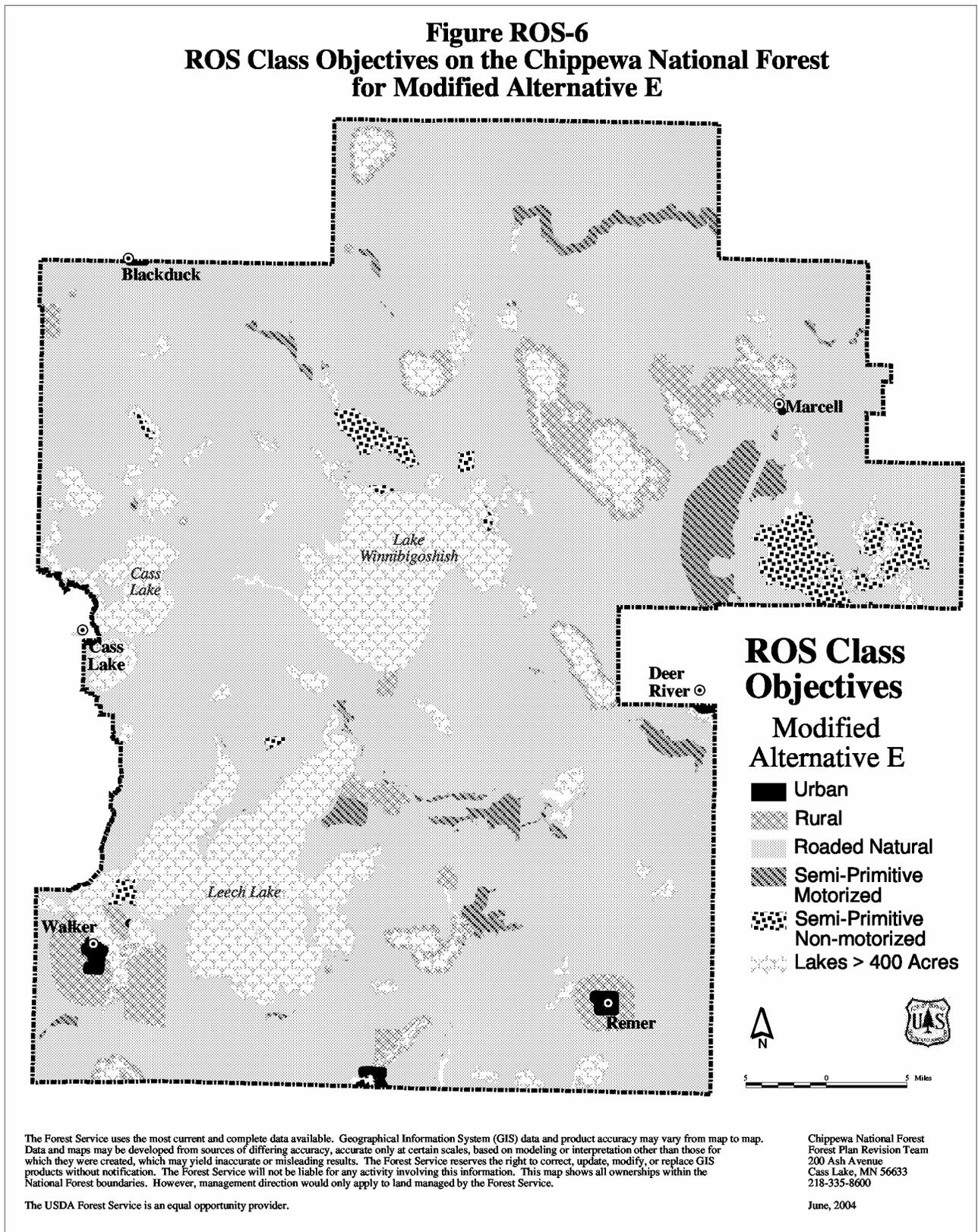
The Forest Service uses the most current and complete data available. Geographical Information System (GIS) data and product accuracy may vary from map to map. Data and maps may be developed from sources of differing accuracy, accurate only at certain scales, based on modeling or interpretation other than those for which they were created, which may yield inaccurate or misleading results. The Forest Service reserves the right to correct, update, modify, or replace GIS products without notification. The Forest Service will not be liable for any activity involving this information. This map shows all ownerships within the National Forest boundaries. However, management direction would only apply to land managed by the Forest Service.

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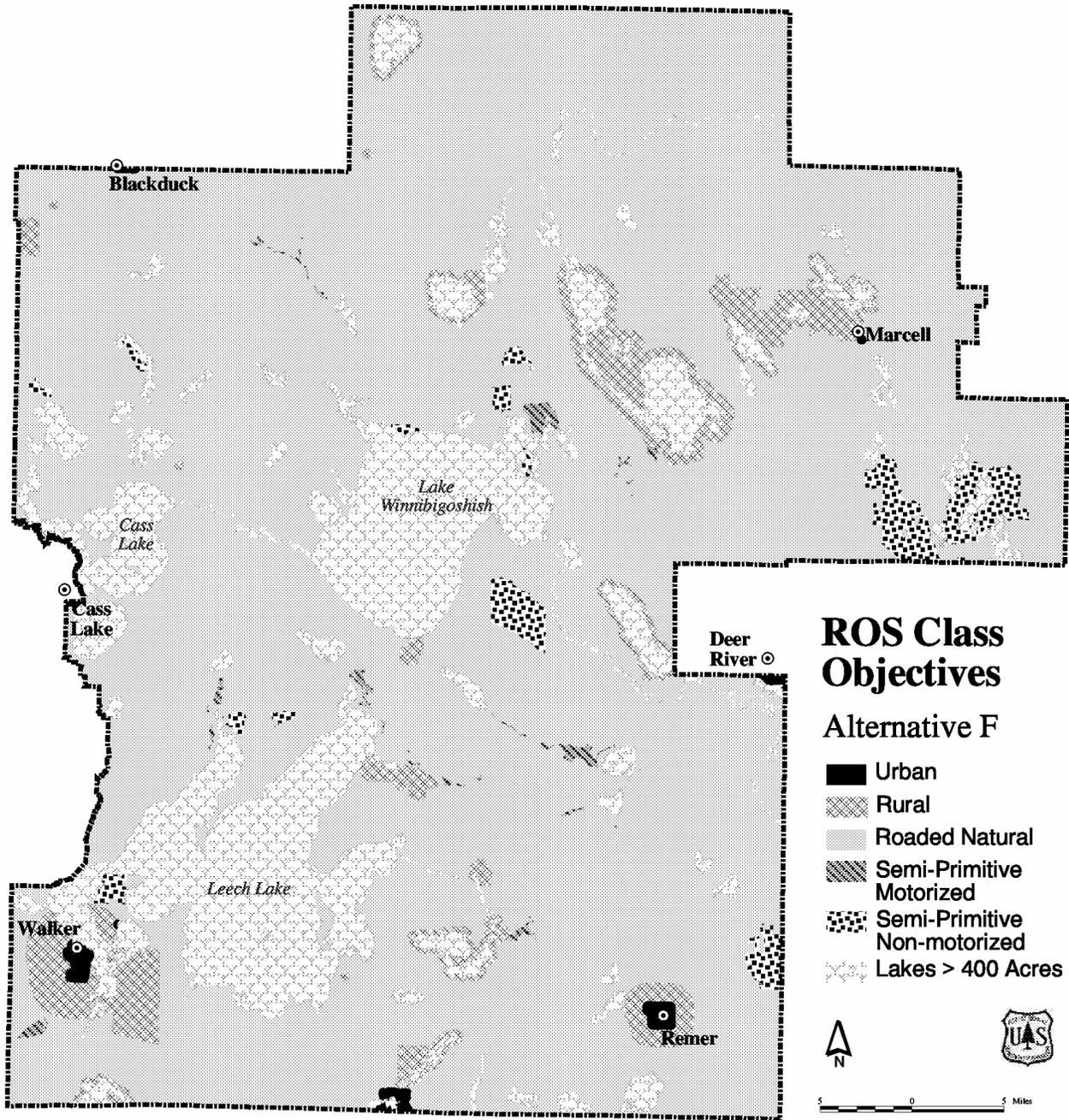
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**Figure ROS-6  
ROS Class Objectives on the Chippewa National Forest  
for Modified Alternative E**



**Figure ROS-7**  
**ROS Class Objectives on the Chippewa National Forest**  
**for Alternative F**



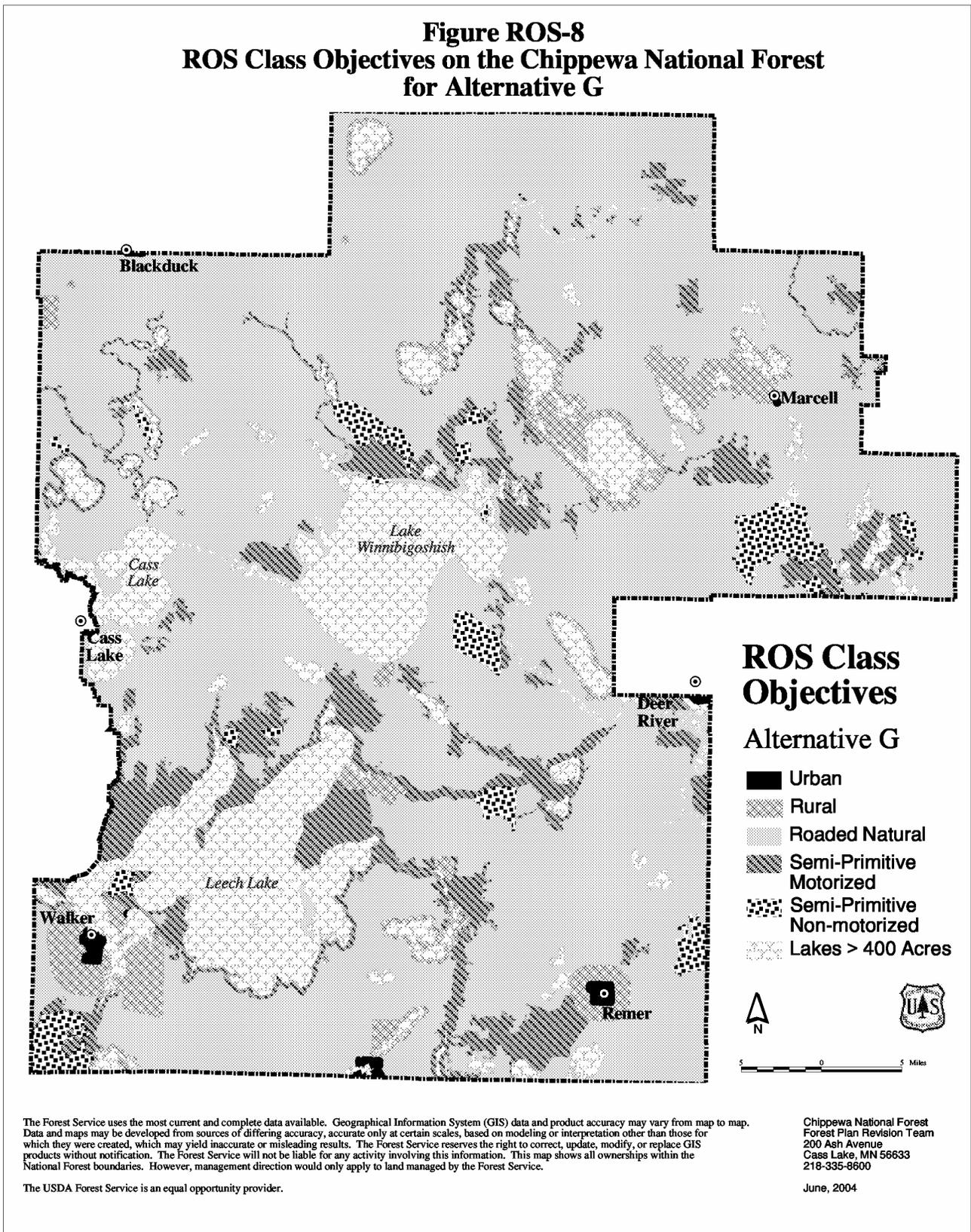
The Forest Service uses the most current and complete data available. Geographical Information System (GIS) data and product accuracy may vary from map to map. Data and maps may be developed from sources of differing accuracy, accurate only at certain scales, based on modeling or interpretation other than those for which they were created, which may yield inaccurate or misleading results. The Forest Service reserves the right to correct, update, modify, or replace GIS products without notification. The Forest Service will not be liable for any activity involving this information. This map shows all ownerships within the National Forest boundaries. However, management direction would only apply to land managed by the Forest Service.

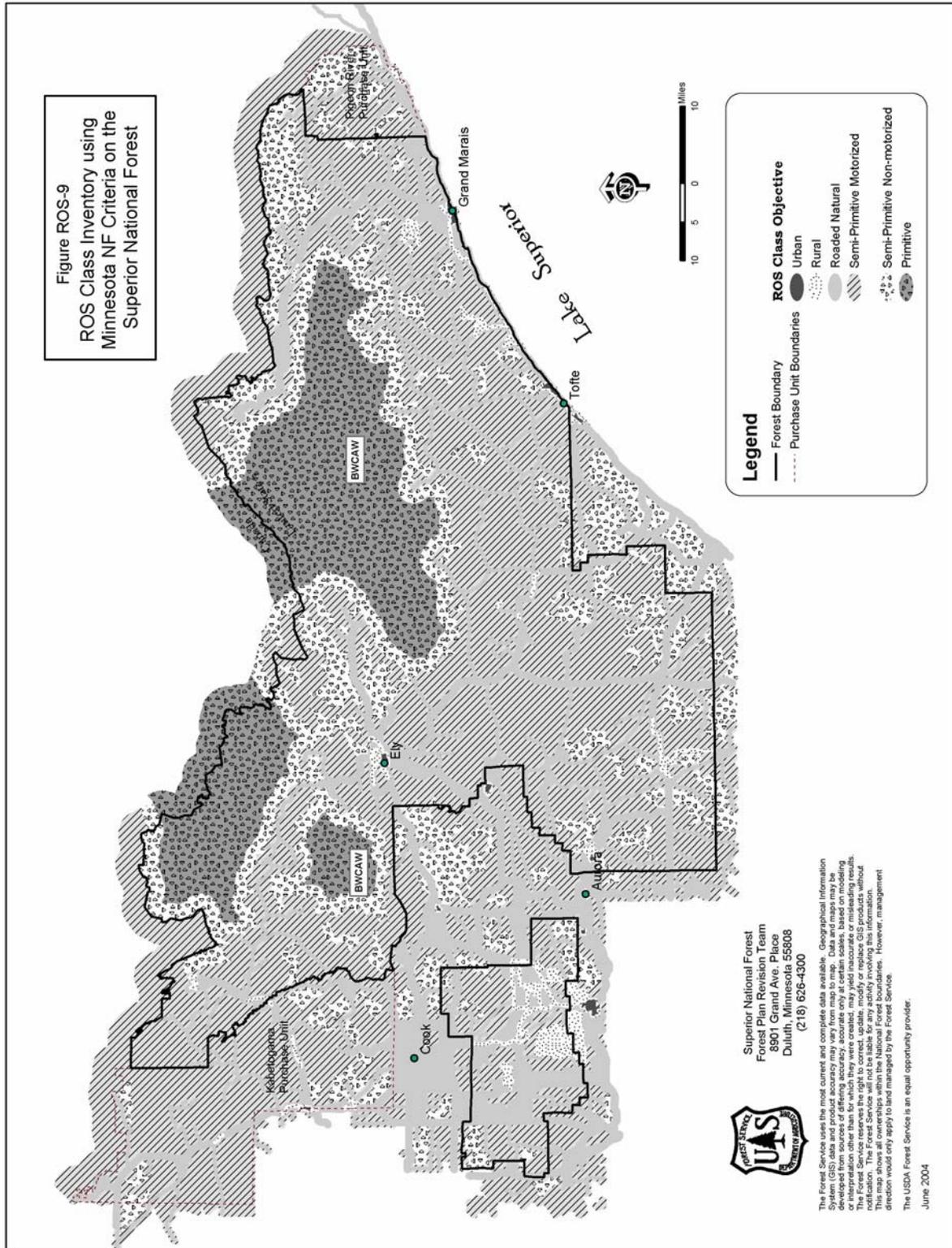
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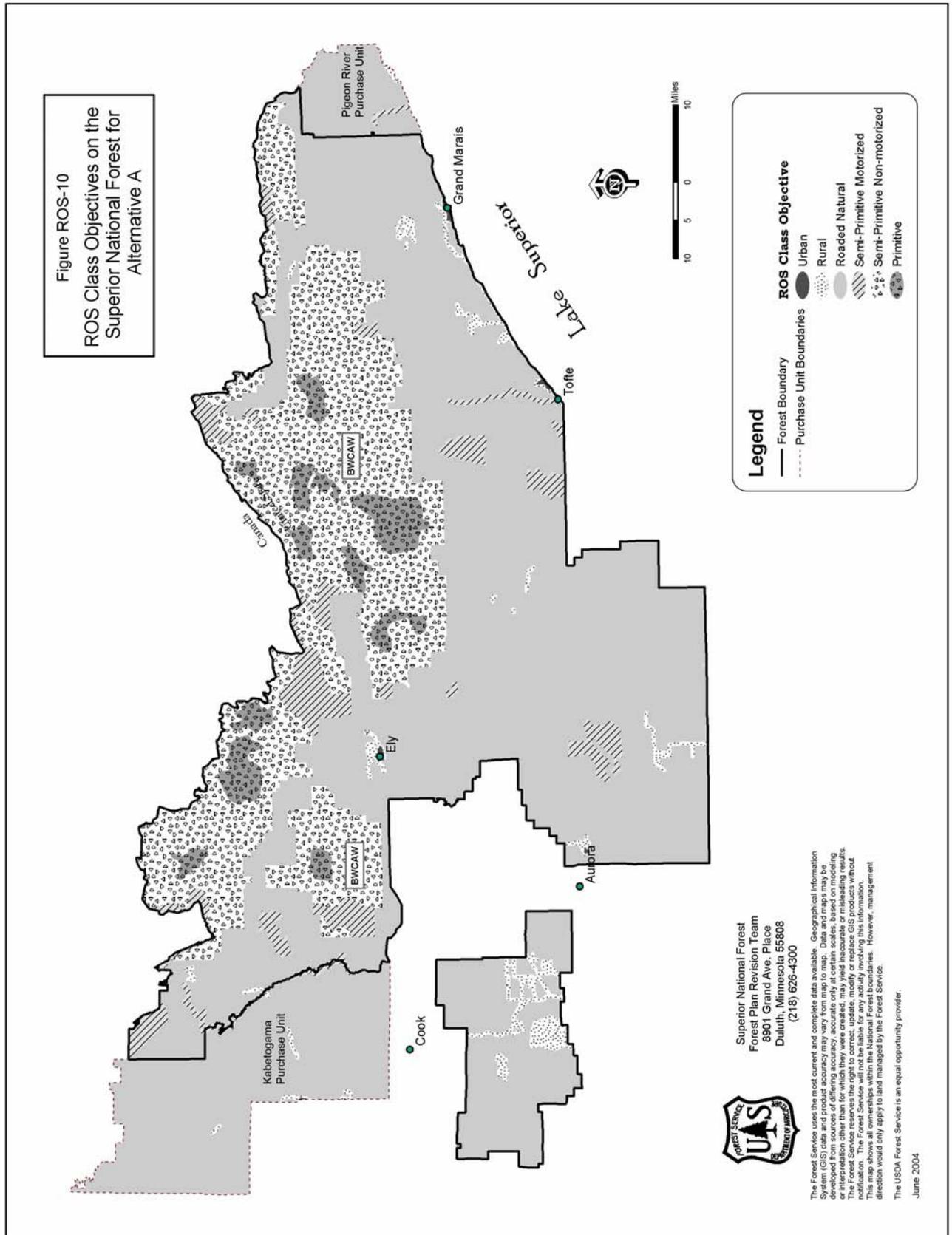
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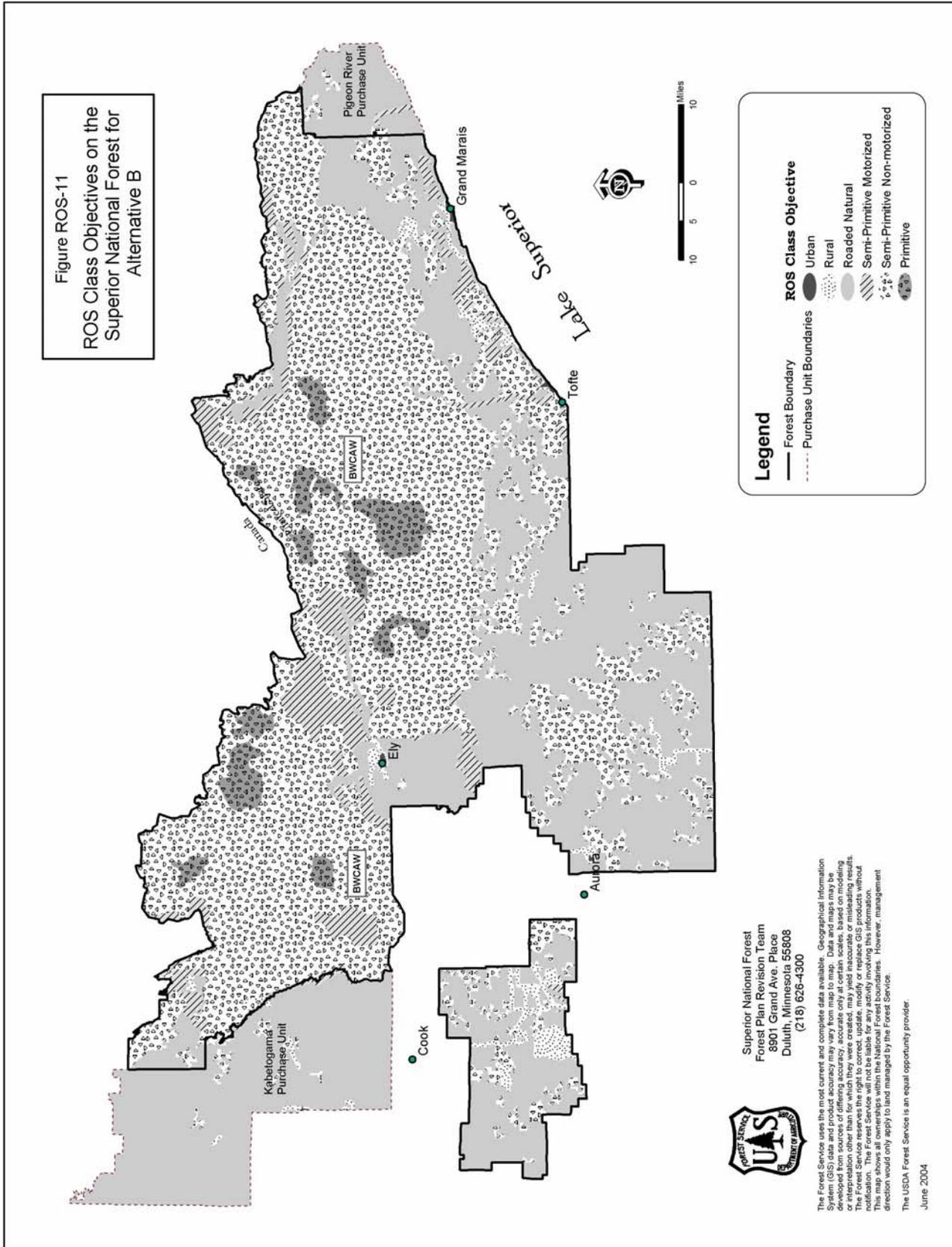
June, 2004

**Figure ROS-8  
ROS Class Objectives on the Chippewa National Forest  
for Alternative G**









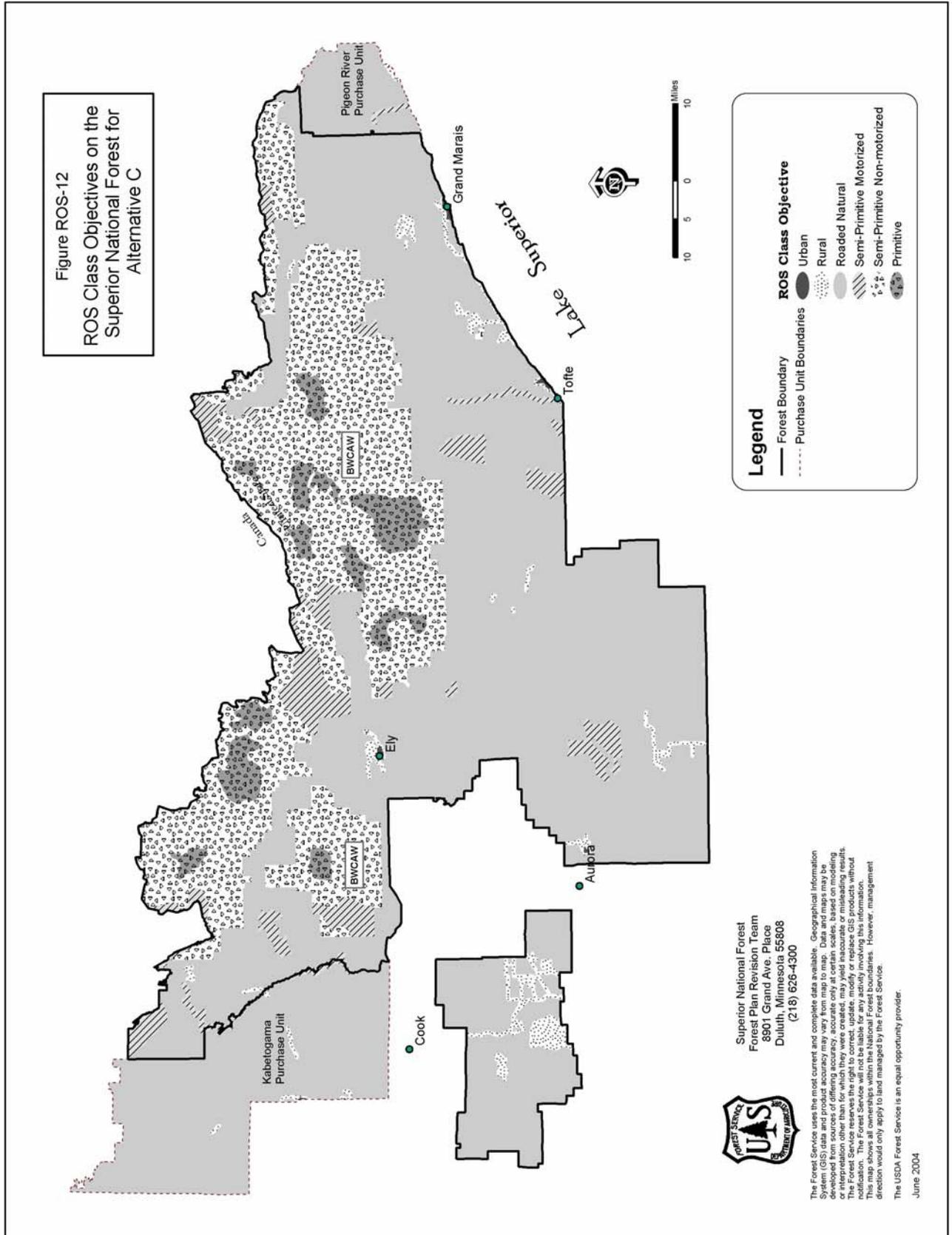
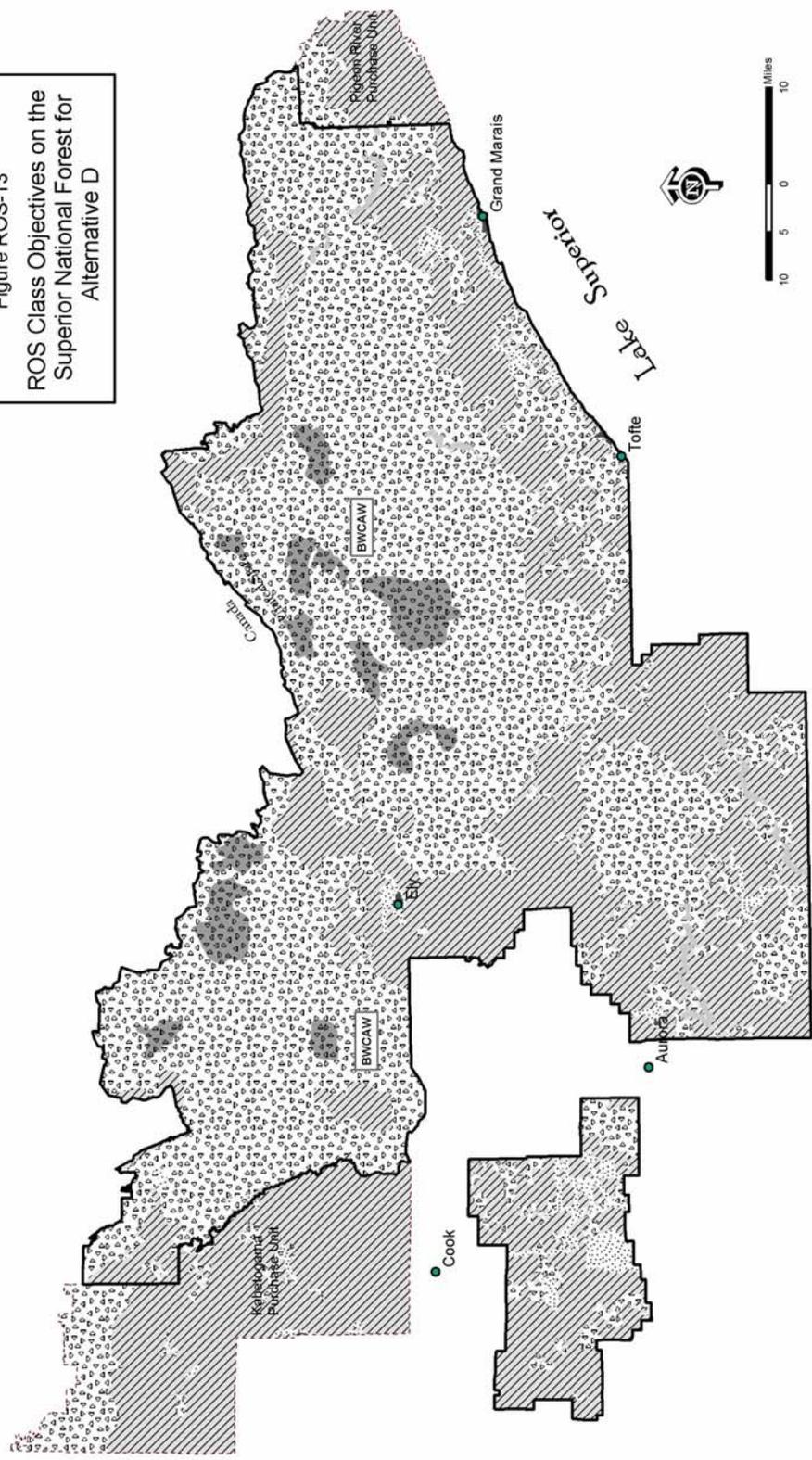


Figure ROS-13  
ROS Class Objectives on the Superior National Forest for Alternative D



**Legend**

- Forest Boundary
- Purchase Unit Boundaries
- ROS Class Objective
  - Urban
  - Rural
  - Roaded Natural
  - Semi-Primitive Motorized
  - Semi-Primitive Non-motorized
  - Primitive



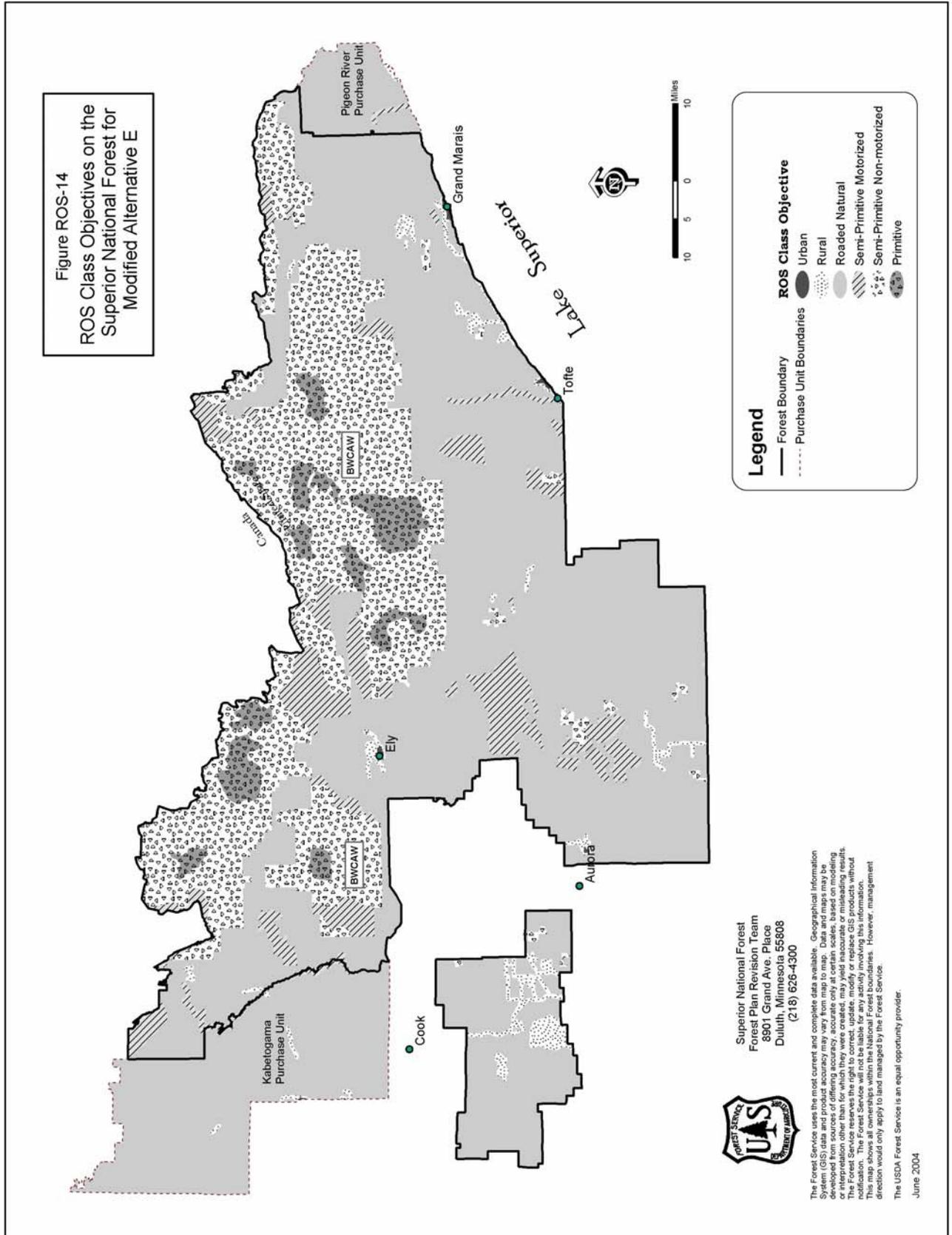
Superior National Forest  
Forest Plan Revision Team  
8901 Grand Ave. Place  
Duluth, Minnesota 55808  
(218) 626-4300

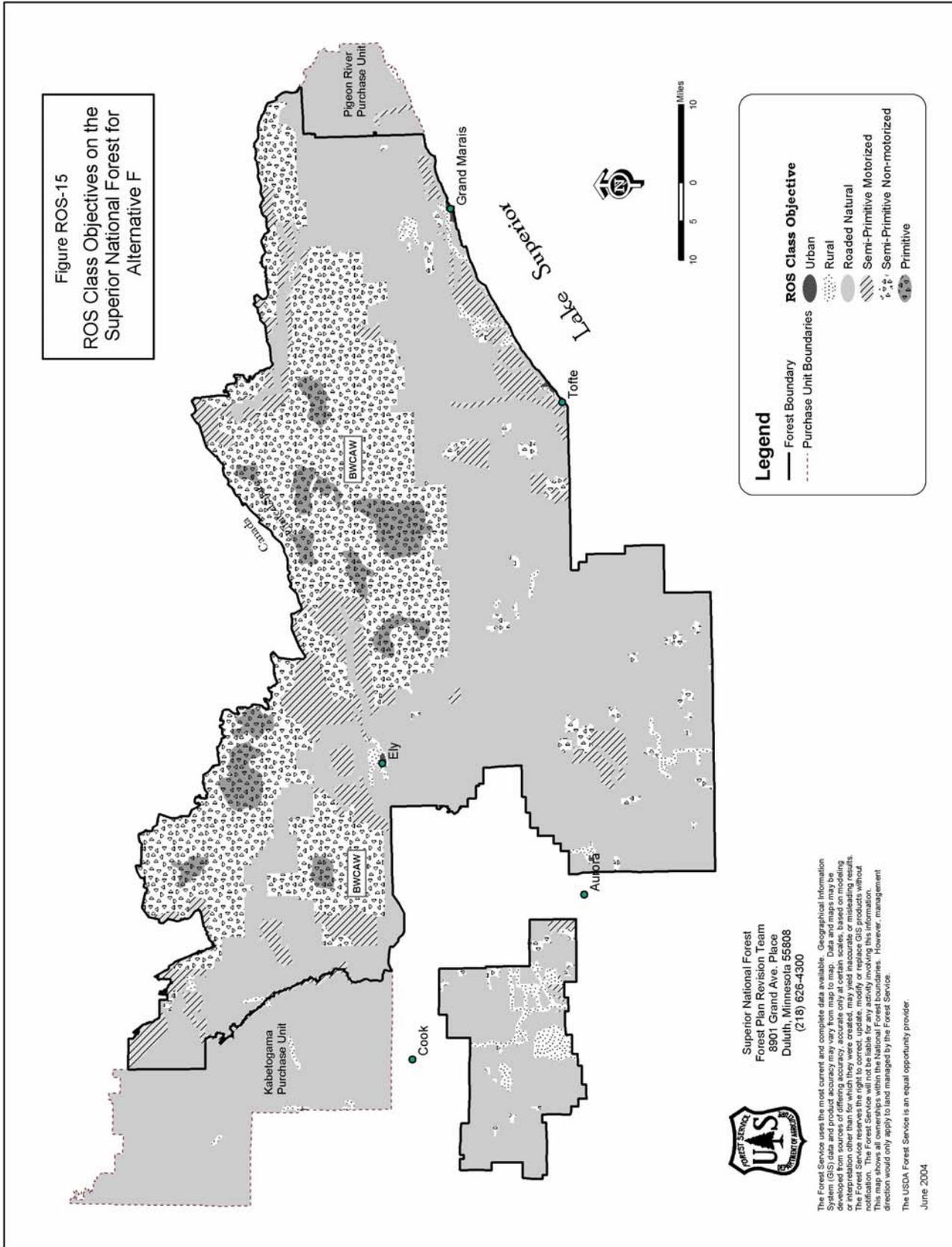
The Forest Service uses the most current and complete data available. Geographical information System (GIS) data and product accuracy may vary from map to map. Data and maps may be developed from sources of differing accuracy, accurate only at certain scales, based on modeling and/or other data. The Forest Service reserves the right to correct, update, modify or replace GIS products without notification. The Forest Service will not be liable for any activity involving this information. This map shows all ownerships within the National Forest boundaries. However, management direction would only apply to land managed by the Forest Service.

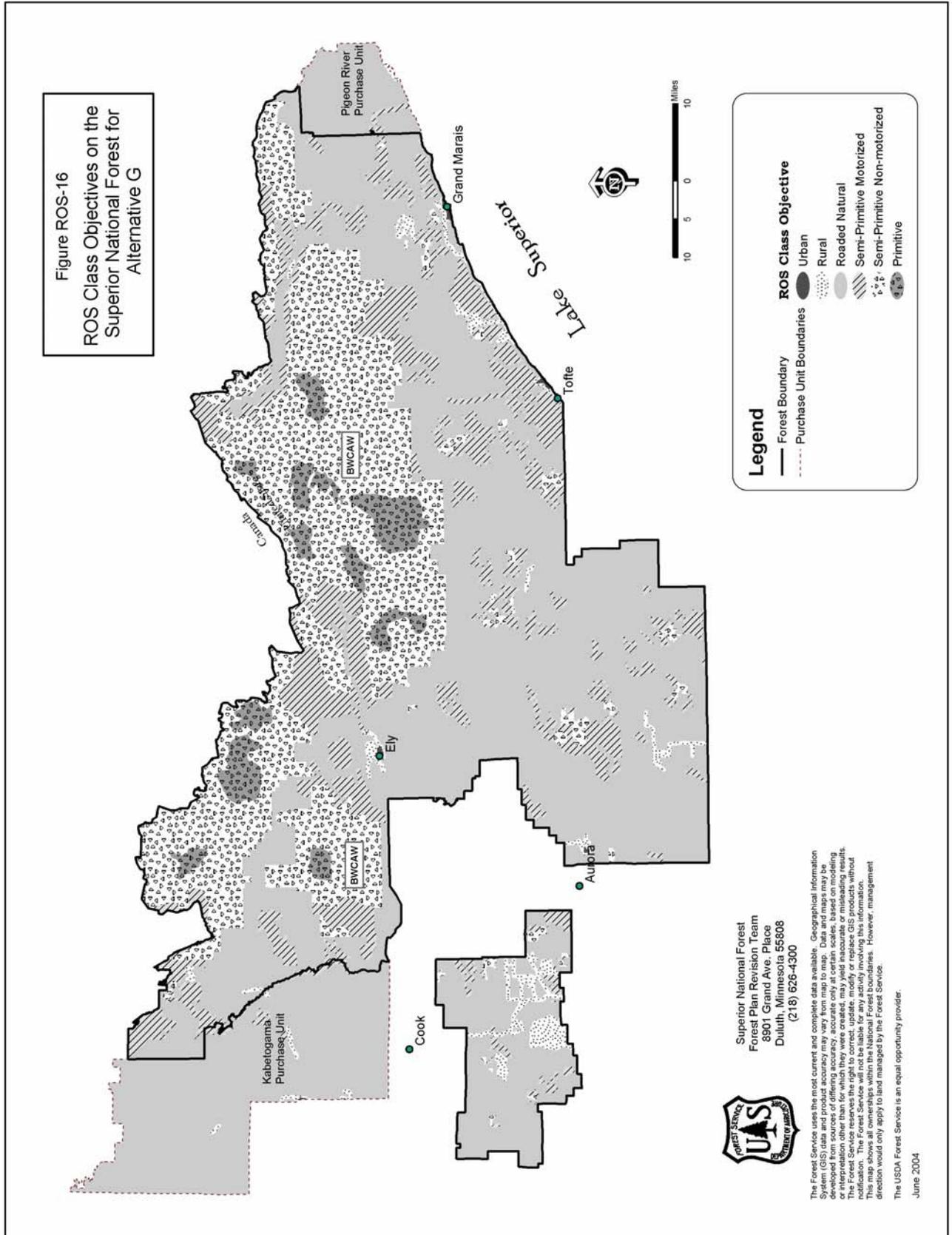
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## 3.8.2 Scenic Quality

### Issue Statement

There are many ideas of what a 'natural' appearing forest looks like and how much emphasis there should be on scenic integrity levels in forest management. Forest Plan revision will determine management direction for maintaining, enhancing, restoring, and monitoring scenic integrity. Revision will also establish Scenic Integrity Objectives (SIO) for the Forests, which guide the amount, degree, intensity, and distribution of management activities needed to achieve desired scenic conditions.

### Indicator 1 – Scenic Integrity Level

The first indicator for scenic quality is the Scenic Integrity Level as it varies by acres within each alternative.

This indicator demonstrates the importance in maintaining the scenic value as compared with other areas of the Forest, in terms of degree of deviation from the natural landscape character. This indicator effectively compares the alternatives because it is an objective measurement of the importance each alternative places on scenic integrity. Managing for scenic quality provides for a variety of benefits including economic benefits such as tourism and social benefits such as opportunities to enjoy the visual aspect of the landscape.

Scenic integrity is a key concept within the Scenery Management System. The Scenery Management System (SMS) is used by the Forest Service to determine the relative value and importance of scenery in the National Forest System. The SMS is used in the context of ecosystem management to inventory and analyze scenery, assist in developing natural resource

goals and objectives, monitor scenic integrity, and ensure that attractive landscapes are sustained for the future.

### Scenic Classes

Scenic Classes are classifications that prioritize land based on their importance and scenic value. Scenic Classes are used during forest planning to compare the value of scenery with the value of other resources. Scenic Classes were inventoried and mapped for both Forests by considering (1) the scenic attractiveness of land and (2) visibility from travel ways and use areas with different public concern levels. Agriculture Handbook Number 701, Landscape Aesthetics, A Handbook for Scenery Management, provided the primary direction for the scenic inventory. Table SQL-1 summarizes the inventory process.

Scenic Attractiveness of a landscape was analyzed at the Landtype Association (LTA) scale using landform, vegetation, water, and cultural features. It describes the relative scenic quality of lands as Class A: Distinctive, Class B: Typical, and Class C: Indistinctive.

Visibility from travel ways and use areas is described using distance zones. Zones were identified as Foreground (Fg: up to ¼ mile), Middleground (Mg: ¼ to 3 miles), and Background (Bg: 3 or more miles).

Concern Levels describe the relative importance of scenery to the public. Roads, trails, developed recreation sites, many lakes, and the Eligible Wild, Scenic, and Recreational Rivers were assigned Concern Levels of 1, 2, or 3. Concern Level assignments were based on the geographic scope of a viewing area's importance, the volume of use, and the perceived degree of sensitivity of users at a site. Areas with high concern were assigned a 1 and with low concern a 3.

<b>Table SQL-1: Scenic Class Matrix</b>									
<b>Scenic Attractiveness</b>	<b>Distance Zone/Concern Level</b>								
	Fg/1	Mg/1	Bg/1	Fg/2	Mg/2	Bg/2	Fg/3	Mg/3	Bg/3
A: Distinctive	1	1	1	2	2	2	2	3	3
B: Typical	1	2	2	2	3	4	3	5	5
C: Indistinctive	1	2	3	2	4	5	5	6	7
Notes: Fg: Foreground Mg: Middleground Bg: Background Source: Agriculture Handbook Number 701, Landscape Aesthetics, A Handbook for Scenery Management									

Scenic Classes are a product of the inventory process. Generally, Scenic Classes 1 and 2 have high public value, Scenic Classes 3 through 5 have moderate value, and Scenic Classes 6 and 7 have low value. Table SQL-2 displays the results of the Scenic Class inventory for both Forests.

On the Chippewa and Superior National Forests, the higher Scenic Classes, 1 and 2, were assigned to foreground (Fg) areas along popular travel ways and use areas. Lower Scenic Classes, 3 through 7, were assigned to areas that are located away from these travel ways or use areas, or that are located in the less scenic attractive areas of the Forest.

On the Superior National Forest, due to the greater variety in topography, higher Scenic Classes are also assigned to areas that have high levels of scenic attractiveness with high levels of public concern and are located beyond the foreground along roads, recreation sites, trails, major rivers, and lakes.

### Scenic Integrity Levels (SIL)

For each of the alternatives, Scenic Integrity Levels were assigned to the inventoried Scenic Classes. Because they are objective inventory classifications that describe tangible characteristics of specific areas of the Forest, the Scenic Classes themselves remain the same for all alternatives. However, the SIL's assigned to these Scenic Classes can, and do, vary between alternatives depending upon the relative importance each alternative places upon the scenery resource.

Scenic Integrity Levels were assigned to each of the inventoried Scenic Classes based on the theme of each alternative. These SIL's are based on the importance the alternative places on scenic quality relative to all the other resources to be managed on the Forests. See Table SQL-3 for a summary of the SIL assigned to each scenic class for the alternatives.

Scenic Integrity Objectives (SIO's) for the Forest Plan are the proposed scenic integrity levels (SIL's) of the selected alternative described in the Record of

<b>Table SQL-2: Scenic Class Inventory for the Chippewa NF and Superior NF (NFS land)</b>								
	<b>Scenic Classes</b>							<b>Total</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	
<b>Forest</b>	(Acres)	(Acres)	(Acres)	(Acres)	(Acres)	(Acres)	(Acres)	(Acres)
Chippewa NF	120,811	100,337	243,039		159,235		35,308	658,730
Superior NF	337,118	559,949	283,710	97,783	37,585	40,919		1,357,094
Source: Project file. Landscape Aesthetics, A Handbook for Scenery Management Definitions: See Glossary Note: Superior NF: Inventory included areas outside the BWCAW.								

<b>Scenic Class</b>	<b>Alt. A</b>	<b>Alt. B</b>	<b>Alt. C</b>	<b>Alt. D</b>	<b>Mod. Alt. E</b>	<b>Alt. F</b>	<b>Alt. G</b>
1	H	VH	H	VH	H	H	H
2	M	H	M	VH	M	M	H
3	L	M	L	H	M	L	M
4	L	M	L	H	L	L	L
5	L	M	L	M	L	L	L
6	L	M	L	M	L	L	L
7	L	M	L	M	L	L	L

Source: Project file.  
Scenic Integrity Level abbreviations: VH - High H - High M - Moderate L - Low

Decision.

Proposed Scenic Integrity Levels (SILs) for the alternatives were developed by taking the Scenic Class inventory map and assigning corresponding Scenic Integrity Levels based on the theme or resource goals of the alternative.

Within the SMS, Scenic Integrity is defined as the state of naturalness, or conversely, the state of disturbance created by human activities or alteration. It is a measure of the degree to which a landscape is visually perceived to be “complete.” The highest scenic integrity ratings are given to those landscapes with little or no deviation from the “natural” landscape character valued by constituents for its aesthetic appeal. The lowest ratings are given to those Forest landscapes whose natural character is most heavily altered by management activities. These are the areas where management activities are most obvious to people. The landscape character provides the framework for measuring the scenic integrity of areas within the Forests.

There are six levels of scenic integrity, but only the first four are considered acceptable long-term landscape management objectives in Forest planning. The six Scenic Integrity Levels are:

**Very High** -- The valued landscape character is intact with only minute if any deviations. The existing landscape character is expressed at the highest possible level. The landscape appears natural; i.e. the result of only ecological processes. A few human alterations may be present but they so closely mimic ecological processes that they are not evident.

**High** -- The landscape appears unaltered, and management activities are hardly noticeable. Activities may only repeat the form, line, color, texture, and pattern found in the surrounding landscape character.

**Moderate** -- The landscape appears slightly altered. Management activities are slightly noticeable, but they remain subordinate to the surrounding landscape character.

**Low** -- The landscape appears somewhat altered. Management activities may be noticeable, but they borrow valued attributes from the surrounding landscape character such as size, shape, edge effects, and pattern of natural openings to somewhat blend into the surrounding landscape.

**Very Low** -- The landscape appears heavily altered. Management activities strongly dominate the valued landscape character and generally do not borrow valued attributes from the surrounding landscape character such as size, shape, edge effects, and pattern of natural openings when viewed at foreground or middleground distances (0 to 3 miles). However, they must be shaped and blended with the natural terrain so that they appear as natural occurrences when viewed at greater distances.

**Unacceptably Low** -- The landscape appears extremely altered. Management activities are excessive and totally dominate the natural landscape character. They borrow nothing from the surrounding landscape character. These are the landscapes most in need of rehabilitation.

## Indicator 2 – Narrative Description of the Scenic Character of Alternatives

Indicator 2 describes what the general forest would look like to the National Forest visitor in the short and long-terms. The narrative describes the dominant vegetation and its age and size, types of forest management, and the pattern and scale of vegetation people may see.

### Scope of Analysis

The analysis area is land managed by the Superior and Chippewa National Forests. The discussion of direct and indirect effects focuses on National Forest land most likely to be viewed by Forest visitors.

The portion of the Superior National Forest within the BWCAW is not part of the analysis area. The current standards and guidelines for managing the BWCAW strongly emphasize maintaining a natural ecosystem.

The analysis area for cumulative effects expands to include all lands located within, and adjacent to, the Forests' administrative boundaries.

Effects are analyzed using the following timeframes:

- Changes that may be noticed during the lifetime of current Forest visitors, 0-20 years
- Changes that may be evident to future generations of Forest visitors, 20-100 years

### 3.8.2.a Affected Environment

The affected environment is the scenery of the two National Forests. Scenery is an important natural resource of the Chippewa and Superior National Forests, and as is the case with other resources, must be cared for and managed for future generations. Existing natural features, including vegetation, water, landforms, and geology, largely influence the scenery. High quality scenery enhances people's lives and benefits communities and society. Sightseeing and driving for pleasure are among the nation's leading

recreational activities, and demand for them is expected to continue.

The historical use of the land across northern Minnesota has played a large role in the current scenic quality of the vistas, scenic drives, lakeshores, recreational sites, and other vast undeveloped lands of the Chippewa and Superior National Forests. The most recent, long lasting, and significant events affecting the historical landscape have been the extensive industrial logging, associated large fires, and agriculture that occurred at the beginning of the 20<sup>th</sup> century.

Since the time that the National Forests were established, wildfires have been suppressed, multiple use management has been emphasized, and urbanization of the rural areas has continued. The results are the Forests as they are now: a mixture of young, middle-aged, and mature forests; hardwood, spruce, and pine trees; and open fields with interspersed private developments. There are also many wetlands, rugged lakeshores, rivers, and streams with clean water. The Forests provide quality habitat for threatened and endangered wolves and eagles and the more common species such as loons, deer, moose, bear, and red-shouldered hawk. Finally, the Forests provide a range of abundant opportunities for people to recreate at developed facilities or to explore the Forest using their own methods.

The Forests have roads and trails that are recognized at the national, State, and local level as providing exceptional scenic opportunities. These include the All American Roads, Scenic Byways, Scenic Trails, and other National Recreation Trails. See Appendix B of the EIS for a list of Forest roads and trails with these special designations.

### 3.8.2.b Environmental Consequences

#### Effects Common to All Alternatives

In the process of implementing SMS, the Forests classified additional sensitive travel routes and areas as

compared to routes and areas identified in the 1986 Forest Plans. These additional travel routes and areas had been classified by local county committees as part of the State Visual Best Management Practices (BMP) process and were not previously classified within the existing National Forest Plans. These additions resulted in a major change from the existing condition within the current Plans.

On the Chippewa and Superior National Forests, the inventoried Scenic Class 1 and 2 acres are primarily located along visually sensitive roads, lakes, rivers, and trail corridors. On the Superior National Forest, some areas have more topography, which allow people to see a greater distance into the landscape. For this reason, areas with high levels of scenic attractiveness that are visible from visual corridors with high levels of viewer concerns were assigned a Scenic Class 2.

### Resource Protection Methods

Regardless of which alternative is selected, the management direction in the Chippewa and Superior Forest Plans would provide for a range of diverse landscapes and natural settings. The scenic environment within the Forests would range from landscapes with high scenic integrity displaying little or no evidence of management activities, to landscapes with lower scenic integrity that have dominant visible evidence of management activities.

The SMS would be used in all alternatives to manage the Forests' scenic resources in order to protect and enhance the recreation and scenic resource values, while meeting other resource commitments. Resource management activities would not reduce the scenic integrity below the assigned level for a given area.

There are a number of standards and guidelines that would address the following topics for all alternatives: facilities, temporary and permanent openings, utilities, riparian areas, signs, roads, minerals and geology, vegetation management and general forest management. In all the above topics the following expectations apply: the SIO associated with an area would be known and incorporated in any management decision; any constructed facilities would blend into the landscape; visual expectations of management within areas of disturbance would be identified and implemented in a timely manner; site-specific projects

would minimize visual impacts as prescribed by the SIO and standards and guidelines.

Management activities in areas of high scenic value (such as Concern Level 1 and 2 travel ways, recreational sites, and bodies of water) would emphasize the following objectives: enhance views, create vistas where appropriate, feature natural openings, retain canopies over travel routes, encourage vegetative diversity and seasonal color contrast, and feature a large tree appearance.

### Direct and Indirect Effects

The discussion below addresses the potential effects on scenic quality of various resource management activities under each of the alternatives in terms of the Scenic Integrity Levels and qualitative differences between alternatives.

Many people are concerned about the scenic values of the landscape they live in, recreate in, and/or travel through. Most people express a strong interest in maintaining the natural character of the forest, but there is a difference of opinion about what is natural. Some people place high value on landscapes with little evidence of management activity such as timber harvest, roads, utility corridors, or other developments. Other people have a higher tolerance for noticeable management activity. Some people prefer a park-like forest that has large trees and that is relatively open beneath the tree crowns. Still others prefer forests where vegetation is multi-layered and woody debris has accumulated on the forest floor.

Some people are also concerned that a strong emphasis on scenic quality would reduce the amount or intensity of forest management activities, especially timber harvesting, allowed in some areas.

### Indicator 1 – Scenic Integrity Levels (SIL)

The alternatives vary in the number of acres assigned to the various SILs. These assignments are based on the particular alternative's emphasis, or relative value, placed on scenery as compared to all other resources. The Scenic Integrity Level is a gauge of the degree of acceptable deviation from a natural-appearing

landscape character. Tables SQL-4 and SQL-5 display the acres of SILs for each alternative for each Forest.

*Effects Common to Alternatives A, C, and F*

Over the next twenty years, the emphasis on forest management in these alternatives would result in the Chippewa and Superior National Forests having a similar level of scenic quality as found in today's Forests.

These alternatives have less of an emphasis on providing the highest quality scenery and allow more obvious human-introduced management into the landscapes. The SILs are somewhat lower than in the other alternatives. Management activities would be evident and they may or may not emulate ecological processes. Compared to the other alternatives, the overall ASQ and vegetation management are high; there are few areas designated for less intensive management such as wilderness study areas or special management complexes; and recreation is oriented towards developed facilities as opposed to semi-primitive opportunities. All these activities would result in obvious changes in the landscape.

These three alternatives are similar in the number of acres allocated to High and Medium and Low SILs. The visual corridors with high levels of viewer concerns for scenery are assigned a High SIL. Management activities within these corridors would not be readily apparent. The visual corridors with moderate levels of viewer concerns for scenery are assigned a Moderate SIL. Management activities within these corridors would be apparent but would not stand out. Under these alternatives no acres are assigned to Very High SIL. On the Chippewa NF, 18 percent of the Forest has a High SIL and 15 percent has a Moderate SIL. On the Superior NF, 25 percent

of the Forest has a High SIL and 41 percent has a Moderate SIL.

*Alternative B*

Forest management in this alternative would result in Forests that contain more older-aged trees and have little or no visible effects from management activities.

This alternative has an emphasis on providing for the most natural-appearing landscapes over time, second only to Alternative D. An increase in managing for older age-classes and an increase in Potential Research Natural Areas MAs results in a more natural-appearing Forest with fewer noticeable management-related disturbances.

The visual corridors with high levels of viewer concerns for scenery are assigned a Very High SIL. Management activities within these corridors would not be apparent. The visual corridors with moderate levels of viewer concerns for scenery are assigned a High SIL. Management activities within these corridors would not be readily apparent. On the Chippewa NF, 18 percent of the Forest has a Very High SIL and 15 percent has a High SIL. On the Superior NF, 25 percent of the Forest has a Very High SIL and 41 percent has a High SIL.

*Alternative D*

Forest management in this alternative would result in Forests that contain more older-aged trees and, after the first decade, would have very little visible effects from management activities.

This alternative has the highest emphasis on providing the most natural appearing landscapes over time. With very minimal management-related disturbances to

<b>Scenic Integrity Levels</b>	<b>Alt. A</b> No Action (Acres)	<b>Alt. B</b> (Acres)	<b>Alt. C</b> (Acres)	<b>Alt. D</b> (Acres)	<b>Mod. Alt. E</b> (Acres)	<b>Alt. F</b> (Acres)	<b>Alt. G</b> (Acres)
Very High	0	120,811	0	221,149	0	0	0
High	120,811	100,338	120,811	243,039	120,811	120,811	221,149
Moderate	100,338	437,581	100,338	194,542	343,377	100,338	243,039
Low	437,581	0	437,581	0	194,542	437,581	194,542
Source: Project file. Landscape Aesthetics, A Handbook for Scenery Management Definitions: See EIS text and glossary							

<b>Scenic Integrity Levels</b>	<b>Alt. A</b> No Action (Acres)	<b>Alt. B</b> (Acres)	<b>Alt. C</b> (Acres)	<b>Alt. D</b> (Acres)	<b>Mod. Alt. E</b> (Acres)	<b>Alt. F</b> (Acres)	<b>Alt. G</b> (Acres)
Very High	0	337,118	0	897,067	0	0	0
High	337,118	559,949	337,118	381,493	361,391	337,118	897,067
Moderate	559,949	460,027	559,949	78,534	828,582	559,949	283,709
Low	460,027	0	460,027	0	167,121	460,027	176,317

Source: Project file. Landscape Aesthetics, A Handbook for Scenery Management  
 Definitions: See EIS text and glossary  
 Note: Land inside the BWCW is not included in these acres.

occur after the first decade, the Forest’s appearance would largely be the result of natural processes.

Similar to Alternative B, the visual corridors with high levels of viewer concerns for scenery are assigned a Very High SIL. Management activities within these corridors would not be apparent. Additionally the visual corridors with moderate levels of viewer concerns for scenery are also assigned a Very High SIL. Management activities within these corridors also would not be apparent. On the Chippewa NF, 33 percent of the Forest has a Very High SIL. On the Superior NF, 66 percent of the Forest has a Very High SIL.

This alternative assigns a High SIL to those areas not seen from visual corridors that have high levels of scenic attractiveness. Management activities within these areas would not be readily apparent. All other alternatives assign a Moderate to Low SIL to those areas. On the Chippewa NF, 37 percent of the Forest has a High SIL. On the Superior NF, 28 percent of the Forest has a High SIL.

*Modified Alternative E*

Forest management in this alternative would result in the Chippewa and Superior National Forests having a similar level of scenic quality as found in today’s forest, particularly during the first 20 years. There would be a slight increase in scenic quality in middle ground views from popular travel routes and use areas.

In many respects this alternative is similar to Alternatives A, C, and F. For instance the overall proposed timber harvest and vegetation management are high and this alternative allows more obvious human-introduced management elements into the landscape. Similarities also exist in how the

alternatives allocate SIL’s to the Scenic Class 1 and 2 areas; on the Chippewa NF Alternative E allocates the same number of acres to the High SIL and on the Superior NF Alternative E allocates about 24,273 more acres to the High SIL.

Modified Alternative E differs from Alternatives A, C, and F primarily in how it treats the Scenic Class 3 areas (see Table SQL-3). Modified Alternative E places an increased emphasis on managing for scenic quality in the Scenic Class 3 areas; consequently it allocates 243,039 more Chippewa NF acres and 268,633 more Superior NF acres to the Moderate SIL and, correspondingly fewer acres to the Low SIL on both Forests. Compared to Alternatives A, C, and F, this represents a 50 percent increase in Moderate SIL acres; and points toward Alternative E’s increased emphasis on managing for scenic quality.

The effect of this re-allocation of Scenic Class 3 acres would likely be more evident on the Superior NF than on the Chippewa NF. This is due primarily to how the difference in topography found on the two Forests affords middleground and background views of the landscape.

*Alternative G*

Forest management under this alternative would result in a slightly higher level of scenic quality as compared to that found in today’s Forests.

Like Alternatives A, C, Modified E, and F, this alternative reflects less of an emphasis on providing the highest quality scenery and allows management activities to be more noticeable and sometimes dominant in the landscapes. However, all timber-harvesting activities are intended to mimic the natural disturbance patterns of the surrounding ecological

landtypes. This alternative would result in somewhat higher scenic quality than alternatives A, C, Modified E, and F.

Similar to Alternatives A, C, Modified E, and F, the visual corridors with high levels of viewer concerns for scenery are assigned a High SIL. In addition, in Alternative G the visual corridors with moderate levels of viewer concerns for scenery are also assigned a High SIL. Management activities within these corridors would not be readily apparent.

Under Alternative G no acres are assigned to Very High SIL. On the Chippewa NF, 33 percent of the Forest has a High SIL. On the Superior NF, 66 percent of the Forest has a High SIL.

## **Indicator 2 – Narrative Description of the Scenic Character of Alternatives**

### *Alternative A*

Over the next twenty years, the emphasis on forest management in Alternative A would result in the Chippewa and Superior National Forests having a similar appearance as found in today's Forests.

This alternative would produce a forest that has frequent openings of up to 40 acres or less. Compared to Alternatives B, D, F, and G, the forest would have fewer large areas of continuous canopy, and the Forest visitor would see fewer big and old trees. The general appearance of the forest would be a dominance of younger aspen and birch trees and a lesser amount of northern hardwood, and mixed conifer. In addition, the vertical structure in the actively managed areas of the Forests would likely contain a relatively smaller amount of dead trees and fallen trees as compared to Alternatives B, D, Modified E, F, and G.

Frequently visited and scenically valued areas of the Forests would be actively managed for timber production. This alternative has a limited emphasis on scenic quality, consequently only the harvests occurring in the *most* highly valued areas along main roads and trails would stress maintaining a natural appearance. The relative importance of maintaining a natural appearing forest is not as prominent in this alternative as under Alternatives B, D, and G.

### *Alternative B*

During the first 20 years, under Alternative B, the Forests would look much the same as they do today. Future generations of Forest visitors would see an increase of tracts of older, larger, and taller trees and the trend toward older stands of late-successional species.

This alternative would eventually produce forests that have fewer openings and more large areas of continuous canopy resulting in a forest that is dominated by interior habitat rather than forest edge habitat. It uses clear-cutting and management-ignited fire to mimic natural large-scale disturbance.

Generally, the forest would contain more older and larger trees than seen under Alternative A, and over time, would have greater numbers of late-successional species such as red pine, white pine, spruce, fir, and northern hardwoods. Views of the forest would commonly include a greater diversity in vertical structure, an increased presence of ground and shrub-layer species as well as standing dead trees and fallen trees.

Changes in the appearance of the Forests, as contrasted to the existing condition, would occur relatively gradually. There would be a decrease in newly created openings (although some of the newly created openings would be much larger than those seen currently) and there would be a slight increase in use of fire.

This alternative places more emphasis on sustaining a natural appearance across greater areas of the Forests. Those most frequently visited and most scenically valued areas of the Forests may well be actively managed for timber production, but harvests would commonly include an emphasis on sustaining a natural appearance. This emphasis on natural appearance is greater under this alternative than under Alternatives A, C, Modified E, and F.

### *Alternative C*

Under Alternative C, changes in some areas of the Forests would occur swiftly and abruptly. During the first 20 years, visitors would see obviously increased sizes of newly created openings and decreased sizes of patches of continuous canopy. In the decades that

follow, future generations of Forest visitors would see the perpetuation of large newly created open areas, and tracts of young trees growing up in the previously created openings.

This alternative would produce forests that have relatively fewer large tracts of continuous canopy and have frequent openings of various sizes up to 1000 acres in size. This alternative uses commercial timber harvest to mimic large-scale disturbance patterns. The large-scale openings' sizes, shapes, and habitat conditions, not their appearance, are intended to mimic the scale, pattern, and ecologic function of large-scale natural disturbances. Except in areas that are most frequently visited and most scenically valued, these large-scale openings would not necessarily appear to be the product of a natural event.

Generally, large tracts of same-aged trees would dominate views of the forest; in the early decades of management under this alternative, the forest's general appearance would tend to be characterized by younger, smaller trees such as aspen and birch. As decades pass, there would be an increasing number of stands of later-successional species such as red pine, white pine, spruce, fir, and northern hardwoods. Common views of the actively managed areas of the Forests would include less diversity in vertical structure, a decreased presence of ground- and shrub-layer species, standing dead trees, and fallen trees.

This alternative uses timber harvest, particularly clear-cutting, to mimic large-scale disturbances. Compared to Alternatives B, D, Modified E, F, and G, future generations of Forest visitors would see limited, discrete areas where the trees grow to an older age and larger height. These infrequent areas of older trees would also include an increased variety of shrub-layer and ground-layer species.

Similar to Alternative A, frequently visited and scenically valued areas of the Forests would be actively managed for timber production. This alternative has a limited emphasis on scenic quality, consequently only the harvests occurring in the *most* highly valued areas along main roads and trails would stress maintaining a natural appearance. The relative importance of maintaining a natural appearing forest is not as prominent in this alternative as under Alternatives B, D, and G.

### *Alternative D*

Under Alternative D, the Forests' appearance would change gradually from that of today. During the first 20 years, the primary difference seen by visitors would be the decrease of management-created openings, with the transition from timber production toward ecological succession and some restoration. Subsequent generations of Forest visitors would see an increased amount of older, taller trees of many different species. Though gradual, the eventual change in the Forests' appearance resulting from this alternative is perhaps more evident than under any other alternative.

Alternative D would produce forests that appear to have a near-continuous tree canopy. This alternative, relative to the other action alternatives, employs the least amount of large-scale disturbance mimicry. In time, the majority of the forests would be made up of older, taller trees and the general appearance of the forest would contain many different species of trees (e.g. white pine, red pine, maple, birch, aspen); and as the decades pass, the Forest visitor would see more and more large, towering white pine and more northern hardwoods. In addition to the mix of tree species, the forests would contain diversity in its vertical structure, a wide variety of shrub-layer and ground-layer species, standing dead trees, and fallen trees.

Scenic quality would take precedence over timber production in most areas seen by Forest visitors. The relative importance of sustaining a natural appearance in these areas is greatest under this alternative. Timber management certainly may occur in the most frequently visited and most scenically valued areas of the Forests, but primarily just during the first 20 years of the Plan's timeframe. Timber harvests done in these areas would stress the Forests' aesthetics rather than concentrating on maximizing timber yields.

### *Modified Alternative E*

Under this alternative, during the first 20 years, some areas of the Forests would change swiftly and abruptly. Visitors would see markedly increased sizes of newly created openings and decreased sizes of patches of continuous canopy. In the decades that follow, future generations of Forest visitors would see some perpetuation of large newly created open areas

and a mix of older forest and increased conifer growing up in the previously created openings.

This alternative would produce forests that have slightly more continuous canopy than Alternative A and frequent openings of various size up to 1000 acres. Relatively speaking, the frequency of these large openings would be lower than Alternative C, and greater than F and G. The openings' sizes, shapes, and habitat conditions, not necessarily their appearance, are intended to mimic the scale, pattern, and ecologic function of large-scale natural disturbances. In the most frequently visited and most scenically valued areas of the Forests, the large-scale openings would be designed to have a more natural appearance.

Generally, large tracts of same-aged trees would dominate views of the Forests; in the early decades of management under this alternative, the forest's general appearance would tend to be characterized by younger, smaller trees such as aspen and birch. As decades pass, there would be an increasing number of stands of later-successional species such as red pine, white pine, spruce, fir, and northern hardwoods. During the early decades of this alternative, common views of the actively managed areas of the Forest would include less diversity in vertical structure, a decreased presence of ground- and shrub-layer species, standing dead trees, and fallen trees.

This alternative places a moderate emphasis on a scenic natural appearance that features large trees. This emphasis is primarily focused in areas of the Forest where recreation use is prevalent. Timber management that may occur in these designated areas would stress the forest's aesthetics. Other frequently visited and scenically valued areas of the Forests would be actively managed for timber production, and the timber harvests done in these areas would place a lower relative emphasis on aesthetics as compared to other resource concerns. The relative importance of sustaining a natural appearance in these areas is lower under this alternative than in Alternatives B, D, or G.

#### *Alternative F*

Under this alternative, during the first 20 years, visitors would see an increase in the use of management-ignited fire and an increase in large-size, created openings. Future generations of Forest visitors would see the perpetuation of large newly created

open areas, and tracts of young trees growing up in previously created openings.

Alternative F would create forests that have slightly more continuous canopy than the existing condition and would have frequent openings of various sizes up to 1000 acres in size. The alternative uses a mix of commercial timber harvest and fire to mimic large-scale natural disturbance patterns. This alternative employs management-ignited fire more than the other action alternatives. The size, shape, and habitat conditions, not the appearance, of these openings are intended to mimic the scale, pattern, and ecologic function of large-scale natural disturbances. Areas that experienced low-intensity disturbances would be less intensively managed. In these areas, present-day visitors would see smaller openings and more continuous canopy.

The Forests would be a mix of younger and older age classes, but Forest visitors would see large tracts of uneven-aged stands of older, larger trees such as aspen, birch, red pine, and jack pine. As the decades pass, there would be an increasing number of stands of late-successional species such as red pine, white pine, spruce, fir, and northern hardwoods. Common views of the actively managed areas of the Forests would include diversity in vertical structure, a presence of ground and shrub-layer species, standing dead trees, and fallen trees.

This alternative's use of timber harvest and management-ignited fire to mimic large-scale disturbances would produce changes in some areas that would occur swiftly and abruptly, namely the markedly increased size of these newly created open areas and the decreased amount of continuous canopy. Additional, more gradual changes would center on the restoration of tracts of continuous canopy of older, larger trees such as white pine, and northern hardwoods forests. These more gradual changes in the Forests' species mix would become apparent during the lifetime of future generations of Forest visitors.

This alternative places a moderate emphasis on maintaining a natural appearance. Concern for scenic quality and natural appearance would guide management in only the most frequently visited and scenically valued areas of the Forests. This focus on natural appearance is less under this alternative than under Alternatives B, D, Modified E, or G.

### *Alternative G*

Under this alternative, during the first 20 years, some areas of the Forest would change swiftly and abruptly. Visitors would see markedly increased sizes of newly created openings and decreased sizes of patches of continuous canopy. In the decades that follow, future generations of Forest visitors would see some perpetuation of large newly created open areas and an increasing amount of older forest and increased conifer growing up in the previously created openings.

Under Alternative G, the Forest visitor would see more areas of continuous canopy and would see frequent openings of various sizes up to 1000 acres in size. This alternative would have the fewest number and frequency of these larger openings. The alternative uses a mix of commercial timber harvest and management-ignited fire to mimic large-scale natural disturbance patterns. The size, shape, and habitat conditions, not the appearance, of these openings are intended to mimic the scale, pattern, and ecologic function of large-scale natural disturbances. Areas that experienced low-intensity disturbances would be less intensively managed.

The forests would be a mix of younger and older age classes, but Forest visitors would see large tracts of uneven-aged stands of older, larger trees such as aspen, birch, red pine, and jack pine. As the decades pass, there would be an increasing number of stands of late-successional species such as red pine, white pine, spruce, fir, and northern hardwoods. Common views of the actively managed areas of the Forests would include diversity in vertical structure, a presence of ground- and shrub-layer species, standing dead trees, and fallen trees.

This alternative's use of timber harvest and management-ignited fire to mimic large-scale disturbances would produce changes in some areas that would occur swiftly and abruptly, namely the markedly increased size of these newly created open areas and the decreased amount of continuous canopy. Additional, more gradual changes would center on the restoration of tracts of continuous canopy of older, larger trees such as white pine, and northern hardwoods forests. These more gradual changes to the Forests' species mix would become apparent

during the lifetime of future generations of Forest visitors.

Compared to Alternative F, there is an increased emphasis on maintaining a natural appearance. This emphasis is applied to a larger area of the Forest than in Alternative F. Therefore, in addition to the most frequently visited and scenically valued areas of the Forest, those inherently scenic areas that receive a lesser amount of visitation would be managed to stress the Forests' aesthetics over maximizing timber production. So, these areas may be actively managed for timber production, but the harvest methods and post-harvest treatments are designed to leave a natural appearing view. This focus on natural appearance is higher under this alternative than under Alternatives C, Modified E, and F.

### **Cumulative Effects**

In general, the relationships between the alternatives and their respective SILs are also evident over the cumulative effects area. This area includes land located within, and adjacent to, the Forests' administrative boundaries, such as land owned by private individuals, land owned by the timber industry, and land owned by other government agencies and tribes. Alternatives D, B, G, and Modified E respectively, would provide for higher levels of scenic integrity than Alternatives F, A, and C.

In areas of interspersed ownership within National Forest System land, there is potential for combined effects from activities on National Forests and those evident on other ownership land. Many highly scenic locations in northern Minnesota have complex ownership patterns, and management activities occurring on non-National Forest System land that do not blend into the landscape can negatively affect the scenic experiences of Forest visitors. While most public land management agencies and commercial forest management corporations follow Minnesota Forest Resource Council's (MFRC) voluntary visual guidelines, there are no mandatory visual quality guidelines that apply to private lands. Recognizing that timber harvests may increase on non-National Forest System land because of reduced levels of timber sales on National Forest System land, the potential negative cumulative effects associated with this combined

harvesting would likely be higher under Alternatives A, C, Modified E, and F and lower under Alternatives D, B, and G.

Another relatively recent development trend is the increased conversion of adjacent forested, rural, or lakeshore land to rural residences. The development of these private lands has affected the scenic quality of the landscape of the Forests as well as the experiences of scenery viewers. This development includes signs, utility lines, electronic communication sites, access roads, residences, and business structures. Some homeowners cut or thin their timber stands to provide views. Development of agricultural lands to rural residences can result in pastoral or lakeshore landscapes changing to rural or, in higher density developments, near-urban landscapes. In some areas, summer home developments around and near lakes and rivers are defining the Forest boundaries. When structures are designed to blend into the landscape, the visual effect can be minimal. Structures and development that do not blend with the landscape can have more severe impacts. These private developments, especially around lakes and rivers are likely to increase under any alternative. However, the potential negative cumulative scenic affects would likely be higher under Alternatives A, C, Modified E, and F than in Alternatives D, B and G.

The revised Forest Plan would implement SIOs consistent with the theme and emphasis of the alternative. Meeting the SIOs would help maintain a key component of the regional tourism industry. Implementation of Alternative A would not likely result in a major change in the forest landscape seen from popular travel ways and use areas as compared to the present-day situation. Implementation of Alternative B or D would likely result, for the most part, in gradual changes to the seen landscape. Implementation of Alternatives C, Modified E, F, or G would likely result in changes that would be noticeable during the short-term and long-term. Some of these changes may be abrupt and large.

### 3.8.3 Recreational Motor Vehicles

#### Issue Statement

There is debate about the level of recreational motor vehicle (RMV) use that would provide an adequate range of recreational opportunities while not adversely affecting the environment. Forest Plan revision will determine the management direction for RMV use on roads and trails as well as in cross-country travel.

Recreational motor vehicle (RMV) is a general classification including all-terrain vehicles (ATVs), snowmobiles, off-road vehicles (ORVs), and off-highway motorcycles (OHMs). Off-highway vehicle (OHV) is also a common term used that includes only the wheeled off-road vehicles and not snowmobiles. See Table RMV-1 for a summary of RMV definitions. Refer to the glossary for complete definitions.

The seven alternatives emphasize different RMV use on the Forests by addressing the following indicators.

#### Indicator 1 - New Motorized Trails for Summer Use

The first indicator addresses the demand for designated ATV and OHM trails within the boundaries of the Chippewa and Superior National Forests. The

effects of the alternatives on new motorized trails for summer use are compared using the maximum miles of additional designated ATV trail.

#### Indicator 2 - New Motorized Trails for Winter Use

The second indicator addresses the demand for designated snowmobile trails within the boundaries of the Chippewa and Superior National Forests. The effects of the alternatives on new motorized trails for winter use are compared using the maximum miles of additional designated snowmobile trail.

#### Indicator 3 - Roads Open for RMV Use

The third indicator provides a description of the roads on National Forest System land available for public RMV use. RMV use of roads includes utilitarian access to hunting camps or other areas as well as recreation access for activities such as sightseeing and berry picking. The alternatives are compared in a qualitative effects discussion regarding the relative amount and types of maintenance level roads that may be open for RMVs.

**Table RMV-1: Recreational Motor Vehicle Definitions**

All-terrain vehicle	ATV	Motorized flotation-tired vehicle, with three to six low-pressure tires, designed to run off of maintained roads.
Off-road vehicle	ORV	Four-wheel drive vehicle capable of off-highway travel.
Off-highway motorcycle	OHM	Motorcycle designed for use off of maintained roads and commonly referred to as a "dirt bike".
Snowmobile		Motorized vehicle with tracks designed for travel over snow.
Off-Highway Vehicle	OHV	Includes ATVs, ORVs, and OHMs.
Recreational Motor Vehicle	RMV	Includes ATVs, ORVs, OHMs, and snowmobiles
Source: Minnesota Department of Natural Resources, <i>Off-Highway Vehicle Regulations</i> , 2003 – 2004.		

## Indicator 4 - ATV and Snowmobile Cross-country Travel Opportunities

The fourth indicator addresses the question of whether or not to allow cross-country ATV and snowmobile use on the Forests and if allowed, where and for what purposes. The effects of the alternatives on cross-country travel opportunities are compared using narrative descriptions.

## Indicator 5 - Consistency Among Public Land Agencies

The fifth indicator addresses the public concerns about consistent management of public lands by the Forests and other local public land agencies. Rules and regulations for RMV use currently vary by National Forest and among other agencies. In areas where land ownership is mixed, differing rules and agency policies can create public confusion. The alternatives are compared in a qualitative manner as to how consistent they would be with other agency RMV rules and regulations and how that might affect the public.

## Scope of Analysis

The analysis area includes NFS land managed by the Chippewa and Superior National Forests, excluding the Boundary Waters Canoe Area Wilderness (BWCAW). The BWCAW is not included in the analysis area because the 1964 Wilderness Act and the 1978 Boundary Waters Wilderness Act prohibit additional RMV use in wilderness. Maintenance of the snowmobile trails identified in the 1978 BWCAW Act would continue in all Superior National Forest alternatives. Snowmobiles may travel in the BWCAW on the portage from Crane Lake to Little Vermilion Lake and from Sea Gull River along the eastern portion of Saganaga Lake to Canada.

The discussion of resource effects considers the environmental impacts on the Chippewa and Superior National Forests of RMV use on proposed designated trails, some existing roads, and of RMV use in cross-country travel. Those discussions are included in the

appropriate EIS sections such as Wildlife (section 3.3, indicator 25) and Watershed Health (section 3.6, indicator 7).

This section includes the direct and indirect social effects, considering use conflicts and demand, of RMVs on trails, roads, and in cross-country travel on the Chippewa and Superior National Forests. Discussions of cumulative social effects consider the opportunities for RMV use on other ownership land within and near the Forests' boundaries and/or within the northern Minnesota or the whole State. The direct and indirect effects and cumulative effects of the alternatives are anticipated to occur during the Plan implementation period.

### 3.8.3.a Affected Environment

The affected environment includes current opportunities and projected demand in and near the Chippewa and Superior National Forests for RMV uses on roads and trails and for RMV use in cross-country travel. This section also provides a national and local overview of the issue. Information is provided for each indicator as noted; except that information on other agencies (Indicator 5) is included throughout. State Forest policies and regulations may change in the future because the State legislature, with recommendations from a citizen motorized trails task force, continues to review their RMV regulations.

#### National and Local Overview

Managing RMV use has become a national as well as a local issue. Recent actions and opinions of the Forest Service, State, and National Association of Counties are summarized below.

The Chief of the Forest Service has identified unmanaged recreation, especially the undesirable impacts from unmanaged OHV use, as one of the key threats facing the national forests and grasslands today. Concerns have been expressed over the amount of unplanned roads and trails, erosion, lack of quality OHV recreation opportunities, water degradation and habitat destruction from OHV activity. In response to this issue, in January 2004, the Chief chartered two

national teams to developed policy and tools to address this issue effectively at the field level. Results from those teams are not yet developed.

The *USDA Forest Service Strategic Plan for Fiscal Years 2004 – 2008* also identifies managing motorized recreation as one of the primary outdoor recreation opportunity goals: "...it is critical that we improve management of off-highway vehicle access and use on NFS lands to preserve high-quality experiences for all recreational users."

In 2002 the Minnesota Legislature passed a law requiring the (DNR) Commissioner to appoint a Motorized Trail Task Force to review and make recommendations to the 2003 Legislature addressing eight topics relating to OHV trails on State Forest land. Twenty-two citizens were appointed to the Task Force in June 2002. Their recommendations were published in January 2003.

The National Association of Counties passed a resolution in July 2003 regarding OHV management on public lands. They proposed that the Forest Service and Bureau of Land Management expedite the development of new travel policies and plans, as well as interim site specific plans, in conjunction with local governments and community based partnerships that require OHVs to stay on designated roads, trails, or in limited off-road use areas. Their resolution stated in part: "The range and ability of OHV to access remote public lands have placed demand on local search and rescue teams, helped to spread noxious and invasive weeds, have resulted in conflicts with other recreation users, ranchers, hunters, wildlife, and have caused environmental damage."

The Forest Plan revision project file includes examples of Chippewa NF and Superior NF RMV information that indicates effects and concerns such as those referred to above.

## Registrations

In the State of Minnesota, registrations of ATVs, OHMs, and ORVs have increased dramatically in the past five years. The number of total OHV registrations rose from about 93,000 in 1998 to 155,000 in 2002.

Snowmobile registrations have not increased dramatically in the past five years with the number of registrations remaining fairly stable at 285,000.

## Current Trail Opportunities

The Chippewa National Forest provides 20 miles of ATV trail use on the Soo Line Snowmobile/ATV Trail. The Superior National Forest provides 40 total miles of ATV trail use divided between the Big Aspen Cross-country Ski Trail (21 miles) and the Stony Spur Snowmobile Trail (19 miles). Neither Forest provides trails specifically designated for OHMs or ORVs. However, OHMs are allowed on some of the ATV trails and ORVs are allowed on some Forest roads.

The Chippewa National Forest manages 378 miles of its 681 total trail miles for snowmobile use. The Superior National Forest manages 705 miles of its 1,562 trail miles outside the BWCAW for snowmobile use. The remaining trails on the Forests are managed for non-motorized uses.

In the vicinity of the Forests, additional ATV and snowmobile trails are managed by other land management agencies. Within all of Minnesota, there are presently about 950 miles of designated ATV, OHM, and ORV trail and about 18,900 miles of designated snowmobile trail.

## Trail Demand (Indicators 1 and 2)

Demand for additional designated ATV trail mileage is discussed in a 2001 study prepared for the Minnesota DNR, *An OHV Recreation Planning Tool Based on a Survey of Resource Managers and A Survey of Off-Highway Vehicle Riders in Minnesota*, John and Michele Genereux, 2001. Demand per acre appears to be higher in the Chippewa National Forest and vicinity than in the Superior National Forest and vicinity. The study estimates a demand for 300 designated ATV trail miles in the vicinity of the Bowstring State Forest, Chippewa National Forest, and Remer State Forest. The study also estimates demand at 296 designated ATV trail miles in the vicinity of the Superior National Forest and Iron Range areas. Recreation managers of the Chippewa and Superior National Forests estimated each Forest's maximum share of the demand within their respective areas to be about 90 additional designated trail miles on each Forest.

There are no recent formal studies addressing the demand for new snowmobile trails in and around the Chippewa and Superior National Forests. Using information provided by recent proposals and discussions concerning new snowmobile routes, National Forest recreation managers estimated demand over the next 10 to 15 years to be about 100 additional designated trail miles on the Chippewa National Forest and about 130 additional designated trail miles on the Superior National Forest. The trail miles may be net increases from reroutes, connections or additional systems. One system of snowmobile trails is typically 30 miles on the Chippewa NF and 40 miles on the Superior NF.

### **Current Road Opportunities (Indicator 3)**

Current opportunities for RMV use on roads in the Chippewa and Superior National Forests can be summarized using National Forest System road classifications. Brief descriptions of unclassified roads and of the road Objective Maintenance Levels (OML) are found in the glossary and in Appendix F Transportation System. Summaries of current road miles are also located in the Transportation System Appendix. On the Chippewa NF, there are currently 324 miles of OML 1 road and 1,753 miles of OML 2 road. On the Superior NF, there are currently 883 miles of OML 1 road and 867 miles of OML 2 road. Some existing OML 1 and many existing OML 2 roads provide a good experience for utilitarian and recreational RMV use. Roads often provide a utilitarian opportunity such as access to hunting camps or fishing areas or other dispersed activities.

Snowmobile use is currently permitted during the winter on all open unplowed roads managed on both Forests.

Land management agencies within and near the Forests generally allow RMV use on their forest management roads unless the roads are closed to address resource or social considerations. In Minnesota, roads and non-designated trails on State Forest managed land that are open to ATV travel total about 7,600 miles. Opportunities also exist on county and other lands.

### **Cross-country Travel (Indicator 4)**

Current Chippewa and Superior National Forest Plans differ in their cross-country ATV and snowmobile use policies. The Chippewa National Forest prohibits cross-country travel by any motorized vehicle. The Superior National Forest allows cross-country travel by snowmobiles and ATVs unless prohibitions or restrictions are needed for resource protection to meet management objectives.

Most State Forests and counties also allow cross-country travel off roads and trails by ATVs for big game retrieval and access to hunting stands in the fall and for furbearer trapping access in season.

### **NF Public Information**

The Forests provide (and periodically update) maps that indicate appropriate uses on the higher maintenance level National Forest System roads and designated trails. Current maps do not indicate the few ATV trail mile opportunities because the maps show primary purposes of the trails and not secondary uses. The Forests also have additional public information on RMV uses, such as the Superior National Forest Off-Road Vehicles Recreation Opportunity Guide.

## **3.8.3.b Environmental Consequences**

### **Effects Common to All Alternatives**

#### **Resource Protection Methods**

Current Forest Plans encourage cooperation with, State, county, tribal, local, and other federal agencies to provide similar policies for off-road vehicle use and to describe where RMV uses can occur. An overview of the current Forest RMV policies is described in the Affected Environment (3.8.3.a). Specific goals for motorized trail construction are not addressed in the current Forest Plans. Development of motorized trails would occur following site-specific environmental

analysis using Forest Plan and Forest Service Manual and Handbook trail direction.

All alternatives emphasize cooperation with other agencies and entities when analyzing and making site-specific decisions, including site-level decisions for motorized recreation such as for determining appropriate use on roads and for considering additional designated trail. In addition, agency regulations and laws such as NEPA require project-level public involvement and environmental analysis. Public involvement would include all interested publics. Additional ATV or snowmobile trail designation would also likely require cooperative funding and/or cooperative participation in analysis, construction, and maintenance.

It is important to point out that all alternatives would have measures addressing the Lynx Conservation Strategy as it relates to winter recreation use on roads and potential new roads and trails. See the Forest Plan's Forest-wide Recreation, RMV, Transportation, and Wildlife desired conditions, objectives, standards, and guidelines for specific information.

New designated motorized trails would not be developed in management areas that have semi-primitive non-motorized (SPNM) ROS objectives. (Refer to the ROS section 3.8.1.b, Tables ROS-5, and ROS-6 for a summary of ROS class objectives by alternative.) Some non-motorized uses, such as mountain biking on motorized trails, would be discouraged to prevent use conflicts. However, other non-motorized uses, such as horseback riding and hiking that can be compatible with ATV riding, may be allowed. Access, trailhead parking, and facilities would generally be included in any project-level analysis for additional ATV or snowmobile trail designation.

If additional ATV and snowmobile trail were designated, the miles would be in addition to the existing National Forest System Trail miles open on the Forests at this time. The Forests would work cooperatively with interested publics and organizations as well as Forest-wide to find trail opportunities during project level analysis.

It is important to distinguish between road and trail riding opportunities that the Forests would provide. Roads would be identified for allowed motorized uses

but managed as roads. Roads would generally provide utilitarian opportunities for access to activities such as hunting and berry picking. Trails would be designed specifically for recreational ATV (and OHMs in some cases) or snowmobile riding and the systems would include associated trail facilities such as trailheads, off-loading areas, latrines, designed overlooks, directional signing, interpretive signing, etc. Any additional designated trail would be placed on the National Forest Trail System and managed for motorized trail riding experiences. Where existing roads can be used for the trail system, they would be redesigned and managed as part of the designated trail system. However, if existing roads have resource problems or social considerations and do not provide a good trail riding experience, they would not be used for a designated trail and may not be open to a public utilitarian motorized use.

Existing non-motorized trails are not intended to be considered for motorized trails. The Forests understand the importance to designate specific uses for trails to avoid use conflicts.

Managed motor vehicle challenge areas developed to include activities such as mud holes and scramble areas are not considered an appropriate use of the Chippewa and Superior National Forests and were not considered for development in any of the alternatives. Such areas are generally more appropriate for Urban ROS classes that are not typically provided in the two National Forests.

Although user developed and user maintained motorized routes may be found on the Forests, they are not condoned. When Forest personnel are aware of such routes, they investigate the situation and often remove and rehabilitate the route to alleviate continued resource damage.

The following would also apply to all alternatives:

- To reduce the potential for use conflicts, motorized recreation use of designated National Forest System Trails would be prohibited unless the trail is designated open for specific motorized uses such as ATVs, OHMs, and snowmobiles.
- To explain public access regulations, the Chippewa and Superior National Forests would clearly define allowed, restricted, and

prohibited RMV uses to the public. Where practical, RMV policies would be consistent with adjacent public land management agencies.

- On roads, trails, and in areas (cross-country) where RMV uses are prohibited, motorized access may be allowed for law enforcement, emergency, firefighting, maintenance, and other administrative purposes. For example, access for firefighting and mechanized cross-country ski trail grooming could be allowed.
- Areas, roads, or trails where RMV use is prohibited apply to persons with disabilities because a program cannot be fundamentally altered for the purpose of their access. However, an exception is the use of a wheelchair wherever foot travel is allowed. The legal definition of wheel chair is in the glossary.

Finally, it is important to point out that if resource protections are not effective in a specific location, Executive Order 11989 provides direction for agencies to immediately close areas or trails to off-road use if considerable adverse effects are occurring. Forest Service Manual 2355.05, #3 defines “considerable adverse off road vehicle effect” as any adverse effect that: will not meet the designation criteria as identified in FSM 2355.14; and that is or may become irreparable because of the impossibility or impracticability of performing corrective or remedial measures. In making this determination, the Forest Officer may consider the following factors:

- a. Availability of funding and manpower to prevent or correct adverse effects.
- b. Offsite (secondary) impacts.
- c. Physical and biological conditions, such as slope, vegetation, soil erodibility and compaction, surface and subsurface hydrology, site's natural rehabilitative capability, and so forth.
- d. Other social and political factors that may impair the ability to correct or prevent adverse effects.
- e. Those natural, historical, and cultural resources and areas that are susceptible to irretrievable resource damage.

## General Effects Common to All Alternatives

Motorized recreation provides pleasure to a large segment of the population by providing access to remote terrain, contact with nature, and a chance to build family ties. However, the costs of motorized recreation include soil, wildlife, and vegetation impacts and conflicts with non-motorized users. User habits and intensity of use play a role in the extent and nature of impacts. (Stokowski 2000)

Direct and indirect effects are discussed for the next 10 to 15 years (plan period). User demand and social impacts from the alternatives are discussed for each indicator. Resource impacts of potential RMV trail designation and cross-country use are discussed under the appropriate resource sections of the EIS such as Wildlife (section 3.3.8.b, indicator 25) and Watershed Health (section 3.6.1.b, indicator 7). Site-specific social and resource impacts would be addressed during project-level analysis using the Forest Plan direction.

## Noise and Emissions

General RMV noise and emissions effects are discussed in the following paragraphs. The information applies to all alternatives. Noise and vehicle emissions are concerns that would be analyzed in detail at site-specific project level analysis as needed.

Noise and emissions effects would be concentrated on designated trails during their season of use and on some roads in winter. Most road use and cross-country use by RMVs, where allowed, is generally sporadic and is expected to meet State and Environmental Protection Agency (EPA) noise and emissions standards.

Some non-motorized recreationists on the Forests may find RMV engine noise obtrusive (ARDC 2002b). However, recent local studies for proposed ATV and snowmobile trails have shown that noise impacts, where use is most concentrated, can be within federal and State standards using site-specific mitigation measures such as vegetative screening and sound-proof distances from other public use areas (MNDNR 1995a, 1997a).

Nevertheless, compliance with noise standards does not mean that everyone would find the noise level

acceptable. One of the primary complaints among non-motorized users is that the noise of RMVs destroys the solitude of natural settings. For example, it has been noted that cross-country skiers are sensitive to the presence of snowmobiles, while the reverse is not the case. This asymmetrical conflict may be due to the need for solitude, quiet, and undisturbed natural areas that characterize non-motorized recreation such as cross-country skiing. (Stokowski 2000) Different people have different sensitivities to noise.

Use of RMVs produces combustion-related emissions, including carbon monoxide, nitrogen oxides, particulates, hydrocarbons, aldehydes, and other compounds. Recent studies have shown no violations of applicable air quality standards. While it is possible under extreme worst-case conditions (worst case meteorology and/or high traffic counts of large numbers of idling vehicles) to exceed the applicable State and federal air quality standards, the effects would be localized and temporary (MNDNR 1995a, Fatagoma, 2001).

The United States Environmental Protection Agency (EPA) has recently adopted emission standards for new non-road engines. In the long-term, this would reduce total noise and emissions levels as older non-regulated vehicles are replaced (EPA 2002).

It is anticipated that all alternatives would have an effect on noise and local air quality but would be within federal and State standards. Where concerns are raised for specific areas or proposals, mitigation and monitoring techniques have been shown to be effective.

### **Administrative Use**

Administrative RMV use for law enforcement, emergency, firefighting, maintenance, and other purposes may be allowed in areas closed to public motorized use under all alternatives. Administrative use of motorized vehicles in areas closed to public motor use would be minimal and is not discussed under each indicator. Resource impacts from the occasional administrative use of an RMV on a road, trail, or in an area closed to public motor use would be minimal in all alternatives.

Where RMV use is for resource management or protection such as for prescribed fire, site-specific review for administrative use would be done to insure avoidance of sensitive plants, animals, or soils. Some RMV administrative uses could help reduce resource and social impacts (for example, use of motorized patrols in or over non-motorized areas to reduce illegal use of RMVs).

Social impacts could occur if a Forest visitor walking in an area closed to motors were startled by an employee using an RMV. The administrative RMV user should be able to explain their purpose for receiving an administrative exemption for motorized use where public motorized use is prohibited.

### **Indicator 1 - New Motorized Trails for Summer Use**

In Alternatives A, B, C, Modified E, F, and G, additional summer motorized trails may be designated for ATVs. Additional designated trail specifically designed for OHM and ORV use are not addressed. OHM users may be allowed on some designated ATV trails where the trail design for the vehicles could be similar. ORV users would be encouraged to use existing low maintenance level roads open to the public.

### **Direct and Indirect Effects**

Table RMV-2 summarizes the maximum number of additional ATV trail miles that could be designated for each alternative over the next 10 to 15 years. New motorized trails would not be designated in the following management areas:

- Wild segments of Eligible Wild, Scenic, and Recreational River
- Wilderness Study Areas
- Semi-primitive Non-motorized Recreation
- Existing or Potential Research Natural Areas
- Unique Biological, Aquatic, Geological, or Historical Areas

<b>National Forest</b>	<b>Estimated Demand</b>	<b>Alt. A</b>	<b>Alt. B</b>	<b>Alt. C</b>	<b>Alt. D</b>	<b>Mod. Alt. E</b>	<b>Alt. F</b>	<b>Alt. G</b>
		Miles	Miles	Miles	Miles	Miles	Miles	Miles
Chippewa	90	60	30	60	0	90	60	60
Superior	90	60	30	60	0	90	60	60
<b>Total</b>	<b>180</b>	<b>120</b>	<b>60</b>	<b>120</b>	<b>0</b>	<b>180</b>	<b>120</b>	<b>120</b>

Source: Project File.

*Alternatives A, C, F, and G*

The current trail systems would be maintained and there would be some opportunity for additional designated ATV trail. These alternatives, with a maximum proposed designation of 60 trail miles on each Forest, would meet two-thirds of the projected demand. They fall short of the projected demand by 30 trail miles, the equivalent length for a desirable ATV trail system.

*Alternative B*

The current trail systems would be maintained, and there would be few opportunities for additional designated ATV trail miles. With 30 miles of additional designated ATV trail proposed on each Forest, this alternative would meet one-third of current demand.

*Alternative D*

No additional RMV trail would be designated. Some existing motorized trails may be closed. This alternative would not meet current demand for ATV trail on either Forest.

*Modified Alternative E*

The current trail systems would be maintained, and there would be opportunities for additional designated ATV trail. The estimated NFS share of 90 additional designated ATV trail miles could be met on both Forests.

**Cumulative Effects**

The maximum potential additional designated ATV trail miles on National Forest System land in each alternative apply to this revised Plan period, about the next 10 to 15 years. If the supply of designated ATV

trail miles continues to be an issue during or after the revised Forest Plan period, an evaluation would be made of demand and resource concerns based on the system in place and up-to-date information.

Other cumulative effects for ATV trails include what other suppliers provide and propose to provide near the National Forests. There are approximately 115 miles of designated ATV trail on lands near the Superior National Forest with an estimated 100 miles planned. The Soo Line Snowmobile/ATV trail that crosses the Chippewa National Forest totals nearly 240 miles running from Genola to Moose Lake. Comparing demand estimates from the *Genereux* study with the number of ATV trails that adjacent recreation providers have and propose to construct, Modified Alternative E would completely contribute to current demand on all ownerships. Alternatives A, C, F, and G would not completely contribute to meeting the anticipated demand and other landowners might be able to meet the demand. Finally, Alternatives B and D would contribute very little or no miles, respectively, to the demand and it may be more difficult for other landowners to meet the demand.

**Indicator 2 - New Motorized Trails for Winter Use**

In Alternatives A, B, C, Modified E, F, and G, additional winter motorized trails may be designated for snowmobiles. Snowmobile trails could have dual designation for winter and summer use, but ATVs and OHMs would not be allowed to use snowmobile trails during the winter season.

**Direct and Indirect Effects**

See Table RMV-3 for a summary of the maximum additional designated snowmobile trail miles for each alternative over the next 10 to 15 years. New

<b>National Forest</b>	<b>Estimated Demand</b>	<b>Alt. A</b>	<b>Alt. B</b>	<b>Alt. C</b>	<b>Alt. D</b>	<b>Mod. Alt. E</b>	<b>Alt. F</b>	<b>Alt. G</b>
		Miles	Miles	Miles	Miles	Miles	Miles	Miles
Chippewa	100	100	40	100	0	100	70	70
Superior	130	90	50	90	0	130	90	90
<b>Total</b>	<b>230</b>	<b>190</b>	<b>90</b>	<b>190</b>	<b>0</b>	<b>230</b>	<b>160</b>	<b>160</b>

Source: Project File.

motorized trails would not be designated in the following management areas:

- Wild segments of Eligible Wild, Scenic, and Recreational River
- Wilderness Study Areas
- Semi-primitive Non-motorized Recreation
- Existing and Potential Research Natural Areas
- Unique Biological, Aquatic, Geological, or Historical Areas

*Alternatives A and C*

The current trail systems would be maintained, and there would be opportunities for additional designated snowmobile trail miles. The Chippewa National Forest could meet its projected demand with a maximum designation of 100 additional trail miles. The Superior National Forest’s 90-mile maximum would fall short of future demand by 40 trail miles, the equivalent of an average trail system.

*Alternative B*

The current trail systems would be maintained, and there would be few opportunities for additional designated snowmobile trail. This alternative would only provide for connections with existing systems and re-routes that add to the total National Forest System trail miles. This alternative would not meet current projected demand for additional designated snowmobile trail.

*Alternative D*

No additional snowmobile trails would be designated. Some existing motorized trails may be closed. This alternative would not meet current demand for snowmobile trail miles on either Forest. Re-routes

(around private land, to avoid steep areas, etc.) creating no new net mileage gain would be considered.

*Modified Alternative E*

The current trail systems would be maintained, and there would be opportunities for additional designated snowmobile trail. The current projected demand for new systems and re-routes could be met with implementation of this alternative.

*Alternatives F and G*

The current trail systems would be maintained, and there would be some opportunities for additional designated snowmobile trail. Each Forest would meet about 70 percent of the projected future demand, falling short of meeting demand by the equivalent of one system, 30 trail miles on the Chippewa NF and 40 trail miles on the Superior NF.

**Cumulative Effects**

The maximum potential additional designated snowmobile trail miles on NFS land in each alternative apply to this revised Plan period, about 10 to 15 years. If the supply of designated snowmobile trail miles continues to be an issue during or after the revised Forest Plan period, an evaluation would be made of demand and resource concerns based on the system in place and up-to-date information.

**Table RMV-4: Potential for RMV Use on Existing Unclassified and Classified Roads by Management Area for all Alternatives**

Management Areas	unclassified CNF all Alt. SNF Alt. D	unclassified SNF all Alt. CNF Alt. A	OML1 Both Forests	OML 2 Both Forests	OML 3, 4, 5 Both Forests Snowmobiles OHVs
General Forest	P	A	A	A	A P
General Forest - Longer Rotation	P	A	A	A	A P
Eligible Wild Rivers (SNF only)		P	P	P	P P
Eligible Scenic Rivers	P	A	A	A	A P
Eligible Recreation Rivers	P	A	A	A	A P
Recreation Use in a Scenic Landscape	P	A	A	A	A P
Semi-primitive Non-motorized Recreation	P	P	P*	P*	P* P*
Semi-primitive Non-motorized & Motorized Recreation (CNF Alt. D only)	P	A	A	A	A P
Semi-primitive Motorized Recreation	P	A	A	A	A P
Minimum Management Natural Area	P	P	A	A	A P
Unique Biological, Aquatic, Geological, or Historical Areas	P	P	CNF:A SNF:P	CNF:A SNF:P	CNF:A SNF:P P
Riparian Areas	P	A	A	A	A P
Special Management Complexes	P	P	A	A	A P
Existing Research Natural Areas	P	P	P	P	P P
Potential Research Natural Areas	P	P	P	P	P P
Experimental Forest (CNF only)	P		A	A	A P
Wilderness Study Areas	P	P	P	P	P P
Minimum Intensity Management (SNF Alt. A only)		A	A	A	A P

**Key:**

P - Prohibited A - Allowed

Where RMV use may be allowed on roads, snowmobile use would be allowed only if the road is not plowed.

\*Chippewa NF would allow motorized use on some roads pending site-level analysis.

Site-specific deviations could also occur during implementation.

**Notes:**

RMV use would generally be prohibited on newly constructed OML 1 roads in all alternatives.

ORV use would generally be prohibited on existing OML 1 roads in all alternatives.

The BWCAW MAs are not included in the chart because the BWCAW does not have roads or RMV use.

Refer to the EIS Chapter 2 for acres by MA by alternative and to Appendix F for road data by alternative.

Source: Project file.

Other cumulative effects for snowmobile trails include what other trail suppliers provide and propose to provide in Minnesota. According to the State, the primary system throughout Minnesota (about 18,900 miles) is in place and the remaining demand primarily includes connections and loops off of existing systems. A recent survey of snowmobilers in Minnesota indicated a demand for an additional 1600 miles of snowmobile trail in the State. The alternatives, except D, would contribute to meeting demand within the State to varying degrees. Of the remaining alternatives, Modified Alternative E would contribute the most and Alternative B the least, with the other alternatives in between.

### Indicator 3 - Roads Open for RMV Use

Table RMV-4 summarizes, by alternative, the Forest overall policies for potential RMV use on existing unclassified and classified roads by management area for all alternatives.

Also see the Transportation System Appendix F for a summary of the existing miles of road by OML on each Forest as well as the projected miles of road for forest vegetative management by OML for the first, second, third, and tenth decades. The Forests' inventories of existing roads will fluctuate some over time pending decisions in project level analyses. Also refer to Appendix F and the glossary for descriptions and definitions of terms used in this section.

### Effects Common to All Alternatives

#### Resource Protection Methods

To address resource impacts and access needs of roads, current policy requires that a Roads Analysis Process (RAP) be performed for Forest Plan and project level analyses to determine which roads to maintain, construct, reconstruct, or decommission, and which roads to consider for trail designation.

Management of roads in all alternatives would follow Forest Plan standards and guidelines. The direction addresses construction, maintenance, and use. For examples:

- Clearing widths for roads and trails at riparian crossings will generally be kept to the minimum needed to provide a safe and functional crossing.
- Riding in ditches would be prohibited to prevent erosion.

Based on the Forest Plan level RAP, the number and miles of OML 3, 4, and 5 roads would generally remain the same for all alternatives. Through project-level analysis, there may be a few additions and deletions of OML 3, 4, and 5 roads. For the most part, new road construction for forest management would be OML 1 and temporary roads. New OML 1 and temporary roads would generally be effectively closed to public RMVs during and after use of the road.

### Direct and Indirect Effects

#### Classified Roads

Current Forest policies differ slightly between the Forests on where RMV use on roads is currently allowed (Alternative A). At this time, both Forests generally allow licensed street-legal OHMs and ORVs on OML 3, 4, and 5 roads. The Chippewa National Forest generally allows ATV use on any National Forest System road (although use on OML 3, 4, and 5 roads is discouraged), and the Superior National Forest generally allows ATV use on OML 1 and OML 2 roads only. On both Forests, roads of any OML may be closed for resource or administrative reasons.

The direction in the revised Forest Plan for RMV use of National Forest System classified roads is nearly the same for both Forests in all action alternatives. OHV use would be prohibited on OML 3, OML 4, and OML 5 roads. ORV use (four-wheel drive trucks) would generally be prohibited on existing OML 1 roads. Existing OML 1 and OML 2 roads would be reviewed during site-level analyses to determine if they should be open or closed to public motorized use. In general, compared to current OML 1 roads, fewer existing OML 1 roads would be available for public motorized use in the action alternatives. In some situations following site-level analysis, seasonal restrictions may apply to any maintenance level of road.

Public RMV uses would generally be prohibited on newly constructed OML 1 roads in all action

alternatives in order to address recreation, wildlife, watershed health, and transportation system management concerns.

In all action alternatives, RMV use is prohibited on existing OML 1 and 2 roads in the following management areas:

- Existing and Potential Research Natural Areas
- Semi-primitive Non-motorized Recreation
- Wild segments of Eligible Wild and Scenic River MAs
- Unique Biological Areas (on the Superior NF)
- Wilderness Study Areas

In all alternatives, snowmobile use would be allowed on open unplowed National Forest System roads in those MAs that allow RMV use on roads. Snowmobile use on unplowed roads is fairly common and considered an appropriate winter recreation activity.

OML 1 roads by definition are closed to passenger car and truck (highway licensed) use. Very few of the existing OML 1 roads allow and are used by OHVs because these roads are often in low ground and designed only for winter use. For example, on the Superior NF about 485 of the 883 miles of OML 1 roads are winter roads. Therefore, it is likely that half or less of the existing OML 1 roads may continue to allow OHV use on them. Most OML 1 roads are not used for many years between harvest management uses and are obscured by brushy vegetation and berms, creating pathways difficult for OHV access. These roads are not designed for year-round use; they generally do not have surfacing or drainage or other design features that allow continuous motorized use while keeping the road and adjacent resources in good condition. Some of the OML 1 roads, particularly on the Superior NF, may remain open for snowmobile use.

Most of the existing OML 2 roads, maintained for high clearance vehicles, provide a good experience for utilitarian and recreational RMV riders. Many existing OML 2 roads that currently receive RMV use would remain open for public use. The OML 2 roads are generally narrow dead-end roads in managed forest settings. These roads often provide access to remote dispersed recreation activities such as hunting and

berry picking. Public use, motorized and non-motorized, on the existing OML 2 roads is generally low.

### **Gates**

Public use of specific roads is determined through site-level planning and use may be restricted or prohibited for a variety of resource and administrative reasons such as to protect soil, water, and wildlife, or to reduce maintenance costs. Locked gates are one of many tools used to implement road restrictions or prohibitions. Of the total road miles on the Chippewa National Forest about 464 road miles are gated and on the Superior National Forest about 90 road miles are gated. Most of the gates prohibit or restrict use on OML 2 roads. Site-specific project level decisions may change the total number of gates and associated mileage of restricted roads. Generally, public passenger vehicle travel is prohibited behind gates. However, depending on the reason for the gate, there are some gated roads where OHV use is allowed. Foot travel is generally allowed behind gated roads.

### **Unclassified Roads**

RMVs are currently allowed on unclassified roads on the Chippewa and Superior National Forests. Many unclassified roads are open unregulated corridors currently used by vehicles. RMV use on unclassified roads occurs mostly on higher ground roads in order to access fishing, hunting, and other dispersed recreation activities. Unclassified roads occur more frequently near population centers because people use their RMVs to access the Forest from their homes or other public access points.

Within the planning period, most or all of the existing unclassified roads on both Forests would be analyzed to determine if they should be added to the Forest system and maintained as a road, converted to a trail, or be decommissioned.

The Chippewa NF is more densely roaded and anticipates adding very few unclassified roads to their system. The Superior NF is less densely roaded and anticipates that some existing unclassified roads that are currently being used will be added to the road system. Roads will be reviewed during site-level analyses and decisions would be made to either rehabilitate the road or add it to the National Forest

Road or Trail System. The use of unclassified roads should be a short term issue because, during the Plan implementation period, most or all areas on the Forests will be reviewed and decisions made as to road classification status or removal.

In the Chippewa NF action alternatives and in the Superior NF Alternative D, RMV use would be prohibited on unclassified roads. RMV use would be allowed on existing unclassified roads in the remaining Superior National Forest action alternatives except in the following management areas:

- Wilderness Study Areas
- Semi-primitive Non-motorized Recreation
- Wild segments of Eligible Wild, Scenic, and Recreational Rivers
- Existing and Potential Research Natural Areas
- Unique Biological Areas
- Special Management Complexes

RMV use would be prohibited on unclassified roads in the above management areas because it is inappropriate to their theme. In the remaining management areas, unclassified road corridors would be analyzed during project level analyses to determine their future RMV travel status. Use of unclassified roads on the Superior NF does not include allowing the use of illegally user constructed or maintained routes.

It is difficult to estimate the miles of unclassified road that may be converted to classified road or trail status for forest vegetative management or for recreation use because inventory data is consistently being updated following site-level transportation analyses. On the Superior NF, some unclassified roads not on the current inventory may be designated as OML 1 and OML 2 roads for forest vegetative management needs. This information was considered in the analysis for roads needed for vegetative management in Appendix F. In addition to those roads, there may be up to 100 miles of unclassified road on the Superior NF that may be added as OML 2 roads for recreation use, except in Alternative D where unclassified road use would not be continued. The mileage estimate for unclassified roads that may be classified for recreation use was based on existing inventory information as well as professional judgment.

## Comparison of Alternatives

From an access standpoint, the alternatives differ primarily by how much potential opportunity might be available on existing unclassified and OML 1 and especially on existing OML 2 roads. Specific decisions on uses of these roads would be made during project-level analyses to address safety, social, and resource concerns.

Road management is tending towards closing existing unclassified and existing OML 1 roads not needed for public access or resource management. In general, RMVs would be allowed on some existing OML 1 roads and many existing OML 2 roads. From a motorized recreation perspective, these roads can provide RMV enthusiasts with access to dispersed activities such as hunting, fishing, berry picking, and exploration.

In the next 10 to 15 years, the Chippewa National Forest plans to decommission about 200 miles of existing (mostly OML 1) road in all alternatives. In the next 10 to 15 years, depending on the alternative the Superior National Forest would decommission from 47 to 137 miles of existing (mostly unclassified) road. Public use may or may not occur on the roads planned for decommissioning. Some of the unclassified roads have no current public use and need further work to restore vegetation and drainage. Site specific project analyses would address impacts such as on road users such as hunters who may not support decommissioning roads that may currently have motorized use. Also, if continued foot travel on a decommissioned road is a concern raised during site-specific analyses; such use would be addressed at that time along with all other Plan direction.

RMV use on the unclassified and existing OML 1 and OML 2 roads is currently minimal in most areas of the Forests and use conflicts in all alternatives are expected to be very low because of the remote nature of the roads. Non-motorized recreationists enjoy using existing unclassified and OML 1 and OML 2 roads for many of the same reasons as the motorized recreationists. The non-motorized users such as hunters or bird watchers on foot can be startled or annoyed by the motorized users. As the Forests continue to improve and provide the public with clear information on RMV opportunities, recreationists

would know whether or not to expect motorized use on a given road.

Some non-motorized users may perceive a benefit from motorized use of existing OML 1 and OML 2 roads because the use of RMVs keeps the vegetative growth down, creating better foot travel.

During the next 10 to 15 years on both Forests, motorized recreation use opportunities on existing OML 1 roads would be reduced under all alternatives. Alternative C would have the least reduction, and Alternative D would have the most reduction.

During the next 10 to 15 years on the Chippewa National Forest, motorized recreation use opportunities on existing OML 2 roads would be reduced in all alternatives. Alternative C would have the least reduction, and Alternative D would have the most reduction.

During the next 10 to 15 years on the Superior National Forest, Alternative C would provide the most existing OML 2 motorized recreation road use opportunities, and Alternative D would provide the least. Alternatives A and Modified E would provide less than Alternative C but more than Alternatives F, G, and B.

### **Cumulative Effects**

Cumulative effects include total public access roads within the National Forests and the estimated maximum road opportunities if the Forests were to be managed under an alternative for 100 years. The current trend is for land management agencies and entities to review roads for appropriate uses. For example, the State is currently inventorying all roads and trails in State Forests and identifying roads and trails appropriate for OHV use.

Roads within the National Forest boundaries and managed by all public land managers total 4,600 miles on the Chippewa and 6,200 miles on the Superior. As previously discussed, the National Forest System OML 1 and OML 2 roads could provide RMV riding opportunities. It is difficult to estimate the number of miles of roads inventoried on other lands that are

specifically open to RMVs at this time. However, most State and county forest management roads are currently available for OHV use. In the future, based on preliminary results of State Forest inventories, it is likely that the number of roads that would be available for RMV uses on State and county roads will decrease.

The Transportation System Appendix F includes a summary of roads by OML for each alternative, which could be maintained on the National Forest Road System, assuming continued management under all the alternatives for 100 years. However, newly constructed roads would generally only be available for foot traffic.

When considered in conjunction with all other road providers within and near the National Forests, Alternative D would contribute the least number of road miles and Alternative C would contribute the most. The remaining alternatives would contribute similar totals of National Forest System roads.

### **Indicator 4 – ATV and Snowmobile Cross-country Travel Opportunities**

Cross-country OHM and ORV use would not be allowed in any alternative. Where cross-country ATV use is allowed in an action alternative, it would be restricted to big game retrieval and furbearer trapping access.

Cross-country motorized recreation involves travel off roads and trails. In all alternatives, any cross-country use of motorized vehicles would be limited to ATVs and snowmobiles. The regulations for allowed cross-country uses vary by alternative and National Forest. See Table RMV-5 for a summary of cross-country ATV and snowmobile opportunities in each alternative for each Forest.

Direct and indirect effects that could occur during Plan implementation of cross-country ATV and snowmobile use are discussed separately. Cumulative effects are summarized together.

**Resource Protection Methods**

Cross-country ATV and snowmobile use where described as “allowed” could occur unless prohibitions or restrictions are needed for resource protection to meet management objectives.

*Cross-country ATV Travel - Effects Common to All Alternatives*

Cross-country ATV travel on NFS land falls into three categories for regulation:

1. Allowed
2. Allowed only for big-game retrieval in the fall and only for furbearer trapping access in season
3. Prohibited

Alternative A on the Superior National Forest is the only alternative where cross-country ATV use is allowed for any purpose.

Although cross-country ATV use would be allowed for big game retrieval and furbearer trapping access in Alternative C, Forest Plan standards and guidelines would prohibit any cross-country ATV use in the

following Management Areas in Alternative C:

- Semi-primitive Non-motorized Recreation
- Wild segments of Eligible Wild, Scenic, and Recreational Rivers
- Experimental Forest
- Riparian Areas
- Existing and Potential Research Natural Areas
- Unique Biological, Aquatic, Ecological, or Historical Areas

Cross-country ATV use is not appropriate in these management areas. Prohibiting cross-country ATV use in the above management areas amounts to about 5 percent of the Chippewa NF and about 0.3 percent of the Superior NF outside the BWCAW.

*Cross-country ATV Travel - Direct and Indirect Effects*

The Chippewa National Forest does not currently allow cross-country ATV use. On the Superior National Forest, cross-country ATV travel is currently allowed for any purpose provided an area is not specifically closed to such use.

<b>Table RMV-5: Cross-country OHV and Snowmobile Policies for Alternatives</b>								
<b>Forest Emphasis</b>	<b>Current Policy</b>	<b>Alt. A No Action</b>	<b>Alt. B</b>	<b>Alt. C</b>	<b>Alt. D</b>	<b>Mod. Alt. E</b>	<b>Alt. F</b>	<b>Alt. G</b>
<b>CNF</b> OHV Cross-country	Prohibited	Prohibited	Prohibited	*ATV big game retrieval and furbearer trapping access only.	Prohibited	Prohibited	Prohibited	Prohibited
<b>CNF</b> Snowmobile Cross-country	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited
<b>SNF</b> OHV Cross-country	Allowed	Allowed	Prohibited	*ATV big game retrieval and furbearer trapping access only.	Prohibited	Prohibited	Prohibited	Prohibited
<b>SNF</b> Snowmobile Cross-country	Allowed	Allowed	Allowed *	Allowed *	Prohibited	Allowed *	Allowed *	Allowed *
Source: Project file. Notes: *See EIS for exceptions by Management Area. Site-specific deviations could also occur during implementation.								

Most of the use off classified National Forest System roads and trails occurs on existing unclassified road corridors. Due to the Superior National Forest's dense vegetation, very little use actually occurs off of existing disturbed corridors. Nevertheless, there are some areas where resource and social impacts occur from cross-country ATV use. It is difficult to quantify those areas. However, when problems become evident, the situations are analyzed and changes made.

Alternative A on the Superior National Forest would continue to allow cross-country ATV travel for any purpose. Alternative C on both Forests would allow cross-country ATV travel for big game retrieval and furbearer trapping access only. The intent of Alternative C was to be more consistent with current State Forest regulations for cross-country ATV use. However, the State also allows cross-country ATV access to deer stands as well as for big game retrieval and furbearer trapping access.

Social concerns of allowing cross-country ATV use include conflicts with and benefits to hunters and other recreationists traveling cross-country on foot. It can be disturbing for non-motorized recreationists to encounter ATVs off roads and trails, particularly in distant or secluded areas. The noise and intrusion of the modern world into nature can compromise the enjoyment of non-motorized recreationists. (Stokowski 2000) As discussed under road use concerns, providing clear public information on RMV regulations will help the public know whether or not to expect motorized use in an area.

Use conflicts with hunters or other recreationists on foot could occur, particularly in the fall. Allowing cross-country ATV travel only for big game retrieval and furbearer trapping purposes minimizes the number of conflicts compared to allowing cross-country ATV use for any purpose.

According to a State of Minnesota Study, *Minnesota Deer Hunter's Opinions and Attitudes Toward Deer Management*, 21 percent of deer hunters use an ATV while hunting deer. Of the 21 percent of deer hunters, 50 percent use the ATV for retrieving their deer carcasses. Similar statistics are not available for trapping use, but it is estimated to be very few trappers therefore, this use is estimated to be low.

On the Chippewa National Forest Alternative A and in Alternatives, B, D, Modified E, F, and G on both Forests, cross-country ATV travel would be prohibited. This policy, of course, eliminates the potential for use conflicts. Those ATV users who have been accustomed to driving their machines cross-country would have to find other means to access areas off National Forest System roads and trails.

#### *Cross-country Snowmobile Travel - Effects Common to All Alternatives*

Management of cross-country snowmobile travel varies by alternative and National Forest and would be either allowed or prohibited.

On the Chippewa National Forest, cross-country snowmobile travel is currently prohibited (Alternative A) and would continue to be prohibited in all alternatives. Allowing cross-country snowmobile use on the Chippewa National Forest was not included in any alternatives for the following two reasons:

- 1.) The Chippewa National Forest has adequate snowmobile opportunities on its designated snowmobile trails and its unplowed road systems.
- 2.) Snowmobilers on the Chippewa National Forest do not need to travel cross-country to access fishing areas because trails, roads, and public water access sites provide sufficient access to water.

On the Superior National Forest, cross-country snowmobile travel is currently allowed (Alternative A) outside the BWCAW. In Superior National Forest Alternative D, cross-country snowmobile use would be prohibited because the majority of the alternative has a semi-primitive non-motorized ROS class objective. In the Superior National Forest Alternatives B, C, Modified E, F, and G, cross-country snowmobile use would be prohibited within the following Management Areas:

- Wild segments of Eligible Wild, Scenic, and Recreational Rivers
- Semi-primitive Non-motorized Recreation Areas
- Existing and Potential Research Natural Areas
- Unique, Biological Areas
- Wilderness Study Areas

Cross-country snowmobile use in these management areas is not appropriate. Prohibiting cross-country snowmobile use in the above management areas amounts to about 0.3 percent of the Forest outside the BWCAW in Alternatives A and C, 24 percent in Alternative B, 2 percent in Modified Alternative E, and 3 percent in Alternatives F and G.

The existing cross-country snowmobile travel on the Superior National Forest usually involves access to lakes for ice fishing (and during trapping season to a lesser degree). Because snowmobiles have gotten larger and most are built specifically for use on maintained trails, the machines are very difficult for users to take off roads or trails. Cross-country routes are usually along frozen snow-filled drainages with little vegetation.

#### *Cross-country Snowmobile Travel – Direct and Indirect Effects*

Social concerns include benefits to and conflicts with silent sport enthusiasts (i.e. cross-country skiers, sled dog mushers, and snowshoers) who may travel cross-country in areas also used by snowmobilers. In all the Chippewa National Forest alternatives and Alternative D on the Superior National Forest, use conflicts should not occur because cross-country snowmobile use would be prohibited.

For the Superior National Forest Alternative A, and in management areas in Alternatives B, C, Modified E, F, and G on the Superior National Forest where cross-country snowmobile travel is allowed, some non-motorized recreationists may find the machines obtrusive while others may appreciate the compacted snow tracks which make it easier for them to travel over the snow. As previously stated, providing clear RMV regulatory information will help the public know whether or not to expect motorized use in an area.

Cross-country snowmobile travel on the Superior National Forest in Alternative D and in some management areas in Alternatives B, D, Modified E, F, and G is prohibited. Prohibiting cross-country snowmobile use on the Superior National Forest would eliminate the current practice of traveling cross-country to lakes and rivers for fishing. There would be a number of people impacted who now travel cross-country to lakes in winter using a snowmobile.

Nevertheless, some non-motorized recreationists would appreciate the opportunity to travel cross-country without the possibility of encountering a snowmobile.

#### **Cumulative Effects**

Cumulative social effects could be greater on adjacent ownership in alternatives where cross-country use is prohibited. In those alternatives where cross-country use is prohibited, ATVers and snowmobilers who now travel cross-country on the National Forests could be displaced and concentrated on adjacent land where cross-country use is allowed.

Cumulative social effects of cross-country ATV and snowmobile opportunities also include a description of opportunities on other public lands. This information is included below in the discussion of consistency among public land agencies.

#### **Indicator 5 - Consistency among Public Land Agencies**

##### **Effects Common to All Alternatives**

State and county agencies, and the tribes are the primary land managers within and adjacent to the Minnesota National Forests. Differing regulations in mixed land ownership can make it difficult for the public to know where various regulations apply. This section describes which alternatives are the most consistent with the current RMV road, trail and cross-country use policies of adjacent public land agencies.

All agencies allow OHM and ORV use only on roads and designated trails. Because the OHM and ORV policies are the same as the National Forest policies, they will not be discussed further in this section. The discussion in this section focuses on where ATV and snowmobile use can occur and how agency policies differ for such uses.

In general, tribal governments at this time do not have specific policies or ordinances for ATV use by band members. Anyone who is not a band member can

apply for a separate permit to use an ATV when hunting or fishing under permit on tribal lands.

For the most part, the State Forests and counties allow use of roads and trails unless the roads and trails are posted closed. The State Forests recently prohibited cross-country travel by ATVs with the exception for big game retrieval and access to hunting stands in the fall and for trapping access in season. Snowmobiles are allowed to travel cross-country on State Forest land. Counties allow but do not encourage cross-country ATV and snowmobile travel on county land.

### *Road use*

Management of public use on forest management roads differs among the Forests and other agencies. Forest roads on State Forest and county lands are those roads constructed, acquired, maintained, or administered for the purpose of carrying out forest resource management policies.

National Forest System roads that are used primarily for resource management access are generally classified as OML 1 and OML 2. ATVs would be allowed on many existing low maintenance level (generally many existing OML 2 and fewer existing OML 1) roads on both Forests. However, there are an unknown number of old road routes, which still appear as open, regulated corridors, on both Forests and are referred to as unknown or unclassified roads. Decisions to classify unclassified routes as roads, to make them trails, or to decommission them would be made during project level analysis. In the interim, ATVs would be allowed on these unclassified roads in most management areas in the Superior National Forest alternatives (except in Alternative D) but would be prohibited in the Chippewa National Forest alternatives, except Alternative A.

Use of forest management roads is, in the short-term, more consistent among the State Forests, counties, Chippewa NF Alternative A, and Superior National Forest alternatives (except Alternative D) because the public would be able to drive an ATV on Forest low maintenance level and unclassified roads. Use of forest management roads is less consistent with other agencies and Chippewa National Forest alternatives (except Alternative A) and Alternative D of the Superior National Forest where ATV use would be allowed on low maintenance level roads and ATV use

would not be allowed on the unclassified road corridors.

However, the concern of public confusion of where they can use an ATV on forest management roads should be alleviated in the short-term because the Forests and other agencies will continue to analyze their unclassified roads. Within five to ten years, it is anticipated that the NFS unclassified roads would be designated as classified roads or trails or be decommissioned.

### *Trail use*

Trails designated for ATV and snowmobile use on all lands are managed similarly. For example, most ATV trails are multi-use, and most snowmobile trails allow only snowmobiles during the winter season. Other trail users are often allowed on snowmobile trails during the snow-free seasons.

### *Cross-country Travel*

Cross-country use off roads and trails applies to ATV and snowmobile use. No agency allows other kinds of motorized recreational vehicles to travel cross-country. Because ATV and snowmobile policies differ, they are discussed separately.

### *Cross-country ATV Travel*

The State Forests, counties, and Alternative C for both Forests are consistent in allowing ATV cross-country travel for big-game retrieval and in the fall and during furbearer trapping access in open seasons. In addition, the State would also allow cross-country ATV access to hunting stands in the fall. The local counties would allow cross-country ATV travel in areas that are not specifically closed to cross-country ATV travel.

The small differences between the Forests' Alternative C and the State and counties are that the Forests would not allow cross-country ATV use for minnow trapping or for access to hunting stands. This could create some confusion to people hunting or collecting minnows/bait in areas of mixed ownership.

The Superior National Forest Alternative A would continue to allow cross-country ATV travel and the remaining alternatives for both Forests would not

allow any cross-country ATV travel. If the State Forests continue their policy to allow cross-country ATV travel for big game retrieval and access to hunting stands in the fall and for trapping access in season, it could be difficult for the public to know where various regulations apply in areas of mixed ownership. Providing clear public information on RMV use as planned in all alternatives could help alleviate confusion as to where cross-country ATV use is allowed.

### *Cross-country Snowmobile Travel*

The State Forests, counties and Superior National Forest Alternative A are consistent in allowing cross-country snowmobile use. Generally, the counties allow cross-country snowmobile travel but do not encourage it.

The Superior National Forest Alternatives B, C, Modified E, F, and G are more consistent with State Forests and counties than the Chippewa National Forest and Superior National Forest Alternative D. Superior National Forest Alternatives B, C, Modified E, F, and G allow cross-country snowmobile use in most but not all management areas. The Chippewa National Forest alternatives and Superior National Forest Alternative D would prohibit cross-country snowmobile use. It could be difficult for the public to know where they can travel cross-country with their snowmobile when they are in areas of mixed ownership. Providing clear public information on RMV use as planned in all alternatives could help alleviate confusion as to where cross-country snowmobile use is allowed.

### **Cumulative Effects**

Most of this section actually discussed cumulative effects from the standpoint of adjacent landowner's policies. The temporal cumulative effect relates to potential future regulations. Because the State of Minnesota continues to review recommendations from their Motorized Trails Task Force, it is possible regulations on State Forest lands could change. The Forests would continue to work with the State and if regulations change, they may review their policies for consistency as well as for social and resource concerns. The same would be true if other public land managers changed their policies.

### 3.8.4 Water Access

#### Issue Statement

There are different public opinions concerning the amount of water access development that should be provided by the Chippewa and Superior National Forests. Forest Plan revision, taking ecological, social, and economic criteria into consideration, will establish management direction for the quantity and types of access to bodies of water.

#### Water Access Site Facility Level of Development

The indicator for water access is the emphasis on facility development levels for new water access sites in each alternative. Facility development level refers to the types of facilities and amenities at a site; it is not the potential number of new sites. A low, moderate, or high development level emphasis is described for each alternative. Most alternatives would have a variety of development levels with some emphasis on a particular level.

This indicator shows differences in recreational use impacts due to the emphasis on types of facilities that may be developed at water access sites on NFS land in an alternative. See Table WTA-1 for examples of low, moderate, and high facility development levels.

<b>Level of Development</b>	<b>Examples of Water Access Development</b>
<b>Low</b>	Water-side trail
	Carry-in access
	Backcountry latrine
	Portage
<b>Moderate</b>	Fishing Deck
	Dock large enough for single users and single activities
	Gravel or natural surfaced single-lane ramp
	Small picnic area (1-3 tables)
<b>High</b>	Toilet building
	Fishing pier
	Concrete surfaced single or double lane ramp
	Kiosk
	Picnic area (3 + tables)
	Dock large enough for multiple users and multiple activities
	Lighting and electricity
	Potable water
Fish cleaning station	

#### Scope of Analysis

The analysis area includes Chippewa and Superior National Forest System land adjacent to bodies of water. Lakes (993 total) and rivers within the Boundary Waters Canoe Area Wilderness (BWCAW) are not included in the analysis area. Direction for BWCAW water access management can be found in the BWCAW Management Area direction. Changes to BWCAW management were not included in the Plan revision process. The BWCAW water access opportunities, which are nearly all at a low development level, would contribute the same to all alternatives in the short and long-term.

The discussion of direct and indirect effects considers the development of National Forest water access sites only, while the discussion of cumulative effects considers the development of water access sites on other public and private lands in and near the Chippewa and Superior National Forests.

<b>Table WTA-2: Water Classifications and Abbreviations</b>		
<b>Lakes</b>	<b>GD</b>	<b>General Development:</b> Larger lakes with mixed ownership, with extensive shoreline development, and used extensively for recreation.
	<b>R</b>	<b>Recreation Development:</b> Medium size lakes with some private ownership, some development, and with moderate recreation use.
	<b>NE</b>	<b>Natural Environment:</b> Smaller lakes with primarily public ownership, low development, and low recreation use.
	<b>Und</b>	<b>Undesignated:</b> Lakes greater than 10 acres and generally less than 25 acres without a classification. Undesignated lakes will be treated as NE lakes until a coordinated classification is made with the State and county.
<b>River Segments</b>	<b>RcR</b>	<b>Recreation River:</b> Rivers in areas with moderate to high road densities, mixed land ownership, and moderate to high recreation use.
	<b>FR</b>	<b>Forested River:</b> Rivers in areas with some roads, mixed land ownership, and moderate recreation use.
	<b>RmR</b>	<b>Remote River:</b> Rivers in primarily unroaded areas with primarily public ownership and generally low recreation use.
	<b>TS</b>	<b>Trout Stream:</b> Streams managed by the State for recreational fishing.
Sources: Minnesota Department of Natural Resources Division of Waters, Statewide Standards for Management of Shoreland Areas, July 3, 1989 and county implementation regulations.		

### 3.8.4.a Affected Environment

The Chippewa and Superior National Forests use the lake and river classifications described in the 1989 Minnesota Department of Natural Resources Shoreland Management Classification System. The local counties have adapted these classifications.

Tables WTA-2 through WTA-6 show the current types and numbers of water access sites for each water classification on the two Forests. The classifications in the inventories include lakes larger than 25 acres. The undesignated lakes listed are generally between 10 and 25 acres in size. The river inventories were based on the county inventories. Navigable rivers with potential for access were also included in the inventories.

A variety of facilities currently provide water access to a large percentage of the lakes and river segments on each Forest. Over half of the lakes on each Forest have water access of some kind (65 percent of the lakes on the Chippewa and 57 percent of the lakes outside the BWCAW on the Superior). All the classified river segments on the Chippewa National Forest have some form of access. Fifty percent of the classified river segments on the Superior National Forest have access.

A large percentage of the lakes and river segments have user-developed accesses. User developed accesses are ramps or carry-ins that have been developed by users or through use and are not currently managed as a water access site. Users have developed accesses to almost 50 percent of the Chippewa National Forest and about 35 percent of the Superior National Forest lakes with known access. Forty-three percent of the Chippewa National Forest river segments and 29 percent of the Superior National Forest river segments have user-developed accesses.

Current Forest Plans projected the development of 7 new water access sites on the Chippewa National Forest; and since 1986, 6 new water access sites have been constructed on the Chippewa National Forest. On the Superior National Forest, 15 new water access sites on the Superior National Forest were projected in the 1986 Forest Plan, and 7 new sites have been built since 1986. These new water access sites were constructed in cooperation with the State of Minnesota and/or local counties.

A Minnesota DNR study, *Boating in North Central Minnesota, Status in 1998 and Trends Since 1985*, found that, although the number of boat registrations has increased 20 percent in the past 15 years, the number of boats on the water has remained stable. In other words, more people have boats today, but they do not use them as much as they did 15 years ago. The study also showed that boat lengths and motor

sizes have increased since 1985. In general, the larger boats and motors are used on the larger lakes.

Although boating use has remained stable, the Forests continue to receive some requests for improvements at existing water access sites or for the development of new water access sites. The requests sometimes reflect a desire to reconstruct existing water access site facilities in order to accommodate the larger boats and motors that many people now own.

On adjacent public and private land, there are currently many other water access opportunities. Based on the MNDNR Public Water Access brochures for counties that cover the Chippewa National Forest, there are about 286 public water access sites in Itasca, Upper Cass and Beltrami counties managed by the State, counties, townships, and cities. Based on the MNDNR Public Water Access brochures for counties that cover the Superior National Forest, there are about 213 public water access sites in St. Louis, Cook, and Lake Counties managed by the State, counties, townships, and cities. In addition to public water access sites, there are numerous private opportunities provided by resorts and other commercial enterprises in northern Minnesota.

Type of Access	GD	R	NE	Und	Total
Developed Ramp	10	52	22	3	87
User Developed Ramp	0	8	11	1	20
Developed Carry-in	0	6	32	6	44
User Developed Carry-in	0	16	166	22	204
Portage	0	5	76	10	91
No Developed or User Developed Access	0	27	187	34	248
Unknown	0	1	8	0	9
<b>Total</b>	<b>10</b>	<b>115</b>	<b>502</b>	<b>76</b>	<b>703</b>

Source: Forest Lake Class and Access Type database and GIS layer.  
See Table WTA-2 for explanation of acronyms and definitions.  
See glossary for definitions of access types

Type of Access	GD	R	NE	Und	Total
<b>Outside BWCAW</b>					
Developed Ramp	5	57	30	0	92
User Developed Ramp	0	2	2	0	4
Developed Carry-in	1	11	54	0	66
User Developed Carry-in	2	14	140	0	156
Portage	0	13	125	0	138
No Developed or User Developed Access	2	2	297	41	342
Unknown	0	1	3	0	4
<b>Total</b>	<b>10</b>	<b>100</b>	<b>651</b>	<b>41</b>	<b>802</b>
<b>BWCAW Lakes*</b>	<b>0</b>	<b>0</b>	<b>993</b>	<b>0</b>	<b>993</b>

Source: Forest Lake Class and Access Type database and GIS layer.  
See Table WTA-2 for explanation of acronyms and definitions.  
See glossary for definitions of access types  
\* BWCAW lakes were not classified but have characteristics similar to Natural Environment lakes

### 3.8.4.b Environmental Consequences

A discussion of resource impacts relating to the quantity and facility level of development can be found in the appropriate resource sections of this EIS such as in Wildlife (section 3.3.8.b, indicator 25) and in Watershed Health (section 3.6.1.b, indicator 7). Social and recreational impacts to the water access site user are discussed in this section.

### Effects Common to All Alternatives

#### Resource Protection Methods

Current Forest Plans provide little direction for analyzing the development of new water access sites. Management direction in all the action alternatives would include more specific desired conditions, objectives, standards, and guidelines to address resource and social concerns when analyzing proposals for new water access sites.

In all alternatives, the Forests would provide a range of water access sites with related recreation opportunities on lakes and river segments. Levels of facility development or improvements would be appropriate to the lake and river classification, ROS objective, and theme of the management area and alternative. Some lakes and river segments would not have any developed water access sites. Existing water access sites that exceed the ROS objective would generally be permitted until they could be managed to meet the intended ROS objective.

In alternatives that have Semi-primitive Motorized Recreation, Semi-primitive Non-motorized Recreation, Research Natural Areas, and Potential Research Natural Management Areas, the road or trail access to and facilities at water access sites would generally meet development levels described for Natural Environment Lakes and Remote River segments. Low

facility development levels for water access sites are appropriate to the desired conditions of those management areas.

All water access sites would be managed in a manner consistent with health and safety standards, resource protection, cost effectiveness, efficient maintenance, and user convenience. Associated recreational, subsistence, and commercial water uses at water access sites would also enhance or maintain water quality; TES species, and viable populations of native species and desirable non-native species.

Due to resource and social concerns associated with user-developed sites, project level analysis decisions in all alternatives would either have the sites removed and the area rehabilitated or have the sites managed at the appropriate level.

In all alternatives, new recreation boat storage permits would generally not be allowed in order to provide equal public access to bodies of water and to eliminate resource impacts associated with boat storage. Boat storage permits would be considered only for private access if there were no other reasonable alternatives (per the Alaska National Interest Lands Conservation Act).

**Effects Common to all Alternatives (except Alternative D on the Chippewa NF) – Maximum number of New Water Access Sites**

The maximum number of new water access sites is the same for all alternatives, except Alternative D on the Chippewa National Forest where no new water accesses would be developed. In all the other alternatives, over the next 10 to 15 years, a maximum of five new accesses to bodies of water on the Chippewa National Forest and ten new accesses to bodies of water on the Superior National Forest may be constructed.

Reconstruction that would increase the capacity and type of use at a body of water is considered new access. Water access improvements that do not increase the capacity and type of use at user developed or managed sites would not be considered new access.

**Table WTA-5: Chippewa National Forest River Segment Inventory**

Type of Access	RcR	FR	RmR	TS	Total
Developed Ramp	1	3	2	0	6
User Developed Ramp	0	0	0	0	0
Developed Carry-in	0	3	1	0	4
User Developed Carry-in	0	3	7	0	10
Portage	1	1	1	0	3
<b>Total</b>	<b>2</b>	<b>10</b>	<b>11</b>	<b>0</b>	<b>23</b>

Source: Forest Lake Class and Access Type database and GIS layer.  
See Table WTA-2 for explanation of acronyms and definitions.  
See glossary for definitions of access types

**Table WTA-6: Superior National Forest River Segment Inventory**

Type of Access	RcR	FR	RmR	TS	Total
Developed Ramp	1	5	0	0	6
User Developed Ramp	0	0	0	0	0
Developed Carry-in	2	5	0	9	16
User Developed Carry-in	0	0	0	33	33
Portage	0	0	0	0	0
No Developed or User Developed Access	4	7	6	41	58
<b>Total</b>	<b>7</b>	<b>17</b>	<b>6</b>	<b>83</b>	<b>114</b>

Source: Forest Lake Class and Access Type database and GIS layer.  
See Table WTA-2 for explanation of acronyms and definitions. See glossary for definitions of access types

<b>Table WTA-7: Facility Development Level Emphasis of New Water Access Sites</b>							
<b>National Forest</b>	<b>Alt. A No Action</b>	<b>Alt. B</b>	<b>Alt. C</b>	<b>Alt. D</b>	<b>Alt. E</b>	<b>Alt. F</b>	<b>Alt. G</b>
Chippewa	H	L	H	No new	H	M	M
Superior	H	L	H	L	H	M	M
L: Low M: Moderate H: High							

The maximum number of new water access sites was based on current and projected demand. The maximum does not vary by alternative because the number is so small in relation to the number of existing water access sites that effects would not differ among the alternatives. Five new accesses would increase the percent of lakes with access on the Chippewa NF by less than one percent and ten new accesses would increase the percent of lakes on the Superior NF outside the BWCAW by just over one percent. The number of potential maximum new water access sites was needed to estimate environmental and social effects and to place a limitation on new development that would be within the estimated impacts disclosed in this EIS.

The maximum number of new water access sites would be a standard and not an objective which means that it is a limitation and not a step needed to meet a desired condition. Due to funding constraints and because maintenance of recreation facilities generally takes precedence over development of new facilities, additional water access sites would likely need cooperative funding and/or cooperative participation in analysis, construction, and maintenance. Assuming the maximum numbers of new sites are added, an appropriate number of access sites should be available in all alternatives (except Alternative D on the Chippewa NF) because the maximum number of new water access sites is the same in all alternatives.

In the next 10 to 15 years, in all alternatives (except Alternative D on the Chippewa NF), the public can expect to continue to use most existing water access sites and see a few more new or reconstructed water access sites on each Forest. However, since the alternatives differ by the emphasis on level of development at existing or new sites, the public may see a slight shift in kinds of uses and facilities. Those differences are summarized in the following section.

### Direct and Indirect Effects

Table WTA-7 summarizes the emphasis on the facility development level for new water access sites in the alternatives for both Forests (see Table WTA-1 for examples of low, moderate, and high). The direct and indirect effects on public use from an alternative’s facility development level emphasis over the next 10 to 15 years are discussed in this section. Long-term effects (15 or more years) are also estimated.

### Water Access Site Facility Level of Development

#### Alternative A

In Alternative A, potential new water access sites would have facilities at a variety of development levels. There would be some emphasis on high facility development levels such as double-lane drive-down concrete plank ramps.

Compared to the existing condition, the public would continue to see motorized and non-motorized uses where those uses occur now. If the maximum number of new access sites were built, the public may also see use on lakes and rivers where no development currently exists. If new motorized water access sites are developed where non-motorized water recreation use currently exists, the present users may find the sights and sounds of motor boats offensive.

In the long term, the public may notice an increase in water recreation use throughout the Forests due to the strong emphasis on water access in this alternative. The trend of seeing larger boats and motors would likely continue.

### *Alternative B*

Potential new water access sites would have facilities at a variety of development levels with an emphasis on low facility development levels such as carry-in accesses. New drive-down access ramps would not be developed on Natural Environment lakes. Existing highly developed sites on some bodies of water that do not meet standards may be modified to a low or moderate level of development when practical.

Compared to the existing condition, the public would continue to see non-motorized uses on bodies of water where those uses occur now. They may also see use on lakes and rivers where no development currently exists if the maximum number of new access sites is built. Most potential new water access sites would likely be non-motorized, thus reducing the likelihood of motor boat sight and sound impacts on lakes where developed access presently does not exist.

In the long-term, the public may notice less water recreation use throughout the Forests due to a decreased emphasis on highly developed water access sites. Over time, the public may also see a slight decrease in the size and use of boats and motors.

### *Alternative C*

Potential new water access sites would have facilities at a variety of facility development levels with an emphasis on high development levels such as double-lane drive-down concrete plank ramps. Of all the alternatives, Alternative C would allow the highest degree of facility development levels at new water access sites because the Forests would work actively to develop additional high facility development level water access sites.

Compared to the existing condition, the public would see more motorized and non-motorized uses on bodies of water where those uses occur now. They may also see use on lakes and rivers where no development currently exists if the maximum number of new access sites is built. If new motorized water access sites are developed where non-motorized water recreation use currently exists, the present users may find the sights and sounds of motor boats offensive.

In the long term, the public may notice more water recreation use throughout the Forests due to an

increased emphasis on highly developed water access. The trend of seeing larger boats and motors would likely continue.

### *Alternative D*

No new water access sites would be constructed on the Chippewa National Forest in Alternative D.

Potential new water access sites on the Superior National Forest would have facilities at a variety of development levels with an emphasis on low development levels such as carry-in accesses. In addition, new drive-down access ramps would not be developed on Natural Environment lakes on the Superior National Forest.

On both Forests, existing highly developed sites on some water bodies that do not meet standards may be modified to a low or moderate level of development when practical.

Compared to the existing condition, the public would continue to see non-motorized uses on bodies of water where those uses occur now. On the Chippewa National Forest, they would not see any new water access sites. On the Superior National Forest, they may see use on lakes and rivers where no development currently exists if the maximum number of new access sites is built. Most potential new water access sites would likely be non-motorized, thus reducing the likelihood of motor boat sight and sound impacts on lakes where developed access presently does not exist.

In the long term, the public may notice less water recreation use throughout the Forests due to a decreased emphasis on development of moderate and high facility development level water access sites. Over time, the public may also see a slight decrease in the size and use of boats and motors.

### *Modified Alternative E*

Potential new water access sites would have facilities at a variety of development levels with some emphasis on high facility development levels such as double-lane drive-down concrete plank ramps.

This alternative, similar but to a lesser degree than Alternatives A and C would allow a variety (tending towards high) of facility development levels at new

water access sites because the Forests would work actively to develop additional water access sites. However, Modified Alternative E differs from Alternatives A and C in that facilities at Natural Environment lakes and small bodies of water would generally be limited to low facility development levels in order to maintain existing aquatic environments at those lakes as well as to provide recreation opportunities at the more remote end of the spectrum.

Compared to the existing condition, the public would see more motorized and non-motorized uses on bodies of water where those uses occur now. They may also see use on lakes and rivers where no development currently exists if the maximum number of new access sites is built. If new motorized access sites are developed where non-motorized water recreation use currently exists, the present users may find the sights and sounds of motor boats offensive.

In the long term, the public may notice more water recreation use throughout the Forests due to an increased emphasis on development of water access sites. Over time, the trend of seeing larger boats and motors would likely continue.

#### *Alternatives F and G*

Potential new water access sites would have facilities at a variety of development levels with some emphasis on moderate development levels such as single-lane drive-down gravel ramps.

Compared to the existing condition, the public would see a slight increase in motorized and non-motorized uses on bodies of water where those uses occur now. They may also see use on lakes and rivers where no development currently exists if the maximum number of new access sites is built. If new motorized access sites are developed where non-motorized water recreation use currently exists, the present users may find the sights and sounds of motor boats offensive.

In the long term, the public may notice a low to moderate increase in water recreation use throughout the Forests due to the alternative's moderate development level emphasis on water access. Over time, the public may also see a slight increase in the size and use of boats and motors.

### **Cumulative Effects of all Alternatives**

This section includes a discussion of water access facility development levels on other ownerships combined with access on NFS land during the Plan implementation period (10 to 15 years). Demand for additional access and associated facility development levels beyond the Plan implementation period was not estimated because information was not available. However, the demand and resource and social impacts could be reevaluated at any time and the Plan would be amended.

Planned construction and improvements on other public and private lands is difficult to estimate, especially for private land. At this time, the State focuses on expansion and rehabilitation of existing sites to accommodate the increased average size of boats and motors. This generally involves high facility development levels. The State estimates reconstruction of about 35 water access sites and construction of about five new water access sites throughout the entire State each year. They anticipate that the current rate of reconstruction and construction may continue over the next 10 to 15 years. Similar information is not available for potential new development on private land.

Alternatives B and D would be the least consistent with State and other public water access projects which generally address the demand for facilities that accommodate larger boats and motors. Alternatives A, C, and Modified E would have facility development levels similar to State projects. In terms of consistency with State facility development levels, Alternatives F and G would be more consistent than Alternative B and D but would be less consistent than Alternatives A, C, and Modified E.

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