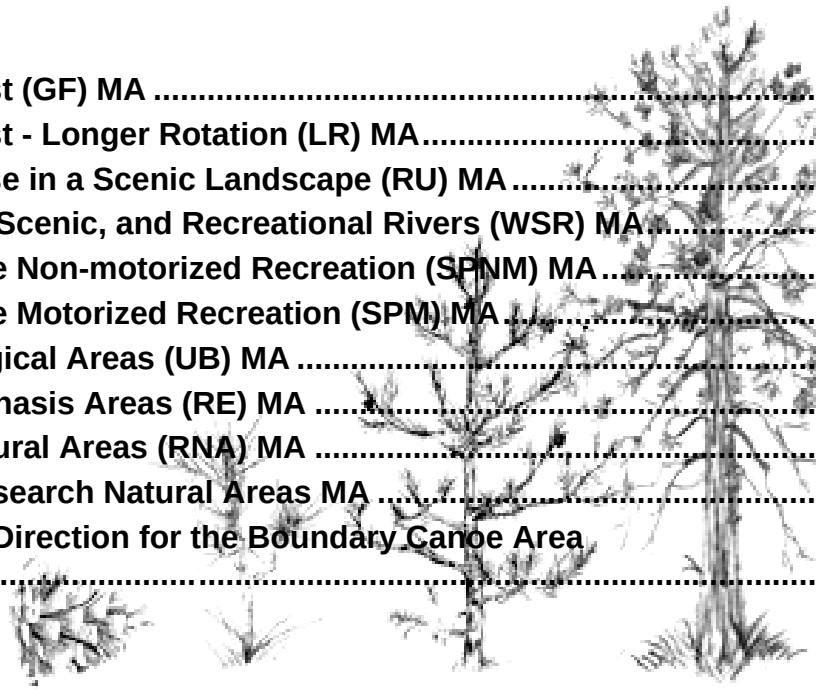
Chapter 3 Management Area Direction



Introduction

Chapter 3 presents management direction for specific management areas (MA). Forest-wide management direction, found in Chapter 2, also applies to all MAs, unless more specific direction for the MA is in Chapter 3.

MA direction was developed to be appropriate for the variety of different uses and resources in the MAs.

All management practices may be used in the MAs that have suitable timber land.

Relationship of Management Areas and Landscape Ecosystems

In designing projects that work toward reaching the desired conditions for an MA, managers will consider both MA direction and Landscape Ecosystem (LE) objectives. LE direction, in Chapter 2, provides vegetation objectives for forest type, forest age, and tree species diversity objectives. The LE objectives apply across an entire LE, whereas desired conditions and objectives for MAs describe what is desired socially and economically within a specific MA. This management direction provides a framework within which to manage vegetation by considering multiple-use and other resource desired conditions. In summary, proposed projects must reflect the blend of both MA and LE direction.

Abbreviations

MA	Management Area
D	Desired Condition
O	Objectives
S	Standard
G	Guideline
GF	General Forest MA
LR	General Forest - Longer Rotation MA
RU	Recreation Use in a Scenic Landscape MA
WSR	Eligible Wild, Scenic, and Recreational Rivers MA
SPM	Semi-primitive Motorized Recreation MA
SPNM	Semi-primitive Non-motorized Recreation MA
UB	Unique Biological Areas MA
RE	Riparian Emphasis Areas MA
RNA	Research Natural Areas MA

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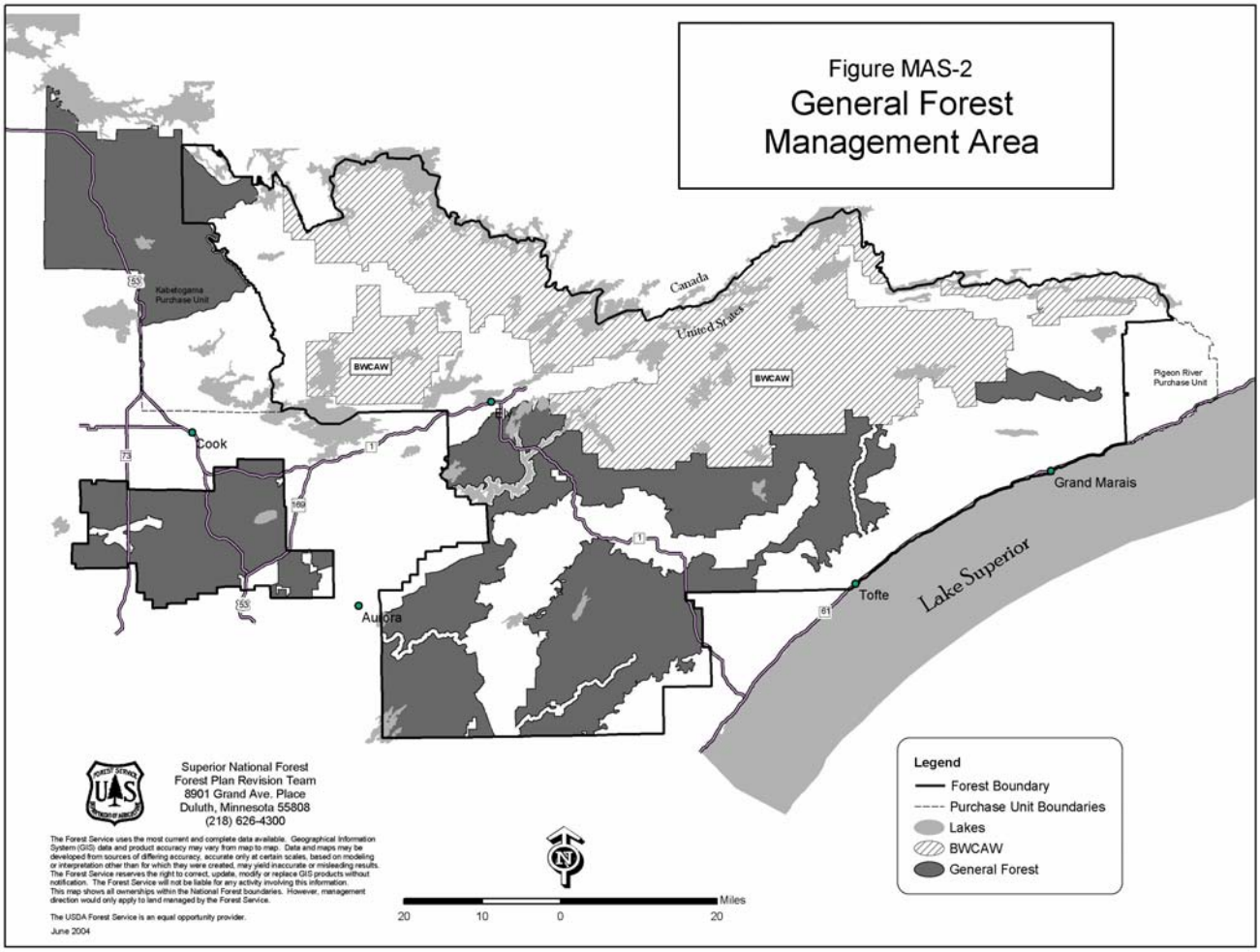
General Forest (GF) MA

Suitable Timber land in the General Forest MA	
	Acres
Total NFS land in the MA	640,443
NFS land suitable for timber management	476,892
NFS land not suitable for timber management	163,551

Landscape Ecosystems in the General Forest MA	
Landscape Ecosystem	Percent of MA
Dry Mesic Jack Pine/Black Spruce	22%
Dry Mesic Pine	16%
Lowland Conifer	26%
Mesic Aspen/Birch/Spruce-fir	22%
Mesic Pine	12%
Rich Swamp	2%
Sugar Maple	<1%
Total	100%



Theme

General Forest MAs emphasize land and resource conditions that provide a wide variety of goods, uses, and services. These include wood products, other commercial products, scenic quality, developed and dispersed recreation opportunities, and habitat for a diversity of terrestrial and aquatic wildlife and fish. Numerous roads open to public travel provide access to resources and roaded recreation opportunities. Non-motorized recreation opportunities also occur.

Compared to other management areas, the General Forest MA has the most amount of young-forest and the largest sized timber harvest units.

Setting

The General Forest MA is located throughout the Forest and applies to large acreages of the Forest.

Three-fourths of the General Forest MA is suitable for timber management. Three Landscape Ecosystems dominate this MA: Lowland Conifer, Jack Pine Black Spruce, and Mesic Aspen/Birch/Spruce-fir.

Desired Conditions

Vegetation Management

D-GF-1 Forests in this management area are largely a mosaic of tree groupings of different ages and heights. Areas disturbed through management activities are generally quickly revegetated. Some recently harvested areas still have a partial canopy of older trees. The boundaries of these cut areas appear to follow natural landscape patterns.

D-GF-2 Forest vegetation communities are managed with practices that mimic ecosystem processes, mainly stand replacement disturbance. A variety of stand sizes, shapes, crown closures, age structures, and interspersions occur. Larger patch sizes are emphasized, especially those patches associated with young, even-aged vegetative conditions. Aspen, red pine, spruce/fir, white pine, jack pine, lowland conifer, and a number of northern hardwood species occur in large amounts, depending upon the landscape ecosystem.

D-GF-3 A full range of silvicultural practices is used. However, compared to the General Forest - Longer Rotation MA, there is more even-aged management.

Forest Health and Disturbance Processes

D-GF-4 Stands in this management area are generally dominated by the young to mature vegetative growth stages of the landscape ecosystem within which they lie. Management activities generally create young, even-aged forests. A mosaic of young to mature (1-150 years) trees dominates these areas. Insect and disease outbreaks are evident, but are managed to be within historical, natural levels in terms of longevity and area impacted (fulfilling ecosystem function).

D-GF-5 Forest health is maintained and management investments are protected to sustain the productivity of the area. To maintain or restore vegetation communities, natural disturbances to the landscape are mimicked through management activities such as timber harvest and management-ignited fires. Fire is also used as a tool to prepare sites for regenerating new forests and to reduce woody fuel that could cause wildfires.

Scenic Resources

D-GF-6 The forest has a fairly continuous canopy and frequent openings of various sizes up to 1,000 acres. The openings' sizes, shapes, and habitat conditions, not necessarily their appearance, mimic the scale, pattern, and ecologic function of large-scale natural disturbances. In the most frequently visited and most scenically valued areas of this MA, the large-scale openings have a natural appearance. Other, less scenic areas of this MA will be actively managed for timber production with a lower relative emphasis on scenery compared to other resource concerns.

Recreation and Access

D-GF-7 Developed recreation sites such as campgrounds, picnic sites, boat landings, observation sites, trailheads, and swimming areas may be provided for public use. Facilities may be constructed to protect the environment and provide some comfort for users. Natural or natural-appearing materials give facilities a rustic appearance. Increased site modification that reduces the rustic natural appearance may occur at existing highly developed and heavily used sites.

D-GF-8 Dispersed recreation facilities such as campsites and trails (day use, backpacking, portaging, bicycling, horseback riding, hunter walking, snowmobile, ATV use, interpretive) may be provided for public use. Other dispersed recreation opportunities that may not be associated with facilities, such as orienteering, hunting, fishing, berry picking, bird watching, wildlife viewing, and trapping, would also occur.

D-GF-9 Recreation sites will generally be spaced so as to minimize contacts between users.

D-GF-10 Many people may use this area, mostly along waterways, roads, and trails. In these more highly used areas, it is common to encounter others engaged in a wide variety of activities. In the remainder of the management area contacts between users will generally be less frequent. Vehicles associated with timber harvesting may be encountered on roads and in the woods throughout the year.

Land Adjustments

D-GF-11 Land ownership patterns (federal, State, county, corporation, and private) are consolidated, promote efficient administration, and reduce the costs of managing resources.

Facilities

D-GF-12 Buildings and structures may be provided to support resource management objectives. There may be occasional resorts, utility corridors, towers, dams, and similar structures.

D-GF-13 Roads and bridges range from one-lane surfaced with native soil or gravel to two lanes and paved surfaces.

Objectives

O-GF-1 Over the course of the planning period, vegetation will be managed to generally represent young to mature (0 to 150 year old) vegetative growth stages.

O-GF-2 Land adjustment efforts will generally be based on consolidating ownership patterns as opportunities present themselves.

O-GF-3 Acquiring land along rivers and lakes will be encouraged where significant public ownership already exists.

O-GF-4 Land adjustment objectives:

a) Acquisitions – Priority 2 or 3

b) Conveyances – Allowed

(See the glossary for priority definitions.)

O-GF-5 The ROS class objective is primarily roaded natural, with small pockets of rural. Some areas that have roaded natural objectives would be managed to retain their remote character.

Standards and Guidelines

Recreation and Access

G-GF-1 Project level planning will generally use the Minnesota National Forest ROS inventory criteria (Appendix B). Inventoried semi-primitive motorized and non-motorized portions of the project areas will generally be managed to retain remote character. Management activities to retain remote character may include:

- Close some existing and all new roads to motorized vehicles. Construct only temporary and OML 1 roads.
- Emphasize semi-primitive recreation activities and opportunities.
- Manage forest settings using roaded

natural ROS criteria along with the Scenic Integrity Objectives.

G-GF-2 Cross-country snowmobile use is generally allowed unless prohibitions or restrictions are needed for resource protection to meet management objectives.

Special Uses

G-GF-3 Most special uses can be accommodated.

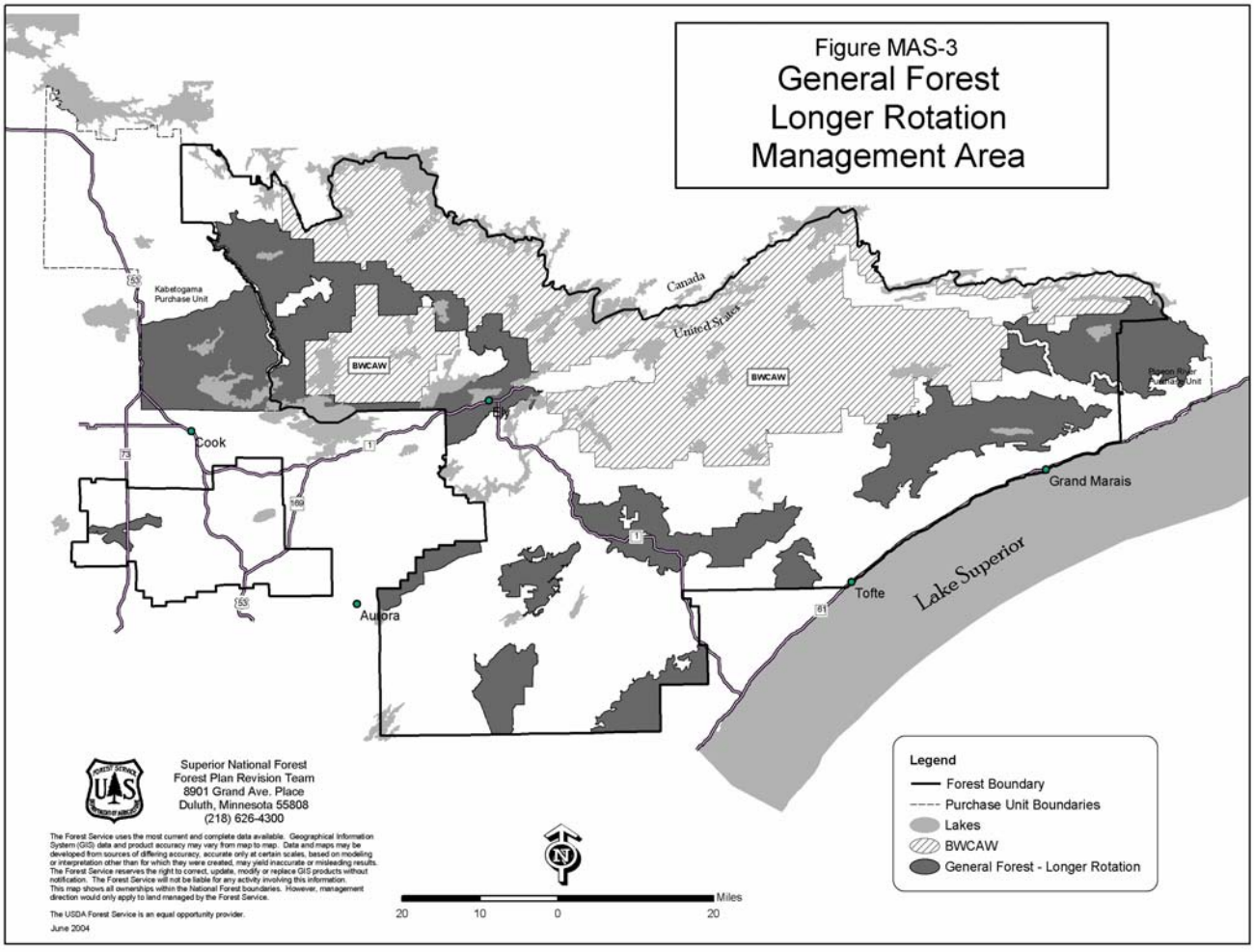
Land Adjustment

G-GF-4 Generally, on lakes with 80 percent or greater public ownership, NFS water frontage land will be retained or will only be conveyed to a public land management entity.

General Forest - Longer Rotation (LR) MA

Acreage in the General Forest - Longer Rotation MA	
	Acres
Total NFS land in the MA	415,478
NFS land suitable for timber management	297,148
NFS land not suitable for timber management	118,330

Landscape Ecosystems in the General Forest - Longer Rotation MA	
Landscape Ecosystem	Percent of MA
Dry Mesic Jack Pine/Black Spruce	24%
Dry Mesic Pine	14%
Lowland Conifer	20%
Mesic Aspen/Birch/Spruce-fir	27%
Mesic Pine	9%
Rich Swamp	1%
Sugar Maple	5%
Total	100%



Theme

The General Forest – Longer Rotation MA emphasizes land and resource conditions that provide a wide variety of goods, uses, and services. These include wood products, other commercial products, scenic quality, developed and dispersed recreation opportunities, and habitat for a diversity of terrestrial and aquatic wildlife and fish species. Numerous roads that are open to public travel provide access to resources and roaded recreation opportunities. Non-motorized recreation opportunities also occur.

Compared to the General Forest MA, this area, while still having timber production as a key emphasis, will generally have longer rotations and more uneven-aged and partial cut harvests.

Setting

The General Forest – Longer Rotation MA is located throughout the Forest where recreation use and/or lake density is high, or the potential for recreational use is high.

Nearly three-fourths of the General Forest - Longer Rotation MA is suitable for timber management. Three landscape ecosystems dominate this MA: Mesic Aspen/Birch/Spruce-fir, Dry Mesic Jack Pine/Black Spruce, and Lowland Conifer.

Desired Conditions

Forest Vegetation

D-LR-1 Forests in this MA are largely a mosaic of tree groups of different ages and heights. Many recently cut areas still have a partial canopy of older trees. Areas disturbed through management activities are generally quickly revegetated. The boundaries of cut areas appear to follow natural landscape patterns.

D-LR-2 Forest vegetation communities are generally managed with practices that mimic less severe stand maintenance disturbance, along with some management practices that mimic stand replacement disturbance. A variety of stand sizes, shapes, crown closures, age structures, and interspersions occur. Some larger patch sizes would occur within this area, although those associated with young, even-aged vegetative conditions would be less frequent than in the General Forest MA. Aspen, red pine, spruce/fir, white pine, jack pine, lowland conifer, and a number of northern hardwood species occur in large amounts, the mix of species depending upon the landscape ecosystem.

D-LR-3 A full range of silvicultural practices is employed. However, compared to the General Forest MA, there is more uneven aged and partial cut harvesting resulting in more uneven aged and multi-aged forests. This area will have less extensive even-aged harvests than the General Forest MA. When clearcutting is used in this management area, it is often done at longer rotation ages.

Forest Health and Disturbance Processes

D-LR-4 Stands in this MA are a mix of young, even-aged and older, multi-aged vegetative growth stages of the landscape ecosystem within which they lie. A mosaic of young to old (1-250 years) trees dominates these areas. Insect and disease outbreaks are evident, but are managed to be within historical, natural levels in terms of longevity and area impacted (fulfilling ecosystem function).

D-LR-5 Forest health is maintained and management investments are protected to sustain the productivity of the area. To maintain or restore vegetation communities, natural disturbances to the landscape are mimicked through the use of management activities such as timber harvest and management-ignited fires. Fire is also used as a tool to prepare sites for regenerating new forests and to reduce woody fuel that could cause wildfires.

Scenic Resources

D-LR-6 The forest in the General Forest - Longer Rotation MA differs from the General Forest MA in that a greater emphasis is placed on managing for older and larger trees. The openings' sizes, shapes, and habitat conditions, not necessarily their appearance, mimic the scale, pattern, and

ecologic function of large-scale natural disturbances. In the most frequently visited and most scenically valued areas of this MA, larger-scale openings have a natural appearance. Other, less scenic or frequently visited areas of this MA will be actively managed for timber production with a lower relative emphasis on scenery compared to other resource concerns.

Recreation and Access

D-LR-7 Developed recreation sites such as campgrounds, picnic sites, boat landings, observation sites, trailheads, and swimming areas may be provided for public use. Facilities may be constructed to protect the environment and provide some comfort for users. Natural or natural-appearing materials give facilities a rustic appearance. Increased site modification that reduces the rustic natural appearance may occur at existing highly developed and heavily used sites.

D-LR-8 Dispersed recreation facilities such as campsites and trails (day use, backpacking, portaging, bicycling, horseback riding, hunter walking, snowmobile, ATV use, interpretive) may be provided for public use. Other dispersed recreation opportunities that may not be associated with facilities, such as orienteering, hunting, fishing, berry picking, bird watching, wildlife viewing, and trapping, would also occur.

D-LR-9 Recreation sites will generally be spaced so as to minimize contacts between users.

D-LR-10 Many people may use this area, mostly along waterways, roads, and trails. In these more highly used areas it is common to encounter others engaged in a wide variety of activities. In the remainder of the MA, contacts between users will generally be less frequent. Vehicles associated with timber harvesting may be encountered on roads and in the woods throughout the year.

Land Adjustments

D-LR-11 Land ownership patterns (federal, State, county, corporation, and private) are consolidated, promote efficient administration, and reduce the costs of managing resources.

Facilities

D-LR-12 Buildings and structures may be provided to support resource management objectives. There may be occasional resorts, utility corridors, towers, dams, and similar structures.

D-LR-13 Roads and bridges range from one-lane surfaced with native soil or gravel to two lanes and paved surfaces.

Objectives

O-LR-1 Over the course of the planning period, vegetation will be managed to generally represent young to old (0 to 250 year old) vegetative growth stages.

O-LR-2 Land adjustment efforts will generally be based on consolidating ownership patterns as opportunities present themselves.

O-LR-3 Acquiring land along rivers and lakes will be encouraged where significant public ownership already exists.

O-LR-4 Land adjustment objectives:

c) Acquisitions – Priority 2 or 3

d) Conveyances – Allowed

(See the glossary for priority definitions.)

O-LR-5 The ROS class objective is primarily roaded natural, with small pockets of rural. Some areas that have roaded natural objectives would be managed to retain their remote character.

Standards and Guidelines

Recreation and Access

G-LR-1 Project level planning will generally use the Minnesota National Forest ROS inventory criteria (Appendix B). Inventoried semi-primitive motorized and non-motorized portions of the project areas will generally be managed to retain

remote character. Management activities to retain remote character may include:

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

G-LR-2 Cross-country snowmobile use is generally allowed unless prohibitions or restrictions are needed for resource protection to meet management objectives

Special Uses

G-LR-3 Most special uses can be accommodated.

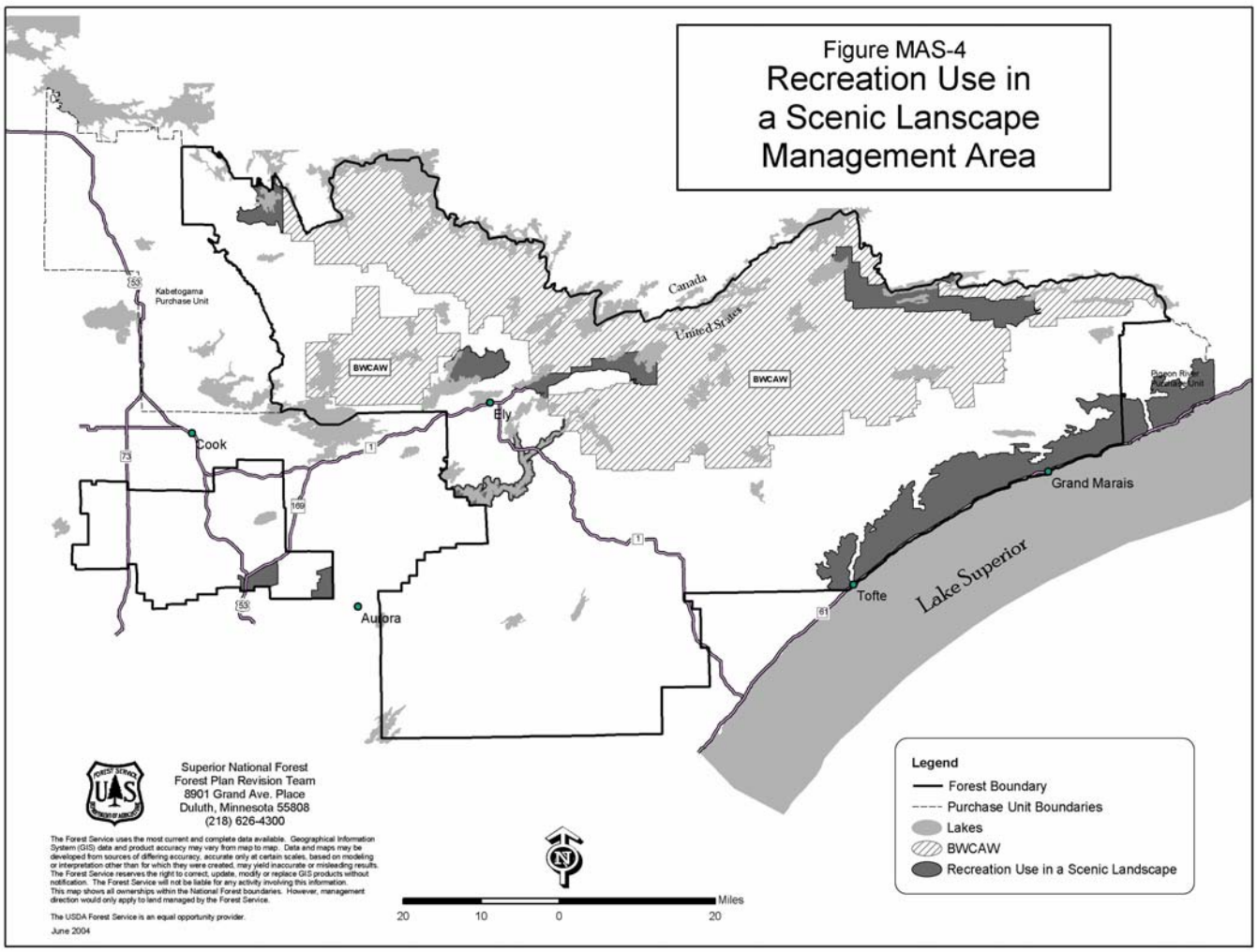
Land Adjustment

G-LR-4 Generally, on lakes with 80 percent or greater public ownership, NFS water frontage land will be retained or will only be conveyed to a public land management entity. National Forest System water frontage land on Lake Vermillion will be conveyed only to a public land management entity.

Recreation Use in a Scenic Landscape (RU) MA

Acreage in the Recreation Use in a Scenic Landscape MA	
	Acres
Total NFS land in the MA	155,412
NFS land suitable for timber management	91,890
NFS land not suitable for timber management	63,522

Landscape Ecosystems in the Recreation Use in a Scenic Landscape MA	
Landscape Ecosystem	Percent of MA
Dry Mesic Jack Pine/Black Spruce	20%
Dry Mesic Pine	10%
Jack Pine/Aspen/Oak	<1%
Lowland Conifer	8%
Mesic Aspen/Birch/Spruce-fir	32%
Mesic Pine	8%
Rich Swamp	2%
Sugar Maple	20%
Total	100%



Theme

The Recreation Use in a Scenic Landscape (RU) management area emphasizes land and resource conditions that provide a scenic landscape for recreational activities in natural-appearing surroundings. This management area also provides wildlife habitat to enhance recreational wildlife watching opportunities. Concentrated recreation use is common. Facilities and access may be highly developed, resulting in a high degree of user interaction. Low-density recreation is also offered in areas with remote character.

Setting

The RU management area is often near high standard roads where developed recreation activities may already be provided. This management area is usually able to meet the demand for recreation use because the areas are easily accessible and already developed.

Two-thirds of the RU management area is suitable for timber management. The Landscape Ecosystems are somewhat evenly divided in this management area.

Desired Conditions

Vegetation Management

D-RU-1 Ecosystems are managed to provide a predominantly natural-appearing landscape that may be slightly modified by forest management activities. This management area emphasizes a large tree and old forest character. Vegetation management generally maintains or enhances older vegetative growth stages.

D-RU-2 Management activities such as timber harvest and management-ignited fire may be used to achieve Landscape Ecosystem objectives. Recreation and scenic integrity objectives guide the appearance of timber harvest, management-ignited fire, tree planting, and other management techniques.

D-RU-3 Vegetation management activities also enhance wildlife habitat. Management activities that promote wildlife habitat for public observation may occur.

Scenic Resources

D-RU-4 Viewsheds are managed for scenic beauty and big-tree character. Generally, this management area offers natural-looking forest surroundings with some facility and trail development and roads for recreation. Forest management enhances recreation and scenic objectives and management activities may be noticeable to visitors. Visitors to the Forest may occasionally see management activities such as timber harvest, management-ignited fire, tree planting, and other resource management techniques.

Recreation and Access

D-RU-5 This management area provides a variety of recreation opportunities. Developed recreation sites such as campgrounds, picnic sites, boat landings, observation sites, trailheads, and swimming areas are provided for public use. Developed sites may have a high degree of modification. Facilities are generally designed for comfort and convenience of users.

D-RU-6 Dispersed recreation facilities such as campsites and trails (day use, backpacking, portaging, bicycling, horseback riding, hunter walking, snowmobile, ATV use, interpretive) may be provided for public use. Other dispersed recreation opportunities that may not be associated with facilities, such as orienteering, hunting, fishing, berry picking, bird watching, wildlife viewing, and trapping, would also occur.

D-RU-7 Depending on project-level recreation objectives, a broad range of access may be permitted. This includes non-motorized trails, motorized trails, gravel roads, and paved roads.

D-RU-8 Many people use this area along lakes and roads and at developed recreation sites. It is common to encounter others. Some people may use the more remote parts of these areas where less development opportunities are provided and consequently fewer people are encountered.

Facilities

D-RU-9 Buildings and structures may be provided to support resource management objectives. Structures include power lines, pipelines, and roads that serve recreational developments and private homesteads.

D-RU-10 Roads are common and range from one-lane roads with native soil or gravel surfaces to multiple-lane roads with paved surfaces.

Objectives

O-RU-1 The ROS class objective is primarily roaded natural, with small pockets of rural. Some areas that have roaded natural objectives would be managed to retain their remote character.

O-RU-2 Land adjustment objectives:

a) Acquisitions: Priority 2 or 3
b) Conveyances: Allowed
(See the glossary for priority definitions.)

Standards and Guidelines

Recreation and Scenic

G-RU-1 Project level planning will generally use the Minnesota National Forest ROS inventory criteria (Appendix B). Inventoried semi-primitive motorized and non-motorized portions of the project areas will generally be managed to retain remote character. Management activities to retain remote character may include:

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

G-RU-2 Cross-country snowmobile use is generally allowed unless prohibitions or restrictions are needed for resource protection to meet management objectives.

Special Uses

G-RU-3 A wide variety of special uses is generally permitted.

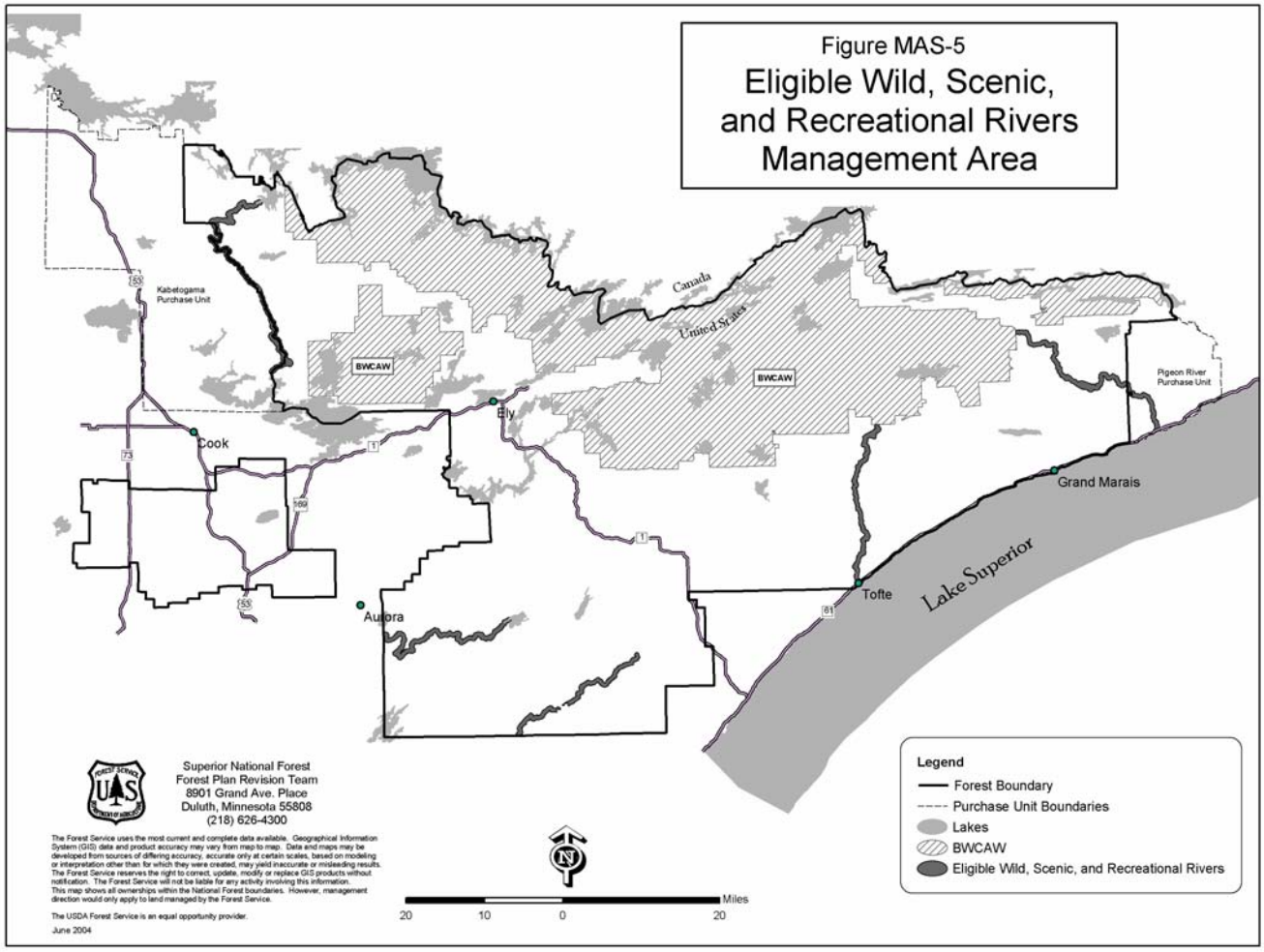
Land Adjustment

S-RU-1 To meet management, recreation, and scenic resource objectives, purchases, donations, and exchanges will be used to enhance and protect the landscape, viewshed, and character of the area. Conveyances will be permitted on a case-by-case basis, as long as management area objectives are not compromised.

Eligible Wild, Scenic, and Recreational Rivers (WSR) MA

Acreage in the Eligible Wild, Scenic, and Recreational Rivers MA	
	Acres
Total NFS land in the MA	31,834
NFS land suitable for timber management	18,332
NFS land not suitable for timber management	13,502

Landscape Ecosystems in the Eligible Wild, Scenic, and Recreation Rivers MA	
Landscape Ecosystem	Percent of MA
Dry Mesic Jack Pine/Black Spruce	5%
Dry Mesic Pine	14%
Lowland Conifer	25%
Mesic Aspen/Birch/Spruce-fir	38%
Mesic Pine	15%
Rich Swamp	3%
Sugar Maple	<1%
Total	100%



Theme

The Eligible Wild, Scenic, and Recreational River (WSR) management area emphasizes land and resource conditions that provide for interim protection of river corridors identified as wild, scenic, or recreational. The corridors involved meet the eligibility criteria specified in section 1(b) and 2(b) of the Wild and Scenic Rivers Act. Under the interim protection, management activities in the river corridors will protect the river's free-flowing condition, outstandingly remarkable values, and classification.

Setting

In the WSR management area, the settings range from primitive to developed recreation areas, depending on the classification of the eligible river.

Half of the land allocated to the Eligible Wild, Scenic, and Recreational Rivers MA is suitable for timber management. Mesic Aspen/Birch/Spruce-fir and Lowland Conifer Landscape Ecosystems cover more than half of this MA. The Dry Mesic Pine and Mesic Pine Landscape Ecosystems are also in this MA.

This management area applies to land one-quarter mile on each side of the following eligible rivers.

Brule River

The segment of river from its headwater to the BWCAW border is classified as wild. The segment extending downstream from the BWCAW boundary to a point about six miles inland from Lake Superior is classified as recreational. The southern most six-mile segment is classified as scenic.

Cloquet River

The segment of river within the Superior National Forest boundaries is classified as recreational.

Pigeon River

The segment of river within the Superior National Forest boundaries is classified as wild.

St. Louis River

The segment of river within the Superior National Forest boundaries is classified as recreational.

Temperance River

The segment of river within the BWCAW is classified as wild; the segment of river from the BWCAW boundary seven miles south to the juncture with Plouff Creek is classified as recreational; and the remaining segment of the river from Plouff Creek to Lake Superior is classified as scenic.

Vermilion River

The seven-mile mid-section of the river at Buyck is classified as recreational and the remainder of the river is classified as scenic.

Desired Conditions

Eligible Wild, Scenic, and Recreation Rivers

D-WSR-1 Eligible river ecosystems are managed to protect or enhance their outstandingly remarkable values, free-flowing character, and classification.

D-WSR-2 Management activities promote the river's outstandingly remarkable values and activities may occasionally be noticeable to visitors. Such management activities may include maintenance or development of recreation sites and vegetation management provided it maintains the river's eligibility.

Public use and enjoyment may be accommodated if these uses retain the river's natural values. Recreation activities may include viewing outstanding scenery, watching wildlife, hunting, fishing, and some activities related to recreational developments, such as camping, boating, swimming, hiking, mountain biking, and skiing.

Wild River Segments

D-WSR-3 Simple recreation facilities, well screened from the river may be provided to prevent site deterioration from current and expected public use. Substantial improvements to existing facilities are not permitted.

D-WSR-4 Dispersed recreation facilities such as campsites and trails (day use, backpacking, and portaging) may be provided for public use.

Scenic and Recreation River Segments

D-WSR-5 Developed recreation sites (screened from the river) such as campgrounds, picnic sites, water access sites, observation sites, and trailheads may be provided for public use.

D-WSR-6 Dispersed recreation facilities such as campsites and trails (day use, backpacking, portaging, bicycling, cross-country skiing, horseback riding, hunter walking, snowmobile, and ATV use) may be provided for public use.

D-WSR-7 Interpretation of cultural resources may be provided and if so, will be compatible with the natural character and recreation opportunities in the area.

Objectives

Eligible Wild, Scenic, and Recreation Rivers

O-WSR-1 The ROS class objectives for the potential classifications are listed below.

- Wild: semi-primitive non-motorized
- Scenic: semi-primitive motorized
- Recreation: roaded natural

O-WSR-2 Land adjustment objectives:

a) Acquisitions – Priority 2
b) Conveyances – Allowed

(See the glossary for priority definitions.)

O-WSR-3 Non-NFS land will be acquired as opportunities arise, except along the Pigeon River where existing NFS ownership is very limited, to protect the existing characteristics of the river corridors.

O-WSR-4 If NFS land is conveyed, it will only be transferred to another public land management entity.

Standards and Guidelines

S-WSR-1 Wild, Scenic and Recreation River Segments: The Forest will work with tribes, counties, State, and local governments in the development of river studies and plans.

Ecosystem Function

S-WSR-2 Wild River Segments**:** Outside designated wilderness, prescribed fire may be used to establish or maintain desired vegetative conditions. Heavy equipment will only be used with Forest Supervisor approval.

G-WSR-1 Wild, Scenic, and Recreational River Segments**:** Prescribed fire may be used to establish, maintain, or improve vegetation or scenic conditions. This may include creating wildlife openings, making type conversions, or improving visual quality.

G-WSR-2 Wild, Scenic, and Recreational River Segments: Herbicide or pesticide use will generally be allowed if environmental analysis shows it is the only means to control species causing severe problems.

S-WSR-3 Scenic and Recreation River Segments**:** During fire suppression, planned actions will be based on an analysis after considering fire intensities and risk to health and safety. Heavy equipment will only be used with Forest Supervisor approval.

Vegetation

S-WSR-4 Wild River Segments**:** Inside designated wilderness, forestry practices are not appropriate to these segments.

G-WSR-3 Wild River Segments**:** Outside designated wilderness, vegetation manipulation may be used to enhance and improve river values within the context of the purposes set for wild river segments.

S-WSR-5 Scenic River Segments: Vegetative management will enhance the recreation experience and will maintain the near natural environment of the river corridor.

G-WSR- 4 Scenic and Recreation Segments**:** A wide range of silvicultural practices are allowed provided that the methods used would

have no substantial adverse effect within the river corridor to the river's free flow, water quality, and outstandingly remarkable values. River corridors should be maintained in their near natural environment.

G-WSR-5 Scenic and Recreation River Segments**:** Vegetation management will generally be done to enhance the recreation experience and, to the extent practical, improve scenic values within the context of the purposes for scenic rivers.

G-WSR-6 Scenic and Recreation River Segments**:** Vegetation management practices will generally promote the retention of long-lived tree species, leading toward the development of a big-tree character throughout river corridors.

Wildlife Habitat

G-WSR-7 Scenic and Recreation River Segments**:** Habitat improvement will generally emphasize maintaining essential habitat for wildlife associated with late successional stages of vegetation. Habitat improvement that is natural appearing and enhances values of the scenic or recreation river experience will generally be permitted.

Heritage, Recreation, and Access

S-WSR-6 Wild, Scenic, and Recreation River Segments: Preservation of significant heritage resources will be emphasized.

S-WSR-7 Wild River Segments: On-site cultural resource interpretation will not occur.

S-WSR-8 Wild River Segments: All public motor use is prohibited on National Forest System classified and unclassified roads and trails and in cross-country travel.

S-WSR-9 Wild River Segments: No new road construction will be permitted within the river corridor.

G-WSR-8 Wild, Scenic and Recreation River Segments: The following activities are generally not permitted within 150 feet of subsurface heritage resource (buried) sites: grazing, heavy equipment and logging activity which can affect the integrity of the site and the construction of facilities other than those designed to interpret the site.

G-WSR-9 Scenic and Recreation Segments: Cross-country snowmobile use will generally be allowed unless prohibitions or restrictions are needed for resource protection.

G-WSR-10 Scenic River Segments**:** Roads may be retained at the maintenance level currently existing on the ground. Limited reconstruction of existing roads may occur when necessary to control road-caused erosion and sedimentation. Existing corridors and river access points should be used whenever possible. Proposals for river crossings may be approved where the crossing will not adversely impact the values, free flow, or change the potential classification for which the river is being managed.

G-WSR-11 Recreation River Segments**:** Limited construction or reconstruction may occur to increase or upgrade access or control road-caused erosion and sedimentation. Existing corridors and river access points should be used whenever possible. New river access may be developed to provide greater resource utilization than provided by existing access points. Proposals for river crossings may be approved where the crossing will not adversely impact the values or change the potential classification for which the river is being managed.

Scenic Quality

S-WSR-10 Wild River Segments: Substantial additions to existing improvements are prohibited.

G-WSR-12 Scenic and Recreation River Segments: Recreation facilities are screened from the river and fit the appropriate standards and guidelines for ROS and SIOs assigned to these river segments.

Minerals

S-WSR-11 Wild River Segments: No permit, lease, or other authorization will be issued for exploration or development of minerals owned by the United States. Exploration

and development of reserved and outstanding mineral rights will be negotiated to minimize adverse environmental effects.

S-WSR-12 Scenic and Recreation River Segments: Surface disturbance or occupancy for development and extraction of federally owned minerals excluding sand and gravel are generally not permitted. Where appropriate, sand and gravel may be removed by special permit issued by the Forest Supervisor. No sand and gravel may be removed from any area below the ordinary high water mark. Surface-disturbing exploration (including core drilling) may be permitted in areas where reserved and outstanding mineral rights exist. Exploration and development of reserved and outstanding mineral rights will be negotiated to minimize adverse environmental effects.

Watershed Management

S-WSR-13 Wild Segments**:** Where watershed improvement projects are undertaken, unobtrusive treatment will be prescribed. Only natural materials (rocks, logs, and native plants) will be used in restoration work. Flood control dams and levees are prohibited. The natural appearance and essentially primitive character of the river area will be maintained.

S-WSR-14 Wild Segments: Watershed improvement projects will be limited to correcting human-caused resource damage or resource damage from natural disasters, which threaten downstream health and safety.

S-WSR-15 Scenic Segments: Where watershed improvement projects are undertaken, unobtrusive treatment will be prescribed. Only natural materials (rocks, logs, and native plants) will be used in restoration work. Flood control dams and levees will be prohibited.

S-WSR-16 Recreation Segments: Existing flood control works such as low dams, diversion works, riprap, and other minor structures will be maintained provided the waterway remains generally natural in appearance. New flood control structures are prohibited.

Structures

S-WSR-17 Wild River Segments**:** New structures and improvement of old structures are prohibited if not in keeping with overall objectives for wild river segments. Simple facilities to protect the resource or environmental values are allowed when constructed in keeping with a semi-primitive setting.

G-WSR-13 Scenic River Segments**:** A limited number of buildings and structures may be provided to support resource management objectives that fit the semi-primitive motorized setting.

G-WSR-14 Recreation River Segments**:** Buildings and structures may be provided to support resource management objectives.

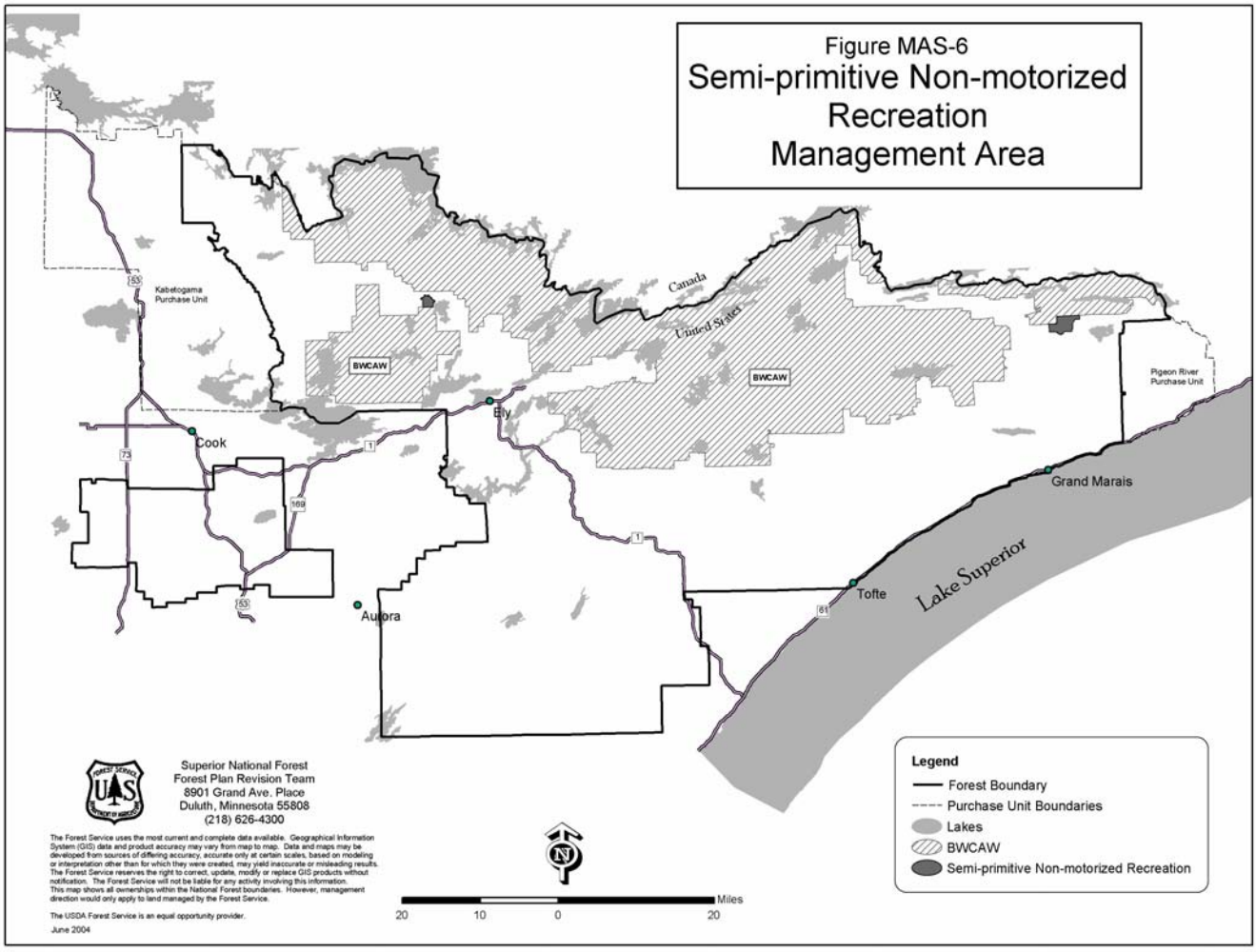
Special Uses

S-WSR-18 Wild, Scenic and Recreation River Segments: Existing special uses may be continued. New applications will be evaluated on their suitability relative to the river's values.

Semi-primitive Non-motorized Recreation (SPNM) MA

Acreage in the Semi-primitive Non-motorized Recreation MA	
Total NFS land in this MA	4,559
NFS land suitable for timber management	3,126
NFS land not suitable for timber management	1,433

Landscape Ecosystems in the Semi-primitive Non-motorized Recreation MA	
Landscape Ecosystem	Percent of MA
Dry Mesic Jack Pine/Black Spruce	21%
Lowland Conifer	12%
Mesic Aspen/Birch/Spruce-fir	64%
Mesic Pine	3%
Total	100%



Theme

The Semi-primitive Non-motorized (SPNM) management area emphasizes land and resource conditions that provide recreational opportunities in nearly primitive surroundings where motorized use is NOT permitted. Most of the non-motorized recreation use occurs on lakes, trails, portages, and low standard roads. Interaction among recreational users is low. Forest management enhances recreation and scenic objectives and may occasionally be noticeable to visitors.

Setting

The SPNM management area is located in parts of the Forest with few low-standard roads and trails. Management activities are not very noticeable. Visitors may occasionally see stands that have been regenerated, low-standard timber access roads, and non-motorized trails.

The majority of the SPNM management area is suitable for timber management. Two Landscape Ecosystems dominate this MA: Mesic Aspen/Birch/Spruce-fir and Dry Mesic Jack Pine/Black Spruce.

Desired Conditions

Vegetation Management

D-SPNM-1 Ecosystems are managed to provide a predominantly natural-appearing landscape, emphasizing large trees and older forest with a continuous forest canopy. Vegetation management generally maintains or enhances the older vegetative growth stages.

D-SPNM-2 Management activities in the SPNM management area enhance recreation and scenic objectives and may occasionally be noticeable to visitors. Such management activities may include developing primitive campsites, harvesting timber, using management-ignited fire, and planting trees.

D-SPNM-3 Management activities such as timber harvest and management-ignited fire may be used to achieve vegetation objectives. These activities are designed to maintain the natural appearance of the landscape. Scenic integrity and recreation objectives also guide the design and implementation of these activities.

Scenic Resources

D-SPNM-4 Recreational activities occur in natural-appearing environments that may be slightly modified by forest management activities. Evidence of management activities is relatively low, consisting of occasional stands that have been harvested, low standard roads that are used for timber access, and trails that are used for non-motorized recreation.

Recreation and Access

D-SPNM-5 Developed recreation sites such as water access sites and trailheads may be provided for public use. There is generally little site modification with rustic improvements designed primarily for protection of the environment rather than the comfort of users. Use of natural materials for improvements is emphasized.

D-SPNM-6 Dispersed recreation opportunities such as campsites and trails (day use, backpacking, portaging, cross-country skiing, horseback riding, and hunter walking) may be provided for public use. Other human-made structures are rare. Other dispersed recreation opportunities that may not be associated with facilities, such as orienteering, hunting, fishing, berry picking, bird watching, wildlife viewing, and trapping, would also occur.

D-SPNM-7 Within the interior of the management area, small primitive camping sites may be provided. Spacing of camping sites is generally designed to minimize contacts between users.

D-SPNM-8 Low-standard roads, with native soil or gravel surfaces, are permitted to accomplish forest management. However, roads would be closed to public motor vehicle use.

D-SPNM-9 Most recreation use occurs on lakes, trails, and portages. It is uncommon to

encounter others in the area.

Objectives

O-SPNM-1 The ROS class objective is semi-primitive non-motorized.

Standards and Guidelines

Recreation

S-SPNM-1 All public motor use is prohibited on all National Forest System classified and unclassified roads, trails, and in cross-country travel.

G-SPNM-1 If small, low development level, parking areas are provided, they are generally located at the perimeter of the management area.

S-SPNM-2 Developing new motorized recreation trails is prohibited.

G-SPNM-2 The road or trail access to and facilities at water access sites will generally meet development levels described for Natural Environment Lakes and Remote River segments. (See G-RWA-9 in Chapter 2 for development levels)

Special Uses

G-SPNM-3 Special uses are generally not permitted, except those uses that do not detract from the semi-primitive environment or uses needed to access or supply utilities to private land, recreational facilities, or administrative sites.

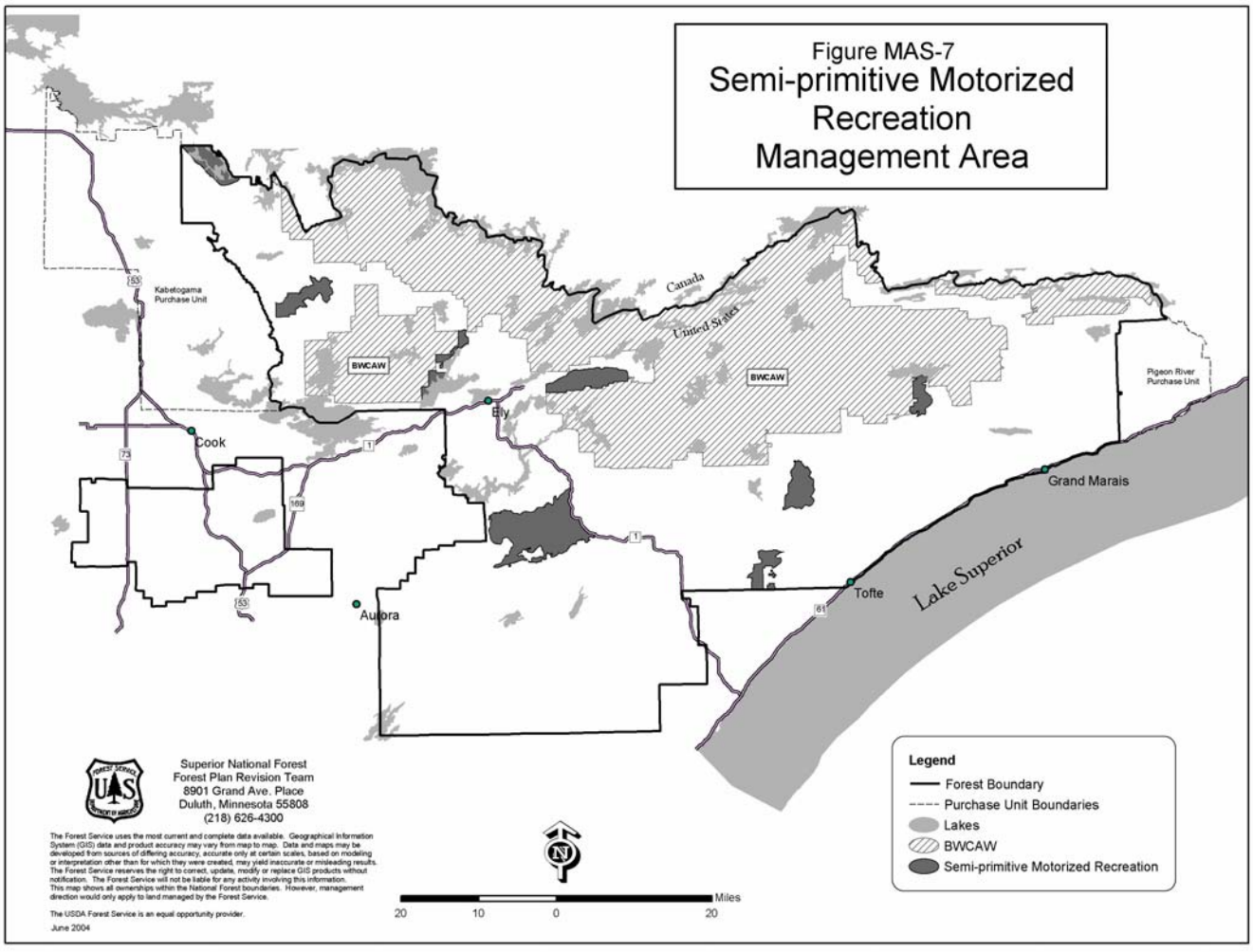
Land Adjustment

G-SPNM-4 Conveyances of NFS land will generally not be permitted. Acquisitions will generally be priority 2. (See the glossary for priority definitions.)

Semi-primitive Motorized Recreation (SPM) MA

Acreage in the Semi-primitive Motorized Recreation MA	
	Acres
Total NFS land in this MA	69,018
NFS land suitable for timber management	45,995
NFS land not suitable for timber management	23,023

Landscape Ecosystems in the Semi-primitive Motorized Recreation MA	
Landscape Ecosystem	Percent of MA
Dry Mesic Jack Pine/Black Spruce	29%
Dry Mesic Pine	33%
Lowland Conifer	18%
Mesic Aspen/Birch/Spruce-fir	7%
Mesic Pine	9%
Rich Swamp	2%
Sugar Maple	2%
Total	100%



Theme

The Semi-primitive Motorized (SPM) management area emphasizes land and resource conditions that provide recreational opportunities in nearly primitive surroundings where motorized use is allowed. Most recreation use occurs on lakes, trails, portages, and low standard roads. Interaction among recreational users is low. Forest management enhances recreation and scenic objectives and may occasionally be noticeable to visitors.

Setting

The SPM management area is located in parts of the Forest with few low standard roads and trails. Management activities are not very noticeable. Visitors may see occasional stands that have been regenerated, low-standard timber access roads, and motorized trails.

Two-thirds of the SPM management area is suitable for timber management. Dry Mesic Pine and Dry Mesic Jack Pine/Black Spruce Landscape Ecosystems cover more than half of this management area, with the Lowland Conifer Landscape Ecosystem also contributing to this management area.

Desired Conditions

Vegetation Management

D-SPM-1 Ecosystems are managed to provide a predominantly natural-appearing landscape, emphasizing large trees and older forest characteristics with a continuous forest canopy. Vegetation management generally maintains or enhances older vegetative growth stages.

D-SPM-2 Management activities such as timber harvest and management-ignited fire may be used to achieve Landscape Ecosystem objectives. These activities are designed to maintain the natural appearance of the landscape. Scenic integrity and recreation objectives guide the design and implementation of these activities.

Scenic Resources

D-SPM-3 Recreational activities occur in natural-appearing environments that may be slightly modified by forest management activities. Evidence of management activities is relatively low, consisting of occasional stands that have been regenerated, low standard roads that are used for timber access, development of primitive campsites, use of management ignited fire, and maintenance or use of motorized and non-motorized trails.

Recreation and Access

D-SPM-4 Developed recreation sites such as water access sites and trailheads may be provided for public use. Sites generally have little modification. When sites are developed or changed, improvements are mainly rustic and protect the environment rather than meet user comforts. Use of natural materials for improvements is emphasized.

D-SPM-5 Dispersed recreation facilities such as campsites and trails (day use, backpacking, portaging, bicycling, cross-country skiing, horseback riding, hunter walking, snowmobile, and ATV use) may be provided for public use. Other human-made structures are rare. Other dispersed recreation opportunities that may not be associated with facilities, such as orienteering, hunting, fishing, berry picking, bird watching, wildlife viewing, and trapping, would also occur.

D-SPM-6 Contacts between recreationists is minimal. Recreation sites are spaced so as to minimize contacts between users.

D-SPM-7 Low standard National Forest System roads, surfaced with native soil or local gravel, provide access for timber harvest activities and some public access.

Objectives

O-SPM-1 The ROS class objective is semi-primitive motorized.

Standards and Guidelines

Recreation

G-SPM-1 Cross-country snowmobile use is generally allowed unless prohibitions or restrictions are needed for resource protection to meet management objectives.

G-SPM-2 The road or trail access to and facilities at water access sites will generally meet development levels described for Natural Environment Lakes and Remote River segments. (See also G-RWA-9 in Chapter 2 for development levels.)

Special Uses

G-SPM-3 Special uses are generally not permitted, except those uses that do not detract from the semi-primitive environment or uses needed to access or supply utilities to private land, recreational facilities, or administrative sites.

Land Adjustment

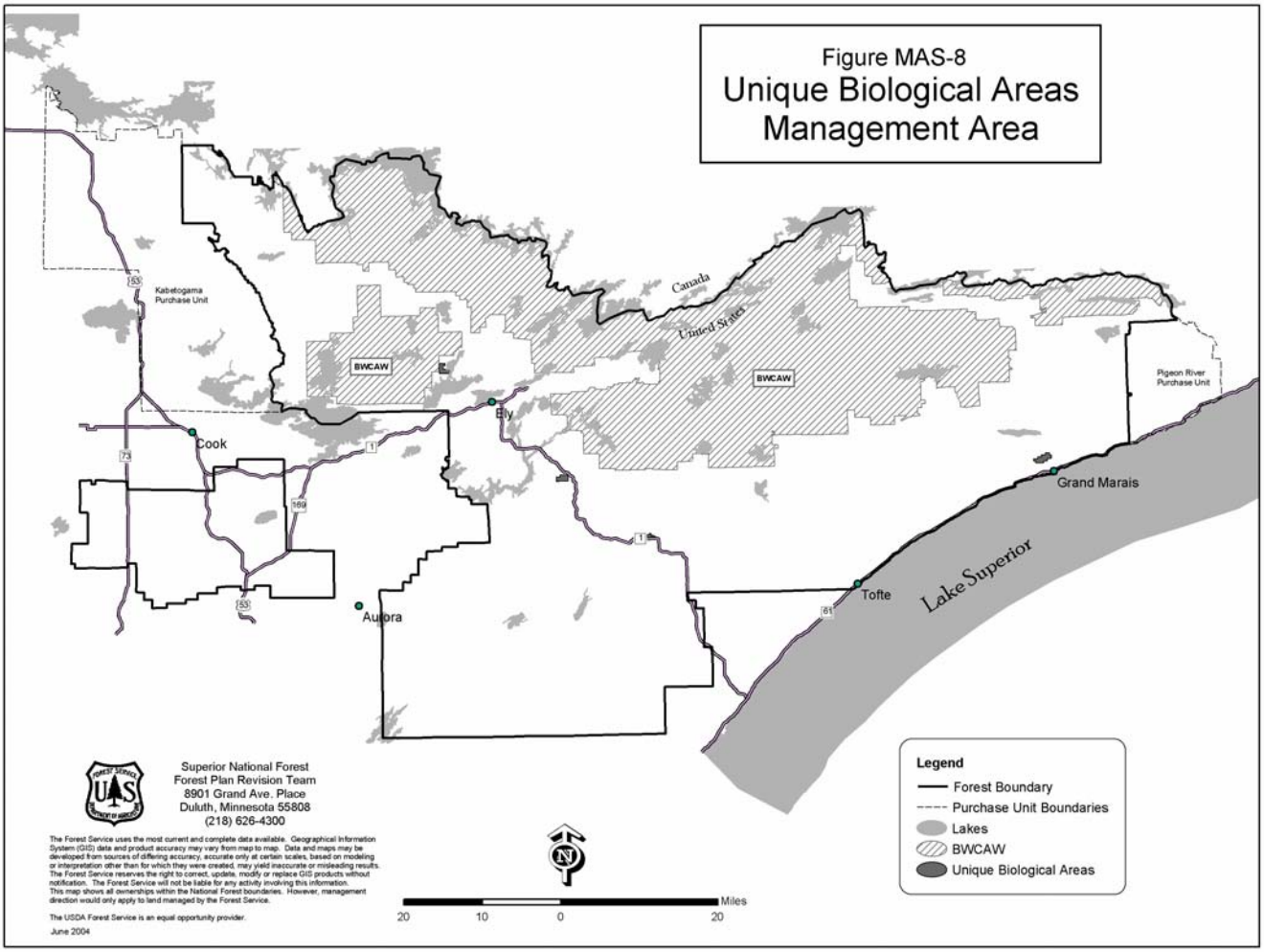
G-SPM-4 Conveyances of National Forest System land will generally not be permitted. Acquisitions will generally be priority 2.

(see glossary for priority definitions).

Unique Biological Areas (UB) MA

Acreage in Unique Biological Areas MA	
	Acres
Total NFS land in this MA	2,578
NFS land suitable for timber management	0
NFS land not suitable for timber management	2,578

Landscape Ecosystems in the Unique Biological Areas MA	
Landscape Ecosystem	Percent of MA
Dry Mesic Jack Pine/Black Spruce	42%
Dry Mesic Pine	11%
Lowland Conifer	31%
Mesic Aspen/Birch/Spruce-fir	14%
Sugar Maple	2%
Total	100%



Themes

The Unique Biological Areas (UB) management area has outstanding biological and other special values. Although this management area preserves these values, the UB areas are primarily managed for interpretive purposes.

Setting

None of the UB management area is suitable for timber management. The Dry Mesic Jack Pine/Black Spruce and Lowland Conifer Landscape Ecosystems dominate this MA.

UB management areas may be located in a number of places throughout the Forest. The environmental conditions in which they exist may differ from each other. The thread common to these areas is that they exhibit plant communities, associations, and/or individual species of particular interest.

The UB management area includes the following:

Fall River Patterned Fen - T 61 N, R 1 E, 988 acres

Little Isabella River – T 60 N, R 9 W, 338 acres

Birch Bay – T 63 N, R 13 W, 757 acres

Harris Lake Natural National Landmark – T 61 N, R 11 W, 514 acres

Desired Conditions

D-UB-1 Management emphasis is on conserving or enhancing areas of unique biological interest. Management practices that would alter important values associated with the UB management areas are not appropriate.

D-UB-2 UB management areas provide habitat for federally listed endangered, threatened, proposed, or candidate species or for Regional Forester sensitive species; and other elements of biological diversity. Vegetation, habitat, soil productivity, and water quality are affected little by present human use. Native plant communities are maintained, restored, or enhanced. The setting is usually rustic or natural.

D-UB-3 Dispersed recreation occurs but may be discouraged. Examples of dispersed recreation opportunities that may be available include bird watching, orienteering, fishing, hunting, berry picking, plant identification, and wildlife viewing.

Objectives

O-UB-1 The ROS class objective is semi-primitive motorized.

Standards and Guidelines

Ecosystem Process

S-UB-1 Existing old-growth or old forest will be managed in order to protect and maintain existing conditions. In some forest community types, this may require the periodic use of prescribed fire.

Watershed

G-UB-1 Modifying water levels is generally not permitted.

Vegetation

G-UB-2 Measures designed to protect old-growth or other values will generally be implemented when stands near and adjacent to the UB management areas are subject to vegetation management activity. Protective measures may include buffers against potential sun and wind damage, soil erosion control, and prescribed fire.

Fire

G-UB-3 Wildfire suppression activities are generally allowed to protect UB management area values, but kept to the minimum necessary to achieve control.

Recreation and Access

S-UB-2 UB management areas will be protected from actual or potential damage due to public use.

S-UB-3 RMV use on unclassified roads is

prohibited.

S-UB-4 Cross-country snowmobile travel is prohibited.

G-UB-4 Facilities are generally provided only when needed to protect the resource from human impacts.

G-UB-5 UB management areas will generally be closed to public use when needed to protect special attributes from disturbances. New roads are generally not permitted in these areas. New trails are generally not permitted, unless they are needed for interpretive or educational purposes or to correct resource damage currently occurring.

G-UB-6 New developed recreation sites will generally not be provided unless they facilitate public interpretation of a UB management area.

G-UB-7 Dispersed recreation sites are generally not appropriate in these areas. One-day hiking trails are appropriate and may be used if needed to accomplish research activities, provide access for public interpretation, or to protect the area by concentrating human use.

G-UB-8 Developing new motorized recreation trails is generally prohibited. Motorized use on existing National Forest System snowmobile trails is generally allowed.

G-UB-9 RMV use on OML 1 and OML 2 roads is generally prohibited.

Land Adjustment

S-UB-5 Conveyances of NFS land are not permitted in this management area. Acquisitions are priority 1. (See the glossary for priority definitions.)

Special Uses

G-UB-10 Renewable and extractive uses are generally restricted or prohibited.

G-UB-11 Authorizations that protect or enhance the UB management areas are generally allowed.

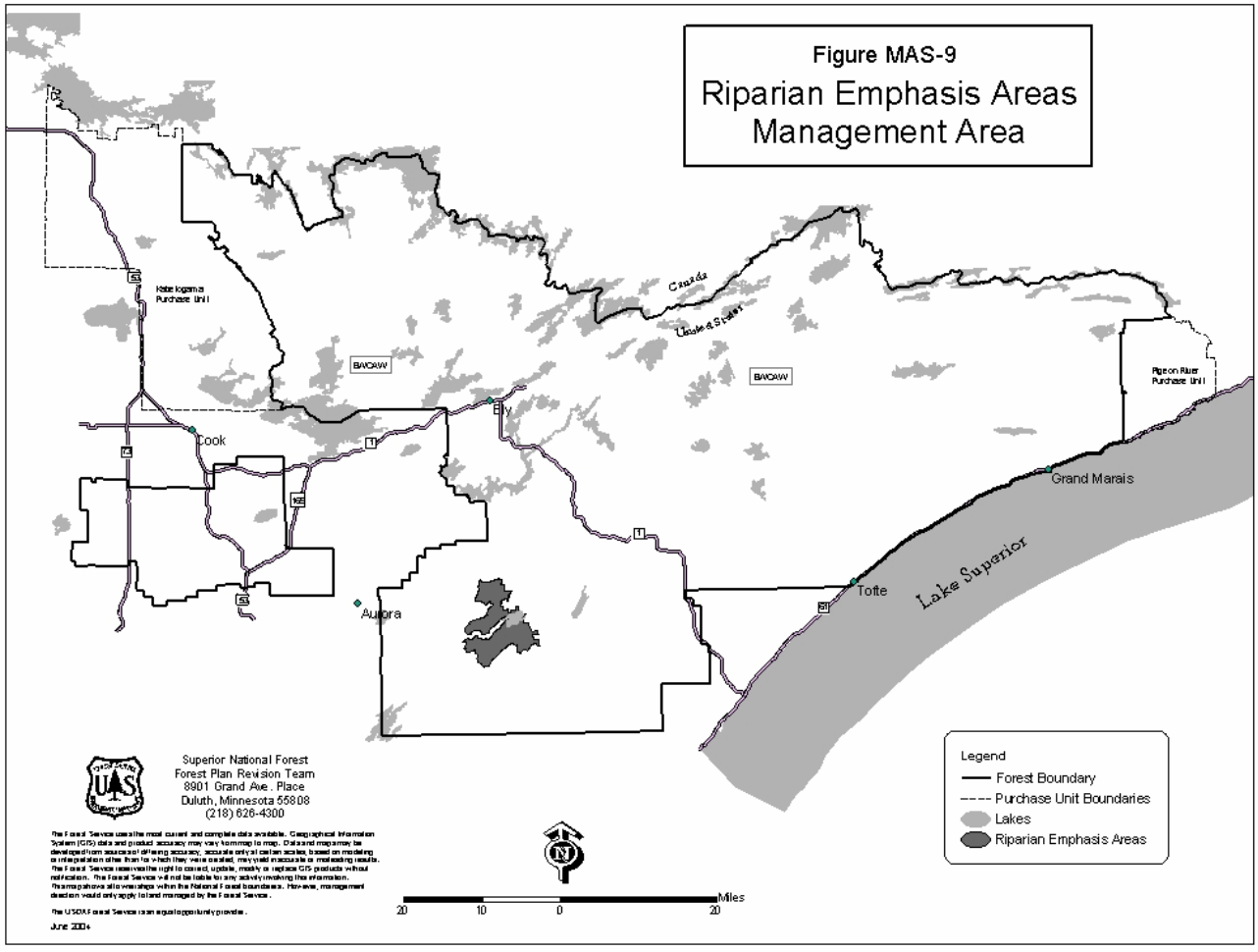
Minerals

S-UB-6 Federal mineral exploration and development activities that disturb the surface are not permitted.

Riparian Emphasis Areas (RE) MA

Acreage in the Riparian Emphasis Areas MA	
	Acres
Total NFS land in this MA	17,444
NFS land suitable for timber management	11,552
NFS land not suitable for timber management	5,919

Landscape Ecosystems in the Riparian Emphasis Areas MA	
Landscape Ecosystem	Percent of MA
Dry Mesic Jack Pine/Black Spruce	17%
Dry Mesic Pine	0%
Lowland Conifer	49%
Mesic Aspen/Birch/Spruce-fir	25%
Mesic Pine	9%
Rich Swamp	0%
Sugar Maple	0%
Total	100%



Theme

Riparian ecological functions are actively restored, protected, and enhanced in areas where ecosystem processes are sensitive to degradation. This includes maintaining and restoring native vegetation communities; maintaining and restoring riparian/hydrologic functions such as shoreline stability, wildlife habitat, coarse woody debris recruitment to aquatic and riparian ecosystems, and temperature regulation; and controlling non-native invasive species. Restoration focuses on components of the ecosystem that are not functioning at or within the range of desired conditions. Those components that are functioning properly are protected.

These areas are also managed for recreational opportunities and visual quality adjacent to bodies of water.

Setting

Riparian Emphasis Areas are located along rivers and lakes that receive moderate to low levels of recreation use. Also included are selected large areas of relatively contiguous wetland. Development is of the type generally found in some of the more remote areas of the Forest.

Riparian Emphasis Management Area is assigned to the area in the vicinity of and encompassing Seven Beavers Lake. This is the headwaters area of the St. Louis River.

Two-thirds of the Riparian Emphasis Areas MA is suitable for timber management. Three landscape ecosystems dominate this MA: the Lowland Conifer, Mesic Aspen/Birch/Spruce-fir, and Dry Mesic Jack Pine/Black Spruce Landscape Ecosystems.

Desired Conditions

Watershed Health, Riparian Areas, and Soil Resources

D-RE-1 Management focuses on conserving or restoring special social or ecological features of the Forest, particularly those associated with riparian composition, structure, and function. Aquatic plant communities are diverse and productive.

Forest Health and Disturbance Processes

D-RE-2 Forest stands are dominated by the older vegetative growth stages of the landscape ecosystem they lie within. Management activities mimic natural disturbances and result in structural diversity. Insect and disease potential is reduced through vegetative management. Fuels are managed to retain a natural forest appearance and to reduce threat of wildfire damage to Forest resources.

Vegetation Management

D-RE-3 Many tree species are present. A mixture of young, but more frequently old, trees with multi-layered canopies are present as well as snags and downed wood. Large, red pine and white pine may appear in pockets. Aspen and other hardwoods grow in patches adjacent to water bodies. Floodplains consist of sedge meadow and shrub wetland communities. Where ecologically suited, floodplains accommodate lowland conifers such as black spruce, cedar, and tamarack.

D-RE-4 Vegetation is managed to provide for public safety and to improve forest health, as needed to maintain or improve conditions along water bodies and recreational settings.

Terrestrial and Aquatic Wildlife

D-RE-5 A wide variety of wildlife occurs, including multiple species of fish, birds, mammals, reptiles, and amphibians. Older vegetative growth stages associated with this management area provide habitat for cavity-nesting species. Coarse woody debris recruited to aquatic and riparian ecosystems enhances habitat for fish and amphibians. Wetlands that are adjacent to water bodies provide important nesting habitat for water fowl.

Recreation, Trails, and Water Access

D-RE-6 The lakes and rivers that lie at the center of this area are attractive to those seeking dispersed recreation experiences in semi-primitive settings. Dispersed recreation opportunities may include orienteering, hunting, fishing, trapping, berry picking, bird watching, and wildlife viewing.

D-RE-7 Dispersed recreation facilities such as campsites and trails (day use, backpacking, portaging, bicycling, horseback riding, hunter walking, snowmobiling, ATV use, and interpretive) may be provided. The area may include trails in natural-appearing surroundings that are somewhat modified by forest management activities.

D-RE-8 Developed recreation sites such as campgrounds, picnic sites, boat landings, observation sites, trailheads, and swimming areas may be provided. Current or future recreation sites experiencing high use may be hardened and additional restrictions may be enforced to protect sensitive natural resources. Hardened sites occur infrequently.

Scenic Resources

D-RE-9 The forests within this area appear natural.

D-RE-10 Management alterations may be evident, but are less evident and of shorter duration than on many other parts of the Forest. These alterations are harmonious with the scenic condition of the natural landscape. Landscapes are visually appealing and provide a diversity of vegetative species and size classes.

Objectives

O-RE-1 Maintain or increase stands and acres of red pine, white pine, and white spruce primarily through partial cutting prescriptions. Maintain existing stands and acres of lowland conifer and black ash. Maintain or increase species diversity and the number of wildlife viewing opportunities. Retain coarse woody debris.

O-RE-2 The ROS class objective is primarily semi-primitive motorized with roaded natural inclusions and small pockets of rural.

Standards and Guidelines

Recreation

G-RE-1 Cross-country snowmobile use is generally allowed unless prohibitions or restrictions are needed for resource protection to meet management objectives.

Special Uses

G-RE-2 Special uses that do not complement or are not compatible with the kind and development level of associated Forest Service facilities within the area are generally not permitted.

S-RE-1 New special uses that would degrade the long term ecological function of riparian areas are not permitted.

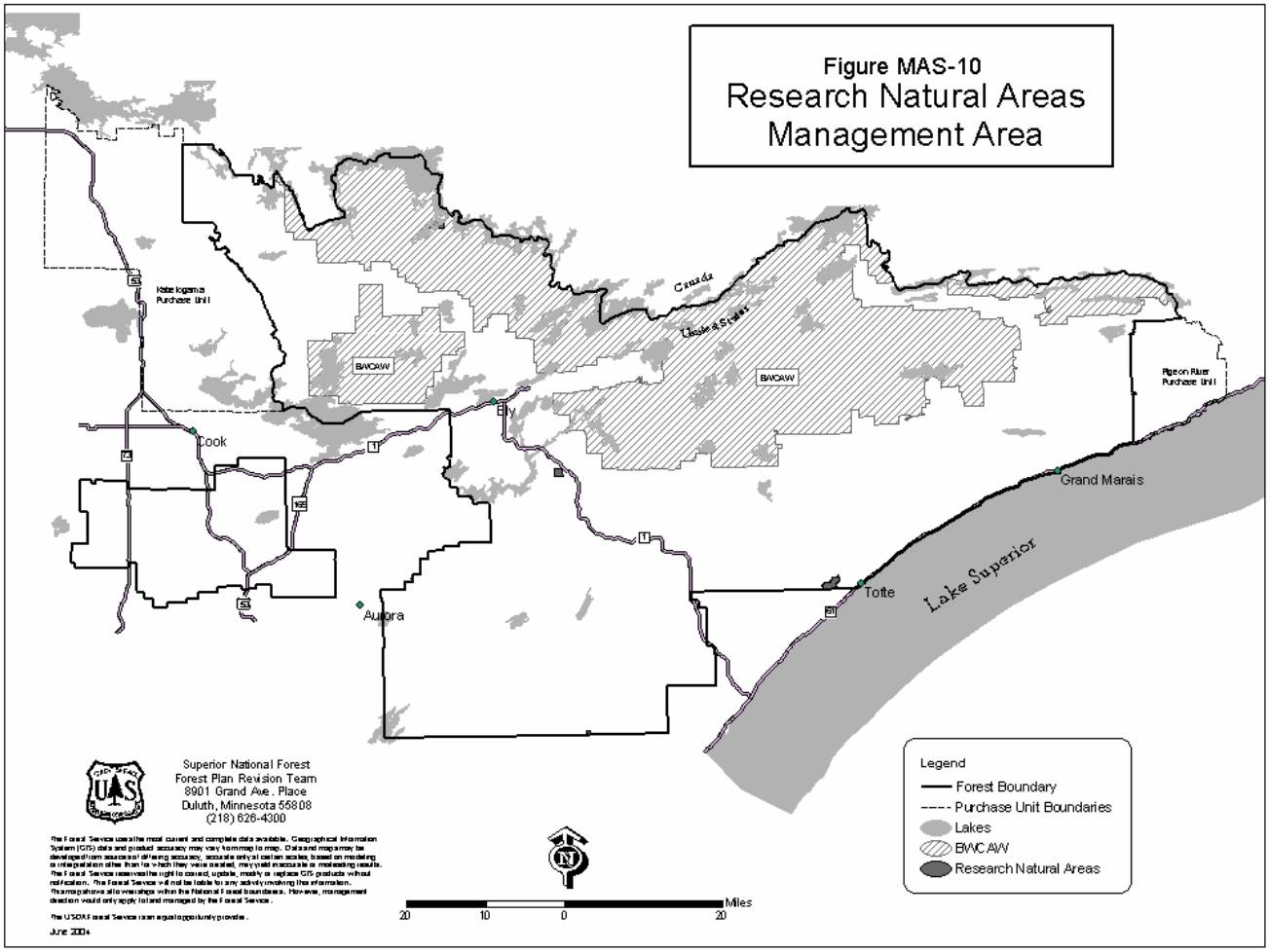
Land Adjustment

G-RE-3 Conveyances of NFS land are not permitted. Acquisitions are priority 2.

Research Natural Areas (RNA) MA

Acreage in the Research Natural Areas MA	
	Acres
Total NFS land in this MA	3,184
NFS land suitable for timber management	0
NFS land not suitable for timber management	3,184

Landscape Ecosystems in the Research Natural Areas MA	
Landscape Ecosystem	Percent of MA
Dry Mesic Jack Pine/Black Spruce	43%
Dry Mesic Pine	1%
Lowland Conifer	13%
Mesic Aspen/Birch/Spruce-fir	7%
Mesic Pine	2%
Rich Swamp	0%
Sugar Maple	34%
Total	100%



Theme

The focus is on preserving and maintaining areas for ecological research, observation, genetic conservation, monitoring, and educational activities. The role of these areas in ecological research and monitoring is in providing unique or high quality representative native plant community types. These areas often serve as baseline or reference areas for comparison to other similar ecosystems that are subject to a wider range of management activities. These areas are very suited to monitoring of succession and other long-term ecological changes.

Research Natural Areas (RNAs) also provide opportunities for low impact activities designed to educate people about ecological processes. No recreation facilities are provided. Dispersed recreation use occurs but is generally discouraged.

Setting

RNAs are located in a number of places throughout the Forest, including one that's inside the Boundary Waters Canoe Area Wilderness. The environmental conditions in which they exist may differ from each other, such as site-specific climatic conditions, soil types, and terrain; however the thread common to all RNAs is that they exhibit plant communities, associations, individual species, aquatic types, or geologic types of particular interest.

None of the Research Natural Areas MA is suitable for timber management. Three Landscape Ecosystems dominate this MA: Dry Mesic Jack Pine/Black Spruce, Sugar Maple, and Lowland Conifer.

Desired Conditions

Forest Health and Disturbance Processes

D-RNA-1 Ecological processes prevail with minimum human intervention. Land and resource conditions provide for maintenance of undisturbed ecosystems. These areas have unique land, aquatic, or rock formations or vegetative types that are worth studying in an undisturbed state. Management emphasizes conserving or enhancing these ecosystems, and where appropriate, interpreting these areas for public education.

D-RNA-2 Natural forces and site conditions are the primary factors that determine the size, shape, and composition of forest stands. In limited situations, deliberate manipulation (e.g. prescribed fire) may be used to maintain the ecosystem or unique features for which the RNA was established or to reestablish natural ecological processes. Non-native invasive species are controlled.

Vegetation Management

D-RNA-3 The forest is characterized by vegetation representative of the ecological capability of the area and is minimally affected by human activity.

Terrestrial and Aquatic Wildlife

D-RNA-4 As practicable, land and resource conditions provide habitat that reflects the natural condition. Habitat improvement projects are not normally undertaken but can be used where specifically needed to restore natural ecosystem conditions.

Recreation

D-RNA-5 The setting is usually natural but can vary from site to site. Recreational use is not a featured activity in these areas, but low impact educational and interpretation activities can be provided for. These areas may be closed to public use when needed to protect botanical or other attributes from disturbances.

Scenic Resources

D-RNA-6 Scenic conditions vary by area and are a by-product of the natural forces and site conditions that primarily determine the size, shape, and composition of forest stands.

Transportation Systems

D-RNA-7 The area may contain trails, one-lane roads surfaced with soil or aggregate, and small structures for gathering data, such as water monitoring stations, rain gauges, and instrument shelters.

Objectives

O-RNA-1 The ROS class objective is semi-primitive non-motorized in the BWCAW and semi-primitive motorized outside the BWCAW. Specific RNA plans, when developed, may determine other appropriate ROS objectives.

Standards and Guidelines

Ecosystem Function

S-RNA-1 Modifying water levels of lakes, streams, or wetlands is not permitted.

S-RNA-2 Dams and impoundments are not permitted.

S-RNA-3 Suppress fires that are destroying the uniqueness of the area, threatening persons or property, or that do not meet research goals.

G-RNA-1 Use of heavy equipment for fire suppression is generally not permitted. Snags, fire scarred trees, or other damage resulting from fire will generally not be cleaned up. Fire hazard reduction activities that are compatible with the ecosystem or unique features of the RNA or help to reestablish natural ecological processes, are generally allowed.

Vegetation

S-RNA-4 No timber management may occur within these areas.

Recreation and Access

S-RNA-5 Recreational use that threatens or interferes with the objectives or purposes of the RNA is prohibited.

S-RNA-6 Developed recreation sites are not provided.

G-RNA-2 Dispersed recreation sites are generally not allowed in these areas. One-day hiking trails are appropriate and may be used if needed to accomplish research activities or to protect the area by concentrating human use. Where possible, trails will avoid the area.

S-RNA-7 RMV use on unclassified roads is prohibited.

S-RNA-8 Developing new motorized recreation trails is prohibited. Motorized use on existing National Forest System snowmobile trails is generally allowed.

S-RNA-9 Cross-country snowmobile travel is prohibited.

G-RNA-3 The road or trail access to and facilities at, water access sites will generally meet development levels described for Natural Environment Lakes and Remote River segments. (See G-RWA-9 in Chapter 2 for development levels.)

G-RNA-4 RMV use on OML 1 and OML 2 roads is generally prohibited.

Special Uses

S-RNA-10 New special use permits are not permitted. Exceptions may be made for permits to meet research needs.

S-RNA-11 Buildings, structures, and other improvements are provided only if needed for research purposes.

Land Adjustment

G-RNA-5 Conveyances of NFS land are not permitted. Acquisitions and donations are priority 1.

Other

S-RNA-12 Gravel pits are not permitted.

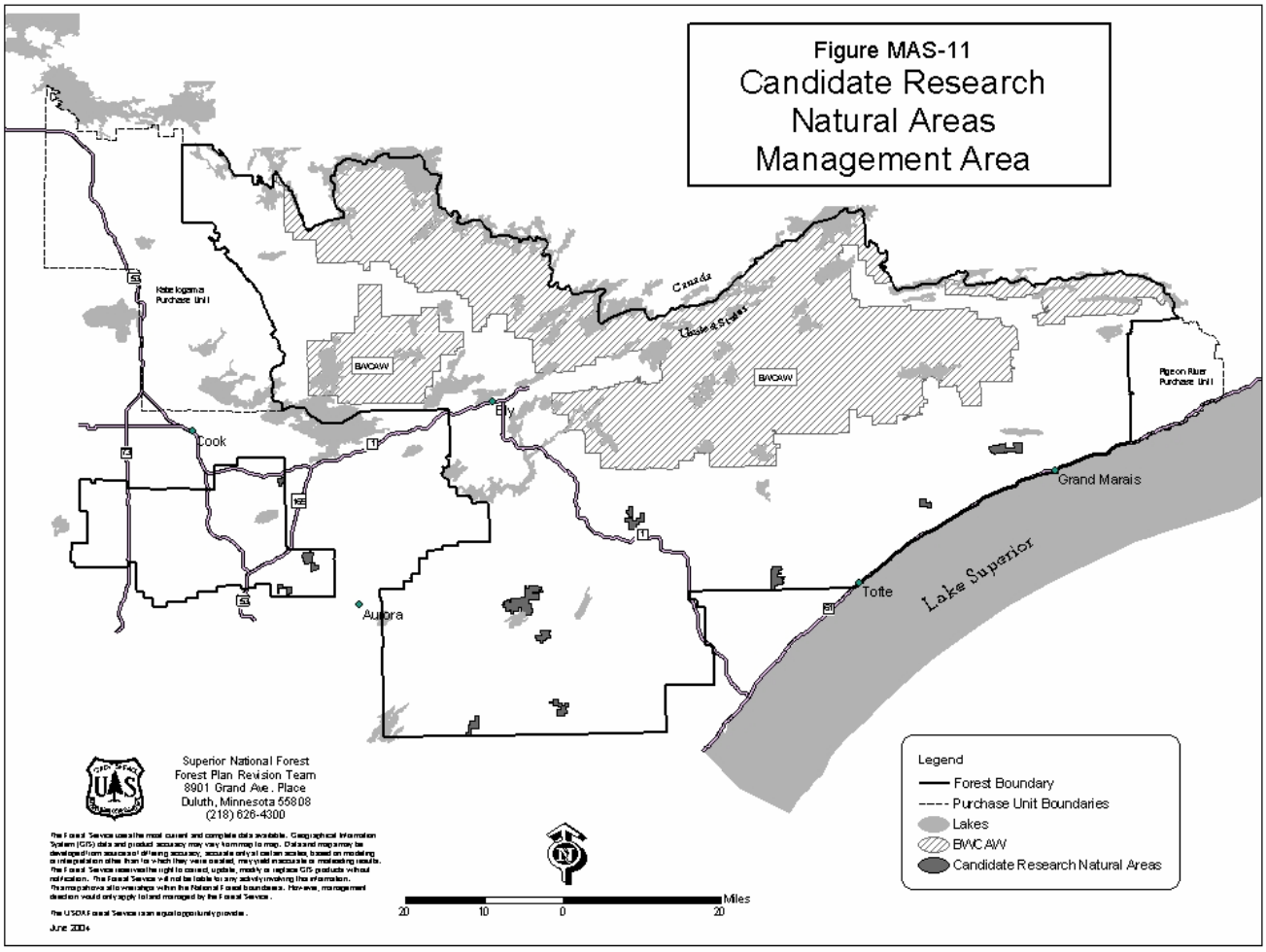
S-RNA-13 Federal mineral exploration and development activities that disturb the surface are not permitted.

S-RNA-14 Roads and trails are permitted only if needed to fulfill the purposes of the RNA.

Candidate Research Natural Areas MA

Acreage in the Candidate Research Natural Areas MA	
	Acres
Total NFS land in this MA	19,448
NFS land suitable for timber management	0
NFS land not suitable for timber management	19,448

Landscape Ecosystems in the Candidate Research Natural Areas MA	
Landscape Ecosystem	Percent of MA
Dry Mesic Jack Pine/Black Spruce	6%
Dry Mesic Pine	10%
Lowland Conifer	43%
Mesic Aspen/Birch/Spruce-fir	16%
Mesic Pine	10%
Rich Swamp	2%
Sugar Maple	13%
Total	100%



These are areas identified as Candidate Research Natural Areas (CRNAs). The formal process to make them part of the national RNA network is part of Forest Plan implementation. Until these areas are formally designated as part of the RNA network, they will be managed in the same manner as existing Research Natural Areas, with one exception. The one exception is that the interim Recreation Opportunity Spectrum (ROS) class objective in CRNAs is semi-primitive non-motorized. This interim ROS designation may change if the formal designation process for specific RNAs shows a different long term ROS class objective is more appropriate.

The Candidate Research Natural Areas are not suitable for timber management. The Lowland Conifer Landscape Ecosystem contributes almost half to the composition of this MA, with five other Landscape Ecosystems contributing smaller amounts.

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