

Chequamegon-Nicolet National Forest

Forest Plan Revision Roadless Area Inventory and Wilderness Evaluation

June 17, 2002

PART ONE: THE PROCESS

A) DIRECTION FOR CONDUCTING A ROADLESS AREA INVENTORY AND WILDERNESS EVALUATION

Purpose

The purpose of wilderness and the broad direction for managing wilderness are in the Wilderness Act of 1964 and the Eastern Wilderness Act of 1975.

Authority

The authority for study and designation of wilderness is contained in the Wilderness Act of 1964 and the Eastern Wilderness Act of 1975 (see FSM 1923.01). The Authority for conducting a Roadless Area Inventory and Wilderness Evaluation as part of the Chequamegon-Nicolet National Forest Plan Revision has its foundation in two separate acts of Congress:

- The Forest and Rangeland Renewable Resources Planning Act of 1974 directs the Secretary of Agriculture to develop regulations “specifying guidelines for land management plans developed to achieve the goals of the Program which, (A) insure consideration of the economic and environmental aspects of various systems of silviculture and protection of forest resources, to provide for outdoor recreation (including wilderness), range, timber, watershed, wildlife, and fish” [Section 6 (f)(3)(A)].
- The Wisconsin Wilderness Act of 1984, with regard to “National Forest System lands in the State of Wisconsin which were reviewed by the Department of Agriculture in the second roadless area review and evaluation (RARE II) and those lands referred to in subsection (d) (National Forest System roadless lands in the State of Wisconsin which are less than five thousand acres in size)”, directs the Department of Agriculture to “review the wilderness option when the plans are revised, which revisions will ordinarily occur on a ten-year cycle, or at least every fifteen years” [Section 5 (b)(2)].

Requirements

The requirements for evaluation and designation of wilderness are found in the Code of Federal Regulations and the Forest Service Manual:

- 36 CFR 219.17 – (a) Unless otherwise provide by law, roadless areas within the National Forest System shall be evaluated and considered for recommendation as potential wilderness areas during the forest planning process. (1) During analysis of the management situation, the following areas shall be subject to evaluation:
 - i. Roadless areas including those previously inventoried in the second roadless area review and evaluation (RARE II), in a unit plan, or in a forest plan, which remain essentially roadless and undeveloped, and which have not yet been designated as wilderness or for non-wilderness uses by law. In addition, other essentially roadless areas may be subject to evaluation at the discretion of the Forest Supervisor.
 - ii. Areas contiguous to existing wilderness, primitive areas, or administratively proposed wildernesses, regardless of which agency has jurisdiction for the wilderness or proposed wilderness;

- iii. Areas that are contiguous to roadless and undeveloped areas in other Federal ownership that have identified wilderness potential; and
- iv. Areas designated by Congress for wilderness study, administrative proposals pending before Congress, and other legislative proposals pending which have been endorsed by the President.
- Forest Service Manual 1923 (Wilderness Evaluation) – Consideration of wilderness suitability is inherent in land and resource management planning ... Planning for potential wilderness designation may occur in the development of a forest plan or may require a separate study.
 - FSM 1923.03(2) – A roadless area being evaluated and ultimately recommended for wilderness or wilderness study is not available for any use or activity that may reduce the area’s wilderness potential. Activities currently permitted may continue, pending designation, if the activities do not compromise wilderness values of the roadless area.
 - FSM 1923.04c – Forest Supervisor. The Forest Supervisor shall conduct necessary wilderness studies and prepare a study report/environmental impact statement, either as part of the forest plan or as a separate study.
- Forest Service Manual 2320 (Wilderness Management) lists the specific laws affecting the administration of National Forest wilderness areas, including the Wilderness Act of 1964; the Forest Management Acts of 1897, 1899 and 1901 (Organic Act); the Multiple-Use Sustained-Yield Act of 1960; the National Environmental Policy Act of 1970; the Eastern Wilderness Act of 1975; the National Forest Management Act of 1976, and the Clean Air Act of 1977.

Details

The details for conducting the Roadless Area Inventory and Wilderness Evaluation as part of Forest Plan Revision are found in Forest Service Handbook 1909.12, Chapter 7 (Wilderness Evaluation).

B) THE ROADLESS AREA INVENTORY

DESCRIPTION OF ROADLESS AREA INVENTORY CRITERIA

Primary Criteria

Forest Service Handbook 1909.12 identifies three primary criteria an area must meet to be considered a “potential wilderness” (or roadless area):

- 1) Must contain 5,000 acres or more
- 2) It may contain less than 5,000 acres if:
 - a. Due to physiography or vegetation, it is manageable in its natural condition
 - b. It is a self-contained ecosystem (such as an island)
 - c. It is contiguous to existing wilderness, primitive areas, Administration-endorsed wilderness, or roadless areas in other Federal ownership, regardless of size
- 3) It does not contain “improved roads” maintained for travel by standard passenger-type vehicles, except as permitted in areas east of the 100th meridian (in which case the areas contains no more than ½ mile of “improved road” for each 1,000 acres, and the road is under Forest Service jurisdiction).

Exceptions

The Handbook notes some important exceptions to these basic criteria. For instance, a roadless area may qualify for inventory even though they include the following types of areas or features:

- 1) Airstrips and heliports
- 2) Plantations or plantings where use of mechanical equipment is not evident
- 3) Electronic installations, such as television, radio, and telephone repeaters, “provided their impact is minimal”
- 4) Evidence of historic mining (50+ years ago), or areas where the only evidence of prospecting are holes which have been drilled without the use of access roads, or areas with mineral leases which require “no surface occupancy” or where leasee has not exercised development and occupancy rights
- 5) National Grasslands
- 6) Areas of less than 70% Federal Ownership, if it is realistic to manage the Federal lands as wilderness, independent of the private land
- 7) Minor structural range improvements (fence, water trough), or areas with burning projects, provided there is little or no evidence of the project
- 8) Recreation improvements such as occupancy spots or minor hunting or outfitter camps; include developed sites only if they are minor and easily removed
- 9) Timber harvest areas where logging and prior road construction are not evident
- 10) Ground-return telephone lines, if a right-of-way has not been cleared
- 11) Watershed treatment areas if the use of mechanical equipment is not evident

The Forest Service Handbook also notes exceptions for roadless areas “east of the 100th meridian”:

- 1) The land is regaining a natural, untrammled appearance
- 2) Improvements existing in the area are being effected by the forces of nature rather than humans, and they are disappearing or muted

- 3) The area has existing or attainable National Forest System ownership patterns, both surface and subsurface, that could ensure perpetuation of identified wilderness values
- 4) The location of the area is conducive to the perpetuation of wilderness values (consider the relationship of the area to sources of noise, air and water pollution; as well as unsightly conditions; and the amount and pattern of Federal ownership)
- 5) The area contains no more than a half mile of improved road for each 1,000 acres, and the road is under Forest Service jurisdiction
- 6) No more than 15 percent of the area is in non-native, planted vegetation
- 7) Twenty percent or less of the area has been harvested within the past 10 years
- 8) The area contains only a few dwellings on private lands and the location of these dwellings and their access insulate their effects on the natural conditions of Federal lands

Interpretation

The Regional Forester, in his August, 1997 letter to the R9 Forests, provides more specific interpretation of the FSH 1909.12 for application to the Eastern Region. Included in this interpretation is direction to “re-inventory” RARE II areas (as identified in the Nation-wide Environmental Impact Statement of January, 1979) to determine if they still qualify for inclusion in the inventory. If a portion of the RARE II area no longer qualifies, the boundary can be modified to “exclude only that portion that no longer qualifies”.

The direction to inventory potential roadless areas is not limited to RARE II areas, but extends to “all other National Forest System lands”. The Regional Forester also emphasizes that the inventory should be thorough and free of bias or “data filters”. The results of the inventory are documented in an Appendix to the Environmental Impact Statement (EIS) for the Forest Plan Revision.

The Regional Forester’s letter provides clarification and specific direction for both the primary criteria and the exceptions listed in the FSH, including:

- 1) Identifying “core areas” of solitude which meet the “semi-primitive” criteria described in the 1986 Forest Service Recreation Opportunity Spectrum (ROS) Book. Such core areas should contain at least 2,500 acres (unless they are contiguous to an existing wilderness). The ROS Book further states that this core area must be “at least ½-mile but no further than 3 miles from all roads, railroads or trails with motorized use; can include the existence of primitive roads and trails if usually closed to motorized use.”
- 2) Non-native, planted vegetation includes wildlife openings, seeded roads, non-native tree plantations, etc.
- 3) To determine how much of an area has been “harvested”, use regeneration cuts under even-aged management systems only, including seed-tree, shelterwood, or clearcuts. Thinnings or uneven-aged harvests (individual or group selection) are not counted as “harvest”.
- 4) Boundaries for potential roadless areas should follow natural or relatively permanent human-made features, including:
 - a. Natural features such as live streams, well-defined ridges or drainages
 - b. Human-made features such as roads, trails, dams, powerlines, pipelines, bridges, property lines, and State or Forest boundaries
 - c. Boundaries should not cross powerlines, state/county roads or major access roads

- d. Narrow, elongated, gerrymandered areas are not suitable; the boundary should provide an easily managed area
 - e. Cherry-stemming boundaries around roads into or through roadless areas is not appropriate
 - f. Roadless areas can contain less than 70 percent Federal ownership, but only if it is realistic to manage the Federal lands as Wilderness, independent of the private land
 - g. Locate boundaries to avoid conflict with important existing or potential public uses outside the boundary, which could result in non-conforming demands on the area if it were to become a Wilderness
- 5) Normally, roads under State, County, Townships, or other ownerships are not included in a roadless area since the Forest Service does not have authority to regulate use on those roads
- 6) In addition to the improvements permitted in roadless areas (listed in the FSH), the Regional Forester identified improvements which are not permitted in a roadless area, including:
- a. Significant current mineral activity
 - b. Areas with prospecting with mechanical earth moving equipment
 - c. Significant developed recreation sites judged difficult to obliterate and rehabilitate
 - d. Active railroads and railroad beds that have cuts and fills, old trestles, abutments, and cinder surfacing
 - e. Pipelines, transmission lines, and utility corridors
 - f. High standard trails with surfaces, difficult to rehabilitate to primitive standards (should include paved and surfaced trails, and most year-round motorized trails).

Improved Roads

Forest Service Handbook 1909.12, Chapter 7.11(b)(5) states that “Roadless Areas east of the 100th meridian” shall have “no more than a half mile of improved road for each 1,000 acres, and the road is under Forest Service jurisdiction”.

In August 1997, the Regional Office provided two definitions of an “improved road”:

“An improved road is any constructed or existing feature or facility created on the land for the purpose of travel by passenger vehicles (four wheeled, 2 wheel drive) which are legally allowed to operate on forest roads or public roads and highways, and vehicles are greater than 50 inches in width. Said facility will have an area for vehicles to travel on and will incorporate some manner for the disposal of surface runoff.” (Bill Rees, Regional Office Engineering, 3/26/97)

“An improved road has a definable, constructed cross-section, is properly drained, may or may not be surfaced, and is useable by most vehicle types. Some roads may be useable by high clearance vehicles. It is also stable for the predominant traffic during the normal use season. All roads assigned a Maintenance level of 3, 4 or 5 in the Forest Development Transportation Plan are improved roads maintained for travel by standard

passenger cars. Maintenance Level 1 (roads closed to vehicle use for one year or longer) and Maintenance Level 2 (roads maintained for high clearance vehicles such as pick-ups, 4x4's, etc.) are "improved roads" if they meet the above description." (Region 8)

Since both definitions contained levels of ambiguity and interpretation, the Chequamegon-Nicolet submitted the following working definition of an "unimproved road" to the Regional Office for use during Roadless Area Inventory. The Regional Office approved the definition in October 1999:

For Roadless Area Inventory on the Chequamegon-Nicolet National Forest, a road shall be considered "Unimproved" if it is a Traffic Service Level D, Maintenance Level 1 or 2 road, and:

- A. It does not have a constructed cross-section, defined as a crowned or outsloped travelway, with discernible ditches, and cuts or fills (including wetland crossings);**
- B. It does not have placed surfacing, such as pit-run material, gravel, bituminous, oil, or concrete. Such surfacing would have been hauled and placed on the roadbed from some other location (including someplace along the road);**
- C. It does not have drainage structures or improvements, such as culverts, constructed low-water crossings, or bridges;**
- D. It does have any of these features, but:**
 - **The improvements are no longer functional (such as a rusted or collapsed culvert, or a ditch filled with silt);**
 - **The improvements have outlived their usefulness (such as a deteriorated corduroy wetland crossing or roads where brush impedes vehicle travel);**
 - **The investment in the road has deteriorated to the point where replacement is equivalent to new construction (such as a heavily deteriorated, thin cold-mix bituminous surface layer on a narrow, unreinforced road base; or a gravel or pit-run surface layer that has been pounded into the subsurface, pushed off the road bed, or been structurally diminished by sod encroachment);**
 - **The road is accessible or drivable only when frozen**

Core Area of Solitude

ROS Class Delineation (1986 ROS Book, USDA-Forest Service):

- ROS is Recreation Opportunity Spectrum
- Chapter IV, LM Planning, defines ROS Class Delineation as the inventory and mapping by ROS of the land and water areas of a Forest to "identify which areas are currently providing what kinds of recreation opportunities.
- Three components are analyzed, the physical, social and managerial settings. The characteristics of each "affect the kind of experience the recreationist most probably realizes from using the area".
 1. Criteria for Physical setting includes: Remoteness, Size and Evidence of Humans
 2. Criteria for Social setting includes: User Density
 3. Criteria for Managerial setting includes: Managerial Regimentation and Noticeability

Wilderness Delineation: The 1986 ROS Book notes that, “although some designated Wildernesses are composed largely of the Primitive type of recreation opportunity, many designated Wildernesses also include Semi-Primitive or Roaded-Natural opportunities.” *For the Chequamegon-Nicolet National Forest, the criteria for a Semi-Primitive Non-Motorized ROS experience are used as the standard for Roadless Area Inventory and Wilderness Evaluation.*

The following ROS Class Delineation criteria for Semi-Primitive Non-Motorized experience are found in the 1986 ROS Book, Chapter IV. How these criteria were interpreted and applied for the Chequamegon-Nicolet NF Roadless Area Inventory is also noted. This interpretation and application was reviewed and approved by the Regional Office (John Romanowski) in June 2001.

1) **Remoteness:** “An area designated at least ½-mile but not further than 3 miles from all roads, railroads or trails with motorized use; can include the existence of primitive roads and trails if usually closed to motorized use.”

Application: The following corridors and geographical features were assigned a ½-mile buffer during mapping exercises to determine a core area of solitude:

- All Traffic Service Level C or better roads
- All OPEN Improved Roads within potential areas
- All roads, Improved or Unimproved, with special use permits providing motorized access across National Forest land
- All lakes with private ownership, public access & no restrictions on motorized use
- All ATV or year-round motorized trails (snowmobile trails were not assigned a buffer since they are not “usually” open to motorized use, typically only from 2-4 months per year)
- All power lines, pipelines, and the US Navy ELF line
- All developed campgrounds
- Any adjacent private ownership with development inconsistent with SPNM experience (for example: residential or seasonal structures)

2) **Size:** 2,500 acres (“Situations where an area identified on the remoteness overlay is slightly smaller than the size criteria for a Primitive or Semi-Primitive class – or the area is a unique entity for some other reason – may require individual consideration.”)

Application: All settings with a core area of solitude less than 2,000 acres were disqualified from further consideration unless contiguous to an existing Wilderness; settings with a core area between 2,000 and 2,500 acres received further consideration to determine if they had other roadless characteristics; settings over 2,500 acres met the basic qualification for the SPNM experience. RARE II areas with a total size of 5,000 acres or more of NF land received further consideration, regardless of core area.

3) **Evidence of Humans:** “Natural-appearing setting may have subtle modifications that would be noticed but not draw the attention of an observer wandering through the area. Little or no evidence of primitive roads and the motorized use of trails and primitive roads.”

Application: Settings with a density of improved roads (in accordance with the FSH and R9 direction) in excess of 0.5 mile/1,000 NF acres were disqualified from further consideration. ATV trails maintained for year-round use, and any other trails with graded surfacing, drainage structures or other functional refinements were considered improved trails. Snowmobile trails that did not contain any of these refinements were considered unimproved.

4) User Density: “Usually 6-15 parties per day encountered on trails and 6 or less visible at campsites.”

Application: User density was not a key factor, since there is little data on use of Dispersed recreation opportunities within the Chequamegon-Nicolet. If a setting was known to have use on the scale listed in the criteria, it could then be taken into account.

5) Managerial: “On site regimentation and controls present but subtle. Controls can be physical (such as barriers) or regulatory (such as permits).”

Application: Managerial setting was not a key factor, except perhaps where controls were not present. An example would be an area with few road closures or controlled access and established off-road motorized vehicle use.

DESCRIPTION OF ROADLESS AREA INVENTORY PROCESS

The Roadless Area Inventory for the Chequamegon-Nicolet National Forest began in September 1999 and concluded in August 2001. Rob Fallon, Land Use Planner/Civil Engineer (with assistance from Phil Barker, Recreation Specialist) conducted the inventory. Mike Harnois, GIS Specialist, prepared the maps.

STEP ONE – GIS Exercise (Geographic Information System)

(Result: Identification of 67 potential areas)

Using GIS and the Forest Transportation Inventory, a forest map was developed showing all Traffic Service Level A, B and C roads, and highlighting all areas that provided a contiguous block of 2,500 NF acres or more at least ½-mile from the nearest A, B or C roads. This query was limited to C Level or better roads, since D Level roads would require field inspection or review of condition surveys to determine whether they were “improved”. The query was later expanded to include areas that provided a contiguous block of 2,250 acres or more at least ½-mile from the nearest A, B or C roads. This was to assure that areas with a core near the ROS standard also received consideration. This was also to assure that minor mapping or acreage calculation errors did not preclude an area from consideration. Three areas that did not meet the size requirement but which were adjacent to existing Wilderness with no prohibitive barrier to that Wilderness were also identified. All RARE II Areas, regardless of total area or potential core area, were also included in this exercise. The result of this exercise was the identification of 67 potential areas, including 18 RARE II Areas. This total included 51 potential areas on the Chequamegon landbase and 16 potential areas on the Nicolet landbase.

STEP TWO – Mapping Exercises (Result: Elimination of 16 potential areas)

Cross-reference GIS map of potential areas with Forest, Quad and Township maps to determine if any potential areas should be eliminated due to the following conditions:

- 1) Assess shape of potential areas: Eliminate or modify “narrow, elongated or gerrymandered” areas, or areas with “cherry-stemmed” boundaries
- 2) Determine presence of pipelines, transmission lines, utility corridors; or if boundaries crossed power lines or state/county roads or major access roads (includes ELF line).
- 3) Determine presence of interior roads under “State, Township, or other ownerships”.
- 4) Determine presence of high standard trails (including ATV trails).
- 5) Assess private ownership of lands within the boundaries of identified areas, and eliminate any areas with over 30% private ownership or unmanageable land ownership pattern.

- 6) Note: Four areas (Pelican Lake, Bear Tick, Yellow River, Dead Horse) were eliminated for insufficient core because the GIS program failed to identify TSL C roads bisecting the areas. Two Axe Area was eliminated because the GIS exercise did not buffer the bordering Chippewa Flowage (open to motorized use).

STEP THREE – Field Inspection/GIS Exercise to Determine Road Density & SPNM Core Area
(Result: Elimination of 42 potential areas)

- 1) GIS query to map all known Traffic Service Level D Roads
- 2) Field inspection to verify location and condition of TSL D roads, as well as to identify and assess condition of any additional roads discovered during inspection
- 3) Field inspection and query County lands records to determine presence of development on adjacent private lands. Query land status atlas to determine presence of special use permits.
- 4) Determine density of “improved travelways” within remaining potential areas (19 potential areas eliminated specifically for density of improved travelways greater than 0.50 mile/1,000 NF acres).
- 5) Apply SPNM buffering criteria (using GIS) to determine if remaining potential areas have adequate SPNM core (20 potential areas eliminated specifically for insufficient SPNM core area).
- 6) Note: Three additional areas (McCarthy Lake, Mary Lake, Diamond Roof) were eliminated due to a combination of insufficient SPNM core area and excess density of improved travelways,

STEP FOUR – Resource Activities Records Search (Result: Elimination of 2 potential areas)

- 1) Districts provide information on 10-year timber harvest, percentage of non-native vegetation, minerals activities and subsurface rights within remaining potential areas.

STEP FIVE – Forest Supervisor Review of Criteria and Their Application, Identify Exceptions
(Result: Reinstatement of 2 potential areas)

- 1) Forest Supervisor reinstated two areas (St. Peters Dome, Flynn Lake) because of exceptional SPNM recreation resources or ecological features.

STEP SIX – Expand Inventory to Include Areas Identified in Step One that had a Contiguous Block of 2,000 Acres or More (Result: Identification and Subsequent Elimination of 20 “Added Areas”)

In November 2002, following completion of Steps One-Five, as well as the Wilderness Evaluation, John Romanowski, R9 Wilderness Specialist, upon reviewing the process, recommended that the Inventory should have considered in Step One any areas that had registered a 2,000 acre or larger contiguous block at least ½-mile from the nearest A, B or C roads. Romanowski suggested that, since the ROS Delineation process gave consideration to all settings with a core between 2,000 and 2,500 acres; then Step One of the inventory process should begin with those areas having a contiguous block of 2,000 acres or more. Acting on Romanowski’s suggestion, the GIS query in Step One was repeated to identify areas with a 2,000-acre contiguous block. Twenty additional areas were identified. All but 4 of these areas were eliminated using the mapping process of Step Two, the remaining 4 areas were eliminated using the field inspection and core area buffering of Step Three.

FINAL RESULT – 9 ROADLESS AREAS (Including two exceptions)

C) THE WILDERNESS EVALUATION

DESCRIPTION OF WILDERNESS EVALUATION PROCESS

Minimum standards for Wilderness Evaluation of Roadless Areas may be found in Forest Service Handbook 1909.12 (Land and Resource Management Planning Handbook), WO Amendment 1909.12-92-1, Chapter 4.19c. This chapter divides Wilderness Evaluation into 5 separate steps:

STEP 1 – OVERVIEW

Provide an overview that includes basic information about each Roadless Area

STEP 2 – WILDERNESS CAPABILITY

Indicate each Roadless Area's capability for Wilderness by describing the basic characteristics that make the area appropriate and valuable for Wilderness, regardless of the area's availability or need.

STEP 3 – AVAILABILITY FOR WILDERNESS

Indicate availability of the Roadless Area by describing other resource potential and by summarizing pertinent quantitative and qualitative information. Include current use, outputs, trends, and potential future use and/or outputs.

STEP 4 – WILDERNESS EVALUATION

Summarize the factors considered and the process used in assessing the need for each area. Include the public involvement process (both past and present), assumptions made, the social and economic factors considered, and interest expressed by proponents, including Congress. Discuss nearby Wildernesses and their uses, nearby roadless areas, distance from population centers, and use trends.

STEP 5 – ENVIRONMENTAL CONSEQUENCES

Describe the potential environmental consequences of a Wilderness and a non-Wilderness recommendation. (These consequences would be discussed and displayed in the Plan Revision as follows:)

- a. Include a table displaying the acreage assignment of prescriptions by alternative.
- b. Discuss the impact on the roadless area of a wilderness designation and the impact of each non-wilderness prescription. Show the social and economic effects in each case. Include mitigation, if any, for the loss of wilderness characteristics and the effects on plant and animal communities.
- c. Track roadless areas through each alternative considered in detail in the environmental impact statement,

Forest Service Handbook 1909.12, Chapter 7.2 provides the direction for Evaluation of Potential Wilderness.

DESCRIPTION OF WILDERNESS EVALUATION CRITERIA

SPECIFIC CRITERIA REQUIRED TO DETERMINE AN AREA'S CAPABILITY FOR WILDERNESS DESIGNATION:

Solitude

Degree to which an area provides visitors with the opportunity to gain a wide range of experiential benefits such as a feeling of solitude and serenity, a spirit of adventure and awareness, and a sense of self-reliance. (FSH 1909.12)

High, but not extremely high, probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquility, and self-reliance through the application of woodsman and outdoor skills in an environment that offers challenge and risk. (1986 ROS Book, SPNM Delineation)

Solitude may be defined by stating gross acres and describing the topography of the roadless area; stating gross area, shape, and percent of core area to entire roadless area; describing amount of existing travel patterns and degree of use within the core area; and describing other factors such as noise. (1997 R9 Guidelines)

Degree of Disturbance

Degree to which an area is natural or appears to be natural and free from disturbance so that the normal interplay between biotic species inhabiting the area continues. (FSH 1909.12)

Degree of Disturbance may be described by stating the percent of the area harvested within the past 10 years; percent of the area in non-native, planted vegetation; improvements in the area and whether they are regaining natural character; and stating if management activities are occurring on a widespread basis. (1997 R9 Guidelines)

Geological Strata

Describe unique geological features or distinctive landscape (gorges, caves, waterfalls, cliffs, etc.). (1997 R9 Guidelines)

Biological Strata

Describe by identifying the current National Forest conditions found in each Roadless Area. A coarse/fine filter approach is used to identify broad forest cover types, successional classes, rare communities, and special species (and grouping these species according to ecological units or community types). (1997 R9 Guidelines)

Biotic Species Requiring Primitive Surroundings

Ability of certain biotic species to compete with increasing public use and developmental projects that affect their habitats. Consider means available, other than wilderness designation, for meeting this need. The need to provide a sanctuary for those biotic species that have demonstrated an inability to survive in less than primitive surroundings or the need for a protected area for other unique scientific values or phenomena. (FSH 1909.12)

Determine relationship of roadless areas to habitat availability needs for plant and animal species. This includes determining the proportion of the acreage of suitable habitat or species

occurrences contained within the Roadless Areas as compared to the National Forest as a whole; and documenting the species habitat conditions or individual species which are dependent on or benefit from wilderness designation. (1997 R9 Guidelines)

Ecological Strata

An area's ability to provide for preservation of identifiable landform types and ecosystems. Consideration of this factor may include utilization of Edwin A. Hammond's subdivision of landform types and the Bailey-Kuchler ecosystem classification. This approach is helpful from the standpoint of rounding out a National Wilderness Preservation System and may be further subdivided to suit local, subregional, and regional needs. (FSH 1909.12)

Using Edwin A. Hammond's subdivision of landform types and the Bailey-Kuchler ecosystems classification, state the number of and acres of ecoregional Sections and Subsections present, and state if a Roadless Area includes an ecosystem section and/or subsection that currently has no representation in Wilderness. (1997 R9 Guidelines)

Scientific/Educational Values

Describe the Roadless Area's capability to provide outdoor education and scientific study, both formal and informal, in a manner that is compatible with Wilderness. (FSH 1909.12)

Describe the presence of designated Research Natural Areas, Experimental Forests, and potential for study of ecosystem sections and subsections not represented in Wilderness. (1997 R9 Guidelines)

Historical/Social/Cultural Values

State presence of designated Cultural, Heritage, Paleontological Areas, and/or the presence of old grave sites, cemeteries, historic cabins, etc. (i.e. a sense of place) (1997 R9 Guidelines)

Challenge

Degree to which the area offers visitors the opportunity to experience adventure, excitement, challenge, initiative, or self-reliance. Most desirable area offers many outstanding opportunities for adventure & challenge. (FSH 1909.12)

Describe opportunity to experience a level of risk; state the probability of having the feeling of being the first one in the area; state if there is an opportunity to get off the travelway and away from human influences in the area; describe the probability of being dependent on use of outdoor skills; state if there are signs of trails, travel corridors, blazes; describe the extent that physical elements and natural forces interact with the individual use of the area (i.e. terrain, high volume stream flow, etc.). (1997 R9 Guidelines)

Primitive and Unconfined Recreation

Determine an area's capability of providing primitive and unconfined types of recreation such as camping, hunting, fishing, mountain climbing, ski touring, canoeing, boating, river rafting, backpacking, hiking, riding, photography, and other outdoor activities. (FSH 1909.12)

State the range and uniqueness to the recreation activities available; describe what characteristics of the area create the opportunities for the different activities. (1997 R9 Guidelines)

Special Features

Abundant and varied wildlife may enhance an area's Wilderness capability. If the primary objective should be the protection or management of one or more wildlife species, analyze the relative values of Wilderness and wildlife management. In some instances, particularly where nonconforming structures or activities are necessary for management of the wildlife or its habitat, Wilderness designation may not be appropriate. Special scenic features contribute to an area's Wilderness capability. (FSH 1909.12)

Describe any special features that have not been described in any other section; state presence of designated Scenic Areas, features, focal points, or distinctive landscapes. (1997 R9 Guidelines)

Manageability

Forest Service ability to manage an area as an enduring resource of Wilderness, untrammelled by man, retaining its primeval character, and to protect and manage its natural character are all factors to consider. Also consider such factors as size, shape, and juxtaposition to external influences. (FSH 1909.12)

State size of area; describe amount of and character of private land within the area; describe presence of and character of special use permits in area; describe adjacent area and state if privately owned or Forest Service ownership; state if there are any outstanding mineral rights within the area. (1997 R9 Guidelines)

Additional Capability Characteristics for Areas in the East (FSH 1909.12, 7.21a)

National Forests east of the 100th meridian may contain limited nonconforming uses and/or nonconforming structures and improvements while retaining capability for wilderness designation. Standards for desirable capability characteristics east of the 100th meridian are:

1. Nonconforming uses are of such a nature that they can be effectively mitigated or terminated. Examples include a variety of uses, such as logging, special-use facilities, vegetation treatment, fences, log or frame cabins, or corrals that can be terminated and the improvements easily removed or ignored because they are rapidly disappearing through natural deterioration.
2. Nonconforming structures and improvements, except range improvements, are generally lacking. If present, they are rapidly disappearing through natural processes, or it would be practical to remove them and permit the site to return to a near-natural condition. Examples include buildings, power lines, dams, borrow pits, and lower standard roads that, if closed, would recover naturally.

SPECIFIC CRITERIA REQUIRED TO DETERMINE AN AREA'S AVAILABILITY FOR WILDERNESS DESIGNATION:

Availability

The determination of availability is conditioned by the value of and need for the Wilderness resource compared to the value of and need for other resources. To be available for Wilderness, the values of the Wilderness resources, both tangible and intangible, should offset the value of resources that formal Wilderness designation would forego. (FSH 1909.12)

Describe and discuss non-Wilderness resources, current uses, outputs and potential uses available within a Roadless Area that may affect its availability for inclusion in the National Wilderness Preservation System. (1997 R9 Guidelines)

Note that additional criteria for Wilderness Evaluation address demand and capacity of existing Wilderness Areas. These criteria include: Existing Demand, Recreation Capacity, Practical Maximum Capacity, Existing Condition Capacity, Accessibility, Visitor Pressure, and Other Unconfined Recreation Opportunities/Experiences. These are all quantitative and objective values generated from use and acreage figures.

Lands Generally Unavailable for Wilderness (FSH 1909.12, 7.22a)

Following are examples of lands that are generally best suited for development and intensive management for sustained yield production of resources other than wilderness. Depending on the seriousness of the resource needs, these lands may be considered unavailable for wilderness:

- Areas where the need for increased water production and/or additional onsite storage is so vital that the installation or maintenance of improvements that would be incompatible with wilderness is an obvious and inevitable public necessity
- Areas where designation would seriously restrict or prevent the application of wildlife management measures of considerable magnitude and importance
- Highly mineralized areas that are of such strategic or economic importance and extent that restrictions or controls necessary to maintain the wilderness character of the land would not be in the public interest.
- Areas containing natural phenomena of such unique or outstanding nature that general public access and special development to facilitate public enjoyment should be available.
- Land needed to meet clearly documented resource demands such as for timber or mineral production or for developed recreation areas such as winter sports sites.
- Lands committed through contractual agreements for use, purposes, or activities not in concert with the requirements of the Wilderness Act of 1964.

Limitations on Roadless Area Recommendations in the East (FSH 1909.12, 7.24)

Evaluation of roadless areas east of the 100th meridian as part of the forest planning process yields one of the two following decisions:

1. Manage the area for multiple uses other than wilderness
2. Recommend the area to Congress as a Wilderness Study Area

SPECIFIC CRITERIA REQUIRED TO DETERMINE THE NEED FOR ADDITIONAL WILDERNESS:

The need for additional Wilderness is addressed in two primary locations:

- FSH 1909.12, Chapter 7 addresses the formal criteria for determining need
- The Forest Plan Revision Analysis of the Management Situation for Wilderness and Semi-Primitive Non-Motorized Areas identifies the need to adjust management direction regarding SPNM and Wilderness

FSH 1909.12, Chapter 7 – Wilderness Evaluation

7.23 – Need. Determine the need for an area to be designated as wilderness through an analysis of the degree to which it contributes to the local and national distribution of wilderness. There should be clear evidence of current or future public need for additional designated wilderness in general area under consideration. Demonstrate this need through the public involvement process, including public input to environmental analysis and its resultant documentation. Deal with “need” on a national basis and evaluate such factors as the geographic distribution of areas, representations of landforms and ecosystems, and the presence of wildlife expected to be visible in a wilderness environment.

It is not possible to consider the need for the wilderness resource wholly apart from the demand for other uses of the land that might be compatible with wilderness. Nevertheless, considering that the purpose of wilderness designation is to provide an enduring resource of wilderness for the American people, it is essential to analyze the need for wilderness in order to establish its relative value.

7.23a – Assumptions. In evaluating the need for wilderness, planners can make certain assumptions with reasonable assurance, specifically:

1. Wilderness demand increases with both increasing population and growing awareness of Wilderness.
2. Some undeveloped lands provide many opportunities for a primitive type of recreation outside Wilderness. These lands are going to decrease in acreage as the demands on public lands increase.
3. Some visitor use that occurs in Wildernesses is not dependent upon the Wilderness resource.
4. Within social and biological limits, management may increase the capacity of establishing Wildernesses to support human use without unacceptable depreciation of the Wilderness resource.
5. To survive, some biotic species and/or associations may require the environment found only in a Wilderness.

7.23b – Factors (*see Appendix A*). In determining whether there is a need to designate a roadless area as wilderness, consider:

1. The location, size, and type of other wildernesses in the general vicinity and their distance from the proposed areas. Consider accessibility of areas to population centers and user groups.
2. Present visitor pressure on other wildernesses, the trends in use, changing patterns of use, population expansion figures, trends and changes in transportation, and Nation-wide travel patterns.
3. Extent to which non-wilderness lands on National Forest, other Federal lands, State lands, & private lands other than wildernesses are likely to provide opportunities for unconfined outdoor recreation experiences.

Analysis of the Management Situation: Wilderness and SPNM Areas (pg 14)

The following situations or conditions support the need for SPNM & Wilderness within the Chequamegon-Nicolet:

- Long term increase in demand for primitive recreation opportunities, coupled with increasing development of private landbase of northern Wisconsin.
- There is a lack of opportunities for solitude in a Forest setting. A common complaint is the intrusion of motorized sound in Wilderness and SPNM areas.
- In both Wilderness and SPNM Areas of the Chequamegon-Nicolet National Forest there is generally a lack of quality primitive experience from both ecological and recreational perspectives.
- There is a need to provide habitat for species that require isolation (areas of low human impact).

In addition to the needs listed above, there is a growing recognition of the need to maintain and enhance biological diversity and ecosystem representation, as well as address the issues of forest continuity and landscape structure ... When considered with the concern about the intrusion of motorized sound within the relatively small SPNM and Wilderness areas currently designated within the Forest, this additional concern about the ecological effects of small size and fragmentation reinforces the need for larger contiguous blocks of land within these designations.

D) CHRONOLOGY OF THE ROADLESS AREA INVENTORY AND WILDERNESS EVALUATION PROCESS ON THE CHEQUAMEGON-NICOLET NATIONAL FOREST

- JULY 1996** - Chequamegon-Nicolet National Forest Notice of Intent to prepare an environmental impact statement for revision of the Chequamegon and Nicolet National Forests' land and resource management plans
- AUGUST 1996** - Chequamegon-Nicolet National Forest "Draft Report on Wilderness Recommendations for Forest Plan Revision"
- AUGUST 1997** - USDA-Forest Service Eastern Region issues "Guidelines for Completing Roadless Area Inventories During Forest Plan Revision"
- MARCH 1998** - Chequamegon-Nicolet National Forest "General Assessment for Wilderness and Semi-Primitive Non-Motorized"
- MARCH 1999** - Chequamegon-Nicolet National Forest "Draft Analysis of the Management Situation for Wilderness and Semi-Primitive Non-Motorized Areas"
- JULY 1999** - Chequamegon-Nicolet National Forest Leadership Team directs Forest Planning Team to conduct Roadless Area Inventory utilizing criteria described in August 1997 Eastern Region guidelines, July 8-9, 1999 (Park Falls, WI)
- AUGUST 1999** - USDA-Forest Service Eastern Region issues "Guides for Clarification of: FSH 1909.12 – Land and Resource Management Planning Handbook, Chapter 7 – Wilderness Evaluation and Chapter 4.19c – Roadless Area Evaluation"
- AUGUST 1999** - Chequamegon-Nicolet National Forest "Proposal for Inventory and Evaluation of Potential Wilderness Areas", presented by Forest Planning Team (Fallon) @ August 25, 1999 Forest Leadership Team Meeting (Eagle River, WI), Forest submits definition of "unimproved road" to Eastern Region office for review and approval
- SEPTEMBER 1999** – John Romanowski, Eastern Region Wilderness Specialist submits written review and approval of "unimproved road" definition, with slight modifications
- OCTOBER 1999** – USDA-Forest Service Eastern Region Workshop on Roadless Area Inventory and Wilderness Evaluation, October 4-7, 1999 (Milwaukee, WI) (Fallon attended)
- NOVEMBER 1999** – Chequamegon-Nicolet National Forest "Semi-Primitive Non-Motorized Areas, How Much is Enough?" presented by Forest Planning Team (Fallon) @ November 25, 1999 Forest Leadership Team Meeting (Woodruff, WI), Eastern Region Planning Team members in attendance, John Romanowski, Eastern Region Wilderness Specialist, conducts field review of Roadless Area Inventory process with Forest Planning Team members (Fallon, Barker)

NOVEMBER 1999 – Begin Roadless Area Inventory

- a) GIS Exercise (Harnois)
- b) Mapping Exercise (Fallon, Barker)
- c) Field Inspection (Fallon, Barker)

APRIL 2000 - Memo from Fallon to District Rangers (Medford/Park Falls, Great Divide, Washburn) requesting search of resource activities records in areas identified as meeting preliminary roadless requirements – a contiguous core of 2,500 acres at least ½-mile from the nearest Traffic Service Level A, B or C road, and an improved road density less than 0.5 mile per 1,000 NF acres within the area boundary. Improved road density field investigation not yet complete, but these areas appeared to have potential. Records search requested on following areas:

- Washburn – R-8, Flynn Lake
- Great Divide – R-2, Tea Lake
- R-5, Moose River
- GD-12, Two Axe
- GD-16, Hungry Run
- GD-17, Iron River
- GD-18, Porcupine Lake Addition
- Medford/Park Falls - R-10, Chase Creek
- PM-2, Clover Creek (later renamed Schmuland)
- PM-3, Hoffman Creek
- PM-9, Bear Creek
- PM-11, Yellow River (later renamed Lost Lake)
- PM-14, Ice Age

JUNE 2000 - Memo from Fallon to District Ranger (Eagle River/Florence) requesting search of resource activities records in two areas identified as meeting preliminary roadless requirements (R-11, Shelp Lake Addition; and EF-2, Jones Creek).

JULY 2000 - Eliminate the following areas from further consideration due to search of resource activities records and other considerations:

- Great Divide - R-5, Moose River, insufficient core area
- Medford/Park Falls - PM-3, Hoffman Creek, completion of field investigation, Town road cherry-stems into interior of potential area, no logical redefinition of boundary, improved road density exceeds 0.5 maximum
- PM-9, Bear Creek, completion of field investigation, improved road density exceeds 0.5 maximum
- PM-11, Yellow River (Lost Lake), records search, minerals activity (exploration, discovery), improved roads associated with exploration

AUGUST 2000 – Begin Wilderness Evaluation of remaining areas meeting preliminary roadless Requirements; staff specialists meet with Fallon in Minocqua on August 17, 2000 to outline resource input for evaluation. In attendance: Rob Fallon, Linda Parker,

Dave Hoppe, Quita Sheehan, Jeff Herrett. Written request to all staff specialists and District Rangers to provide information required for Wilderness Evaluation

NOVEMBER 2000 – Draft Roadless Area Inventory and Wilderness Evaluation circulated to District Rangers and Staff Resource Specialists for review and comment on accuracy of content, the following areas were not included in this report, or were modified from April 2000 request: GD-12, Two Axe (preliminary core area did not buffer Chippewa Flowage, a motorized lake); PM-2, Schmuland/Popple Creek (boundary modified to follow Flambeau Motorized Trail).

DECEMBER 2000 – “12/12/00 Draft of Chequamegon-Nicolet National Forest – Forest Plan Revision Roadless Area Inventory and Wilderness Evaluation” presented to Forest Leadership Team @ December 11-12, 2000 Meeting in Park Falls, WI. Note that Wilderness Evaluation still incomplete for half of the areas submitted. Decisions:

- a. Eliminate the following areas because they do not meet Roadless Area requirements:
 - Ice Age – Field investigation failed to include 1.3 miles of improved road, a length sufficient to cause road density for area to exceed 0.5 maximum (should not have qualified for inventory)
 - Shelp Lake Addition – Regeneration timber harvest in this area exceeded 20% of total area over past 10 years (35%) (should not have qualified for inventory)
- b. Bring forth the following areas for further consideration:
 - R-8, Flynn Lake (W)
 - R-5, Tea Lake (GD)
 - GD-16, Hungry Run
 - GD-17, Iron River
 - GD-18, Porcupine Lake Addition
 - R-10, Chase Creek (M/PF)
 - PM-2, Schmuland/Popple Creek
 - EF-2, Jones Creek
- c. Expand area of consideration to those locations having a core area (defined as a contiguous core of NF acres at least ½-mile from the nearest Traffic Service Level A, B or C road) within 10% of the minimum (between 2,250 and 2,500 NF acres), and RARE II Areas meeting road density requirements (< 0.50)
- d. Complete Wilderness Evaluation before the Leadership Team can recommend any area for Wilderness in the Forest Plan Revision

DECEMBER 2000 - The following areas are identified in a GIS exercise as having a contiguous core of at least 2,250 NF acres ½-mile from the nearest Traffic Service Level A, B, C road, or are identified as RARE II Areas meeting road density requirements. These areas treated as having potential roadless characteristics, and each scheduled for a field investigation:

- R-3, St. Peters Dome (GD)
- R-5, Moose River (GD)
- R-6, Muskellunge Lake (GD)
- PM-6, Wilson Flowage

- PM-7, Sieverson Springs
- PM-16, Kidrick Swamp
- EF-3, Bailey Lake
- LL-3, Mary Lake
- LL-4, Diamond Roof (this area was added to conduct a field investigation to verify that the GIS information was correct)

JANUARY 2001 – Fallon and Miller meet in Odanah, WI with Karen Danielson and John Gilbert of Great Lakes Indian Fish and Wildlife Commission (GLIFWC), and present “GLIFWC Consultation 1/17/01 Draft of Chequamegon-Nicolet National Forest – Forest Plan Revision Roadless Area Inventory and Wilderness Evaluation”.

APRIL 2001 – While preparing a timeline and proposal for completing the fieldwork for the additional areas, as well as the final Inventory and Evaluation, Fallon notes some discrepancies in how areas were originally considered, and how potential boundaries were drawn. Specifically, in the original exercise Fallon had failed to fully consider those areas bordered by the National Forest boundary. Other areas had been eliminated due to the presence of the US Navy ELF Line. A full review of all areas originally considered, and a few that were not, results in adjustments and a re-inventory of the following:

- W-5, Star Lake (NF boundary)
- W-7, Big Brook (NF boundary)
- GD-1, Spruce Lake (modification to boundary)
- GD-2, McCarthy Lake (modification to boundary)
- GD-4, Christy Lake (modification to boundary)
- GD-5, Kelly Lake (modification to boundary)
- GD-6, Little Moose River (modification to boundary)
- GD-7, Black Creek (modification to boundary)
- GD-11, Snag Lake (modification to boundary)
- GD-13, Hemlock (modification to boundary)
- GD-15, Spring Brook (NF boundary)
- PM-5, Stony Creek (errors noted in original field investigation)

JUNE 2001 – Forest Planning Team prepares and distributes “Proposed Process and Timeline For Distribution and Review of Forest Plan Revision Roadless Area Inventory and Evaluation”, targets August 30-31 Forest Leadership Team meeting as decision date for Wilderness recommendations.

JUNE 2001 – “6/27/01 Draft of Chequamegon-Nicolet National Forest - Forest Plan Revision Roadless Area Inventory and Wilderness Evaluation” prepared for on-site review by John Romanowski, Eastern Region Wilderness Specialist. Seventeen areas are listed as having potential roadless attributes, including (* areas with core under 2,500 NF acres):

- R-8, Flynn Lake (W)
- W-5, Star Lake
- W-7, Big Brook
- R-2, Tea Lake (GD)
- R-5, Moose River (GD)*

- R-6, Muskellunge Lake (GD)*
- GD-13, Hemlock
- GD-15, Spring Brook
- GD-16, Hungry Run
- GD-17, Iron River
- GD-18, Porcupine Lake Addition
- R-10, Chase Creek (M/PF)
- PM-2, Schmuland/Popple Creek
- PM-5, Stony Creek
- PM-6, Wilson Flowage*
- EF-2, Jones Creek
- LL-3, Mary Lake*

Fallon and Romanowski conduct field review of Jones Creek area to verify that Forest using proper interpretation of road definition and inventory criteria. During office review of each of the areas given any consideration, Romanowski notes that Fallon has not included all possible motorized influences when buffering a core area. Fallon needs to expand buffered influences to include special use permits, open improved roads, and developed private land adjoining or within the area – all in accordance with the 1986 ROS Book. Further, Romanowski suggests the following:

- Consider all RARE II Areas meeting the road density requirement, regardless of the buffered core area size.
- If St. Peters Dome has a core area over 2,000 acres, it should be considered even though total size does not exceed 5,000 acres.
- Reconfigure the boundary for PM-4, originally called Foulds Springs, to exclude the Town roads. If this new area, later called Mud Lake, has a sufficient core area, then conduct further inventory of the area.

JULY 2001 – Fallon makes the adjustments noted by Romanowski, and holds formal meetings with the following Districts to review the process and verify information collected for the core area buffering process: 7/17/01 @ Washburn, 7/23/01 @ Great Divide (Glidden), and 7/31/01 @ Medford/Park Falls (Park Falls). Fallon also collects information on private property adjoining and within potential areas by contacting or visiting the Tax Assessors Office for Sawyer, Bayfield, Ashland and Price Counties. The same information for Forest and Oconto Counties is obtained from plat books and field verification.

JULY 2001 – Fallon meets with Forest Supervisor Lynn Roberts, Deputy Forest Supervisor Bob Lueckel, Forest Planner Mike Miller, and Forest Recreation Specialist Phil Barker on 7/24/01 @ Park Falls to present proposed Roadless Area Inventory, and request decision from Forest Supervisor on status of those areas that do not meet minimum core area standards but do have road density less than 0.5 maximum. These proposed areas have now been buffered in accordance with the 1986 ROS Book and John Romanowski's instructions. The following areas are presented as meeting the road density requirements:

- R-8, Flynn Lake (RARE II Area, core area less than 2,000 NF acres)
- W-5, Star Lake (core area in excess of 2,500 NF acres)
- R-2, Tea Lake (RARE II Area, core area less than 2,000 NF acres)

- R-3, St. Peters Dome (RARE II Area, total less than 5,000, core more than 2,000)
- R-5, Moose River (RARE II Area, core area less than 2,500 NF acres)
- R-6, Muskellunge Lake (RARE II Area, core area less than NF 2,000 acres)
- GD-15, Spring Brook (core area in excess of 2,500 NF acres)
- GD-16, Hungry Run (core area slightly less than 2,500 NF acres)
- GD-17, Iron River (core area slightly more than 2,500 NF acres)
- GD-18, Porcupine Lake Addition (adjacent to existing Wilderness)
- R-10, Chase Creek (RARE II Area, core area less than 2,500 NF acres)
- PM-2, Schmuland/Popple Creek (core area in excess of 2,500 NF acres)
- PM-4, Mud Lake (core area in excess of 2,500 NF acres)
- PM-5, Stony Creek (core area in excess of 2,500 NF acres)
- PM-6, Wilson Flowage (core area less than 2,500 NF acres)

The Forest Supervisor makes following decisions regarding the areas proposed:

- a. Approves the 7 areas that meet the minimum requirements for Roadless Area Inventory (core in excess of 2,500 NF acres, road density < 0.5)
- b. Expands the boundary of the Flynn Lake Area to property lines near Hwys N & 63
- c. Considers the merits of each of the remaining 8 areas that do not meet the minimum requirements to determine if there should be any exceptions carried forward for Wilderness Evaluation; these areas are considered on the basis of outstanding ecological resources (using the Forest LAD Inventory) or outstanding recreation resources (using the Forest SPNM Inventory); three of the eight areas are carried forward because they demonstrate exceptional ecological or recreation features.
- d. The Draft Roadless Area Inventory includes the following areas:
 - W-5, Star Lake
 - GD-15, Spring Brook
 - GD-17, Iron River
 - GD-18, Porcupine Lake Addition
 - PM-2, Schmuland/Popple Creek
 - PM-4, Mud Lake
 - PM-5, Stony Creek
 - R-8, Flynn Lake (outstanding exception)
 - R-3, St. Peters Dome (outstanding exception)
 - GD-16, Hungry Run (outstanding exception)

A revision to the buffering based on information received from the Great Divide District a few days later reveals that Hungry Run actually exceeds the 2,500 NF acre minimum, so it is no longer considered as an exception, but as meeting the basic requirements.

AUGUST 2001 – Fallon distributes the “8/8/01 Draft of Chequamegon-Nicolet National Forest – Forest Plan Revision Roadless Area Inventory and Wilderness Evaluation” to the Washburn, Great Divide and Medford/Park Falls Ranger Districts, and the Chequamegon Engineering Staff for review and comment; this document includes partially complete Wilderness Evaluations for only 5 of the 10 Roadless Areas.

AUGUST 2001 – Fallon prepares an updated “8/16/01 Draft of Chequamegon-Nicolet National Forest – Forest Plan Revision Roadless Area Inventory and Wilderness Evaluation” for presentation in Rhinelander on 8/16/01 to the Eastern Region Planning Team conducting an audit of the Chequamegon-Nicolet Forest Plan Revision Process.

AUGUST 2001 – Fallon distributes the 16-page summary document entitled “Forest Plan Revision, Wilderness Evaluation – Availability and Need” to members of the Forest Leadership Team as preparation for the August 30, 2001 Leadership Team Meeting to discuss Wilderness Evaluation.

AUGUST 2001 – “8/30/01 Draft of Chequamegon-Nicolet National Forest – Forest Plan Revision Roadless Area Inventory and Wilderness Evaluation” presented by Forest Planning Team (Fallon) @ August 30, 2001 Forest Leadership Team Meeting (Florence, WI). Evaluations for all 10 Roadless Areas are substantially complete. Using the summary document, “Forest Plan Revision, Wilderness Evaluation – Availability and Need”, Fallon guides the Team through a discussion of criteria for Capability and Availability of Roadless Areas for Wilderness recommendation. Fallon also provides a summary table of key attributes and a list of discussion topics to help focus the dialogue. The purpose of this meeting is to discuss the merits and mitigating factors for each of the newly inventoried Roadless Areas and make the following decision: Are there individual roadless areas that should not be available for Wilderness because they are best suited for intensive management of resources other than Wilderness (Availability)? The Leadership Team makes the following decisions regarding the availability of the newly inventoried Roadless Areas:

- a. Based on new information provided during the meeting by the Acting Washburn District Ranger, Star Lake appears as if it will no longer qualify as a Roadless Area. During the meeting in July, and during subsequent review of the draft, District personnel did not note the presence of a special use permit providing access to a private 40-acre parcel within the Star Lake area. This permit provides access of more than 2 miles across National Forest land to this isolated interior parcel. The permitted route must be buffered since it guarantees motorized access to the landowner. Star Lake, as presented in the 8/30/01 Draft, has a core area of 2,592 NF acres. Buffering this permitted route will reduce this core well below the required level of 2,500 NF acres. Star Lake does not possess the outstanding ecological or recreation features to warrant designation as a Roadless Area by exception. The Star Lake area is dropped from the Roadless Area Inventory.
- b. The St. Peters Dome area is discussed at length. There are a number of factors that compromise the potential of this area as a Wilderness. The presence of a State Snowmobile Corridor through the heart of the core area, the popularity of Morgan Falls and St. Peters Dome as visitor attractions, the relatively small size (below standard for core and total area), and the private ownership of 81% of the reserved and outstanding mineral rights are all factors detracting from the potential of the area. New information provided by the Great Divide District Ranger also has significant bearing on the discussion. A Decision Notice had been signed by the Ranger, and approved by the Forest Supervisor, in the spring to make the Morgan Falls hiking trail

accessible. This decision included rerouting a portion of the trail, installing three new trail bridges, and hardening the surface of the ½-mile trail. Although the trail is not currently accessible, the signed NEPA decision to surface the trail to accommodate wheelchairs essentially makes this an “improved trail”. More importantly, this qualifies as “special development to facilitate public enjoyment”, an example given in FSH 1909.12, Chapter 7.22c of lands that are “generally best suited” for management “other than wilderness”. It is the opinion of the LT that wheeled transport of any kind is not permitted within a Wilderness (Fallon will research); and any consideration of this area as Wilderness would necessarily have to exclude the Morgan Falls trail. The Deputy Forest Supervisor indicates further that, had they taken this trail improvement into account, he and the Forest Supervisor might not have recommended this area as an exception at the 7/24/01 meeting. Following considerable discussion the LT concludes that no one of these factors is enough to indicate that this area should not be recommended as Wilderness. However, taken collectively, there are too many compromises to warrant recommendation as Wilderness. The LT determines that the vital protection of the ecological features of this area, and the resolution of any conflicts between motorized and non-motorized recreation within the area will be best managed through some designation other than Wilderness. The LT decides that the St. Peters Dome Roadless Area is not available for Wilderness consideration, and will not be considered for Wilderness as part of Forest Plan Revision.

- c. Stony Creek is another area that is the subject of much discussion. Stony Creek has private ownership of 87% of reserved and outstanding mineral rights, and it has had recent exploration activities. A zinc/lead/silver mineral deposit has been discovered nearby, and the possibility exists that this deposit could extend within the Stony Creek area. Another concern is the 7.0-mile segment of a State Snowmobile Corridor that bisects the area. This area contains no notable ecological or recreation features (other than the snowmobile trail). Following discussion, the LT concludes that the evidence of metallic minerals, and the potential for economic development of such minerals, is inconclusive. There are options for relocating the snowmobile trail (not great options, but they are options nonetheless). While this may not be the ideal location for Wilderness, Stony Creek does have a large core area and it meets the basic requirements as a Roadless Area. The mitigating factors, even considered collectively, are not enough to compromise the consideration of this area for Wilderness. The Leadership Team decides that the Stony Creek Roadless Area is available for consideration as Wilderness through the Forest Plan Revision process.
- d. There is some discussion regarding Flynn Lake. The primary concern is that this area, like St. Peters Dome, has an undersized core area. But this is the only concern regarding this area. The proximity of this area to Rainbow Lake Wilderness and the quality of the recreation resource are key factors to recommend it. It is the decision of the Leadership Team that the Flynn Lake Roadless Area is available for consideration as Wilderness through the Forest Plan Revision process.
- e. The LT discusses the remaining Roadless Areas in a little less detail than the aforementioned areas. All of these areas have mitigating factors: Mud Lake

has a State Snowmobile Corridor passing through the core area, Porcupine Lake Addition has a County Snowmobile Trail passing through a portion of the area, Schmuland/Popple Creek and Spring Brook are bordered by motorized trails, Hungry Run has a 1.3-mile segment of a motorized trail passing through a portion of the area, and Iron River has two small core areas connected essentially by a corridor. The LT determines that none of these mitigating factors are of enough consequence to compromise the consideration of these areas for Wilderness. It is the decision of the Leadership Team that these 6 remaining Roadless Areas are available for consideration as Wilderness through the Forest Plan Revision process.

- f. The next step in the Wilderness Evaluation process is to address Need. Need is demonstrated through “the public involvement process, including public input to environmental analysis and its resultant documentation” (FSH 1909.12, Chapter 7.23). It is the decision of the Leadership Team to make the following eight Roadless Areas available for the consideration of the public as Wilderness through the Forest Plan Revision Process:

- 1) R-8, Flynn Lake Roadless Area
- 2) GD-15, Spring Brook Roadless Area
- 3) GD-17, Iron River Roadless Area
- 4) GD-18, Porcupine Lake Addition Roadless Area
- 5) GD-16, Hungry Run Roadless Area
- 6) PM-2, Schmuland/Popple Creek Roadless Area
- 7) PM-4, Mud Lake Roadless Area
- 8) PM-5, Stony Creek Roadless Area

SEPTEMBER 2001 – To clarify one of the issues concerning the St. Peters Dome Roadless Area, Fallon consults with Lisa Whitcomb, Eastern Region Access Coordinator, and John Romanowski to determine national and regional policies regarding use of wheelchairs in designated Wilderness. Fallon is referred to the Forest Service document “Wilderness Access Decision Tool”, a publication of the Northern Region of the agency. This document refers to the 1990 Americans With Disabilities Act (ADA) in affirming that wheelchairs are permitted in Wilderness; and it defines a wheelchair as “a device solely for use by a mobility-impaired person for locomotion, that is suitable for use in an indoor pedestrian area”. This publication also notes that, while wheelchairs are permitted within a Wilderness, accommodations specifically for wheelchairs are not. If the St. Peters Dome area is reconsidered for potential Wilderness in Plan Revision, there are three options regarding the Morgan Falls trail:

- 1) Proceed with the trail improvements. If the area were selected in Plan Revision as a recommended Wilderness (and is subsequently designated by Congress), the Forest would not maintain the surfacing to the trail. Maintenance of the bridges would depend on whether they are intended for accessibility or resource protection. In essence, as the trail deteriorated, the Forest would not maintain it for accessibility.
- 2) Exclude the trail and the Morgan Falls location from Wilderness consideration. Either modify the boundary, or make this portion of the roadless area an exception. (The LT, in their previous consideration of this area, assumed the trail would have to be buffered and would thus further reduce the core area. Romanowski indicated that a wheelchair, even if

battery-operated, does not constitute the kind of motorized influence that requires buffering to determine core area.)

- 3) Reconsider the NEPA decision to make accessibility improvements to the trail. This may involve another public involvement process.

On September 19, Fallon, Mike Miller, Acting Forest Supervisor Bob Lueckel and Great Divide District Ranger Barry Paulson meet via conference call to revisit the LT decision to not recommend the St. Peters Dome Roadless Area for Wilderness consideration. The point of their discussion is to determine if this new information is significant enough to warrant further consideration. Note that three bridges had already been installed prior to the August 30 LT meeting as part of the Morgan Falls trail improvements. After extensive discussion, Paulson and Lueckel determine that options 1 and 3 are not acceptable, given the public input process that has already taken place and the intent of providing persons with disabilities access to this outstanding National Forest feature. Lueckel notes that option 2 could be viable, but the other mitigating factors (small size, snowmobile trail, high visitor use, mineral rights), when considered collectively, still compromise the Wilderness potential of the area. Lueckel notes that the Forest will utilize other management options to protect the outstanding ecological and recreation features of the area, and he decides to uphold the August 30 LT decision to not make the St. Peters Dome area available for Wilderness consideration.

SEPTEMBER 2001 – Miller/Fallon meet with Karen Danielson, Great Lakes Indian Fish & Wildlife Commission (GLIFWC) in Park Falls, to present “9/20/01 Chequamegon-Nicolet National Forest – Forest Plan Revision Roadless Area Inventory and Wilderness Evaluation” and request review and comment. Plans are made to meet with Voigt Task Force in December for consultation on this issue prior to public release. Some minor edits are made to the document, and a 9/26/01 version is prepared.

SEPTEMBER 2001 – Forest Planning Team meets on 9/21/01 and 9/27/01 in Rhinelander to incorporate the Roadless Areas made available for consideration as Wilderness by the Leadership Team into the Alternative Development process. Each of these 8 Roadless Areas is considered as a recommended Wilderness in at least one alternative:

ALTERNATIVE ROADLESS AREA	1	2	3	4	5	6	7	9
Flynn Lake			*	*		*	*	*
Porcupine Addition		*	*	*	*	*	*	*
Iron River								*
Hungry Run				*	*	*	*	*
Spring Brook			*	*		*		*
Schmuland/Popple Ck					*			
Mud Lake				*	*			*
Stony Creek				*		*		*

OCTOBER 2001 – Forest Planning Expanded Team (Miller, Doyle, Parker, Barker, Reinecke, Wells, Theisen) meets on 10/18/01 in Rhinelander to review the 9/27/01 recommendations for Wilderness distribution among the alternatives. The expanded team revises some of the assumptions developed at the September meetings, and makes some changes to how potential Wilderness is distributed among the alternatives. As a result of the 10/18/01 changes, the distribution of recommended Wilderness among the alternatives is as follows:

ALTERNATIVE ROADLESS AREA	1	2	3	4	5	6	7	9
Flynn Lake		*	*	*	*	*	*	*
Porcupine Addition			*	*	*		*	*
Iron River			*					
Hungry Run				*	*	*		
Spring Brook			*	*		*	*	*
Schmuland/Popple Ck			*					
Mud Lake				*			*	
Stony Creek				*		*		

JANUARY 2002 – Fallon and Lueckel meet with the Voigt Task Force in Turtle Lake, WI. Fallon makes Powerpoint presentation (WIE_Short_Presentation_with_Voigt_Notes.ppt) on the Roadless Area Inventory and Wilderness Evaluation, including results of inventory and evaluation process, and recommendations for Wilderness in Plan Revision Alternatives.

FEBRUARY 2002 – Fallon, Lueckel and Miller meet in Rhinelander, WI with consulting board representing counties in northern Wisconsin. Fallon makes Powerpoint presentation (WIE_Short_Presentation_with_Voigt_Notes.ppt) on the Roadless Area Inventory and Wilderness Evaluation, including results of inventory and evaluation process, and recommendations for Wilderness in Plan Revision Alternatives.

JUNE 2002 – Following a presentation to the Regional Office staff on the range of alternatives, the Forest Planning Team meets on 6/04/02 in Rhinelander to reconsider the range of Recommended Wilderness. As before, each of the 8 Roadless Areas is considered as a recommended Wilderness in at least one alternative; but now at least one alternative considers all 8 Roadless Areas.

ALTERNATIVE ROADLESS AREA	1	2	3	4	5	6	7	9
Flynn Lake		*	*	*	*	*	*	*
Porcupine Addition			*	*	*		*	*
Iron River			*	*				
Hungry Run				*	*	*		
Spring Brook				*		*	*	*
Schmuland/Popple Ck			*	*				
Mud Lake				*			*	
Stony Creek				*		*		

JUNE 2002 – A final draft of the Forest Plan Revision Roadless Area Inventory and Wilderness Evaluation is completed on 6/17/02. This version includes consideration of 20 “Added Areas” for the Roadless Area Inventory that had not originally been included in Step One of the Inventory Process. These Added Areas had initially been identified as having between 2,000 and 2,250 acres in a contiguous block at least ½-mile from the nearest A, B or C roads. Prior to this the Inventory had only considered those initial areas having a contiguous block of 2,250 acres or more. After Steps Two and Three were applied to these 20 Added Areas, none of them retained a core area of sufficient size to warrant any further consideration as potential Roadless Areas. This 6/17/02 final draft also made several editorial changes to the format of the document.

PART TWO: RESULTS OF THE ROADLESS AREA INVENTORY

A) SUMMARY OF NEWLY INVENTORIED ROADLESS AREAS

AREAS THAT MEET MINIMUM ROADLESS STANDARDS

(Total Area > 5,000 acres, Core Area > 2,500 acres, Improved Road Density < 0.5 mile/1,000 acres)

(7 Areas totaling 49,714 National Forest acres)

GREAT DIVIDE RANGER DISTRICT

1) PORCUPINE LAKE ADDITION

Note: Porcupine Lake Addition is an exception to the area requirements since it is adjacent to existing Wilderness and meets Improved Road Density requirements

Total National Forest Acres: 1,679 acres

Total National Forest Core Area: 243 acres

Improved Road/Trail Density: 0.44 mi/1,000ac

Total Improved Travelways: 0.74 mile

2) IRON RIVER

Total National Forest Acres: 8,331 acres

Total National Forest Core Area: 2,472 acres

Improved Road/Trail Density: 0.45 mi/1,000ac

Total Improved Travelways: 3.75 miles

3) SPRING BROOK

Total National Forest Acres: 7,775 acres

Total National Forest Core Area: 3,849 acres

Improved Road/Trail Density: 0.48 mi/1,000ac

Total Improved Travelways: 3.70 miles

4) HUNGRY RUN

Total National Forest Acres: 7,363 acres

Total National Forest Core Area: 2,610 acres

Improved Road/Trail Density: 0.36 mi/1,000ac

Total Improved Travelways: 2.68 miles

MEDFORD/PARK FALLS RANGER DISTRICT

1) SCHMULAND/POPPLE CREEK

Total National Forest Acres: 7,100 acres

Total National Forest Core Area: 2,623 acres

Improved Road/Trail Density: 0.30 mi/1,000ac

Total Improved Travelways: 2.10 miles

- 2) **MUD LAKE**
 Total National Forest Acres: 9,968 acres
 Total National Forest Core Area: 4,163 acres
 Improved Road/Trail Density: 0.23 mi/1,000ac
 Total Improved Travelways: 2.34 miles

- 3) **STONY CREEK**
 Total National Forest Acres: 7,498 acres
 Total National Forest Core Area: 3,266 acres
 Improved Road/Trail Density: 0.29 mi/1,000ac
 Total Improved Travelways: 2.20 miles

AREAS THAT DO NOT MEET MINIMUM ROADLESS STANDARDS AND ARE INCLUDED BY EXCEPTION

RARE II AREAS WITH CORE LESS THAN 2,000 AC
 (Total Area > 5,000 acres, Improved Road Density < 0.5 mile/1,000 acres, RARE II Area)
 (1 Area totaling 6,349 National Forest acres)

WASHBURN RANGER DISTRICT

- 1) **FLYNN LAKE RARE II**
 Total National Forest Acres: 6,349 acres
 Total National Forest Core Area: 1,959 acres
 Improved Road/Trail Density: 0.16 mi/1,000ac
 Total Improved Travelways: 1.01 miles

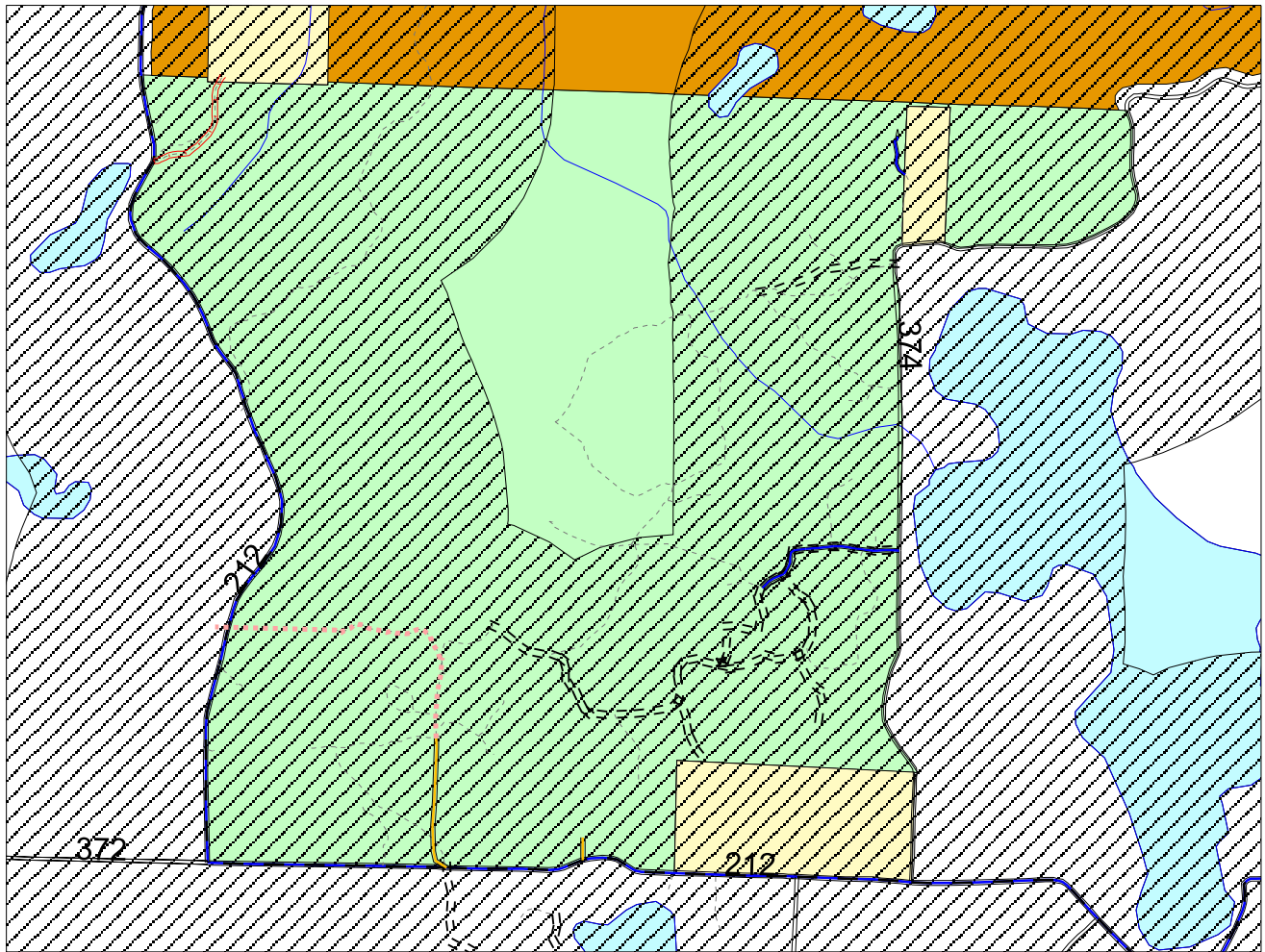
NON-CONFORMING RARE II AREAS – SPECIAL CONSIDERATION
 (Total Area < 5,000 acres, Improved Road Density < 0.5 mile/1,000 acres, RARE II Area)
 (1 Area totaling 4,631 National Forest acres)

GREAT DIVIDE RANGER DISTRICT

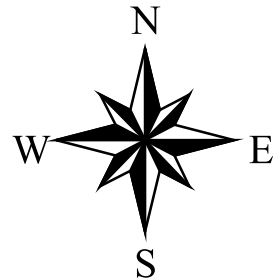
- 1) **ST. PETERS DOME RARE II**
 Note: This RARE II Area does not meet the minimum total size of 5,000 acres, but it has a core area in excess of 2,000 acres
 Total National Forest Acres: 4,631 acres
 Total National Forest Core Area: 2,174 acres
 Improved Road/Trail Density: 0.12 mi/1,000ac
 Total Improved Travelways: 0.54 miles

SUMMARY

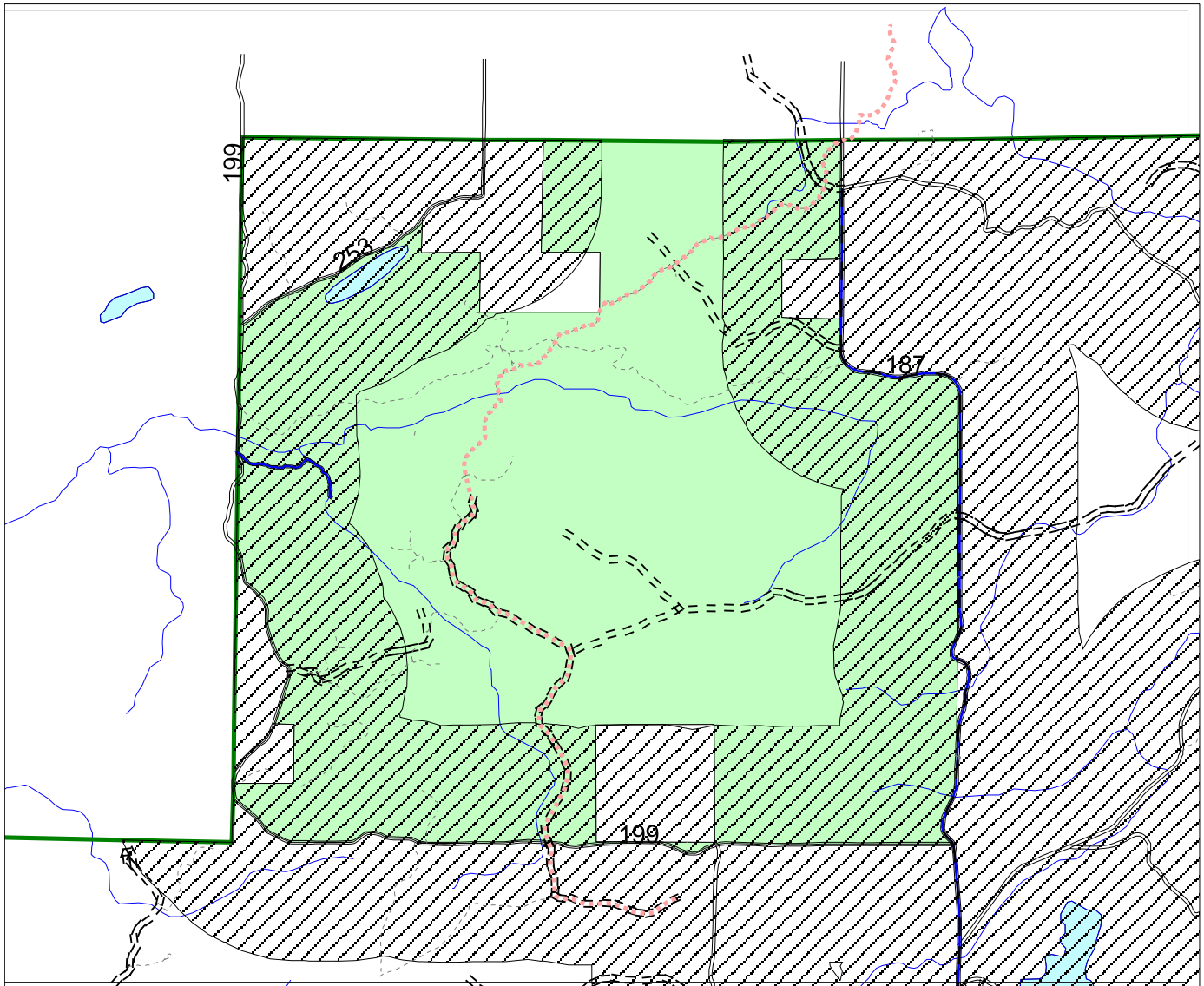
All areas have Improved Road Density < 0.5 mi/1,000 ac	
7 Areas meet minimum standard	49,714 NF acres
2 Areas that do not meet minimum standard	10,980 NF acres
9 Areas TOTAL	60,694 NF acres



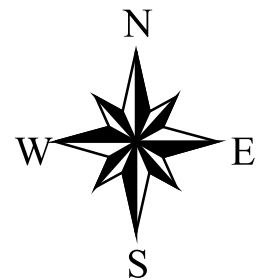
- Improved Roads
 - Closed
 - Motorized Trail
 - Open
 - Snowmobile Trail
 - Special Use
 - Town ROW
 - Town Road
- Roads
 - Traffic Level A
 - Traffic Level B
 - Traffic Level C
 - Traffic Level D
 - Unclassified
- 1/2 mi Buffer
- Stream
- Lake
- Developed Ownership
- Special Area
 - Wilderness
- Potential Roadless Ownership
 - National Forest
 - Other
 - Water



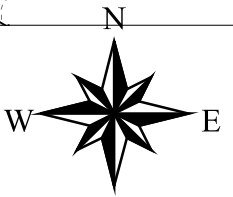
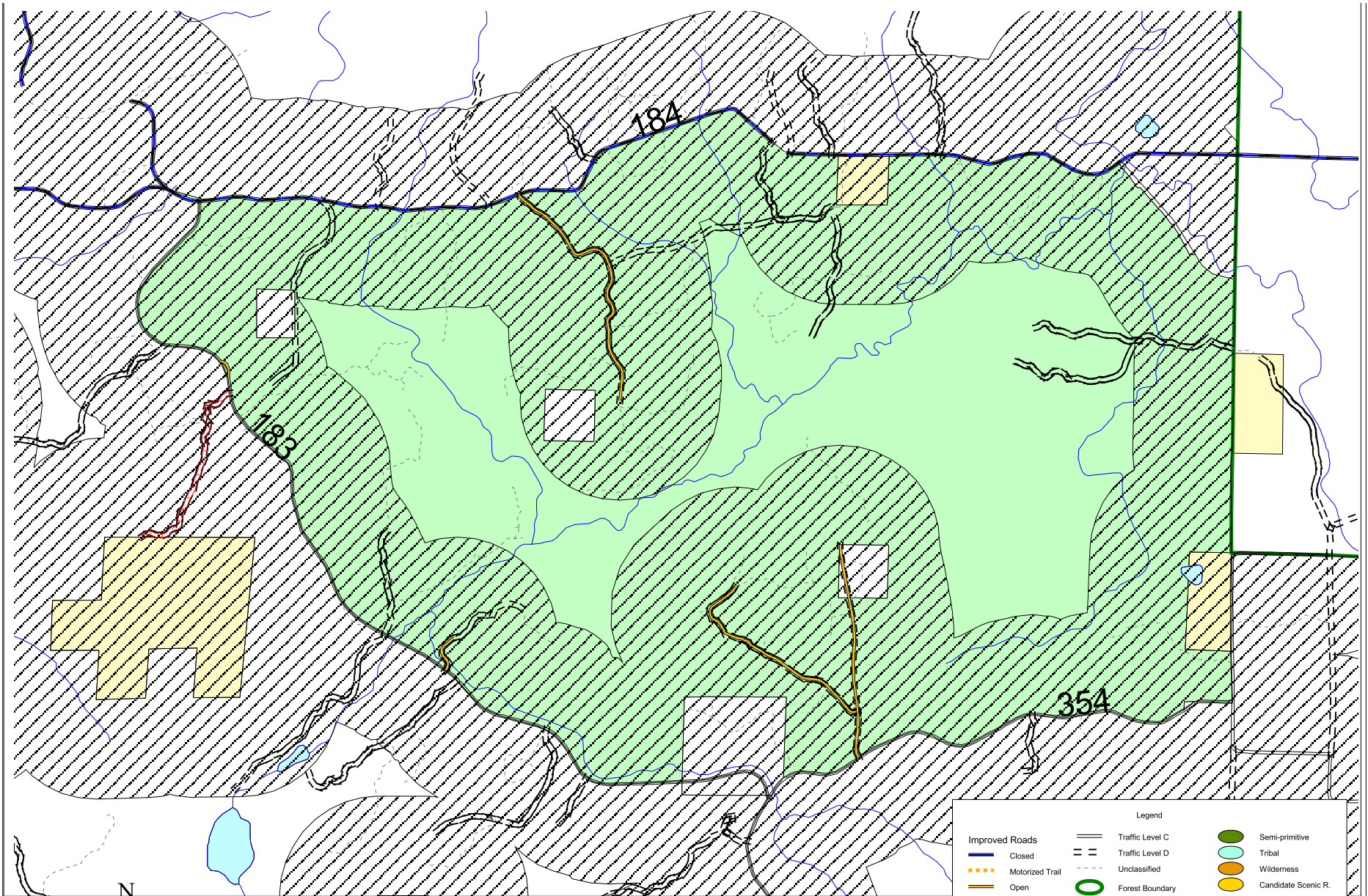
Porcupine Addition



- Improved Roads
- Closed
 - Motorized Trail
 - Open
 - Snowmobile Trail
 - Special Use
 - Town ROW
 - Town Road
- Roads
- Traffic Level A
 - Traffic Level B
 - Traffic Level C
 - Traffic Level D
 - Unclassified
- 1/2 mi Buffer
- Forest Boundary
- Stream
- Lake
- Developed Ownership
- Special Area
- Wilderness
- Potential Roadless Ownership
- National Forest
 - Other
 - Water

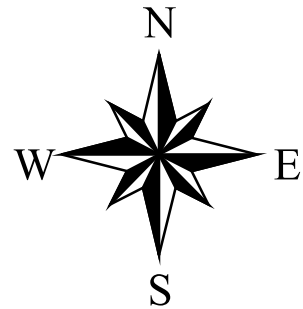
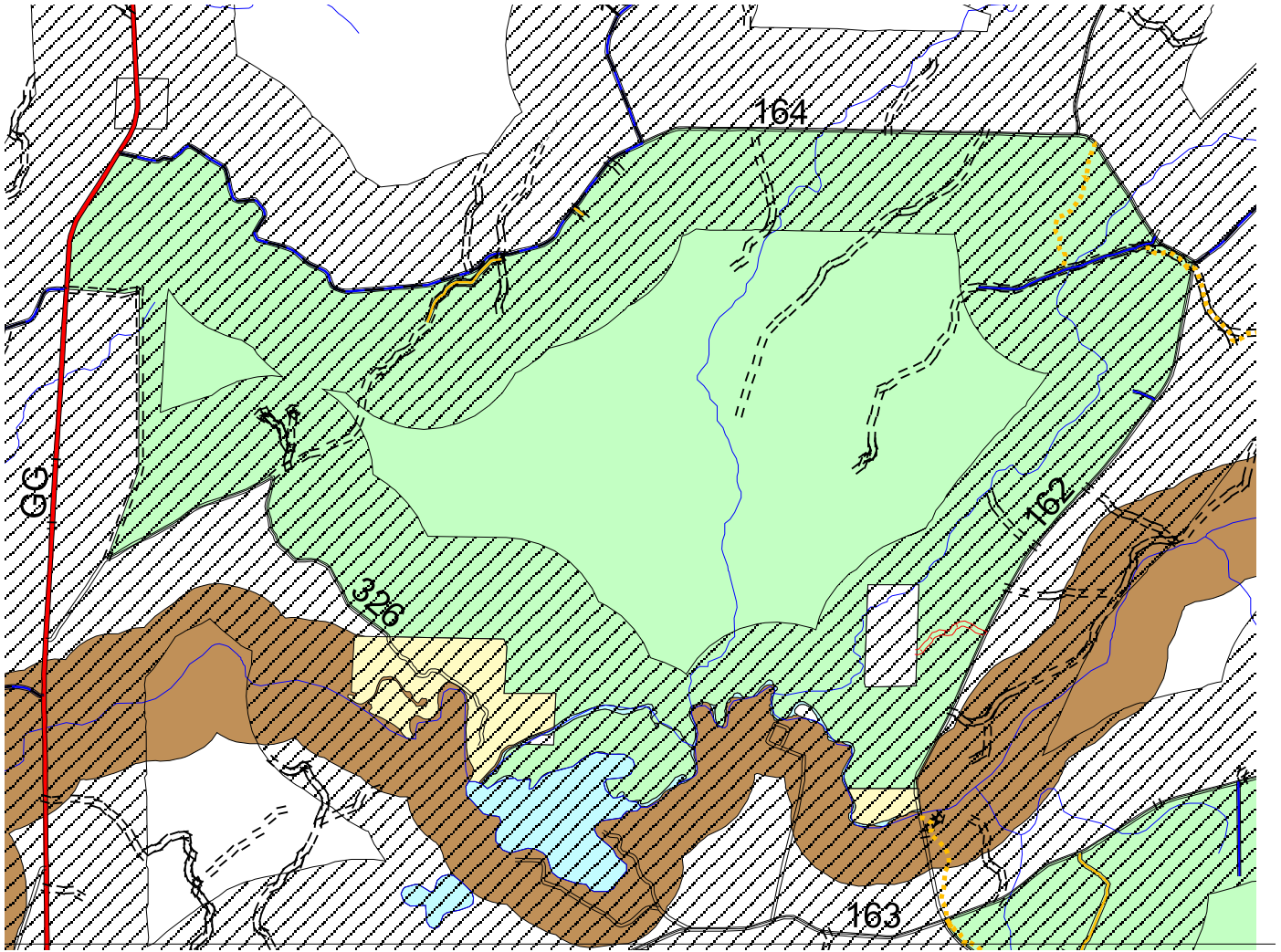


St. Peters Dome



Iron River

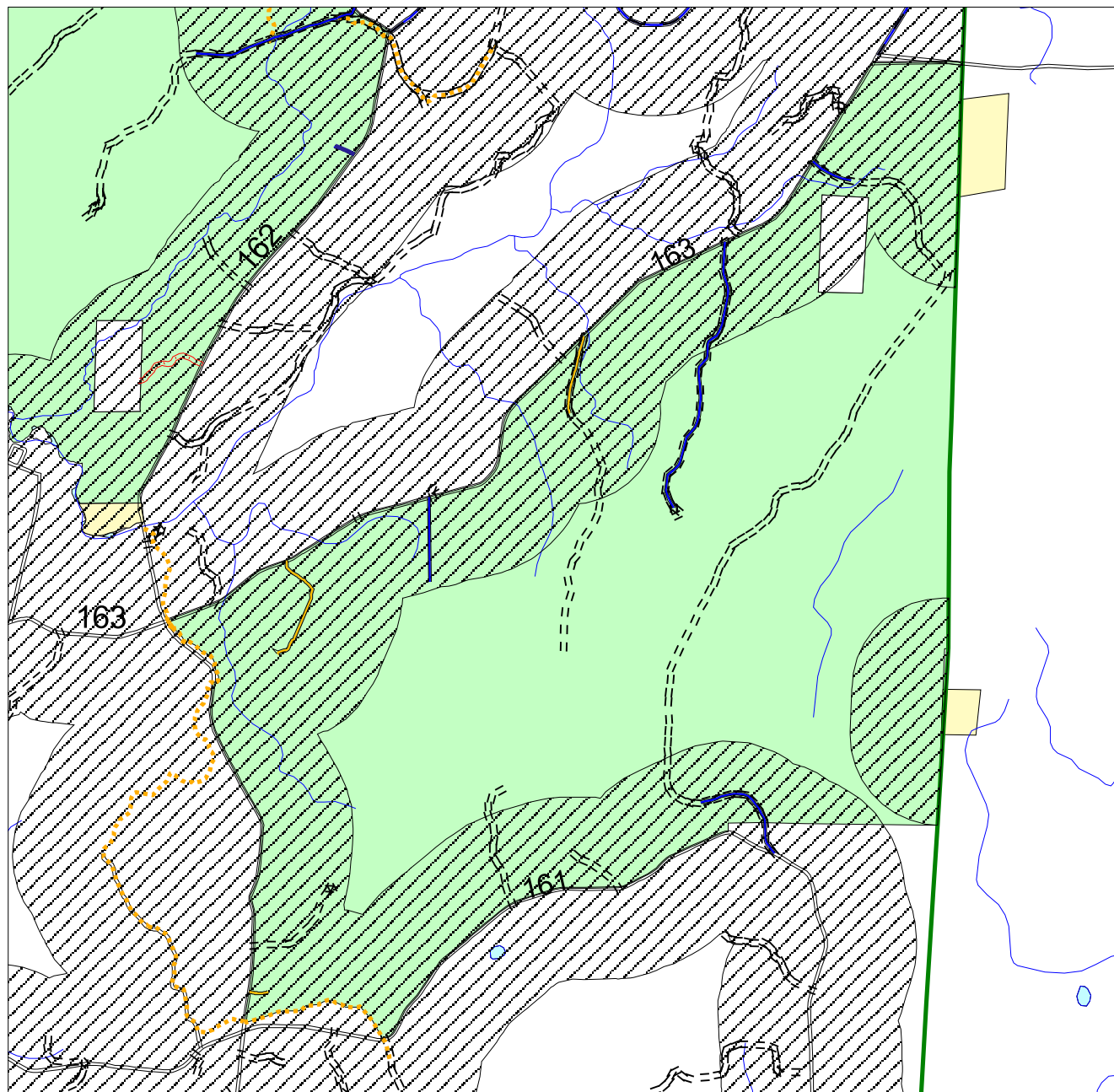
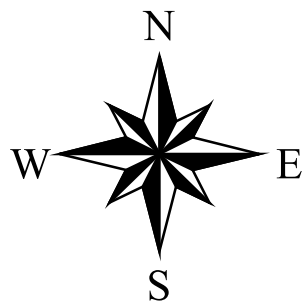
Legend		
Improved Roads	— Traffic Level C	● Semi-primitive
— Closed	— Traffic Level D	● Tribal
● Motorized Trail	- - - Unclassified	● Wilderness
— Open	○ Forest Boundary	● Candidate Scenic R.
— Special Use	— Stream	Roadless Ownership
— Town ROW	○ Lake	○ National Forest
— Town Road	○ Developed Ownership	○ Other
Roads	Special Area	○ Water
— Traffic Level A	● National Scenic River	
— Traffic Level B	● Research Natural Area	



- | | |
|--|---|
| <ul style="list-style-type: none"> Improved Roads <ul style="list-style-type: none"> Closed Motorized Trail Open Snowmobile Trail Special Use Town ROW Town Road Roads <ul style="list-style-type: none"> Traffic Level A Traffic Level B Traffic Level C Traffic Level D Unclassified | <ul style="list-style-type: none"> 1/2 mi Buffer <ul style="list-style-type: none"> Forest Boundary Stream Lake Developed Ownership Potential Roadless Ownership <ul style="list-style-type: none"> National Forest Other Water Special Area <ul style="list-style-type: none"> National Scenic River Potential Scenic River |
|--|---|

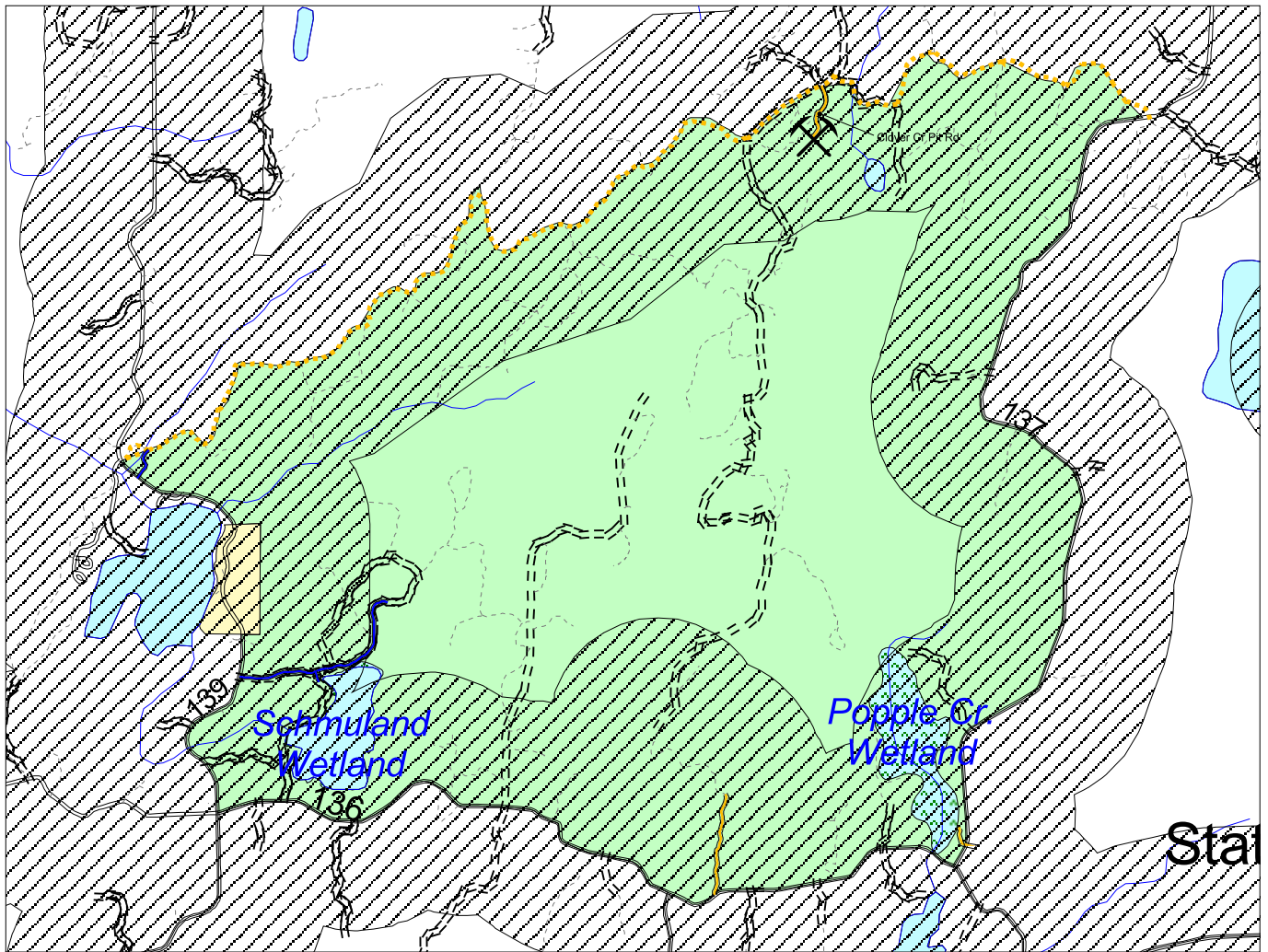
Hungry Run

- Improved Roads
 - Closed
 - Motorized Trail
 - Open
 - Special Use
 - Town ROW
 - Town Road
 - Power Lines
- Roads
 - Traffic Level A
 - Traffic Level B
 - Traffic Level C
 - Traffic Level D
 - Unclassified
- 1/2 mile Buffer
- Forest Boundary
- Stream
- Lake
- Developed Ownership
- Roadless Ownership
 - National Forest
 - Other
 - Water

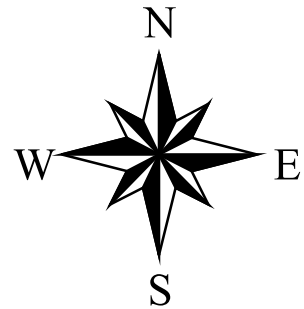


Spring Brook



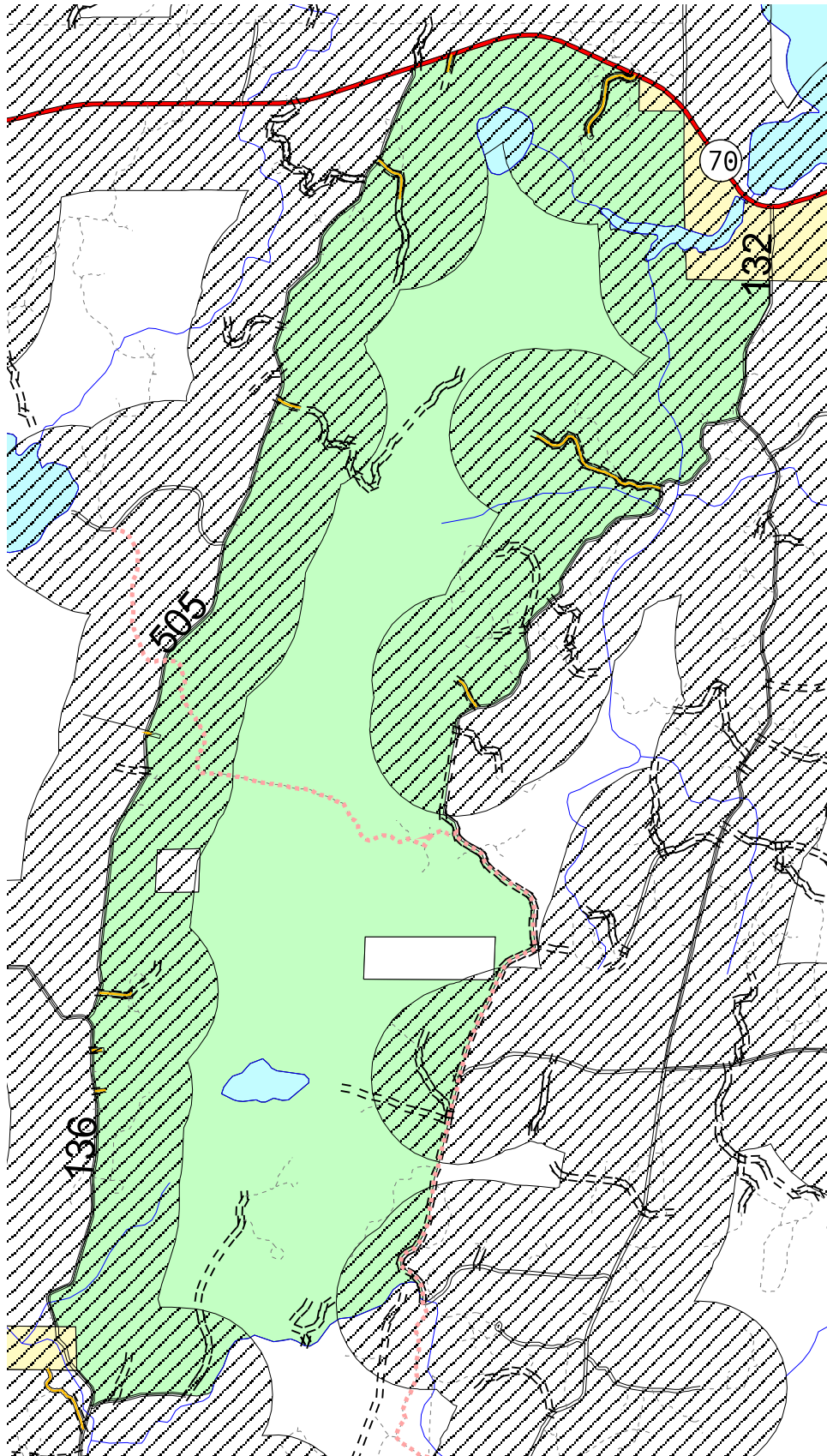
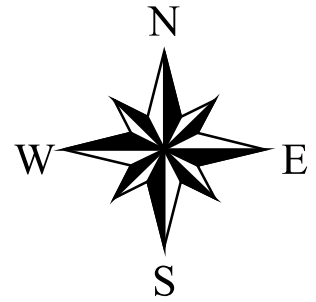


- | | |
|-----------------------|---------------------------|
| Forest Boundary | Stream |
| Improved Roads | Lake |
| Closed | Developed Ownership |
| Motorized Trail | Special Area |
| Open | Research Natural Area |
| Special Use | Semi-primitive |
| Town ROW | Wetland |
| Town Road | Roadless Ownership |
| 1/2 mile Buffer | National Forest |
| Roads | Other |
| Traffic Level A | Water |
| Traffic Level B | |
| Traffic Level C | |
| Traffic Level D | |
| Unclassified | |



Schmuland - Popple Creek

Mud Lake



Improved Roads

- Closed
- Motorized Trail
- Open
- Snowmobile Trail
- Special Use
- Town ROW
- Town Road
- Forest Boundary
- 1/2 mile Buffer

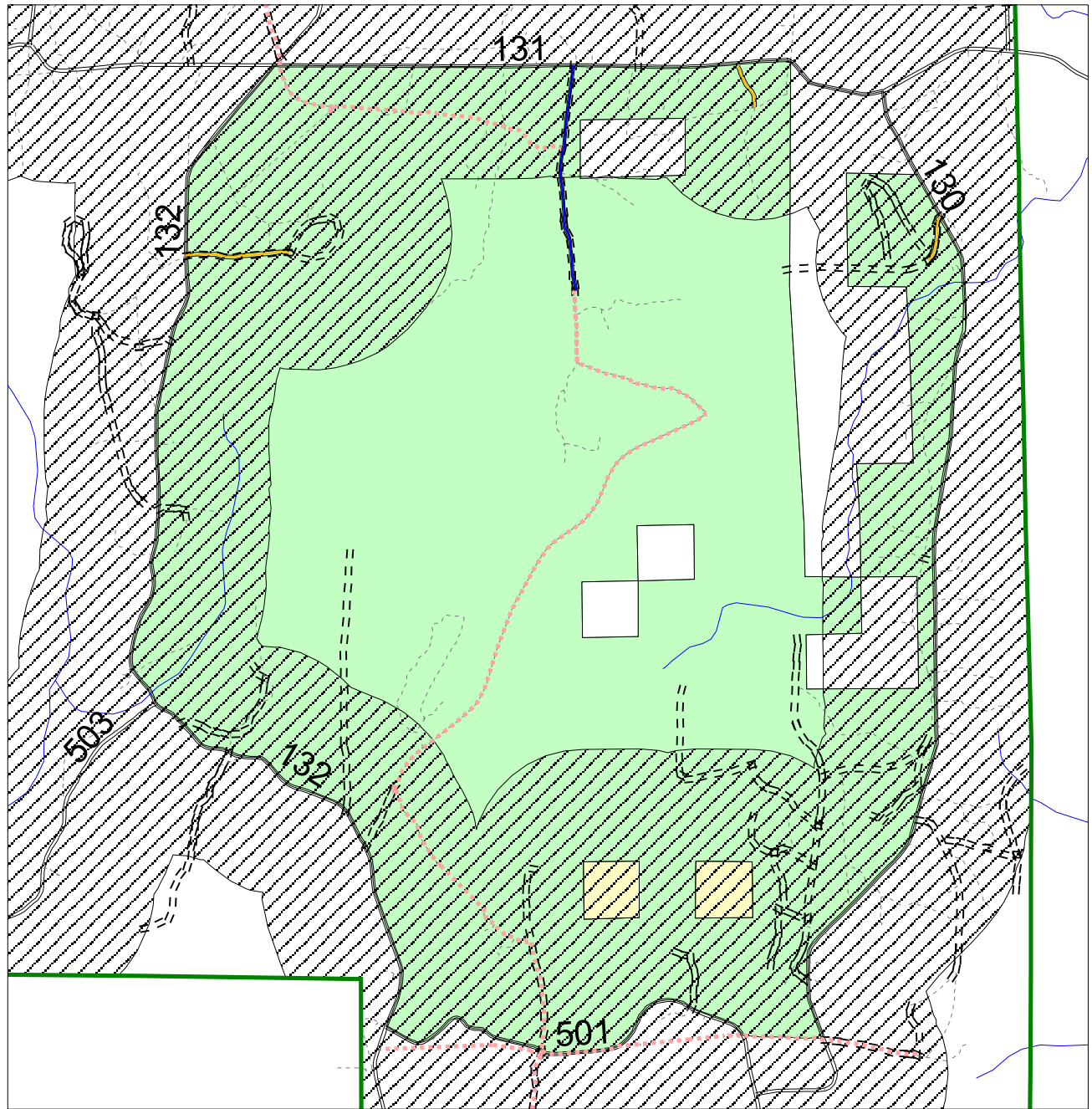
Roads

- Traffic Level A
- Traffic Level B
- Traffic Level C
- Traffic Level D
- Unclassified
- Stream
- Lake

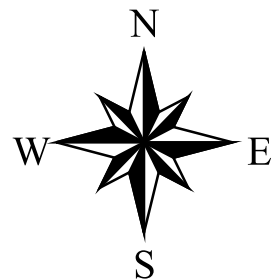
Roadless Ownership

- Developed Ownership
- National Forest
- Other
- Water

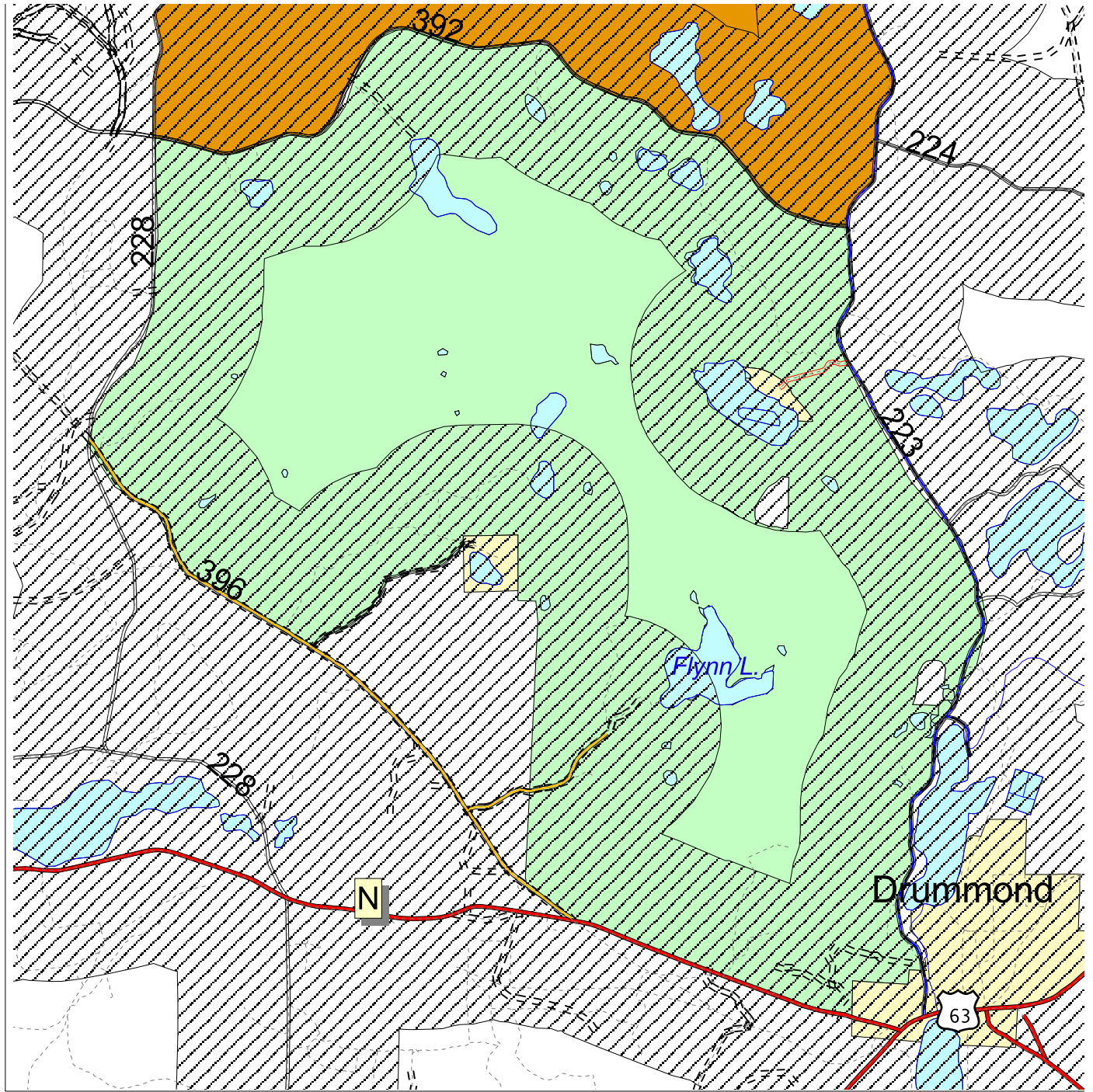




- | | |
|---|--|
| <ul style="list-style-type: none"> Forest Boundary 1/2 mile Buffer Improved Roads Closed Motorized Trail Open Snowmobile Trail Special Use Town ROW Town Road | <ul style="list-style-type: none"> Roads Traffic Level A Traffic Level B Traffic Level C Traffic Level D Unclassified Stream Lake Developed Ownership Roadless Ownership National Forest Other Water |
|---|--|



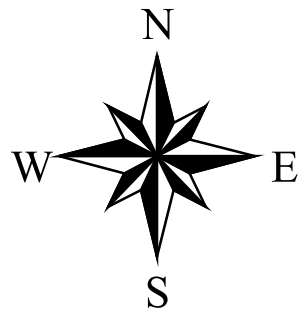
Stony Creek



- Improved Roads
- Closed
- Motorized Trail
- Open
- Special Use
- Town ROW
- Town Road
- Roads
- Traffic Level A
- Traffic Level B
- Traffic Level C
- Traffic Level D
- Unclassified
- 1/2 mile Buffer

- Forest Boundary
- Stream
- Lake
- Developed Ownership
- Special Area
- Wilderness
- Roadless Ownership
- National Forest
- Other
- Water
- Rdlsbdy8-6

Flynn Lake



B) SUMMARY OF AREAS CONSIDERED FOR ROADLESS INVENTORY

A total of 67 areas within the Chequamegon-Nicolet National Forest were identified as having a potential semi-primitive non-motorized core area of 2,500 acres (essentially any area with an unbuffered core area of 2,250 acres or more). A total of 9 of these areas have been included in the final Roadless Area Inventory. An additional 20 areas within the Chequamegon-Nicolet were identified as having a potential core area between 2,000 and 2,250 acres. These areas are referred to *Added Areas* in this summary, and they were considered after the final Roadless Area Inventory, on the recommendation of John Romanowski (R9 Wilderness Specialist), to assure that any area of the Forest with the potential even *as an exception* received consideration.

The following provides a summary of how each of the 87 areas were analyzed and either eliminated from consideration or added to the inventory. These areas are divided into RARE II Areas that were re-inventoried, and new areas identified in Step One of the Inventory Process (including the Added Areas). Areas included in the final inventory are highlighted (underlined bold italics).

- References to SPNM recreation resources are based on Chequamegon-Nicolet SPNM Inventory, which identifies areas with outstanding semi-primitive non-motorized recreation opportunities as high priority, and areas with notable or potential SPNM opportunities as medium or low priority.
- References to ecological features are based on the Chequamegon-Nicolet Landscape Analysis and Design (LAD) Inventory, which identifies outstanding representative ecological features as high priority areas, and notable ecological features as medium or low priority areas.
- References to “unbuffered” core areas relate to Step One of the Inventory Process. The unbuffered core area is what identified the area as having potential. The subsequent “buffering” process in Step Three of the Inventory Process actually determined whether an area had a core of sufficient size to meet the ROS criteria. In the case of Added Areas, if core area buffering was necessary, it was generally only a partial process, since the presence of only one or two influences that required buffering was usually enough to drop the core area below 2,000 acres. None of the Added Areas that required buffering maintained a core area of sufficient size to warrant Roadless consideration.

RARE II AREAS (RE-INVENTORY)

- R1. CAMPFIRE ISLAND (Great Divide District, 2.37 acre island, Upper Clam Lake)
 - a. Located within Upper Clam Lake, a developed, motorized lake with 100% private shoreline ownership and public access.
 - b. Due to developed, motorized activities on the surrounding lake, this RARE II Area was eliminated due to insufficient core area (0 acres).
- R2. TEA LAKE (Great Divide District, 5,716 NF acres, map in Appendix B)
 - a. This RARE II Area was considered as part of larger contiguous area (8,268 NF acres) and rejected due to insufficient core area (1,693 acres).
 - b. The RARE II Area itself was eliminated as a result of core area buffering, with a core area of 1,500 acres, insufficient for SPNM experience.

- R3. **ST. PETERS DOME** (Great Divide District, 4,631 NF acres, map included)
- This RARE II Area does not have 5,000 National Forest acres, or a 2,500-acre core area. Acreage expanded to include 632 NF acres in Section 33.
 - This RARE II Area does have a core in excess of 2,000 acres, an improved travelway density of 0.12 mile/1,000 NF acres, and outstanding SPNM recreation resources and ecological features. This is an existing Special Management Area with a non-motorized emphasis.
 - Although this Area does not meet the minimum standards, it is retained in the Roadless Area Inventory as an exception of outstanding merit.
- R4. **EAST TORCH** (Great Divide District, 4,643 NF acres, roads in Appendix C)
- This RARE II Area does not have 5,000 National Forest acres, or a 2,500-acre core area.
 - This RARE II Area was eliminated due to an improved travelway density of 2.17 miles/1,000 NF acres, far in excess of the 0.50 maximum.
- R5. **MOOSE RIVER** (Great Divide District, 6,140 NF acres, map in Appendix B)
- Original south boundary modified to follow Dead Horse Motorized Trail.
 - This RARE II Area was eliminated as result of core area buffering, with a core area of 2,216 acres, insufficient for SPNM experience. The Area does have an improved travelway density of 0.49 mile/1,000 NF acres, just below the 0.50 maximum.
 - There are no notable SPNM recreation resources within this Area; and the ecological features are notable but not outstanding; neither is enough to make this area an exception of outstanding merit.
- R6. **MUSKELLUNGE LAKE** (Great Divide District, 5,273 NF acres, map in App. B)
- This RARE II Area was eliminated as result of core area buffering, with a core area of 1,761 acres, insufficient for SPNM experience. The Area does have an improved travelway density of 0.30 mile/1,000 NF acres, well below the 0.50 maximum
 - There are no notable SPNM recreation resources within this Area; and the ecological features are notable but not outstanding; neither is enough to make this area an exception of outstanding merit.
- R7. **THORNAPPLE** (Great Divide District, 9,737 NF acres, roads in Appendix C)
- This RARE II Area was eliminated due to an improved travelway density of 1.29 miles/1,000 NF acres, far in excess of the 0.50 maximum.
 - Dead Horse Run motorized trail bisects this Area completely, dividing it into two separate and smaller areas, neither of which has a large enough core area to support an SPNM experience.
- R8. **FLYNN LAKE** (Washburn District, 6,349 NF acres, map included)
- Original west boundary modified to follow Township road (Jorgenson Road) and private property boundary, original south and east boundary modified to follow property line rather than section lines.
 - This RARE II Area is larger than 5,000 acres, but it has a core area only slightly less than 2,000 acres as a result of core area buffering. The improved travelway density for this Area is 0.16 mile/1,000 NF acres, well below the 0.50 maximum. This is an existing SPNM Area, has outstanding SPNM recreation resources, but no notable ecological features.
 - Although this Area does not meet the minimum standards, it is retained in the Roadless Area Inventory as an exception of outstanding merit.

- R9. ROUND LAKE (Medford/Park Falls District, 3,304 NF acres, roads in App. C)
- a. This RARE II Area was eliminated due to an improved travelway density of 0.62 mile/1,000 NF acres, in excess of the 0.50 maximum.
- R10. CHASE CREEK (Medford/Park Falls District, 6,141 NF acres, map in App. B)
- a. This RARE II Area was eliminated as result of core area buffering, with a core area of 1,842 acres, insufficient for SPNM experience. The Area does have an improved travelway density of 0.37 mile/1,000 NF acres, below the 0.50 maximum.
 - b. No notable SPNM recreation resources or ecological features within this Area.
- R11. SHELP LAKE (Eagle River/Florence District, 285 NF acres)
- a. This RARE II Area is a small parcel that was partitioned from the larger Shelp Lake Area that received congressional designation as a Wilderness. Since this Area is adjacent to an existing Wilderness, core area is not a deciding factor. The improved travelway density for this Area is 0.00 mile/1,000 NF acres.
 - b. This RARE II Area was eliminated in Step 3 as a result of even-aged timber harvest in excess of 20% of its total NF acres. 94 acres, or 33% of the 285 acres within the Area, have had regeneration harvest within the past 10 years.
- R12. LEROY CREEK (Eagle River/Florence District, 8,136 NF acres, rds in App. C)
- a. This RARE II Area was eliminated due to an improved travelway density of at least 0.98 mile/1,000 NF acres, well in excess of the 0.50 maximum.
- R13. PENTOGA ROAD (Eagle River/Florence District, 5,006 NF acres, see App. C)
- a. This RARE II Area was eliminated due to an improved travelway density of at least 1.00 mile/1,000 NF acres, well in excess of the 0.50 maximum.
- R14. PERCH LAKE (Eagle River/Florence District, 2,389 NF acres, rds in App. C)
- a. This RARE II Area does not have 5,000 National Forest acres, or a 2,500-acre core area.
 - b. This RARE II Area was eliminated due to an improved travelway density of at least 0.94 mile/1,000 NF acres, well in excess of the 0.50 maximum.
- R15. FOURSECTION (Eagle River/Florence District, 2,036 NF acres, see App. C)
- a. This RARE II Area does not have 5,000 National Forest acres, or a 2,500-acre core area.
 - b. This RARE II Area was eliminated due to an improved travelway density of 0.74 mile/1,000 NF acres, in excess of the 0.50 maximum.
- R16. SHOE LAKE ISLANDS (Lakewood/Laona District, 2 islands, 7 acres)
- a. Located within Shoe Lake, a 169-acre, shallow, spring-fed lake with approximately 85% National Forest shoreline ownership and no public access. There are developed private parcels on the lakeshore with motorized access.
 - b. Due to developed, motorized activities on the surrounding lake, this RARE II Area was eliminated due to insufficient core area (0 acres).
- R17. WHEELER LAKE ISLANDS (Lakewood/Laona District, 2 islands, 5 acres)
- a. Located within Wheeler Lake, a developed, motorized lake with 100% private shoreline ownership and public access.
 - b. Due to developed, motorized activities on the surrounding lake, this RARE II Area was eliminated due to insufficient core area (0 acres).
- R18. SAWYER LAKE ISLANDS (Lakewood/Laona District, 2 islands, 1 acre)
- a. Located within Sawyer Lake, a developed, motorized lake with 99% private shoreline ownership and public access.
 - b. Due to developed, motorized activities on the surrounding lake, this RARE II Area was eliminated due to insufficient core area (0 acres).

OTHER AREAS – WASHBURN DISTRICT (NEW INVENTORY)

- W1. MOQUAH (6,233 NF acres, map in Appendix B)
- a. Original south and west boundary modified to follow gas pipeline. This Area was eliminated as result of core area buffering, with a core area of 1,844 acres, insufficient for SPNM experience. The improved travelway density exceeds 0.50 mi/1,000 NF acres.
- W2. SPIDER LAKE
- a. This Area was eliminated during mapping exercise. Three gas pipelines traverse the Area, as well as the Valhalla motorized trail. Area eliminated due to insufficient SPNM core.
- W3. SUMMIT LAKE
- a. This Area was eliminated during mapping exercise. Three gas pipelines traverse the Area, as well as a Township road. Area eliminated due to insufficient SPNM core, and road under another jurisdiction.
- W4. CAMP NINE
- a. This Area was eliminated during mapping exercise. Two Township-jurisdiction roads partially bisect the Area from the west. Area eliminated due to cherry-stemming and roads under another jurisdiction.
- W5. STAR LAKE (5,440 NF acres, excluding Perch Lake CG, map in App. B)
- a. This Area was eliminated as result of core area buffering, with the core area of 2,134 acres, insufficient for SPNM experience. The improved travelway density is 0.17 mile/1,000 NF acres, well below the 0.50 maximum. This is an existing SPNM Area, and has outstanding SPNM recreation resources, but limited notable ecological features.
- W6. BEARSDALE
- a. This Area was eliminated during mapping exercise. Two Township-jurisdiction roads partially bisect the Area from the east. Area eliminated due to cherry-stemming and roads under another jurisdiction.
- W7. BIG BROOK (6,083 NF acres, map in Appendix B)
- a. This Area was eliminated as result of core area buffering, with the largest core area measured at 901 acres, insufficient for SPNM experience. The improved travelway density is 0.36 mile/1,000 NF acres, below the 0.50 maximum.
- W8. TALL PINES (5,470 NF acres, *Added Area*, map in Appendix B)
- a. This Added Area was eliminated as result of partial core area buffering, with the core area of 1,686 acres, insufficient for SPNM experience. Unbuffered core area was 2,087 acres. Partial core area was determined by buffering two developed private parcels, and a Township right-of-way on FR 399 leading to the residence on one of the parcels. Improved travelway density was not measured.

OTHER AREAS – GREAT DIVIDE DISTRICT (NEW INVENTORY)

- GD1. SPRUCE LAKE (6,680 NF acres, map in Appendix B)
- a. Original north boundary modified to follow property line of large parcel of private ownership. This Area was eliminated as result of core area buffering, with core area of 1,822 acres, insufficient for SPNM experience. Improved travelway density exceeds 0.50 mi/1,000 NF acres.

- GD2. McCARTHY LAKE (9,657 NF acres, map in App. B, roads in App. C)
- a. This Area was considered within two different formats:
 - i. Using the perimeter roads (184, 183, 182, 195, GG), this Area was eliminated due to an improved travelway density of 1.26 miles/1,000 NF acres, in excess of the 0.50 maximum. This includes approximately 4.0 miles of the Dead Horse Run motorized trail, and another 2.0 miles of year-round motorized trail.
 - ii. Using the motorized trails as the south boundary, and FR 285 as the north boundary, the improved travelway density was reduced below 0.50 mile/1,000 NF acres; but this Area was eliminated because the core area was also reduced to 1,324 acres, insufficient for SPNM experience.
- GD3. DEAD HORSE
- a. This Area was eliminated during mapping exercise. FR 347, a Township road, bisects the Area completely, dividing it into two separate areas.
 - i. The Area to the west, Dead Horse Slough, is bisected by both the Dead Horse Run motorized trail and the US Navy ELF line, as well as partially bisected by a short Township road. Area eliminated due to insufficient SPNM core and road under another jurisdiction.
 - ii. The Area to the east, Dingdong Creek Headwaters, is partially bisected by a different segment of the Dead Horse Run motorized trail. Area eliminated due to insufficient SPNM core.
- GD4. CHRISTY LAKE (5,778 NF acres, map in Appendix B)
- a. Original south and west boundary modified to follow US Navy ELF line. This Area was eliminated as result of core area buffering, with a core area of 960 acres, insufficient for SPNM experience.
- GD5. KELLY LAKE (3,843 NF acres, map in Appendix B)
- a. Original south and east boundary modified to follow US Navy ELF line, north boundary modified to follow Forest Roads 1265 and 1275. This reduced total area below 5,000 NF acres, and core area to 54 acres (as result of core area buffering), insufficient for SPNM experience.
- GD6. LITTLE MOOSE (6,916 NF acres, roads in Appendix C)
- a. Original north and east boundary modified to follow US Navy ELF line, south boundary modified to follow Township road (FR 747) and the Moose River. This Area was eliminated due to an improved travelway density of at least 0.68 mile/1,000 NF acres, exceeding the 0.50 maximum.
- GD7. BLACK CREEK (8,722 NF acres, roads in Appendix C)
- a. Original north and west boundary modified to follow US Navy ELF line. This Area was eliminated due to an improved road density of at least 0.67 mile/1,000 NF acres, in excess of the 0.50 maximum.
- GD8. LOWLANDS
- a. This Area was eliminated during mapping exercise. The US Navy ELF line bisects this Area completely, dividing it into two separate and smaller areas for consideration.
 - i. The boundary for the area to the north was further modified to follow the Dead Horse Run motorized trail. Area eliminated due to insufficient SPNM core.
 - ii. The area to the south also eliminated due to insufficient SPNM core.

GD9. PELICAN LAKE

- a. This Area was eliminated during mapping exercise. Forest Road 1252 (Grass Road), a Traffic Service Level C road under Forest Service jurisdiction, bisects this Area completely, dividing it into two separate and smaller areas, neither of which has a large enough core area for further consideration.

GD10. WEASEL CREEK (8,439 NF acres, roads in Appendix C)

- a. Original west boundary modified to follow Township road south from FR 164. This Area was eliminated due to an improved road density of at least 1.08 miles/1,000 NF acres, well in excess of the 0.50 maximum. The core area is insufficient to support an SPNM experience.

GD11. SNAG LAKE (6,495 NF acres, roads in Appendix C)

- a. Original east boundary modified to follow US Navy ELF line. This Area was eliminated due to an improved road density of at least 0.64 mile/1,000 NF acres, in excess of the 0.50 maximum. The core area is insufficient to support an SPNM experience.

GD12. TWO AXE LAKE (4,206 NF acres)

- a. This Area does not have 5,000 National Forest acres.
- b. This Area was eliminated during mapping exercise. The GIS exercise failed to buffer the Chippewa Flowage, a very large body of water with public access and open to motorized activities. The result was a core area insufficient to support an SPNM experience.

GD13. HEMLOCK (5,879 NF acres, map in Appendix B)

- a. Original east boundary modified to follow property lines. This Area was eliminated as result of core area buffering, with a core area of 1,797 acres, insufficient for SPNM experience. The improved travelway density of 0.18 mile/1,000 NF acres is less than the 0.50 maximum.

GD14. BRUNET RIVER

- a. This Area was eliminated during mapping exercise. Dead Horse Run motorized trail bisects this Area completely, dividing it into two separate and smaller areas, neither of which has a large enough core area for further consideration.

GD15. **SPRING BROOK** (7,775 NF acres, map included)

- a. This Area has a core area in excess of 2,500 acres (3,849 NF acres), and an improved travelway density of 0.48 mile/1,000 NF acres, just below the 0.50 maximum. The Area meets all other standards and is included in the Roadless Area Inventory.
- b. This is an existing SPNM Area, has notable SPNM recreation resources, and outstanding ecological features.

GD16. **HUNGRY RUN** (7,363 NF acres, map included)

- a. This Area has a core area in excess of 2,500 acres (2,610 NF acres), and an improved travelway density of 0.36 mile/1,000 NF acres, below the 0.50 maximum. The Area meets all other standards and is included in the Roadless Area Inventory.
- b. This Area is bordered on the south by a Candidate National Scenic River but otherwise has no notable SPNM recreation resources. The Area has both notable and outstanding ecological features.

- GD17. **IRON RIVER** (8,331 NF acres, map included)
- This Area has a core area slightly less than 2,500 acres (2,472 NF acres), and an improved travelway density of 0.45 mile/1,000 NF acres, below the 0.50 maximum. The Area meets all other standards and is included in the Roadless Area Inventory.
 - This Area has no notable SPNM recreation resources, and very limited notable ecological features.
- GD18. **HARDSCRABBLE CREEK** (*Added Area*)
- This Added Area does not have 5,000 National Forest acres (total 3,683 NF acres) and was eliminated during mapping exercise as a result of insufficient size.
- GD19. **SPILLERBERG LAKE** (5,900 NF acres, *Added Area*, map in Appendix B)
- This Added Area was eliminated as result of partial core area buffering, with the largest core area of 873 acres, insufficient for SPNM experience. Unbuffered core area was 2,179 acres. Partial core area was determined by buffering several developed private parcels, and two special use permit roads. Improved travelway density was not measured.
- GD20. **DRYDEN CREEK** (*Added Area*)
- This Added Area does not have 5,000 National Forest acres (total 3,171 NF acres) and was eliminated during mapping exercise as a result of insufficient size.
- GD21. **PORCUPINE LAKE ADDITION** (1,679 NF acres, map included)
- This Area is directly adjacent to an existing Wilderness; as a result core area is not a deciding factor. The improved travelway density for this Area is 0.44 mile/1,000 NF acres, just below the 0.50 maximum. The Area meets all other standards and is included in the Roadless Area Inventory.
 - This Area has notable SPNM recreation resources, and outstanding ecological features.
- GD22. **PATSY LAKE** (*Added Area*)
- This Added Area was eliminated during mapping exercise. The Lakewoods Golf Course was removed from within the potential boundary, dropping the unbuffered core area below 2,000 acres. A subsequent review of development on private property resulted in additional buffering that reduced the core area to 845 acres.
- GD23. **MCCLLOUD LAKE** (*Added Area*)
- This Added Area was eliminated during mapping exercise. The east half of this area is dominated by private land that is bisected by a Township road (McCain Springs Road). Another Township road, FR 200, bisects a portion of the west half of the area, reducing the core area to 875 acres, well below that needed to warrant further consideration.
- GD24. **LYNCH CREEK** (*Added Area*)
- This Added Area does not have 5,000 National Forest acres (total 3,056 NF acres) and was eliminated during mapping exercise as a result of insufficient size.
- GD25. **BULLDOG SPRINGS** (*Added Area*)
- This Added Area does not have 5,000 National Forest acres (total 3,764 NF acres) and was eliminated during mapping exercise as a result of insufficient size.

GD26. WEST FORK CHIPPEWA (*Added Area*)

- a. This Added Area was eliminated during mapping exercise. Two Township Roads, FR 1643 and Pine Point road, provide access to either side of Moose Lake, dividing this area into two separate and smaller areas.
 - i. The area to the north is further bisected by a large parcel of private ownership and does not have a core area large enough to warrant further consideration (1,435 acres).
 - ii. The area to the south has no core area of solitude and was eliminated.

GD27. BEAVER LAKE (*Added Area*)

- a. This Added Area was eliminated during mapping exercise. The location of County Highway S had been improperly plotted during the GIS process (Step One of Inventory). When the actual location was plotted, this dropped the unbuffered core area below 2,000 acres (1,602 acres). In addition, this Area does not have 5,000 National Forest acres (total 3,729 NF acres).

OTHER AREAS – MEDFORD/PARK FALLS DISTRICT (NEW INVENTORY)

PM1. SAILOR CREEK

- a. This Area was eliminated during mapping exercise. Flambeau motorized trail bisects this Area completely, reducing it into three separate and smaller areas, neither of which has a large enough core area for further consideration.

PM2. **SCHMULAND/POPPLE CREEK** (7,100 NF acres, map included)

- a. This Area was modified from the larger Clover Creek Area. Clover Creek Area is bisected by Flambeau motorized trail, dividing it into two separate areas.
 - i. The Area to the north was eliminated during the mapping exercise due to insufficient SPNM core.
 - ii. The Area to the south, Schmuland/Popple Creek, has a core area in excess of 2,500 acres (2,623 NF acres), and an improved travelway density of 0.30 mile/1,000 NF acres, below the maximum. The Area meets all other standards and is included in Roadless Area Inventory.
 - iii. This Area has no notable SPNM recreation resources or ecological features.

PM3. HOFFMAN CREEK

- a. This Area was eliminated during mapping exercise. A Township road partially bisects the Area from the south. Area eliminated due to cherry-stemming and interior road under another jurisdiction.

PM4. **MUD LAKE** (9,968 NF acres, map included)

- a. This Area was modified from the larger Foulds Creek Area. Foulds Creek Area is partially bisected by three different Township roads (FR 519, FR 517 east section, and FR 517 west section). To avoid cherry-stemming, the boundary was modified to form the Mud Lake Area, with FR 132, FR 519 and State Snowmobile Corridor 12 to the east; FR 517 and Spring Creek to the south; FR 136 and FR 505 to the west; and State Highway 70 to the north.
 - i. The Mud Lake Area has a core area in excess of 2,500 acres (4,163 NF acres), and an improved travelway density of 0.23 mile/1,000 NF acres, below the 0.50 maximum. The Area meets all other standards and is included in the Roadless Area Inventory.
 - ii. This Area has no notable SPNM recreation resources, but it does support extensive notable ecological features.

- PM5. **STONY CREEK** (7,498 NF acres, map included)
- a. This Area has a core area in excess of 2,500 acres (3,266 NF acres), and an improved travelway density of 0.29 mile/1,000 NF acres, below the 0.50 maximum. The Area meets all other standards and is included in the Roadless Area Inventory.
 - b. This Area has no notable SPNM recreation resources or ecological features.
- PM6. **WILSON FLOWAGE** (5,808 NF acres, map in Appendix B)
- a. This Area has a core area less than 2,500 acres, but more than 2,000 acres; and an improved travelway density of 0.28 mile/1,000 NF acres, below the 0.50 maximum. The Area has notable recreation resources and outstanding ecological features.
 - b. This Area was eliminated from further consideration as a result of core area buffering, with a core area of 2,141 acres, insufficient to support an SPNM experience.
- PM7. **SIEVERSON SPRINGS** (5,121 NF acres, roads in Appendix C)
- a. This Area is partially bisected by a Township road. In conjunction with this factor, the Area was eliminated due to improved travelway density of 0.93 mile/1,000 NF acres, exceeding the 0.50 maximum. The core area is also insufficient to support an SPNM experience.
- PM8. **AMIK LAKE** (*Added Area*)
- a. This Added Area was eliminated during mapping exercise. The area was originally included by virtue of a GIS error that included lake acreage. Several Township roads, providing access to developed private properties on Pike, Turner and Amik Lakes, also bisect the area, and none of the resulting core areas is larger than 500 acres in size.
- PM9. **TWIN LAKE** (*Added Area*)
- a. This Added Area was eliminated during mapping exercise. This is a gerrymandered boundary; with GIS failing to note that private property divides this into two separate areas, neither of which is large enough to warrant consideration. In addition, extensive development of private property on Cochram Lake further reduces any available core in the area to the west, while a Township road bisects the area to the east, providing access to Apeekwa Lake and then connecting to a private road that provides access to Big Pine Lake.
- PM10. **LONG CANYON** (*Added Area*)
- a. This Added Area was eliminated during mapping exercise. Two Township roads, Club House Rd and Long Canyon Rd, penetrate the area. The area was eliminated due to cherry-stemming and interior road under another jurisdiction. Buffering these roads also reduces the core area to 1,490 acres.
- PM11. **NICHOLS CREEK** (5,764 NF acres, *Added Area*, map in Appendix B)
- a. This Added Area was eliminated as result of partial core area buffering, with the largest core area of 1,412 acres, insufficient for SPNM experience. Unbuffered core area was 2,249 acres. Partial core area was determined by buffering large cranberry farm to the east of the area. A number of potential improved roads were noted, including the road to Squaw Creek impoundment, but these were not included in the buffering, since the adjacent developed ownership was sufficient influence to remove this area from further consideration. Improved travelway density was not measured.

PM12. BEAR TICK

- a. This Area was eliminated during mapping exercise. Forest Road 568, a Traffic Service Level C road under Forest Service jurisdiction, bisects this Area completely, dividing it into two separate and smaller areas, neither of which has a large enough core area for further consideration.

PM13. SILVER CREEK (5,043 NF acres, roads in Appendix C)

- a. Original boundary modified to exclude those portions of FR's 581, 579 and 1570 that are under Township jurisdiction. The modified Area was eliminated due to an improved road density of at least 0.53 mile/1,000 NF acres, slightly more than the 0.50 maximum.

PM14. ICE AGE (5,571 NF acres, roads in Appendix C)

- a. The south boundary of this Area was modified to follow the section line north of Kleutch Lake, excluding isolated National Forest land in Sections 20 and 21. This is an existing SPNM Area. This Area was eliminated due to an improved travelway density of 0.76 mile/1,000 NF acres, in excess of the 0.50 maximum.

PM15. BULLHEAD LAKE (*Added Area*)

- a. This Added Area was eliminated during mapping exercise. North Twin Lake was removed from within the potential boundary, effectively dropping the unbuffered core area below 2,000 acres (1,784 acres). Three other privately-owned properties within the area are developed, and a number of potential improved roads were noted, including the road to Squaw Creek impoundment, but these were not included in the buffering, since the development on North Twin Lake was sufficient influence to remove this area from further consideration. Improved travelway density was not measured.

PM16. KIDRICK SWAMP (6,050 NF acres, map in Appendix B)

- a. This Area is partially bisected by a Township road (Krimslinger Road) from the east. This Area was eliminated as a result of this road under another jurisdiction, and the core area buffering. The core area of 1,831 acres is insufficient to support an SPNM experience.

PM17. LOST LAKE

- a. This Area was eliminated in Step 3 due to evidence of mineral prospecting with access roads. This Area has undergone extensive mineral exploration over the past 15-20 years, and includes a known metallic mineral deposit (Bend Deposit).

PM18. UPPER STEVE CREEK (5,745 NF acres, roads in Appendix C)

- a. This Area was eliminated due to an improved travelway density of 1.08 miles/1,000 NF acres, well in excess of the 0.50 maximum.

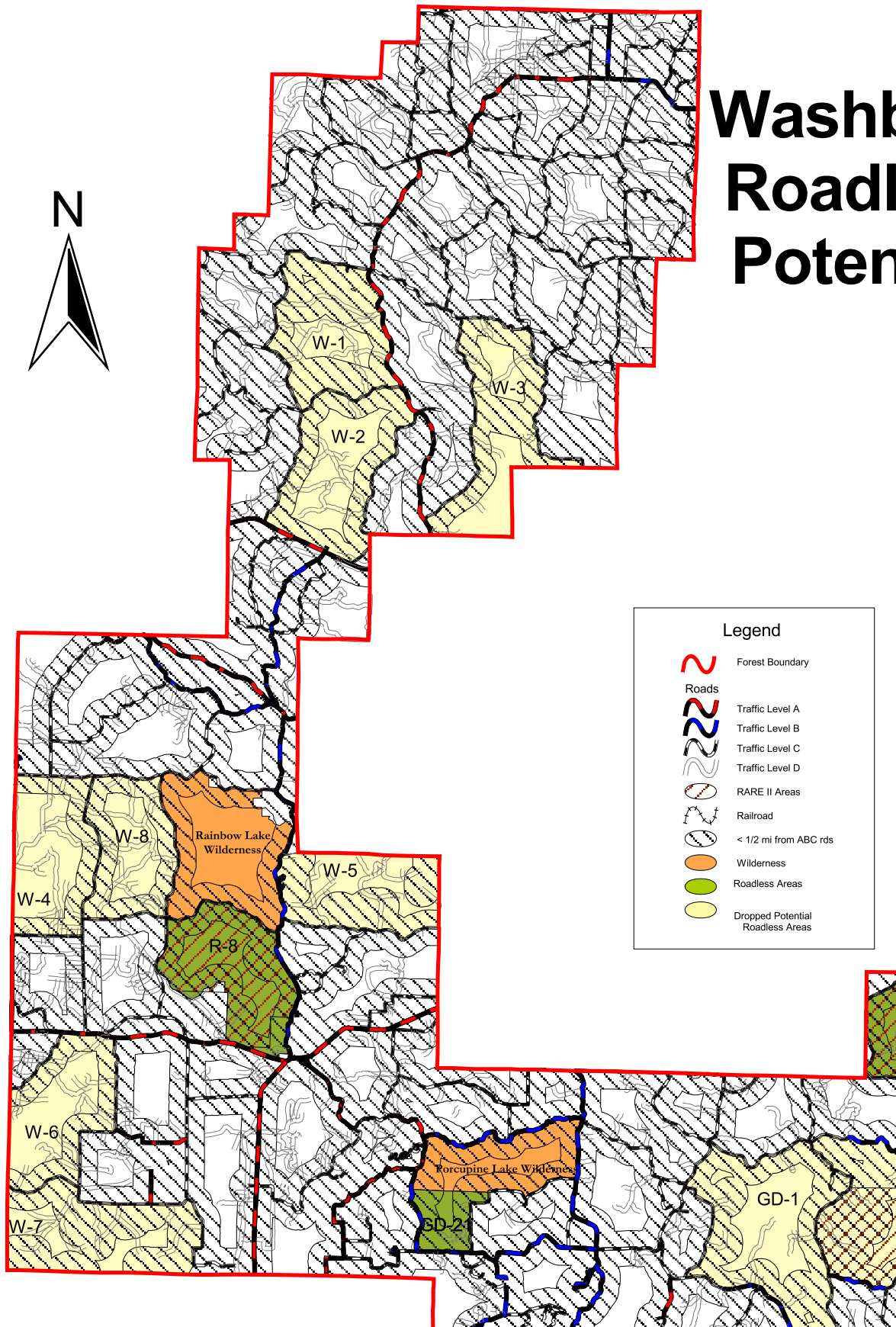
PM19. BEAR CREEK (7,227 NF acres, roads in Appendix C)

- a. This is an existing SPNM Area. Original south boundary modified to exclude Konsella Road (Town jurisdiction). This Area eliminated due to an improved travelway density of at least 0.75 mile/1,000 NF acres, in excess of the 0.50 maximum.

PM20. YELLOW RIVER (10,903 acres, map in Appendix B)

- a. This Area was eliminated during mapping exercise. FR 575 is a Township road that almost completely bisects the Area (it dead ends on each side of the Yellow River), dividing it into two separate and smaller areas.
 - i. Area to the east of FR 575 is partially bisected by another Township road (Homestead Lane). This Area was eliminated due to insufficient SPNM core and road under another jurisdiction.
 - ii. Area to the west of FR 575 was eliminated due to insufficient SPNM core.

Washburn Roadless Potential

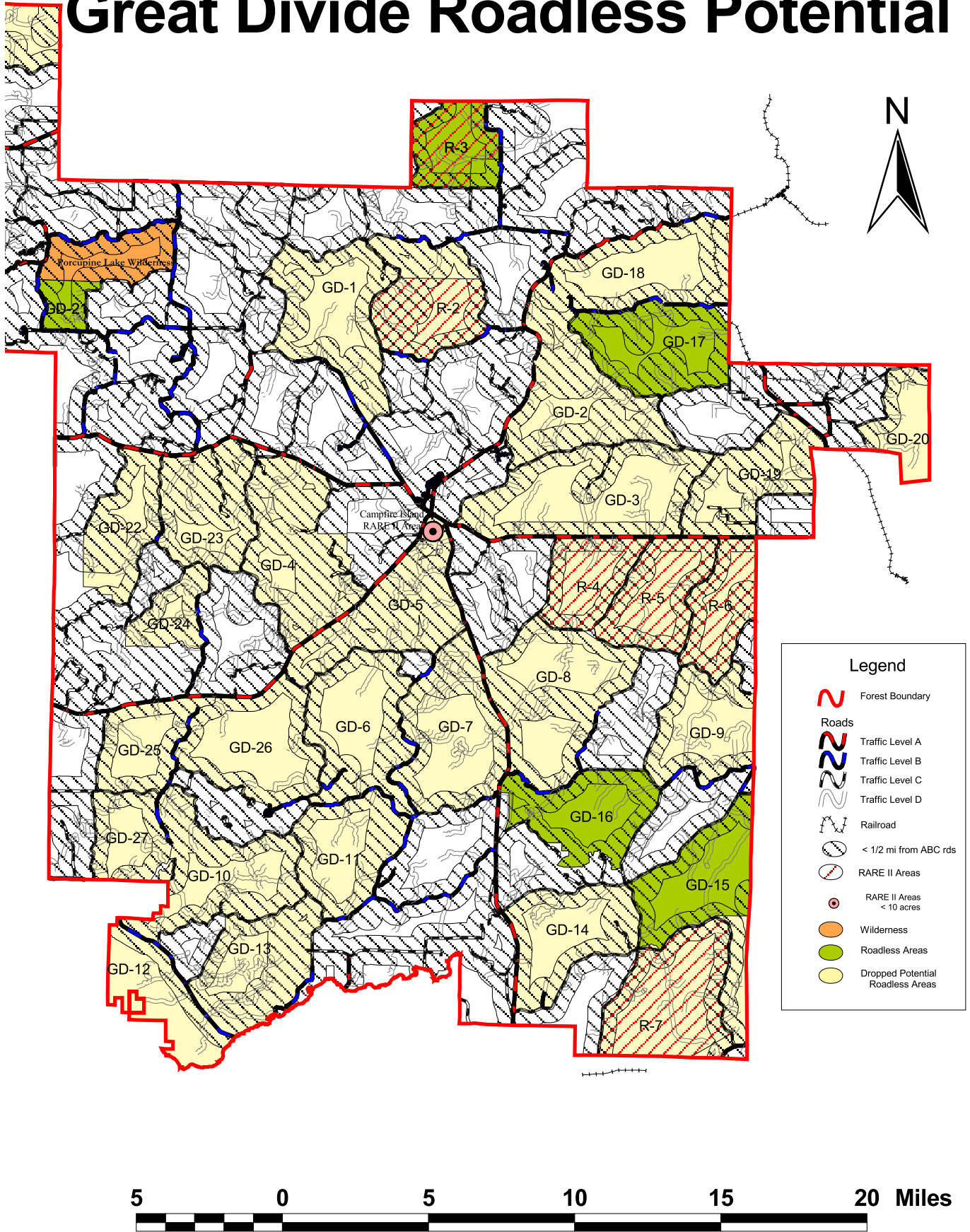


Legend

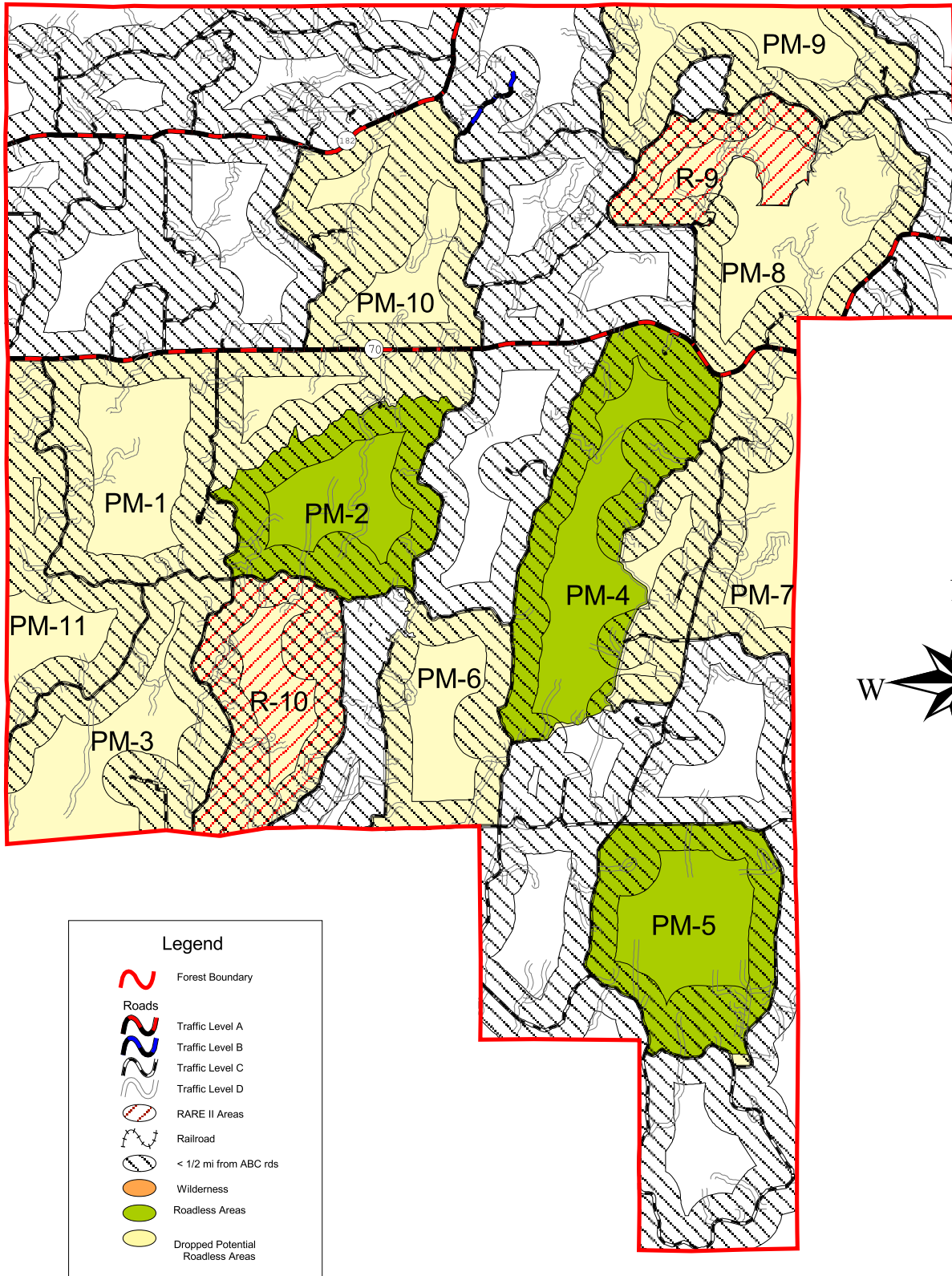
- Forest Boundary
- Roads
 - Traffic Level A
 - Traffic Level B
 - Traffic Level C
 - Traffic Level D
- RARE II Areas
- Railroad
- < 1/2 mi from ABC rds
- Wilderness
- Roadless Areas
- Dropped Potential Roadless Areas

5 0 5 10 15 Miles

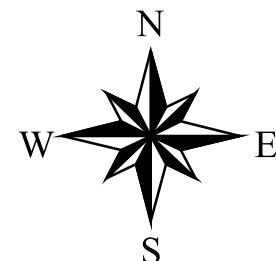
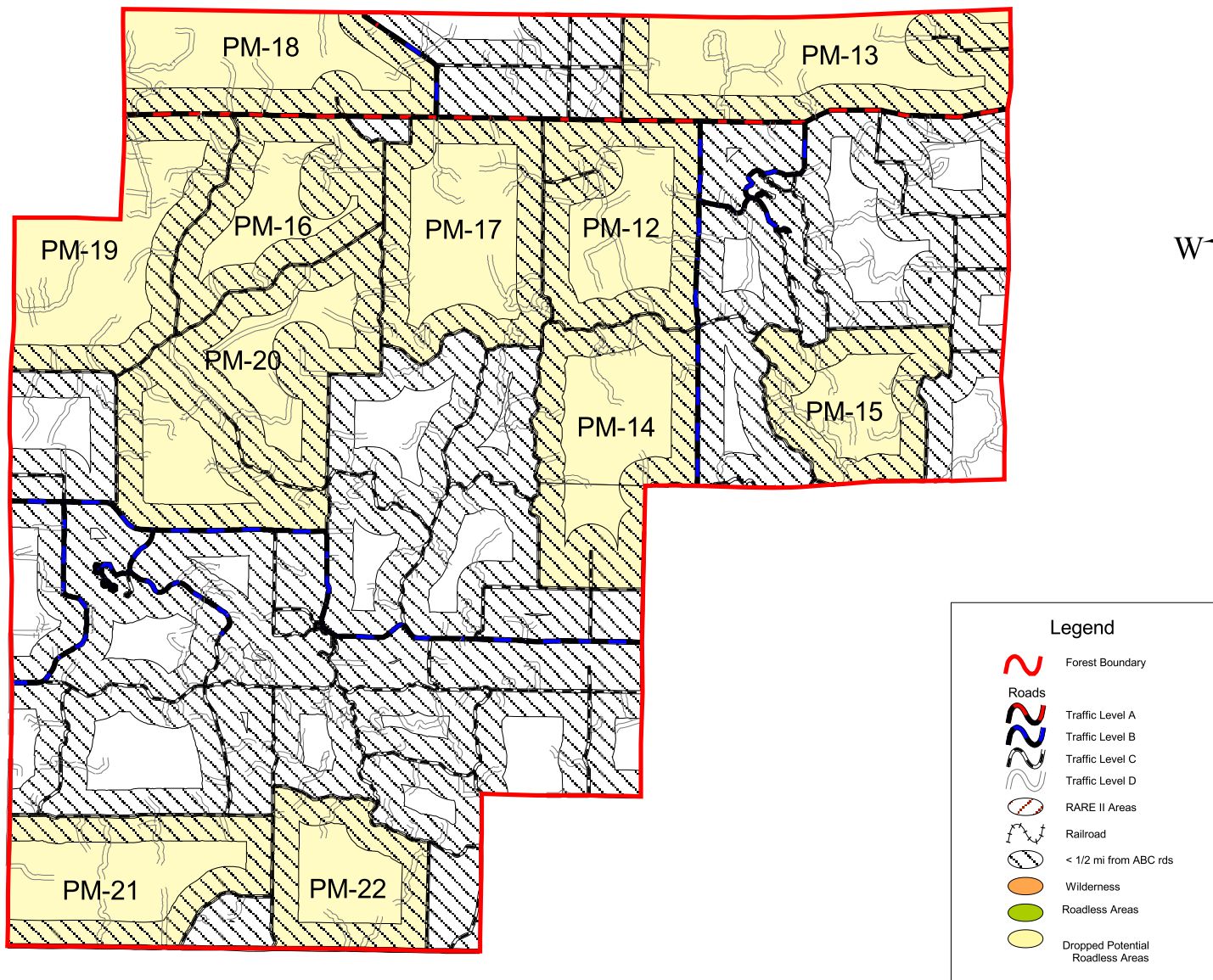
Great Divide Roadless Potential



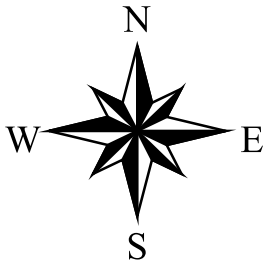
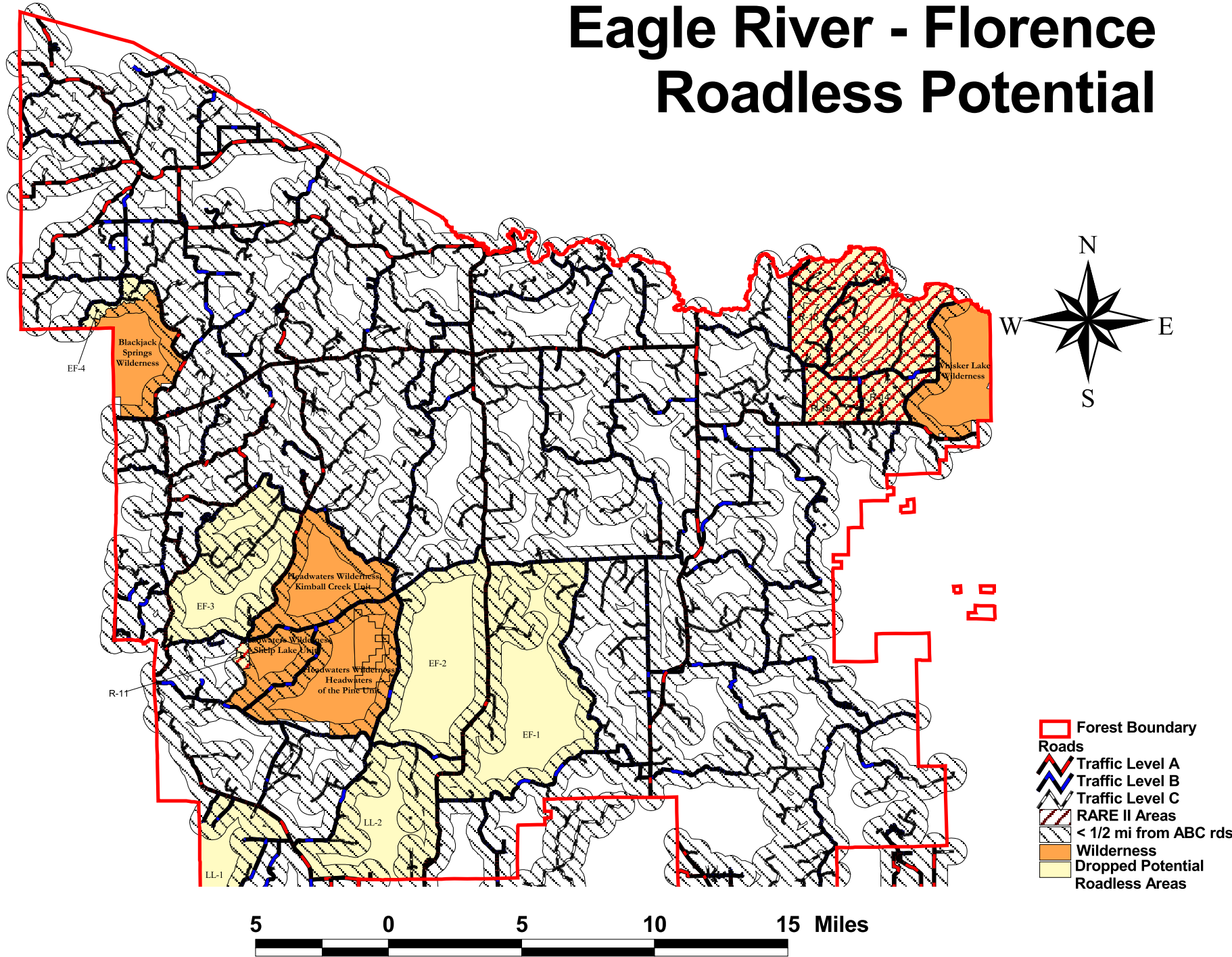
Park Falls Roadless Potential



Medford Roadless Potential



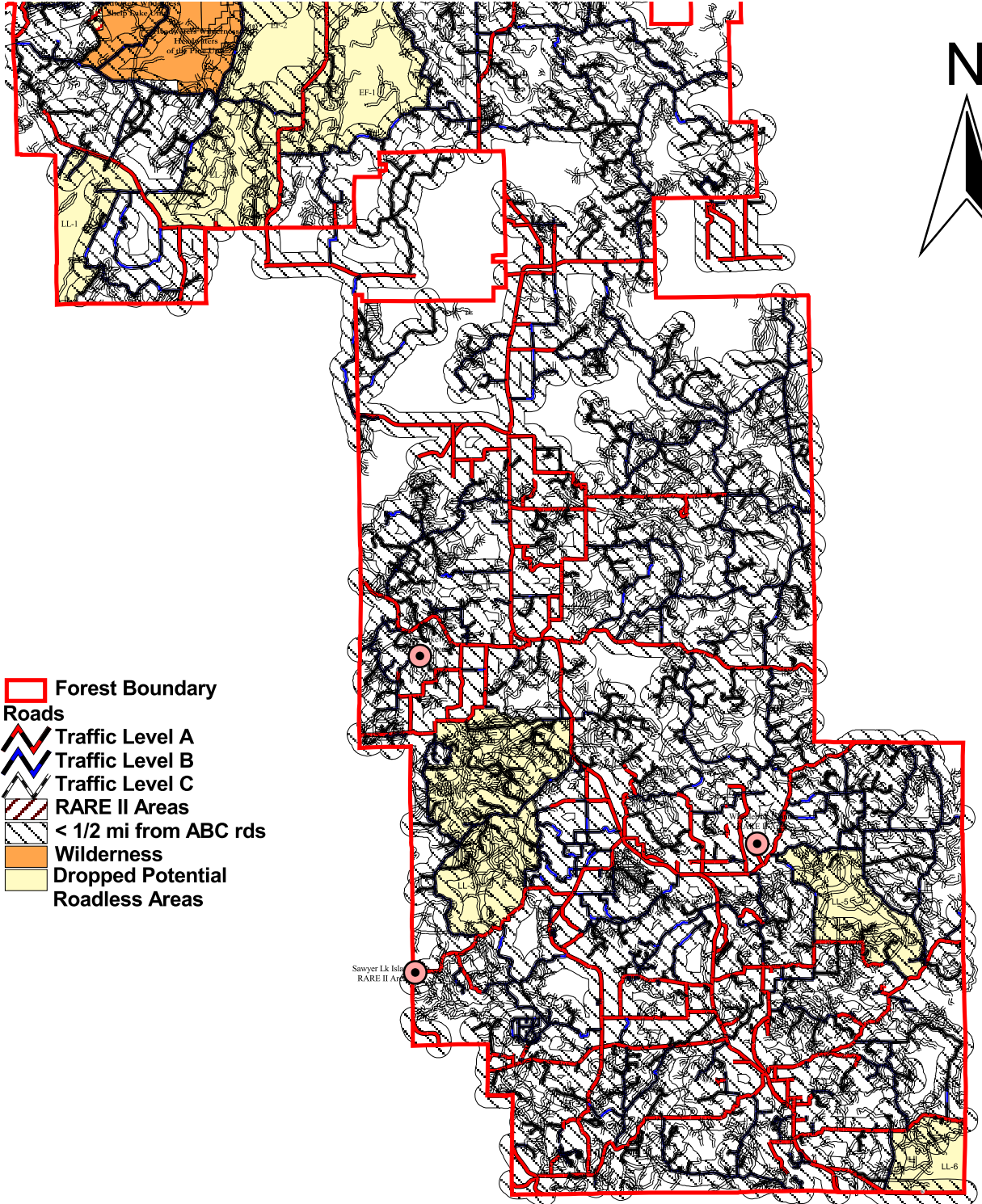
Eagle River - Florence Roadless Potential



- Forest Boundary
- Roads**
- ^ Traffic Level A
- ^ Traffic Level B
- ^ Traffic Level C
- / / / / RARE II Areas
- / / / / < 1/2 mi from ABC rds
- Wilderness
- Dropped Potential Roadless Areas



Lakewood - Laona Roadless Potential



- PM21. BEAVER CREEK (4,643 NF acres)
- a. This Area does not have 5,000 National Forest acres.
 - b. This Area has a high proportion of interspersed private ownership, affecting the continuity of the core area and manageability of the National Forest land as potential Wilderness. The private ownership amounts to approximately 35% of the total land within the Area and is dispersed in a pattern that is not “realistic to manage the Federal lands as Wilderness, independent of the private lands”.
 - c. This Area was eliminated during the mapping exercise as a result of private land ownership in excess of 30% of the total, and in a pattern that is not conducive to Wilderness management.
- PM22. MCKENZIE CREEK (*Added Area*)
- a. This Added Area does not have 5,000 National Forest acres (total 2,910 NF acres).
 - b. This Added Area was eliminated during the mapping exercise as a result of private land ownership in excess of 30% of the total (5,060 acres, 42% of total), and in a pattern that is not conducive to Wilderness management.

OTHER AREAS – EAGLE RIVER/FLORENCE DISTRICT (NEW INVENTORY)

- EF1. POPPLE RIVER (13,817 NF acres)
- a. This Area has a high proportion of interspersed private ownership, affecting the continuity of the core area and manageability of the National Forest land as potential Wilderness. Private ownership is scattered in such a fashion that the potential core area has no solid blocks of National Forest larger than 1,000 acres. The GIS exercise identified total acres of National Forest within an area; it did not look at how those acres were connected. In this case, the core area acres are present, but are not contiguous.
 - b. This Area was eliminated during the mapping exercise as a result of private land ownership in excess of 30% of the total (7,303 acres, 35% of total), and in a pattern that is not conducive to Wilderness management.
- EF2. JONES CREEK (11,018 NF acres, map in Appendix B)
- a. This Area was eliminated from further consideration as a result of core area buffering. This Area was actually divided into two separate core areas due to the presence of a large block of State School Trust ownership (approximately 2,500 acres) located in the center of the Area. The largest of these two core areas was 1,064 acres, insufficient to support an SPNM experience. The improved travelway density for this Area is slightly less than 0.50 mile/1,000 NF acres maximum.
- EF3. BAILEY LAKE (8,535 NF acres and 11,981 NF acres, roads in Appendix C)
- a. This Area was actually considered in two different forms. One consideration was to use Forest Road 2432 as the north boundary (8,415 NF acres); the other was to use Forest Road 2179 as the north boundary (11,981 NF acres). Both options were eliminated due to an improved travelway density in excess of the 0.50 mile/1,000 NF acres maximum. The improved travelway density using FR 2432 as the north boundary is at least 0.82 mile/1,000 NF acres. The improved travelway density using FR 2179 as the north boundary (and including FR 2432) is at least 1.02 miles/1,000 NF acres.

- EF4. BLACKJACK SPRINGS ADDITION (1,066 NF acres, roads in Appendix C)
- a. This Area is directly adjacent to an existing Wilderness (includes area north of Deerskin River and south of Forest Roads 2178 and 2199); as a result core area is not a deciding factor. This Area was eliminated due to an improved travelway density of at least 2.50 miles/1,000 NF acres, well in excess of the 0.50 maximum.

OTHER AREAS – LAKEWOOD/LAONA DISTRICT (NEW INVENTORY)

- LL1. ATKINS LAKE
- a. This Area was eliminated during mapping exercise. The Chicago and Northwestern Railroad, and active line, bisects this Area completely, dividing it into two separate and smaller areas, neither of which has a large enough core area for further consideration.
- LL2. PESHTIGO RIVER (9,564 NF acres, roads in Appendix C)
- a. This Area was eliminated due to an improved travelway density of 0.70 mile/1,000 NF acres, in excess of the 0.5 maximum.
- LL3. MARY LAKE (8,054 NF acres, map in Appendix B, roads in Appendix C)
- a. Original east boundary modified to exclude two Township roads that partially bisect the Area, as well as Mary Lake itself. This Area was eliminated due to a combination of an improved travelway density of 0.81 mile/1,000 NF acres, in excess of the 0.50 maximum; and core area buffering, with a core area of 2,143 acres, insufficient to support an SPNM experience.
- LL4. DIAMOND ROOF (12,456 NF acres, map in App. B, roads in App. C)
- a. This Area was eliminated from further consideration as a result of core area buffering, with a core area of 1,312 acres, insufficient to support an SPNM experience. The improved travelway density is at least 0.55 mile/1,000 NF acres (and probably much higher), in excess of the 0.50 maximum.
- LL5. HAY CREEK (*Added Area*, map in Appendix B)
- c. This Area was eliminated from further consideration as a result of partial core area buffering, with a core area of 1,905 acres, insufficient to support an SPNM experience. All developed privately-owned properties within the area were identified and buffered. In addition, two Township roads providing access to Crooked Lake were buffered, as well as FR 3778, and a special use permit road providing access to private property along the Oconto River. For the original GIS mapping exercise (Step One of the Inventory), FR 2324 had been identified as a Traffic Service Level C road; however, upon field checking the road, it appeared to be in TSL D condition. As a result, it was downgraded and no longer used to define part of the area boundary. Several other roads were noted as improved, but were not buffered, nor was an improved travelway density measured for this area (since partial buffering dropped the core below 2,000 acres). Snowmobile Trail F appeared, upon field inspection, to be improved for at least two miles, and also appeared to be receiving ATV use.
- LL6. PIPELINE (*Added Area*)
- a. This Area was eliminated during mapping exercise. The ANR gas pipeline bisects this Area completely, dividing it into two separate and smaller areas, neither of which has a large enough core area for further consideration.

TABLE 1. Summary of Wilderness Evaluation Attributes for Newly Inventoried Roadless Areas.

ROADLESS AREA ATTRIBUTES	Unit Of Meas.	Porky Lake Addition	St. Peters Dome	Iron River	Hungry Run	Spring Brook	Schmul/Popples Creek	Mud Lake	Stony Creek	Flynn Lake
GENERAL										
Total Area	Acre	1,780	5,059	8,696	7,578	7,859	7,146	10,383	8,389	6,601
National Forest Area	Acre	1,679	4,631	8,331	7,363	7,775	7,100	9,968	7,498	6,349
Surface Water	Acre	--	--	--	95	--	--	43	--	202
NF % of Total	%Total	94%	92%	96%	97%	99%	99%	98%	89%	96%
Core Area (NF)	Acre	243	2,174	2,472	2,610	3,849	2,623	4,163	3,266	1,959
Core % of NF *1	%NF	14%	47%	30%	35%	50%	37%	42%	44%	31%
ACCESS										
Improved Road/Trail	Mile	0.74	0.54	3.75	2.68	3.70	2.10	2.34	2.20	1.01
Improved Road/Trail Density *2	Mile/1000Ac	0.44	0.12	0.45	0.36	0.47	0.30	0.23	0.29	0.17
Est System Roads	Mile	2.80	6.60	10.75	6.50	9.50	6.00	9.20	4.35	1.50
Perimeter Roads *3	Mile	5.65	9.65	13.05	14.10	9.54	10.35	15.45	14.90	12.40
Access Points To NF	No.	15	12	24	30	23	31	33	46	13
Open/Drivable Access	# >200'	6	1	11	7	3	9	11	10	1
Open/Drivable Access Per Mi Perimeter Rd	# >200'/Mile *4	1.06	0.10	0.84	0.50	0.31	0.87	0.71	0.67	0.08
RESOURCES										
NF Suitable Lands	Acre, %NF	1,525 91%	0 0%	6,630 80%	5,645 77%	5,852 75%	3,511 49%	4,035 40%	5,160 69%	5,739 90%
Regeneration Timber Harvest '91-'01	Acre, %NF	43 3%	0 0%	119 1%	327 4%	121 2%	259 4%	182 2%	220 3%	0 0%
Maintained Openings	Acre	9	0	0	1	0	21	42	35	11
Wetlands	Acre, %NF	121 7%	193 4%	2,778 35%	3,507 48%	2,512 32%	3,696 52%	6,162 62%	2,894 38%	583 9%
Lowland Conifers	Acre, %NF	41 2%	96 2%	1,749 21%	2,151 29%	1,438 18%	818 12%	2,207 22%	875 12%	171 3%
Perennial Streams	Mile	1.6	8.4	15.5	12.1	4.6	3.9	8.1	5.5	0.2
Early Successional Vegetation *5	Acre, %NF	636 38%	1,097 23%	2,792 48%	1,750 24%	1,313 16%	2,479 35%	2,310 23%	1,106 14%	1,675 24%
Aspen	Acre, %NF	523 31%	1,078 23%	2,693 32%	922 12%	1,237 16%	1,786 25%	2,017 20%	1,055 14%	1,074 17%
Northern Hardwoods	Acre, %NF	494 33%	3,249 70%	1,893 28%	1,344 18%	3,805 50%	334 5%	1,215 12%	3,467 46%	3,580 56%
ECOSYSTEM										
LAD Complex	Acre, %NF	350 21%	4,631 100%	374 4%	2,694 37%	2,800 36%	0 0%	3,171 32%	0 0%	0 0%
RNA Candidate	Acre, %NF	0 0%	@2,500 54%	0 0%	@150 2%	0 0%	0 0%	0 0%	0 0%	0 0%
ECS Section, Wilderness Rep *6	Sect, Yes/No	X Yes	J Yes	X,J Yes,Yes	X Yes	X Yes	X Yes	X Yes	X Yes	X Yes
ECS Subsection, Wilderness Rep *6	SubSct, Yes/No	Xf No	Jb No	Xa,Jc Yes,Yes	Xa Yes	Xd No	Xa Yes	Xa Yes	Xd No	Xf No
T&E/RFS/DFS *7	No. Ea.	0/0/0	1/4/3	1/0/1	2/3/1	1/3/1	1/0/0	1/2/1	1/0/0	3/6/1

*1 - %NF refers to percentage of National Forest land within Roadless Area

*2 - Improved Roads/Trails Miles / 1,000 NF Acres within Roadless Area (see Appendix C)

*3 - Perimeter Roads are TSL A/B/C Roads that form boundary of Roadless Area

*4 - Access Points to Open & Drivable (with full-sized vehicle) Roads over 200' in length

*5 - Early Successional Vegetation is Aspen/Paper Birch/Balsam Fir

*6 - Ecological Classification System Section/Subsection within which Roadless Area occurs, whether or not Section/Subsection has current Wilderness representation (Yes it does, No it does not)

*7 - T&E (Federally-listed Threatened & Endangered), RFS (Regional Forester Sensitive Species), DFS (Draft Forest Sensitive Species) - mammals, birds listed by number of species in each designation; includes mammals, birds, reptiles, amphibians, mussels, insects, plants

PART THREE: WILDERNESS EVALUATION OF INVENTORIED ROADLESS AREAS

1) PORCUPINE LAKE ADDITION ROADLESS AREA (GREAT DIVIDE DISTRICT)

Solitude Evaluation

The Porcupine Lake Addition Roadless Area is 1,780 acres in size, including 1,679 acres (94%) of National Forest land. One of the basic criteria for a roadless area is that it has a “core area of solitude” amounting to 2,500 acres or more of National Forest land. The core area of solitude is defined as a contiguous core of National Forest land that is separated by at least ½-mile from the influence of motorized traffic and land uses inconsistent with the semi-primitive non-motorized experience (a more detailed description of the process for determining core area of solitude can be found on pages 5-7 of this report). The exception to this criterion is when an area is contiguous to an existing Congressionally-designated Wilderness Area, with no significant landform or constructed barrier between the two. In this case, the Porcupine Lake Addition is due south and directly adjacent to the existing 4,488-acre Porcupine Lake Wilderness. When considered as a separate entity, the Porcupine Lake Addition has a core area of solitude of only 243 acres. When considered as part of the existing Porcupine Lake Wilderness, this total core area expands to 1,569 acres.

There are two parcels of private lands within the boundaries of the Porcupine Lake Addition. One is a 101-acre block in the southeast corner of the Addition. This private parcel is bordered for ¼-mile by Forest Road 374 to the east, and for ½-mile by Forest Road 212 to the south. This parcel contains two residences, each having a gated access via an improved gravel surface road. Neither residence is visible from Forest Road 212. The second parcel is directly adjacent to the Porcupine Wilderness, located between FR 374 and the Wilderness, near the northeast corner of the Addition. This is a 20-acre parcel with a residence and an improved access road that includes a 0.09-mile segment on National Forest land.

The Porcupine Lake Addition is essentially a square-shaped area, bordered on three sides by Township roads, and on the north by the Porcupine Lake Wilderness Area. Forest Road 212 (a paved, two-lane, Traffic Service Level B Township road) borders the Addition on the south and west sides. On the south boundary, FR 212 is called the Diamond Lake Road within Grand View Township, and Lake Owen Drive within Drummond Township. On the west boundary, Drummond Township calls FR 212 the Ryberg Lake Road. The east boundary to the Addition is Forest Road 374 (Diamond Lake Road, a two-lane, gravel surface, Traffic Service Level C Township road). This road borders on Diamond Lake for much of the boundary it shares with the Addition, and there are a number of small tracts opposite the Addition with private cabins and residences along the road. Forest Road 374 takes a bootleg to the east on the north end of Diamond Lake, and there is a small piece of land, including 83 acres of National Forest, which lies between FR 374 and the Porcupine Wilderness and is part of the Addition.

The Porcupine Lake Addition has a total of 15 approaches providing access to National Forest land along the roaded perimeter of the roadless area, including 2 improved travelways and another improved travelway that begins as access to private land but then wanders on to National

Forest land (see Appendix C). There is one special use permit to provide access across the Addition to a private parcel that actually sits within the Porcupine Lake Wilderness. One of the improved travelways is part of the Diamond Lake Hunter/Walking Trail System, and there are 2 access points to Bayfield County Snowmobile Trail #15 (an unimproved trail). This relatively small tract of National Forest land has a significant network of travelways traversing its length and breadth.

One of the improved travelways is an unnumbered route that actually shares a good portion of its length with Bayfield County Snowmobile Trail #15 (shown as Forest Trail 428 on USGS topographic quadrangle maps for the Chequamegon-Nicolet). The unnumbered improved travelway has pit run gravel surfacing and cut sections. The snowmobile trail crosses FR 212 approximately 0.05 mile east of the access point for the improved road. The snowmobile trail then intersects the improved road approximately 0.05 mile north of the access point from FR 212. These two routes then proceed in an improved condition for approximately 0.25 mile north, where the road terminates in a T-Turnaround. This 0.30-mile section of road, although drivable with a high clearance vehicle, is only marginally improved and is in disrepair, with an uneven, heavily eroded surface, and several potholes. The snowmobile trail continues north from the T-Turnaround for another 0.65 mile before turning west and crossing the Ryberg Road, moving out of the Porcupine Lake Addition. The snowmobile trail is actually open and much of it is drivable with a 2WD, high clearance vehicle, and there is evidence there has been some dozer work on the trail over the past few years, particularly in widening the travelway on some of the gravelly knobs. However, there are several steep, eroded grades and deep potholes that are passable only with a 4WD vehicle or in winter-only conditions.

The travel route for the Diamond Lake Hunter/Walking Trail is identified as Forest Roads 745, 745A, and 745B in the Chequamegon-Nicolet Transportation Inventory System. (However, the access to the trail from FR 374 is gated and has a sign identifying it as FR 374A. There is no record of this road number in the transportation inventory, so this report will refer to these roads using the inventory numbers.) Utilizing the information in the inventory, FR 745 appears to have originally traversed the entire Porcupine Lake Addition, traveling east to west for a distance of 1.8 miles from FR 374 on the east perimeter to FR 212 (Ryberg Road) on the west perimeter. A more recent GPS (Global Positioning System) survey shows that an ATV can still traverse the Addition on this route. A review of the old Chequamegon Transportation Inventory System, a computer data base that was maintained as part of a national inventory and which was last updated on the Chequamegon in 1990, has FR 745 listed with 0.5 mile of “graded and drained” travelway, and the remaining 1.3 miles as “primitive”. This indicates that 0.5 mile of the travelway had some level of template when last inventoried, while the remainder of the road was essentially a clearing with a drivable surface (if drivable at all). FR 745A is listed as a 0.5-mile primitive loop connected to FR 745. And FR 745B is listed as a 0.2 mile “graded and drained” dead-end road connected to FR 745. A field inventory in 2000 of these roads revealed that FR 745 has a wide clearing (approximately 16’), and an easily driven, well-packed silty-sand native soil surface for the first 0.3 mile. At this point the road comes to a T-intersection. FR 745 turns left, but this route has been choked with brush and is too narrow to drive. FR 745A turns right, and can be driven for another 0.05 mile. At this point the travelway splits again. FR 745A turns left, but, as with FR 745, the route is choked with brush and is too narrow to drive. The hunter/walking trail continues to the right on an unnumbered travelway. There is no visible template on this route, but it is drivable for another 0.15 mile before it, too, becomes choked with brush and too narrow for a full-sized vehicle. With the exception of the mislabeled FR 374A sign at the gated entrance, none of these travelways has a road number identifying them on the

ground. The numbers associated with the actual locations were gleaned from the most recent, though yet incomplete, transportation inventory on the Chequamegon landbase – a GPS survey conducted in 1998 that is being developed into a GIS transportation layer for the National Forest.

A Forest Service map of the Diamond Lake Hunter/Walking Trail shows approximately 3.5 miles of trail in several loops. Four sections of the trail are shown to dead end at Bayfield County Snowmobile Trail #15, where gates prevent snowmobiles from gaining access to the H/W trail. There are no records of construction or reconstruction of FR 745 or its spurs along this route. The old Transportation Inventory System indicates that 1984 was the last year any such work may have been performed on these roads. The portion of FR 745 that is now part of the H/W trail may have received some brushing over the years, particularly in the first 0.3 mile. The portion of FR 745 that is now part of Bayfield County Snowmobile Trail #15 may have received some maintenance beyond the normal trail grooming, but there is no evidence on the ground that this has been recent. As a result, the initial 0.3-mile segment of the H/W trail, which is drivable and most likely the “graded and drained” portion of the original road, is classified as an “improved trail”. The next 0.05-mile segment of FR 745A is also classified as “improved”. The remainder of the H/W trail (including the snowmobile trail) is classified as an “unimproved trail”.

There is a special use permit road in the far northwest corner of the Addition. This road has a private gate near the entrance, and it provides access to a 40-acre parcel of private land (with a seasonal cabin) located within the Porcupine Lake Wilderness. This road is unimproved and traverses approximately 0.1 mile of National Forest land. Directly adjacent to the entrance to the private road is another unimproved road that is open and drivable for about 0.1 mile. This road provides access to a spruce plantation.

The remaining unimproved access points include 3 travelways that are open and drivable for an unspecified distance. One of these is FR 374B, a 6-8’ wide, 2-track route that is drivable with a 4WD but has no base surfacing or template. There are five other access points that travel no more than 200’ and are unimproved.

In addition to these access points to National Forest land, there are 3 access points to private land within the Addition. All three are improved, gravel surface driveways leading to residences. Two are gated. One of these routes, located in the northeast corner of the Addition, includes the 0.09-mile segment that slips onto National Forest land before returning to the private parcel. This segment does not have a special use permit.

The Porcupine Lake Addition, when considered as a separate entity, is not semi-primitive. It does have one notable geographic feature, Eighteenmile Creek; but, it is relatively flat and is bordered on two sides by paved roads with intermittent moderate speed traffic, and a third side by shoreline development along the eastern side of Diamond Lake. Traffic sounds from the paved roads, as well as from motorboat traffic on Diamond Lake may be audible in every part of the Porcupine Lake Addition. And certainly the snowmobile traffic on Trail #15 is audible throughout the area during the winter. It is evident that this trail also receives ATV use during the non-winter months.

It is most likely that the recreation activity in this area is concentrated on the trail systems, and that the snowmobile trail receives the bulk of that activity. Yet, even off the trails, it may be difficult to obtain a feeling of isolation and independence within this area. The possibility of

hearing noise from traffic or activities along or outside the perimeter is all too likely. However, the further north into the Addition, the closer one gets to the Porcupine Wilderness, and the more likely one would begin to feel a sense of isolation and independence. The real measure of solitude in the Porcupine Lake Addition is not what is inherent to the area, but in what it adds to the existing Wilderness Area to the north. When considered in conjunction with 4,488-acre Wilderness, the Addition improves the opportunities for solitude in the eastern half of the Wilderness Area, and particularly around the centerpieces of the Wilderness Area – Porcupine Lake, Eighteenmile Springs and Eighteenmile Creek. Expanding the Wilderness Area to the south would center these bodies of water in a larger core area of solitude. And, even though such an expansion is relatively modest in size, any expansion of this relatively small Wilderness Area is likely to enhance the potential for a visitor to feel a sense of isolation, and the tranquility and closeness to nature that is embodied in the wilderness experience.

Degree of Disturbance Evaluation

The Porcupine Lake Addition Roadless Area is natural in appearance, although there are some signs of recent disturbance. A total of 43 acres has undergone a regeneration harvest during the past 10 years, including a 13-acre unit that is still under contract. Another 9 acres are maintained as permanent wildlife openings. There are no current mineral extraction activities, mineral leases or mineral claims within the Addition, and there are no abandoned railroad grades or trail bridges. There are no developed recreation sites other than the aforementioned snowmobile and hunter/walking trails). There are overhead power lines adjacent to Forest Roads 374 and 212 on the west and south perimeters of the Addition. And there is one special use permit providing access to private property within the Porcupine Lake Wilderness Area across National Forest land within the Addition. There are three residences located on private property within the Addition. None of these are visible from the road, but each has an improved gravel driveway providing access to the residence. There is no evidence of timber cutting activity on the private land within the Addition.

The Porcupine Lake Addition Roadless Area has 0.74 miles of improved travelways within the perimeter of the area, a density of 0.44 mile of improved travelways per 1,000 National Forest acres. Along the 5.65 miles of perimeter roads and trails, this Roadless Area has 15 access points to National Forest land (including one that begins on private land). Two of these provide access to Bayfield County Snowmobile Trail #15, and another 5 are less than 200' in length. That leaves about 1.4 access points to interior National Forest land per mile of perimeter road, about the average for the newly inventoried roadless areas. Four of these are drivable and open to the public, including one of the improved roads. Although the private road that provides access to National Forest is not gated, it is not considered open to the public.

The most profound motorized influence within the Addition is Bayfield County Snowmobile Trail #15. The trail is groomed and active in the winter months; and, when free of snow the remainder of the year, it is an obvious – although unmaintained - vehicle travelway, with exposed cut sections, wheel ruts, large potholes and chronic erosion problems. It also appears to get frequent ATV use.

The degree to which travelways permeate the southern half of this small area is considerably more significant than in the northern half of the area. With 3.5 miles of hunter/walking trails, and nearly 1.5 miles of snowmobile trails, this amounts to approximately 5.0 miles of recreation

travelways concentrated within the southern portion of the Addition, an area that is slightly larger than 800 acres; or about 4.0 miles per square mile of National Forest land. However, only a small percentage of these miles are improved, the hunter/walking trail is gated at all access points, and the northern half of the Addition has only a few interior travelways that are generally accessible only in frozen or dry conditions. The result is, with the exception of Bayfield County Snowmobile Trail #15, the tradition of recreation access to this area is non-motorized.

With the exception of the snowmobile trail, the Porcupine Lake Addition Roadless Area has the appearance of a lightly disturbed landscape in which forest management activities take place on an intermittent basis, in which the bulk of recreation activity is non-motorized in nature, and in which natural processes hold sway.

Biological Evaluation

Although the northern hardwood forest type occurs on less than one-third of the Porcupine Lake Addition Roadless Area, the northeast quarter of this area is a very large, mostly un-fragmented patch of northern hardwood/oak forest. Early-successional forest types (aspen/fir/birch) dominate the southern half and much of the northwest quarter, accounting for nearly 38% of this roadless area. Red, jack and white pine plantations account for about 16% of the area. This latter is the result of the Cable Rolling Outwash Land Type Association (LTA), which is drier and sandier than the Chequamegon Washed Till and Outwash LTA, extending through a portion of this roadless area. Only 121 acres (7% of National Forest land) within the Porcupine Lake Addition Roadless Area are classified as wetlands. There are 1.6 miles of perennial streams within the roadless area.

The northeast quarter of the Porcupine Lake Addition Roadless Area includes about 350 acres of the "Eighteenmile Creek Headwaters" Landscape Analysis and Design complex. This candidate Special Management Area is a 2,000-acre complex that continues along Eighteen Mile Creek, through the bordering Porcupine Lake Wilderness Area, to the National Forest boundary, some four miles to the north. The most significant feature of this complex contained within the Porcupine Lake Addition Roadless Area is Eighteenmile Creek itself. This high quality, mostly closed-canopy, trout stream originates from Diamond Lake just to the east of the roadless area. It is classified as a Class I trout stream, meaning that it is a high quality stream capable of supporting natural trout reproduction at a sufficient level to maintain sustainable populations without stocking. However, the creek does not really become a cold water system until it meets a spring pond located within the Porcupine Lake Wilderness Area. Using the draft Aquatic Ecological Classification System definitions for "valley segments" within the Chequamegon-Nicolet National Forest, the section of Eighteenmile Creek located within the Porcupine Lake Addition is considered more of an NMW type. NMW segments are narrow (less than 20' wide), moderate alkalinity (greater than 20ppm), warm water (greater than 26 degrees Celsius) streams. Five to nine fish species may occur in NMW segments, and these are dominated by northern redbelly dace, creek chub, central mudminnow, and blacknose dace. It is highly unlikely that mussels occur in NMW segments.

The stream banks for Eighteenmile Creek are generally forested with good-to-excellent quality stands of hemlock-dominated forest type, and a significant component of upland cedar, yellow birch, and super-canopy white pine. There are occasional patches of Canada yew and hemlock saplings. And there are small pockets of old growth hemlock-hardwoods forest type near the headwaters of Eighteenmile Creek. Overall, the Eighteenmile Creek Headwaters candidate Special Management Area is a large patch of

northern hardwood forest type which, when considered with the nearby Lake Owen area and Porcupine Lake Wilderness Area, forms one of the largest blocks of mature hardwood forest remaining on the Chequamegon landbase of the National Forest.

The Porcupine Lake Addition also includes the southern quarter of Coburn Lake, a 10-acre seepage lake located on the southern boundary of the Porcupine Lake Wilderness. This lake has a maximum depth of 9 feet, and its fishery is unspecified.

There are no indications that the Porcupine Lake Addition Roadless Area supports Threatened and Endangered aquatic or wildlife species.

Biotic Species Requiring Primitive Surroundings

The 2,000-acre Eighteenmile Creek Headwaters Landscape Analysis and Design complex has been identified as a potential Ecological Reference Area. This complex is a candidate for designation as a Special Management Area. An approximately 350-acre portion of this complex is within the Porcupine Lake Addition Roadless Area. This roadless area is directly adjacent to the existing Porcupine Lake Wilderness Area, and the Eighteenmile Creek Headwaters complex extends through the Wilderness. A larger portion of the total Eighteenmile Creek Headwaters LAD complex would be protected from ground disturbing activities and other landscape modifications if the Porcupine Lake Wilderness were designated as Wilderness. Since there are no natural or constructed impediments between the existing Wilderness and the Porcupine Lake Addition, the expansion of wilderness designation to a larger contiguous area affords greater opportunity to provide quality semi-primitive habitat with Wilderness protections.

This area in and of itself is not large enough to provide wildlife species with primitive surroundings. It contributes to the overall forest mosaic; but, in this context, it is similar to the general forest environment. There are no wildlife species within the Chequamegon-Nicolet that are dependent upon Wilderness.

Ecological Evaluation

As suggested in the Forest Service Handbook, FSH 7.23b, the “analysis of the degree to which (a roadless area) contributes to the local and national distribution of wilderness” should use Edwin A. Hammond’s subdivision of landform types and the Bailey-Kuchler ecosystems classification. With regard to the Upper Great Lakes Region, almost all of this area is classified as Laurentian Mixed Forest Province (Province 212).

In his 1999 publication Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends, H. Kenneth Cordell notes that this particular ecoregion encompasses some 94.4 million acres, or 4.9% of the lower 48 states. Currently, 1,226,870 acres of this ecoregion are Congressionally-designated Wilderness on federal lands, representing 2.8% of all federal Wilderness in the lower 48 states. As a result, 1.3% of the ecoregion is represented as Wilderness. One further note: The Boundary Waters Canoe Area Wilderness accounts for 1,086,954 acres, or 86% of the total Wilderness acreage in the Laurentian Mixed Forest Province; and virtually all of this acreage is in one subsection (212La, Border Lakes).

The first national ecological unit map based on a national hierarchical framework of ecological units featuring Edwin A. Hammond's subdivision of landform types and the Bailey-Kuchler ecosystems classification was published in 1994. In 2000, the Forest Service Eco-Map team requested recommendations from field personnel for updating the national ecological unit map, with particular focus on the Section level of the classification hierarchy. In response to this request, the State of Wisconsin assembled an interagency Landtype Association (LTA) technical team to re-evaluate Section boundaries and assess the need for refinement, based on information accumulated during the development of the initial Wisconsin LTA map. This team submitted Section boundary changes for Wisconsin to the national Eco-Map team; and, in February 2001, the official Wisconsin LTA Map reflected these changes. A soon-to-be-published new Section map of the United States will incorporate these changes, as well.

The sum of the changes incorporated into the new national ecological unit map is that several large Sections covering portions of Wisconsin and the Upper Peninsula of Michigan have been subdivided into new Sections; and, in some cases, new Subsections. With regard to the Chequamegon-Nicolet National Forest lands, 4 new Section and 3 new Subsection mapping units have been created. As a result, portions of the Chequamegon-Nicolet NF now lie within 6 different Sections (where before there were only 2 Sections, defined on a much broader scale); 14 Subsections (where before there were only 11 Subsections; and 27 LTA's (the same number as previously).

The Land Type Associations (LTA's) have remained the same in number, and in common name; but they have been relabeled to accurately reflect the Section and subsection to which they now belong. For example, LTA polygon 212Jb01 will remain as 212Jb01; but former LTA polygon 212Jc04 is now 212Xa03, reflecting its position within Province 212, Section "X", Subsection "a".

Using the revised classification, the Porcupine Lake Addition Roadless Area falls within the following ecological units:

Section: 212X – Northern Highlands

Section 212X is currently represented by the following Congressionally-designated Wilderness Areas: Porcupine Lake (66%), Blackjack Springs, Whisker Lake and Headwaters Wilderness Areas (Chequamegon-Nicolet NF)

This area actually falls within two Subsections of Section 212X:

Subsection: 212Xa – Glidden Loamy Drift Plain
Land Type Association (LTA): 212Xa03 – Chequamegon Washed Till and
Outwash (20%)

Subsection 212Xa is currently represented by LTA 212Xa03 in 66% of the Porcupine Lake Wilderness Area.

Subsection: 212Xf – Hayward Stagnation Moraines
Land Type Association (LTA): 212Xf01 – Cable Rolling Outwash (80%)

Subsection 212Xf has no current Wilderness representation.

Scientific/Educational Evaluation

The Porcupine Lake Addition Roadless Area contains a 350-acre portion of the larger 2,000-acre "Eighteenmile Creek Headwaters" candidate Special Management Area. The presence of a variety of ecological features, including the high quality, mostly closed-canopy, Class I trout stream with stands of hemlock-dominated forest type along its shoreline, provides excellent opportunities for research and education. Eighteenmile Creek originates from Diamond Lake, a heavily developed lake with no National Forest shoreline ownership, located on the other side of Forest Road 374 from the Addition. The creek would extend nearly 3.0 miles through Wilderness should the Addition receive designation. This may afford excellent opportunities to measure and study the effects on the stream of the lakeshore development and road crossing at its origin, as well as the effects of Wilderness protections on water quality in Eighteenmile Creek.

Cultural Evaluation

Less than half of the Porcupine Lake Addition Roadless Area has been surveyed, and that portion already examined will require additional survey coverage in the future (reference CRRR Numbers 09-02-04-084 and 215). One cultural resource has been recorded (reference CRIF No. 09-02-04-126), and is described as a logging camp. Terraces and other upland zones along the margins of streams and wetlands offer moderate to high potential for prehistoric and historic human habitation and utilization.

Challenge Evaluation

The chance of experiencing a life-threatening situation within the Porcupine Lake Addition Roadless Area would be due more to an unfortunate incident than any challenge presented by the area itself. A person experiencing a debilitating injury while alone in the heart of the roadless area could certainly find himself or herself in a life-threatening situation. Weather can also play a critical role in determining the level of challenge, as hypothermia, sudden snowstorms, or diving temperatures could catch a visitor unawares. These are hazards encountered anywhere on the Forest; but being on foot in a roadless area may amplify the risk to a slightly higher level.

All but 7% of the Porcupine Lake Addition is upland. The southern half of the Addition has more than 4.0 miles/square mile of travelways, including snowmobile trails, hunter/walking trails, and other vehicle routes. In an area of only 800 acres, this means that a cross-country hiker would be hard pressed to travel more than 1/8-mile in any direction without encountering a travelway that would lead to a perimeter road. In the northern half, the density of travelways is significantly less, probably more on the order of 1.0 mile/square mile. Given that the northern half abuts the Porcupine Lake Wilderness, and includes Eighteenmile Creek and the bulk of the 121 acres of wetlands within the area, this portion of the Addition provides the greater challenge to the cross-country hiker. If the Addition were designated as a Wilderness, the northern portion would require little in the way of adjustment to blend with the character of the Porcupine Lake Wilderness. The southern portion would require some modifications before it could begin to develop a wilderness character, and the challenge associated with the wilderness experience.

Where Eighteenmile Creek bisects the northern portion of the Addition, it presents a natural impediment to cross-country travel. This reach of Eighteenmile Creek is generally not more than

20 feet wide in any one place but it is bounded in places by wetland riparian areas of varying size. Perhaps part of the challenge of cross-country travel in the Addition, as well as Porcupine Lake Wilderness, is to find those places where one can cross the creek. It is possible to cross the creek and any adjacent wetlands during frozen conditions (although this adds the risk of falling through thin ice during potentially dangerous cold-weather conditions). The presence of this creek is either a challenging to the adventurous cross-country traveler, or a deterrent to the visitor seeking to stay on established travelways.

For the most part, there is really little change in personal risk as one moves deeper into the core area on the uplands. Even as a traveler moves into the Porcupine Lake Wilderness, he or she is never more than 1-1/2 miles from a perimeter road. The presence of the North Country Trail bisecting the Wilderness means that a visitor is never really more than a 1/2-mile from the nearest travelway. The only exception to this is the region where Eighteenmile Creek crosses from the Addition into the existing Wilderness.

Here the visitor can be as much as a mile from the nearest travelway, the most remote experience a person can expect to have in an expanded Porcupine Lake Wilderness. Even in this region, with the perimeter roads in such relatively close proximity, the visitor is never really isolated in a remote setting with only their wits and their knowledge of outdoor skills to get them back to safety.

Primitive and Un-confined Recreation Evaluation

Hunting, hiking and snowmobiling are probably the dominant recreation activities in the Porcupine Lake Addition Roadless Area. These are all common activities throughout the Chequamegon-Nicolet National Forest, and the region in general.

Early-successional forest types (including aspen) dominate the southern half and the northwest quarter of the Addition, accounting for 40% of the roadless area and providing good opportunities to hunt white-tailed deer, black bear and ruffed grouse. The Diamond Lake Hunter/Walking Trail provides a network of primitive travelways through predominately early-successional habitat for hunters to hike in search of their prey. The opportunity to hunt in a non-motorized setting has value to a particular segment of the hunting population, and these opportunities are limited on the Chequamegon landbase. Such opportunities are consistent with the characteristics of a roadless area.

Bayfield County Snowmobile Trail #15 extends for approximately 1.5 miles through the Addition. This trail is essentially a local connecting route, and it is not part of the State of Wisconsin snowmobile network. Snowmobile use would normally be prohibited in a designated Wilderness. Designation of the Addition would most likely require closure, rehabilitation, and possible relocation of this trail.

Special Features Evaluation

Relative to the Chequamegon-Nicolet National Forest and the surrounding region, there is one outstanding natural or cultural feature within the Porcupine Lake Addition Roadless Area. The northeast quarter of the Addition includes about 350 acres of the "Eighteenmile Creek

Headwaters” potential Ecological Reference Area. This candidate Special Management Area is a 2,000-acre complex that continues along Eighteenmile Creek, through the bordering Porcupine Lake Wilderness Area, to the National Forest boundary, some four miles to the north. The most significant feature of this complex contained within the Porcupine Lake Addition Roadless Area is Eighteenmile Creek itself. This high quality, mostly closed-canopy, trout stream originates from Diamond Lake just to the east of the roadless area. It is classified as a Class I trout stream, although the creek does not really become a cold water system until it meets a spring pond located within the Porcupine Lake Wilderness Area.

Notably, the Eighteenmile Creek Headwaters candidate Special Management Area is a large patch of northern hardwood forest type which, when considered with the nearby Lake Owen area and Porcupine Lake Wilderness Area, forms one of the largest blocks of mature hardwood forest remaining on the Chequamegon landbase of the National Forest. In addition, there are small pockets of old growth hemlock-hardwoods forest type near the headwaters of the creek.

Manageability Evaluation

The size and shape of the Porcupine Lake Addition Roadless Area make its’ preservation practical. Approximately 72% of the roadless area boundary follows perimeter roads that are well defined in the transportation network, open to the public and consistently traveled by passenger vehicles. The remaining 2.25 miles of boundary is contiguous to the Porcupine Lake Wilderness. There are 5 open, unimproved, drivable travelways that provide access of at least 0.1 mile to the interior of the Addition (this includes the two access points for Bayfield County Snowmobile Trail #15), and one other open, improved travelway. This is an average of little more than one open access point per mile of perimeter road. There is one additional unimproved travelway that is gated (and has a special use permit to access a private parcel within the Porcupine Lake Wilderness), and one additional improved travelway that is gated (Diamond Lake Hunter/Walking Trail, actually several linked travelways with one access point from the perimeter). There are also 6 unimproved open travelways that extend no more than 200’ from a perimeter road. There is extensive evidence of off-road vehicle use on Bayfield County Trail #15. If this area is designated as a Wilderness, this use would almost necessarily be curtailed and rerouted to a location outside the area, and the trail would require some level of rehabilitation or obliteration. There is no other evidence of ATV or off-road vehicle use elsewhere within the Addition. If it does occur, it is not pervasive, and it stays on the travelways. Although there are relatively few access points to the interior, some of these access points lead to an extensive network of interior travelways in the southern portion of the Addition. Most of this network is unimproved, with an emphasis on non-motorized use. The use of these travelways may not change if the area is designated, but any maintenance that might be performed on the hunter/walking trail (mowing, seeding) currently may take on a different character.

There has been recent timber harvest activity within the Addition, with a 30-acre aspen clearcut in 1999, and an ongoing operation on a 13-acre unit. Both of these units are in the southern portion of the Addition, relatively close to the south perimeter. Designating the area as a Wilderness would require discontinuing all timber management activities within the area.

There are three parcels of private land located within the Porcupine Lake Addition Roadless Area. There are two 40-acre parcels located in the southeast corner of the addition, each with a residence, and each with direct access from the perimeter Township road (FR 212) via improved,

gated, gravel-surfaced driveways. Neither home is visible from FR 212. The third private parcel is a 20-acre unit with a residence and gravel-surfaced driveway with direct access from FR 374 (North Diamond Lake Road). While the private parcels located within the Addition are all directly accessed from perimeter roads and would not necessarily impact the manageability of the area as a Wilderness. There is one other private parcel actually located within the existing Porcupine Lake Wilderness that has a special use permit to access the unit via a road originating within the Addition. This is one of a couple of private parcels within the existing Porcupine Lake Wilderness. The presence of this particular parcel and the access road to it may complicate management of the existing Wilderness, but it has not prevented such management. It would very likely have the same effect within the Addition if it, too, were designated as Wilderness.

There are no outstanding mineral leases or claims within the roadless area. Approximately 29% of the National Forest land has reserved or outstanding mineral rights in other ownership. There are utility corridors (overhead power lines) within the right-of-way of FR 212 and FR 374. These corridors will require periodic maintenance (brushing, mowing) that may be inconsistent with the management objectives of a designated Wilderness. Further, their presence will give a “developed” appearance to those portions of the perimeter, and the Forest Service may want to consider having the lines buried if the Addition is designated as Wilderness. Regardless, the location of the power lines does not, in itself, negatively affect the manageability of the area as Wilderness.

Availability Evaluation

Approximately 91% of the National Forest land, or some 1,525 acres within the Porcupine Lake Addition Roadless Area is classified as suitable for timber production. In the last 10 years approximately 43 acres of timber have been harvested. Timber harvest and the associated production of wood products from this area would be precluded by Wilderness designation. This amounts to about 0.15% of the lands suitable for timber production on the Chequamegon-Nicolet.

The Porcupine Lake Addition Roadless Area supports 1.6 stream miles, predominately Eighteenmile Creek and a tributary. These streams are not part of a municipal watershed, and there are no known water storage needs. The September 2000 Draft Watershed Analysis for the Chequamegon-Nicolet National Forest indicates that the Porcupine Lake Addition Roadless Area falls within the boundaries of two 5th level watersheds – the White and the Upper Namekagon. Water quality should improve slightly from current levels should the area be designated as Wilderness. Most mitigation measures for ground-disturbing activities in non-Wilderness attempt to insure minimum adverse impacts on water quality. However, roads are generally required to support timber harvest; and mitigation measures used in stream or wetland crossings may be insufficient to withstand major weather events. In an area designated as Wilderness, ground-disturbing activities are held to a minimum, and roads, temporary or otherwise, would not be necessary to support management activities. This would eliminate the potential for erosion or sediment dumping as a result of a major weather event.

Eighteenmile Creek is a Class I trout stream; but, in reality, the gradient and cold water reaches that give this stream potential as a trout fishery are located north of the Addition, within and north of the existing Porcupine Lake Wilderness. Within the Addition, Eighteenmile Creek is more of a narrow, warm water stream with some wetland riparian areas. It is possible that those

segments of river classified as trout waters may have some adverse water quality effects from a Wilderness designation, particularly if beaver are permitted to operate at will along those segments. However, in this case, the trout waters are already within a designated Wilderness, and the reaches within the Addition are generally not considered trout waters. And, while beaver may currently be trapped and their dams destroyed within the Addition, discontinuing this activity if the Addition is classified as Wilderness would have limited impact on the trout waters to the north, particularly since the trout waters are downstream from a spring pond in the existing Wilderness.

Foot travel is certainly an available mode of transport in the Porcupine Lake Addition Roadless Area. The only designated foot trail within the area is the Diamond Lake Hunter/Walking Trail, and this trail lies on a network of improved and unimproved roads that is currently available for motorized administrative access. Bayfield County Snowmobile Trail #15 is a designated motorized recreation trail; but it does not appear that off-road motorized vehicle use is pervasive elsewhere within this roadless area. There is evidence that other travelways within the Addition are utilized for off-road motorized vehicle access. Any motorized vehicle use, recreational or administrative, would be prohibited by Wilderness designation.

There are no developed recreation sites within the Porcupine Lake Addition Roadless Area, with the exception of the aforementioned trails.

Hunting is a popular recreation activity on the Chequamegon-Nicolet, and this roadless area provides quality opportunities for hunting deer, bear and ruffed grouse. There are 6 open roads and trails providing access to the interior of this roadless area. Most of these travelways may be negotiated with 4WD vehicles (where permitted), some with 2WD; and they enhance the ease with which hunters may traverse the area in search of their prey. The Diamond Lake Hunter/Walking Trail provides opportunities for hunters on foot to traverse much of the southern portion of the area, where early-successional habitat is plentiful. There is a significant percentage of upland acres in early successional habitat (636 acres, 38% of total acres, 41% of upland acres) providing quality forage for deer, bear and ruffed grouse. The percentage of wetland acres within this area is relatively insignificant (121 acres, 7% of total acres), providing limited opportunities for quality winter bedding areas for deer. Less than 3% (43 acres) of the total acres have undergone or are planned to undergo a regeneration timber harvest since 1990. Designation of the area as Wilderness would preclude further regeneration harvest of timber, and likely result in further conversion of early-successional habitat. This, in turn, would gradually reduce the amount of preferred habitat for deer, bear and ruffed grouse, and may result in diminished use of this area for hunting these species. Wilderness designation would also restrict access to the area to foot or horseback, resulting in more time-consuming and difficult access, and a different hunting experience than is currently available. However, given the level of access and amount of early-successional habitat within the remainder of the National Forest and surrounding forest lands, the prospect of a more difficult hunt in a more mature forest setting may be a welcome alternative for certain segments of the hunting population.

There are an estimated 2.80 miles of “system roads” within the Porcupine Lake Addition Roadless Area. These are travelways that have a road number, have generally been identified on Forest maps or USGS maps, and may be included in the Forest Transportation Inventory as “classified roads”. These roads may currently be improved or unimproved, open or closed, drivable or not drivable. They may appear on a map, but it is possible that they have long since fallen into disuse and may no longer exist as functional travelways on the ground. Within this

area, only 0.35 mile of the 2.80 miles of system roads are improved. The remaining mileage may be unimproved or nonexistent. Regardless of condition, most system roads are likely to be included in the total miles used to determine road density on the Chequamegon-Nicolet. As such, any designation of this area as a Wilderness would require that all travelways be closed to motorized vehicles, and that these travelways either be obliterated or converted to foot trails. This includes all improved and unimproved travelways, regardless of whether or not they are system roads. This would result in a net loss of at least 2.80 miles, and probably more, from the total road miles on the Chequamegon-Nicolet.

There are approximately 9 acres of forest openings within the Porcupine Lake Addition Roadless Area that are maintained for certain wildlife species. It is unlikely that these openings would be maintained if the area were designated as Wilderness. Species that utilize openings or forest edge may diminish within the roadless area.

Fishing is not likely to be affected one way or the other by a Wilderness designation. The trout water reaches of Eighteenmile Creek are north of the Addition and would not be affected by such a designation. There are a few very small pothole ponds within the roadless area, but these are not viable fisheries either. A portion of 10-acre Coburn Lake falls within the Addition, but this, too, is not considered a fishery. Most of Coburn Lake falls within the existing Wilderness and shoreline ownership is 100% National Forest with no travelway access. It is quite unlikely that designating the Addition as Wilderness will result in any change from current management of these aquatic resources.

There are no indications that the Porcupine Lake Addition Wilderness Area supports Threatened or Endangered aquatic or wildlife species

There are no livestock operations within the Porcupine Lake Addition Roadless Area, nor is there potential for such operations.

There has been no exploration for oil, natural gas or precious minerals within the Porcupine Lake Addition Roadless Area over the past 10 years, although this does not preclude the possibility that these resources exist. There are no active or inactive gravel or borrow pits within the area.

There has been one cultural resource site recorded within the Porcupine Lake Addition Roadless Area, with a moderate to high potential that other sites may also exist within the area. Designation of the area as Wilderness would have no foreseeable impact on these sites, or on any potential site. The absence of ground disturbing activities would enhance the protection of any sites within the area.

Fire protection and pest control techniques would be significantly altered by Wilderness designation, although neither has been a problem in this area over the past 10 years.

Regardless of designation, the Forest Service will most likely be compelled to maintain a special use permit for access to the private parcel of land within the existing Wilderness.

To protect roadless characteristics within this area, the Forest Service would benefit from working with Drummond and Grand View Townships to assure that the boundary roads are not designated as ATV or snowmobile routes; and, if they are already, searching for ways to reroute ATV and snowmobile traffic onto other roads or trails that do not have direct access to the

roadless area. This effort would coincide with possible relocation of Bayfield County Snowmobile Trail #15, which, in order to be successful, may require using portions of the Township roads as part of the route or for crossings.

2) **ST. PETERS DOME ROADLESS AREA** (GREAT DIVIDE DISTRICT)

Solitude Evaluation

The St. Peters Dome Roadless Area is 5,059 acres in size, including 4,631 acres (92%) of National Forest land, and a negligible acreage of surface water. The private ownership within the St. Peters Dome Roadless Area is dispersed into 5 separate locations. The largest single parcel is a 160-acre property in Section 32. This parcel is adjacent to FR 199, and it includes a 0.05-mile driveway that ends at a collapsed homestead at the edge of a red pine plantation. A 40-acre parcel in Section 21 has a similar situation, with a short, unimproved driveway providing access from FR 187 to a dilapidated, uninhabited cabin. Another 40-acre parcel is actually split by FR 199, with no development in the portion of the parcel within the Roadless Area. Approximately 190 acres of private land along the FR 253 boundary road in Sections 19 and 20 includes 4 separate parcels with 4 different owners. One of these parcels, an 80-acre unit, has an abandoned homestead at the end of a gated, unimproved driveway; but the other parcels have no structures or development. The last private ownership location actually only appears to be within the St. Peters Dome Roadless Area. This is a short sliver of private land between FR 199 and the Morgan Creek tributary that parallels FR 199 for nearly a mile. FR 199 actually goes outside the National Forest boundary for about 0.2 mile, isolating approximately 5 acres of private land between the road and the National Forest boundary. The Morgan Falls Hunting Camp sits directly adjacent to FR 199, on a narrow sliver of land between the road and the Morgan Creek tributary that parallels FR 199 for nearly a mile. The camp is a small, habitable structure with a small parking area. None of the private properties adjacent to the National Forest boundary, where it forms the north boundary of the St. Peters Dome Area, have structures or any form of development.

The St. Peters Dome Roadless Area has long been noted for its unique recreation resources, as well as its attributes as a non-motorized area. In 1979, St Peters Dome was identified as a RARE II Area (along with 20 other areas within the Chequamegon-Nicolet) in the nationwide Roadless Area Review and Evaluation. In 1984, Congress passed the Wisconsin Wilderness Act. This Act designated certain areas of the Chequamegon-Nicolet as Wilderness. St. Peters Dome was not one of the areas identified, and the Act released St. Peters Dome to be “managed for multiple use in accordance with land management plans.” Two years later, the 1986 Chequamegon National Forest Land and Resource Management Plan identified St. Peters Dome for a special management designation. The purpose of Management Prescription 8.6 in the Chequamegon Plan is to “Protect the St. Peter’s Dome area, where naturally existing plants and animals can reproduce undisturbed” and “Provide opportunities for nonmotorized recreation use while restricting motorized use to areas where it is already established.” The Plan describes the desired condition of the land as “managed to protect its unique natural and scenic qualities”, such that “the area exhibits a semi-primitive, natural appearance”. The Plan also makes an unusual aside, stating “During deliberation for the Wisconsin Wilderness Act of 1984, the Senate Committee of Agriculture, Nutrition, and Forestry indicated it was their intent that a portion of the St. Peter’s Dome Area ‘receive special management considerations’. As per the committee’s intent, a 900-acre portion of St. Peter’s Dome, including the Dome area, Morgan Falls, and Morgan Creek, will receive ‘special management’.” This management included the following: “The prescription will be to manage for its natural vegetation. Timber harvesting will not be allowed. Motorized vehicles will be restricted to an existing snowmobile trail. A trailhead with parking will occur off Forest Road 199 on Forest Road 630.” Most recently, the November 2000

Final Environmental Impact Statement for the Forest Service Proposed Roadless Area Conservation Rule has suggested restrictions associated with the roadless characteristics of this and other RARE II areas on the Chequamegon-Nicolet. These restrictions have not been approved and are currently under review.

The proposed St. Peters Dome Roadless Area has one boundary modification from the original RARE II Area. The RARE II boundary did not include Section 33, possibly because the land in this section was not in National Forest ownership at the time. This entire section, amounting to 640 acres of National Forest land, has been added to the total for the St. Peters Dome Roadless Area.

The boundary for the St. Peters Dome Roadless Area includes 9.65 miles (85%) along Township roads, and 1.70 miles (15%) along the National Forest boundary. The west perimeter follows Forest Road 187 (Mineral Lake Road), a two-lane, gravel surface, Traffic Service Level B Township road, for approximately 3.40 miles. Where FR 187 leaves the National Forest, the Forest boundary forms 1.5 miles of the north perimeter of the St. Peters Dome Area. The remainder of the north perimeter follows Forest Road 253 (Long Lake Road) for distance of 1.35 miles from the Forest boundary to the intersection with Forest Road 199 (Morgan Creek Road). The east and south perimeter for this area follow FR 199, a recently reconstructed two-lane, gravel surface, Traffic Service Level B Township road, for approximately 4.90 miles; and one short stretch of National Forest boundary (approximately 0.2 mile where the location of FR 199 is just to the west of the Forest boundary).

The core area of solitude is defined as a contiguous core of National Forest land that is separated by at least ½-mile from the influence of motorized traffic and land uses inconsistent with the semi-primitive non-motorized experience (a more detailed description of the process for determining core area of solitude can be found on pages 5-7 of this report). For the St. Peters Dome Roadless Area, this core is 2,174 acres, or about 47% of the total National Forest acres within the Roadless Area.

There are 12 approaches providing access to National Forest land along the roaded perimeter of the St. Peters Dome (see Appendix C). One of these approaches actually has two entry points and is in an improved condition. This is the parking area for the Morgan Falls/St. Peters Dome hiking trails. This parking area has a gravel base and can accommodate as many as 30 vehicles. This is the only improved travelway accessible to full-sized motor vehicles in the entire roadless area. Of the remaining 11 approaches, two provide access to the Veikko cross-country ski trail system, a user-developed trail network that has fallen into disrepair in recent years. These approaches are gated and there is a small parking area at each trailhead. Two other approaches provide access to State Snowmobile Corridor 25. The south entrance to the corridor is gated, although the gate generally remains open. A third approach to the snowmobile corridor is actually a short, narrow abandoned section of trail that remains open but is revegetating. This leaves 6 unimproved travelways that are not designated trails or parking lots. Two of these six travelways are open. One of these, FR 199A, has a 20' wide approach for nearly 400' before narrowing to a 10-12' clearing. The travelway has an uneven, grass-covered surface with no base material, but it appears it could be drivable when dry with a standard passenger vehicle, and probably with a 4WD at any time. Given the motorized restrictions in this area, this travelway should have some kind of closure device. The other open travelway is an unnumbered, somewhat narrow path that appears to provide walk-in access to Long Lake from FR 253. This could be drivable when dry, but there does not appear to be any evidence that vehicles use this

route. Of the remaining 4 approaches, three are closed with berms, including FR 187D, and the fourth is not drivable due to fallen trees and brush. There is evidence of 4 additional old approaches along the roaded perimeter, but these routes have essentially been obliterated (overgrown) and should no longer be considered travelways.

In April 2001, the Great Divide District Ranger signed a Decision Notice to reconstruct the Morgan Falls trail. This reconstruction includes rerouting the existing trail; installing footbridges, trail hardening (gravel), and adding a viewing area at the falls. All of these improvements are designed to make the trail accessible at a difficult level, in essence providing a challenging semi-primitive experience for persons with disabilities. In addition to these trail improvements, the Decision Notice approved increasing the size of the trailhead parking area from 55' x 120' to 75' x 120' to accommodate more and larger vehicles. An accessible toilet will be installed at the trailhead. There will also be some stream and floodplain restoration activities along the Morgan Falls tributary. The result of these improvements is that the 0.5-mile Morgan Falls trail will become an improved trail. Battery-operated wheelchairs will be permitted to use this trail, but the influence of this mechanized use will be limited almost exclusively to the trail itself. No other motorized vehicles will be permitted to use the trail.

In addition to FR 199A and FR 187D, there are some other numbered travelways within the roadless area that show up in the Forest Transportation System. The first 5500' of State Snowmobile Corridor 25 north of FR 199 are identified as FR 385 in the Transportation System inventory. However, there are records of a survey for this route in 1958, but no records of actual construction. The travelway does not appear to be a constructed template, just a cleared trail route. The 1958 survey notes indicate that the survey terminated at an old railroad grade bisecting the area from east to west. This old grade is still evident in places, and has been inventoried as FR 385A. A spur off of this route, probably the old access to the granite quarry, has been inventoried as FR 385AA. Another inventoried route, FR 187C, may actually be the Veikko cross-country ski trail. If not, the route is no longer accessible from FR 187.

In addition to the approaches providing access to National Forest land, there are 7 approaches providing access to private land along the perimeter of the St. Peters Dome area. Two of these approaches are short, open, unimproved driveways to uninhabitable homesteads, and three others are unimproved driveways that are either blocked with downed trees or gated. One of these provides access to a dilapidated homestead. The remaining two approaches are actually outside of the St. Peters Dome boundary. These provide access to the small strip of private land between FR 199 and the National Forest boundary, where FR 199 travels outside the forest boundary for approximately 0.2 mile. One approach is actually the Morgan Falls Hunting Club cabin and the adjacent parking area, which are located almost directly on the shoulder of FR 199. The other is an unimproved travelway 200' south of the cabin that actually crosses the Morgan Creek tributary streambed (no drainage structure). There is evidence of ATV use in the streambed and on the travelway opposite the tributary.

One significant influence on the core area of solitude within the St. Peters Dome Roadless Area is State Snowmobile Corridor #25. The 1986 Chequamegon Forest Plan states, "Snowcraft use will be permitted on an existing snowmobile trail. The rest of the area will be closed to motorized use." Corridor #25 is a major north-south route within the state snowmobile system; and it appears that the Chequamegon Plan, rather than reroute the trail, elected to permit this winter motorized use in an otherwise non-motorized management area. The presence of Corridor #25 does not diminish the size of the core area (see pages 5-6 of this report for a

description of how snowmobile trails were considered when determining the core area of solitude), but it does diminish the feeling of remoteness and challenge. A person traversing the area on foot, regardless of the route or hardship encountered, who comes across the corridor is reminded that motorized travelers can easily access the same location, even if only in the winter.

This diminished feeling of remoteness and challenge is also the case with the presence of the Morgan Falls and St. Peters Dome hiking trails. In its current condition, the Morgan Falls trail is a relatively short hike (1/2-mile), but the trail traverses relatively flat terrain, offers few obstacles to most hikers (with the exception of persons with disabilities, many of whom would have a higher degree of difficulty negotiating the uneven hiking surface with short, steep pitches), and is one of the few opportunities on the National Forest for a short, round-trip hike to a prominent feature. For most folks, this round-trip hike provides an excellent short-duration activity for a summer or fall morning or afternoon. As such, this is probably the most popular day hike on the Chequamegon landbase of the National Forest. On any given spring or early summer day, a visitor on this trail is likely to encounter one or two other visitors or groups of visitors. On any given mid-summer to late fall day, a visitor on this trail is likely to encounter more than half-a-dozen other visitors or groups of visitors. The planned improvements to the Morgan Falls trail, with the addition of gravel surfacing, footbridges and a viewing area at the falls, will likely give the impression of a more developed, controlled experience. However, it is unlikely that it will alter appreciably the expectation or experience of the majority of visitors who make only the short hike to the falls without adventuring further into the roadless area. At the same time, it will open the Morgan Falls portion of this roadless area to a whole new group of visitors who might not otherwise experience this prominent feature of the National Forest.

The St. Peters Dome hiking trail requires more of a commitment on the part of the visitor. This trail requires crossing the Morgan Falls tributary, a task now considerably less challenging with the recent addition of one of the Morgan Falls trail footbridges; and traversing a 1.5-mile trail that is rocky and relatively steep in places. A person is less likely to encounter the casual visitor to the Dome overlook during the spring and summer; but they are likely to encounter dozens of visitors on a weekend during the peak fall color season.

In the case of both foot trails, these are among the more heavily used hiking trails on the Chequamegon-Nicolet, and the user density in these locations can, particularly during the fall color season, exceed that recommended for a semi-primitive non-motorized experience (see page 6 of this report for ROS standards on user density for an SPNM experience).

When considered collectively, the popularity of Morgan Falls and St. Peters Dome as visitor destinations, the relative ease of access to these sites, and the presence of the snowmobile corridor through the heart of the area tend to have an adverse effect on the semi-primitive non-motorized experience. However, there are opportunities within this roadless area for a person to venture deeper into the core area of solitude, away from the influence of these uses, and find that feeling of isolation, independence, closeness to nature and tranquility that is characteristic of the semi-primitive non-motorized experience. The St. Peters Dome Roadless Area is full of little crags and valleys, rock outcrops and gullies, and enough topographic variety within a mature, closed canopy forest to afford the visitor who leaves the established trails the opportunity to experience adventure and a sense of isolation around the next bend or up the next draw. The limiting factor for this entire area is that it truly lacks the size to engender a true sense of remoteness; and the relief of the area may reduce the challenge because it actually provides

topographic features that a visitor can reference when traversing the area. This is unusual in the relatively flat terrain of the Chequamegon-Nicolet.

Degree of Disturbance Evaluation

The St. Peters Dome Roadless Area is designated as a Special Management Area (Management Area 8.6) in the 1986 Chequamegon Forest Plan. The management prescription for this area states, “timber harvesting will not be allowed”. Further, “vegetative composition will evolve through natural succession”. In accordance with this prescription, no timber has been harvested within this area over the past 10 years, and probably not over the past 25 years. There are no maintained wildlife openings within the area. There has been a recent proposal to clear an area along the ridge around St. Peters Dome, but no decision on this proposal has been forthcoming.

There is an old stone quarry within the roadless area. This site ceased operations in or about 1960, and is now considered notable as a cultural resource. There are no current mineral extraction activities, mineral leases or mineral claims within the roadless area. However, nearly 81% of the National Forest land in the St. Peters Dome Roadless Area has outstanding or reserved mineral rights in other ownership. Regarding mineral development in this area, the 1986 Chequamegon Forest Plan states, “Federal leasable, hardrock, and common variety surface mineral extraction activities are not permitted. Exploration activities may be permitted on a case-by-case basis.”

The Morgan Falls trail has a footbridge near the parking lot adjacent to FR 199, and the planned improvements to the Morgan Falls trail have included three recently added footbridges, two across Morgan Falls tributary, and another over an intermittent stream and wet area. These bridges were constructed to either mitigate erosion of the stream banks and sedimentation in the streams caused by horse traffic and the crush of foot traffic that occurs in the fall of the year, or to make the trail accessible to persons with disabilities. In addition to these structures, the stream course for the Morgan Creek tributary nearest the parking lot was relocated and the stream banks reinforced downstream from the footbridge in the early 1990’s to control erosion and sedimentation. Additional stream and floodplain restoration work along the Morgan Falls tributary is planned along with the additional improvements to the Morgan Falls trail.

There are no special use permits providing for vehicle access or power lines within the St. Peters Dome Roadless Area. None of the private property within the roadless area is developed, and all of these parcels have access directly from the perimeter Township roads, so there is little likelihood that special use permits will be needed in the future.

With regard to the St. Peters Dome Special Management Area, the 1986 Chequamegon Forest Plan states, “New roads will not be constructed, and existing interior roads will be allowed to revegetate.” The Forest generally appears to have followed this policy over the past 15 years. With only 0.54 mile of improved travelways, the St. Peters Dome Roadless Area has one of the lowest densities of improved travelways (0.12 mile/1,000 NF acres) among any of the 66 areas considered in the Roadless Area Inventory; and 0.50 mile of that total is an improved hiking trail, with the remaining 0.04 mile the parking lot at the trailhead. Along the 9.65 miles of perimeter roads, this roadless area has 18 access points to public and private lands. Six of these approaches are to private lands, including two to lands outside the roadless area boundary. That leaves 1.25 access points to interior National Forest land per mile of perimeter road. Five of these access

points are for designated trails, one is for a parking lot; and, of the remaining six, only two are open (although motorized use is not permitted). Only the parking lot, the snowmobile trail, and two of the private access points are really recognizable as access points for motorized vehicles; the remaining travelways have vegetative cover, and many are in the process of becoming overgrown.

For the most part, the St. Peters Dome Roadless Area has the appearance of a natural landscape with occasional evidence of human activity.

Geological Evaluation

The St. Peters Dome Roadless Area is one of the few locations on the Chequamegon-Nicolet National Forest with geological features that are notable because they are so different from the general landforms found on the Forest. The 1986 Chequamegon Forest Plan notes, “The St. Peter’s Dome is within the Penokee-Gogebic Range, a series of quartzite monadnocks. The soils are shallow to bedrock and slope gradients range from 5-30%. Where rock outcrops exist, the slope range is higher, approaching vertical. St. Peter’s Dome, a 1,600 foot granite dome, is oriented in an east-west direction with a slight northeast to southwest declination. Morgan Falls and Morgan Creek, with its steep river valley walls, also lie within the unit.”

Biological Evaluation

Northern Hardwoods account for over 70% of the vegetative composition of the St. Peters Dome Roadless Area, with another 23% in early-successional forest types (predominately aspen). Wetlands, including lowland conifers and hardwoods, and relatively uncommon within this area (accounting for only 193 acres, or 4% of the vegetative composition).

The entire St. Peters Dome Roadless Area is included in the St. Peters Dome/Morgan Falls Landscape Analysis and Design complex. This 5,116-acre complex is a potential Ecological Reference Area, a large portion of which is a candidate for Research Natural Area designation. This complex represents a large block of unfragmented, contiguous upland northern mesic forest with extensive stands of maturing hemlock-hardwood and rich sugar maple-basswood forest with significant inclusions of “old growth-like” forest, as well as maturing seral stage forest (aspen-paper birch with good hardwood and conifer regeneration). Other forest types include black ash-white cedar swamp, mixed swamp conifer (hemlock-white cedar-white pine), and dry mesic forest (red pine, white pine, white cedar).

Notable features within the LAD complex include widespread advanced regeneration of upland hemlock, white cedar, and white pine; numerous TES species and sites; extensive exposed cliffs and talus (open and shaded, dry and wet); the headwaters of several important cold water streams (including Morgan, Frames and Waboo Creeks); populations of Canada yew; full range of forest development in a natural matrix from older seral with advanced hardwoods to mature and old growth-like stages; Long Lake (a 19-acre soft water seepage lake); the 80-foot Morgan Falls; and the greatest elevation gradient within the Chequamegon-Nicolet NF (500 feet).

As with most of Northern Wisconsin, most of the St. Peters Dome Roadless Area was cut to varying degrees during the peak of the early logging era in the Upper Great Lakes, some 90-100 years ago. White pine and hemlock appear to have been the preferred species harvested during

this era, with hardwoods to a lesser extent. There has been little or no timber harvest within this area over the past 25 years.

There are 8.4 miles of perennial coldwater streams traversing the St. Peters Dome Roadless Area, and a few other coldwater streams having their origin within the area. Using draft Aquatic Ecological Classification System definitions for “valley segments” within the Chequamegon-Nicolet National Forest, the most prominent of these streams, Morgan Creek, is typed as an NMOg segment. NMO segments are narrow (less than 20’ wide), moderate alkalinity (greater than 20ppm), cool (greater than 23 and less than 26 degrees Celsius) streams. NMO segments support 3 to 12 species of fish, and 0 to 1 species of mussel. The dominant fish species in NMO segments include creek chub and blacknose dace. The “g” subscript means that there is a locally significant groundwater source(s) within the stream, which means that trout could be part of the biological community. A straight NMO type has a similar water temperature regime, but does not have local groundwater input, and does not have trout as part of the biological community. In the case of Morgan Creek, local groundwater is present, and the fishery is more extensive than the standard NMO type, with 5 to 14 species including white sucker and brook trout. The State of Wisconsin has designated Morgan Creek a Class II trout stream, meaning the stream has some natural trout reproduction, but some stocking may be needed to maintain a viable trout population.

Morgan Creek has two significant tributaries. The Morgan Falls Tributary is typed as an NMC segment. NMC segments are narrow (less than 20’ wide), moderate alkalinity (greater than 20ppm), coldwater (maximum water temperature less than 23 degrees Celsius) systems with significant groundwater source(s). The dominant fish species include brook trout, mottled sculpin and 3-5 other minnow species. No mussels are generally found in this type. The creek below Morgan Creek has low to moderate pressure from anglers fishing for brook trout.

Another unnamed Morgan Creek tributary is also typed as an NMC segment. The descriptive characteristics and fish species are the same as the Morgan Falls Tributary. This unnamed tributary is an important groundwater source for Morgan Creek

None of the Morgan Creek tributaries has been classified as a trout stream by the Wisconsin Department of Natural Resources. These streams may have been overlooked during the initial classifications, but an interpretation of classification standards indicates that all of them might qualify as Class I trout waters. These are streams with natural brook trout reproduction, which do not require stocking to maintain a viable population.

The headwaters for Frames and Waboo Creeks, both WDNR Class I trout streams capable of supporting natural populations of brook trout, are intermittent streams that begin in the St. Peters Dome Roadless Area. Both of these streams become WDNR Class I trout streams to the east of the roadless area.

Long Lake is a narrow 19-acre soft water seepage lake with a maximum depth of 5 feet. This lake has a walk-in access, although it is within 200’ of FR 253. Long Lake does not have an established fishery.

The St. Peters Dome Roadless Area is generally recognized as a “hot spot” for rare plant species. The area has a number of uncommon geologic and topographic features which create unique habitats and microclimates, such as silty, shallow soils over bedrock, numerous rock outcrops

and steep boulder-strewn slopes, cool north-facing slopes, shaded seeps, and groundwater-fed streams. This has resulted in a concentration of several rare plant species, including Braun's holly fern, *Polystichum braunii* (Regional Forester Sensitive Species, state threatened); fragrant fern, *Dryopteris fragrans* (Draft Forest Sensitive Species); spreading wood fern, *Dryopteris expansa* (Regional Forester Sensitive Species); white mandarin, *Streptopus amplexifolius* (Draft Forest Sensitive Species); and Mignán's moonwort, *Botrychium minganense* (Draft Forest Sensitive Species). Another plant, purple clematis, *Clematis occidentalis*, is listed by the Wisconsin Department of Natural Resources as a "species of special concern". This is not an official designation; rather it is more a red flag to monitor the health of the species.

The St. Peters Dome Roadless Area includes the northern edge of the Hellhole Creek Wolf Pack home range. The gray wolf, *Canis lupus*, is currently listed as federally endangered, and state threatened. This pack was estimated to contain six wolves as of spring 2001. The wood turtle, *Clemmys insculpta*, a Regional Forester Sensitive Species as well as a State of Wisconsin threatened species, has been observed in the eastern portion of the St. Peters Dome area. The northern goshawk, *Accipiter gentilis*, another Regional Forester Sensitive Species, has been spotted within the area, but no nests have been located.

Biotic Species Requiring Primitive Surroundings

The 5,116-acre St. Peters Dome/Morgan Falls Landscape Analysis and Design complex has been identified as a potential Ecological Reference Area. A large portion of this complex is a candidate for Research Natural Area designation, with the remainder notable for its natural features and possible value as old growth.

Perhaps the defining value of the expansive St. Peters Dome/Morgan Falls LAD complex is the variety of community occurrences within such a large block of continuous forest. This complex contains 10 different natural communities, including northern mesic forest, northern wet-mesic forest, northern dry-mesic forest, northern hardwood swamp, northern sedge meadow, open cliff, shaded cliff; and three aquatic communities – shallow, soft seepage lake; fast, soft cold stream; and slow, soft cold stream. Only the northern mesic forest (2 sites) and the northern hardwood swamp (1 site) have representative sites elsewhere in the Gogebic-Penokee Iron Range Subsection. The size of the St. Peters Dome/Morgan Falls LAD complex is a valuable condition in and of itself; but the quality, variety and condition of individual communities within the LAD complex contributes equally to the outstanding ecological character of this site. This variety also contributes to the presence of so many rare plant species.

The convergence of such a variety and quality of natural communities in a large, contiguous block of National Forest land that is also characterized by outstanding geologic features is unique to the Chequamegon-Nicolet. The value of this site is dependent on the protection of its ecological and geologic features in as primitive a state and as undisturbed condition as possible. This could be achieved with designation as Wilderness, but may also be achieved with some other protective designation.

Neither the LAD complex, nor the entire roadless area are large enough to provide wildlife species with primitive surroundings. Like other roadless areas, St. Peters Dome contributes to the overall forest mosaic; but, in this context, it is similar to the general forest environment.

There are no wildlife species within the Chequamegon-Nicolet that are dependent upon Wilderness.

Ecological Evaluation

As suggested in the Forest Service Handbook, FSH 7.23b, the “analysis of the degree to which (a roadless area) contributes to the local and national distribution of wilderness” should use Edwin A. Hammond’s subdivision of landform types and the Bailey-Kuchler ecosystems classification. With regard to the Upper Great Lakes Region, almost all of this area is classified as Laurentian Mixed Forest Province (Province 212).

In his 1999 publication Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends, H. Kenneth Cordell notes that this particular ecoregion encompasses some 94.4 million acres, or 4.9% of the lower 48 states. Currently, 1,226,870 acres of this ecoregion are Congressionally-designated Wilderness on federal lands, representing 2.8% of all federal Wilderness in the lower 48 states. As a result, 1.3% of the ecoregion is represented as Wilderness. One further note: The Boundary Waters Canoe Area Wilderness accounts for 1,086,954 acres, or 86% of the total Wilderness acreage in the Laurentian Mixed Forest Province; and virtually all of this acreage is in one Subsection (212La, Border Lakes).

The first national ecological unit map based on a national hierarchical framework of ecological units featuring Edwin A. Hammond’s subdivision of landform types and the Bailey-Kuchler ecosystems classification was published in 1994. In 2000, the Forest Service Eco-Map team requested recommendations from field personnel for updating the national ecological unit map, with particular focus on the Section level of the classification hierarchy. In response to this request, the State of Wisconsin assembled an interagency Landtype Association (LTA) technical team to re-evaluate Section boundaries and assess the need for refinement, based on information accumulated during the development of the initial Wisconsin LTA map. This team submitted Section boundary changes for Wisconsin to the national Eco-Map team; and, in February 2001, the official Wisconsin LTA Map reflected these changes. A soon-to-be-published new Section map of the United States will incorporate these changes, as well.

The sum of the changes incorporated into the new national ecological unit map is that several large Sections covering portions of Wisconsin and the Upper Peninsula of Michigan have been subdivided into new Sections; and, in some cases, new Subsections. With regard to the Chequamegon-Nicolet National Forest lands, 4 new Section and 3 new Subsection mapping units have been created. As a result, portions of the Chequamegon-Nicolet NF now lie within 6 different Sections (where before there were only 2 Sections, defined on a much broader scale); 14 Subsections (where before there were only 11 Subsections; and 27 LTA’s (the same number as previously).

The Land Type Associations (LTA’s) have remained the same in number, and in common name; but they have been relabeled to accurately reflect the Section and subsection to which they now belong. For example, LTA polygon 212Jb01 will remain as 212Jb01; but former LTA polygon 212Jc04 is now 212Xa03, reflecting its position within Province 212, Section “X”, Subsection “a”.

Using the revised classification, the St. Peters Dome Roadless Area falls within the following ecological units:

Section:	212J – Southern Superior Uplands
Subsection:	212Jb – Gogebic-Penokee Iron Range
Land Type Association (LTA):	212Jb01 – Penokee/Gogebic Iron Range

Section 212J is currently represented by the following Congressionally-designated Wilderness Areas: Sylvania, Sturgeon River Gorge Wilderness Areas (Ottawa NF); Rainbow Lake, Porcupine Lake (33%) Wilderness Areas (Chequamegon-Nicolet NF)

Subsection 212Jb has no current wilderness area representation.

Scientific/Educational Evaluation

The St. Peters Dome Roadless Area contains a 5,116-acre potential Ecological Reference Area known as “St. Peters Dome/Morgan Falls”. This complex has ecologically and geologically significant natural features and a large portion of the complex has potential as a Research Natural Area. The presence of a variety of geological and topographical features and microclimates, including silty, shallow soils over bedrock, numerous rock outcrops and steep boulder-strewn slopes, cool north-facing slopes, shaded seeps, and groundwater-fed streams provide a forest classroom of biological diversity and evolutionary adaptation to climate and geography. This area is representative of virtually the full range of slopes, aspects and elevation gradients found in the Penokee Range.

The extensive ecological features of this area, including large blocks of contiguous upland northern mesic forest with extensive stands of maturing hemlock-hardwood, and rich sugar maple-basswood forest with significant inclusions of “old growth-like” forest, as well as advanced regeneration of upland hemlock, white cedar, and white pine (all species in general decline across Northern Wisconsin) provide a unique opportunity to protect a highly representative and relatively undisturbed bedrock-controlled Landtype in Northern Wisconsin. The area would be a useful location for studying the effects of the natural transition from early-successional to mid-successional dominance.

Cultural Evaluation

Less than ten percent of the St Peter’s Dome Area has been surveyed for cultural resources, although two cultural resource sites have been recorded. The first is the location of a Depression Era Forest Service recreation development, known as the Morgan Falls Campground, referenced FS Site No. 09-02-02-044. This campground was abandoned around 1960, although the remnants of campground features are visible. The campground may include the houseplace of an early European American settler, Captain Henry Morgan, who settled here after the Civil War. The potential significance of the old campground is questionable. However, if the location of the Morgan houseplace can be located within the old campground, the site may have potential for recognition on the National Register of Historic Places (NHRP). The second site, the St. Peter’s Dome Quarry, referenced FS Site No. 09-02-02-044, is a stone quarry that operated from *circa* 1930 through 1960. A number of quarry-related features are visible, such as a sump hole and quarried rock faces. Though not formally evaluated, this type of site is rare on Forest Service

system lands, and for this reason, the property may be determined NRHP eligible upon evaluation. Further, the quarry site has high interpretive potential. Wilderness designation would not adversely affect either recorded site, or other sites that may be found when further cultural resource survey is conducted.

Challenge Evaluation

The chance of experiencing a life-threatening situation within the St. Peters Dome Roadless Area would be due more to an unfortunate incident than any challenge presented by the area itself. A person experiencing a debilitating injury while alone in the heart of the roadless area could certainly find himself or herself in a life-threatening situation. Weather can also play a critical role in determining the level of challenge, as hypothermia, sudden snowstorms, or diving temperatures could catch a visitor unawares. These are hazards encountered anywhere on the Forest; but being on foot in a roadless area may amplify the risk to a slightly higher level.

There are enough old travelways within the interior of the St. Peters Dome area that a person is unlikely to hike more than a mile without encountering a pathway leading to a perimeter road. What makes this area somewhat unique in this National Forest is that the casual visitor is probably much more likely to venture off trail here than in most other locations on the Chequamegon-Nicolet. Morgan Falls and St. Peters Dome are natural attractions that bring many casual visitors to the area. The open hardwoods, trickling streams, rock outcrops, and ridges and valleys characteristic of the terrain along the trails and throughout the entire roadless area beckon even the casual visitor to wander off trail and explore what's over the next ridge over or down the draw. The terrain itself, with relief and recognizable features, makes cross-country travel with map and compass a little less challenging than in the more typical flat woodlands and wetlands of the Chequamegon-Nicolet. However, the geology of the Penokee-Gogebic Range, known for its taconite deposits, can play havoc with a compass, adding a twist of unpredictability for the backwoods adventurers testing their outdoor skills. And this would engender a certain degree of risk, if only the area were a little bigger than it actually is. Despite having all of the characteristics inherent to a quality Wilderness experience, the two primary drawbacks to the St. Peters Dome Roadless are the popularity of the key natural features of the area, and the fact that, once you venture away from those features and into the interior of the area (with its less spectacular, but no less inspiring natural features), it's just not a big enough area. It's all good, there's just not enough of it.

Directly east of the St. Peters Dome Roadless Area, the Brunsweler Semi-Primitive Non-Motorized Area provides an extension of the characteristics that highlight the Dome area. The Brunsweler River Gorge and Spring Brook Falls are spectacular in their own right, and Frames Creek and Spring Brook are quality backwoods trout waters. However, the two areas are separated by a Township road that divides them into smaller units that, independently, lack the expanse and challenge they would provide as one unit.

The planned improvements to the Morgan Falls trail are designed to make the trail accessible at a difficult level, in essence providing a challenging semi-primitive experience for persons with disabilities. These improvements will make this trail one of the few on the Chequamegon-Nicolet that provide accessibility to a "backcountry" feature. For able-bodied hikers, depending on their objectives, these improvements may result in a slightly less challenging experience for some visitors, and may have no effect on the experience of other visitors.

Primitive and Un-confined Recreation Evaluation

Hiking and backpacking, are the dominant recreation activities within the St. Peters Dome Roadless Area. Horseback riding and snowmobiling are also popular activities in this area. These are common activities throughout the Chequamegon-Nicolet National Forest, and the region in general; but this area provides an opportunity to engage in these activities in a non-motorized setting with unique and outstanding natural features.

While snowmobiling is not consistent with the non-motorized emphasis of the St. Peters Dome area, the presence of this activity as an established use is expressly provided in the 1986 Chequamegon Plan. The peak time period for non-motorized use of this area is the summer and fall. Snowshoeing and cross-country skiing are viable non-motorized winter activities, but they are not well established. The Veikko Cross-country Ski Trail traverses the northern third of the St. Peters Dome area, but it has fallen into disuse and disrepair. Some visitors may hike to Morgan Falls or St. Peters Dome in the winter, but neither trail is groomed or maintained for this specific purpose. In essence, this area is probably much more suited to the non-motorized experience in the winter. The open understory of the forest is ideal for snowshoeing, a visitor is unlikely to encounter other people, and the natural features of the area have every attraction they might have the remainder of the year. Snowmobiling would detract from the semi-primitive non-motorized experience inherent in this activity.

With as much as 23% of the St. Peters Dome Roadless Area in early-successional habitat, particularly aspen, this area provides good opportunities to hunt white-tailed deer, black bear and ruffed grouse. Most other such opportunities on the Chequamegon-Nicolet are in areas of active timber management, often with numerous roads; and, particularly on the Chequamegon landbase, with the possibility of encountering other Forest users gaining access in ATV's or other off-road motorized vehicles. Given 30 years of management as a RARE II Area or Special Management Area with a prohibition on timber harvest, the early-successional habitat may be maturing beyond the age where it provides adequate forage for the most popular game species.

Special Features Evaluation

The entire St. Peters Dome Roadless Area may be called a special feature. Morgan Falls and St. Peters Dome are certainly the most unique and most visited natural features; but the entire area falls within the St. Peters Dome/Morgan Falls LAD complex, with a large portion of that complex a candidate Research Natural Area. This complex is ecologically significant both for the variety of communities represented within it, and for its place within the larger patch of interior hardwood forest that extends across the Penokee Range. This complex is also known as a "hot spot" for rare flora.

The decision by the Great Divide District Ranger to improve the Morgan Falls trail to make it accessible at a difficult level to persons with disabilities will make this trail a special feature. These improvements include rerouting the existing trail; installing footbridges, trail hardening (gravel), and adding a viewing area at the falls; and they will make this trail one of the few on the Chequamegon-Nicolet that are accessible to a prominent "backcountry" feature.

In addition to the natural features and ecological significance of this area, there are some specific recreation facilities that have bearing on the management of the area. State Snowmobile Corridor #25 is an important artery in the state snowmobile network, collecting and connecting all of the smaller club and county trails, and interconnecting the other state corridors throughout this region of the state. The Veikko Cross-country Ski Trail is another trail system within the St. Peters Dome area, but it is in disuse and disrepair.

Manageability Evaluation

The size, shape and history of the St. Peters Dome Roadless Area make its' preservation practical. The area is bordered on 3-1/2 sides by Township roads, and the remainder by the National Forest boundary. The size is conducive to management, although it is smaller than the normal 5,000-acre minimum recommended for a potential Wilderness, and the core area is less than the minimum recommended for a semi-primitive non-motorized experience. The recent history of this area is certainly in keeping with semi-primitive management. With the exception of the snowmobile trail traversing the area, this management of this area has focused on non-motorized recreation. This area has not seen a timber harvest in over 30 years, and it is recognized as having unique geological and ecological features. This relatively long history of managing the unique characteristics and the non-motorized experience in the St. Peters Dome area is the best testament to the manageability of this location as a roadless area.

Approximately 85% (9.65 miles) of the roadless area boundary follows perimeter roads that are well defined in the transportation network, open to the public and consistently traveled by passenger vehicles. A 1.50-mile section of the roadless area north boundary coincides the National Forest boundary, and another approximately 0.20-mile section along the roadless area west boundary coincides with the National Forest boundary. These boundaries have proven manageable over the past 30 years, so there is no reason to believe they won't be manageable in the future. There are only 4 open access points to the St. Peters Dome area along the perimeter roads, and only one of these is drivable for more than 200 feet with a full-sized vehicle. There is no evidence that ATV's use the snowmobile trail, either during the snowmobile season or during the off-season. Nor is there evidence that ATV's use any of the travelways into the area. Given the size of the area, there are relatively few access points (12 to National Forest land), and even fewer that are open (4 to National Forest land, including one to a parking lot, another that is not drivable, and a third that is a relocation of a snowmobile trail entrance). For the most part, management in the St. Peters Dome area for the past 30 years has focused on the recreation resource, with particular emphasis on the Dome itself, Morgan Falls, Morgan Creek and the snowmobile trail.

Designating this area as Wilderness would not effect timber management, since all timber harvest is currently prohibited in this area by the 1986 Chequamegon Plan. The most visible impact would be the need to close and relocate the snowmobile trail; a more subtle impact would be management of access to Morgan Falls and the Dome. Motorized access to the entire area is already limited by the overgrown condition of the travelways. The one exception is FR 199A, which is open and drivable, but has no improvements other than the road clearing. Even though the clearing for this road is wide enough, there is no sign of actual vehicle use on the travelway. This travelway should revegetate quickly provided motorized vehicles continue to stay off of it.

The St. Peters Dome RARE II Area is included in the proposed Roadless Area Conservation Rule. This Rule, in its last incarnation, would limit new road construction and timber harvest within the RARE II boundaries, a condition that is already dictated by the 1986 Chequamegon Plan. This condition would also apply if the area were designated as a Wilderness.

Most of the private land within the St. Peters Dome Roadless Area is located along the perimeter, with direct access from Township roads along the perimeter. There are two interior 40-acre parcels that currently have access across other private parcels from FR 253. There is no expectation that any of these parcels will need access across National Forest land, or any other special use permit to provide access or service to the property. There are no overhead or buried power lines along the perimeter roads.

There are no outstanding mineral leases or claims within the roadless area. The old stone quarry closed over 40 years ago; but there may have been some more recent exploration for building stone sources within the roadless area. Nearly 81% of the National Forest land within the roadless area has outstanding or reserved mineral rights in other ownership. This is a little more problematic in terms of management. The 1986 Chequamegon Plan does not permit any extraction of federal leasable, hardrock or common variety surface minerals; but this would not apply to reserved minerals in other ownership. The low-grade taconite reserves in the Penokee-Gogebic Range are not currently considered economical to extract, and, because of their orientation, they are unlikely to be economical in the future. There is high potential for metallic minerals in a mile wide strip from Mellen west to Mineral Lake known as the Gogebic Intrusion, but this is several miles south of the St. Peters Dome Roadless Area. The most likely potential for minerals within this roadless area is building stones; but it is the opinion of the Regional geologist that the gabbro underlying this area is too fractured for quality building materials, and the lack of development of stone sources in the area for the past 40 years would seem to bear this out. Regardless of potential, if this area is designated as a Wilderness, the Forest Service may be compelled to provide access to claims on any reserved minerals in other ownership.

Availability Evaluation

The St. Peters Dome Roadless Area is designated as a Special Management Area (Management Area 8.6) in the 1986 Chequamegon National Forest Land and Resource Management Plan. The existing management prescription for the St. Peter's Dome area states, "timber harvesting will not be allowed", and none of the National Forest acreage within this area was classified as suitable for timber harvest. Designation of this area as a Wilderness would result in no change from the vegetative management prescription stated in the 1986 Plan, "vegetative composition will evolve through natural succession".

The St. Peters Dome Roadless Area supports 8.4 miles of perennial streams and rivers. The area has no part of a municipal watershed and no known water storage needs. The September 2000 Draft Watershed Analysis for the Chequamegon-Nicolet National Forest indicates that the St. Peters Dome Roadless Area falls within the boundaries of one 5th level watersheds – the Marengo River. Water quality may actually decrease should the area be designated as Wilderness. This decrease would not be due to any ground-disturbing activities, a primary source of sedimentation or erosion, since these are already held to a minimum. Visitors to St. Peters Dome overlook have established a number of user-developed crossings on the Morgan Falls tributary to Morgan Creek. The sheer number of visitors during the fall season creates

concerns about erosion of the stream banks and sedimentation in the stream. One footbridge has been installed on this tributary, and there are proposals for additional bridges to address the water quality concerns. Using footbridges to mitigate the concerns about erosion and sedimentation might be a less likely consideration in a designated Wilderness. Similar concerns with the other Morgan Creek tributary resulted in placing another footbridge and relocating and reinforcing the banks of the tributary in the early 1990's. This option may not have been possible in a designated Wilderness, and less visible means of controlling the impacts of horse and foot travel on this stream may have proven less effective.

Foot travel is the preferred mode of transport in the St. Peters Dome Roadless Area for most of the year. Snowmobile travel is probably the preferred mode of transport in the winter. However, it is likely that most snowmobilers are traveling through the roadless area in the winter, whereas folks on foot, and possibly snowshoers in the winter, have traveled to the St. Peters Dome area with the express purpose of hiking within the area. The 0.5-mile Morgan Falls Trail and 1.5-mile St. Peters Dome Trail are restricted to foot and horseback travel only (and snowshoeing in the winter). Folks who hike these trails do so primarily to access the sites at the end of each. In the winter, most of the people who visit the St. Peters Dome area are snowmobilers. Most are traveling this trail to get to and from destinations outside the roadless area. There may be some snowmobilers who stop to visit sites within the roadless area. For folks that experience this area in this manner, they are using motorized vehicles to gain access to the interior of the area, and then engaging in a non-motorized activity.

If this area were designated as a Wilderness, the snowmobile trail would have to be closed and relocated. The hiking trails would likely remain in place, and would continue to experience the level of visitation that currently takes place – and likely more, since a Wilderness designation often brings an increase in use. Further, the planned improvements to the Morgan Falls trail would make it accessible to wheelchairs, although with a certain level of difficulty. However, with designation as a Wilderness, management of any improvements to the hiking trails may take on some subtle changes. Some improvements may not get maintained in the same manner they might if the area were not a Wilderness. Options for controlling erosion, trail degradation, or damage to trailside vegetation may be more limited in a Wilderness. Trail surfacing may not be replaced, and bridges would receive only certain kinds of maintenance. With regard to the National Wilderness Preservation system, the Americans With Disabilities Act of 1990 states “Congress reaffirms that nothing in the Wilderness Act is to be construed as prohibiting the use of a wheelchair in a wilderness area by an individual whose disability requires use of a wheelchair, and consistent with the Wilderness Act, no agency is required to provide any form of special treatment or accommodation, or to construct any facilities or modify any conditions of lands within a wilderness to facilitate such use.”

This means that the Forest Service could make the improvements now to the Morgan Falls trail to make it accessible to persons with disabilities. If the St. Peters Dome Roadless Area is then recommended and designated as a Wilderness Area, and it includes the Morgan Falls trail, the Forest Service would most likely be compelled to not maintain those improvements. Specifically, the trail surfacing would not be consistent with Wilderness management, and this improvement would be allowed to deteriorate with use. The same may also be true of the trail bridges and the viewing area, but this may be open to some interpretation. The trailhead improvements would not be subject to the same consideration, since they would be in place to provide general access to the area. With these considerations, the Forest Service must balance the benefits of an accessible trail to Morgan Falls with the potential benefits of designating the

area as Wilderness. One possibility for resolving this issue is to exclude the Morgan Falls trail and the surrounding area from any potential Wilderness. Another possibility is to manage the roadless area for some multiple-use other than Wilderness.

The parking lot at the trailhead to Morgan Falls and St. Peters Dome may be considered a developed recreation site, particularly with the expansion of the parking area and the addition of a toilet building. It is a development within the area to facilitate recreation within the area. These trails may also be considered developed recreation resources, since they include trail bridges and experience heavy visitor use. Further, this trail is a Recreation Fee Demo Site, where users of the trailhead and the trails themselves must pay a fee. The snowmobile trail is a developed recreation site within the roadless area. The Veikko Cross-country Ski Trail could also be considered a developed recreation site, but it is not currently functional.

Hunting is a popular recreation activity on the Chequamegon-Nicolet, and this roadless area provides some opportunities for hunting deer, bear and ruffed grouse. Any access to this area for hunting is restricted to foot travel. This would not change if the area were designated as Wilderness. Early-successional habitat accounts for 23% of the vegetative composition of the St. Peters Dome area. However, with no timber harvest in this area for at least the past 30 years, even the youngest of this habitat is reaching an age and structure where it loses its value as forage for deer, bear and grouse. Designation of this area as a Wilderness would not change this management approach from its current direction. Harvest of timber would continue to be prohibited, and natural disturbances would dictate the age and distribution of habitat.

There are an estimated 9.65 miles of “system roads” within the St. Peters Dome Roadless Area. These are travelways that have a road number, have generally been identified on Forest maps or USGS maps, and may be included in the Forest Transportation Inventory as “classified roads”. These roads may currently be improved or unimproved, open or closed, drivable or not drivable. They may appear on a map, but it is possible that they have long since fallen into disuse and may no longer exist as functional travelways on the ground. Within this area, none of the 9.65 miles of system roads are improved. The remaining mileage may be unimproved or nonexistent. Regardless of condition, most system roads are likely to be included in the total miles used to determine road density on the Chequamegon-Nicolet. As such, any designation of this area as a Wilderness would require that all travelways be closed to motorized vehicles, and that these travelways either be obliterated or converted to foot trails. This includes all improved and unimproved travelways, regardless of whether or not they are system roads. This would result in a net loss of at least 9.65 miles, and probably more, from the total road miles on the Chequamegon-Nicolet.

The eastern timber wolf, *Canis lupus*, a federally-listed Threatened and Endangered Species (TES) has been known to occur within and around the St. Peters Dome Roadless Area. The designation of the area as Wilderness is not likely to result in any immediate management changes that will have a negative impact on this TES. In general, Wilderness designation would likely result in a continued shift away from early-successional habitat, resulting in fewer opportunities for the wolf to prey on deer within the designated area; but this area would be sufficiently small enough that these opportunities would most likely be readily available beyond the boundaries.

Other sensitive species, including the northern goshawk, *Accipiter gentiles*, and the wood turtle, *Clemmys insculpta*, have either been sighted in this area, or the habitat within the St. Peters

Dome area is suitable for them to nest, forage or frequent. This area is also home to several sensitive species of flora. Designation of the St. Peters Dome Roadless Area as Wilderness would enhance the viability of all of these species by assigning permanent protective status to the area.

There are no livestock operations within this roadless area, nor is there potential for such operations. Landowners adjacent to the area do use the trails for horseback riding.

There has been no exploration for oil, natural gas or precious minerals within the St. Peters Dome Roadless Area over the past 10 years, although this does not preclude the possibility that these resources exist. There are no active or inactive gravel or borrow pits within the area. There is an inactive stone quarry with possible historical significance. The lack of exploration in recent years does not preclude the possibility of mineral discovery and development in the future. The Penokee-Gogebic Range, which includes St. Peters Dome, was mined early and often for iron ore in the first half of the last century (although the St. Peters Dome area itself does not appear to have mined). This ore played out early, and the low-grade taconite that remains is plentiful but not economical. The taconite ore lays on a vertical plane, and the veins are narrow enough that open pit mining, which is typical for the development of this kind of ore, would prove entirely too expensive for the limited quantity any one vein could produce. Further, the taconite is of such a low grade that it could not compete with other plentiful sources of high-grade iron ore currently available, and likely to remain available for many decades to come. There is a possibility that this area contains oil or natural gas reserves, but recent exploration for these minerals in northern Ashland County did not include the St. Peters Dome area. Even the possibility of extracting building stones from this area has its limitations. The Regional geologist characterizes the gabbro underlying St. Peters Dome as too fractured for quality building stones; but he also notes that this does not necessarily mean that development of this potential resource would not be a possibility in the future. Whatever the future of mineral exploration and/or development in the St. Peters Dome area, if this area is designated as a Wilderness, the Forest Service would be still be required, by the 1964 Wilderness Act, to provide reasonable ingress and egress to privately-owned mineral reserves on National Forest land, as well as private land within the area.

Only 10% of the St. Peters Dome Roadless Area has received a cultural resource inventory. Two cultural resource sites have been recorded, and there is potential that other sites may exist within the area. Both recorded sites have potential for recognition on the National Register of Historic Places. Designation of the area as Wilderness would have no foreseeable impact on these sites, or on any potential site. The absence of ground disturbing activities would enhance the protection of any sites within the area.

Fire protection and pest control techniques could be altered by Wilderness designation, although neither has been a problem in this area over the past 10-30 years.

None of the parcels of private land currently require access across National Forest land, and there is only the remote possibility that two interior parcels that already have access across other private land could require access across National Forest land in the future. Given that other access options are available to these parcels, there may be some limit to any access the Forest Service would have to provide to these interior parcels. This could change if the Forest Service were to acquire one of the parcels that currently provide access to the interior ownership.

Marengo Township has designated all of the Township roads on the perimeter of the St. Peters Dome Roadless Area as ATV routes. To protect roadless characteristics within the roadless area, the Forest Service would benefit from working with Marengo Township to reroute ATV traffic onto other roads or trails that do not have direct access to the area.

3) IRON RIVER ROADLESS AREA (GREAT DIVIDE DISTRICT)

Solitude Evaluation

The Iron River Roadless Area is 8,696 acres in size, including 8,331 acres (96%) of National Forest land. The bulk private ownership within the Iron River Roadless Area can be categorized as perimeter parcels and interior parcels. There are three perimeter parcels, two developed and one undeveloped. The undeveloped perimeter parcel is the largest private block of ownership within the area, a 130-acre unit directly adjacent to the intersection of FR 354 and FR 183 at the southern most point of the roadless area. This unit has no residences or any visible access points. The most developed parcel of private ownership within the area is an 80-acre unit that is subdivided among several different owners. This latter unit is in close proximity to Cayuga, and has 3 year-round residences and two seasonal cabins, all within a few hundred feet of FR 354 (Fitch Darrow Road). The other perimeter parcel is a 40-acre unit located on the north boundary, along Forest Road 184. This unit has one seasonal cabin directly adjacent to FR 184; but it also has a newly developed road into the interior of the parcel that has another, newer cabin, and a number of short spurs. This may indicate that this parcel is being subdivided; although there has been no tax assessment on any structures on this property recorded with the Ashland County Tax Assessors Office, and no record of a subdivision with the County Property Listings Office. None of the three interior parcels appear to be developed. There may be a seasonal cabin located on a landlocked 32-acre parcel near the northwest corner of the roadless area; however, there is no evidence of this cabin on the ground. Forest transportation inventory records and the USGS quad map indicate that this parcel lies near the end of Forest Road 184D (last inventoried as an unimproved two-track approximately ½-mile from FR 184), and the 1991 Ashland County Plat Book indicates that there is a cabin on this parcel at the end of a road crossing National Forest land; however, there is no special use permit providing access to this parcel, and there is no field evidence that this road actually exists. The other two interior parcels are isolated, landlocked 40-acre units that appear to have no structures. One of these parcels has access from FR 349; the other does not appear to have any access.

Township roads define approximately 84% of the boundaries for the Iron River Roadless Area, with the remainder defined by an active railroad track and the National Forest boundary. The boundary to the north is a 4.8-mile section of Forest Road 204; to the west and southwest the boundary is a 5.05-mile section of Forest Road 203 (Sailor Lake Road); and to the south the boundary is a 2.45-mile section of Forest Road 354. All three of these roads are two-lane, gravel surface, Traffic Service Level B Township roads. The east boundary includes an approximately 1.0-mile section of the Soo Line Railroad, which runs along the west bank of the Bad River from an intersection with Forest Road 204 in the north to the National Forest boundary to the east. From here, the roadless area boundary follows the National Forest boundary for 1.5 miles south, where it intersects Fitch Darrow Road, a two-lane, gravel surface, Traffic Service Level B Township Road.

The east boundary then follows Fitch Darrow Road south for 0.75 mile, where it intersects Forest Road 354, and the south boundary of the roadless area. (This section of Fitch Darrow Road is actually listed as part of Forest Road 354 in the Chequamegon-Nicolet transportation inventory.) This ¾-mile stretch of Fitch Darrow Road provides access to all but one of the private residences within the boundaries of the Iron River Roadless Area.

The core area of solitude is defined as a contiguous core of National Forest land that is separated by at least ½-mile from the influence of motorized traffic and land uses inconsistent with the semi-primitive non-motorized experience (a more detailed description of the process for determining core area of solitude can be found on pages 4-6 of this report). For the Iron River Roadless Area, this core is 2,472 acres, or about 30% of the total National Forest acres within the roadless area. This core area is just slightly below the minimum ROS standard of 2,500 acres for the semi-primitive non-motorized experience; however, the buffering measurements are not absolute. A difference of 200 feet in the estimated length of an open improved travelway could alter the determination of a core area of solitude by as much as 5 acres. Road locations are determined with GPS (Global Positioning System). These locations are as accurate as the decisions of the person carrying the GPS field device. The determination of how much of a road is improved is based on a combination of vehicle odometer readings and field pacing. On a one-mile road, this could vary as much as 0.05 mile (250'). Given these imperfections in field measurement, a 28-acre shortfall is not sufficient to preclude the Iron River area from designation as a roadless area.

Perhaps of greater concern is the configuration of the core area of solitude in the Iron River Roadless Area. Ideally, the core area is a solid block of land that becomes more isolated as you move to the center. In the case of the Iron River area, there are two mid-sized blocks of land with a narrow (1/8-mile) stream channel connecting them. The reason for this bottleneck is the presence of two open, improved roads that penetrate a mile or more into the interior of the roadless area from the north and south perimeters. With the ½-mile buffer applied to the ends of these roads, there is little gap between the ends of these buffer zones. Nonetheless, there is sufficient gap to maintain a contiguous core area of solitude.

There are a total of 24 approaches providing access to National Forest land along the roaded perimeter of the Iron River Roadless Area, including 4 improved roads (see Appendix C). All but 3 of these approaches are open to motorized vehicles, although 5 of the open approaches are actually old sections of FR 183 that were realigned in 1987 but never closed and obliterated. Only 13 of the open approaches are drivable with a full-sized vehicle (2WD or 4WD), and only 11 are longer than 200' in length.

The improved roads providing access to the interior of the Iron River Roadless Area include Forest Roads 349 (and its spur, 349A), a portion of Forest Road 183B, a short stretch of the relocated Forest Road 183, and Forest Road 184M. Forest Road 349 travels north into the roadless area from Forest Road 364 (on the south boundary of the area). The road is open, drivable with a passenger vehicle for up to 0.8 mile, and has several improvements, including pit run surfacing, culverts and a constructed template. The last 0.2 mile of this road has some serious rutting, and would require a 4WD vehicle to traverse; however, this segment of the road is still in an improved condition. There is a T-Turnaround at the 1.0-mile mark, although an unimproved road continues further north. At the 0.3 milepost of FR 349, a spur, Forest Road 349A, turns left and continues northwest for approximately 1.05 miles in an improved condition. This spur also has pit run surfacing, a constructed template, and culverts. The road is narrow, and the last 0.2 mile has several rough spots and no discernible template. There is an intersection at the 1.05-mile mark, but both roads continuing from this intersection are unimproved – one is a dead end after 100', the other has a berm closure and is overgrown.

Forest Road 183, on the southwest and west boundary of the roadless area, was reconstructed (in two stages) in the late 1980s. Short stretches of the road were realigned when reconstruction

took place. Three of these realignment sections are still evident on the ground. Two of these sections received some form of scarification or surfacing removal (and each have a berm on one end), and they appear to be growing in fairly well, although the travelways are still evident on the ground. A third, located approximately 4 miles north of Forest Road 364, is unapproachable on one end, but open, drivable and improved on the other. The surfacing was removed from the old roadbed, but the template (a bench section) is still intact. This section is only 0.1 mile in length, but it is improved. Also along Forest Road 183, Forest Road 183B turns east approximately 0.4 mile south of the Iron River Bridge. FR 183B crosses Brush Creek with two large (approximately 3' diameter) corrugated metal culverts to access a borrow pit on the other side of the creek. This borrow pit is generally inactive as a source of construction fill; however, there are often trailers or recreation vehicles parked in this pit during hunting season. FR 183B continues east from the borrow pit for another 0.1 mile in an improved condition. At this point, the road narrows, reverts to native surfacing, and continues in an open, drivable and unimproved condition for another 0.8 mile. The total improved distance of FR 183B is 0.2 mile.

Forest Road 184M is approximately 1.80 miles east of the intersection of Forest Roads 183 and 184. This road travels south from FR 184 for a distance of approximately 1.4 miles in an improved condition. The road has culverts, gravel and a constructed template. It has a few rough spots, but it is easily traversed in a high clearance vehicle. The improved road ends at a loop turnaround. The travelway continues south for some distance in an unimproved condition, although further travel is obstructed by a berm.

Of the remaining unimproved approaches, 3 are open and drivable for a distance with a 2WD vehicle, 4 are open and drivable with 4WD, high clearance vehicles, and 2 are closed but would be drivable beyond the closure. The remaining travelways are not drivable with any full-sized vehicle, or are less than 200' in length. Virtually all of these roads are narrow, unsurfaced 2-track travelways. There is another unimproved travelway (FR 352) that is not from a perimeter road and requires access across private property, is not drivable, and is considered closed since access to the public would involve permission from the landowner.

Included among the unimproved travelways are some other numbered routes that show up in the Forest Transportation System, but do not meet the standards for an improved travelway described on page 4 of this report. Forest Road 352 is shown on the map to provide access to the interior from beyond the Forest boundary to the east. However, access to FR 352 is across private property, and the private road that may or may not connect FR 352 is unimproved and appears to be used primarily as an ATV route. As a result, the actual condition of FR 352 was not evaluated in the field. A check of the construction records in the Park Falls Supervisor's Office indicate that neither FR 352 nor its spur, FR 352A, were ever contracted for construction, and have probably never been more than primitive, unimproved roads. Forest Road 350 and its spur, FR 350A, provide access to the interior from FR 184. The clearing for this travelway is 12-14' wide where it leaves FR 184, but the roadbed is rutted, very mucky, and not drivable unless frozen. This travelway is clearly not improved. Forest Road 183A, located on the west perimeter of the area, has a culvert and gravel for the first 50', but no improvements beyond. The approach was probably upgraded when FR 183 was reconstructed in 1987, and the travelway itself may be drivable beyond the approach, but it is little more than a 2-track.

In addition to the access to National Forest land, there are 8 approaches providing access to private land along the roaded perimeter of the roadless area. Five of these approaches provide access to residences and seasonal cabins in the southeast corner of the roadless area. Three of

these are improved, short gravel driveways providing access to year-round residences along Fitch Darrow Road; the other 2 approaches are for unimproved driveways providing access to seasonal cabins, also along Fitch Darrow Road. All of these buildings are within sight of the road. There are three approaches to the private 40-acre parcel adjacent to FR 184 on the north boundary of the roadless area. One is a short, gravel driveway to a seasonal cabin within 50' of FR 184. The other two approaches are opposite ends of a loop that travels through the 40-acre parcel, and provides access to an interior cabin and several short spurs.

There are no designated hiking trails or motorized trails within the Iron River Roadless Area. There is one hunter/walking trail within the area. The McCarthy Lake Hunter/Walking Trail provides two unimproved travelways for non-motorized hunter access, an approximately 1.0 mile route that traverses the area directly north of the Iron River from FR 183 to the vicinity of Edies Creek. A 0.5-mile spur travels due north from the quarter-mile mark of the main trail. There is a 1-2 car parking area at the entrance to the trail adjacent to FR 183, where a well-placed gate obstructs motorized access to the travelway.

This roadless area was a part of a larger "Diversity Maintenance Area" during the appeal, litigation and settlement of the Chequamegon National Forest Land and Resource Management Plan, from 1986 to 1994. As such, it was essentially managed as a "hands off" area, with no timber harvest or road construction. One exception to this approach was the reconstruction of the southern half of Forest road 183 on the perimeter of what is now the Iron River Roadless Area. Timber sales that had already been contracted prior to the appeals of the Chequamegon Plan were allowed to proceed. The last timber harvested in the area was cut in 1992. Despite the settlement of the Plan appeals, there has been no timber harvest or road construction or reconstruction within the Iron River Roadless Area since 1992.

The numerous streams and rivers which bi-sect the Iron River Roadless Area limit the extent to which the network of interior travelways can access the core area of solitude. The result is that the natural features of the landscape tend to define the experience of the visitor, rather than the travelways. A person is never more than a mile-and-a-half from the nearest perimeter road, but traveling cross-country may be the only way to get to that road. This area does not contain the network of unimproved interior travelways typical of much of the Chequamegon-Nicolet, so a visitor may need to follow a river or stream, or use a compass to traverse their way out of the core area. The area is not exactly remote, but the center of this roadless area may be as close to the experience as a person can get within an upland region of the Chequamegon-Nicolet.

The Iron River Roadless Area has no developed recreation facilities, and it has had an 8-year period when virtually no management activities have taken place within its boundaries. With no designated trails other than the relatively short McCarthy Lake H/W Trail, it is most likely that the primary recreation activity in this area is hunting (and possibly some fishing). It is probably rare that a visitor would encounter another person, especially outside of hunting season. This is more a circumstance of the level of use of this area, rather than any physical characteristics. There is nothing specific to attract visitors to the area, making it more likely that a visitor seeking an isolated experience would choose to come here. It is possible to attain a feeling of isolation, independence, closeness to nature and tranquility in this area. The limited travelways and the extensive watercourses offer challenge; the relatively large core area, with relatively flat terrain and extensive wetlands, offers sufficient acreage for a person to feel a sense of adventure and self-reliance through the application of outdoor skills with a certain amount of risk. The element of winter weather can add significantly to this risk.

The presence of the Soo Line Railroad along the east boundary of the roadless area means that passing trains, particularly at night, will most likely be heard in all parts of the roadless area. And with State Highway 13 located just $\frac{3}{4}$ -mile further east, the sound of trucks on the highway will also be regularly heard within the roadless area. There are no snowmobile trails anywhere in the immediate vicinity of the Iron River Roadless Area; however, Forest Roads 183 and 184 are Township-designated ATV routes.

Degree of Disturbance Evaluation

The Iron River Roadless Area is natural in appearance, with few signs of recent disturbance. A total of 119 acres has undergone a regeneration harvest during the past 10 years, with the most recent harvest in 1992. Nothing is currently under contract, nor is anything currently prepared for sale in the future. There are no permanent wildlife openings in this area. There is an inactive gravel pit located along the west perimeter, approximately 0.4 mile south of the Iron River Bridge, and 0.1 mile east of FR 184. This pit is about a $\frac{1}{2}$ -acre in size, it is visible from the perimeter road, and hunters often use it as a dispersed camping site. There are no active mineral deposits, mineral claims, or mineral leases within the area, although approximately 64% of the outstanding and reserved mineral rights within the area are in other ownership. There are no developed recreation sites within the area. There are no buried cables or overhead power lines within the right-of-way of the perimeter roads, nor are there any special use permits within the roadless area. The presence of five homes and/or cabins on Fitch Darrow Road, in close proximity to the Village of Cayuga, gives the appearance along this perimeter road of a residential area with some level of development. This is certainly not the character of the remainder of the perimeter roads, although the 40-acre private parcel along FR 184 may see some level of development in the future.

The Iron River Roadless Area has 3.75 miles of improved travelways within the perimeter of the area, a density of 0.46 mile of improved travelways per 1,000 National Forest acres. Along the 13.05 miles of perimeter roads, this roadless area has 32 access points to private and public lands. Eight of these approaches are to private land, and another 5 are less than 200' in length. That leaves slightly more than 1.5 access points to interior National Forest land per mile of perimeter road, and all but 3 of these access points are open to the public for motorized use. Eleven of these are drivable and open to the public, and 7 of these are drivable with a standard passenger vehicle. This number is a little above the average for the newly inventoried roadless areas. The presence of these access points does give the impression of a once-managed forest. However, given the relatively low density of travelways in this area and the low standard of even the improved roads, and since many of these travelways have revegetated with grasses, wildflowers and brush or young trees, the presence of these access points does not give the impression of an overly developed or manipulated landscape. For the most part, the Iron River Roadless Area has the appearance of a lightly disturbed landscape in which forest management activities once took place, and may take place again.

Biological Evaluation

About a third (2,778 acres, or 33%) of the Iron River Roadless Area is classified as wetlands. Approximately one-half of the uplands (2,792 acres, 34% of the total acres) are characterized as early-

successional forest types (aspen/balsam fir). Northern hardwoods account for 23% (1,893 acres) of the vegetative composition of the area. There are 15.5 miles of streams and rivers within the Iron River Roadless Area. The Iron River itself is a low gradient stream with short sections of riffle areas. It is navigable during spring/high water. It may be suitable habitat for some rare dragonflies. Aspen dominates the riparian area along the Iron River, although the northern portion of the river does contain some significant patches of semi-boreal forest with spruce-fir. There are also some hemlock patches along the river. Aspen clearcuts and red pine plantations dominate the southern portion of the riparian area.

The Iron River contains sections that are considered Class II and Class III trout water. Using draft Aquatic Ecological Classification System definitions for “valley segments” within the Chequamegon-Nicolet National Forest, the headwaters of the Iron River are typed as NSW, and the lower reaches of the river are typed as MMO. Both segments are found in this roadless area.

NSW segments are narrow (less than 20’ wide), soft alkalinity (between 5ppm and 20ppm), warm water (temperatures greater than 26 degrees Celsius) streams. NSW segments may harbor 3 to 10 fish species, including creek chub, finescale dace, stickleback, and mudminnow. No mussel species are known to occur in these segments.

MMO segments are moderate width (20-50 feet), moderate alkalinity (greater than 20ppm), cool water (temperatures between 23 and 26 degrees Celsius) streams with no local groundwater. The potential for the river to support a viable coldwater aquatic community is very limited; but it can support a fish community of 8 to 17 species dominated by white suckers, creek chub, blacknose dace, and darters. Trout have been known to occur within MMO segments; and there is probably some movement of brown and brook trout up stream from the confluence of the Iron River and the Bad River. Beaver heavily influence the portion of the river within the Roadless Area. MMO segments may also support two to five species of mussels, although in low densities.

There are a number of other streams traversing the Iron River Roadless Area, including Edies Creek and its tributaries, typed as NMW; and Squaw and Brush Creeks, which are typed as NMO. NMW segments are narrow (less than 20’ wide), moderate alkalinity (greater than 20ppm), warm water (greater than 26 degrees Celsius) streams. Five to nine fish species may occur in NMW segments, and these are dominated by northern redbelly dace, creek chub, central mudminnow, and blacknose dace. It is highly unlikely that mussels occur in NMW segments. NMO segments are narrow, moderate alkalinity, cool (greater than 23 and less than 26 degrees Celsius) streams with no local groundwater. NMO segments support 3 to 12 species of fish, and 0 to 1 species of mussel. The dominant fish species in NMO segments include creek chub and blacknose dace.

There are no known Threatened and Endangered aquatic species within any of these smaller creeks. There are limited opportunities on these smaller creeks for any recreational fisheries other than minnow trapping for bait.

The Iron River Roadless Area includes a 374-acre Landscape Analysis and Design complex called the “Iron River Hardwoods”. This complex is a potential Ecological Reference Area (ERA) that could be a candidate Research Natural Area, Special Management Area, or managed as old growth. This complex is compact in size; but it has several significant inclusions of old growth hemlock-hardwood forest type with super-canopy white pine and spruce, embedded in a matrix of mature northern-mesic hardwood forest. Other notable features within this roadless area include mature black ash stands, intermittent

stream segments, numerous ephemeral ponds, and pockets of advanced hemlock and white pine regeneration.

The western end of the Iron River Roadless Area is part of the Dingdong Creek wolf pack territory. The eastern half of this area is part of the Brush Creek wolf pack territory. The eastern timber wolf, *Canis lupus*, is a federally-listed Threatened and Endangered Species (TES). Pine marten may also be found within the Iron River Roadless Area. The American pine marten, *Martes Americana*, is listed as Endangered by the State of Wisconsin, and is a Draft Forest Sensitive Species.

Biotic Species Requiring Primitive Surroundings

The 374-acre Iron River Hardwoods Landscape Analysis and Design complex has been identified as a potential Ecological Reference Area. It is possible that this complex could be a candidate for designation as a Research Natural Area, Special Management Area, or for management as old growth. The ecological values inherent to this complex would directly benefit from designation of the encompassing Iron River Roadless Area as Wilderness. This designation would protect this potential ERA from ground disturbing activities and other modifications to the landscape

This area in and of itself is not large enough to provide wildlife species with primitive surroundings. It contributes to the overall forest mosaic; but, in this context, it is similar to the general forest environment. There are no wildlife species within the Chequamegon-Nicolet that are dependent upon Wilderness.

Ecological Evaluation

As suggested in the Forest Service Handbook, FSH 7.23b, the “analysis of the degree to which (a roadless area) contributes to the local and national distribution of wilderness” should use Edwin A. Hammond’s subdivision of landform types and the Bailey-Kuchler ecosystems classification. With regard to the Upper Great Lakes Region, almost all of this area is classified as Laurentian Mixed Forest Province (Province 212).

In his 1999 publication Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends, H. Kenneth Cordell notes that this particular ecoregion encompasses some 94.4 million acres, or 4.9% of the lower 48 states. Currently, 1,226,870 acres of this ecoregion are Congressionally-designated Wilderness on federal lands, representing 2.8% of all federal Wilderness in the lower 48 states. As a result, 1.3% of the ecoregion is represented as Wilderness. One further note: The Boundary Waters Canoe Area Wilderness accounts for 1,086,954 acres, or 86% of the total Wilderness acreage in the Laurentian Mixed Forest Province; and virtually all of this acreage is in one subsection (212La, Border Lakes).

The first national ecological unit map based on a national hierarchical framework of ecological units featuring Edwin A. Hammond’s subdivision of landform types and the Bailey-Kuchler ecosystems classification was published in 1994. In 2000, the Forest Service Eco-Map team requested recommendations from field personnel for updating the national ecological unit map, with particular focus on the Section level of the classification hierarchy. In response to this

request, the State of Wisconsin assembled an interagency Landtype Association (LTA) technical team to re-evaluate Section boundaries and assess the need for refinement, based on information accumulated during the development of the initial Wisconsin LTA map. This team submitted Section boundary changes for Wisconsin to the national Eco-Map team; and, in February 2001, the official Wisconsin LTA Map reflected these changes. A soon-to-be-published new Section map of the United States will incorporate these changes, as well.

The sum of the changes incorporated into the new national ecological unit map is that several large Sections covering portions of Wisconsin and the Upper Peninsula of Michigan have been subdivided into new Sections; and, in some cases, new Subsections. With regard to the Chequamegon-Nicolet National Forest lands, 4 new Section and 3 new Subsection mapping units have been created. As a result, portions of the Chequamegon-Nicolet NF now lie within 6 different Sections (where before there were only 2 Sections, defined on a much broader scale); 14 Subsections (where before there were only 11 Subsections; and 27 LTA's (the same number as previously).

The Land Type Associations (LTA's) have remained the same in number, and in common name; but they have been relabeled to accurately reflect the Section and subsection to which they now belong. For example, LTA polygon 212Jb01 will remain as 212Jb01; but former LTA polygon 212Jc04 is now 212Xa03, reflecting its position within Province 212, Section "X", Subsection "a".

Using the revised classification, the Iron River Roadless Area falls within two Sections.

60% of the area falls within:

Section:	212J – Southern Superior Uplands
Subsection:	212Jc – Winegar Moraines
Land Type Association (LTA):	212Jc05 – Valhalla/Marenisco (McDonald) Moraines

40% of the area falls within:

Section:	212X – Northern Highland
Subsection:	212Xa – Glidden Loamy Drift Plain
Land Type Association (LTA):	212Xa01 – Glidden Drumlins

Section 212J is currently represented by the following Congressionally-designated Wilderness Areas: Sylvania, Sturgeon River Gorge Wilderness Areas (Ottawa NF); Rainbow Lake, Porcupine Lake (33%) Wilderness Areas (Chequamegon-Nicolet NF)

Subsection 212Jc is currently represented by the following Congressionally-designated Wilderness Areas: Sylvania is in LTA 212Jc02 – Morse/Winegar Moraines.
Rainbow Lake is primarily in LTA 212Jc05 – Valhalla/Marenisco (McDonald) Moraines.
Porcupine Lake (33%) is in LTA 212Jc05.

Section 212X is currently represented by the following Congressionally-designated Wilderness Areas: Porcupine Lake (66%), Blackjack Springs, Whisker Lake and Headwaters Wilderness areas.

Subsection 212Xa is represented by LTA 212Xa03 in 66% of the Porcupine Wilderness.

Scientific/Educational Evaluation

The Iron River Roadless Area contains a 374-acre potential Ecological Reference Area called “Iron River Hardwoods”. This complex has ecologically significant natural features and potential as a Research Natural Area, Special Management Area or old growth. The presence of a variety of ecological features, including several significant inclusions of old growth hemlock-hardwood forest type with super-canopy white pine and spruce, embedded in a matrix of mature northern-mesic hardwood forest, provides unique educational and research possibilities.

Cultural Evaluation

Some of the Iron River Roadless Area has been previously surveyed (reference CRRR Numbers 09-02-02-044; 081; 103; 133 and 145). Three cultural resources were recorded during these surveys, and include two European American house place sites (reference CRIF No. 09-02-02-009 and 037); and the site of a logging camp (reference CRIF No. 09-02-02-093). The terraces and ridges along the shores of this Roadless Area’s streams and wetlands offer moderate to high potential for prehistoric and historic human habitation and utilization.

Challenge Evaluation

The chance of experiencing a life-threatening situation within the Iron River Roadless Area would be due more to an unfortunate incident than any challenge presented by the area itself. A person experiencing a debilitating injury while alone in the heart of the Roadless Area could certainly find himself or herself in a life-threatening situation. Weather can also play a critical role in determining the level of challenge, as hypothermia, sudden snowstorms, or diving temperatures could catch a visitor unawares. These are hazards encountered anywhere on the Forest; but being on foot in a Roadless Area may amplify the risk to a slightly higher level.

Like much of the National Forest, some form of travelway traverses a good portion of the upland area of the Iron River Roadless Area. Most are unimproved, and virtually all provide some form of access to the perimeter roads and trails. However, like the Hungry Run Roadless Area, interior streams present a natural impediment to cross-country travel. In this case, though, the streams bisect the area in an east-west direction (Iron River), as well as a north-south direction (Edies Creek, Squaw Creek, and an unnamed tributary to the Iron River). The Iron River is 20-30 feet wide in the upper reaches (and wider where beaver have dammed the river). The riparian areas along the upper reaches of the river may be wetlands several hundred feet in width; and, while the water depth in the river may be only a few feet in these upper reaches, the river bottom can have an undetermined depth of soft organic material making them almost impossible to wade across. For the cross-country traveler, the upper reaches of the Iron River present a significant and challenging obstacle. The lower reaches of the river may be as wide as 50 feet, with a more definable shoreline and gradient. These reaches may be easier to cross, particularly in low water; and traversing these reaches may be just the challenge a cross-country traveler seeks.

The smaller creeks within the Roadless Area are generally not more than 20-30 feet wide in any one place (except in places where beaver have dammed the creek). Edies Creek and Squaw Creek, like the upper reaches of the Iron River, are bounded by riparian areas that may be wetlands several hundred feet wide and extremely difficult to cross. The smaller tributaries to the Iron River are much like the lower reaches of the river, but considerably more narrow and – in some cases – intermittent. It is generally possible to find locations to cross these tributaries. In all cases, it is possible to cross these streams and the surrounding riparian areas during frozen conditions (although this adds the risk of falling through thin ice during potentially dangerous cold-weather conditions when 1-2 miles from the nearest open, public road). And, in any case, the presence of these streams is either a challenging obstacle to the adventurous cross-country traveler, or a deterrent to the visitor seeking to stay on established travelways.

In this Roadless Area, there may be some change in personal risk as a person moves deeper into the core area, particularly within that portion of the area laying south of the Iron River and east of Forest Road 349. There are few, if any, discernable travelways within this area; and persons venturing into the heart of this portion of the Roadless Area would need outdoor skills to safely negotiate their way. For the remainder of the Roadless Area (north of the Iron River and west of FR 349), there is really little change in personal risk as one moves deeper into the core area on the uplands. The visitor is never more than 1.5 miles from a perimeter road or trail, and rarely more than ½-mile from any travelway. The streams also provide natural landmarks to help guide the errant hiker or cross-country traveler. And, with the perimeter roads in such relatively close proximity, the visitor is never really isolated in a remote setting with only their wits and their knowledge of outdoor skills to get them back to safety.

Primitive and Un-confined Recreation Evaluation

Hunting is probably the dominant recreation activity in the Iron River Roadless Area. This is a common activity throughout the Chequamegon-Nicolet National Forest, and the region in general. With a sizeable percentage of the uplands in early-successional habitat, particularly aspen, this area provides good opportunities to hunt white-tailed deer, black bear and ruffed grouse. The opportunity to hunt in a non-motorized setting has value to a particular segment of the hunting population. These opportunities are limited on the Chequamegon landbase of the National Forest.

The Iron River may be navigable with a canoe or kayak in high water. However, the upper reaches of the river may be obstructed by beaver dams, and access to the lower reaches would require a cross-country portage of anywhere from ¼-mile to 1-1/2 miles. The lower reaches of the river are considered Class II and Class III trout waters, providing the only potential for sport fishing within the Roadless Area.

Special Features Evaluation

Relative to the Chequamegon-Nicolet National Forest and the surrounding region, there is one outstanding natural or cultural special feature within the Iron River Roadless Area, the 374-acre potential Ecological Reference Area called “Iron River Hardwoods”. This complex has ecologically significant natural features and potential as a Research Natural Area, Special Management Area or old growth. Though compact in size, the special feature of this 374-acre

area is the presence of several significant inclusions of old growth hemlock-hardwood forest type with super-canopy white pine and spruce embedded in a matrix of mature northern-mesic hardwood forest.

Manageability Evaluation

The size and shape of the Iron River Roadless Area make its' preservation practical. Approximately 84% of the roadless area boundary follows perimeter roads that are well defined in the transportation network, open to the public and consistently traveled by passenger vehicles. The boundary also includes a 1.0-mile section of the Soo Line Railroad, and approximately 1.5 miles along the boundary of the National Forest. There are at least 12 open, unimproved travelways (some not drivable, and others that are drivable only with a 4WD vehicle) that provide access to the interior of this roadless area, and another 4 open, improved travelways (this counts Forest Roads 349 and 349A as one travelway - they are separate roads, but they share the same approach on the perimeter road, FR 354); an average of 1.2 open access points per mile of perimeter road. There are three additional unimproved travelways that are blocked or otherwise closed to traffic, and 5 other access points that extend no more than 200' into the roadless area. There is limited evidence of user-developed ATV trails, with one of the closed roads (berm) showing evidence of ATV's breaching the berm to access the travelway. Whatever ATV traffic there is within this roadless area, it is not pervasive, and it stays on the travelways. Given the size of the area, there are relatively few access points, and relatively few interior travelways. For the most part, the emphasis for this area over the past decade has been on limiting management activities, and the overall appearance tends to reflect that. Designating the area as a Wilderness would require discontinuing all timber management activities within the area. No timber has been harvested or scheduled for harvest within this area since 1992, so this would essentially be a continuation of the de-facto policy of the past 9 years. The greatest change resulting from such a designation would be the effective closure of all access points to motorized vehicles.

There are several parcels of private land located within the Iron River Roadless Area. There is a grouping of small, inhabited parcels along the Fitch Darrow Road in the southeast corner of the roadless area. These parcels all abut the Township road and include at least five residences (three are year-round), all within a few hundred feet of the road. The only other known residences within the roadless area are on a 40-acre private parcel that abuts FR 184 on the northern boundary. One residence on this parcel is a seasonal cabin that sits within 100 feet of the Township road; the other is along an interior road. Of the remaining four parcels of private land, all but one, a 120-acre parcel abutting the intersection of FR 354 and FR 183 along the south-central boundary of the area, are located within the interior of the roadless area. One of these interior parcels currently has access via an improved Forest road, but none of them has a special use permit to obtain or provide access across National Forest land. The presence of these interior parcels of private land may have an effect on the manageability of the roadless area, particularly if any of the owners request or require access across National Forest land.

There are no outstanding mineral leases or claims within the Iron River Roadless Area. Approximately 64% of the National Forest lands within the Iron River area have reserved or outstanding mineral rights in other ownership. This area lies within the southern influence of the Penokee-Gogebic Range, with its extensive taconite deposits. These low-grade taconite reserves are not currently considered economical to extract, and, because of their orientation, they are unlikely to be economical in the future. There is high potential for metallic minerals in a mile

wide strip from Mellen west to Mineral Lake known as the Gogebic Intrusion, but this roadless area appears to be just south of the extent of this strip. Many former landowners have held onto their mineral rights within this roadless area, and a few large mining interests maintain their options within this general region. There has been no exploration by individuals with private rights for any kind of minerals in this area for at least the past 10 years. However, regardless of whether this area is designated as a Wilderness, the Forest Service would have to provide access for privately-owned minerals rights. The old gravel/borrow pit located on FR 183B is readily viewed from FR 183, and hunters often use this site as an RV camping spot that is easily accessed from the Township road. This use of the pit would have to be discontinued if the area is designated as a Wilderness, and the Forest Service might consider rehabilitation/reclamation of the pit to give it an appearance more consistent with the management of such a designated area. There are no utility corridors within the roadless area. The presence of the Soo Line Railroad as part of the roadless area boundary may have some impact on the manageability of the area as a Wilderness. The noise of passing trains effects the solitude of the area; and sparks from passing trains could present a greater fire risk in times of high fire danger, a consideration of some importance given the potential limitations on fire suppression within a Wilderness (i.e. no access, limitations on use of motorized equipment and ground disturbing activities, potential for “let it burn” policy, etc.).

Availability Evaluation

Approximately 80% of the National Forest land, or some 6,630 acres within the Iron River Roadless Area is classified as suitable for timber production. Between 1991 and 1992, approximately 119 acres of timber was harvested, but no timber has been harvested since 1992. Timber harvest and the associated production of wood products from this area would be precluded by Wilderness designation. This amounts to about 0.65% of the lands suitable for timber production on the Chequamegon-Nicolet.

The Iron River Roadless Area supports 15.5 miles of streams and rivers, including several small streams, as well as the Iron River itself. None of these streams is part of a municipal watershed, and there are no known water storage needs. The September 2000 Draft Watershed Analysis for the Chequamegon-Nicolet National Forest indicates that the Iron River Roadless Area falls within the boundaries of two 5th level watersheds – the Upper Bad (accounting for most of the area), and a small portion within the Marengo. Water quality should improve slightly from current levels should the area be designated as Wilderness. Most mitigation measures for ground-disturbing activities in non-Wilderness attempt to insure minimum adverse impacts on water quality. However, roads are generally required to support timber harvest; and mitigation measures used in stream or wetland crossings may be insufficient to withstand major weather events. In an area designated as Wilderness, ground-disturbing activities are held to a minimum, and roads, temporary or otherwise, would not be necessary to support management activities. This would eliminate the potential for erosion or sediment dumping as a result of a major weather event.

Note that segments of the Iron River are classified as Class II and Class III trout waters. It is possible that these segments of river may have some adverse water quality effects from a Wilderness designation, particularly if beaver are permitted to operate at will along the river. The current procedure of trapping beaver and destroying their dams along trout waters may not be possible or nearly as effective in a designated Wilderness Area. A high beaver concentration

on trout waters can result in elevated water temperatures, destruction of trout habitat, obstruction of migration to key trout spawning areas, and the build-up of sediment within trout spawning areas. The likelihood of a higher concentration of beaver increases as the ability to control them effectively diminishes.

Foot travel is certainly an available mode of transport in the Iron River Roadless Area. The only designated foot trail within the area is the McCarthy Lake Hunter/Walking Trail, and this trail lies on an unimproved road that is currently available for motorized administrative access. There is evidence that other travelways within the roadless area are utilized for off-road motorized vehicle access. Although this use is not pervasive, it would be prohibited by Wilderness designation.

There are no developed recreation sites within the Iron River Roadless Area, with the exception of the aforementioned McCarthy Lake Trail.

Hunting is a popular recreation activity on the Chequamegon-Nicolet, and this roadless area provides quality opportunities for hunting deer, bear and ruffed grouse. There are 16 open roads and trails providing access to the interior of this roadless area. Most of these travelways may be negotiated with 4WD vehicles (some with 2WD), and they enhance the ease with which hunters may traverse the area in search of their prey. The high percentage of upland acres in early successional habitat (2,792 acres, 34% of total acres, 50% of upland acres) provides quality forage for deer, bear and ruffed grouse; and there is a large quantity of lowland conifers (1,749 acres, 21% of total acres, 63% of all wetlands within the area) that could provide opportunities for quality winter bedding areas for deer. About 1% (119 acres) of the total acres have undergone a regeneration timber harvest since 1991, and there has been no timber harvest since 1992, so it is possible that some portion of the early-successional habitat is converting to longer-lived species. Designation of the area as Wilderness would preclude further regeneration harvest of timber, and likely result in further conversion of early-successional habitat. This, in turn, would gradually reduce the amount of preferred habitat for deer, bear and ruffed grouse, and may result in diminished use of this area for hunting these species. Wilderness designation would also restrict access to the area to foot or horseback, resulting in more time-consuming and difficult access, and a different hunting experience than is currently available. However, given the level of access and amount of early-successional habitat within the remainder of the National Forest and surrounding forest lands, the prospect of a more difficult hunt in a more mature forest setting may be a welcome alternative for certain segments of the hunting population.

There are an estimated 10.75 miles of “system roads” within the Iron River Roadless Area. These are travelways that have a road number, have generally been identified on Forest maps or USGS maps, and may be included in the Forest Transportation Inventory as “classified roads”. These roads may currently be improved or unimproved, open or closed, drivable or not drivable. They may appear on a map, but it is possible that they have long since fallen into disuse and may no longer exist as functional travelways on the ground. Within this area, 3.65 miles of the 10.75 miles of system roads are improved. The remaining mileage may be unimproved or nonexistent. Regardless of condition, most system roads are likely to be included in the total miles used to determine road density on the Chequamegon-Nicolet. As such, any designation of this area as a Wilderness would require that all travelways be closed to motorized vehicles, and that these travelways either be obliterated or converted to foot trails. This includes all improved and unimproved travelways, regardless of whether or not they are system roads. This would result in

a net loss of at least 10.75 miles, and probably more, from the total road miles on the Chequamegon-Nicolet.

There are no permanent, maintained forest openings within the Iron River Roadless Area.

Fishing is not likely to be affected one way or the other by a Wilderness designation. The only viable fishing within this roadless area is on the lower reaches of the Iron River. It is unlikely that motorized boats could safely access this watercourse, even in high water. There are no travelways that directly access the river (other than the river crossing on FR 183, along the west perimeter of the roadless area), although FR 184M does come within 1/2-mile of the river. Restrictions on motorized vehicle use within the area would make access to the river more difficult, but a shoreline angler would still have to hike to reach the river itself. The Bad River, which runs parallel to the Soo Line Railroad and outside the boundary of the roadless area, is a Class I trout stream. Access and use of the Bad River would be unaffected by designation of the Iron River Roadless Area as a Wilderness. A Wilderness designation will neither change the nature of the Iron River or any of the streams within this Roadless Area, nor make them more attractive to anglers. If anything, increased or unchecked beaver activity along these watercourses (all of which are already influenced by beavers) would further diminish any potential for a sport fishery.

The eastern timber wolf, a federally-listed Threatened and Endangered Species (TES) has been known to occur within and around the Iron River Roadless Area. The designation of the area as Wilderness is not likely to result in any immediate change in this circumstance, although fewer travelways may result in less human interaction and more suitable conditions for the timber wolf. Wilderness designation would likely result in a shift away from early-successional habitat, resulting in fewer opportunities for the wolf to prey on deer within the designated area; but this area would be sufficiently small enough that these opportunities would most likely be readily available beyond the boundaries.

There are no livestock operations within the Iron River Roadless Area, nor is there potential for such operations.

There has been no exploration for oil, natural gas or precious minerals within the Iron River Roadless Area over the past 10 years, although this does not preclude the possibility that these resources exist. There is one inactive gravel/borrow pit within the area. The lack of exploration in recent years does not preclude the possibility of mineral discovery and development in the future. The Penokee-Gogebic Range, which lies just to the north of the Iron River area, was mined early and often for iron ore in the first half of the last century (although the Iron River area itself does not appear to have mined). This ore played out early, and the low-grade taconite that remains is plentiful but not economical. The taconite ore lays on a vertical plane, and the veins are narrow enough that open pit mining, which is typical for the development of this kind of ore, would prove entirely too expensive for the limited quantity any one vein could produce. Further, the taconite is of such a low grade that it could not compete with other plentiful sources of high-grade iron ore currently available, and likely to remain available for many decades to come. There is a possibility that this area contains oil or natural gas reserves, but recent exploration for these minerals in northern Ashland County did not include the Iron River area. Whatever the future of mineral exploration and/or development in the Iron River Roadless Area, if this area is designated as a Wilderness, the Forest Service would be still be required, by the

1964 Wilderness Act, to provide reasonable ingress and egress to privately-owned mineral reserves on National Forest land, as well as private land within the area.

There are as many as three cultural resource sites recorded within the Iron River Roadless Area, and a moderate to high potential that other sites may also exist within the area. Designation of the area as Wilderness would have no foreseeable impact on these sites, or on any potential site. The absence of ground disturbing activities would enhance the protection of any sites within the area.

Fire protection and pest control techniques would be significantly altered by Wilderness designation, although neither has been a problem in this area over the past 10 years. The presence of the Soo Line Railroad along a portion of the boundary of this area has potential for an increased risk of wildfire. Sparks from passing trains could present a greater fire risk in times of high fire danger, a consideration of some importance given the potential limitations on fire suppression within a Wilderness (i.e. no access, limitations on use of motorized equipment and ground disturbing activities, potential for “let it burn” policy, etc.).

Regardless of designation, the Forest Service may be compelled to provide access to private parcels of land landlocked by National Forest within the interior of the Iron River Roadless Area. There are no existing special use permits, but there are 3 private parcels within the interior.

To protect roadless characteristics within this area, the Forest Service would benefit from working with Morse, Gordon and Marengo Townships to assure that the boundary roads are not designated as ATV or snowmobile routes; and, if they are already (as is the case with Forest Roads 183 and 184), searching for ways to reroute ATV and snowmobile traffic onto other roads or trails that do not have direct access to the Iron River Roadless Area.

4) HUNGRY RUN ROADLESS AREA (GREAT DIVIDE DISTRICT)

Solitude Evaluation

The Hungry Run Roadless Area is 7,578 acres in size, with 7,363 acres (97%) of National Forest land, and 95 acres (1%) of surface water. The private ownership within the Hungry Run Roadless Area is dispersed into two blocks. One of these blocks is an 80-acre interior unit near the southeast corner of the area with right-of-way access across National Forest land. This block has a special use permit for an improved access road that was apparently used to facilitate timber harvest activity on the property. There does not appear to be any structures on the property. The second block is a 26-acre unit in the far southeast corner of the area, adjacent to the EF Chippewa River and Forest Road 162. This block also has direct access via a gated, improved road from FR 162. This block also has a public boat access to the EF Chippewa River, directly adjacent to Forest Road 162. The same family owns both blocks of private land.

The boundary for the Hungry Run Roadless Area is not as clearly defined as most of the other roadless areas on the Chequamegon-Nicolet. There are some minor adjustments that effect the perimeter description, but do not impact the manageability of the area. This roadless area is bordered by County or Township roads on 3-1/2 sides, and approximately 2-1/2 miles of the East Fork of the Chippewa River for the remainder. Forest Road 164, a two-lane, gravel surface, Traffic Service Level B Township road is the northern boundary of this roadless area. Forest Road 162 is virtually the same standard as FR 164, and provides the east boundary of the Roadless Area. To the west, the boundary of this roadless area includes Forest Road 1240, listed in the Forest Transportation Inventory as a Traffic Service Level C road, and listed on the Wisconsin Gas Tax System as a Township road. However, the north/south segment of FR 1240 is overgrown, the template is no longer functional, the only culvert has collapsed, and approximately 0.5 mile of the road has been flooded by beaver. Nonetheless, this travelway is still under Township jurisdiction, and, as such, may not be included within the boundary of a roadless area. The remainder of the west boundary is a short section of County Highway GG. To the south, Forest Road 326 is a lane-and-a-half, gravel surface, Traffic Surface Level C Township road that essentially provides access to two homes on private land located on the south-central border of the roadless area. This private land abuts the EF of the Chippewa River, as well as a portion of Hungry Run. The landline for this private property provides a portion of the south boundary of the roadless area, extending from the terminus of FR 326 to where Hungry Run meets the EF of the Chippewa River. The remainder of the south boundary follows the EF of the Chippewa River through Bear Lake for 2-1/2 miles to the Forest Road 162 bridge crossing (also called the Nursery Bridge).

The core area of solitude is defined as a contiguous core of National Forest land that is separated by at least 1/2-mile from the influence of motorized traffic and land uses inconsistent with the semi-primitive non-motorized experience (a more detailed description of the process for determining core area of solitude can be found on pages 4-6 of this report). For the Hungry Run Roadless Area, this core is 2,610 acres, or about 35% of the total National Forest acres within the roadless area.

There are a total of 30 approaches providing access to National Forest land along the roaded perimeter of the Hungry Run Roadless Area, including 5 improved roads (see Appendix C). Two of the approaches provide access to the Dead Horse Run ATV and Motorcycle Trail, an

improved trail that is off-limits to full-sized 4WD and 2WD vehicles. The Hungry Run Roadless Area does not have a history of non-motorized management, so 23 of the 30 approaches, including 3 of the improved travelways, are open to motorized vehicles; 17 of these are drivable with a full-sized vehicle, but only 7 are longer than 200' in length.

The most significant improved road actually includes a portion of the improved trail. Forest Road 271 travels southwest from Forest Road 164 for a distance of 2.0 miles before it dead ends. This road coincides with the Dead Horse Run ATV and Motorcycle Trail from milepost 0.1 to milepost 0.5, and it includes a major culvert (4' diameter corrugated metal pipe in very good condition) where the road crosses Hay Creek. The old Transportation Inventory System database for the Chequamegon National Forest (last updated in 1990) listed the full length of FR 271 as "primitive", meaning that no improvements had been made to the existing travelway (which may have been an old logging road or railroad grade). However, for a distance of 0.9 mile (including the Dead Horse Run Trail segment), FR 271 is drivable and has evidence of fairly recent if generally unmaintained improvements, including some periodic ditches, cross-drainage culverts, and evidence of a template. At 0.9 mile, the road provides access to a recent aspen regeneration harvest, possibly 3-5 years old. Beyond this point, the road is drivable for about 0.5 mile, but it is clearly unimproved. A 1.3-mile segment of the Dead Horse Run Trail, including the 0.4-mile segment along FR 271, traverses the northeast corner of the Hungry Run Roadless Area. This is a year-round, improved motorized trail with spot gravel and the occasional culvert. The trail, also included on the State snowmobile trail network, has approaches to the Hungry Run Roadless Area from FR 164 and FR 162.

Other improved roads include the following:

- FR 326A (north end) - A 0.40-mile unnumbered road with gravel surfacing, culverts and road template. Constructed in 1993-94 as part of timber sale contract, the road reaches a dead end where a "partial-T turnaround" marks the terminus. The road is drivable for 0.15 mile where a downed tree obstructs further motorized access. Otherwise the road would be drivable to the turnaround.
- FR 164B - A 0.05-mile improved approach, most likely an old landing. Road is 20' wide with gravel surfacing, constructed as part of the same timber sale serviced by FR 326A.
- Special Use Permit (unnumbered road on FR 162) - A 0.40-mile unnumbered, gated road; average width 10', with hard gravel base (planted to clover). This road has a special use permit to provide access to an 80-acre private parcel. A "stop" sign at the entrance to the private property marks the terminus of the road on National Forest land. The road is drivable with a standard passenger vehicle (although surface is a little uneven).
- Unnumbered Travelway - Entrance blocked by downed trees. This travelway extends west for 0.20 mile from FR 162. Only the first 150', which are 8-10' wide with a gravel surface, are improved; but the entire length would be drivable.

There is an improved 200' road that provides access to a canoe landing that is adjacent to the "Nursery Bridge", the EF of the Chippewa River crossing on Forest Road 162 in the southeast corner of the roadless area. This landing is either on private ownership or within the Township right-of-way for Forest Road 162. Regardless, it is not on National Forest land. Just to the north of this canoe access is another improved road. This road has a 12' wide graded gravel surface and provides direct access to private property.

Of the remaining 23 unimproved approaches, 1 is open and drivable for some distance with a 2WD vehicle, 4 are open and drivable with 4WD, high clearance vehicles, 9 are open and drivable but less than 200' in length, 4 are open but not drivable with a full-sized vehicle, 1 is closed but would be drivable beyond the closure, and 4 are closed but not drivable beyond the closure. Virtually all of these roads are narrow, unsurfaced 2-track travelways, and most of them are open to the public for motorized use.

Included among the unimproved travelways are some other numbered routes that show up in the Forest Transportation System, but do not meet the standards for improved roads described on page 4 of this report. Forest Road 273 (on FR 164) has an obstructed entrance (downed trees), but is otherwise drivable. This road has no template, surfacing or ditches, and it is unimproved. However, approximately 100' further east on Forest Road 164, there is a user-developed ATV access that cuts a 4' wide path through the woods for about 0.1 mile, where it intersects FR 273. This user-developed ATV access is unimproved and squeezes between two trees, so it is clearly not wide enough to accommodate a full-sized vehicle. Forest Road 275 (on FR 164) is open and drivable, but it lacks any surfacing or template and is essentially a 2-track travelway. Forest Road 861 (on FR 164) is open and drivable to a dead end at the 0.1-mile mark. This road has a 16' wide clearing and is overgrown with grass, but it has no surfacing or template. Forest Road 164C (on FR 164) is essentially an old landing with no surfacing or template. It is approximately 150' long, open and overgrown with grass. Forest Road 162D (on FR 162) is overgrown and all but obliterated. The south end of FR 326A (on FR 326) is open, and has a wide entrance and pit run surfacing for about 20'; but beyond that it is an 8' wide 2-track with no surfacing or template. Beyond the 0.1-mile mark it is not drivable with a 2WD vehicle. The two spur roads, FR 326AA and FR 326AB, are also unimproved, although FR 326AA is open and drivable for a short distance.

The centerpiece of the Hungry Run Roadless Area is a large concentration of wetlands in a core area that is largely devoid of any travelways, even remnant travelways. Those who work in this area characterize the core area of the Hungry Run area as a place where a person can really get lost. The large majority of the wetlands are lowland conifers (almost 29% of the total roadless area). This vegetative type is characterized by dry hummocks and pine islands among the vast wet lowlands. This is not the most attractive terrain and vegetative type for the Wilderness visitor, but it does present a challenge of some risk to the adventurer who wants to test their outdoor skills. A person who wanders into the heart of the Hungry Run core area had better have some well-honed orienteering and even survival skills. Rescue in this area could prove very difficult; and to get lost here could mean hypothermia or frostbite in the winter, and severe bug bites in the summer. In terms of size and scale, Hungry Run is right on the border of the semi-primitive non-motorized experience; but in terms of challenge and risk, Hungry Run may be the best of the newly inventoried roadless areas.

None of the perimeter roads have a profound influence on the core area of solitude in the Hungry Run Roadless Area. Highway GG is a paved, two-lane, 55 mph road with intermittent traffic. This is not a heavily traveled road, even in the summer time. It was recently reconstructed, and vehicle may travel at higher speeds than in the past, but this does not change the nature of the use. The occasional tractor-trailer or logging truck will travel this route; and, especially at night, the sound generated by one of these vehicles can travel quite a distance. But these vehicles are more likely to travel this route during the day. Further, the core of the Hungry Run area begins nearly 1.5 miles east of Highway GG, and the center of the core is nearly 3 miles east of Highway GG, so the influence of this road on the core experience is negligible. Forest Roads

164 and 162 are traveled infrequently, and even less at night (when sound travels further). FR 1240 is not drivable; and FR 326 is likely to see one to two vehicles per day, and probably none in the winter. Motorboat traffic on Bear Lake may have some sound influence on the core area. The sound of a fishing boat with a relatively small motor can travel for some distance on a clear night. Despite all of the possible influences on the tranquility of the Hungry Run core area, this is still one of the more isolated of the newly inventoried roadless areas on the Chequamegon-Nicolet.

Degree of Disturbance Evaluation

The Hungry Run Roadless Area is natural in appearance, although there are signs of recent disturbance. A total of 327 acres has undergone a regeneration harvest during the past 10 years, including one sale that is still ongoing. Approximately 1.2 acres within the roadless area are maintained as permanent wildlife openings, and some of this acreage may have been seeded with non-native grasses. The 1.3-mile segment of the Dead Horse Run ATV and Motorcycle Trail and the Chippewa River canoe access on private land are the only developed recreation facilities within the boundaries of the roadless area. There are no trail bridges within the area. There are most likely buried cable and/or power lines within the right-of-way of County Highway GG; but these utilities are not present on any of the other perimeter roads. There is a special use permit providing access to a private 80-acre parcel from Forest Road 162 on the east perimeter of the roadless area. There are no residences within view of the perimeter roads, although a visitor standing on the north bank of the EF Chippewa River or anywhere on the shoreline of Bear Lake would see residences on the opposite bank. There are no mineral deposits under development, no mineral leases and no mineral permits within this roadless area.

The Hungry Run Roadless Area has 2.68 miles of improved travelways (roads and trails) within the perimeter of the area, a density of 0.36 mile per 1,000 National Forest acres. Along the approximately 14.10 miles of perimeter roads, this roadless area has 32 access points to private and public lands. Two of these approaches are on private land (including the Chippewa River canoe access), and another 12 are less than 200' in length. That leaves slightly less than 1.3 access points to interior National Forest land per mile of perimeter road, and all but 5 of these access points are open to the public for motorized use (although 4 of them are not drivable). Even with the presence of the Dead Horse Run ATV and Motorcycle Trail, the Hungry Run Roadless Area has fewer approaches per mile of perimeter road than most of the other newly inventoried roadless areas on the Chequamegon-Nicolet. The area has a relatively low density of travelways and most of the improved roads are low in standard or in poor condition. Since many of these travelways have revegetated with grasses, wildflowers and brush or young trees, the presence of these access points does not give the impression of an overly developed or manipulated landscape. For the most part, the Hungry Run Roadless Area has the appearance of a lightly disturbed landscape in which forest management activities take place on an intermittent basis.

Biological Evaluation

Wetlands account for nearly half of the Hungry Run Roadless Area (3,507 acres, or 48%). This includes 2,317 acres of lowland conifers and hardwoods, and another 1,190 acres of open lowlands or lowland brush. Upland conifers account for 1,407 acres or 19% of the total vegetative composition of the

roadless area. Over half of this (775 acres) is balsam fir, an early-successional conifer; but, regardless, this is the largest concentration of upland conifers among all of the newly inventoried roadless areas. This roadless area also has the lowest concentration of aspen/birch, with 975 acres (13% of the total vegetative composition); and a large part of this acreage occurs in one patch along the east edge of the roadless area. Northern hardwoods account for most of the remaining composition with 1,344 acres (18% of the total); and they tend to occur in large, unroaded patches. There are 120 acres of upland openings in this roadless area, but only 1.2 acres are maintained as wildlife openings.

The Hungry Run Roadless Area includes a quite large Landscape Analysis and Design complex, the 2,331-acre “Bear Lake Slough”. This complex is a potential Ecological Reference Area, with a small portion of the complex (approximately 5%) a candidate for Research Natural Area designation, and the remainder (approximately 95%) a candidate Special Management Area. Bear Lake, a widespread drainage lake on the East Fork of the Chippewa River, forms the southern boundary of this complex. Wetland and aquatic features associated with this shallow water lake are significant. Bear Lake Slough, an old river channel, still flows during periods of high water. A large island between the slough and the lake’s northern shore is forested with a second-growth stand of red and white pine on outwash and alluvial deposits. Large beds of wild rice are present at both the inlet and outlet to the lake. Waterfowl use is heavy during spring and fall migrations. Notable species utilizing this complex include nesting bald eagles, common loons, black ducks, and river otter. This complex contains a large tract of mature, mesic hardwood forest with significant old growth hemlock inclusions in a remote setting. Wet-mesic, hemlock-cedar forest types are common, and inclusions of upland hemlock-hardwood forest types are also present in this roadless area. Super-canopy white pines occur in both types. A large black spruce-tamarack bog with hemlock and pine islands forms the interior of this Roadless Area, and is reported to support a small spruce grouse population. Spruce grouse, *Falci pennis Canadensis*, is a Regional Forester’s Sensitive Species and listed as Threatened by the State of Wisconsin.

This roadless area also includes a 363-acre portion of the “Hungry Run Pines and Cedars” Landscape Analysis and Design complex (the entire complex is 494 acres, with the remaining stands located just north of the roadless area). This complex is a potential Ecological Reference Area notable for its natural features and potential as old growth. The complex includes a significant hemlock/yellow birch inclusion in an otherwise nondescript stand of maple poles and small sawtimber, and a stand of super-canopy white pine within upland northern mesic hardwoods.

There are 12.1 miles of perennial streams and rivers within the Hungry Run Roadless Area, including several small warm water creeks and the East Fork of the Chippewa River. Using the draft Aquatic Ecological Classification System for “valley segments” within the Chequamegon-Nicolet National Forest, both Hungry Run and Hay Creek are typed as NMW. Both creeks fully traverse the Roadless Area from FR 164 in the north to EF of the Chippewa River in the south. NMW segments are narrow (less than 20’ wide), moderate alkalinity (greater than 20ppm), warm water (greater than 26 degrees Celsius) streams. Five to nine fish species may occur in NMW segments, and these are dominated by northern redbelly dace, creek chub, central mudminnow, and blacknose dace. It is highly unlikely that mussels occur in NMW segments. Both Hungry Run and Hay Creek are heavily influenced by beaver activity. There are no known Threatened and Endangered aquatic species in either of these creeks.

The EF of the Chippewa River is typed as WMW. WMW segments are wide (greater than 50 feet), moderate alkalinity (greater than 20ppm), warm water (temperatures greater than 26 degrees Celsius) streams. Typically, these segments support a rich fishery, with as many as 27 species, including various species of redhorse, darters, dace, shiners, walleye, smallmouth bass, muskellunge, and northern pike. The dominant species may be northern hogsucker, logperch,

white sucker, and longnose dace. As many as 3 to 9 mussel species can be found in moderate to high densities. This particular section of the EF of the Chippewa River supports an excellent recreational fishery of smallmouth bass, walleye, and musky; and it is considered one of the finest smallmouth bass rivers in northern Wisconsin. Lake Sturgeon, *Acipenser fulvescens*, a Regional Forester's Sensitive Species, is found in both the river and Bear Lake. Another Regional Forester's Sensitive Species, the greater redhorse, *Moxostoma valenciennesi*, has been documented a few miles downstream and there is a good chance they could occur within the area. Bear Lake, a 204-acre drainage lake on the EF of the Chippewa River, supports a fishery very similar to what is found in the river. Bear Lake receives heavy recreational fishing pressure for walleye, musky and smallmouth bass. The south shoreline of Bear Lake is private property that has been divided into several developed parcels.

The Hungry Run Roadless Area falls within the Brunet River wolf pack territory. There is also an active bald eagle territory on Bear Lake. Both the eastern timber wolf, *Canis lupus*, and the bald eagle, *Haliaeetus leucocephalus*, are federally-listed Threatened and Endangered Species (TES). The American pine marten, *Martes americana*, may also occur within this roadless area. This species is listed as Endangered by the State of Wisconsin, and is also a Draft Forest Sensitive Species.

Biotic Species Requiring Primitive Surroundings

The 2,331-acre Bear Lake Slough Landscape Analysis and Design complex has been identified as a potential Ecological Reference Area, with portions having potential for designation as a Research Natural Area and Special Management Area. The 363-acre portion of the "Hungry Run Pines and Cedars" Landscape Analysis and Design complex is also a potential Ecological Reference Area notable for its natural features and potential as old growth. The ecological values inherent to these complexes would directly benefit from designation of the encompassing Hungry Run Roadless Area as Wilderness. This designation would protect these potential ERAs from ground disturbing activities and other modifications to the landscape.

This area in and of itself is not large enough to provide wildlife species with primitive surroundings. It contributes to the overall forest mosaic; but, in this context, it is similar to the general forest environment. There are no wildlife species within the Chequamegon-Nicolet that are dependent upon Wilderness.

Ecological Evaluation

As suggested in the Forest Service Handbook, FSH 7.23b, the "analysis of the degree to which (a roadless area) contributes to the local and national distribution of wilderness" should use Edwin A. Hammond's subdivision of landform types and the Bailey-Kuchler ecosystems classification. With regard to the Upper Great Lakes Region, almost all of this area is classified as Laurentian Mixed Forest Province (Province 212).

In his 1999 publication Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends, H. Kenneth Cordell notes that this particular ecoregion encompasses some 94.4 million acres, or 4.9% of the lower 48 states. Currently, 1,226,870 acres of this ecoregion are Congressionally-designated Wilderness on federal lands, representing 2.8%

of all federal Wilderness in the lower 48 states. As a result, 1.3% of the ecoregion is represented as Wilderness. One further note: The Boundary Waters Canoe Area Wilderness accounts for 1,086,954 acres, or 86% of the total Wilderness acreage in the Laurentian Mixed Forest Province; and virtually all of this acreage is in one subsection (212La, Border Lakes).

The first national ecological unit map based on a national hierarchical framework of ecological units featuring Edwin A. Hammond's subdivision of landform types and the Bailey-Kuchler ecosystems classification was published in 1994. In 2000, the Forest Service Eco-Map team requested recommendations from field personnel for updating the national ecological unit map, with particular focus on the Section level of the classification hierarchy. In response to this request, the State of Wisconsin assembled an interagency Landtype Association (LTA) technical team to re-evaluate Section boundaries and assess the need for refinement, based on information accumulated during the development of the initial Wisconsin LTA map. This team submitted Section boundary changes for Wisconsin to the national Eco-Map team; and, in February 2001, the official Wisconsin LTA Map reflected these changes. A soon-to-be-published new Section map of the United States will incorporate these changes, as well.

The sum of the changes incorporated into the new national ecological unit map is that several large Sections covering portions of Wisconsin and the Upper Peninsula of Michigan have been subdivided into new Sections; and, in some cases, new Subsections. With regard to the Chequamegon-Nicolet National Forest lands, 4 new Section and 3 new Subsection mapping units have been created. As a result, portions of the Chequamegon-Nicolet NF now lie within 6 different Sections (where before there were only 2 Sections, defined on a much broader scale); 14 Subsections (where before there were only 11 Subsections; and 27 LTA's (the same number as previously).

The Land Type Associations (LTA's) have remained the same in number, and in common name; but they have been relabeled to accurately reflect the Section and subsection to which they now belong. For example, LTA polygon 212Jb01 will remain as 212Jb01; but former LTA polygon 212Jc04 is now 212Xa03, reflecting its position within Province 212, Section "X", Subsection "a".

Using the revised classification, the Hungry Run Roadless Area falls within the following ecological units:

Section: 212X – Northern Highlands
 Subsection: 212Xa – Glidden Loamy Drift Plain
 Land Type Association (LTA): 212Xa01 – Glidden Drumlins

Section 212X is currently represented by the following Congressionally-designated Wilderness Areas: Porcupine Lake (66%), Blackjack Springs, Whisker Lake and Headwaters Wilderness Areas (Chequamegon-Nicolet NF)

Subsection 212Xa is currently represented by 66% of the Porcupine Wilderness Area in LTA 212Xa03.

Scientific/Educational Evaluation

The Hungry Run Roadless Area contains the 2,331-acre “Bear Lake Slough” potential Ecological Reference Area, and a 363-acre portion of the “Hungry Run Pines and Cedars” potential Ecological Reference Area. The presence of a variety of ecological features, including mature hardwoods, hemlock-cedar and hemlock-yellow birch forest types, super-canopy white pine, wild rice beds, and the intermittently flooded slough, provide unique educational and research possibilities.

Cultural Evaluation

A portion of the Hungry Run Roadless Area has been previously surveyed, though the majority remains unexamined (reference CRRR Numbers 09-02-02-152; 174; and 194). As many as five cultural resource sites are located within this area. They include a National Recovery Act Camp, Hungry Run (CRIF No. 09-02-02-075); and four historic sites that are either house places or logging camps (CRIF No. 09-02-02-036, 144, 148 and 174). The margins of surface water and wetland features within this roadless area offer moderate to high potential for prehistoric and historic human habitation and utilization.

Challenge Evaluation

The chance of experiencing a life-threatening situation within the Hungry Run Roadless Area would be due more to an unfortunate incident than any challenge presented by the area itself. A person experiencing a debilitating injury while alone in the heart of the roadless area could certainly find him or herself in a life-threatening situation. Weather can also play a critical role in determining the level of challenge, as hypothermia, sudden snowstorms, or diving temperatures could catch a visitor unawares. These are hazards encountered anywhere on the Forest; but being on foot in a roadless area may amplify the risk to a slightly higher level.

Although there is a relatively low density of travelways within the entire roadless area, the preponderance of wetlands within the area (48% of National Forest acreage) would indicate that the density of travelways within the upland acres is much higher than that for the entire area. Most of these travelways are unimproved, and virtually all provide some form of access to the perimeter roads and trails. Both Hungry Run and Hay Creek bisect the roadless area from north to south. The presence of these creeks and extensive wetlands makes cross-country travel difficult in all but frozen conditions (although there is risk of falling through thin ice during potentially dangerous cold-weather conditions when a mile or more from the nearest open, public road), and challenging in all circumstances. The creeks themselves are generally not more than 20 feet wide in any one place (except in places where beaver have dammed the creek), but riparian areas of varying size bound them on both sides. A person would not be able to jump or step across these creeks.

Since the creeks and wetlands make cross-country travel difficult, a casual visitor to the roadless area would have limited options for leaving the established travelways. Further, with the Chippewa River bordering to the south, the less-adventurous visitor would likely leave the area via the same route they entered. There can be some change in personal risk as one moves deeper into the core area on the uplands. A visitor can travel as much as 3.0 miles into the roadless area on uplands routes; and, although never more than 1.5 miles from the nearest perimeter road, the

natural obstacles of creeks and wetlands would prevent them from traversing the shorter distance to the nearest perimeter road (unless they were prepared for such travel and equal to the challenge). In one sense, the limited options for upland travel can diminish the challenge for the casual visitor; yet the natural obstacles can present significant challenge to the more adventurous cross-country traveler. The latter could easily find themselves, if not isolated in a remote setting, at least in situations where their wits and their knowledge of outdoor skills would be necessary to guide them through the obstacles.

Primitive and Un-confined Recreation Evaluation

Hunting, fishing and boating are probably the dominant recreation activities in the Hungry Run Roadless Area. These are common activities throughout the Chequamegon-Nicolet National Forest, and the region in general. The amount of early-successional hardwoods is much lower in this area than the Chequamegon-Nicolet average (20%), and is the lowest of all of the newly inventoried roadless areas. There is still a sufficient composition of early-successional habitat to provide good opportunities to hunt white-tailed deer, black bear and ruffed grouse (during a Fall 2000 road condition inventory, several bear hunters were noted operating within the northern half of the roadless area), but it is not as extensive as the overall composition of the National Forest. The opportunity to hunt in a non-motorized setting has value to a segment of the hunting population, and these opportunities are limited on the Chequamegon landbase of the National Forest.

Fishing and boating are essentially limited to the EF of the Chippewa River and Bear Lake, both excellent smallmouth bass fisheries. However, as a boundary to the roadless area, neither of these bodies of water have restrictions on motorized use. While a person could canoe, kayak or float the river, or otherwise paddle on the lake, there is no guarantee he or she would not encounter motorized boats (and every likelihood of encountering them on the lake). There are opportunities for shoreline fishing, but this experience also could be influenced by motorized activity on the water. Development on the south shoreline would be another influencing factor. Those fishing and boating opportunities that are available on the EF of the Chippewa River and Bear Lake are neither primitive nor un-confined; and there are no such other viable opportunities for these activities within the roadless area.

Off-road motorized recreation is another activity found within this roadless area. A 1.3-mile segment of the Dead Horse Run ATV and Motorcycle Trail provides a managed facility for this activity, and at least two user-developed ATV trails (FR 273 and FR 1240) indicate a desire on the part of some public users to utilize at least a portion of the area for off-road motorized vehicle access. This activity is clearly in conflict with the restrictions inherent to a designated Wilderness; and any consideration of this roadless area as Wilderness would necessarily have to preclude or relocate this use in the future, or require a modification of the roadless area boundary to exclude the trail.

Special Features Evaluation

There are five special features within the Hungry Run Roadless Area: The EF of the Chippewa River, Bear Lake, the Bear Lake Slough potential Ecological Reference Area, the Hungry Run

Pines and Cedars potential Ecological Reference Area, and the Dead Horse Run ATV and Motorcycle Trail.

The East Fork of the Chippewa River is listed as an eligible Wild and Scenic River. The 11-mile river segment that extends north of Bear Lake to the Forest boundary is relatively undeveloped, with 90% of the shoreline in National Forest ownership, while the 20-mile river segment that extends south of Bear Lake to the Chippewa Flowage has very few stretches that are without residences or seasonal cabins. Management of the 2-1/2 mile shoreline on the north side of the EF of the Chippewa River within the Hungry Run Roadless Area for roadless characteristics or as a designated Wilderness would be consistent with management of a Wild and Scenic River. This river supports an excellent recreational fishery, and is considered one of the premiere smallmouth bass fisheries in northern Wisconsin. The river may also support three fish species listed as Regional Forester Sensitive Species.

While the Hungry Run Roadless Area borders only a portion of Bear Lake, it is the only undeveloped shoreline on this 204-acre lake. Bear Lake is actually a drainage of the EF of the Chippewa River, and it supports a similar fishery.

The Bear Lake Slough potential Ecological Reference Area includes a candidate Research Natural Area, and candidate Special Management Area. This is a relatively large area that includes extensive hardwood forest with old growth hemlock components, flood plains, wild rice beds, and alluvial islands with red and white pine. This area supports bald eagle, common loon, spruce grouse, and sizeable waterfowl migration.

The Hungry Run Pines and Cedars potential Ecological Reference Area is notable for its natural features and potential as old growth. The complex includes a significant hemlock/yellow birch inclusion, and a stand of super-canopy white pine within upland northern mesic hardwoods.

The Dead Horse Run ATV and Motorcycle Trail is notable because it is inconsistent with the roadless characteristics of the Hungry Run Roadless Area. Any discussion regarding potential designation of this area as Wilderness, or some other form of roadless management, would probably have to include relocation of this trail, or modification of the roadless area boundary to exclude the trail.

Manageability Evaluation

Although the boundary of the Hungry Run Roadless Area is not as clearly defined as most of the other roadless areas on the Chequamegon-Nicolet, its size and shape make its preservation practical. Approximately three-quarters (10.3 miles) of the boundary follows perimeter roads that are well defined in the transportation network, open to the public and consistently traveled by passenger vehicles. The 2.1 miles of FR 362 are not included in this category, although this road is open to the public and easily traveled with a passenger vehicle. This road essentially provides access to two parcels of private land, and is not nearly as regularly traveled as the other boundary roads. Certainly the estimated 1.7 miles of FR 1240 are not included in this category, since most of it is not drivable. The remainder of the boundary includes a 1.25-mile segment of property line, and 3 miles of stream, river or lake shoreline. There are at least 9 open, unimproved travelways over 200' in length that provide access to the interior of this roadless area (although only 5 of them are drivable with a full-sized vehicle), and another 4 open,

improved travelways over 200' in length (including the two entrances to the Dead Horse Run Trail), an average of just less than 1.0 open access points per mile of perimeter road. There are two more improved travelways and three more unimproved travelways over 200' in length that are blocked or otherwise closed to traffic. At least three of these

access points were developed for or by ATV's, and at least one other shows evidence of ATV or off-road vehicle travel, but this does not appear to be an overriding recreational use for this area. For the most part, the primary emphasis for this area has been multiple-use resource management. Designating the area as a Wilderness would require effective closure to motorized vehicles of all access points, and a discontinuation of all timber management activities within the area.

The private land within the boundary of the Hungry Run Roadless Area is located in two parcels in the southeast corner of the area. The same family owns these two parcels, and one of the parcels has a structure on it (either a residence or seasonal cabin).

There are no outstanding mineral leases or claims within the roadless area. Approximately 46% of the National Forest lands within the Hungry Run area have reserved or outstanding mineral rights in other ownership. Most of these rights are in the hands of former landowners, and there has been no exploration by individuals with private rights for any kind of minerals in this area for at least the past 10 years. There are no utility corridors within the Roadless Areas. If the cabins on the north shoreline of the EF of the Chippewa River or Bear Lake have power, it is provided either by generator or a power line from the south. There is one special use permit for access to the private 80-acre parcel near the southeast corner of the roadless area.

Availability Evaluation

Approximately 77% of the National Forest land, or some 5,645 acres within the Hungry Run Roadless Area is classified as suitable for timber production. In the last 10 years approximately 327 acres of timber have undergone an even-aged harvest. Timber harvest and the associated production of wood products from this area would be precluded by Wilderness designation. This amounts to about 0.55% of the lands suitable for timber production on the Chequamegon-Nicolet.

The Hungry Run Roadless Area supports 12.1 miles of perennial streams and rivers, including several small streams, as well as the East Fork of the Chippewa River. None of these streams is part of a municipal watershed, and there are no known water storage needs. The September 2000 Draft Watershed Analysis for the Chequamegon-Nicolet National Forest indicates that the Hungry Run Roadless Area falls within the boundaries of one 5th level watershed – the EF Chippewa. Water quality should improve slightly from current levels should the area be designated as Wilderness. Most mitigation measures for ground-disturbing activities in non-Wilderness attempt to insure minimum adverse impacts on water quality. However, roads are generally required to support timber harvest; and mitigation measures used in stream or wetland crossings may be insufficient to withstand major weather events. In an area designated as Wilderness, ground-disturbing activities are held to a minimum, and roads, temporary or otherwise, would not be necessary to support management activities. This would eliminate the potential for erosion or sediment dumping as a result of a major weather event.

Foot travel is certainly an available mode of transport in the Hungry Run Roadless Area; but the only established recreation trail in the roadless area is the Dead Horse Run ATV and Motorcycle Trail. This trail supports year-round motorized recreation traffic, a use that would have to be curtailed or relocated if the area were designated as a Wilderness. There is evidence that other travelways within the roadless area are utilized for off-road motorized vehicle access. This would also be prohibited by Wilderness designation.

The only developed recreation site within the Hungry Run Roadless Area, with the exception of the aforementioned Dead Horse Trail, is a canoe/boat access to the East Fork of the Chippewa River adjacent to FR 162 and the Nursery Bridge. This access is on private property and within the right-of-way of Forest Road 162 (a Township-jurisdiction gas-tax road), and would not likely be affected by any Wilderness designation. The East Fork of the Chippewa River is eligible for designation as a National Wild and Scenic Riverway. Should this stretch of river receive such a designation there may be some recreational development associated with it; however, such development would most likely be consistent with adjacent land management objectives. A Wilderness designation for the Hungry Run Roadless Area would likely preclude any shoreline development on National Forest land adjacent to the river, regardless of any federal or state designation of the river. It is unlikely that a federal or state designation would preclude motorized boats from using the river or Bear Lake.

Hunting is a popular recreation activity on the Chequamegon-Nicolet, and this roadless area provides quality opportunities for hunting deer, bear and ruffed grouse. There are 13 open roads and trails providing access to the interior of this roadless area. At least 7 of these travelways may be negotiated with 4WD vehicles (some with 2WD), and they enhance the ease with which hunters may traverse the area in search of their prey. The percentage of upland acres in early successional habitat (1,750 acres of aspen/paper birch/balsam fir, 24% of total acres, 45% of upland acres) is about the average for the National Forest in general; and these acres provide quality forage for deer, bear and ruffed grouse. The high overall percentage of lowland conifers (2,151 acres, 29% of total acres) provides good opportunities for quality winter bedding areas for deer. Less than 4% (327 acres) of the total acres have undergone a regeneration timber harvest over the past 10 years, so it is possible that some portion of the early-successional habitat is converting to longer-lived species. Designation of the area as Wilderness would preclude further regeneration harvest of timber. This could result in further conversion of early-successional habitat, and possibly reduce the amount of preferred habitat for deer, bear and ruffed grouse, as well as diminish the use of this area for hunting these species. Wilderness designation would also restrict access to the area to foot or horseback, resulting in more time-consuming and difficult access, and a different hunting experience than is currently available. However, given the level of access and amount of early-successional habitat within the remainder of the National Forest and surrounding forest lands, the prospect of a more difficult hunt in a more mature forest setting may be a welcome alternative for certain segments of the hunting population.

There are an estimated 6.50 miles of “system roads” within the Hungry Run Roadless Area. These are travelways that have a road number, have generally been identified on Forest maps or USGS maps, and may be included in the Forest Transportation Inventory as “classified roads”. These roads may currently be improved or unimproved, open or closed, drivable or not drivable. They may appear on a map, but it is possible that they have long since fallen into disuse and may no longer exist as functional travelways on the ground. Within this area, 1.35 miles of the 6.50 miles of system roads are improved. The remaining mileage may be unimproved or nonexistent.

Regardless of condition, most system roads are likely to be included in the total miles used to determine road density on the Chequamegon-Nicolet. As such, any designation of this area as a Wilderness would require that all travelways be closed to motorized vehicles, and that these travelways either be obliterated or converted to foot trails. This includes all improved and unimproved travelways, regardless of whether or not they are system roads. This would result in a net loss of at least 6.50 miles, and probably more, from the total road miles on the Chequamegon-Nicolet.

There are approximately 1.2 acres of permanent forest openings within the roadless area that are maintained for certain wildlife species.

Fishing is not likely to be affected one way or the other by a Wilderness designation. The best areas for fishing are the watercourses forming the south boundary of the Roadless Area, Bear Lake and the East Fork of the Chippewa River. The possible effects of Wilderness designation on these watercourses are discussed above. The other streams within the roadless area, Hungry Run and Hay Creek, are not sport fisheries due to their aquatic characteristics. A Wilderness designation will neither change the nature of these streams, nor make them more attractive to anglers. If anything, increased or unchecked beaver activity along these watercourses (both of which are already influenced by beavers) would further diminish any potential for a sport fishery.

The eastern timber wolf, a federally-listed Threatened and Endangered Species (TES) has been known to occur within and around the Hungry Run Roadless Area. Wilderness designation is not likely to result in any immediate change in this circumstance, although fewer travelways may result in less human interaction and more suitable conditions for the timber wolf. Designation would likely result in a shift away from early-successional habitat, resulting in fewer opportunities for wolf to prey on deer within the Wilderness; but this area would be sufficiently small enough that these opportunities would most likely be available beyond the boundaries. A Wilderness designation would likely have no effect on the amount of lowland conifers. Since this vegetative type is very attractive to deer for winter browse and bedding, they will still move through the area.

There are no livestock operations within the Hungry Run Roadless Area, nor is there potential for such operations.

There has been no exploration for oil, natural gas or precious minerals within the Hungry Run Roadless Area over the past 10 years, although this does not preclude the possibility that these resources exist. Shovel tests were performed in 1995 on the knob adjacent to the intersection of FR 1240 and FR 362, but no gravel deposits were found.

There are as many as five cultural resource sites recorded within the Hungry Run Roadless Area, with a moderate to high potential that other sites may also exist within the area. Designation of the area as Wilderness would have no foreseeable impact on these sites, or on any potential site. The absence of ground disturbing activities would enhance the protection of any sites within the area.

Fire protection and pest control techniques would be significantly altered by Wilderness designation, although neither has been a problem in this area over the past 10 years.

Regardless of designation, the Forest Service would continue to provide access to the private 80-acre parcel near the southeast corner of the roadless area. The Forest Service currently provides a special use permit to access this property via a 0.4-mile section of improved Forest Road. The private parcel adjacent to the EF of the Chippewa River has access directly from FR 262, and would not be impacted by designation of this area as Wilderness. The parcels of private land that receive access from FR 362 are outside the boundaries of the roadless area, and would not be impacted by any designation of the area. To protect roadless characteristics within this area, the Forest Service would benefit from working with Chippewa Township to assure that the boundary roads are not designated as ATV or snowmobile routes. (None of the Township roads around the Hungry Run area are currently designated as ATV routes.) Such an effort would coincide with rerouting the section of Dead Horse Trail that falls within the roadless area.

5) SPRING BROOK ROADLESS AREA (GREAT DIVIDE DISTRICT)

Solitude Evaluation

The Spring Brook Roadless Area is 7,859 acres in size, with 7,775 acres (99%) of National Forest land, and a negligible acreage of surface water. The private ownership within the Spring Brook Roadless Area is a single 84-acre parcel. This parcel has no improvements and no special use access. There does not appear to be a travelway providing direct access to this parcel.

The east boundary for the Spring Brook Roadless Area is the National Forest boundary. The remainder of the Spring Brook Area boundary alternates between Township Roads and short sections of the Dead Horse Run Motorized Trail. The boundary also includes a short stretch along a section line. The north boundary of this Roadless Area begins at the National Forest boundary and follows Forest Road 164 (Bear Lake Road) for 0.45 mile to the intersection with Forest Road 163 (a continuation of Bear Lake Road). The boundary then follows FR 163 southwest for 4.95 miles until it intersects the Dead Horse Run Motorized Trail. Both FR 163 and FR 164 are two-lane, gravel surface, Traffic Service Level B Township roads. The boundary follows Dead Horse Trail south for 0.43 mile before intersecting Forest Road 162. The boundary then follows FR 162 south before intersecting the Dead Horse Trail once again. The boundary follows the Dead Horse Trail east for 0.82 mile before intersecting Forest Road 161. Both FR 162 and FR 161 are two-lane, gravel surface, Traffic Service Level B Township roads. The south boundary continues east along FR 161 for approximately 2.2 miles before intersecting the west section line for Section 12. The boundary then follows this section line north and then east until intersecting the National Forest boundary (the east boundary for the Spring Brook Area).

Along the National Forest Boundary forming the east perimeter for the Spring Brook Roadless Area there are two private parcels with structures and/or development. For the most part, the area directly east of Spring Brook is commercial forest crop land or county forest land.

The core area of solitude is defined as a contiguous core of National Forest land that is separated by at least ½-mile from the influence of motorized traffic and land uses inconsistent with the semi-primitive non-motorized experience (a more detailed description of the process for determining core area of solitude can be found on pages 4-6 of this report). For the Spring Brook Roadless Area, this core is 3,849 acres, or about 50% of the total National Forest acres within the Roadless Area.

There are a total of 23 approaches providing access to National Forest land along the roaded perimeter of the Spring Brook Roadless Area, including 7 improved roads (see Appendix C). The Spring Brook Area is currently managed as a Semi-Primitive Non-Motorized Area, so the majority of the approaches are closed to motorized vehicles.

Since the Dead Horse Run Motorized Trail forms nearly 1.25 miles of the boundary for the Spring Brook Roadless Area, the five approaches to this trail from Forest Roads 161 and 162 are either part of the boundary or outside the boundary, and not included in the total number of approaches to the interior of the area.

Two of the roads listed as improved are actually temporary roads providing access from Forest Road 163 to active timber sales in the northwest portion of the Spring Brook Roadless Area.

One of these roads is open; the other is closed to traffic with a wire gate. The two roads have a constructed pit run base and collectively account for 0.78 mile of improved travelway. There are actually three active timber sales within the Spring Brook Area; all involve selection harvest, commercial thinning or overstory removal. None are even-aged regeneration harvests.

The primary improved roads within this area include the full length of Forest Road 312, portions of Forest Roads 318 and 163H, and one unnumbered approach. Forest Road 312 has a gate closure and has recently been utilized as access for one of the active timber sales (Camp Fifteen Timber Sale, a hardwoods thinning). This road is a single-lane, gravel surface travelway in good condition, easily drivable with a passenger vehicle for its entire length of 1.63 miles. The improved travelway ends at a loop turnaround, although there may be an unimproved 2-track that continues south, although this route has overgrown to the point that it is difficult to tell if it is a travelway at all. There is one recently constructed spur along the main travelway that accounts for another 0.12 mile of improved road. This spur was constructed as a temporary access for the timber sale.

Forest Road 318 actually appears on many maps as a through route from FR 163, the north boundary of Spring Brook Area, to FR 161, the south boundary. FR 318 appears to be an old railroad grade, and it is, in fact, improved for some short distance on both ends, but it disappears into the brush and wetlands of the Spring Brook Area for the long distance in between. From FR 163, the entrance to FR 318 is gated. The travelway is overgrown with grass, but the template and pit run base is evident for 0.19 mile. At this point, the travelway disappears into a large beaver-impounded wetland. This is most likely where Camp Fifteen Creek crosses the old roadbed. On the south end, the entrance to FR 318 from FR 161 is also gated. The old railroad grade is much more evident on this end of the travelway, as it follows a narrow fill section for approximately 0.53 mile before it ends abruptly at a T-turnaround. An unimproved travelway turns left at this point and returns to FR 161, but there is no sign of the old grade continuing north. The south entrance and the first 0.20 mile of FR 318 are actually outside of the Spring Brook Area, and are not included in the road density calculations for the area.

FR 163H is actually an open travelway, unusual for an SPNM Area. The road is so overgrown with grass (3-4' high in June) that it does not look drivable with a passenger vehicle. However, the pit run base is solid for 0.55 mile, with only a soft gravel entrance from FR 163 and a low standard log crossing in a wet area at the 0.45-mile mark presenting a significant impediment to anything other than a high-clearance vehicle. The improved travelway ends at a turnout at the 0.55-mile mark, with a clearly unimproved travelway (soft base, deep ruts, not drivable) continuing south. There are two unimproved spurs along this stretch of FR 163H, one of which is drivable for about 0.1 mile.

One other travelway is improved, a 0.1-mile, open, unnumbered travelway with a pit run base that gradually narrows until it is no longer drivable. The entrance to this travelway is located on FR 162, 0.2 mile north of FR 161.

Two other travelways within the Spring Brook Roadless Area are notable because they are not improved. FR 162F enters the area from FR 162, approximately 0.45 mile north of FR 161. This road was constructed in 1983 with 1,050 cy of crushed aggregate for a length of 0.64 mile. The entrance is gated. The improvements listed in the construction record include 8 culverts, 1,270 cy of borrow material and 4 stations of fabric mat. By all rights, this road should be in an improved condition. The problem is that the travelway is so overgrown a person cannot even

find a footpath through the brush. Trees that appear anywhere from 10-15 years old have taken over the old roadbed. Removing the trees and brush would most likely result in losing a significant portion of the base material, and the template would require full reconstruction. If the trees are as thick on the fabric sections, the roots have likely penetrated the fabric. This is a case of improvements that may have deteriorated to the point that reconstruction of this road is equivalent to new construction.

Forest Road 317 was reconstructed at the same time as FR 162F. Located on FR 161, 1.83 miles east of FR 162, this road is in a little better condition. The construction record for FR 317 shows a length of 0.73 mile with 1,200 cy of crushed aggregate and 3 culverts. This road also has a gated entrance, but the gate is rusted shut. Unlike FR 162F, this road has a 4' wide clearing that can be traveled by foot (or possibly an ATV). There is evidence of a template, although the brush is thick on the shoulders. The old aggregate is covered by topsoil. There are fewer, if any, trees within this travelway, so it is possible the underlying aggregate could be reclaimed. This travelway has been listed as unimproved, but it is a borderline call. The travelway is a trade-off with the 0.90 mile of temporary roads listed as improved. The reality is that FR 317 is not drivable and has deteriorated to the point where a significant amount of reconstruction would be necessary to bring it back to standard. The temporary roads along FR 163 and FR 317 have been recently constructed, with a wide clearing and solid, drivable base. To the casual visitor, FR 317 does not appear to be an improved travelway, while the temporary roads do appear (at the time of the inventory) to be improved travelways. Under a normal management scenario, FR 317, regardless of its condition, would remain a system road, to be reconstructed when needed once again in the future; and the temporary roads would be blocked, possibly seeded, but certainly left to revegetate and gradually disappear from view. For the purpose of this inventory, the temporary roads are listed as improved because they appear to be improved; FR 317 is listed as unimproved because it appears unimproved. Neither scenario is sufficient to push the improved road density for this area over 0.50 mile/1,000 NF acres. As a result, the merits of Spring Brook as a roadless area will be determined by other factors.

Of the remaining unimproved approaches, 2 are open but not drivable, 1 is open and could be driven with a 4WD vehicle, 2 are open but less than 200' in length, 7 are closed but not drivable with anything other than an ATV, 1 is closed but less than 200' in length, and 3 have been obliterated. With the exception of the improved travelways, there are no travelways within the Spring Brook Roadless Area that are drivable with a passenger vehicle, and only one that could reasonably be driven with a 4WD vehicle. This area has a low density of all travelways, not just improved travelways.

The Spring Brook Roadless Area has been managed as a Semi-Primitive Non-Motorized Area since 1986. With most of the access points closed to vehicle traffic, the travelways they access have become overgrown (with a few exceptions). ATV's do not appear to be a factor within the roadless area, although the Dead Horse Motorized Trail forms portions of the south and west boundaries. By all appearances, if a travelway is closed to motorized traffic in this area, the vegetation quickly reclaims the cleared opening. In some cases the clearing has been reduced to a footpath. Forest Roads 162F and 317 are examples of how closed roads in this area revert to narrow pathways or no pathway at all if there is no traffic to keep them open. Even roads that have been left open, such as FR 163H, quickly succumb to grasses and brush without traffic. The only roads that are drivable with a conventional passenger vehicle within this area are the improved roads, and only FR 312 penetrates more than ½-mile into the interior. The result is that most of the travelways that have, at one time, penetrated into the core area, are now

overgrown, at least in sections. Even FR 318, which follows an old railroad grade, has grown over sections.

Persons traveling cross-country in the Spring Brook area can have a widely disparate adventure; depending on which direction they take. Traveling north-south, a person can start on an upland and travel through mature hardwoods with relative ease from one end of the area to the other without getting his or her feet wet and without ever leaving the shade of the thick overstory. At the same time, a person could traverse the same direction following stream and wetland, and never touch solid ground. Traveling east-west, the adventurer can find him or herself alternating between the open understory of mature upland hardwoods and the thick, dark reaches of lowland conifers. The east-west traveler may also encounter streams, lowland meadows, and hardwood swamps. This traveler may also encounter the occasional pathway, but it may only lead them to the next wetland, or nowhere at all.

The Dead Horse Trail is the most profound motorized influence on the Spring Brook Roadless Area. The loud, high pitch of a snowmobile on a winter night can be heard for quite a distance, perhaps even penetrating into the core of this roadless area. ATV's are not nearly as loud, but a modified engine can be heard well beyond the trail. The sound of an occasional passing vehicle on the lightly traveled perimeter roads may penetrate the core; but the reality is that this area is well removed from the paved, high speed county and state roads that are more likely to carry traffic that operates 24 hours a day and generates sound that can be heard for miles.

Degree of Disturbance Evaluation

The Spring Brook Roadless Area is natural in appearance, although there are signs of recent disturbance. A total of 121 acres has undergone a regeneration harvest during the past 10 years, although the most recent regeneration harvest was in 1993. There has been a flurry of recent timber activity within the north portion of the Roadless Area, with some 614 acres, mostly northern hardwoods, undergoing selection harvest, commercial thinning, or – in the case of one 26-acre stand – overstory removal within the past two years. Although these are not regeneration cuts, there is evidence of this activity along the perimeter of the area, with skidder trails, temporary roads, and scattered tops visible from Forest Roads 163 and 162.

The 1996 Environmental Assessment for the Spring Brook Opportunity Area noted the presence of 66 upland openings ranging in size from 1 to 10 acres. In his decision regarding the management of this Opportunity Area, the District Ranger elected not to maintain these openings. There has been no recent inventory of these openings, so it is probable that many of them are beginning to return to the condition of the forested lands around them. This same Environmental Assessment noted that the existing landform and history of the area have resulted in a pattern dominated by a nearly continuous closed canopy forest across the roadless area. Approximately 74% of the Spring Brook area is part of one large closed canopy forest patch. “The patch comprises connected hardwood and lowland conifer forest stands that are 40 years or older and have closed canopies that do not allow much sun to reach the forest floor. A person could walk over about three-quarters of the ... area without ever leaving the closed canopy forest.”

The Environmental Assessment also notes that there are a few places in the Spring Brook area where “human activity has had a noticeable effect since the end of the logging era”. This

includes two stands of white spruce planted in the northern portion of the area, as well as small inclusions of 40-60 year old white spruce planted in upland stands. A number of aspen stands along the west and north perimeter of the area have been clearcut and are in the process of regeneration. This includes 111 of the 121 acres that have undergone a regeneration cut over the past 10 years. However, the Environmental Assessment also notes that the “regenerating stands of aspen and white spruce comprise twelve separate patches (6 to 59 acres in size) and total 302 acres (4% of the area).”

There are no developed recreation sites within the area. There are no power lines or developed private lands within the area. There are no special use permits providing access to the interior. There are no current mineral extraction activities, mineral leases or mineral claims within the area. Old railroad grades and spurs dating back to logging era of the late 1800’s and early 1900’s are still evident; and in some cases, form the foundation for travelways within the Spring Brook area. However, there are no recently abandoned railroads, and there are no trail bridges within the area.

The Spring Brook Roadless Area has 3.70 miles of improved travelways within the perimeter of the area, a density of 0.47 mile of improved travelways per 1,000 National Forest acres. Along the 11.5 miles of perimeter roads and trails, this Roadless Area has 23 access points. Three of these approaches are obliterated travelways, and another 3 are less than 200’ in length. (This does not include at least 5 low-impact skidder trails within an active thinning unit along FR 162.) That leaves slightly less than 1.5 access points to interior National Forest land per mile of perimeter road. Only the 7 improved travelways are actually drivable with 2WD vehicles, and only three of these are open to the public. Of the unimproved travelways, only one is open and drivable with a 4WD vehicle, two others are open but not drivable, and the remainder are closed and not drivable. This area, even with a portion of the Dead Horse Motorized Trail as a boundary, shows little, if any, evidence of illegal ATV access. Because the area has been managed for semi-primitive non-motorized recreation for the past 15 years, there are few open travelways. Of the 6 open travelways (travelways that do not have some closure device to restrict public access), only the 3 improved travelways are even marginally drivable with a passenger vehicle, and the longest of these is little more than ½-mile. When all of the travelways are considered, only the 1.63-mile FR 312 extends beyond ¾-mile into the interior of the roadless area. Travelways that may have once extended deeper into the Spring Brook area, or even bisected the area are now overgrown or narrowed into footpaths.

The recent timber activity along the north and west perimeter of the Spring Brook Roadless Area gives the impression of a managed forest. And, in the case of all but the 6 open travelways, access points to the interior are marked with a physical closure device and a sign encouraging foot travel, or prohibiting motorized travel, or both. This may mean that, even where a travelway has been obliterated, there is a physical reminder to passersby that a managed facility may have existed in that location at one time. For the most part, however, given the relatively few access points to the interior, and the temporary visual influence of thinning and uneven-aged timber harvesting activities, the Spring Brook Roadless Area has the appearance of a lightly disturbed landscape in which forest management activities take place on an intermittent, and even infrequent, basis.

Biological Evaluation

Northern Hardwoods account for over 50% of the vegetative composition of the St. Peters Dome Roadless Area. Wetlands account for nearly 32% of the roadless area, and some 73% of those wetlands are lowland conifers and hardwoods. Early-successional forest types, predominately aspen, account for 16% of the roadless area.

The Spring Brook Roadless Area includes a large Landscape Analysis and Design complex, the 2,800-acre "Spring Brook Drumlins". This complex is a potential Ecological Reference Area, and is considered a strong candidate for Special Management Area designation. This complex is considered the best of those found throughout the National Forest on silt-capped drumlins. Its value as a comparative site to better manage other sites within this Landtype Association (LTA) is considered paramount for sustainability of LTA diversity. The Spring Brook Drumlins is predominately rich upland sugar maple-basswood forest with scattered blocks of hemlock and lowland black spruce-tamarack. The rich upland forest supports a diverse forb population, including several spring ephemerals uncommon on the Chequamegon landbase of the National Forest. The attribute that best typifies this site is its expansive size. Few places within the Chequamegon-Nicolet, or even in Northern Wisconsin, provide such a contiguous interior forest of older, maturing hardwoods in a relatively remote, undisturbed setting. Another key feature of the site is Spring Brook Meadows, a sedge meadow/white cedar swamp that is listed by the Wisconsin Department of Natural Resources as an outstanding example for its community type.

One of the key features of the Spring Brook Roadless Area is the 4.6 miles of warm, cool and coldwater perennial streams defining the landscape. This includes Camp Fifteen Creek, Camp Fourteen Creek, Spring Brook, Kelp Creek and a segment of its tributary. All of these streams have their headwaters in the Spring Brook Roadless Area, and all of them flow into the East Fork of the Chippewa River, a candidate National Scenic River, located just north of the roadless area.

Using the draft Aquatic Ecological Classification System for "valley segments" within the Chequamegon-Nicolet National Forest, both Kelp Creek and its tributary, and Camp Fourteen Creek are typed as NMW. NMW segments are narrow (less than 20' wide), moderate alkalinity (greater than 20ppm), warm water (greater than 26 degrees Celsius) streams. Five to nine fish species may occur in NMW segments, and these are dominated by northern redbelly dace, creek chub, central mudminnow, blacknose dace, and white sucker. It is highly unlikely that mussels occur in NMW segments. There are no known Threatened and Endangered aquatic species in any of these creeks.

Spring Brook itself is typed as NMO. NMO segments are narrow (less than 20' wide), moderate alkalinity (greater than 20ppm), cool water (water temperature greater than 23 degrees but less than 26 degrees Celsius) streams with no local source of groundwater. Three to twelve fish species may occur in NMO segments, dominated by stickleback, creek chub, northern redbelly dace, pearl dace and white suckers. Mussels are generally not found in this type of stream. There are no known Threatened and Endangered aquatic species in this creek.

Camp Fifteen Creek is actually typed as two different segments. Within the Spring Brook Roadless Area, Camp Fifteen Creek is typed as NAC, a narrow (less than 20' wide), acid (less than 5ppm alkalinity), coldwater (less than 23 degrees Celsius) stream. This segment typically has only 0 to 2 fish species, most commonly mudminnow; and supports no mussels. Just downstream from the Spring Brook area, Camp Fifteen Creek is influenced by groundwater sources, changing the type to NMC; a moderate alkalinity (greater than 20ppm) coldwater stream than can support brook trout, mottled sculpin

and 3-5 other minnow species. This segment of the stream is also typed as a Class II trout stream by the Wisconsin Department of Natural Resources, meaning it has some natural reproduction of brook trout, but some stocking would be necessary to maintain a viable population of the fish. There are no known Threatened and Endangered aquatic species in either segment of Camp Fifteen Creek.

Beaver have dammed Camp Fifteen Creek where it crosses the old grade on FR 318. In fact, all of the streams within the Spring Brook Roadless Area are susceptible to beaver influence.

One other watercourse, the headwaters for Camp Seven Creek, can be found in the southeast corner of the roadless area. This stream flows south, where it feeds into Pine Creek and, eventually, the North Fork of the Flambeau River.

The Spring Brook Roadless Area is in a portion of the Chequamegon-Nicolet NF that has experienced some of the longest recorded and most consistent activity by gray wolves, *Canis lupus*, a federally endangered and state threatened species. The area is mostly within the range of the Log Creek pack (estimated to contain three wolves as of Spring 2001), with some evidence of breeding. A portion of the Spring Brook area is also within the range of the Brunet River; this pack was estimated to contain 2 wolves as of Spring 2001, with breeding activity suspected.

The northern goshawk, *Accipiter gentiles* (Regional Forester Sensitive Species), has been known to nest within the Spring Brook Roadless Area; however, the last known nest was subject to fisher predation in 1998 and is not currently active. No new nesting sites have been recorded since 1998.

There are three Botrychium sites within the Spring Brook Roadless Area, two sites with blunt-lobed grapefern, *Botrychium oneidense* (Regional Forester Sensitive Species), and one site with Mingan's moonwort, *Botrychium minganense* (Draft Forest Sensitive Species). Another species of note within the Spring Brook area is butternut, *Juglans cinerea* (Regional Forester Sensitive Species). Populations of this species have not been completely mapped within the area, and are typically individual trees within hardwoods stands. The size and condition of this complex should generally provide the necessary habitat conditions for maintenance of this species, but the cause of butternut decline is pathological and may not depend on habitat.

Biotic Species Requiring Primitive Surroundings

The entire 2,800-acre Spring Brook Drumlins Landscape Analysis and Design complex is considered one of the best potential Ecological Reference Areas within the Central/Northwestern Wisconsin Loess Plain Subsection, particularly because of its size and relatively undisturbed condition. Few other sites within the Subsection are considered representative of northern mesic forest, and two of these experienced windfall in 1977. There are no other sites for northern wet mesic forest, northern wet forest or northern sedge meadow within the Subsection that are considered representative.

What makes Spring Brook Drumlins particularly valuable as a potential Ecological Reference Area is not so much the quality of the individual communities found within it, but the size and overall mosaic it provides. On the landscape scale, the community matrix within the Spring Brook Drumlins is much as it has always been historically, relatively unfragmented upland

drumlin hardwoods with intervening communities (northern wet mesic, northern wet, northern sedge meadow) occurring infrequently enough that the canopy remains contiguous. This site is not undisturbed. Most of the conifer component was removed at the turn of the last century, and stands of hardwoods have been thinned as recently as 1-2 years ago. But most of the LAD complex, including core upland old growth stands, has not had silvicultural treatments.

While no individual species within the Spring Brook Roadless Area are specifically dependent upon Wilderness, the value of the Spring Brook Drumlins as an Ecological Reference Area on a landscape scale is dependent on its protection in as primitive a state as possible.

Ecological Evaluation

As suggested in the Forest Service Handbook, FSH 7.23b, the “analysis of the degree to which (a roadless area) contributes to the local and national distribution of wilderness” should use Edwin A. Hammond’s subdivision of landform types and the Bailey-Kuchler ecosystems classification. With regard to the Upper Great Lakes Region, almost all of this area is classified as Laurentian Mixed Forest Province (Province 212).

In his 1999 publication Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends, H. Kenneth Cordell notes that this particular ecoregion encompasses some 94.4 million acres, or 4.9% of the lower 48 states. Currently, 1,226,870 acres of this ecoregion are Congressionally-designated Wilderness on federal lands, representing 2.8% of all federal Wilderness in the lower 48 states. As a result, 1.3% of the ecoregion is represented as Wilderness. One further note: The Boundary Waters Canoe Area Wilderness accounts for 1,086,954 acres, or 86% of the total Wilderness acreage in the Laurentian Mixed Forest Province; and virtually all of this acreage is in one subsection (212La, Border Lakes).

The first national ecological unit map based on a national hierarchical framework of ecological units featuring Edwin A. Hammond’s subdivision of landform types and the Bailey-Kuchler ecosystems classification was published in 1994. In 2000, the Forest Service Eco-Map team requested recommendations from field personnel for updating the national ecological unit map, with particular focus on the Section level of the classification hierarchy. In response to this request, the State of Wisconsin assembled an interagency Landtype Association (LTA) technical team to re-evaluate Section boundaries and assess the need for refinement, based on information accumulated during the development of the initial Wisconsin LTA map. This team submitted Section boundary changes for Wisconsin to the national Eco-Map team; and, in February 2001, the official Wisconsin LTA Map reflected these changes. A soon-to-be-published new Section map of the United States will incorporate these changes, as well.

The sum of the changes incorporated into the new national ecological unit map is that several large Sections covering portions of Wisconsin and the Upper Peninsula of Michigan have been subdivided into new Sections; and, in some cases, new Subsections. With regard to the Chequamegon-Nicolet National Forest lands, 4 new Section and 3 new Subsection mapping units have been created. As a result, portions of the Chequamegon-Nicolet NF now lie within 6 different Sections (where before there were only 2 Sections, defined on a much broader scale); 14 Subsections (where before there were only 11 Subsections; and 27 LTA’s (the same number as previously).

The Land Type Associations (LTA's) have remained the same in number, and in common name; but they have been relabeled to accurately reflect the Section and subsection to which they now belong. For example, LTA polygon 212Jb01 will remain as 212Jb01; but former LTA polygon 212Jc04 is now 212Xa03, reflecting its position within Province 212, Section "X", Subsection "a".

The Spring Brook Roadless Area falls within the following ecological classification:

Section:	212X – Northern Highlands
Subsection:	212Xd – Central/Northwest Wisconsin Loess Plain
Land Type Association (LTA):	212Xd02 – Flambeau Silt-capped Drumlins

Section 212X is currently represented by the following Congressionally-designated Wilderness Areas: Porcupine Lake (66%), Blackjack Springs, Whisker Lake and Headwaters Wilderness Areas (Chequamegon-Nicolet NF)

Subsection 212Xd has no current representation as wilderness.

Scientific/Educational Evaluation

The 2,800-acre potential Ecological Reference Area called "Spring Brook Drumlins" provides excellent opportunities for scientific investigation and/or education. This entire complex is a strong candidate for Special Management Area designation, particularly because of its size and relatively undisturbed condition within the Central/Northwestern Wisconsin Loess Plain Subsection. One of the educational and scientific benefits of protecting the continuity and condition of this complex is the opportunity to study late-successional dynamics on the way to old growth function. This complex can also provide a representative comparison to uneven-aged management regimes, a comparison that is essential to working towards long-term sustainability.

Cultural Evaluation

Approximately 25 percent of the Spring Brook Area has received a cultural resource survey. Four cultural resource sites have been recorded within this area. The first two are referenced as FS Site Numbers 09-02-02-166 and 168, and represent the remnants of early houseplace sites. The third is referenced as FS Site No. 09-02-02-183, the location of a large logging camp that dates to the late 19th or early 20th century. The fourth site is the remnants of a fire lookout tower that dates to the early part of the 20th century. While the remnants of the lookout tower do not appear significant, the other three sites do have the potential to meet NRHP eligibility criteria. Wilderness designation would not adversely affect any of the recorded properties, nor other sites that may be found when additional cultural resource surveys are conducted.

Challenge Evaluation

The wetlands that permeate the Spring Brook area actually extend like wide fingers from north to south, separated by equally wide fingers of upland hardwoods. On the east half of the area, a traveler in the uplands may encounter any number of old travelways. For the most part, many of these travelways are little more than an overgrown promise of a path, with continual stops and

starts, depending on the thickness of the brush and trees that have taken them over, and on whether wildlife have chosen to use them as a regular trail. One travelway, FR 318, actually follows an old railroad grade and completely bisects the roadless area from north to south. There are long segments of the old grade that are no longer cleared; however, a person trying to follow the old grade can still do so. Tracing the old grade becomes, in itself, a challenge. Moving to the west half of the roadless area, there are short access points to within a ½-mile from the perimeter, but core area uplands are virtually devoid of travelways.

A person traveling east-west through the Spring Brook area may find the going difficult due to the north-south fingers of wetlands and streams. The going may be less cumbersome in frozen conditions (although there is risk of falling through thin ice during potentially dangerous cold-weather conditions when a mile or more from the nearest open, public road), but challenging nonetheless. To complicate matters, beaver are quite active in this area, and the impounded streams can force a wide detour when the water is open, and can be a potentially treacherous and unstable pathway when frozen.

The chance of experiencing a life-threatening situation within the Hungry Run Roadless Area would be due more to an unfortunate incident than any challenge presented by the area itself. A person experiencing a debilitating injury while alone in the heart of the roadless area could certainly find himself or herself in a life-threatening situation. Weather can also play a critical role in determining the level of challenge, as hypothermia, sudden snowstorms, or diving temperatures could catch a visitor unawares. These are hazards encountered anywhere on the Forest; but being on foot in a roadless area may amplify the risk to a slightly higher level.

These hazards take on even more importance when one takes into account that, depending on where a person finds his or herself within the roadless area, they may be miles from the nearest habitation, even if they reach a perimeter road. State Highway 70 is at least 5 miles south of the roadless area south boundary. The nearest year-round residence on FR 163 is 2-1/2 miles east of the National Forest boundary, and a person traveling cross-country from the east boundary of the roadless area could travel over three miles before encountering a residence. There are some summer homes a mile or so northwest of the roadless area along the Chippewa River, and some year-round residences further west on Bear Lake; but a person needing assistance who emerges from the roadless area onto a perimeter road either needs to find their own vehicle or hope for another vehicle to come along, otherwise they could face a considerable hike to get help.

Since the creeks and wetlands make cross-country travel difficult, a casual visitor would have limited options for east-west travel within the roadless area. However, this same visitor may find the open understory and relatively solid footing of the mature upland hardwoods hospitable enough for a north-south journey into and even through the core. The possibility of traveling without benefit of an established travelway, even on this relatively easy terrain, may present a considerable challenge to the casual visitor.

Primitive and Un-confined Recreation Evaluation

Hunting and hiking are probably the dominant recreation activities within the Spring Brook Roadless Area. These are common activities throughout the Chequamegon-Nicolet National Forest, and the region in general. With 17% of the total acres in early successional habitat, this area has somewhat less of this preferred game habitat than is the average (20%) for the

Chequamegon-Nicolet; however, these acres still provide quality opportunities to hunt white-tailed deer, black bear and ruffed grouse. The opportunity to hunt in a non-motorized setting has value to a segment of the hunting population. These opportunities are limited on the Chequamegon landbase of the National Forest.

Although there are some open travelways to the interior of the Spring Brook area, the primary emphasis in this area has been semi-primitive non-motorized recreation. Overgrown travelways are available for hiking, and there is evidence that this use has taken place (foot paths where once there may have been roads). However, there are no designated hiking trails within this area. In many locations, signs accompany travelway closures, inviting travel by foot, and, in a few cases, providing a map of the old travelways; however, recreation has not been a key component of management in this area. For the most part, travelways have been closed and the area left to its own devices. Visitors may learn from maps that Spring Brook is an SPNM area, and they may see the location of old travelways on those same maps; but management of the area has not led visitors by the hand to trails or attractions. Visitors who wish to explore the area have been left to find this SPNM experience on their own.

Neither of the perennial streams within this area are viable fisheries for anglers, nor are there lakes of any size within the area.

Off-road motorized recreation is an activity that has a peripheral effect on this roadless area. Two segments of the Dead Horse Run ATV and Motorcycle Trail form short portions of the west and south boundaries (0.43 mile and 0.82 mile respectively) of this area. There is little indication that these trail segments have resulted in ATV use within the roadless area. For the most part, ATV and off-road motorists have respected the non-motorized emphasis of the Spring Brook area.

Special Features Evaluation

The Spring Brook Roadless Area contains a large Landscape Analysis and Design complex, the 2,800-acre "Spring Brook Drumlins", noted for its outstanding ecological significance. This complex is a potential Ecological Reference Area, and is considered a strong candidate for Special Management Area designation. This complex is considered the best of those found throughout the National Forest on silt-capped drumlins. Few places within the Chequamegon-Nicolet, or even in Northern Wisconsin, provide such a contiguous interior forest of older, maturing hardwoods in a relatively remote, undisturbed setting. Another key feature of the site is Spring Brook Meadows, a sedge meadow/white cedar swap that is listed by the Wisconsin Department of Natural Resources as an outstanding example for its community type.

With approximately 1.25 miles of the Dead Horse Run ATV and Motorcycle Trail forming portions of the south and west boundaries of this area, this trail has a peripheral influence on the Spring Brook area. Any discussion regarding potential designation of this area as Wilderness could possibly include the relocation of these trail segments.

Manageability Evaluation

The boundary for the Spring Brook Roadless Area is fairly well defined; and its size and shape make its preservation practical. Approximately 57% (9.54 miles) of the Spring Brook boundary follows perimeter roads that are open to the public, traveled by passenger vehicles, and managed the jurisdiction of a public road authority (Chippewa and Draper Townships). Another 7% (1.25 miles) of the boundary is two segments of the Dead Horse Run ATV and Motorcycle Trail, a year-round, improved motorized trail. These trail segments are actually offset from Township roads by only a few hundred feet. The remainder of the boundary follows section lines (approximately 1.50 miles, or 9%) and the National Forest boundary (approximately 4.50 miles, or 27%). There are 3 open, unimproved travelways (two are not drivable, the other is drivable only with a 4WD vehicle) that provide access of more than 200' in length, and another 3 open, improved travelways of more than 200' in length, an average of only 0.63 open access points per mile of open perimeter road. There are 7 additional unimproved travelways that are blocked or otherwise closed to traffic, another 4 improved travelways that are closed to traffic, and 3 other access points to travelways (improved and unimproved) that extend no more than 200' into the roadless area. Three other access points are actually obliterated travelways. There is no conclusive evidence of ATV use on these travelways, although it is likely they have been used by ATV's periodically.

Timber management activity has been limited in this roadless area until fairly recently. Only 121 acres, 2% of the total NF acres, has undergone a regeneration harvest over the past 10 years, and the most recent was 8 years ago. However, there has been a recent emphasis on intermediate harvest or stand improvements. Some 614 acres has undergone a commercial thinning, selection harvest or overstory removal within the past two years. This activity has been consistent with uneven-aged management of northern hardwoods. Virtually all of this recent activity has taken place in the northern half of the roadless area. Access to these timber activities has been from FR 163 on the north boundary, and FR 162 on the west boundary. Active thinning operations are visible along FR 162, and temporary roads access active cutting units from FR 163. In both cases, the visual and actual influence of these activities is temporary, and will most likely be barely evident a year after they have been completed. Much of the interior hardwoods patch, and all of the interior wetlands have not been a focus of timber management activities, and have remained undisturbed for much of the past half century. Designating the area as a Wilderness would require effective closure to motorized vehicles of all access points, and a discontinuation of all timber management activities within the area.

There is only one parcel of non-federal ownership within the Spring Brook Roadless Area. This is a land-locked, undeveloped 80-acre parcel that currently does not have access across National Forest land, but may require such access in the future.

There are no outstanding mineral leases or claims within the roadless area. Only 26% of the National Forest lands within the area have reserved or outstanding mineral rights in other ownership. This area falls just north of the Precambrian volcanic terrain that bisects the northern part of the state from east to west, and is thought to have potential for metallic minerals. The Spring Brook area does not appear to hold much promise for metallic minerals, nor does it contain any known deposits of common variety surface minerals. This is not to say this area might not have gravel deposits; but it was not identified in a Forest-wide search in the late 1990s as an area of high potential. It may contain such deposits or other minerals, but it is not currently

the focus of any exploration efforts. There are no utility corridors within or adjacent to the roadless area.

Availability Evaluation

Approximately 75% of the National Forest land, or some 5,852 acres within the Spring Brook Roadless Area is classified as suitable for timber production. In the last 10 years approximately 121 acres of timber has undergone a regeneration harvest. In the past 2 years, some 614 acres, mostly northern hardwoods, has undergone selection cut, commercial thinning, or overstory removal. Timber harvest and the associated production of wood products from this area would be precluded by Wilderness designation. This amounts to about 0.6% of the lands suitable for timber production on the Chequamegon-Nicolet.

The Spring Brook Roadless Area supports 4.6 miles of streams and rivers, predominately the headwaters of Kelp Creek, Camp Fourteen Creek, Spring Brook and Camp Fifteen Creek – all of which flow into the East Fork of the Chippewa River, a candidate National Scenic Riverway. None of these streams is part of a municipal watershed, and there are no known water storage needs. The September 2000 Draft Watershed Analysis for the Chequamegon-Nicolet National Forest indicates that the Spring Brook Roadless Area falls within the boundaries of one 5th level watershed – the East Fork of the Chippewa River. Water quality should improve slightly from current levels should the area be designated as Wilderness. Most mitigation measures for ground-disturbing activities in non-Wilderness attempt to insure minimum adverse impacts on water quality. However, roads are generally required to support timber harvest; and mitigation measures used in stream or wetland crossings may be insufficient to withstand major weather events. In an area designated as Wilderness, ground-disturbing activities are held to a minimum, and roads, temporary or otherwise, would not be necessary to support management activities. This would eliminate the potential for erosion or sediment dumping as a result of a major weather event. Once these streams leave the Spring Brook area, however, they must cross Forest Road 163 on their way to the confluence with the Chippewa River. Any improvements in water quality resulting from Wilderness designation within the Spring Brook Area, may be compromised by the possibility of erosion and sedimentation at the crossings on FR 163. Designation of this area as a Wilderness will not change the need for these streams to cross under FR 163; and, even though the crossings on FR 163 are standard designs to prevent erosion and sedimentation, designation of Spring Brook area as a Wilderness will not change the possibility of stream degradation at these crossings.

Foot travel is certainly an available mode of transport in the Spring Brook Roadless Area. This area has been managed as a Semi-Primitive Non-Motorized Area since 1986, and many of the travelways within the area are suitable now only for foot travel. There are still open travelways to the interior of this roadless area, although at least one is only a temporary access to a timber sale; but there does not seem to be any evidence of recreational ATV traffic. The Dead Horse Run Motorized Trail forms two segments of the roadless area boundary, but even along the trail there does not seem to be any encroachment of ATV's within the area. It is possible that the Dead Horse Trail can form a compatible union as the boundary to a potential Wilderness, but the option still exists to relocate the trail to the opposite side of the perimeter roads to avoid any management conflicts. In either case, designation of this area as a Wilderness would not require relocation of the Dead Horse Trail; but it would require closing all open travelways to the interior to motorized use, and prohibiting any future ATV use within the area.

There are no developed recreation sites within the Spring Brook Roadless Area.

Hunting is a popular recreation activity on the Chequamegon-Nicolet, and the Spring Brook Roadless Area provides limited quality opportunities for hunting deer, bear and ruffed grouse. There are 6 open roads and trails providing access to the interior of this roadless area. At least 4 of these travelways may be negotiated with 4WD vehicles (several with 2WD), and they enhance the ease with which hunters may traverse the area in search of their prey. The Dead Horse Run Trail is open, but use by full-sized vehicles is prohibited; and the trail does not access the interior, it forms two segments of the perimeter. The amount of upland acres in early successional habitat (1,313 acres of aspen and balsam fir, 17% of total acres, 25% of upland acres) is about the norm for the Chequamegon-Nicolet; and it provides quality forage for deer, bear and ruffed grouse. The relatively high percentage of lowland conifers (1,438 acres, 18% of total acres) provides some opportunity for quality winter bedding areas for deer. Less than 2% (121 acres) of the total acres have undergone a regeneration timber harvest over the past 10 years, so it is possible that some portion of the early-successional habitat is converting to longer-lived species. Designation of the area as Wilderness would preclude further regeneration harvest of timber, and likely result in further conversion of early-successional habitat. This, in turn, would gradually reduce the amount of preferred habitat for deer, bear and ruffed grouse, and may result in diminished use of this area for hunting these species. However, given the level of access and amount of early-successional habitat within the remainder of the National Forest and surrounding forest lands, the prospect of a hunt in an interior forest setting with ready access to lowland conifers may be a welcome alternative for certain segments of the hunting population.

There are an estimated 9.50 miles of “system roads” within the Spring Brook Roadless Area. These are travelways that have a road number, have generally been identified on Forest maps or USGS maps, and may be included in the Forest Transportation Inventory as “classified roads”. These roads may currently be improved or unimproved, open or closed, drivable or not drivable. They may appear on a map, but it is possible that they have long since fallen into disuse and may no longer exist as functional travelways on the ground. Within this area, 2.82 miles of the 9.50 miles of system roads are improved. The remaining mileage may be unimproved or nonexistent. Regardless of condition, most system roads are likely to be included in the total miles used to determine road density on the Chequamegon-Nicolet. As such, any designation of this area as a Wilderness would require that all travelways be closed to motorized vehicles, and that these travelways either be obliterated or converted to foot trails. This includes all improved and unimproved travelways, regardless of whether or not they are system roads. This would result in a net loss of at least 9.50 miles, and probably more, from the total road miles on the Chequamegon-Nicolet.

There are no permanent forest openings within the roadless area that are maintained for wildlife species. This management practice was discontinued within this area following the 1996 District Ranger’s Decision Notice for the Spring Brook Project Area.

Fishing is not a significant recreational use of this area. None of the streams are trout waters, and none of them are quality habitat for game fish. There are no lakes within the Spring Brook area. A Wilderness designation will neither change the nature of any of the streams within this roadless area, nor make them more attractive to anglers. If anything, increased or unchecked beaver activity along these watercourses (all of which are already influenced by beavers) would further diminish any potential for a sport fishery.

The eastern timber wolf, *Canis lupus*, a federally-listed Threatened and Endangered Species (TES) has been known to occur within and around the Spring Brook Roadless Area. The designation of the area as Wilderness is not likely to result in any immediate change in this circumstance, although fewer travelways may result in less human interaction and more suitable conditions for the timber wolf. Wilderness designation would likely result in a shift away from early-successional habitat, resulting in fewer opportunities for the wolf to prey on deer within the designated area; but this area would be sufficiently small enough that these opportunities would most likely be readily available beyond the boundaries. Wilderness designation would likely have no effect on the amount of lowland conifers. Since this vegetative type is very attractive to deer for winter browse and bedding, they will still move through the area.

The northern goshawk, *Accipiter gentiles*, has been known to nest within the Spring Brook Roadless Area. And this area is also home to some sensitive species of flora. Designation of the St. Peters Dome Roadless Area as Wilderness would enhance the viability of all of these species by assigning permanent protective status to the area.

There are no livestock operations within the Spring Brook Roadless Area, nor is there potential for such operations.

There has been no exploration for oil, natural gas or precious minerals within the Spring Brook Roadless Area over the past 10 years, although this does not preclude the possibility that these resources exist. Approximately 26% of the National Forest land has outstanding or reserved mineral rights in other ownership. Regardless of designation, the Forest Service would be required to provide access to these minerals, if requested.

Approximately 25% of this roadless area has undergone a cultural resource survey. Four sites have been recorded within the area, and three of these sites have the potential to meet the eligibility criteria for the National Register of Historic Places. There is also the potential that other sites may exist within the area. Designation of the area as Wilderness would have no foreseeable impact on these sites, or on any potential site. The absence of ground disturbing activities would enhance the protection of any sites within the area.

Fire protection and pest control techniques would be significantly altered by Wilderness designation, although neither has been a problem in this area over the past 10 years.

Regardless of designation, the Forest Service may be compelled to provide access to the private 80-acre parcel within the roadless area at some time in the future. To protect roadless characteristics within this area, the Forest Service would benefit from working with Chippewa and Draper Townships to assure that the boundary roads are not designated as ATV routes; and to continue directing ATV use to the Dead Horse Trail.

6) SCHMULAND/POPPLE CREEK ROADLESS AREA **(MEDFORD/PARK FALLS DISTRICT)**

Solitude Evaluation

The Schmuland/Popple Creek Roadless Area is approximately 7,146 acres in size, including 7,101 acres (99%) of National Forest land. The private ownership within the Schmuland/Popple Creek Roadless Area is in one 45-acre block on the west perimeter, across Forest Road 139 from the Sailor Lake Campground and Day Use Area.

The boundaries of the Schmuland/Popple Creek Roadless Area are defined by open Township standard roads to the west, south and east; and by the Flambeau Motorized Recreation Trail (Forest Trail 121) to the north. This area, when first inventoried for roadless characteristics, had extended all the way north to State Highway 70, and had included a total of 11,700 acres. However, Forest Trail 121 (Flambeau Trail) extends for approximately 4.75 in an east/west direction across the northern 1/3 of the original area. Forest Trail 101 has an established motorized use, and is an improved trail with gravel sections and wetland crossings. Further, in the area north of Forest Trail 121, there are approximately 3.83 miles of improved travelways. When considering the south 2/3 of the original area, with Forest Trail 121 as the north boundary, this new area still contains a core area of solitude of 2,623 acres that is separated by at least ½-mile from the influence of motorized traffic and land uses inconsistent with the semi-primitive non-motorized experience (a more detailed description of the process for determining core area of solitude can be found on pages 4-6 of this report). As a result, this new area, with Forest Trail 121 as the north boundary and only 2.10 miles of improved travelways, is the Schmuland/Popple Creek Roadless Area. The relationship of core area of solitude to the entire roadless area is approximately 37% percent of the National Forest acres.

The east boundary of the Schmuland/Popple Creek Roadless Area is Forest Road 139 (Sailor Lake Road); the south boundary is Forest Road 136 (Gates Lake Road); and the east boundary is Forest Road 137 (Riley Lake Road). Forest Road 139 is a two-lane, gravel surface, Traffic Service Level B Township road. Forest Road 136 is a little lower standard two-lane, gravel surface, Traffic Service Level C Township road. And Forest Road 137 is an even lower standard lane-and-a-half, Traffic Service Level C Township road with pit run gravel surfacing placed where needed to stabilize the roadbed. With the presence of Forest Trail 121 along the north boundary, there is a history of motorized recreation in this area. This is accentuated by evidence of significant off-highway 4WD/ATV traffic on at least one travelway, and general off-highway vehicle use elsewhere within the roadless area.

There are a number of access points to the roadless area, but few are improved. Many of the numbered roads were last reconstructed in the 1970's and they show little evidence of maintenance during the years since. There is the occasional remnant of an old ditch, or a collapsed and rusted culvert; but there are otherwise no functional improvements to many of these roads. Few roads are closed, and those that are open are generally drivable with a high clearance vehicle. But there is ample evidence that these roads are traveled more by off-highway recreational vehicles, than for any utilitarian purpose. The clearest example of this type of use is an unnumbered travelway that bisects the eastern half of the roadless area, connecting the Flambeau Trail on the north boundary with FR 136 on the south boundary, a distance of 4.55

miles. This may actually be an extension of Forest Road 513, the Clover Creek Road. FR 513 is a two-lane, gravel surface, Traffic Service Level C road from State Highway 70 south for 1.2 miles. At this point, the road splits. The left fork turns into the Clover Creek Gravel Pit. The right fork follows Forest Trail 121 for 0.45 mile, where the trail is gated, but the road turns south. This road continues south, in an unimproved condition, until it intersects Forest Road 136. Looking at the road from the opposite direction, there is evidence of some improvements within the first 0.5 mile extending north from FR 136; but it has been reduced to such a rutted, narrow two-track that it requires a high-clearance vehicle to travel on it. Beyond the first 0.5 mile, the remainder of the road appears to be an oft-traveled, user-developed off-highway unimproved trail, with much evidence of use by full-sized 4WD vehicles, as well as ATV's. This route travels through a variety of terrain, following a dry, winding path through sandy uplands and pine stands; and then diving into lowland hardwood stands where the road again becomes rutted and narrow and a distinct challenge to traverse. If this was a developed road at one time, it is now a muddy two-track or churned sand over much of its length. If it was not a developed road, it is an established 4WD vehicle travel route now. Several other roads travelways within the roadless area show similar, if not as extensive, evidence of off-highway vehicle use.

There are 31 approaches providing access to National Forest land along the roaded perimeter of this roadless area, including 6 improved roads (see Appendix C). Sixteen of these approaches extend for no more than 200 feet. Only five of these short travelways have a constructed obstruction (berm or boulders), and none of them are gated. One of the short travelways is improved and open; and the other 10 short travelways have simply overgrown with vegetation, or they were never intended to go beyond the first 200 feet. Of the remaining roads, 5 are closed with a berm or boulders (including 2 improved roads), and all but one of the others are open and drivable; although only 7 of them are longer than 0.13 mile and most are drivable only with high clearance vehicles. This last group includes only 2 of the improved roads.

The improved roads include the aforementioned 0.5-mile segment of the unnumbered travelway that connects FR 136 to the south end of FR 513, and the 0.3-mile access to the Clover Creek Gravel Pit from FR 513 (Clover Creek Road). Another partially improved travelway is Forest Road 139A. This travelway is blocked by boulders approximately 0.1 mile east of FR 139, and it includes a few wetland crossings and culverts (in disrepair, but functional). FR 139A has no surfacing, but it does have a template in sections, and it is marginally improved and drivable for 0.9 miles. One of the spurs coming off of FR 139A includes the old earthen embankment for the Schmuland Flowage. This 0.05-mile segment is also considered marginally improved and drivable. There is another improved travelway along Forest Road 139. This is a 700' long access that connects to the Flambeau Motorized Trail. This access is blocked with boulders, and it appears to have been an alternate entrance to the trail for use as a haul route for a timber sale. This travelway has a template and some spot surfacing. The last two improved travelways are short and provide access to specific sites. One is an unnumbered road that extends for 0.1 mile from FR 137 to a dispersed recreation site on the shoreline of the Popple Creek Flowage, in the southeast corner of the Roadless Area. The other is a 100' gravel approach to a 20'x20' gravel parking lot for visitors to the Popple Creek Flowage.

Included among the unimproved travelways are some other numbered routes that show up in the Forest Transportation System, but do not meet the standards described on page 4 of this report. Forest Roads 513 and 528 are actually not included amongst the 29 approaches that access the roadless area from the roaded perimeter, because these two travelways access the area from Forest Trail 121. FR 513 is discussed in detail above. FR 528 is an improved road from State

Highway 70 south to Forest Trail 121, but it is unimproved beyond the trail. Forest Road 136E is open and drivable and provides access to the site of the old Schmuland Flowage control structure (removed in the early 1990s), but it has no surfacing or template and requires a high clearance vehicle to travel the uneven driving surface. Forest Road 515 is open and drivable for 0.7 mile before becoming narrow, rutted and impassable. This travelway has no surfacing or template and requires a high clearance vehicle. Forest Road 137B is closed with a berm and provides access to a red pine plantation. It would be drivable for about 400', but then becomes too overgrown with brush. This travelway has no surfacing or template, generally follows the terrain and has a solid sand driving surface for at least the 400'. Forest Road 137C is open and drivable for about 250' to a dead end in a 20+ year old aspen stand. This travelway has no surfacing or template, and follows the terrain. Forest Road 139C is overgrown and no longer evident on the landscape.

There are only three other functional approaches along the roaded perimeter of the Roadless Area. One of these is a short, improved driveway to a seasonal residence; the other two are narrow, overgrown, unimproved travelways within the same private land.

There are no designated hiking trail systems or hunter/walking trail systems within the Schmuland/Popple Creek Roadless Area.

Degree of Disturbance Evaluation

The Schmuland/Popple Creek Roadless Area is natural in appearance, although there are some signs of recent disturbance. A total of 259 acres have undergone a regeneration harvest during the past 10 years. One sale is currently under contract, but nothing new is prepared for sale at the time of this evaluation. Approximately 6 acres within the roadless area are old log landings, skid trails or temporary roads that have been seeded for revegetation over the past 10 years, some potentially with non-native grasses. There are approximately 21 acres of permanent forest openings that are maintained for certain wildlife species. These have been seeded with various mixtures containing White Dutch clover, Alsike clover, trefoil, rye, a variety of fescues, and a number of other species. There is one large active gravel pit located near the north boundary of the area, and it has four active use permits. Another site has been identified as a possible gravel source for the future. Approximately 15% of the area has either reserved or outstanding mineral rights, which would take precedence over surface rights. There is also an old borrow pit on the south side of the roadless area. There are no developed recreation sites within the area, with the exception of Forest Trail 121 (the motorized recreation trail forming the north boundary of the area). The Popple Creek Flowage is a developed wildlife impoundment. The control structure, main earthen embankment, secondary earthen embankment, and a visitor parking area are all within view from Forest Road 136 in the southeast corner of the roadless area. There are no utility corridors within or adjacent to the roadless area. There are no special use permits within the area, and no private land requiring future access. There is only one residence on private land within the roadless area, and this residence is adjacent to Forest Road 139. There does not appear to be any timber harvesting activity on the one parcel of private land within the roadless area.

Despite the lack of development within this area, there is significant evidence of recent ground disturbing activity and motorized recreation. On the east perimeter, there are at least seven locations along Forest Road 137 where recent bulldozer activity is evident. This activity is

typically 4-6' wide trenches or clearings that may have been constructed as fire breaks for controlled burns in the adjacent Riley Lake Wildlife Management Area. These dozer (or fire plow) clearings appear to vary in length. Some are a minor ground disturbance; others are a deeper disturbance exposing 1-2' of mineral soil.

The Schmuland/Popple Creek Roadless Area has 2.10 miles of improved travelways within the perimeter of the area, a density of 0.30 mile of improved travelway per 1,000 National Forest acres. Along the 10.35 miles of perimeter roads, there are 34 access points. One of these is to a parking lot, three provide direct access to private land, and 15 of the rest come to an end after no more than 200 feet, and many of these have been revegetated with grasses, wildflowers and brush or young trees. That leaves about 1.45 access points to interior National Forest land in this roadless area for every mile of perimeter road, about the average for the newly inventoried roadless areas on the Chequamegon-Nicolet. Only 7 of these interior access routes are longer than 0.13 mile in length. One of these travelways, the unnumbered connection to FR 513 from FR 136 is quite long (4.55 miles) and receives extensive use as a 4WD/ATV route. The other six travelways show evidence of occasional 4WD/ATV use, but not as extensive as FR 513. These figures do not account for user-developed side trails along the Flambeau Trail on the north boundary (or for FR 528, which also extends south from the Flambeau Trail).

There are several locations where ATV enthusiasts leave Forest Trail 121 to play in the sand or follow old travelways. Forest Road 513 is an example of this kind of use, and there are at least half-a-dozen other locations along the trail where an ATV can follow another route.

The paradox of the Schmuland/Popple Creek Roadless Area is that it is about average among the newly inventoried roadless area in terms of the level access, improved or unimproved, that it has to interior lands; but it is much more influenced by off-highway motorized recreation activities because of its proximity to the Flambeau Trail and the emphasis these activities have in this part of the National Forest.

Biological Evaluation

The Schmuland/Popple Creek Roadless Area is over one-half wetlands (3,696 acres, or 52%). Of the uplands, 73% is early-successional forest types (2,479 acres, 35% of the entire area). Northern hardwood forest types occur on less than 5% of the area. There is a history of active timber management in this roadless area. There are no identified Landscape Analysis and Design (LAD) complexes here with potential as Ecosystem Reference Areas (potential for designation as Research Natural Area, Special Management Area, or Old Growth).

There are approximately 3.9 miles of perennial streams within the Schmuland/Popple Creek Roadless Area. This includes the headwaters of Popple Creek, which is typed as NSW using draft Aquatic Ecological Classification System definitions for "valley segments" within the Chequamegon-Nicolet National Forest. NSW segments are narrow (less than 20' wide), soft alkalinity (between 5ppm and 20ppm), warm water (greater than 26 degrees Celsius) streams. Three to ten fish species may occur in NSW segments, and these are dominated by creek chub, stickleback, mudminnow, and finescale dace. No mussel species are known to occur in these segments. A control structure was installed where Popple Creek crosses Forest Road 136 in 1990, effectively impounding an approximately 50-acre area. This impoundment was intended primarily to promote waterfowl habitat. Schmuland Flowage, located in the southwest corner of

the area, had its control structure removed in 1991, so it is no longer managed as a waterfowl impoundment. There are no known Threatened and Endangered (TES) aquatic species within this roadless area.

This area falls within the Wilson Flowage wolf pack territory. The eastern timber wolf, *Canis lupus*, is a federally-listed Threatened and Endangered Species (TES).

Biotic Species Requiring Primitive Surroundings

No existing or potential Ecological Reference Areas (ERA) have been identified within the Schmuland/Popple Creek Roadless Area. The area in and of itself is not large enough to provide wildlife species with primitive surroundings. It contributes to the overall forest mosaic; but, in this context, it is similar to the general forest environment. There are no wildlife species within the Chequamegon-Nicolet dependent upon Wilderness.

Ecological Evaluation

As suggested in the Forest Service Handbook, FSH 7.23b, the “analysis of the degree to which (a roadless area) contributes to the local and national distribution of wilderness” should use Edwin A. Hammond’s subdivision of landform types and the Bailey-Kuchler ecosystems classification. With regard to the Upper Great Lakes Region, almost all of this area is classified as Laurentian Mixed Forest Province (Province 212).

In his 1999 publication Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends, H. Kenneth Cordell notes that this particular ecoregion encompasses some 94.4 million acres, or 4.9% of the lower 48 states. Currently, 1,226,870 acres of this ecoregion are Congressionally-designated Wilderness on federal lands, representing 2.8% of all federal Wilderness in the lower 48 states. As a result, 1.3% of the ecoregion is represented as Wilderness. One further note: The Boundary Waters Canoe Area Wilderness accounts for 1,086,954 acres, or 86% of the total Wilderness acreage in the Laurentian Mixed Forest Province; and virtually all of this acreage is in one subsection (212La, Border Lakes).

The first national ecological unit map based on a national hierarchical framework of ecological units featuring Edwin A. Hammond’s subdivision of landform types and the Bailey-Kuchler ecosystems classification was published in 1994. In 2000, the Forest Service Eco-Map team requested recommendations from field personnel for updating the national ecological unit map, with particular focus on the Section level of the classification hierarchy. In response to this request, the State of Wisconsin assembled an interagency Landtype Association (LTA) technical team to re-evaluate Section boundaries and assess the need for refinement, based on information accumulated during the development of the initial Wisconsin LTA map. This team submitted Section boundary changes for Wisconsin to the national Eco-Map team; and, in February 2001, the official Wisconsin LTA Map reflected these changes. A soon-to-be-published new Section map of the United States will incorporate these changes, as well.

The sum of the changes incorporated into the new national ecological unit map is that several large Sections covering portions of Wisconsin and the Upper Peninsula of Michigan have been subdivided into new Sections; and, in some cases, new Subsections. With regard to the

Chequamegon-Nicolet National Forest lands, 4 new Section and 3 new Subsection mapping units have been created. As a result, portions of the Chequamegon-Nicolet NF now lie within 6 different Sections (where before there were only 2 Sections, defined on a much broader scale); 14 Subsections (where before there were only 11 Subsections; and 27 LTA's (the same number as previously).

The Land Type Associations (LTA's) have remained the same in number, and in common name; but they have been relabeled to accurately reflect the Section and subsection to which they now belong. For example, LTA polygon 212Jb01 will remain as 212Jb01; but former LTA polygon 212Jc04 is now 212Xa03, reflecting its position within Province 212, Section "X", Subsection "a".

Using the revised classification, the Schmuland/Popple Creek Roadless Area falls within the following ecological units:

Section:	212X – Northern Highlands
Subsection:	212Xa – Glidden Loamy Drift Plain
Land Type Association (LTA):	212Xa03 – Chequamegon Washed Till/Outwash

Section 212X is currently represented by the following Congressionally-designated Wilderness Areas: Porcupine Lake (66%), Blackjack Springs, Whisker Lake and Headwaters Wilderness Areas (Chequamegon-Nicolet NF)

Subsection 212Xa is currently represented by 66% of the Porcupine Wilderness Area in LTA 212Xa03.

Scientific/Educational Evaluation

There are no existing or candidate Ecological Reference Areas in this roadless area.

Cultural Evaluation

Extensive areas within the Schmuland/Popple River Roadless Area have been the subjects of cultural resource inventory, though additional inventories will be required in the future (reference CRRR No. 09-02-01-121 and 147). One cultural resource property has been recorded, and has been described as Sailor Lake CCC Camp (referenced CRIF No. 09-02-01-037), and a second, of unknown cultural affiliation, has been reported along Sailor Lake's north shore (no file reference), although this is just outside the Roadless Area boundary. The uplands of this roadless area offer moderate potential for prehistoric and historic human utilization and habitation.

Challenge Evaluation

The chance of experiencing a life-threatening situation within the Schmuland/Popple Creek Roadless Area would be due more to an unfortunate incident than any challenge presented by the area itself. A person experiencing a debilitating injury while alone in the heart of the roadless area could certainly find himself or herself in a life-threatening situation. Weather can also play

a critical role in determining the level of challenge, as hypothermia, sudden snowstorms, or diving temperatures could catch a visitor unawares. These are hazards encountered anywhere on the Forest; but being on foot in a Roadless Area may amplify the risk to a slightly higher level.

Much of the upland area of the Schmuland/Popple Creek Roadless Area is traversed by some form of travelway. Most are unimproved, and virtually all provide some form of access to the perimeter roads and trails. There is really little change in personal risk as one moves deeper into the core area on the uplands. The visitor is never more than 2 miles from a perimeter road or trail, and rarely more than a ¼ mile from any travelway. Perhaps the greatest risk would be in venturing into the lowlands, which make up such a large percentage of the area and where there are few travelways. In these lowlands, which can be quite large in size (several hundred acres of unbroken relief), it is not unlikely that a visitor could develop a sense of isolation. Access by foot to the open lowlands may be possible only in frozen conditions; and this has the inherent risk to the visitor of breaking through thin ice. However, none of the lowlands is so large that the visitor would lose sight of adjacent uplands as a reference. However, in the thick cover of lowland conifers or brush, the visitor could run the risk of losing direction. Still, in any case, the visitor is not far from upland terrain and some form of travelway. And the perimeter roads are in close enough proximity that the visitor is never really isolated in a remote setting with only their wits and their knowledge of outdoor skills to get them back to safety.

Primitive and Un-confined Recreation Evaluation

Hunting and off-highway motorized travel are the dominant recreation activities in the Schmuland/Popple Creek Roadless Area. These are common activities throughout the Chequamegon landbase of the National Forest, and the region in general. With a sizeable percentage of the uplands in early-successional habitat, particularly aspen, this area provides good opportunities to hunt white-tailed deer, black bear and ruffed grouse. The availability of a few long, open, unimproved travelways, and the presence of the Flambeau Motorized Trail as a connection, make this area particularly attractive to off-highway vehicle enthusiasts; as well as to hunters who want to use motorized vehicles to access interior hunting locations.

The Schmuland Flowage, although no longer managed as a waterfowl impoundment, still contains suitable waterfowl habitat. The travelways to access any potential hunting or viewing areas on the Schmuland Flowage are unimproved. As a result, this large open wetland provides a challenging outdoor experience for the adventurous waterfowl hunter or wildlife watcher.

The Popple Creek Flowage is a managed waterfowl impoundment that is readily accessible. Waterfowl hunters and bird watchers can park in a gravel lot adjacent to the impoundment control structure on Forest Road 136, and have direct access to the flowage. There is another location where visitors can get direct access from Forest Road 137 to the flowage over an open, improved road. This access appears to be well traveled and terminates in an open area with a user-developed camping site. With the ease of access, the close proximity of the perimeter roads, and the controlled water levels of the Popple Creek Flowage; the potential experience of the waterfowl hunter or wildlife watcher is more managed and much less primitive than the potential experience on Schmuland Flowage.

Special Features Evaluation

The special features within the Schmuland/Popple Creek Roadless Area include:

- Forest Trail 121, one of four featured motorized ATV and off-road motorcycle trails on the Chequamegon-Nicolet National Forest;
- Schmuland Flowage, an unmanaged open wetland with potential waterfowl habitat;
- Popple Creek Flowage, a managed waterfowl impoundment.

All of these areas are discussed in other sections of this report.

Manageability Evaluation

The size and shape of the Schmuland/Popple Creek Roadless Area makes its preservation practical. Approximately 70% of the boundary follows perimeter roads that are well defined in the transportation network, open to the public and consistently traveled by passenger vehicles. The remaining 30% of the boundary follows an improved motorized recreation trail. The presence of the trail, as well as a history of motorized access and off-road motorized recreation in this area do present specific manageability concerns. There are at least 7 open, unimproved roads that traverse this roadless area, and there is a well-established use pattern on many of these roads by ATV and 4WD enthusiasts. It would be very difficult to deter this use within the area particularly when a motorized recreation trail makes up nearly 5 miles of the boundary. The area is essentially being used as a semi-primitive motorized area, although it is not specifically managed as such.

The private land within the boundary of the Schmuland/Popple Creek Roadless Area is located in one 45-acre block adjacent to Forest Road 139. This block is located in the northwest corner of the roadless area, across the road from the Sailor Lake Campground and Day Use Area. The block is small enough and situated such that it would present no management concerns for this area.

Access points to the area are adequate. Outstanding mineral rights are scattered and comprise less than 15% of the area, with the underlying minerals of unknown value. There are no special use permits or utility corridors within the area.

Availability Evaluation

Approximately 49% of the National Forest land, or some 3,511 acres within the Schmuland/Popple Creek Roadless Area is classified as suitable for timber production. In the last 10 years approximately 259 acres of timber have undergone a regeneration harvest. Timber harvest and the associated production of wood products from this area would be precluded by Wilderness designation. This amounts to about 0.35% of the lands suitable for timber production on the Chequamegon-Nicolet.

Foot travel is certainly an available mode of transport in the Schmuland/Popple Creek Roadless Area; but it is more likely that off-road vehicle travel is the more popular mode of transport. The Flambeau Motorized Recreation Trail (Forest Trail 121) is the northern boundary of the roadless area, and FR 513 is obviously a popular off-road vehicle route between the trail and FR 136 on

the southern boundary. There are several other open travelways within the roadless area that could provide access to off-road vehicles. This use would be prohibited by Wilderness designation of the area.

The Popple Creek Impoundment is a constructed earthen dam with an approximately 50-acre reservoir intended to provide habitat for migratory waterfowl. The impoundment has an improved parking area adjacent to FR 136 near the southeast corner of the roadless area. In addition to providing access to the Popple Creek Impoundment for hunting and wildlife viewing, the parking area is the trailhead for the Popple Creek and Wilson Flowage Wildlife Viewing Trail. (This trail runs along the Popple Creek for ½ mile south of the roadless area to viewing areas on Wilson Flowage.) There is a dispersed campsite on the east shore of the Popple Creek Impoundment, within the roadless area. Although the impoundment embankments and control structure and parking area are all located on the periphery of the roadless area, their presence is not consistent with Wilderness characteristics. Mitigation measures may have to be taken to modify the management of this wetland habitat if this roadless area is designated as Wilderness.

Schmuland Flowage was once a constructed impoundment, but the control structure was removed and the earthen dam breached in 1991. There is still a very large wetland with open water in the area once covered by the impounded flowage.

Hunting is a popular recreation activity on the Chequamegon-Nicolet, and the Schmuland/Popple Creek Roadless Area provides quality opportunities for hunting deer, bear and ruffed grouse. There are 9 open roads and trails providing access to the interior of this roadless area. Most of these are drivable with a 4WD vehicle (some with a high clearance 2WD vehicle), and they enhance the ease with which hunters may traverse the area in search of their prey. The Flambeau Trail has a gate closure at access points and does not access the interior anyway, forming the north boundary of the roadless area. The amount of upland acres in early successional habitat (2,479 acres of aspen/paper birch/balsam fir, 35% of total acres, 73% of upland acres) far exceeds the norm for the Chequamegon-Nicolet; and it provides quality forage for deer, bear and ruffed grouse. Although the majority of the wetland acres are open meadow or brush (2,802 acres, 76% of all wetlands), there is still a significant portion of the wetlands in lowland conifers (818 acres, 22% of all wetlands), which provide opportunities for winter bedding areas for deer. Only about 4% (259 acres) of the total acres have undergone a regeneration timber harvest over the past 10 years, so it is possible that some portion of the early-successional habitat is converting to longer-lived species. Designation of the area as Wilderness would preclude further regeneration harvest of timber, and likely result in further conversion of early-successional habitat. This, in turn, would gradually reduce the amount of preferred habitat for deer, bear and ruffed grouse, and may result in diminished use of this area for hunting these species. However, given the level of access and amount of early-successional habitat within the remainder of the National Forest and surrounding forest lands, the prospect of hunting an interior forest setting may be a welcome alternative for certain segments of the hunting population.

There are an estimated 6.00 miles of “system roads” within the Schmuland/Popple Creek Roadless Area. These are travelways that have a road number, have generally been identified on Forest maps or USGS maps, and may be included in the Forest Transportation Inventory as “classified roads”. These roads may currently be improved or unimproved, open or closed, drivable or not drivable. They may appear on a map, but it is possible that they have long since fallen into disuse and may no longer exist as functional travelways on the ground. Within this area, 0.95 mile of the 6.00 miles of system roads are improved. The remaining mileage may be

unimproved or nonexistent. Regardless of condition, most system roads are likely to be included in the total miles used to determine road density on the Chequamegon-Nicolet. As such, any designation of this area as a Wilderness would require that all travelways be closed to motorized vehicles, and that these travelways either be obliterated or converted to foot trails. This includes all improved and unimproved travelways, regardless of whether or not they are system roads. This would result in a net loss of at least 6.00 miles, and probably more, from the total road miles on the Chequamegon-Nicolet.

There are approximately 21 acres of permanent forest openings within the Roadless Area that are maintained for certain wildlife species. The Riley Lake Wildlife Management Area is directly east of the Schmuland/Popple Creek Roadless Area. Much of the nearly 5,000 acres of this area is managed in an open condition using prescribed burning, in large part to promote habitat for the sharp-tailed grouse. There is a proposal in Forest Plan Revision to expand the Riley Lake Area by approximately 800 acres to the west, into the Schmuland/Popple Creek Roadless Area. Designation of this area as Wilderness would preclude prescribed burning and management in an open condition; in effect preventing expansion of the Riley Lake Area to the west.

Fishing is not likely to be affected one way or the other by a Wilderness designation. This area has low potential for sport fishing due to the nature of the streams and the fisheries they support. A Wilderness designation will neither change the nature of the streams, nor make the area more attractive to anglers.

The eastern timber wolf, a federally-listed Threatened and Endangered Species (TES) has been known to occur within and around the Schmuland/Popple Creek Roadless Area. The designation of the area as Wilderness is not likely to result in any immediate change in this circumstance, although, over time, the move away from early-successional habitat and fewer travelways may result in more suitable conditions for the timber wolf.

The Schmuland/Popple Creek Roadless Area supports 3.9 miles of small perennial streams. None of these streams is part of a municipal watershed, and there are no known water storage needs. The September 2000 Draft Watershed Analysis for the Chequamegon-Nicolet National Forest indicates that the Schmuland/Popple Creek Roadless Area falls within the boundaries of two 5th level watersheds – the South Fork Flambeau and the Elk. Water quality should improve slightly from current levels should the area be designated as Wilderness. Most mitigation measures for ground-disturbing activities in non-Wilderness attempt to insure minimum adverse impacts on water quality. However, roads are generally required to support timber harvest; and mitigation measures used in stream or wetland crossings may be insufficient to withstand major weather events. The preponderance of off-road vehicle activity may aggravate sedimentation at stream crossings, or result in wetlands damage where vehicles have access to these areas. In an area designated as Wilderness, ground-disturbing activities are held to a minimum, and roads, temporary or otherwise, would not be necessary to support management activities. This would eliminate the potential for erosion or sediment dumping as a result of a major weather event. Motorized vehicles would be prohibited from operating within the designated area, and this would further reduce opportunities for stream sedimentation or damage to wetlands.

There are no livestock operations within the Schmuland/Popple Creek Roadless Area, nor is there potential for such operations.

Areas in the vicinity of the Schmuland/Popple Creek Roadless Area have undergone exploration for oil and natural gas, although there has been no such exploration within the Roadless Area over the past 10 years. While less than 15% of this area has either reserved or outstanding mineral rights, there is the possibility that deposits may be found within the boundaries. There is one existing gravel pit within the area. The Clover Creek Pit is located near the northern boundary of the roadless area. It is several acres in size, and has been a productive source for crushed aggregate for decades. However, the pit has reached the end of its crushable material, and it will likely be put to bed sometime during the next 5-10 years. There is also an old borrow pit on the south side of the roadless area.

One cultural resource site, the Sailor Lake CCC Camp, has been recorded within the Schmuland/Popple Creek Roadless Area. Designation of the area as Wilderness would have no foreseeable impact on this site, or on any potential site. The absence of ground disturbing activities would enhance the protection of any sites within the area.

Fire protection and pest control techniques would be significantly altered by designation of the area as Wilderness, although neither has been a problem in this area over the past 10 years.

No private lands would be affected by designation of this area as Wilderness. Nor would there be any changes to the transportation system outside the area. Unlike other roadless areas, there would be limited benefit to having the Forest Service work with Fifield Township to find ways to reroute snowmobile and ATV traffic onto roads other than those bordering this area. With the Flambeau Motorized Recreation Trail as a boundary to the north, management of perimeter ATV and snowmobile traffic would be endemic to this roadless area should it be designated as a Wilderness.

There will be no additional access via roads or trails, nor facilities needed to support this area should it be designated as Wilderness.

7) MUD LAKE ROADLESS AREA (MEDFORD/PARK FALLS DISTRICT)

Solitude Evaluation

The Mud Lake Roadless Area is 10,383 acres in size, with 9,968 acres (96%) of National Forest land, and 43 acres of surface water. The private ownership within the Mud Lake Roadless Area is in four separate locations. Approximately 200 acres of private land is contained in several adjoining parcels and small tracts in the northeast corner of the roadless area. These parcels are actually disconnected from the roadless area (the boundary could actually follow the property lines rather than the perimeter roads), and all of these parcels are developed, with residences, a bar/restaurant, a bed & breakfast, and a vehicle repair shop. There is another perimeter parcel located in the southwest corner of the roadless area. This is actually a 15-acre corner of a larger 80-acre parcel that extends across the perimeter road (FR 136). This parcel is developed with a residence on the west side of FR 136, but does not appear to have any development within the roadless area boundary. There are two interior parcels in other ownership. A 120-acre parcel of State School Trust land occupies Section 33. And there is one landlocked 40-acre private parcel in Section 32. This parcel was formerly corporate forest crop land, but it appears that it may have recently been purchased by a private individual. This owner has indicated an interest in building a structure and obtaining a special use permit to access the property, but has yet to pursue this officially.

The boundary of the Mud Lake Roadless Area follows Township Roads or State Highway 70 for the most part, but it also includes segments of Spring Creek and State Snowmobile Corridor #19. The north boundary for the Mud Lake Roadless Area is State Highway 70, a two-lane, 55-mph, asphalt highway. The west boundary of the Mud Lake Roadless Area is actually in two sections: 1) the 5.60-mile Forest Road 505 (Hemlock Road), a two-lane, gravel surface, Traffic Service Level B Township road that travels south from Highway 70; and 2) a 2.35-mile section of Forest Road 136 (Gates Lake Road), a two-lane, gravel surface, Traffic Service Level B Township road. The south boundary of the Mud Lake Roadless Area follows Forest Road 517 (Spring Creek Road), a single-lane (with turnouts), gravel surface, Traffic Service Level B Township road for 1.30 miles to a dead end. The south boundary then connects with Spring Creek and follows the creek for approximately 2.0 miles east to State Snowmobile Corridor #19. The east boundary of the Mud Lake Roadless area is actually in three sections: 1) a 2.35-mile section of State Snowmobile Corridor #19, a generally unimproved trail with some improved segments; 2) the 4.35-mile Forest Road 519 (Foulds Creek Road), which includes a 1.50-mile segment as an improved single-lane, pit run surface, Traffic Service Level D Forest Service road, and a 2.85-mile segment as a lane-and-a-half, gravel surface, Traffic Service Level C Township road (note that a closed gate separates these two segments of FR 519); and 3) a 1.30-mile section of Forest Road 132 (Sheep Ranch Road), a two-lane, gravel surface, Traffic Service Level B Township road terminating at Highway 70.

The core area of solitude is defined as a contiguous core of National Forest land that is separated by at least ½-mile from the influence of motorized traffic and land uses inconsistent with the semi-primitive non-motorized experience (a more detailed description of the process for determining core area of solitude can be found on pages 4-6 of this report). For the Mud Lake Roadless Area, this core is 4,163 acres, or about 42% of the total National Forest acres within the Roadless Area. This is the largest core area of any of the newly inventoried roadless areas on the Chequamegon-Nicolet.

There are a total of 33 approaches providing access to National Forest land along the roaded perimeter of the Mud Lake Roadless Area, including 9 improved roads (see Appendix C). The Mud Lake Roadless Area does not have a history of non-motorized management, so 23 of these approaches, including all of the improved travelways, are open to motorized vehicles; 21 of these are drivable with a standard vehicle, but only 11 are longer than 200' in length.

Four of the improved roads are actually constructed approaches along the west perimeter of the roadless area. These roads, FR 505F, FR 505H, FR 921 and FR 136M were all constructed to a length of 150-200' with a template and pit run base to facilitate access to interior timber. They may have been constructed in conjunction with timber sales or as separate public works contracts. There are a number of other short approaches along the perimeter roads, but these do not have a template and surfacing.

The Mud Lake Roadless Area contains a very high percentage of wetlands, concentrated primarily in the core area, so very few travelways, improved or unimproved, penetrate too deeply into the core area. Forest Road 519A, located along the east boundary, is the longest of the improved travelways. This road is 10-12' wide with a pit run surface that is rough in spots but generally in good driving condition. This route was recently used to access a timber sale near the terminus. The travelway ends at the 0.95-mile mark with a turnaround in the middle of a recent clearcut. Forest Road 519E, also located along the east boundary, is a short, improved, 12-14' wide travelway with a pit run surface. This road ends at the 0.18-mile mark with a turnaround.

Two more improved roads enter the interior from State Highway 70 on the north boundary. Forest Road 127 is 8-10' wide with a pit run surface and drivable for 0.60 mile to a loop turnaround. Forest Road 913 has a gravel approach and a grass cover over a pit run surface for 0.1 mile to a T-turnaround.

One other improved road is part of an active timber sale. Forest Road 505A has been temporarily blocked to public traffic while the operator is working, but it has a solid base and is drivable with a standard vehicle for 0.3 mile. This section of the road includes a 0.1-mile wetland fill that functions as an impoundment. Beyond the 0.3-mile mark, the travelway continues in an unimproved condition to a recent clearcut unit.

Two of the remaining approaches provide access to State Snowmobile Corridor #19. The approach to the trail from FR 505 on the west boundary is gated. The trail crosses from the Mud Lake area into the Riley Lake Wildlife Management Area on the west side of FR 505. The snowmobile trail actually bisects the Mud Lake area for about 2.5 miles from west to east. The trail follows the terrain and has no improvements as it traverses the wetlands in the core of the roadless area. It is strictly usable in frozen conditions only. On the east side of the roadless area, the trail corridor intersects FR 519. This intersection is actually south of the gate that closes this section of FR 519 to public traffic. As a result, there is no gate on the trail where it intersects FR 519. From the intersection, the trail corridor follows FR 519 to its terminus at the Foulds Springs access. From this point, the snowmobile corridor is actually the east boundary for the remainder of the distance south to Spring Creek.

Of the remaining 22 unimproved approaches, 12 are open and drivable, but only 6 of these are over 200' in length; 5 are open but not drivable, and 4 of these over 200' in length; 2 are closed and drivable; and 3 are closed but not drivable, and 1 of these is over 200' in length.

Included among the unimproved travelways are some other numbered routes that show up in the Forest Transportation System, but do not meet the standards described on page 4 of this report. Forest Roads 467 and 468 have no base material, traverse poorly drained soils, and originate as side roads from the unimproved snowmobile corridor. These two routes are accessible in frozen conditions only. Forest Road 517A is drivable, but it is deeply rutted and has no base material or template. Forest Roads 517B and 505G are overgrown and no longer accessible as a travel routes. Forest Road 519D has a berm closure and downed trees blocking the travelway beyond the berm, but it would otherwise be drivable. However, this route has no template or base material and is not improved.

The reality of the Mud Lake Roadless Area is that over 60% of the acreage is wetlands, including open meadow, alder swamp, and lowland hardwoods and conifers. Most of the core area of solitude is in wetlands. There are 23 open travelways to the interior of this roadless area, but only 11 of these are over 200' in length, and the longest is probably no more than a mile in length. The snowmobile corridor is the only travelway that fully penetrates the core area, and it is useable only by snowcraft in frozen conditions. FR 505E is shown on maps to extend for nearly two miles into the heart of the core area; but it actually dead ends in open water only 0.05 mile from FR 505. The core of the Mud Lake Roadless Area is, with a few exceptions, virtually free of travelways.

The Mud Lake Roadless Area is the largest roadless area on the Chequamegon-Nicolet. Simply in terms of size and scale, it provides the best opportunity on the Forest to provide a remote and challenging semi-primitive non-motorized experience. Traffic on Highway 70 is high speed and fairly regular (although certainly not a steady stream), and the noise it generates can influence the northern quarter of the roadless area. Forest Road 132 gets more traffic than most of the Township roads within the National Forest south of Highway 70 (with even the occasional tractor-trailer taking the shortcut to Phillips), but this is still intermittent and generally infrequent. Traffic on the remaining boundary roads is infrequent and whatever noise it generates will have little influence beyond the ½-mile perimeter buffer. The snowmobile trail has probably the greatest influence, since it travels through the heart of the area, and the sound of a snowmobile in the winter can travel further without the sound attenuation provided by leaves on the trees and shrubs.

The 6,160 acres of wetlands may not provide the most attractive or accessible experience for a visitor seeking the solitude the area can offer; but, in the case of the Mud Lake Roadless Area, the qualities of the location may not be what attracts most visitors. The size and remoteness, as well as the qualities, may provide the challenge that some visitors seek; but probably not a lot. In fact, there may be nothing about the area that attracts visitors. And, if you try to accommodate the average visitor, you may end up detracting from the very experience this area can provide. Building trails into a wetlands wilderness to encourage visitors to use the wilderness is like adding fast-food items to the menu of a 5-star restaurant. Folks might order the items because they are comfortable doing so, but they will likely miss the point of the experience.

The upshot of the Mud Lake Roadless Area is that it is probably roadless because it is predominately a wetland. It may not represent the most desirable destination for a person searching for a Wilderness experience. But the measure of a Wilderness is not just the degree to which people want to visit it. Wilderness is not necessarily for the masses, and quite often the

places that are the most wild have remained that way because, over the years, people haven't found anything of interest in them.

Degree of Disturbance Evaluation

The Mud Lake Roadless Area is natural in appearance, although there are signs of recent disturbance. A total of 150 acres has undergone a regeneration harvest during the past 10 years, and all of this has been in the past 3 years. A total of 142 acres of regeneration harvest has been sold but remains to be cut. And 40 acres of regeneration harvest has been offered but not yet purchased. There are 42 acres of upland openings in the Mud Lake area that are maintained for wildlife. Some of these openings may have been seeded with non-native grasses.

There are no active mineral deposits or gravel pits in this area, and no mineral leases or mineral claims. There is an active borrow pit just outside the area, on the north side of FR 517 (east), near the southeast corner of the area, and another small and inactive borrow pit along the Mud Lake side of FR 519. Approximately 18% of the National Forest land in the roadless area has outstanding or reserved mineral rights in other ownership. The 5.25-mile segment of State Snowmobile Corridor #19 that forms part of the east boundary before bisecting the core area is the only developed recreation resource within the Mud Lake area. ATV use is evident on Forest Road 519 (east perimeter road), but it does not appear to be a prominent use elsewhere within the roadless area. There are no recently abandoned railroad grades within the area, and no trail bridges. (A trail bridge on State Snowmobile Corridor #19 is actually the southeast corner of the roadless area, marking the intersection of Spring Creek with the east boundary of the area.)

There may be a cabin on the 40-acre private parcel in Section 32; but, if there is, the owner does not have a drivable access to it, and has not requested a special use permit to date. The interconnected parcels of private land in the northeast corner of the roadless area (along FR 132 and State Highway 70) have a decidedly developed appearance, with several residences on small tracts, a bar/restaurant, a bed & breakfast, and a vehicle repair shop. There is also a bar/gas station on the other side of Highway 70. This is essentially a small community (Pike Lake), but can be viewed separately from the Mud Lake Roadless Area. Just the presence of State Highway 70 is a significant development; the residences and businesses in this location are associated more with the highway than with the roadless area to the south, and their influence on the roadless area is the same as that of the highway. There may be buried cable and/or power lines within the right-of-way of State Highway 70, but they are not visible to the passerby. There are no utilities present on any of the other perimeter roads.

The Mud Lake Roadless Area experienced the effects of two large natural disturbances in the mid-1980s. A tornado that swept through the region in 1985 leveled a ¼-mile to ½-mile swath through the area. This disturbance had its greatest impact on timbered stands on either side of the area, but it had only limited impact on the open lowlands between. In 1987, the Foulds Springs Fire burned nearly 1,100 acres, mostly to the east of the Mud Lake Roadless Area. This fire was started by lightning and spread primarily through dead and down material left over from the tornado two years before. In the case of both natural disturbances, the primary evidence of their occurrence within the Mud Lake area is the relatively young age of the aspen stands along a certain portion of both the east and west perimeters of the area. Other lingering effects may be significant ecologically or silviculturally, but they are not necessarily visible.

A nearly 1.3-mile segment of Forest Road 517 was removed in 1998, and several sections of Spring Creek were rehabilitated. The creek formerly crossed FR 517 in 6 different locations, and the road was responsible for significant sediment dumping in the streambed. The removal of this segment of FR 517 has helped to restore Spring Creek to its natural meander, minimize sediment within the stream, and enhance the coldwater trout fishery. It also resolved an annual major maintenance problem by eliminating an unnecessary road that had been the cause of repeated resource damage.

The Mud Lake Roadless Area has 2.34 miles of improved travelways within the perimeter of the area, a density of 0.23 mile of improved travelways per 1,000 National Forest acres. Along the 16.95 miles of perimeter roads and trails, this roadless area has 33 access points. Two of these provide access to State Snowmobile Corridor #19, and another 13 are less than 200' in length. That leaves slightly less than 1.1 access points to interior National Forest land per mile of perimeter road, the lowest ratio among the newly inventoried roadless areas. Eleven of these are drivable and open to the public, including the 5 improved roads over 200' in length.

The private land in the northeast corner of the Mud Lake Roadless Area has a decidedly developed appearance, with several residences and businesses located on a 0.85-mile corridor along Highway 70. However, this development is generally restricted to within a ¼-mile of the highway, and it has little bearing on the condition or appearance of the roadless area. The active timber harvest near the northwest corner of the roadless area and the recent timber activity along FR 519 give the impression of a managed forest. However, there are no recent clearcuts within view of the perimeter roads, and the temporary skidder trails and landings will soon revegetated when the work is complete. There is a very small ratio of access points to miles of perimeter road for this roadless area, meaning that opportunities to penetrate the interior, particularly by motorized vehicle, are quite limited. The majority of the access points that are drivable are also open; however, most of them do not penetrate very deeply into the interior of the roadless area, and most have vegetation growing in the travelway, allowing the travelway to blend into the surrounding environment. With wetlands encompassing more than 60% of the landbase in this roadless area, there is very little interior disturbance. For the most part, the Mud Lake Roadless Area has the appearance of a lightly disturbed landscape in which forest management activities take place on an intermittent basis.

Biological Evaluation

Wetlands account for 62% of the vegetative composition of the Mud Lake Roadless Area, and approximately 36% of those wetlands are lowland conifers. Early-successional forest types, predominately aspen, account for 23% of the roadless area, and northern hardwoods account for 12%. Upland openings (ranging in size from 1 to 7 acres) are found on 42 acres.

Two large Landscape Analysis and Design complexes have significant roles in the ecological composition of the Mud Lake Roadless Area. The "Mud Lake Bog and Cedar Swamp" LAD complex is 2,531 acres in size and is completely contained within the roadless area boundary. The "Pond Lake Muskeg" is 640 acres in size, and it too is contained completely within the roadless area. Both sites have been classified as "large-sized landscape complexes" and are potential Ecological Reference Areas. These two sites have been recommended for designation as "Old Growth and Natural Feature" complexes as part of the Plan Revision effort on the Chequamegon-Nicolet.

The principle community types found in the Mud Lake Bog and Cedar Swamp LAD complex are: Northern wet forest (including both white cedar and black spruce/tamarack types), Northern wet-mesic forest (TMC hemlock/yellow birch), acid bog lake (Mud Lake), emergent and submergent aquatics. This site includes a small stand of hemlock-hardwood forest with some remnant old growth inclusions. Dense yellow birch poles are found in disturbed areas. Small, intermittent drainages flow out of several “perched” ash swamps in upland locations. Extensive good quality conifer swamp including an undisturbed bog lake is immediately adjacent. Aspen stands further south include burr oak (unusual for the Forest), basswood, and white ash. The 120-acre parcel of State School Trust land occurs within this complex, and provides a high quality inclusion. Compatible management in adjacent uplands could compensate for the small size of the hemlock-hardwood forest in this site. Deer browse in parts of the complex is heavy, and there is some potential as a yarding area. The Cedar Swamp includes a permanent vegetation monitoring plot.

Three nesting sites of the northern goshawk, *Accipiter gentiles* (Regional Forester’s Sensitive Species), have been located just to the east of the Mud Lake Bog and Cedar Swamp complex. One of these nests was determined to be active as recently as 2000. The Canada blackcurrant, *Ribes hudsonianum* (State Imperiled Species), has been known to occur within this complex.

The Pond Lake Muskeg complex is composed principally of good quality black spruce saturated woodland, leatherleaf bog, and wiregrass sedge meadow. There is a small hemlock stand and a small white cedar swamp. In addition, there are a few island inclusions of aspen or aspen/paper birch. An adjacent hardwood stand (C119 S26) has recently been surveyed and recommended for inclusion into this complex.

There are approximately 8.1 miles of perennial streams within the Mud Lake Roadless Area. This includes Foulds Creek, unnamed tributaries to Foulds Creek and Elk River, and Spring Creek, which forms a 2.0-mile segment of the south boundary of the roadless area.

Using draft Aquatic Ecological Classification System definitions for “valley segments” within the Chequamegon-Nicolet National Forest, Foulds Creek, is typed as an NMOg segment. NMO segments are narrow (less than 20’ wide), moderate alkalinity (greater than 20ppm), cool (greater than 23 and less than 26 degrees Celsius) streams. NMO segments support 3 to 12 species of fish, and 0 to 1 species of mussel. The dominant fish species in NMO segments include creek chub and blacknose dace. The “g” subscript means that there is a locally significant groundwater source(s) within the stream, which means that trout could be part of the biological community. A straight NMO type has a similar water temperature regime, but does not have local groundwater input, and does not have trout as part of the biological community. In the case of Foulds Creek, local groundwater is present, and the fishery is more extensive than the standard NMO type, with 5 to 14 species including white sucker and brook trout. The State of Wisconsin has designated Foulds Creek a Class I trout stream, meaning the stream is a high quality trout water with natural reproduction. Stocking is not necessary to maintain the trout population. The lower end of Foulds Creek, close to where the creek enters the Pike Lake Chain, is the portion that lies within the Mud Lake Roadless Area. This proximity to Pike Lake means that other species of fish may wander into the stream, including largemouth bass, panfish, and muskellunge.

The unnamed tributary to the Elk River is typed as NMW. NMW segments are narrow (less than 20' wide), moderate alkalinity (greater than 20ppm), warm water (greater than 26 degrees Celsius) streams. Five to nine fish species may occur in NMW segments, and these are dominated by northern redbelly dace, creek chub, central mudminnow, blacknose dace, and white sucker. It is highly unlikely that mussels occur in NMW segments. This creek does not support much of a fishery. And neither this unnamed tributary of Elk River, nor Foulds Creek and its tributary are known to harbor Threatened and Endangered aquatic species.

In addition to the interior streams, Spring Creek forms a portion of the south boundary for the Mud Lake area. Spring Creek is actually a tributary to the Elk River; and, like Foulds Creek, it has been designated by the State of Wisconsin as a Class I trout stream, capable of maintaining a natural trout population. Spring Creek is somewhat unique in the way it has been typed. The headwaters is typed as NAC, which is not commonly found on the Chequamegon-Nicolet. These segments are narrow (less than 20' wide), acid (less than 5ppm alkalinity), coldwater (less than 23 degrees Celsius) streams. The acidity tends to limit the biota, and this segment typically has only 0 to 2 fish species, most commonly mudminnow, and supports no mussels. Shortly after this stream enters the Mud Lake boundary, it reaches Grant Springs, a groundwater source that feeds the stream and changes the type to NMOg. Normally, NMO segments are narrow (less than 20' wide), moderate alkalinity (greater than 20ppm), cool (greater than 23 and less than 26 degrees Celsius) streams. NMO segments support 3 to 12 species of fish, and 0 to 1 species of mussel. The dominant fish species in NMO segments include creek chub and blacknose dace. The "g" subscript means that there is a locally significant groundwater source(s) within the stream, which means that trout could be part of the biological community. A straight NMO type has a similar water temperature regime, but does not have local groundwater input, and does not have trout as part of the biological community. In the case of Spring Creek, local groundwater is present, and the fishery is more extensive than the standard NMO type, with 5 to 14 species including white sucker, several species of dace, mottled sculpin, and brook trout. Spring Creek, from Grant Springs west to its confluence with Elk River, actually becomes a significant groundwater source within the Elk River system, and it provides valuable spawning and rearing habitat for brook trout within the system.

Two acid bog lakes are also prominent aquatic features on the landscape. Pond Lake is a 55-acre acid bog lake with a maximum depth of 5 feet. A 472-acre spruce/leatherleaf/tag alder bog surrounds the lake. Pond Lake suffers from periodic winterkill. Minnows are the primary fish species, and the lake has limited potential as a recreation fishery.

Mud Lake is a 27-acre acid bog lake with a maximum depth of 4 feet. This lake is also surrounded by a spruce/leatherleaf/tag alder bog. It too has periodic winterkill, and has limited potential as a recreation fishery.

The Mud Lake Roadless Area is within the range of the Bootjack Lake wolf pack, *Canis lupus* (federally-listed TES). Spruce grouse, *Falcapennis Canadensis* (Regional Forester's Sensitive Species), has been seen along the perimeter of the roadless area, most likely visitors from the Riley Lake Wildlife Management Area. There is also a great blue heron rookery just to the east of the Mud Lake Roadless Area, in Section 23. The great blue heron, *Ardea herodias*, is a Draft Forest Sensitive Species.

Biotic Species Requiring Primitive Surroundings

The “Mud Lake Bog and Cedar Swamp” LAD complex is 2,531 acres in size and is completely contained within the roadless area boundary. The “Pond Lake Muskeg” is 640 acres in size, and it too is contained completely within the roadless area. Both sites have been classified as “large-sized landscape complexes” and are potential Ecological Reference Areas. These two sites have been recommended for designation as “Old Growth and Natural Feature” complexes as part of the Plan Revision effort on the Chequamegon-Nicolet. The ecological values inherent to these complexes would directly benefit from designation of the encompassing Mud Lake Roadless Area as Wilderness. This designation would protect these potential ERA’s from ground disturbing activities and other modifications to the landscape

This area in and of itself is not large enough to provide wildlife species with primitive surroundings. It contributes to the overall forest mosaic; but, in this context, it is similar to the general forest environment. There are no wildlife species within the Chequamegon-Nicolet that are dependent upon Wilderness.

Ecological Evaluation

As suggested in the Forest Service Handbook, FSH 7.23b, the “analysis of the degree to which (a roadless area) contributes to the local and national distribution of wilderness” should use Edwin A. Hammond’s subdivision of landform types and the Bailey-Kuchler ecosystems classification. With regard to the Upper Great Lakes Region, almost all of this area is classified as Laurentian Mixed Forest Province (Province 212).

In his 1999 publication Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends, H. Kenneth Cordell notes that this particular ecoregion encompasses some 94.4 million acres, or 4.9% of the lower 48 states. Currently, 1,226,870 acres of this ecoregion are Congressionally-designated Wilderness on federal lands, representing 2.8% of all federal Wilderness in the lower 48 states. As a result, 1.3% of the ecoregion is represented as Wilderness. One further note: The Boundary Waters Canoe Area Wilderness accounts for 1,086,954 acres, or 86% of the total Wilderness acreage in the Laurentian Mixed Forest Province; and virtually all of this acreage is in one subsection (212La, Border Lakes).

The first national ecological unit map based on a national hierarchical framework of ecological units featuring Edwin A. Hammond’s subdivision of landform types and the Bailey-Kuchler ecosystems classification was published in 1994. In 2000, the Forest Service Eco-Map team requested recommendations from field personnel for updating the national ecological unit map, with particular focus on the Section level of the classification hierarchy. In response to this request, the State of Wisconsin assembled an interagency Landtype Association (LTA) technical team to re-evaluate Section boundaries and assess the need for refinement, based on information accumulated during the development of the initial Wisconsin LTA map. This team submitted Section boundary changes for Wisconsin to the national Eco-Map team; and, in February 2001, the official Wisconsin LTA Map reflected these changes. A soon-to-be-published new Section map of the United States will incorporate these changes, as well.

The sum of the changes incorporated into the new national ecological unit map is that several large Sections covering portions of Wisconsin and the Upper Peninsula of Michigan have been

subdivided into new Sections; and, in some cases, new Subsections. With regard to the Chequamegon-Nicolet National Forest lands, 4 new Section and 3 new Subsection mapping units have been created. As a result, portions of the Chequamegon-Nicolet NF now lie within 6 different Sections (where before there were only 2 Sections, defined on a much broader scale); 14 Subsections (where before there were only 11 Subsections; and 27 LTA's (the same number as previously).

The Land Type Associations (LTA's) have remained the same in number, and in common name; but they have been relabeled to accurately reflect the Section and subsection to which they now belong. For example, LTA polygon 212Jb01 will remain as 212Jb01; but former LTA polygon 212Jc04 is now 212Xa03, reflecting its position within Province 212, Section "X", Subsection "a".

The Mud Lake Roadless Area falls within the following ecological classification:

Section:	212X – Northern Highlands
Subsection:	212Xa – Glidden Loamy Drift Plain
Land Type Association (LTA):	212Xa03 – Chequamegon Washed Till/Outwash

Section 212X is currently represented by the following Congressionally-designated Wilderness Areas: Porcupine Lake (66%), Blackjack Springs, Whisker Lake and Headwaters Wilderness Areas (Chequamegon-Nicolet NF)

Subsection 212Xa is currently represented by 66% of the Porcupine Wilderness Area in LTA 212Xa03.

Scientific/Educational Evaluation

The two potential Ecological Reference Areas, including the 2,531-acre "Mud Lake Bog and Cedar Swamp" and the 640-acre "Pond Lake Muskeg" provide some limited opportunities for scientific investigation and/or education. The Mud Lake Bog and Cedar Swamp includes a permanent vegetation monitoring plot. This complex also includes a population of Canada blackcurrant (*Ribes hudsonianum*) that can be monitored. The presence of an active northern goshawk (*Accipiter gentiles*) nest near the roadless area presents an excellent opportunity to monitor the nesting habits and reproductive health of this Regional Forester's Sensitive Species. Portions of the Mud Lake Roadless Area that were impacted by the tornado in 1985 or the Foulds Springs Fire in 1987 provide an opportunity to monitor the long-term response and recovery to these natural disturbances. There is also an excellent opportunity to monitor the effectiveness of road obliteration and stream rehabilitation techniques with the restored segments of Spring Creek.

Cultural Evaluation

Less than ten percent of the Mud Lake Roadless Area has undergone a cultural resource survey, and only one cultural resource has been located (reference FS Site No. 09-02-01-099). The single recorded site is a logging camp, and it has not been evaluated to determine its potential significance or eligibility for the National Register of Historic Places (NRHP). Since the majority of the Mud Lake Roadless Area is wetland, it is not anticipated that a high frequency of either Native or European American activity areas or settlements will be present. Terraced uplands that bound the broad expanse of wetlands may have high potential for past human

activity areas. Wilderness designation would not have an adverse effect on FS Site No. 01-099, nor presumably on other sites that may be located in this area. Under the authority of section 110 of the National Historic Preservation Act, surveys should be scheduled for the area in the future.

Challenge Evaluation

The chance of experiencing a life-threatening situation within the Mud Lake Roadless Area depends on where the person is located within the roadless area, and the risks they have taken to get to where they are. Since most of the uplands within the roadless area are located along or near the perimeter of the area, there is little opportunity in the uplands areas to venture far enough into the core to find the remoteness and isolation associated with life-threatening situation in a Wilderness. However, a significant portion of the uplands is found in the southeast corner of the roadless area, where the unimproved snowmobile trail and Spring Creek form the boundary. Even though these uplands are within a mile of the perimeter of the roadless area, the perimeter here is formed by natural features and a gated trail. So this portion of the roadless area is a little more isolated than the other uplands that hug the perimeter.

The bulk of the core of the Mud Lake Roadless Area is wetlands. Much of this is lowland conifers, and an adventurous hiker can actually make their way into the core by crossing the wetlands on hummocks and islands. Here is where a life-threatening situation can become more of a consideration. A person experiencing a debilitating injury while alone or even with companions in the core of this roadless area could certainly find himself or herself in a life-threatening situation. The flat and featureless terrain can make getting lost quite easy, and finding someone who is lost extremely difficult. Access for rescue operations would also be difficult. Weather can also play a critical role in determining the level of challenge, as hypothermia, sudden snowstorms, or diving temperatures could catch a visitor unawares. These are hazards encountered anywhere on the Forest; and, considered in conjunction with the size of the Mud Lake wetlands, they are hazards typically encountered now within this area. Being on foot in the heart of a massive concentration of wetlands, which is also forms the core of a roadless area, may amplify the risk to a slightly higher level.

There are very few travelways that penetrate the core of this roadless area, and the preponderance of wetlands within the area (62% of National Forest acreage, encompassing most of the core) would indicate that the density of travelways within the upland acres near the perimeter is much higher than that for the entire area. With the exception of the snowmobile trail, the longest of the travelways penetrates no more than a mile from the perimeter into the roadless area. The extensive wetlands make cross-country travel difficult in all but frozen conditions (although there is risk of falling through thin ice during potentially dangerous cold-weather conditions when a mile or more from the nearest open, public road), and very challenging in all circumstances. The adventurous traveler who makes their way into the heart of the Mud Lake core will find themselves in one of the more isolated areas they will find within the Chequamegon landbase of the National Forest, and most certainly in a situation where their wits, their knowledge of outdoor skills, and their attention to safety will be necessary to guide them through the considerable obstacles.

Primitive and Un-confined Recreation Evaluation

Hunting, fishing and snowmobiling are probably the dominant recreation activities in the Mud Lake Roadless Area. These are common activities throughout the Chequamegon-Nicolet National Forest, and the region in general. With a significant portion of the limited uplands acres in early-successional habitat, particularly aspen, this area provides opportunities to hunt white-tailed deer, black bear and ruffed grouse. The opportunity to hunt in a non-motorized setting has value to a segment of the hunting population. These opportunities are limited on the Chequamegon landbase of the National Forest.

Fishing opportunities within this roadless area are already those of a semi-primitive non-motorized nature. Foulds Creek and Spring Creek are both state designated Class I trout streams, but the terrain and thick brush along their shorelines mean that a person looking for a backwoods trout fishing experience will have to work to fish these streams. Each stream has some open sections along the shoreline where fishing is better accommodated, and each has a spring where the fishing is probably at its best. In the case of Foulds Creek, Foulds Springs is located outside of the roadless area and is a popular spot that can be reached by motor vehicles. In the case of Spring Creek, Grant Springs is not accessible by motor vehicle, nor is it impounded like Foulds Springs.

Snowmobile activity in this area is generally limited to State Snowmobile Corridor #19, and possibly some unplowed travelways. There is evidence of ATV use on the gated portion of FR 519, and the perimeter section of the snowmobile trail, as well as a few of the travelways that penetrate the interior. This activity is not pervasive, and appears to be limited to existing travelways.

Special Features Evaluation

The Mud Lake Roadless Area contains two Landscape Analysis and Design complexes that are notable for their ecological significance. The 2,531-acre “Mud Lake Bog and Cedar Swamp” LAD complex, and the 640-acre “Pond Lake Muskeg” have been classified as “large-sized landscape complexes” and are potential Ecological Reference Areas. These two sites have been recommended for designation as “Old Growth and Natural Feature” complexes as part of the Plan Revision effort on the Chequamegon-Nicolet. Further, these two complexes contribute to the 6,160 acres of largely contiguous wetlands that make up the core of this roadless area. For size, ecological significance, and remoteness, this may be the best and largest undisturbed contiguous wetlands within the Chequamegon landbase of the National Forest. Kidrick Swamp, on the Medford unit, is equally, if not more so, significant ecologically, but it is neither as large in scale, nor as remote (core area is less than 2,000 acres).

The presence of two Class I trout streams, Foulds Creek and Spring Creek, within or along the boundary of this area is another notable feature.

With approximately 5.75 miles of State Snowmobile Corridor #19 either forming the boundary or bisecting the interior of this area, this trail has a significant influence on the Mud Lake Roadless Area. Any discussion regarding potential designation of this area as Wilderness would probably have to include relocation of the interior portion of this trail.

Manageability Evaluation

The boundary for the Mud Lake Roadless Area is fairly well defined; and its size and shape make its preservation practical. Approximately 70% (13.95 miles) of the Mud Lake boundary follows perimeter roads that are open to the public, traveled by passenger vehicles, and managed under the jurisdiction of a public road authority (Township or State). Another 8% (1.50 miles) of the boundary is a Forest Service Traffic Service Level C road that is closed to public access. The remainder of the boundary follows a gated snowmobile trail (2.35 miles, or 12%), and Spring Creek (approximately 2.0 miles, or 10%). There are at least 10 open, unimproved travelways (some that are not drivable, and some that are drivable only with a 4WD vehicle) that provide access of more than 200' and up to one mile to the interior of this roadless area, and another 5 open, improved travelways of similar length, an average of 1.10 open access points per mile of open perimeter road. There are five additional unimproved travelways that are blocked or otherwise closed to traffic, and 11 other access points to travelways (improved and unimproved) that extend no more than 200' into the roadless area. There is some evidence of ATV use on a few of these travelways, but this use does not appear to be pervasive, and it stays on the travelways.

Timber management activity takes place primarily along the upland perimeter of this area, but evidence of harvesting operations is almost non-existent, and even regeneration harvest areas have revegetated quickly. Portions of the area that were impacted by the 1985 tornado are now young stands of aspen and the occasional northern hardwoods. The interior wetlands have not been a focus of timber management activities, and have remained undisturbed for the most part. Designating the area as a Wilderness would require effective closure to motorized vehicles of all access points, and a discontinuation of all timber management activities within the area.

The non-federal land within the boundary of the Mud Lake Roadless Area is in three locations. The first of these locations is approximately 200 acres of private land in the northeast corner of the roadless area. This land has been subdivided into several parcels and has been developed into part of the small, unorganized community of Pike Lake. All of these parcels have direct access from either State Highway 70 or FR 132, none of them require access across National Forest land; and the entire 200 acres is set apart from the roadless area and has only limited influence on the immediate vicinity within the roadless area. A second location includes a 120-acre parcel of State of Wisconsin School Trust lands. This parcel actually borders on the closed portion of perimeter road FR 519, and therefore has direct access from a perimeter road, if necessary. The last location is an interior, private 40-acre parcel that does not currently have access across National Forest land, but may require such access in the future.

There are no outstanding mineral leases or claims within the roadless area. Only 18% of the National Forest lands within the area have reserved or outstanding mineral rights in other ownership. This area lies just to the north and outside the range of a portion of the National Forest and the surrounding region that has attracted attention from prospecting companies exploring for precious metal deposits. It may contain such deposits or other minerals, but it is not currently the focus of any exploration efforts. There are no utility corridors within the roadless area, although there may be some buried lines within the right-of-way for Highway 70 on the north boundary of the area.

Availability Evaluation

Approximately 40% of the National Forest land, or some 4,035 acres within the Mud Lake Roadless Area is classified as suitable for timber production. This area has the highest percentage of non-forest lands (3,894 acres, or 39%) than any of the newly inventoried roadless areas. The Stony Creek Roadless Area has 1,339 non-forested acres, or 18% of its total National Forest land; the Hungry Run area is next with 1,213 acres, or 16% of its total. In the last 10 years approximately 150 acres of timber have undergone a regeneration harvest, and another 142 acres have been sold but remain uncut. Together this represents 7% of the suitable acres, but only 3% of the total National Forest acres in this area. Timber harvest and the associated production of wood products from this area would be precluded by Wilderness designation. This amounts to about 0.4% of the lands suitable for timber production on the Chequamegon-Nicolet.

The Mud Lake Roadless Area supports 8.1 miles of streams and rivers, including two Class I trout streams. None of these streams is part of a municipal watershed, and there are no known water storage needs. The September 2000 Draft Watershed Analysis for the Chequamegon-Nicolet National Forest indicates that the Mud Lake Roadless Area falls within the boundaries of two 5th level watersheds – the Elk River and the Upper South fork of the Flambeau River. Water quality should improve slightly from current levels should the area be designated as Wilderness. Most mitigation measures for ground-disturbing activities in non-Wilderness attempt to insure minimum adverse impacts on water quality. However, roads are generally required to support timber harvest; and mitigation measures used in stream or wetland crossings may be insufficient to withstand major weather events. In an area designated as Wilderness, ground-disturbing activities are held to a minimum, and roads, temporary or otherwise, would not be necessary to support management activities. This would eliminate the potential for erosion or sediment dumping as a result of a major weather event.

Foot travel is certainly an available mode of transport in the Mud Lake Roadless Area; but the only established recreation trail in the roadless area is State Snowmobile Corridor #19. This trail would have to be closed or relocated if the area were designated as a Wilderness. There is evidence that other travelways within the roadless area are utilized periodically by ATV's. This use would also be prohibited by Wilderness designation.

The only developed recreation site within the Mud Lake Roadless Area is the aforementioned State Snowmobile Corridor #19.

Hunting is a popular recreation activity on the Chequamegon-Nicolet, and this Roadless Area provides quality opportunities for hunting deer, bear and ruffed grouse. There are 15 open roads and trails providing access to the interior of this roadless area. At least 11 of these travelways may be negotiated with 4WD vehicles (several with 2WD), and they enhance the ease with which hunters may traverse the area in search of their prey. The high percentage of upland acres in early successional habitat (2,310 acres of aspen/paper birch/balsam fir, 23% of total acres, 61% of upland acres) provides quality forage for deer, bear and ruffed grouse; and the high percentage of lowland conifers (2,207 acres, 22% of total acres) provides some opportunity for quality winter bedding areas for deer. Less than 3% (292 acres) of the total acres have undergone a regeneration timber harvest over the past 10 years, or have been sold for regeneration harvest, so it is possible that some portion of the early-successional habitat is converting to longer-lived species. Designation of the area as Wilderness would preclude further regeneration harvest of timber, and likely result in further conversion of early-successional

habitat. This, in turn, would gradually reduce the amount of preferred habitat for deer, bear and ruffed grouse, and may result in diminished use of this area for hunting these species. Wilderness designation would also restrict access to the area to foot or horseback, resulting in more time-consuming and difficult access, and a different hunting experience than is currently available. However, given the level of access and amount of early-successional habitat within the remainder of the National Forest and surrounding forest lands, the prospect of a more difficult hunt in a more mature forest setting may be a welcome alternative for certain segments of the hunting population.

There are an estimated 9.20 miles of “system roads” within the Mud Lake Roadless Area. These are travelways that have a road number, have generally been identified on Forest maps or USGS maps, and may be included in the Forest Transportation Inventory as “classified roads”. These roads may currently be improved or unimproved, open or closed, drivable or not drivable. They may appear on a map, but it is possible that they have long since fallen into disuse and may no longer exist as functional travelways on the ground. Within this area, 2.34 miles of the 9.20 miles of system roads are improved. The remaining mileage may be unimproved or nonexistent.

Regardless of condition, most system roads are likely to be included in the total miles used to determine road density on the Chequamegon-Nicolet. As such, any designation of this area as a Wilderness would require that all travelways be closed to motorized vehicles, and that these travelways either be obliterated or converted to foot trails. This includes all improved and unimproved travelways, regardless of whether or not they are system roads. This would result in a net loss of at least 9.20 miles, and probably more, from the total road miles on the Chequamegon-Nicolet.

There are approximately 42 acres of permanent forest openings within the roadless area that are maintained for certain wildlife species.

Fishing is not a significant recreational use of this area, but the fishing opportunities that do exist may experience negative effects from a Wilderness designation. The best areas for fishing are the Class I trout streams, Foulds Creek and Spring Creek. Both streams cross perimeter roads, but both have thick brush along much of their shoreline and access is difficult. Fishing on these streams is already a semi-primitive non-motorized experience for the angler that chooses to bushwhack downstream away from the perimeter access. Perhaps more importantly, a Wilderness designation may result in increased or unchecked beaver activity along these two watercourses that would seriously impact the trout fishery they support. Spring Creek is actually a boundary to the roadless area, so beaver control in this stream will most likely be possible. Foulds Creek will be more problematic. Not being able to control beaver activity on this creek may result in sedimentation and temperature increases that would seriously diminish the health and viability of the trout population within the creek.

The eastern timber wolf, a federally-listed Threatened and Endangered Species (TES) has been known to occur within and around the Mud Lake Roadless Area. The designation of the area as Wilderness is not likely to result in any immediate change in this circumstance, although fewer travelways may result in less human interaction and more suitable conditions for the timber wolf. Wilderness designation would likely result in a shift away from early-successional habitat, resulting in fewer opportunities for the wolf to prey on deer within the designated area; but this area would be sufficiently small enough that these opportunities would most likely be readily available beyond the boundaries. Wilderness designation would likely have no effect on the

amount of lowland conifers. Since this vegetative type is very attractive to deer for winter browse and bedding, they will still move through the area.

There are no livestock operations within the Mud Lake Roadless Area, nor is there potential for such operations.

There has been no exploration for oil, natural gas or precious minerals within the Mud Lake Roadless Area over the past 10 years, although this does not preclude the possibility that these resources exist. Approximately 18% of the National Forest land has outstanding or reserved mineral rights in other ownership. Regardless of designation, the Forest Service would be required to provide access to these minerals, if requested.

Less than 10% of this roadless area has undergone a cultural resource survey. One site has been recorded within the area, with a high potential that other sites may exist on the terraced uplands that bound the broad expanse of wetlands within the roadless area. Designation of the area as Wilderness would have no foreseeable impact on these sites, or on any potential site. The absence of ground disturbing activities would enhance the protection of any sites within the area.

Fire protection and pest control techniques would be significantly altered by Wilderness designation, although neither has been a problem in this area since the 1987 Foulds Springs fire (just to the east of the roadless area) spread through dead and down material from the 1985 tornado.

Regardless of designation, the Forest Service may be compelled to provide access to the private 40-acre parcel within the roadless area. To protect roadless characteristics within this area, the Forest Service would benefit from working with Fifield and Emery Townships to assure that the boundary roads are not designated as ATV routes; and, if they are already, searching for ways to reroute ATV traffic onto other roads or trails.

8) STONY CREEK ROADLESS AREA **(MEDFORD/PARK FALLS DISTRICT)**

Solitude Evaluation

The Stony Creek Roadless Area is 8,389 acres in size, with 7,498 acres (89%) of National Forest land, and a negligible acreage of surface water. The State of Wisconsin School Trust owns 811 acres (10%) of the lands within this roadless area. Another 80 acres are in two parcels of private ownership.

The two private parcels are located in close proximity to one another near the southeast corner of the roadless area. The two 40-acre parcels have separate owners and are landlocked by National Forest. Access to the properties is via an unnumbered travelway from FR 501. Fires signs at the approach to the travelway are evidence of structures on the properties. However, the travelway is wide enough for full-sized vehicles only for 0.07 mile (it is not drivable with a standard passenger vehicle, and may require a 4WD vehicle). The properties are nearly 0.50 mile from FR 501. There appears to be an ATV trail extending north from the travelway, and this may be the primary means of access to these properties.

Most of the State School Trust lands parallel the east boundary of the roadless area, and most of it sits outside the core area of solitude. The amount of State School Trust lands within the Stony Creek area is not sufficient to discount the area's roadless qualities. Any management activities that take place on the State School Trust lands should not be consequentially different from activities the Forest Service would consider on National Forest land.

The boundary of the Stony Creek Roadless Area follows Township Roads for the most part, but it also includes segments of a power line right-of-way and State Snowmobile Corridor #12. The north boundary for the Stony Creek Roadless Area is Forest Road 131 (Steiger Road), a two-lane, gravel surface, Traffic Service Level B Township road. The west boundary is Forest Road 132 (Pike Lake Road), a two-lane, gravel surface, Traffic Service Level B Township road. The south boundary follows FR 501 (Two Mile Road), a two-lane, gravel surface, Traffic Service Level B Township road, for 0.80 mile to the intersection with State Snowmobile Corridors #12 and #19. Corridor #19 runs north-south through the Stony Creek area, and crosses out of the area and to the south at this intersection with FR 501. Corridor #12 is an east-west trail that crosses FR 501 into the Stony Creek area on the same route as Corridor #19, and then quickly turns to the right to follow an overhead power line clearing to the east. The boundary for the Stony Creek area leaves FR 501 at this point and follows Corridor #12. Approximately 1.15 miles further east, Corridor #12 and the power line again cross FR 501 to the south. At this point the boundary again follows FR 501. Approximately 0.75 mile further southeast on FR 501, Corridor #12 and the power line again cross FR 501, this time from west to east. The boundary follows Corridor #12 and the power line one last time for approximately 0.20 mile to the intersection with Forest Road 130 (Headquarters Road). The east boundary of the Stony Creek area follows FR 130, a lane-and-a-half, gravel surface, Traffic Service Level C/B Township road, to the intersection with FR 131

The core area of solitude is defined as a contiguous core of National Forest land that is separated by at least ½-mile from the influence of motorized traffic and land uses inconsistent with the semi-primitive non-motorized experience (a more detailed description of the process for

determining core area of solitude can be found on pages 4-6 of this report). For the Stony Creek Roadless Area, this core is 3,266 acres, or about 44% of the total National Forest acres within the Roadless Area.

There are a total of 46 approaches providing access to National Forest land along the roaded perimeter of the Stony Creek Roadless Area, including 5 improved roads (see Appendix C). The Mud Lake Roadless Area does not have a history of non-motorized management, so 38 of these approaches, including all but one of the improved travelways, are open to motorized vehicles; 25 of these are drivable with a standard vehicle, but only 10 are longer than 200' in length.

The Stony Creek Roadless Area is characterized by wetlands, and northern hardwoods concentrated in low-lying, poorly drained terrain. The perimeter roads, particularly FR's 130 and 132, appear to have been turnpike construction, meaning the road template has relatively deep ditches on both sides, and a portion of the roadbed was constructed from the material excavated for the ditches, as well as from fill material hauled to the location. This is a construction technique typically used in flat terrain. Forest Road 131 has some gradient to it, so water carried by the ditches can be outlet; but Forest Roads 130 and 132 typically use percolation ditches and long outlets to pull water away from the roadbed. The percolation ditches are deeper and wider than the roadside ditches, and they are designed to hold water until it can leach into the soil. This technique is used in flat terrain where there is little or no relief to outlet the water from the roadside ditches. The result of this low-lying, poorly drained terrain is that much of the Stony Creek area is wet most of the time. Unimproved travelways that are drivable are slick, easily rutted, and have lots of potholes. Unimproved travelways that are not drivable have either been damaged by previous traffic to the point where the ruts are too deep and the potholes too large to be passable, or the base soil is too soft to support vehicle traffic in anything other than extremely dry conditions or frozen conditions. This area has a very high number of approaches from the perimeter roads, but the majority of these approaches are short in length and marginally drivable (for 100' or so), or simply not drivable. It is quite possible that a number of the short approaches are just push-outs for winter snowplowing (necessary in flat terrain).

Forest Road 1059 (and its spur, FR 1059A) is the most prominent improved travelway in the Stony Creek Roadless Area. This road travels south from FR 131 and has a solid pit run surface, a well-defined road template, and drainage culverts. The road is gated and closed to public traffic, but it is in very good driving condition. The improvements of the main route end with a turnaround at the 1.35-mile mark. State Snowmobile Corridor #19 intersects and follows FR 1059 for nearly a mile, before continuing south from the end of the road. Another unimproved travelway also veers off to the south from the end of FR 1059. The spur road, FR 1059A, is improved for 0.15 mile. FR 1059 is clearly the most substantial road in the Stony Creek area. It has a well-defined template, a solid driving surface, and can be driven in all weather conditions by a standard passenger vehicle. None of the other improved travelways in the Stony Creek area are so easily defined.

Forest Road 132P travels east from FR 132, and provides access to an old fire tower location. This route is open and marginally improved. At the time of inspection, the road ditches were filled with water, as were several potholes, and the driving surface was quite soft. The road was drivable for 0.15 mile, but some particularly deep potholes discouraged further vehicle travel. A culvert at the 0.2-mile mark was simply overwhelmed by the task of trying to move water, and it merely gave the water one more place to sit. The road template ends in a loop around the old tower base, marked by concrete base pads. This road was clearly more functional in the past,

when it served as the tower access; but it barely meets the standards for an improved road now, and it would require reconstruction to be returned to its design standards.

Forest Road 130H travels southwest from FR 130, and follows what appears to be an old railroad grade. The roadbed has no surfacing, but it does have a well-defined template. This is primarily a fill section for the first portion of the road, and then a steep, narrow cut section leading to a dead end at the 0.21-mile mark in a large, open water wetland (possibly the handiwork of beavers). This travelway actually has no approach from FR 130, the ditch on the main road cuts right through the entrance to FR 130H. This is still considered an open road, but it requires a high-clearance vehicle to gain access to it.

The other two improved travelways have no identifying road number. One route travels south from FR 131. It is open, 8' wide, and drivable. It has a pit run approach, and spot gravel along the way. This route passes by an old stone foundation, indicating that this was travelway once provided access to a private parcel. The improvements for this travelway end at the 0.14-mile mark; in a sunken wetland crossing that is impassable.

The second unnumbered but improved travelway is a 50' wide x 100' long gravel landing left over from a recent salvage clearcut. This is most likely a temporary landing, and it should be closed and obliterated. It is located at the second intersection of FR 501 and Corridor #12.

Two of the remaining approaches provide access to State Snowmobile Corridor #19. Both approaches are gated. Corridor #19 (the same route that borders and traverse the Mud Lake Roadless Area) traverses the full north-south length of the Stony Creek Roadless Area, beginning in the northwest corner, traveling almost 2/3 of the width of the roadless area to the southeast, and then back to the southwest, and then back to the southeast where it intersects FR 505 and State Snowmobile Corridor #12 on its way south and out of the area. As a route on the state snowmobile network, Corridors #12 and #19 are important arteries, collecting and connecting all of the smaller club and county trails throughout this region of the state. Neither trail is improved; and, as noted in the ROS delineation criteria on Page 7 (Evidence of Humans), unimproved snowmobiles are not considered motorized trails in the core buffering exercises because they are not "usually" open to motorized traffic. In the case of these two trails, they are only usable by motorized traffic when there is sufficient snow on the ground to be packed and groomed (2-4 months a year). This use is then restricted to snowmobiles. In the Stony Creek Roadless Area, these corridors have no improvements, and they are most definitely usable only when frozen.

Of the remaining 39 unimproved approaches, 21 are open and drivable, but only 7 of these are over 200' in length; 13 are open but not drivable, and 7 of these over 200' in length; 1 is closed and drivable; and 4 are closed but not drivable, and 1 of these is over 200' in length. There is evidence of 9 additional old approaches along the roaded perimeter, but these routes have essentially been obliterated (overgrown) and should no longer be considered travelways.

Included among the unimproved travelways are some other numbered routes that show up in the Forest Transportation System, but do not meet the standards described on page 4 of this report. Forest Road 233 is open, has no base material or template, and traverses poorly drained soils, but it could possibly be driven with a 4WD vehicle. Forest Road 233D is actually high and dry and drivable for nearly 0.15 mile, but it has no base material or template, and it quickly deteriorates beyond the 0.15-mile mark. Both FR 233 and FR 233D are located near the southeast corner

along FR 130. A little further north on FR 130, Forest Road 130A is no more than 200' long, very wet and not drivable. There are no other known numbered travelways within the Stony Creek Roadless Area.

Much like State Snowmobile Corridor #25 in the St. Peters Dome Roadless Area, and Corridor #19 as it traverses the Mud Lake Roadless Area; Corridor #19 has a profound influence on the Stony Creek Roadless Area. The presence of Corridor #19 does not diminish the size of the core area (see pages 5-6 of this report for a description of how snowmobile trails were considered when determining the core area of solitude), but it does diminish the feeling of remoteness and challenge. A person traversing the area on foot, regardless of the route or hardship encountered, who comes across the corridor is reminded that motorized travelers can easily access the same location, even if only in the winter. The sound of a snowmobile in the winter can travel further without the sound attenuation provided by leaves on the trees and shrubs.

In addition to having a large core area, the Stony Creek Roadless Area is actually in a somewhat remote location itself. There are one or two residences north of the roadless area, on the other side of FR 131, but otherwise there is no development within miles of this area in any other direction. National Forest borders this area on all sides, and beyond that are some large parcels of County, State and private industrial forest lands to the east and west. The perimeter roads are very lightly traveled, with only FR 132 seeing more than one or two vehicles on any given day. The result is that there are few motorized influences on the perimeter of this roadless area, and even fewer on the core area. Ironically, in the winter this may be the reverse. With the presence of the snowmobile trail through the heart of the Stony Creek area, there may be more motorized influence on the core area in the winter, than there is on the perimeter.

Degree of Disturbance Evaluation

The Stony Creek Roadless Area is natural in appearance, although there are some signs of disturbance. A total of 220 acres has undergone a regeneration harvest during the past 10 years, and all of this has been in the past 5 years. A windstorm came through the Stony Creek Roadless Area in 1998, causing some blowdown. Approximately 159 acres of this blowdown has been salvage clearcut since 2000 (accounting for 72% of the regeneration harvest over the past 5 years), while another 119 acres has had intermediate treatments to remove dead, down and damaged trees. There are 35 acres of upland openings in the Stony Creek area that are maintained for wildlife. Some of this acreage may have been seeded with non-native grasses.

There are no active mineral deposits or gravel pits in the Stony Creek Roadless Area, and no mineral leases or mineral claims. Approximately 87% of the National Forest land in the roadless area has outstanding or reserved mineral rights in other ownership. This is an unusually high percentage, and Stony Creek and the surrounding area have been the subject of considerable mineral exploration. The nearby Lynne Deposit, on private land, has been determined to contain a sizeable, economically viable amount of metallic minerals (zinc/lead/silver), but this site is not actively being considered for development due to environmental constraints.

The approximately 7.0 miles of State Snowmobile Corridor #19 that bisect this area from north to south, and the 0.75 mile of State Snowmobile Corridor #12 that forms a portion of the south boundary are the only developed recreation resources within the Stony Creek area. ATV use is evident in a few places, but this does not appear to be a prominent recreation activity in the

Stony Creek area. There are no recently abandoned railroad grades within the area, and no trail bridges.

There appear to be cabins on the two private 40-acre parcels in Section 11. If so, the owners do not have developed access or special use permits to get to these cabins from a perimeter road. The location of the fire numbers on the unnumbered and unimproved travelway along FR 501 indicates the landowners probably access their properties with ATV's from the end of this route. Some State School Trust lands may have had some level of timber harvest over the past few years, but this is not a deviation from the limited activities taking place on National Forest land in this area over the same time period.

There is a special use permit for an overhead power line that runs adjacent to FR 501, on the south boundary of the Stony Creek area. This line starts on the south side of the road, crosses once to the north side in the first quarter-mile east of FR 132, and then crosses again near the intersection of FR 501 and the State Snowmobile Corridors #12 and #19. At this point, the power line, in conjunction with Corridor #12, becomes the south boundary of the area. This power line within the right-of-way of State Highway 70, but they are not visible to the passerby. There are no utilities present on any of the other perimeter roads.

The Stony Creek Roadless Area has 2.20 miles of improved travelways within the perimeter of the area, a density of 0.29 mile of improved travelways per 1,000 National Forest acres. Along the 14.90 miles of perimeter roads and trails, this Roadless Area has 46 access points. Two of these provide access to State Snowmobile Corridor #19, and another 23 are less than 200' in length. That leaves approximately 1.4 access points to interior National Forest land per mile of perimeter road, about the average for the newly inventoried roadless areas. Ten of these are drivable and open to the public, including 3 of the improved roads over 200' in length.

The recent harvest activity along the east and south perimeter of the Stony Creek Roadless Area, much of it to salvage blowdown timber, gives the impression of a managed forest. And, even though half of the 46 travelways within the area are less than 200' in length (and many of these may simply be push-outs for snowplowing in the winter), the existence of these short clearings along the perimeter gives the impression of some kind of activity. Only 11 of the remaining travelways are actually drivable. One of these is closed to traffic with a gate (the only clearly improved road in the roadless area), while the others are in different stages of disrepair or disuse. As such, the area as a whole gives the impression a place of a lightly disturbed landscape where some activity takes place periodically, but where the land quickly reclaims its natural appearance when the activity is completed.

Biological Evaluation

Hardwoods are the dominant vegetation in the Stony Creek Roadless Area. Northern hardwoods account for 46% of the vegetative composition, while lowland hardwoods account for another 9%. Wetlands as a whole, including lowland hardwoods, conifers, brush and open meadow/bog, account for 38% of the vegetative composition of the area. Early-successional species, particularly aspen, account for 15% of the area. There are 35 acres of maintained upland wildlife openings ranging in size from 1 to 5 acres.

There are no identified Landscape Analysis and Design (LAD) complexes within the Stony Creek Roadless Area, and no potential Ecological Reference Areas (potential for designation as Research Natural Area, Special Management Area, or Old Growth).

There are approximately 5.5 miles of perennial streams within the Stony Creek Roadless Area. This includes Stony Creek itself, which is typed as NSW using draft Aquatic Ecological Classification System definitions for “valley segments” within the Chequamegon-Nicolet National Forest. NSW segments are narrow (less than 20’ wide), soft alkalinity (between 5ppm and 20ppm), warm water (greater than 26 degrees Celsius) streams. Three to ten fish species may occur in NSW segments, and these are dominated by creek chub, stickleback, mudminnow, finescale dace, and white sucker. No mussel species are known to occur in these segments. The other perennial stream in the Stony Creek area is 2.6 miles of an unnamed tributary to the Elk River. This tributary is located along the west edge of the roadless area and is typed as NAC, which is not commonly found on the Chequamegon-Nicolet. NAC segments are narrow (less than 20’ wide), acid (less than 5ppm alkalinity), coldwater (less than 23 degrees Celsius) streams. The acidity tends to limit the biota, and this segment typically has only 0 to 2 fish species, most commonly mudminnow, and supports no mussels. There are no known Threatened and Endangered (TES) aquatic species within the Stony Creek Roadless Area.

There are no lakes in the Stony Creek Roadless Area.

The Stony Creek area falls within the territory of the Bootjack Lake wolf pack. The eastern timber wolf, *Canis lupus*, is a federally-listed Threatened and Endangered Species (TES).

Biotic Species Requiring Primitive Surroundings

No existing or potential Ecological Reference Areas (ERA) have been identified within the Stony Creek Roadless Area. This area in and of itself is not large enough to provide wildlife species with primitive surroundings. It contributes to the overall forest mosaic; but, in this context, it is similar to the general forest environment. There are no wildlife species within the Chequamegon-Nicolet that are dependent upon Wilderness.

Ecological Evaluation

As suggested in the Forest Service Handbook, FSH 7.23b, the “analysis of the degree to which (a roadless area) contributes to the local and national distribution of wilderness” should use Edwin A. Hammond’s subdivision of landform types and the Bailey-Kuchler ecosystems classification. With regard to the Upper Great Lakes Region, almost all of this area is classified as Laurentian Mixed Forest Province (Province 212).

In his 1999 publication Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends, H. Kenneth Cordell notes that this particular ecoregion encompasses some 94.4 million acres, or 4.9% of the lower 48 states. Currently, 1,226,870 acres of this ecoregion are Congressionally-designated Wilderness on federal lands, representing 2.8% of all federal Wilderness in the lower 48 states. As a result, 1.3% of the ecoregion is represented as Wilderness. One further note: The Boundary Waters Canoe Area Wilderness accounts for

1,086,954 acres, or 86% of the total Wilderness acreage in the Laurentian Mixed Forest Province; and virtually all of this acreage is in one subsection (212La, Border Lakes).

The first national ecological unit map based on a national hierarchical framework of ecological units featuring Edwin A. Hammond's subdivision of landform types and the Bailey-Kuchler ecosystems classification was published in 1994. In 2000, the Forest Service Eco-Map team requested recommendations from field personnel for updating the national ecological unit map, with particular focus on the Section level of the classification hierarchy. In response to this request, the State of Wisconsin assembled an interagency Landtype Association (LTA) technical team to re-evaluate Section boundaries and assess the need for refinement, based on information accumulated during the development of the initial Wisconsin LTA map. This team submitted Section boundary changes for Wisconsin to the national Eco-Map team; and, in February 2001, the official Wisconsin LTA Map reflected these changes. A soon-to-be-published new Section map of the United States will incorporate these changes, as well.

The sum of the changes incorporated into the new national ecological unit map is that several large Sections covering portions of Wisconsin and the Upper Peninsula of Michigan have been subdivided into new Sections; and, in some cases, new Subsections. With regard to the Chequamegon-Nicolet National Forest lands, 4 new Section and 3 new Subsection mapping units have been created. As a result, portions of the Chequamegon-Nicolet NF now lie within 6 different Sections (where before there were only 2 Sections, defined on a much broader scale); 14 Subsections (where before there were only 11 Subsections; and 27 LTA's (the same number as previously).

The Land Type Associations (LTA's) have remained the same in number, and in common name; but they have been relabeled to accurately reflect the Section and subsection to which they now belong. For example, LTA polygon 212Jb01 will remain as 212Jb01; but former LTA polygon 212Jc04 is now 212Xa03, reflecting its position within Province 212, Section "X", Subsection "a".

The Stony Creek Roadless Area falls within the following ecological classification:

Section: 212X – Northern Highlands

Section 212X is currently represented by the following Congressionally-designated Wilderness Areas: Porcupine Lake (66%), Blackjack Springs, Whisker Lake and Headwaters Wilderness Areas (Chequamegon-Nicolet NF)

This area actually falls within two Subsections of Section 212X:

Subsection: 212Xa – Glidden Loamy Drift Plain

Land Type Association (LTA): 212Xa01 – Glidden Drumlins (25%)

Subsection 212Xa is currently represented by LTA 212Xa03 in 66% of the Porcupine Wilderness Area.

Subsection: 212Xd – Central/Northwest Wisconsin Loess Plain

Land Type Association (LTA): 212Xd02 – Flambeau Silt-capped Drumlins (75%)

Subsection 212Xd has no current Wilderness representation.

Scientific/Educational Evaluation

There are no existing or candidate Ecological Reference Areas in the Stony Creek Roadless Area. No unique scientific or educational opportunities are readily apparent in this area.

Cultural Evaluation

Over half of the Stony Creek Area has undergone a cultural resource survey, and only one cultural resource has been located (reference FS Site No. 09-02-01-118). This site is historic, and while it appears to date back to the early 20th century, its function is currently unknown and the site has not yet been formally evaluated. Wilderness designation would not have an adverse effect on this site, nor presumably any other sites that may be located through future surveys.

Challenge Evaluation

The Stony Creek Roadless Area has a core area that is relatively large, has few travelways, and encompasses terrain that is low, flat, wet and difficult to traverse. The presence of State Snowmobile Corridor #19 can diminish the feeling of remoteness and challenge; but, for the most part, the interior of this area is featureless. There is little variation in terrain or vegetative composition (primarily even-aged hardwoods), and a person without outdoor skills could easily become disoriented and lost.

Like most areas of the Chequamegon-Nicolet, the chance of experiencing a life-threatening situation within the Stony Creek Roadless Area may be due more to an unfortunate incident than any challenge presented by the area itself. A person experiencing a debilitating injury while alone in the heart of the roadless area could certainly find himself or herself in a life-threatening situation. Weather can also play a critical role in determining the level of challenge, as hypothermia, sudden snowstorms, or diving temperatures could catch a visitor unawares. These are hazards encountered anywhere on the Forest; but being on foot in a roadless area may amplify the risk to a slightly higher level.

All of these hazards are even more amplified in the Stony Creek Roadless Area, however. The snowmobile trail tends to mitigate the lack of features within the core area by providing a cleared corridor a person can travel north or south to a perimeter road. However, even when reaching a perimeter road, a person may still be several miles from the nearest residence. Stony Creek, in addition to having one of the larger untrammled core areas within the National Forest, is also in a fairly remote and undeveloped portion of the Park Falls unit. The Town of Emery is sparsely populated. County Highway D, a few miles to the south of the Stony Creek area, has residences; and there is one residence located north of the roadless area, on the other side of FR 131. But, to the west lies the Elk River SPNM Area, with Price County Forest land west of that; and to the east is a large area of Oneida County Forest land, State land, and private industrial forest land. With the exception of the occasional vehicle on one of the perimeter roads, a person might have to travel quite a distance before encountering another person.

Although there are two perennial streams within the Stony Creek area, they do not necessarily add to the challenge of the area. Stony Creek itself begins in core area wetlands, travels east, and then parallels FR 130 for over a mile before exiting the area. And the Elk River tributary

parallels FR 132 for most of its length within the area. Neither stream presents a significant obstacle to the cross-country traveler, primarily since they influence so little of the total area.

It is very possible that travel within this area may be easier in the winter than the rest of the year. With leaf-less hardwoods and frozen, snow-covered ground in flat terrain, a person traversing the area in snowshoes will most likely find open sightlines and the opportunity to pick there pathway through the brush. Summer travel may be most difficult, with thick brush and soft, soggy soils. The spring presents its own difficulties, with standing water a virtual certainty throughout the area. The fall may be equally soggy; but, like much of Northern Wisconsin, even when it is dry and warm, it never seems long enough.

Primitive and Un-confined Recreation Evaluation

Hunting and snowmobiling are probably the dominant recreation activities in the Stony Creek Roadless Area. These are common activities throughout the Chequamegon-Nicolet National Forest, and the region in general. With 15% of the total acres in early successional habitat, this area has somewhat less of this preferred game habitat than is the average (20%) for the Chequamegon-Nicolet; however, these acres still provide quality opportunities to hunt white-tailed deer, black bear and ruffed grouse. The opportunity to hunt in a non-motorized setting has value to a segment of the hunting population. These opportunities are limited on the Chequamegon landbase of the National Forest.

Neither of the perennial streams within this area are viable fisheries for anglers, nor are there lakes of any size within the area.

Snowmobile activity in this area is generally limited to State Snowmobile Corridor #19, which bisects the interior of the area; State Snowmobile Corridor #12, which forms a portion of the south boundary, and possibly some unplowed travelways. There is evidence of ATV use on some of the unimproved roads. This activity is not pervasive, and appears to be limited to existing travelways.

Special Features Evaluation

The only feature of particular influence on the character of the Stony Creek Roadless Area is the approximately 7.0 miles of State Snowmobile Corridor #19 that bisects the interior of this area. Any discussion regarding potential designation of this area as Wilderness would have to include closure or relocation of this trail segment. State Snowmobile Corridor #12 forms a portion of the south boundary of this area, but it would be generally unaffected by the designation of this area as a Wilderness.

Manageability Evaluation

The boundary for the Stony Creek Roadless Area is well defined; and its size and shape make its preservation practical. Approximately 91% (14.53 miles) of the Stony Lake boundary follows perimeter roads that are open to the public, traveled by passenger vehicles, and managed under the jurisdiction of a public road authority (Emery Township). Another 9% (1.35 miles) of the

boundary follows a power line (under special use permit) that doubles as a snowmobile corridor. There are at least 14 open, unimproved travelways (some that are not drivable, and some that are drivable only with a 4WD vehicle) that provide access of more than 200' and possibly up to one mile to the interior of this roadless area, and another 3 open, improved travelways of more than 200' but not more than 1/3-mile in length, an average of 1.17 open access points per mile of perimeter road. There are 5 additional unimproved travelways that are blocked or otherwise closed to traffic (including two access points to a snowmobile trail), and 24 other access points to travelways (improved and unimproved, open and closed) that extend no more than 200' into the roadless area. There is some evidence of ATV use on a few of these travelways, but this use does not appear to be pervasive, and it stays on the travelways.

Timber management activity is evident along the perimeter roads, but only in a few locations. A windstorm in 1998 caused blowdown of standing timber in a few locations, and some of this timber has recently been harvested. Clearcut units are evident along the south boundary, adjacent to FR 501. Additional clearcut units are adjacent to FR 130, on the east boundary of the area. The predominate vegetative types within this area are intermediate northern hardwoods and wetlands. The amount of timber harvest activity has been limited. Regeneration harvest has taken place on only 3% of the total National Forest acres within the area, and 72% of that harvest has been salvage of blowdown – harvest that most likely would not have been even-aged, and most likely would not have taken place for several more years if not for the salvage operation. Other than the aforementioned clearcuts, evidence of harvesting operations is almost non-existent within the area. Designating the area as a Wilderness would require effective closure to motorized vehicles of all access points, and a discontinuation of all timber management activities within the area, including salvage harvest.

The non-federal land within the boundary of the Stony Creek Roadless Area is in two kinds of ownership – private and State School Trust. The private ownership is in two interior 40-acre parcels with separate owners. These parcels are located in close proximity to each other near the southeast corner of the roadless area, and each has a cabin. There is no special use permit to provide access across National Forest land to these properties, nor is access via a drivable road. Access to both parcels appears to be via a narrow, unimproved ATV path. Either or both of these parcels may require more developed access across National Forest land in the future. The State School Trust land is essentially in three locations. Two isolated 40-acre parcels are located near the center of the roadless area. These two connected parcels have no direct access from the perimeter roads. Another interior 80-acre parcel has access from FR 131 via FR 1059. However, FR 1059 is gated, and the state would have to acquire a permit for access. The remaining 651 acres of State School Trust ownership is in a long, contiguous unit paralleling FR 130 for nearly 3 miles. This unit has direct access from the perimeter near the intersection of Forest Roads 130 and 131, but the remainder of the land is separated from FR 130 by strips of National Forest land ranging in length from 1/8-mile to 3/8-mile. These lands might require access across National Forest, but this would be temporary in nature, short in length, and outside the core area of solitude.

There are no outstanding mineral leases or claims within the roadless area; however, 87% of the National Forest lands within the area have reserved or outstanding mineral rights in other ownership. This area lies within a Precambrian volcanic terrain that has a great deal of potential for metallic minerals, particularly zinc, copper and gold. A known mineral deposit, the second largest such deposit in the state of Wisconsin, lies within 3 miles of the eastern boundary of this area. This deposit, known as the Lynne Deposit, is no longer under active consideration for

development due to environmental concerns; but it serves as an indicator of mineral potential within the area. Exploration efforts in the vicinity of Stony Creek have demonstrated the occurrence of minerals, but nothing on the scale of an ore deposit. One exploration site has two holes that have remained open for several years, but there is no indication that there is further interest in this location and the existing permit is scheduled to expire in the near future. The Forest Service has a performance bond to close these holes if the permittee fails to do so. The Stony Creek area itself may contain metallic minerals, and there have been some requests for permits to access claims; but it is not currently the focus of any exploration efforts.

There are no utility corridors within the roadless area, although a portion of the southern boundary of the area follows an overhead power line. The corridor for this power line is under special use permit, and it doubles as a corridor for a snowmobile trail.

Availability Evaluation

Approximately 69% of the National Forest land, or some 5,160 acres within the Stony Creek Roadless Area is classified as suitable for timber production. This area has the second highest percentage of non-forest lands (1,339 acres, or 18% of the total National Forest land within the area) among the newly inventoried roadless areas. The Mud Lake Roadless Area has the highest percentage with 39% of its total National Forest land (3,894 acres) in non-forested habitat. In the last 10 years approximately 220 acres of timber have undergone a regeneration harvest within the Stony Creek area, including 159 acres of salvage clearcut in the past year-and-a-half as a result of blowdown from a 1998 windstorm. The total regeneration harvest represents 4% of the suitable acres, and 3% of the total National Forest acres in this area. Timber harvest and the associated production of wood products from this area would be precluded by Wilderness designation. This amounts to about 0.5% of the lands suitable for timber production on the Chequamegon-Nicolet.

The Stony Creek Roadless Area supports 5.5 miles of streams and rivers. None of these streams is part of a municipal watershed, and there are no known water storage needs. The September 2000 Draft Watershed Analysis for the Chequamegon-Nicolet National Forest indicates that the Stony Creek Roadless Area falls within the boundaries of two 5th level watersheds – the Elk River and the Middle Tomahawk River. Water quality should improve slightly from current levels should the area be designated as Wilderness. Most mitigation measures for ground-disturbing activities in non-Wilderness attempt to insure minimum adverse impacts on water quality. However, roads are generally required to support timber harvest; and mitigation measures used in stream or wetland crossings may be insufficient to withstand major weather events. In an area designated as Wilderness, ground-disturbing activities are held to a minimum, and roads, temporary or otherwise, would not be necessary to support management activities. This would eliminate the potential for erosion or sediment dumping as a result of a major weather event.

Foot travel is an available but not popular mode of transport in the Stony Creek Roadless Area; but the only established recreation trail in the roadless area is State Snowmobile Corridor #19. This trail would have to be closed or relocated if the area were designated as a Wilderness. Another Trail, State Snowmobile Corridor #12 forms a segment of the south boundary for this area. Designation of this area as Wilderness would likely have no effect on this trail. There is

evidence that ATV's utilize other travelways within the roadless area periodically. This would be prohibited in a designated Wilderness.

The only developed recreation site within the Mud Lake Roadless Area is the aforementioned State Snowmobile Corridor #19.

Hunting is a popular recreation activity on the Chequamegon-Nicolet, and the Stony Creek Roadless Area provides quality opportunities for hunting deer, bear and ruffed grouse. There are 23 open roads and trails providing access to the interior of this roadless area. At least 10 of these travelways may be negotiated with 4WD vehicles (a few with 2WD), and they enhance the ease with which hunters may traverse the area in search of their prey. The amount of upland acres in early successional habitat (1,105 acres of aspen/paper birch/balsam fir, 15% of total acres, 24% of upland acres) is only slightly less than the norm for the Chequamegon-Nicolet; and it provides quality forage for deer, bear and ruffed grouse. There may be sufficient acres of lowland conifers (875 acres, 12% of total acres) to provide some opportunity for quality winter bedding areas for deer. Less than 3% (220 acres) of the total acres have undergone a regeneration timber harvest over the past 10 years, so it is possible that some portion of the early-successional habitat is converting to longer-lived species. Designation of the area as Wilderness would preclude further regeneration harvest of timber, and likely result in further conversion of early-successional habitat. This, in turn, would gradually reduce the amount of preferred habitat for deer, bear and ruffed grouse, and may result in diminished use of this area for hunting these species. Wilderness designation would also restrict access to the area to foot or horseback, resulting in more time-consuming and difficult access, and a different hunting experience than is currently available. However, given the level of access and amount of early-successional habitat within the remainder of the National Forest and surrounding forest lands, the prospect of a more difficult hunt in a more mature forest setting may be a welcome alternative for certain segments of the hunting population.

There are an estimated 4.35 miles of "system roads" within the Stony Creek Roadless Area. These are travelways that have a road number, have generally been identified on Forest maps or USGS maps, and may be included in the Forest Transportation Inventory as "classified roads". These roads may currently be improved or unimproved, open or closed, drivable or not drivable. They may appear on a map, but it is possible that they have long since fallen into disuse and may no longer exist as functional travelways on the ground. Within this area, 2.04 miles of the 4.35 miles of system roads are improved. The remaining mileage may be unimproved or nonexistent. Regardless of condition, most system roads are likely to be included in the total miles used to determine road density on the Chequamegon-Nicolet. As such, any designation of this area as a Wilderness would require that all travelways be closed to motorized vehicles, and that these travelways either be obliterated or converted to foot trails. This includes all improved and unimproved travelways, regardless of whether or not they are system roads. This would result in a net loss of at least 4.35 miles, and probably more, from the total road miles on the Chequamegon-Nicolet.

There are approximately 35 acres of permanent forest openings within the roadless area that are maintained for certain wildlife species. There are no livestock operations within the Stony Creek Roadless Area, nor is there potential for such operations.

Fishing is not a significant recreational use of this area. None of the streams are trout waters, and none of them are quality habitat for game fish. There are no lakes within the Stony Creek

area. A Wilderness designation will neither change the nature of any of the streams within this roadless area, nor make them more attractive to anglers. If anything, increased or unchecked beaver activity along these watercourses (all of which are already influenced by beavers) would further diminish any potential for a sport fishery.

The eastern timber wolf, *Canis lupus*, a federally-listed Threatened and Endangered Species (TES) has been known to occur within and around the Stony Creek Roadless Area. The designation of the area as Wilderness is not likely to result in any immediate change in this circumstance, although fewer travelways may result in less human interaction and more suitable conditions for the timber wolf. Wilderness designation would likely result in a shift away from early-successional habitat, resulting in fewer opportunities for the wolf to prey on deer within the designated area; but this area would be sufficiently small enough that these opportunities would most likely be readily available beyond the boundaries. Wilderness designation would likely have no effect on the amount of lowland conifers. Since this vegetative type is very attractive to deer for winter browse and bedding, they will still move through the area.

There has been significant exploration for minerals, specifically zinc/copper deposits, within the region directly around the Stony Creek Roadless Area. A large zinc/lead/silver deposit was discovered in the early 1980's approximately 3 miles east of the eastern boundary of the Stony Creek area. This deposit, known as the Lynne Deposit, is on county land, and would be economically viable as an open pit mine. However, there are significant problems with tailings disposal that have made the deposit environmentally unviable. The WDNR has not and will not permit a mine in this location. The discovery of the Lynne Deposit spurred a flurry of other exploration activities in the area through the mid-1980's. This area is part of a Precambrian volcanic terrain that has a great deal of potential for metallic minerals, particularly zinc, copper and gold. This belt extends east to west across Northern Wisconsin, and includes the recently completed Flambeau Mine (Ladysmith), the proposed Crandon Mine, and the Bend deposit located on the Medford unit of the National Forest. These are the only known metallic mineral deposits in the state of Wisconsin. The Crandon Deposit is by far the largest of the four, with an estimated 55 million tons of zinc and copper. The Lynne Deposit is the next largest, with an estimated 6 million tons of zinc, lead and silver. Central Price County, including the Stony Creek area, represents the northern edge of the volcanic terrain. While there is a high potential for metallic mineral deposits in this volcanic belt (including the Stony Creek area), the likelihood of developing these deposits is considerably less likely. At least two other mineral occurrences have been noted in Price County: 1) Richie Creek, a copper/gold/lead/zinc occurrence of unknown grade located approximately 20 miles south of Stony Creek, and 2) Thunder River, a zinc occurrence of unknown grade, located on National Forest land only 3 miles south of the Stony Creek area. In the case of both occurrences, there is insufficient tonnage for either to qualify as an ore deposit. The test holes for the Thunder River occurrence were actually opened in the 1980s, and two of them remain open to this day. The exploration firm is still obligated to close these holes. According to the Wisconsin Department of Natural Resources mining web page, in a document entitled *Potential Mining Development in Northern Wisconsin*, "Since records have been kept, beginning in 1978, just under 400,000 acres of land have been leased for exploration and over 1200 drill holes have been constructed in the search for metallic mineralization. In that time, only the Lynne and Bend deposits have been discovered and nearly all of the acreage originally leased for mineral exploration is no longer under any lease agreement. On a worldwide basis, studies of mineral exploration programs show that out of 1000 local areas of mineralization discovered, only 10 are eventually determined to be ore bodies and only 1 of these is developed into a profitable mining operation."

Much of the future of metallic mining in Wisconsin may depend on the proposed Crandon Mine. In 1998, the State of Wisconsin signed into law a “Moratorium on issuance of permits for mining of sulfide ore bodies” (State Statute 293.50). A sulfide ore body (typically zinc/lead/copper/silver/gold deposits) is a “mineral deposit in which metals are mixed with sulfide minerals”. This moratorium assigns a stringent litmus test of pollution abatement performance on any proposed metallic mineral operation in the state. If the Crandon Mine is approved, even under the strict requirements of the mining moratorium, this may determine not only whether extraction of sulfide ore deposits in Wisconsin using current technology can be an economical or environmentally sound procedure; but it may also indicate whether Wisconsin will provide a hospitable political climate for future mineral development of a similar nature. The flurry of exploration that took place within the volcanic terrain in the 1980s has subsided considerably. And, in fact, according to the 1998 *Fraser Institute Survey of Mining Companies Operating in North America*, Wisconsin rates as one of the least attractive regions in North America for mining activity and/or exploration potential. In this industry survey of the Canadian provinces and seventeen American states, Wisconsin rated next to last in policy potential (policy climate driving investment decisions) and third from last in mineral potential (based on geology). Overall, only British Columbia rated as low as Wisconsin in investment attractiveness for mining companies deciding where to direct their exploration and development activities. Specifically, the 1998 report states “Wisconsin’s low investment attractiveness score (3) suggest the results of its moratorium on mining and well-publicized anti-mining attitude as well as its low score on mineral potential.” The indication from this survey of the mining companies most likely to do business in Wisconsin is that they are not likely to do that business any time in the near future.

There is the possibility that future policy in Wisconsin could provide a more favorable climate; and the issuance of a mining permit for the Crandon Deposit may spark a new interest in exploration throughout the volcanic terrain, including in and around the Stony Creek area. The success or failure of that exploration is purely conjecture at this point, but it is particularly relevant to the Stony Creek Roadless Area that approximately 87% of the National Forest land within this area has outstanding or reserved mineral rights in other ownership. This ownership is concentrated for the most part in the hands of four private corporations, Price County, and the State of Wisconsin. Regardless of what management designation is assigned to the surface ownership, the Forest Service would be required to provide access for mineral exploration to the owners of the sub-surface rights, if requested. There has already been some interest in exploring for minerals within the Stony Creek area; and it is quite possible that designation of Stony Creek as a roadless area, and a potential Wilderness, will spur the owners of the sub-surface rights to apply directly for exploration permits, regardless of the economic or policy climate. They may want to know what mineral potential exists in this area before it becomes more difficult to obtain access. The 1964 Wilderness Act compels the Forest Service to provide access to reserved and outstanding mineral deposits, although it does allow the agency to do so with “reasonable regulations consistent with the preservation of the area for wilderness”. Nonetheless, any mineral exploration and/or development within the Stony Creek area is likely to be wholly inconsistent with the Wilderness experience.

Approximately 50% of the Stony Creek Roadless Area has undergone a cultural resource survey. One site has been recorded within the area, but it has not yet been formally evaluated. There is some potential that other sites may exist within this roadless area. Designation of the area as

Wilderness would have no foreseeable impact on these sites, or on any potential site. The absence of ground disturbing activities would enhance the protection of any sites within the area.

Fire protection and pest control techniques within this roadless area would be significantly altered by Wilderness designation. The salvage timber sales that were designed to clear dead and down trees from within portions of this area were intended to diminish the threat of fire or disease, as well as to utilize the damaged timber. This kind of operation would not be permitted in a designated Wilderness.

Regardless of designation, the Forest Service may be compelled to provide access to the two private 40-acre parcels within the roadless area. These parcels currently have cabins or structures on them, but the access is essentially via a user-developed ATV route. A more formal arrangement, involving a gated access and special use permits, would most certainly become necessary if this area were designated as a Wilderness.

To protect roadless characteristics within this area, the Forest Service should work with Emery Township to assure that boundary roads aren't designated ATV routes; and, if they are already, searching for ways to reroute ATV traffic onto other roads or trails.

9) FLYNN LAKE ROADLESS AREA (WASHBURN DISTRICT)

Solitude Evaluation

The Flynn Lake Roadless Area is 6,601 acres in size, including 6,349 acres (96%) of National Forest land, and 202 acres (3%) of surface water. The private ownership within the Flynn Lake Roadless Area is dispersed into 3 individual parcels. One private parcel is an 11-acre site along the shoreline of Armstrong Lake. This property has a year-round residence and access from Forest Road 223 is via a 0.36-mile improved road under special use permit. A second private parcel, approximately 14 acres in size, lies adjacent to Forest Road 223 in the southeast corner of the roadless area. This parcel is predominately a wetland, but it includes a small peninsula with two dilapidated and uninhabitable trailer homes, and direct access from FR 223. The third parcel is located south of Armstrong Lake. This undeveloped 16-acre site is landlocked by National Forest land, approximately 0.6 mile from Forest Road 223. This site currently has no access, but the landowner has expressed interest in obtaining a special use permit for constructing a road to the property.

The Flynn Lake Roadless Area has long been identified for its attributes as a non-motorized area. In the 1975 Eastern Wilderness Act, Flynn Lake was identified as “certain lands in the Chequamegon National Forest, Wisconsin, which comprise approximately six thousand three hundred acres and are generally depicted on a map entitled “Flynn Lake Wilderness Study Area”. Four years later, Flynn Lake was identified as a RARE II Area (along with 20 other areas within the Chequamegon-Nicolet) in the nationwide Roadless Area Review and Evaluation. In 1984, Congress passed the Wisconsin Wilderness Act. This Act designated certain areas of the Chequamegon-Nicolet as Wilderness. Flynn Lake was not one of the areas identified, and the Act released Flynn Lake to be “managed for multiple use in accordance with land management plans.” Two years later, the Chequamegon Land and Resource Management Plan designated Flynn Lake as a Semi-Primitive Non-Motorized (SPNM) Area. And most recently, the November, 2000 Final Environmental Impact Statement for the Forest Service Proposed Roadless Area Conservation Rule has suggested that any new road construction be prohibited, and any timber harvest be limited to stewardship purposes only within the Flynn Lake area, and all other RARE II Areas within the Chequamegon-Nicolet.

The Flynn Lake Roadless Area does not follow precisely the boundaries of the Flynn Lake RARE II Area, or the Flynn Lake SPNM Area. In the southwest corner of the general Flynn Lake area, the SPNM boundary follows Forest Road 396, but the RARE II boundary follows the Section lines, excluding those parts of Sections 36, 25 and 26 that fall to the east of FR 396. Sitting just to the north of Section 25, and within the RARE II boundary, is a private 40-acre parcel that includes Jorgensen Lake. Access to this property from FR 396 is via an improved Township road (Jorgenson Lake Road) that begins outside the RARE II Area, but ends within the RARE II Area. The presence of a Township road within the boundaries of the roadless area would preclude it from being considered further as a roadless area; however, minor adjustments to former RARE II Area boundaries are permitted under the inventory process. (Specifically, Forest Service direction for the “re-inventory” of RARE II Areas notes that “if a portion of an area, previously included in the roadless area inventory, no longer meets the roadless area criteria, modify the boundary to exclude only that portion that no longer qualifies. Keep the remainder of the area in the inventory, provided that the remaining area meets the criteria ...”.) As a result, the new roadless area boundary follows the Jorgenson Lake Road to the private

property boundary, it then circumnavigates the private property until it intersects the original RARE II boundary (Section 25 line), and then it follows the RARE II boundary. This adjustment excluded the Township road and the private property from the roadless area, and it resulted in a minor net decrease to the RARE II area of less than 100 acres. The remaining area within the Flynn Lake RARE II boundaries met the necessary qualifications to be inventoried as the Flynn Lake Roadless Area. However, additional changes were made to the southern boundary to expand the Flynn Lake RARE II boundary.

This southern boundary of the RARE II Area follows Section lines, rather than roads or property boundaries, because the National Forest land in the southern portion of the general Flynn Lake area abuts almost directly to private property near the Town of Drummond. To provide a bit of a buffer between the developed community of Drummond, and the RARE II Area, this southern boundary excluded National Forest land in the SE quadrant of Section 31, and the east and south halves of Section 32. The boundary for the Flynn Lake Roadless Area has been expanded to include all of the National Forest lands in Sections 31 and 32. The boundary for the roadless area now follows the property line in Section 32. After 30 years of management for roadless and semi-primitive non-motorized characteristics within the Flynn Lake area, this “buffer area” between the 50 or so acres of developed private parcels in the south end of Section 32 and the old RARE II boundary has not been managed any differently than the area it is supposed to buffer. In fact, the Flynn Lake SPNM Area boundary comes right to the property lines; and there would be little difference in how the SPNM Area has been managed, and how a Flynn Lake Wilderness Area would be managed.

The remainder of the Roadless Area boundary follows a more conventional route. The eastern boundary follows Forest Road 223 from the north Section line for Section 32 to the intersection with Forest Road 392 (Reynard Lake Road). FR 223, also known as the Delta-Drummond Road, is actually a Forest Highway (FH 35). It is a paved, two-lane Traffic Service Level B road. FR 223 is under the jurisdiction of Drummond Township. FR 392 forms the north boundary of the Flynn Lake Roadless Area. This road is a lane-and-a-half, natural surface road with spot gravel. It is a Traffic Service Level C Township road, but, by mutual agreement between the National Forest and the Township, it receives only that maintenance necessary to meet the lowest standard of a TSL C road.

To the west, Forest Road 396 (a low-standard, lane-and-a-half, natural surface Traffic Service Level D Township Road), and Forest Road 228 (a two-lane, gravel surface, Traffic Service Level C Township Road) provide the boundary for the Roadless Area.

The core area of solitude is defined as a contiguous core of National Forest land that is separated by at least ½-mile from the influence of motorized traffic and land uses inconsistent with the semi-primitive non-motorized experience (a more detailed description of the process for determining core area of solitude can be found on pages 4-6 of this report). For the Flynn Lake Roadless Area, this core is 1,959 acres, or about 31% of the total National Forest acres within the roadless area. This core area does not meet the minimum of 2,500 acres required by the ROS criteria to provide a semi-primitive non-motorized recreation experience. However, the merits of this area were considered carefully; and, in spite of the relatively small core area of solitude, this area was made an exception due to the outstanding recreation and ecological features it possesses, including:

- A 30-year history of management as, first, a Wilderness Study Area, then a RARE II Area, and, most recently, as a Semi-Primitive Non-Motorized Area

- Proximity to the Rainbow Lake Wilderness (and the Star Lake Roadless Area) and the potential to interconnect and possibly enhance the wilderness experience on the Chequamegon landbase
- The outstanding recreation resources found within the Flynn Lake area, including several undeveloped clear water lakes; extensive and maturing northern hardwoods stands; a network of hiking trails (including the North Country Trail); and an unbroken forest canopy
- The role of the Flynn Lake area as part of one of the largest landscape level northern hardwoods patches remaining on the Chequamegon-Nicolet

There are two primary roads, both improved, providing access to the interior of the Flynn Lake Roadless Area. Forest Road 812 is a 1.1-mile route that provides access from FR 396 to Flynn Lake itself. (Actually, only about 0.8 mile of FR 812 lies within the boundaries of the Flynn Lake Roadless Area, and only 0.45 mile of this is improved.) FR 812 is somewhat of a unique road within the Chequamegon-Nicolet. It is specifically described in the 1987 Chequamegon National Forest Land and Resource Management Plan as “an exception to the closure of public roads” within designated Semi-Primitive Non-Motorized Areas. FR 812 was kept open by the Forest Service to provide continued motorized access to Flynn Lake. (Actually, it provides motorized access to two dispersed campsites near the shoreline of Flynn Lake; boat access is carry-in only.) FR 812 is an 8-10’ wide, 2-track travelway with a solid base for 0.7 mile. The road is somewhat deteriorated from this point forward, with several deep ruts and one eroded grade leading to two dispersed campsites adjacent to Flynn Lake. This latter portion of the road is accessible only with a high-clearance vehicle. The second road, already described above, is a special use permit road providing access from FR 223 to private property on Armstrong Lake. The road is actually 0.31 mile on National Forest land, with another 0.05 mile on private property. This improved road also provides a walk-in access to Armstrong Lake for the general public.

There are two additional access points of note to the interior of the Flynn Lake Roadless Area. One is an unimproved travelway from FR 392 to Wabigon Lake. This travelway, 0.4 mile in length, is gated and essentially a walk-in access for Wabigon Lake. This travelway may have been an old grade, possibly as wide as 12-14’; however, downed trees and encroaching brush make vehicle travel difficult, if not impossible, in the current condition. The other access is an unimproved travelway from County Trunk Highway N on the south side of the area. The access is blocked by boulders and appears to be an old grade, possibly as wide as 12-14’.

In addition to the primary access roads to the interior, there are 9 additional access points to the Flynn Lake Roadless Area (see Appendix C). All of these are hiking trails blocked by boulders or signs, including two access points to the North Country Trail. One of these access points has been virtually obliterated by blowdown from a 1999 windstorm. The 1995 Flynn Lake Opportunity Area Report identified nearly 19 miles of abandoned railroad beds within the roadless area boundaries, as well as some 68 miles of abandoned travelways, mostly remnants of early 20th century logging activities. Most of these travelways are no longer serviceable, and those that are still evident on the ground are now utilized for foot travel. The 11 unimproved access points noted above provide entry to those travelways now utilized for foot travel, including the North Country Trail.

There is a 1.5-mile segment of the North Country National Scenic Hiking Trail within the boundaries of the Flynn Lake Roadless Area. The North Country Trail is a 3,200-mile National

Scenic Hiking Trail that is planned to cross 7 states from New York to North Dakota when completed. The 61.5-mile Chequamegon-Nicolet section of trail traverses the northern half of the Chequamegon landbase, including the 1.5-mile stretch through the Flynn Lake Roadless Area. Use on this trail is generally restricted to hiking, cross-country skiing, and dog-sledding (on certain segments). The use of horses and mountain bikes is not specifically prohibited, but it is discouraged. Motorized vehicles are expressly prohibited on the trail. Within Wilderness Areas, only foot travel is permitted on the trail. The North Country Trail has been completed only in sections across its planned 3,200 length; so, unlike the Appalachian or Pacific Crest National Hiking Trails, this trail does not attract the long-distance hikers. Most folks who utilize the trail within the Chequamegon-Nicolet take day hikes, traveling particular segments of the trail. The more popular segments include the Rainbow Lake Wilderness, the Porcupine Lake Wilderness, the Long Mile Lookout, the Swedish Settlement in the Marengo Hills, and the Lake Owen Picnic Grounds. The segment within the Flynn Lake Roadless Area takes hikers past Nelson Lake and the Stratton Ponds. This segment has easy access from a parking area on FR 392, between the Flynn Lake area and the Rainbow Lake Wilderness, or from FR 223 (although a parking area is not provided here). Visitor use on this segment of trail is probably lighter than on the more popular segments. One is more likely to encounter a person hiking to one of the lakes to fish, rather than a person specifically hiking the North Country Trail. The North Country Trail Association is reasonably active in this general region, so it is also possible to encounter the occasional organized group along the trail.

The use of the Flynn Lake Roadless Area for non-motorized recreation is well established. The management emphasis on non-motorized access to the area has been in place for at least 30 years. There are very few access points to the interior of the Flynn Lake area; and, with the exception of the two improved access roads (one of which are closed to public motorized access), none of these are drivable (with the possible exception of the blocked access from County Highway N). There is no evidence of illegal access to the area using off-road motorized vehicles, although Drummond Township recently designated FR 228 and FR 396 as ATV routes. Forest Roads 392 and 228 do not provide direct access to year-round residences, so these roads may or may not get plowed during the winter. As a result, they may get some snowmobile traffic.

In addition to the North Country Trail, most recreation activity within the Flynn Lake Roadless Area is associated with the numerous small lakes found within the boundaries. The presence of numerous, relatively deep, undeveloped seepage lakes with quality fisheries makes the Flynn Lake Roadless Area attractive to anglers interested in a “backcountry” fishing experience, free from motorized boats and shoreline development. The Flynn Lake Roadless Area and the neighboring Rainbow Lake Wilderness Area together encompass nearly 30 small, undeveloped deep-water seepage lakes. With the level of lakeshore development occurring in Northern Wisconsin over the past 10 years, this represents an increasingly unique and valued recreation resource. Some level of stocking takes place in a number of these lakes, but the management of the fisheries is generally unobtrusive and sensitive to the semi-primitive recreation experience. The Forest Service conducted a recent survey of access to lakes over 10 acres within the Chequamegon-Nicolet. Of the 609 lakes over 10 acres in size within the Chequamegon-Nicolet, 232 lakes (38%) have carry-in access, and 138 of these lakes have game fisheries. Of the 30+ lakes within the Rainbow Lake Wilderness and Flynn Lake Roadless Area, 16 lakes are over 10 acres in size, and 15 of these lakes (excluding Flynn Lake itself) support game fisheries and have carry-in only access. These 15 lakes represent 11% of the lakes within the Chequamegon-

Nicolet that have carry-in access and support a game fishery. This represents a significant concentration of an increasingly rare non-motorized recreation opportunity.

The connection to the Rainbow Lake Wilderness Area is an important factor in the evaluation of wilderness characteristics in the Flynn Lake Roadless Area. If Rainbow Lake were not immediately to the north, then the undeveloped deep-water lakes and extensive interior hardwood forest of the Flynn Lake Roadless Area would have significance as the primary opportunity to provide Wilderness representation of these recreation and ecological values. With the presence of Rainbow Lake to the north, Flynn Lake has significance as an opportunity to supplement and complement the existing Wilderness Area. Even with the low-standard Reynard Lake Road separating the two areas, the Flynn Lake Roadless Area provides an opportunity to expand and enhance the experience found in the Rainbow Lake Wilderness. And, while the Flynn Lake Roadless Area has many merits to consider it for potential Wilderness as a unique entity, the proximity to the Rainbow Lake Wilderness Area is probably the most compelling.

Less than 10% of the Flynn Lake Roadless Area is typed as wetlands. The predominate landscape is large patches of upland northern hardwoods. The topography of the area is relatively flat, although the lakes are deep. The area has no developed recreation facilities, other than the North Country Trail. The area is not remote, but it is possible that a visitor could attain a feeling of isolation and independence. There is no place within the roadless area that is more than 2 miles from the nearest open public road. However, while FR 223 has frequent traffic traveling at moderate speeds, the other boundary roads (FR's 392, 396 and 228) receive very little traffic, even during periods of peak recreational activity on the Forest. A person fishing the shoreline of Wabigon Lake or canoeing on Flynn Lake may pass the entire day without seeing or hearing another human, but this should not necessarily be the expectation. That same person would be just as likely to hear passing traffic on FR 223, chainsaws operating to the west, or an ATV maneuvering on Forest roads outside the roadless area perimeter. A visitor hiking the numerous unmaintained travelways found in the Flynn Lake Roadless Area could do so with little expectation of encountering another person. This expectation might increase if the area were designated as a Wilderness. A person could feel a sense of adventure and self-reliance through the application of outdoor skills in the Flynn Lake area, but the risk and challenge involved would be no more so than in other locations within the Chequamegon-Nicolet where a person chose to wander off the travelways. A person could certainly increase the potential for risk and challenge by hiking or camping in the winter; but the increased potential would be due to the weather much more so than the landscape.

Another recreation activity in this area is hunting. The semi-primitive non-motorized emphasis of this area provides the more adventurous hunter with a somewhat challenging and potentially arduous hunting experience. The preponderance of interior northern hardwoods forest types is not necessarily the preferred habitat for the more popular game animals of Northern Wisconsin. So this particular activity may have limited application in the Flynn Lake Roadless Area.

On July 30, 1999, a destructive windstorm damaged approximately 1,600 acres within the boundaries of the Flynn Lake Semi-Primitive Non-Motorized Area (included acres located outside the RARE II Area). This damaged timber has raised concerns about increased fire hazard, potential for insect and disease infestation to adjacent healthy timber, and protection of private land and public safety. The Chequamegon-Nicolet National Forest is currently considering treatment of some of the severely effected timber to mitigate wildfire potentials, and to keep boundary roads and authorized interior roads and trails open. There may be a number of

possible ways to address some of these problems, such as fuels reduction by mechanical means, or removing damaged trees that pose a hazard along travelways, or prescribed fire. The primary reason for considering treatment for fuels reduction zones is to minimize the number of potential fire starts and protect firefighter safety in the event of a fire start in this area. These zones would not necessarily protect the unique features of the Flynn Lake Roadless Area from a large fire.

Degree of Disturbance Evaluation

The Flynn Lake Roadless Area is natural in appearance, with only limited evidence of any recent human disturbance. There has been no regeneration harvest of timber within the area during the past 10 years. There are 4 areas totaling 11.1 acres that are maintained as permanent wildlife openings. There are no current mineral extraction activities, mineral leases or mineral claims within the roadless area, and there are no trail bridges and no developed recreation sites (other than the North Country Trail). There is a buried cable line extending along FR 396 and the Jorgenson Lake Road to the private residence on Jorgenson Lake (outside the roadless area). And there is one special use permit providing access to a private residence on Armstrong Lake. There is no evidence of timber cutting activity on the private land within the roadless area.

There are few access points along the perimeter roads of the Flynn Lake Roadless Area, further enhancing the natural and relatively undisturbed appearance of the area. The greatest evidence of development within the Flynn Lake Roadless Area is Forest Road 812, providing public vehicle access to Flynn Lake, and the improved and gated road providing access to the Armstrong Lake property. The presence of numerous old railroad grades is not an uncommon sight, nor does it overtly detract from the natural appearance of the area. These old grades date back to the initial logging of old growth hardwoods in Northern Wisconsin in the early 1900's. The cuts and fills are evident in places, but they are not particularly pronounced.

Perhaps the greatest evidence of disturbance within the Flynn Lake Roadless Area is that caused by nature, not human beings. The windstorm of July 1999 left 1,600 acres of forestland damaged. In some areas, the damage was extensive, with trees leveled or snapped in two, and the landscape a maze of dead and down timber piled atop one another. In other areas the damage was less extensive, but still noticeable. The primary concern with this damage is the potential fire danger posed by so much accumulated fuel. But this is a natural disturbance, and its appearance is subject to the judgement and interpretation of the visitor ... somewhat akin to the notion that "beauty is in the eye of the beholder". As an aside, there are approximately 300 acres of pine and spruce plantations within the roadless area, and these plantations absorbed a significant amount of damage from the windstorm. As such, this may have contributed to making the landscape more natural in appearance.

With the exception of the old railroad grades, the Flynn Lake Roadless Area has the appearance of a lightly disturbed landscape in which the bulk of recreation activity is non-motorized in nature, and in which natural processes hold sway, including the extensive storm damage from July, 1999.

Biological Evaluation

The Flynn Lake Roadless Area is dominated by northern hardwood/oak forest types (56%). Early-successional forest types (aspen/paper birch) occur on 24% of the roadless area. Wetlands are relatively uncommon here (583 acres, or 9% of National Forest land in the roadless area). Upland conifers represent 9% of the vegetative composition.

A very fertile coarse ground moraine with steep hummocks occurs over about 90% of the roadless area, while very young glacial till and less fertile end moraine make up the remainder.

The Flynn Lake Roadless Area has generally had a contiguous, closed canopy landscape, with a relatively large average patch size. This is partly attributed to limited timber harvest activities within the area; due in part to the area's designation as a Wilderness Study Area by the Eastern Wilderness Act of 1975, and its subsequent inclusion in the nationwide RARE II inventory in 1979; the designation of the area as a Semi-Primitive Non-Motorized Area in 1986; and a temporary moratorium on timber harvest in this area following release of the Chequamegon Land and Resource Plan in 1986 as a result of appeals and later litigation concerning biological diversity. This has been somewhat altered by the July, 1999 windstorm; but much of the damage caused by the storm was concentrated in the eastern portion of the area, effecting nearly 1,000 acres with varying degrees of disturbance.

Mixed northern hardwoods of moderate to large patches make up a majority of the landscape within the roadless area, with strong components of sugar maple, red maple and basswood. Interspersed among these upland hardwood areas are small to moderate sized lowland conifer areas. Contrast between patches in this area is fairly low, with a more homogenous pattern than seen elsewhere in the Valhalla/Marenisco Moraines Land Type Association. Within each patch, species are mixed and there are several structural layers beneath the tree canopy. Patch sizes range from 5 acres to hundreds of acres. Historically, the influence of fire was significant; the prevailing winds brought fire from the adjacent barrens-dominated outwash plain. Today, wind and fire regimes are much changed from the pre-settlement frequencies and intensities, due to direct and indirect human actions.

There are no Landscape Analysis and Design complexes within the Flynn Lake Roadless Area, but this should not be interpreted to mean that the area is not ecologically significant. The most significant features of this area are at a landscape level (whereas, the LAD inventory for the most part recognized community- or stand-scale features). This area occurs within a band of primarily northern hardwood forest types, which is one of the largest landscape patches on the Forest.

Another significant ecological feature of the Flynn Lake Roadless Area is the concentration of relatively remote, small seepage lakes.

- Flynn Lake is 64 acres, lightly stained and has an undeveloped shoreline. It supports a good fishery of largemouth bass, white sucker, and yellow perch. This is a popular fishing location among the local population. Direct access to the lake is carry-in from Forest Road 812. However, FR 812 is a 1.0 mile partially improved road that actually provides motorized access to the carry-in from Forest Road 396 on the southwest perimeter of the roadless area.
- Wabigon Lake is 35 acres, stained and has an undeveloped shoreline. It supports an average fishery of largemouth bass, northern pike, and yellow perch. This lake has a ½-mile carry-in access trail from FR 392 on the north perimeter of the roadless area.

- Armstrong Lake is 48 acres, clear, and has one house on the shoreline. The fishery on this lake consists of largemouth bass and panfish. Public access is walk-in via a special use permit road that also provides access to private property on the lake.
- Nelson Lake is 21 acres, lightly stained, and has undeveloped shoreline. The fishery on this lake consists of largemouth bass and panfish.
- Pond Lake is an 8-acre seepage lake with an undeveloped shoreline. The fishery on this lake consists primarily of panfish.
- The shoreline of Jorgenson Lake is completely in private ownership, and it is located outside the boundary of the roadless area.
- Stratton Ponds, located near the northeast corner of the roadless area, are managed as stocked trout lakes.

There are numerous other small seepage lakes in the area (including Egg Lake, Balsam Pond, and Dry Well Lake) that have limited potential to support a recreational fishery. At the same time, there only 0.2 mile of perennial streams within this roadless area. There are no Threatened or Endangered aquatic species known to occur within the roadless area.

The northern hardwood and early successional forests of Flynn Lake SPNM are home to several Threatened or Endangered flora and fauna. The Rainbow Lake wolf pack territory covers most of this area and a den site was located here several years ago.

Northern goshawks have been sighted recently, and habitat does exist for red-shouldered hawks. Black-backed woodpeckers could also utilize this area due to the foraging habitat recently created by the storm damage. Approximately 3,000 acres of this area have been designated as Essential Habitat for Bald Eagles, due to the numerous lakes. The eastern timber wolf, *Canis lupus*, and bald eagle, *Haliaeetus leucocephalus*, are federally-listed Threatened or Endangered Species (TES). The red-shouldered hawk, *Buteo lineatus*; northern goshawk, *Acipiter gentiles*; and black-backed woodpecker, *Picoides arcticus*, are Regional Forester's Sensitive Species. The red-shouldered hawk is also listed as Threatened by the State of Wisconsin.

Only a limited number of plant surveys have been conducted within the Flynn Lake Roadless Area, but they did find Farwell's water milfoil (*Myriophyllum farwellii*, Draft Forest Sensitive Species) in Wabigon Lake. Habitat does exist that may support Fassett's locoweed (*Oxytropis campestris var chartacea*, federally-listed TES), Ternate grape fern (*Botrychium rugulosum*, Regional Forester's Sensitive Species), Alpine milkvetch (*Astragalus alpinus*, Regional Forester's Sensitive Species) and Round-leaved orchid (*Amerorchis rotundifolia*, Regional Forester's Sensitive Species).

Biotic Species Requiring Primitive Surroundings

No potential Ecological Reference Areas (ERA) have been identified within the Flynn Lake Roadless Area. The close proximity of this area to a designated Wilderness Area, with only a lightly maintained Township road between the Flynn Lake area and the Rainbow Lake Wilderness, provides a key opportunity to link the management of each area into a common objective. Although there is little likelihood of achieving a "primitive" setting in the well-roaded northwoods of northern Wisconsin, and although there will continue to be a road physically separating these two areas, the addition of the Flynn Lake Roadless Area to the Wilderness System would essentially expand the Rainbow Lake Wilderness to the south. This would

enhance opportunities for biotic species requiring primitive surroundings, particularly flora requiring undisturbed interior forest habitat, by expanding wilderness management into an equally large, contiguous and ecologically similar area.

Even with the close proximity of the Rainbow Lake Wilderness Area this would not encompass an area large enough to provide wildlife species with primitive surroundings. It contributes to the overall forest mosaic; but, in this context, it is similar to the general forest environment. There are no wildlife species within the Chequamegon-Nicolet that are dependent upon Wilderness.

Ecological Evaluation

As suggested in the Forest Service Handbook, FSH 7.23b, the “analysis of the degree to which (a roadless area) contributes to the local and national distribution of wilderness” should use Edwin A. Hammond’s subdivision of landform types and the Bailey-Kuchler ecosystems classification. With regard to the Upper Great Lakes Region, almost all of this area is classified as Laurentian Mixed Forest Province (Province 212).

In his 1999 publication Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends, H. Kenneth Cordell notes that this particular ecoregion encompasses some 94.4 million acres, or 4.9% of the lower 48 states. Currently, 1,226,870 acres of this ecoregion are Congressionally-designated Wilderness on federal lands, representing 2.8% of all federal Wilderness in the lower 48 states. As a result, 1.3% of the ecoregion is represented as Wilderness. One further note: The Boundary Waters Canoe Area Wilderness accounts for 1,086,954 acres, or 86% of the total Wilderness acreage in the Laurentian Mixed Forest Province; and virtually all of this acreage is in one subsection (212La, Border Lakes).

The first national ecological unit map based on a national hierarchical framework of ecological units featuring Edwin A. Hammond’s subdivision of landform types and the Bailey-Kuchler ecosystems classification was published in 1994. In 2000, the Forest Service Eco-Map team requested recommendations from field personnel for updating the national ecological unit map, with particular focus on the Section level of the classification hierarchy. In response to this request, the State of Wisconsin assembled an interagency Landtype Association (LTA) technical team to re-evaluate Section boundaries and assess the need for refinement, based on information accumulated during the development of the initial Wisconsin LTA map. This team submitted Section boundary changes for Wisconsin to the national Eco-Map team; and, in February 2001, the official Wisconsin LTA Map reflected these changes. A soon-to-be-published new Section map of the United States will incorporate these changes, as well.

The sum of the changes incorporated into the new national ecological unit map is that several large Sections covering portions of Wisconsin and the Upper Peninsula of Michigan have been subdivided into new Sections; and, in some cases, new Subsections. With regard to the Chequamegon-Nicolet National Forest lands, 4 new Section and 3 new Subsection mapping units have been created. As a result, portions of the Chequamegon-Nicolet NF now lie within 6 different Sections (where before there were only 2 Sections, defined on a much broader scale); 14 Subsections (where before there were only 11 Subsections; and 27 LTA’s (the same number as previously).

The Land Type Associations (LTA's) have remained the same in number, and in common name; but they have been relabeled to accurately reflect the Section and subsection to which they now belong. For example, LTA polygon 212Jb01 will remain as 212Jb01; but former LTA polygon 212Jc04 is now 212Xa03, reflecting its position within Province 212, Section "X", Subsection "a".

Using the revised classification, the Flynn Lake Roadless Area falls within two Sections:

75% of the area falls within:

Section: 212J – Southern Superior Uplands
 Subsection: 212Jc – Winegar Moraines
 Land Type Association (LTA): 212Jc05 – Valhalla/Marenisco (McDonald)
 Moraines

25% of the area falls within:

Section: 212X – Northern Highland
 Subsection: 212Xf – Hayward Stagnation Moraines
 Land Type Association (LTA): 212Xf01 – Cable Rolling Outwash

Section 212J is currently represented by the following Congressionally-designated Wilderness Areas: Sylvania, Sturgeon River Gorge Wilderness Areas (Ottawa NF); Rainbow Lake, Porcupine Lake (33%) Wilderness Areas (Chequamegon-Nicolet NF)

Subsection 212Jc is currently represented by the following Congressionally-designated Wilderness Areas: Sylvania is in LTA 212Jc02 – Morse/Winegar Moraines.
 Rainbow Lake is primarily in LTA 212Jc05 – Valhalla/Marenisco (McDonald) Moraines.
 Porcupine Lake (33%) is in LTA 212Jc05.

Section 212X is currently represented by the following Congressionally-designated Wilderness Areas: Porcupine Lake (66%), Blackjack Springs, Whisker Lake and Headwaters Wilderness Areas (Chequamegon-Nicolet NF)

Subsection 212Xf has no current Wilderness Area representation.

Scientific/Educational Evaluation

The Flynn Lake Roadless Area contains no Ecological Reference Areas. However, the recent windstorm blowdown in an area which has had no active management over the past 15-25 years may provide some valuable opportunities to research unaltered natural disturbance in a relatively primitive setting, as well as educational opportunities to discuss the role of natural variability in a forest environment. The presence of so many undeveloped small seepage lakes in a semi-primitive, non-motorized setting may also provide some unique research opportunities for fisheries and water quality.

Cultural Evaluation

There are no reported cultural resource surveys that have taken place within the boundaries of the Flynn Lake Roadless Area, although two logging camps have been recorded (reference CRIF Numbers 09-02-05-044 and 052). The habitable zones located along the water features within this Roadless Area offer a high potential for prehistoric and historic human habitation and utilization of this area.

Challenge Evaluation

The chance of experiencing a life-threatening situation within the Flynn Lake Roadless Area would be due more to an unfortunate incident than any challenge presented by the area itself. A person experiencing a debilitating injury while alone in the heart of the roadless area could certainly find himself or herself in a life-threatening situation. Weather can also play a critical role in determining the level of challenge, as hypothermia, sudden snowstorms, or diving temperatures could catch a visitor unawares. These are hazards encountered anywhere on the Forest; but being on foot in a Roadless Area may amplify the risk to a slightly higher level.

There is little variation in terrain within the roadless area, there virtually no streams or rivers, and there are relatively few wetlands (583 acres, or 9% of the total National Forest landbase within the roadless area). As a result, there are few natural obstacles to cross-country travel. Although there are only 6 clearly defined access points to the Flynn Lake Roadless Area (including two entry points for the North Country Trail), there are a number of unimproved travelways that traverse the Flynn Lake Roadless Area. Due to the non-motorized emphasis of management and recreation in this area over the past 30 years, many of these travelways have become overgrown and obscured. Still, it is likely that a cross-country hiker will encounter some form of travelway regardless of the direction of travel; however, it is not as likely that any one travelway will lead to a perimeter road. Unwary travelers could end up hiking in circles, or repeatedly encountering dead-ends if they relied solely on following unimproved travelways. The blowdown of July 1999 can further complicate travel within the area, particularly in those locations where the vegetation and landscape are recovering naturally. The presence of more than a dozen small seepage lakes and ponds provide recognizable landmarks that can assist the cross-country hiker.

For the most part, there is really little change in personal risk as one moves deeper into the core area on the uplands. The visitor is never more than 1-1/2 miles from a perimeter road or trail, and rarely more than a 1/4-mile from any travelway or a 1/2-mile from one of the lakes or ponds within the area. And, with the perimeter roads in such relatively close proximity, the visitor is never really isolated in a remote setting with only their wits and their knowledge of outdoor skills to get them back to safety. Considering all of these factors, though, cross-country travelers can still find challenge in deciphering the travelways and lakes as they traverse the area.

Primitive and Un-confined Recreation Evaluation

Hiking, backpacking, hunting, fishing and camping are the dominant recreation activities within the Flynn Lake Roadless Area. These are common activities throughout the Chequamegon-Nicolet National Forest, and the region in general; but the opportunity to engage in these activities in a non-motorized setting featuring quality, undeveloped, clear water lakes is

becoming increasingly unique within the National Forest and the region. The North Country Trail is the centerpiece for hiking and backpacking, but it is not unusual for anglers to trek into a lake and set up a tent for a few days of fishing and camping.

With as much as 24% of the Flynn Lake Roadless Area in early-successional habitat, particularly aspen, this area provides good opportunities to hunt white-tailed deer, black bear and ruffed grouse. Most other such opportunities on the Chequamegon-Nicolet are in areas of active timber management, often with numerous roads; and, particularly on the Chequamegon landbase, with the possibility of encountering other Forest users gaining access in ATV's or other off-road motorized vehicles. Given 30 years of management as a Wilderness Study Area or Semi-Primitive Non-Motorized Area, and the very low level of timber harvest and vegetative management within this area during that time (no timber harvest since at least 1986), the early-successional habitat may be maturing beyond the age where it provides adequate forage for the most popular game species. However, one of the effects of the July 1999 blowdown is that, through natural disturbance, some portion of the 1,000 acres within the roadless area that experienced damage will be in some stage of early-successional development for a number of years to come. These areas may not be the most accessible due to the tangled trees and brush left by the wind storm; but, over time, many of them will regenerate into productive habitat for deer, bear, grouse and a number of other species needing early-successional forage.

Special Features Evaluation

The 1.5-mile segment of the North Country National Scenic Hiking Trail that passes through the Flynn Lake Roadless Area is part of a 61.5-mile segment of the trail that traverses the northern half of the Chequamegon landbase of the National Forest. Flynn Lake is one of four non-motorized areas that include sections of the trail (the others are Rainbow Lake Wilderness, Porcupine Lake Wilderness, and Marengo SPNM Area). The North Country Trail is planned to extend 3,200 miles from New York to North Dakota.

The presence of Rainbow Lake Wilderness directly to the north, although separated from Flynn Lake by a low standard Township road, enhances the non-motorized opportunities within this region of the National Forest. The two areas together include 15 lakes over 10-acres in size that support game fisheries and have carry-in access only. These two areas encompass 12,509 National Forest acres, less than 1% of the entire Chequamegon-Nicolet; yet they include 11% of the lakes within the National Forest that have carry-in access and support a game fishery. Given the increasing scarcity of these kinds of lakes throughout all of Wisconsin, this is a unique and special feature of the combined Flynn Lake/Rainbow Lake area. The proximity and connectedness to the Star Lake Roadless Area, located directly east of the Rainbow Lake Wilderness, with its two dozen small seepage lakes and the 200-acre Star Lake, only enhances the recreation opportunities and ecological benefits even more.

Manageability Evaluation

The size and history of the Flynn Lake Roadless Area make its preservation practical. The shape of the area, abutting property lines in places, has not affected management of the roadless characteristics of the area in the past.

The relatively long history of managing the roadless characteristics and non-motorized experience in the Flynn Lake area over the past 30 years, and the proximity and ecological connection the Flynn Lake area has with the Rainbow Lake Wilderness to the north are the best testament to the manageability of the Flynn Lake Roadless Area.

Approximately 77% (11.30 miles) of the roadless area boundary follows perimeter roads that are well defined in the transportation network, open to the public and consistently traveled by passenger vehicles. Another 1.10-mile section of the boundary follows a Township road (Jorgenson Lake Road) to a private residence. Jorgenson Lake Road is a narrow, improved road that is open to the public, but rarely traveled by anyone other than the owners of the private parcel (year round residents) and the occasional government vehicle (i.e. snow plow, assessor, Forest Service field personnel). Another 0.50-mile section of the boundary follows the property line of the private parcel around Jorgenson Lake. The remaining 1.75 miles of boundary follows section and property lines.

There is only one open, partially improved travelway (Forest Road 812) providing access to the interior of the Flynn Lake Roadless Area, an average of 0.1 open access points per mile of perimeter road, well below average for the newly inventoried roadless areas on the Chequamegon-Nicolet. There are three additional travelways, one improved and two unimproved, which are gated. The improved access has a special use permit to access a private residence on Armstrong Lake. If the Flynn Lake Roadless Area were designated as Wilderness, FR 812 would most likely be closed and obliterated, or converted to a foot trail. There would be subtle changes in the management of the area, but there would be very little else that would actually change on the ground.

There has been no timber harvest in the Flynn Lake Roadless Area since at least 1986, and possibly longer. With the July 1999 blowdown, the Forest Service is considering fuels reduction treatment in the most severely damaged timber stands. This would involve removing damaged trees, prescribed burn, or some mechanized method of scattering or plowing under potential forest fire fuels. If the area were designated as a Wilderness, the National Forest might not have these options. The Flynn Lake RARE II Area is included in the proposed Roadless Area Conservation Rule; and it is possible, if the Rule is approved in its final form, that it may limit even fuels reduction treatment within the boundaries.

There are three parcels of private land located within the Flynn Lake Roadless Area. One parcel is on the perimeter of the area and directly accessible from FR 223. The remaining parcels are both interior, including the 11-acre parcel on Armstrong Lake that has an existing special use permit to obtain access across National Forest land; and a 14-acre parcel south of Armstrong Lake that is currently undeveloped, but for which the owner has expressed interest in gaining access across National Forest land. In both cases, the Forest Service would be compelled to provide access regardless of the designation of the area as Wilderness.

There are no outstanding mineral leases or claims within the roadless area. There is a buried power line along the corridor of the Jorgenson Lake Road, one of the perimeter roads for the area. This power line would not typically require maintenance of the vegetation growing on the ground above the line, but there may be a stanchion or power box along the roadside at intermediate points in the line. These devices would be inconsistent with the appearance of a Wilderness, but they are much less visible than an overhead line. Regardless, the location of the

buried line and any stanchions does not, in itself, negatively affect the manageability of the area as Wilderness.

Availability Evaluation

Approximately 90% of the National Forest land, or some 5,739 acres within the Flynn Lake Roadless Area is classified as suitable for timber production. In the last 10 years no timber has been harvested from within the Flynn Lake Roadless Area. Future timber harvest and the associated production of wood products from this area would be precluded by Wilderness designation. This amounts to about 0.58% of the lands suitable for timber production on the Chequamegon-Nicolet.

The Flynn Lake Roadless Area supports 0.2 mile of perennial streams and rivers (although it has numerous small seepage lakes), and has no part of a municipal watershed and no known water storage needs. The September 2000 Draft Watershed Analysis for the Chequamegon-Nicolet National Forest indicates that the Flynn Lake Roadless Area falls within the boundaries of one 5th level watersheds – the White. Water quality may improve slightly from current levels should the area be designated as Wilderness. In an area designated as Wilderness, ground-disturbing activities, a primary source of sedimentation or erosion, are held to a minimum.

Foot travel is the preferred mode of transport in the Flynn Lake Roadless Area. The 1.5-mile segment of the North Country Trail that traverses the northeast corner of the area is restricted to foot travel only (and cross-country skiing in the winter). Hikers on the trail may either be passing through the area as part of a longer journey, or they may specifically target this segment for a day hike. With the exception of FR 812 (to Flynn Lake itself) and the special use permit for the Armstrong Lake property, all access to Flynn Lake is restricted to non-motorized travel (foot, horseback, mountain bike, cross-country skiing, dog sleds, skijouring, etc.). If this area were designated as a Wilderness, there would be little change in the current access, with the exception that mountain biking would be prohibited, and motorized vehicles would no longer be permitted to use FR 812.

There are no developed recreation sites within the Flynn Lake Roadless Area, with the exception of the North Country Trail. Wabigon Lake and Flynn Lake have carry-in access.

Hunting is a popular recreation activity on the Chequamegon-Nicolet, and this roadless area provides some opportunities for hunting deer, bear and ruffed grouse. There is one open, drivable road (FR 812) providing access to the interior of this roadless area. FR 812, for at least half of its distance, travels through a pine plantation, so, the access it provides is not necessarily to the preferred game species habitat. The result of the available access and non-motorized emphasis within this area is that most, if not all, hunting is done on foot, and this has been the history of this area for at least three decades. There is a significant percentage of upland acres in early successional habitat (1,548 acres, 24% of total acres, 27% of upland acres); but, with no timber harvest in this area for at least the past 15 years, even the youngest of this habitat is reaching an age and structure where it loses its value as forage for deer, bear and grouse. Yet, although there may be no management plan to retain early successional habitat, natural disturbances such as the July 1999 blowdown create new opportunities for early successional species to regenerate. Designation of this area as a Wilderness would not change this management approach from its current direction. Harvest of timber would be prohibited, and

natural disturbances would continue to dictate the age and distribution of habitat. The current proposals for fuels reduction treatments to certain portions of the blowdown would be prohibited in a Wilderness, unless by exception.

There are an estimated 1.50 miles of “system roads” within the Stony Creek Roadless Area. These are travelways that have a road number, have generally been identified on Forest maps or USGS maps, and may be included in the Forest Transportation Inventory as “classified roads”. These roads may currently be improved or unimproved, open or closed, drivable or not drivable. They may appear on a map, but it is possible that they have long since fallen into disuse and may no longer exist as functional travelways on the ground. Within this area, 0.45 mile of the 1.50 miles of system roads is improved. The remaining mileage may be unimproved or nonexistent. Regardless of condition, most system roads are likely to be included in the total miles used to determine road density on the Chequamegon-Nicolet. As such, any designation of this area as a Wilderness would require that all travelways be closed to motorized vehicles, and that these travelways either be obliterated or converted to foot trails. This includes all improved and unimproved travelways, regardless of whether or not they are system roads. This would result in a net loss of at least 1.50 miles, and probably more, from the total road miles on the Chequamegon-Nicolet.

The eastern timber wolf, a federally-listed Threatened and Endangered Species (TES) has been known to occur within and around the Flynn Lake Roadless Area. The designation of the area as Wilderness is not likely to result in any immediate management changes that will have a negative impact on this TES. In general, Wilderness designation would likely result in a shift away from early-successional habitat (a continuation of present management in this area), resulting in fewer opportunities for the wolf to prey on deer within the designated area; but this area would be sufficiently small enough that these opportunities would most likely be readily available beyond the boundaries.

Approximately 3,000 acres of the Flynn Lake Roadless Area have been designated as Essential Habitat for Bald Eagles, another federally-listed TES. The importance of this habitat has to do primarily with the number of undeveloped lakes within this area and the adjacent Rainbow Lake Wilderness. Designation of this area as a Wilderness would do little to change the current management or importance of this habitat.

Other sensitive species, such as the northern goshawk, red-shouldered hawk, and black-backed woodpecker have either been sighted in this area, or the habitat within the Flynn Lake area is suitable for them to nest, forage or frequent. Designation of this area as Wilderness is not likely to change the management of this area in such a way that these species would not be attracted to it. One possible exception is if fuels treatment within the blowdown does proceed, it may remove some of the dead and down timber that might otherwise attract the black-backed woodpecker.

There are no livestock operations within the Flynn Lake Roadless Area, nor is there potential for such operations.

There has been no exploration for oil, natural gas or precious minerals within the Flynn Lake Roadless Area over the past 10 years, although this does not preclude the possibility that these resources exist. There are no active or inactive gravel or borrow pits within the area.

There have been two cultural resource sites recorded within the Flynn Lake Roadless Area, with a high potential that other sites may also exist within the area. Designation of the area as Wilderness would have no foreseeable impact on these sites, or on any potential site. The absence of ground disturbing activities would enhance the protection of any sites within the area.

Fire protection and pest control techniques could be significantly altered by Wilderness designation. The current proposals to reduce fire fuels as a result of the July 1999 blowdown would not be possible within a designated Wilderness, unless an exception were made to prevent a life-threatening situation. The proposed Roadless Area Conservation Rule, if enacted, would put some restrictions on access and timber harvest, and establishes a litmus test for mitigation activities within a RARE II Roadless Area; but these standards are less restrictive than those required in a Wilderness.

Regardless of designation, the Forest Service will most likely be compelled to maintain a special use permit for access to the private parcel of land on Armstrong Lake; and may be required to provide future access to the private parcel of land south of Armstrong Lake.

To protect roadless characteristics within this area, the Forest Service would benefit from working with Drummond Township to assure that the boundary roads are not designated as ATV or snowmobile routes; and, in the case of Forest Roads 228 and 396, searching for ways to reroute ATV and snowmobile traffic onto other roads or trails that do not have direct access to the roadless area.

10) SUMMARY LIST OF ROADLESS AREAS TO BE CONSIDERED FOR WILDERNESS IN FOREST PLAN REVISION

- **Porcupine Lake Addition**
- **Iron River**
- **Hungry Run**
- **Spring Brook**
- **Schmuland/Popple Creek**
- **Mud Lake**
- **Stony Creek**
- **Flynn Lake**

LIST OF SPECIALISTS PROVIDING INPUT TO THIS REPORT

ROADLESS AREA INVENTORY

USDA-FOREST SERVICE PERSONNEL

1) REGIONAL OFFICE

- a. John Romanowski, Wilderness Specialist

2) GEOGRAPHIC INFORMATION SYSTEMS

- a. Dennis Kanten, GIS Coordinator
- b. Mike Harnois, GIS Specialist

3) FOREST PLANNING

- a. Robert Fallon, Civil Engineer/Land Use Planner

4) ENGINEERING

- a. Dwayne Reppert, Supervisory Engineering Technician
- b. Dave Campbell, Civil Engineering Technician
- c. Randy Smits, Civil Engineering Technician
- d. Mike K. Miller, Civil Engineering Technician

5) LANDS

- a. Phil Barker, Lands/Recreation Program Manager
- b. Joan Cervenka, Realty Specialist

6) EAGLE RIVER/FLORENCE RANGER DISTRICT

- a. Jeff Herrett, Assistant Ranger (Recreation & Lands)

7) WASHBURN RANGER DISTRICT

- a. Kathleen McTighe, Acting Planning Team Leader
- b. Bob Raade, Forester/Silviculturalist
- c. Floyd Dailey, Forestry Technician
- d. Joyce Zifco, Forestry Technician

8) GREAT DIVIDE RANGER DISTRICT

- a. Barry Paulson, District Ranger
- b. Lenny Kempf, Interdisciplinary Forester
- c. Dick Strauss, Assistant Ranger (Timber Management)

9) MEDFORD/PARK FALLS RANGER DISTRICT

- a. Bob Hennes, District Ranger
- b. Gene Grapa, Assistant Ranger (Recreation, LE, Minerals, Facilities, Local Govt.)
- c. Dennis Brogger, Assistant Ranger (Timber Management)
- d. Jane Darnell, Assistant Ranger (NEPA, Soil & Water, Ecology)
- e. Greg Knight, Geologist (Soils, Special Uses, Ecosystem Mgt, Fire)
- f. Frank Larson, Forestry Technician
- g. Kathy Kasper, Forestry Technician
- h. Dawn Meier, Recreation Planner
- i. Orville Stuart, Forestry Technician
- j. Dale Bluedorn, Forestry Technician (Timber Sale Administrator)
- k. Vic Peterson, Forestry Technician

NON USDA-FOREST SERVICE PERSONNEL

- 1) Jim Hughes, Wiskhert Corporation (Big Brook Area, adjacent development of private land)

LIST OF SPECIALISTS PROVIDING INPUT TO THIS REPORT

WILDERNESS EVALUATION

USDA-FOREST SERVICE PERSONNEL

- 1) **REGIONAL OFFICE**
 - a. John Romanowski, Wilderness Specialist
 - b. Lisa Whitcomb, Regional Access Coordinator
- 2) **GEOGRAPHIC INFORMATION SERVICES**
 - a. Mike Harnois, GIS Specialist
- 3) **NATURAL RESOURCES/ECOSYSTEMS GROUP**
 - a. Linda Parker, Forest Ecologist (Biological Strata, Scientific/Educational Values)
 - b. Mark Bruhy, Forest Archaeologist (Historical/Social/Cultural Values)
 - c. Susan Reinecke, Fisheries Biologist (Biological Strata)
 - d. Dale Higgins, Forest Hydrologist (Availability – Watershed)
 - e. Norm Weiland, Wildlife Biologist (Biological Strata, Primitive Biotic Species)
 - f. Dave Hoppe, Soil Scientist (Ecological Strata)
- 4) **FOREST PLANNING**
 - a. Terry Doyle, Wildlife Biologist (Biological Strata)
 - b. Ralph Wells, Forester/Land Use Planner (Appendix A - Supply & Demand)
 - c. Robert Fallon, Civil Engineer/Land Use Planner (Author)
- 5) **ENGINEERING**
 - a. Dave Campbell, Civil Engineering Technician
- 6) **LANDS**
 - a. Phil Barker, Lands/Recreation Program Manager (Challenge, Primitive/Unconfined)
 - b. Joan Cervenka, Realty Specialist
- 7) **EAGLE RIVER/FLORENCE RANGER DISTRICT**
 - a. Mariquita Sheehan, Plant Ecologist (Biological Strata)
- 8) **WASHBURN RANGER DISTRICT**
 - a. Judi Henry, District Ranger (District Review)
 - b. Ray Kiewit, Assistant Ranger for Planning/Wildlife (District Review)
 - c. Scott Posner, Wildlife Biologist (Biological Strata)
 - d. Phil Freeman, Assistant Ranger for Operations (Availability)
 - e. Bob Raade, Forester/Silviculturalist (District Review)
 - f. Teresa Holmes, Forestry Technician (District Review)
- 9) **GREAT DIVIDE RANGER DISTRICT**
 - a. Barry Paulson, District Ranger (District Review)
 - b. Dick Strauss, Assistant Ranger for Timber Management (District Review)
 - c. Ed Paitl, Forestry Technician (Timber Sale Administrator) (District Review)
 - d. Jerry Van Cleve, Forester (District Review)
 - e. Lenny Kempf, Interdisciplinary Forester (District Review)
- 10) **MEDFORD/PARK FALLS RANGER DISTRICT**
 - l. Bob Hennes, District Ranger (District Review)
 - m. Gene Grapa, Assistant Ranger (Recreation, etal.) (District Review)
 - n. Dennis Brogger, Assistant Ranger (Timber Management) (District Review)
 - o. Jane Darnell, Assistant Ranger (NEPA, Soil & Water, Ecology) (District Review)
 - p. Greg Knight, Geologist (Soils, Special Uses, Ecosystem Mgt, Fire) (District Review)
 - q. Dawn Meier, Recreation Planner (District Review)
 - r. Dale Bluedorn, Forestry Technician (Timber Sale Administrator) (District Review)
 - s. Susanne Adams, Assistant Ranger for Wildlife, Fisheries, TES (District Review)

NON USDA-FOREST SERVICE PERSONNEL

- 1) Theodore DeMatties, CPG, Geological Consultant (Availability, Metallic Minerals)

LIST OF REFERENCES

USDA-FOREST SERVICE PUBLICATIONS

Forest Service Directive System

- Forest Service Manual 1900, Chapter 20 – Land and Resource Management Planning (8/96)
- Forest Service Manual 2300, Chapter 20 – Wilderness Management (6/90)
- Forest Service Handbook 1909.12 (Land and Resource Management Planning) (8/92)
 - Chapter 4.19c: Appendix C – Roadless Area Evaluation
 - Chapter 7: Wilderness Evaluation
- Forest Service Handbook 2409.13 (Timber Resource Planning Handbook) (8/92)
- Forest Service Handbook 7709.56 (Road Preconstruction Handbook) (5/87)

Other Forest Service References

- Chequamegon-Nicolet National Forest “Notice of Intent to Prepare an Environmental Impact Statement for Revision of the Chequamegon and Nicolet National Forests’ Land and Resource Management Plans”, July 1996
- Chequamegon-Nicolet National Forest “Draft Report on Wilderness Recommendations for Forest Plan Revision”, August 1996
- Chequamegon-Nicolet National Forest “General Assessment for Wilderness and Semi-Primitive Non-Motorized”, March 1998
- Chequamegon-Nicolet National Forest “End-of-Decade Monitoring Report, Implementing the Forest Plans 1986-1996”
- Chequamegon-Nicolet National Forest “Draft Analysis of the Management Situation for Wilderness and Semi-Primitive Non-Motorized Areas”, March 1999
- Chequamegon-Nicolet National Forest Landscape Analysis and Design Reports:
 - Bear Lake Slough (11/98)
 - St. Peter’s Dome/Morgan Falls (9/98)
 - Spring Brook Drumlins (9/98)
 - Long Lake Branch Gorge (9/98)
 - Perch and Lund Lakes (7/96)
- Chequamegon-Nicolet National Forest “Land Status Atlas”
- Chequamegon-Nicolet National Forest “CDS Data Base and Field Tally Code Instructions”
- Chequamegon-Nicolet National Forest, Spring Brook Project Area, Decision Notice and Finding of No Significant Impact, 1995
- Chequamegon-Nicolet National Forest, Kelp Creek, Timber Sale Prospectus, January 1999
- National Forest in Wisconsin and Minnesota, “Population Viability Assessment in Forest Plan Revision, Appendix D”
- Superior National Forest “Merlin the Magician Reveals All or How Dave Tucci Came Up With RVDS/AC/YR for FORPLAN Yield Tables”, (White Paper) January 1982
- USDA-Forest Service, Eastern Region “Guidelines for Completing Roadless Area Inventories During Forest Plan Revision”, (letter) August 1997
- USDA-Forest Service, Eastern Region “Guides for Clarification of FSH 1909.12 – Land and Resource Management Planning Handbook, Chapter 7 – Wilderness Evaluation and Chapter 4.19c – Roadless Area Evaluation, (letter) August 1999
- USDA-Forest Service, 1986 ROS Book, Chapters II and IV
- USDA-Forest Service, “Wilderness Access Decision Tool”

LIST OF REFERENCES

OTHER PUBLICATIONS

- Cordell, H. Ken, et al; Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends; Chapter VII – Demand for and Supply of Wilderness; and Chapter VIII – Wilderness uses, Users, Values, and Management; Sagamore Publishing, Champaign, IL, 1999; 449 pgs
- DeMatties, Theodore A.; “Early Proterozoic Volcanogenic Massive Sulfide Deposits in Wisconsin: An Overview”; *Economic Geology*, Vol. 89, 1994, pp 1122-1151
- Kulhavy, David L. and Legg, Michael H.; Wilderness & Natural Areas in North America – Research, Management and Planning; Center of Applied Studies in Forestry; 1998; 321 pgs
- Loomis, John B.; “Do Additional Designations of Wilderness Result in Increases in Recreation Use?”; *Society and Natural Resources*, 12: 481-491, 1999
- VanderZouwen, William J.; Preserving Wisconsin’s Outdoor Legacy; Wisconsin Department of Natural Resources; November 1998; 112 pgs

MISCELLANEOUS REFERENCES

- Frasier Institute (The Frasier Institute webpage); “1998 Survey of Mining Companies Operating in North America”
- Wisconsin DNR (Mining Home webpage); “Potential Mining Development in Northern Wisconsin”, 2001
- Wisconsin Statute 293.50, “Moratorium on Issuance of Permits for Mining of Sulfide Ore Bodies”
- Code of Federal Regulations, 36CFR219.17 (7/00) – Evaluation of Roadless Areas
- United States Public Law 95-494, 95th congress, “An Act to designate certain lands in the State of Wisconsin as wilderness”, October 21, 1978
- United States Public Law 98-321, 98th Congress, “An Act to establish wilderness areas in Wisconsin – Wisconsin Wilderness Act of 1984”, June 19, 1984

Appendix A

Wilderness Supply and Demand on the Chequamegon-Nicolet National Forest

APPENDIX A – WILDERNESS SUPPLY AND DEMAND

REFERENCES

- Cordell, H. Kenneth, Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends, 1999.
- USDA-Forest Service, 1986 ROS Book, Chapter IV – LM Planning, Section 25 – Capacity
- Unpublished white paper: “Merlin the Magician Reveals All, or How Dave Tucci Came up with RVDS/AC/YR for FORPLAN Yield Tables” (Superior National Forest, 1/14/82).
 - Note: Tucci’s procedure actually follows the procedure outlines in the 1986 ROS Book. With regard to developing a “Capacity Coefficient” that accounts for local factors, the ROS Book state (Section 25.31, Page IV-23), “The planner is encouraged to check with surrounding Forests, other public agencies and/or the Regional Office to take advantage of specific procedures or considerations that may have been developed to address this point.” The Regional Office (John Romanowski), at the October 1999 Eastern Region Workshop on Roadless Area Inventory and Wilderness Evaluation, recommended Tucci’s procedure as appropriate for use by National Forests in the Upper Great Lakes.

ESTIMATE OF TOTAL FOREST WILDERNESS DEMAND

- The Regional Office instructs the R-9 Forests to assume a 0.5% increase in recreation use/year for 40 years.
- Current Estimated Use (See Cherquamegon-Nicolet National Forest End-of-Decade Report, 1986-1996) (RVD’s are Recreation Visitor Days)
 - 2,200 RVD’s /year for wilderness areas on the Chequamegon;
 - 15,550 RVD’s /year for wilderness areas on the Nicolet

17,750 RVD’s	$(1.005)^2 = 17,928$ RVD’s	1998-2000
17,928 RVD’s	$(1.005)^{10} = 18,842$ RVD’s	2000-2010
18,842 RVD’s	$(1.005)^{10} = 19,803$ RVD’s	2010-2020
19,803 RVD’s	$(1.005)^{10} = 20,813$ RVD’s	2020-2030
20,813 RVD’s	$(1.005)^{10} = 21,874$ RVD’s	2030-2040

Projected 2040 Wilderness Demand = 21,874 RVD’s / Year

PRACTICAL MAXIMUM CAPACITY FOR WILDERNESS AND ROADLESS AREAS

Recreation Capacity Procedure (PAOT Approach):

Compute the practical maximum capacity and the existing condition capacity. Then convert PAOT’s to RVD’s in order to compare supply with RVD units of demand.

Capacity Coefficient = PAOT/acre = RVD ÷ (MS x PU x (LOS/12))

PAOT = People at one time

RVD's = Recreation Visitor Day (12 hours = one RVD)

MS = Managed Season of Use (in days) = Number of days in a year when the capacity would logically occur

PU = Pattern of Use Adjustment Factor = Ratio of weekday to weekend use (assumes higher rate of use on weekends, base on local pattern-of-use)

LOS = Length of Stay (average length of time an area or site is occupied in hours).
(LOS/12 = Ratio of LOS to RVD)

The ROS Book (Table 8, Page IV-23) provides a range for the Capacity Coefficient of .008 to .083 PAOT/acre for the Semi-Primitive Non-Motorized experience.

The Superior National Forest process recommends a Capacity Coefficient of 0.01 (equivalent to one person needing at least 100 acres to achieve the Semi-Primitive Non-Motorized experience). This value is based on empirical reasoning and is within the range prescribed by the ROS Book. It is used here.

PAOT to RVD Conversion (Using the above equation to solve for RVD's, Values for C and LOS

were developed by the Superior National Forest for Semi-Primitive Non-Motorized experience and are consistent with the Chequamegon-Nicolet experience; Values for PU and MS are estimated specifically for the Chequamegon-Nicolet):

$[C \times MS \times PU \times LOS]/12 = \text{RVD's per acre per year}$

C = Capacity Coefficient in PAOT per acre = .01 PAOT/acre

MS = Managed Season of Use (in days) = 240 days (April-December, 8 months)

PU = Pattern of Use = 0.43 (1:5 weekday to weekend factor)

LOS = 18 hours (LOS/12 = 1.50)

Wilderness & Roadless Area RVD's / Acre / Year

$[C \times MS \times PU \times LOS]/12 = \text{RVD's per acre per year}$

$$\frac{.01 \times 240 \text{ days} \times .43 \times 18 \text{ hours}}{12} = \mathbf{1.548 \text{ RVD's per acre per year}}$$

Wilderness Area Practical Maximum Capacity

1.548 x 6,583 RVD's =	10,190 RVD's per year	Rainbow Lake Wilderness Area
1.548 x 4,235 RVD's =	6,556 RVD's per year	Porcupine Lake Wilderness Area
1.548 x 20,104 RVD's =	31,121 RVD's per year	Headwaters Wilderness Area
1.548 x 5,886 RVD's =	9,112 RVD's per year	Blackjack Springs Wilderness Area
1.548 x 7,345 RVD's =	11,370 RVD's per year	Whisker Lake Wilderness Area

Total Wilderness Area Practical Maximum Capacity = 68,349 RVD's per year

Roadless Area Practical Maximum Capacity

* Includes national forest system land and water acres (but not other ownership)

1.548	x	1,679 RVD's	=	2,599 RVD's per year	South Porcupine Lake
1.548	x	4,631 RVD's	=	7,169 RVD's per year	St Peters Dome
1.548	x	8,331 RVD's	=	12,896 RVD's per year	Iron River
1.548	x	7,363 RVD's	=	11,398 RVD's per year	Hungry Run
1.548	x	7,775 RVD's	=	12,036 RVD's per year	Spring Brook
1.548	x	7,100 RVD's	=	10,991 RVD's per year	Schmuland/Popple Creek
1.548	x	9,968 RVD's	=	15,430 RVD's per year	Mud Lake
1.548	x	7,498 RVD's	=	11,607 RVD's per year	Stony Creek
1.548	x	6,349 RVD's	=	9,828 RVD's per year	Flynn Lake

Total Roadless Area Practical Maximum Capacity = 93,954 RVD's per year

EXISTING CONDITION CAPACITY FOR CHEQUAMEGON-NICOLET NATIONAL FOREST WILDERNESS AREAS

- Existing trails and primitive campsites
- Rainbow Lake Wilderness 10 miles existing trails, 17 campsites
- Porcupine Lake Wilderness 8 miles existing trails, 4 campsites
- Blackjack Springs Wilderness 4 miles existing trails, 4 campsites
- Headwaters Wilderness 2 miles existing trails, 0 campsites
- Whisker Lake Wilderness 9.5 miles existing trails, 5 campsites
- PAOT (trail) = Twelve people per group per one mile of trail
Value based on Southern Appalachian Assessment, per R9 advice, with a maximum user group size of 6 persons, separated by one-half mile
- PAOT (campsite) = Six people per group per campsite
Value based on Opportunity Class I or II, and user group size of 6 persons
- LOS (Length of Stay) = ½ hour per mile of trail (based on hiker moving at 2 mph)
LOS = 12 hours per campsite
- MS for hiking is 240 days, MS for camping is 210 days
- RVD's = $\frac{\text{PAOT} \times \text{MS} \times \text{PU} \times \text{LOS}}{12}$

12

Rainbow Lake Wilderness Trails and Campsites

Trails: 12 people per mile x 10 miles of trail = 120 PAOT

[120 PAOT x 240 days x .43 x 5 hours]/12 (@ ½ hour per mile)

= 61,920/12 = 5,160 Trail RVD's

Campsites: 6 people per campsite x 17 campsites = 102 PAOT

[102 PAOT x 210 days x .43 x 12 hours]/12 (length of visit)

= 110,527/12 = 9,211 Campsite RVD's

Total: 5,160 Trail RVD's + 9,211 Campsite RVD's

= **14,371 RVD's Total Existing Condition Capacity**

Porcupine Lake Wilderness Trails and Campsites

Trails: 12 people per mile x 8 miles of trail = 96 PAOT
 [96 PAOT x 240 days x .43 x 4 hours]/12 (@ ½ hour per mile)
 = 39,216/12 = 3,302 Trail RVD's
 Campsites: 6 people per campsite x 4 campsites = 24 PAOT
 [24 PAOT x 210 days x .43 x 12 hours]/12 (length of visit)
 = 26,006/12 = 2,167 Campsite RVD's
 Total: 3,302 Trail RVD's + 2,167 Campsite RVD's
 = **5,469 RVD's Total Existing Condition Capacity**

Blackjack Springs Wilderness Trails and Campsites

Trails: 12 people per mile x 4 miles of trail = 48 PAOT
 [48 PAOT x 240 days x .43 x 2 hours]/12 (@ ½ hour per mile)
 = 10,114/12 = 843 Trail RVD's
 Campsites: 6 people per campsite x 4 campsites = 24 PAOT
 [24 PAOT x 240 days x .43 x 12 hours]/12 (length of visit)
 = 29,722/12 = 2,477 Campsite RVD's
 Total: 843 Trail RVD's + 2,477 Campsite RVD's
 = **3,320 RVD's Total Existing Condition Capacity**

Headwaters Wilderness Trails (Headwaters has no Campsites)

Trails: 12 people per mile x 2 miles of trail = 24 PAOT
 [24 PAOT x 240 days x .43 x 1 hour]/12 (@ ½ hour per mile)
 = 2,477/12 = 206 Trail RVD's
 Total: 206 Trail RVD's + 0 Campsite RVD's
 = **206 RVD's Total Existing Condition Capacity**

Whisker Lake Wilderness Trails and Campsites

Trails: 12 people per mile x 9.5 miles of trail = 114 PAOT
 [114 PAOT x 240 days x .43 x 4.75 hours]/12 (@ ½ hour per mile)
 = 55,883 = 4,657 Trail RVD's
 Campsites: 6 people per campsite x 5 campsites = 30 PAOT
 [30 PAOT x 210 days x .43 x 12 hours]/12 (length of visit)
 = 32,508/12 = 2,709 Campsite RVD's
 Total: 4,657 Trail RVD's + 2,709 Campsite RVD's
 = **7,366 RVD's Total Existing Condition Capacity**

Chequamegon-Nicolet National Forest Wilderness Total Existing Condition Capacity

Rainbow Lake Wilderness = 15,686 RVD's
 Porcupine Lake Wilderness = 5,469 RVD's
 Blackjack Springs Wilderness = 3,010 RVD's
 Headwaters Wilderness = 206 RVD's
 Whisker Lake Wilderness = 7,366 RVD's

Total Existing Condition capacity (Wilderness only) = 31,737 RVD's

POPULATION CENTER ACCESS TO WILDERNESS

Population Centers of 50,000 People or More Within 250 Miles of Forest Boundary

<u>Wisconsin Cities</u>	<u>Illinois Cities</u>	<u>Minnesota Cities</u>	<u>Iowa Cities</u>
Appleton	Chicago Metro	Duluth	Dubuque
Eau Claire	Rockford	Minneapolis/St. Paul Metro	
Green Bay		Rochester	
Janesville		St. Cloud	
Kenosha			
La Crosse			
Madison			
Milwaukee Metro			
Oshkosh			
Racine			
Sheboygan			

Eighteen population centers are within 250 miles of the Chequamegon-Nicolet National Forest. Twelve of these cities are within 250 miles of existing Wilderness. Racine, Kenosha, Janesville, Chicago, Rockford, and Dubuque are more than 250 miles from a Wilderness.

Cities Within 250 Miles of Chequamegon-Nicolet National Forest Wilderness Areas

<u>City</u>	<u>Miles</u>	<u>Closest Wilderness Area</u>
Appleton, Wisconsin	145	Nicolet
Eau Claire, Wisconsin	160	Chequamegon
Green Bay, Wisconsin	135	Nicolet
La Crosse, Wisconsin	225	Chequamegon
Madison, Wisconsin	235	Nicolet
Milwaukee, Wisconsin	250	Nicolet
Oshkosh, Wisconsin	165	Nicolet
Sheboygan, Wisconsin	200	Nicolet
Duluth, Minnesota	55	Chequamegon
Minneapolis/St. Paul Minnesota	170	Chequamegon
Rochester, Minnesota	235	Chequamegon
St. Cloud, Minnesota	180	Chequamegon

The Blackjack (5,886 acres), Headwaters (20,104 acres), and Whisker Lake (7,345 acres) Wilderness Areas are within 250 miles of six Wisconsin cities with population of more than 50,000 people. The Rainbow Lake (6,583 acres) and Porcupine Lake (4,235 acres) Wilderness Areas are within 250 miles of two Wisconsin and four Minnesota cities with population of more than 50,000 people.

FUTURE WILDERNESS VISITOR PRESSURE

Determine if Chequamegon-Nicolet Wilderness practical maximum capacity and existing condition capacity are sufficient to provide for expected wilderness visitor use by 2040.

Practical Maximum Capacity = 68,350 RVD's
 Expected Use by 2040 = 21,870 RVD's
 Excess Capacity = 46,480 RVD's

Existing Condition Capacity = 31,740 RVD's
 Expected Use by 2040 = 21,870 RVD's
 Excess Capacity = 9,870 RVD's

Since wilderness visitor use is projected to not exceed wilderness capacity, there is no need to calculate Roadless Area capacities.

UNCONFINED RECREATION OPPORTUNITIES AND EXPERIENCES PROVIDED BY THE CHEQUAMEGON-NICOLET NATIONAL FOREST, OTHER NATIONAL FORESTS, AND OTHER STATE AND FEDERAL LAND MANAGEMENT AGENCIES

- Determine the number of Chequamegon-Nicolet National Forest acres available for unconfined recreation opportunities and experiences (other than Wilderness areas).

Semi-Primitive Non-Motorized Areas: Total 68,595 acres

- Determine the number of unconfined recreation opportunity and experience acres (including Wilderness areas) provided by other land management agencies within 250 miles of the Forest boundary.

Other National Forest Semi-Primitive Non-Motorized Areas

Ottawa National Forest = 61,000 acres
 Hiawatha National Forest = 18,300 acres
 Chippewa National Forest = 12,117 acres

Wisconsin DNR Wildland Areas = 63,367 acres

Other State Wilderness Areas

Porcupine Mountains Wilderness Area (UP Michigan) = 40,808 acres

Other National Forest Wilderness and Primitive Areas

Ottawa National Forest = 49,046 Wilderness acres
 Hiawatha National Forest = 38,764 Wilderness acres
 Superior National Forest = 808,974 Wilderness acres
 and 72,763 primitive acres
 Chippewa National Forest = 0 Wilderness acres

Other Federal Wilderness Areas

Isle Royal National Park (Michigan)	=	132,018 acres
Seney NWR, Fish & Wildlife Service (Michigan)	=	25,150 acres
Michigan Islands, Fish and Wildlife Service (Michigan)	=	12 acres
Huron Islands, Fish & Wildlife Service (Wisconsin)	=	147 acres
Wisconsin Islands, Fish & Wildlife Service (Wisconsin)	=	29 acres

Total SPNM, Primitive, Non-Motorized, Wilderness Opportunities Managed by Other Agencies: 1,322,705 acres

Note: This figure does not take into account maximum use, existing capacity or visitor pressure on any of these areas