Appendix C
Roadless Area Inventory and Wilderness Evaluation

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Chequamegon-Nicolet
National Forests

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Roadless Area Inventory and Wilderness Evaluation

Introduction

This appendix displays the process used to conduct a roadless area inventory and Wilderness evaluation and the results of that analysis. The planning record document in which the roadless inventory and Wilderness evaluation is located is titled, "*Chequamegon-Nicolet National Forests—Forest Plan Revision Roadless Area Inventory and Wilderness Evaluation.*"

This document is divided into five parts. Part One describes the Inventory part of the process. It displays authorities and requirements, criteria used during inventory, and a detailed description of steps taken on the Chequamegon-Nicolet National Forest to accomplish roadless inventory. All areas inventoried during the RARE II process (Roadless Area Review and Evaluation of 1979), as well as all other Forest Service lands in Wisconsin were included in the current roadless inventory.

Part Two gives the results of the Roadless Area Inventory. It lists each area that met criteria during the inventory process and summarizes results of numeric inventory criteria measures. Nine areas continued into evaluation of Wilderness attributes. Two of those are RARE II inventoried areas and were also mapped as roadless areas in the Roadless Area Conservation Rule Final Environmental Statement.

Part Three discusses Wilderness evaluation including an overview of the required process and specific factors to be used to evaluate an area's capability and availability for Wilderness plus the need for Wilderness.

Part Four includes the narratives of the Wilderness evaluation for each of the nine areas that met inventory requirements and that were displayed in Part Two.

Finally, Part Five displays the results of the Wilderness evaluation and summarizes how each of the areas to be considered for recommendation as Wilderness Study Areas were included in alternatives in the Draft Environmental Impact Statement for the Chequamegon-Nicolet Forest Plan Revision. Eight areas were included in alternatives for the Forest Plan Revision. St. Peter's Dome (a RARE II area) was not included as a potential Wilderness Study Area in Revision alternatives for several reasons including small size, presence of a motorized trail, and presence of other capital improvements.

Part One: The Roadless Inventory Process

A. Direction for Conducting a Roadless Area Inventory and Wilderness Evaluation

Purpose

The Wilderness Act of 1964 and the Eastern Wilderness Act of 1975 provide the purpose of Wilderness and the broad direction for managing Wilderness.

Authority

The authority for studying and designating 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 Forests' Plan Revision, is founded 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) ensure 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 10-year cycle, or at least every 15 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 pending legislative proposals that 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 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 it includes the following types of areas or features:

1. Airstrips and heliports.
4. Plantations or plantings where use of mechanical equipment is not evident.
5. Electronic installations, such as television, radio, and telephone repeaters, "provided their impact is minimal."
6. Evidence of historic mining (50+ years ago), or areas where the only evidence of prospecting is holes drilled without the use of access roads, or areas with mineral leases which require "no surface occupancy" or where lessee has not exercised development and occupancy rights.
7. National Grasslands.
8. Areas of less than 70% Federal Ownership, if it is realistic to manage the Federal lands as Wilderness, independent of private land.
9. Minor structural range improvements (fence, water trough), or areas with burning projects, provided there is little or no evidence of the project.
10. Recreation improvements such as occupancy spots or minor hunting or outfitter camps; including developed sites only if they are minor and easily removed.
11. Timber harvest areas where logging and prior road construction is not evident.
12. Ground-return telephone lines, if a right-of-way has not been cleared.
13. 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, untrammeled appearance.
2. Improvements existing in the area are being affected 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 1/2 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 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, power lines, pipelines, bridges, property lines, and State or Forest boundaries.
    c. Boundaries should not cross power lines, 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." *(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" <u>if</u> they meet the above description." *(Region 8)*

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

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

A. It does <u>not</u> 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 <u>not</u> 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 <u>not</u> have drainage structures or improvements, such as culverts, constructed low-water crossings, or bridges;

D. It does have any of the aforementioned 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.

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.

C. Description of Steps in Chequamegon-Nicolet Roadless Area Inventory

The Roadless Area Inventory for the Chequamegon-Nicolet National Forest began in September 1999 and concluded in August 2001.

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 land base and 16 potential areas on the Nicolet land base.

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, and 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.

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 (TSL 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)

Districts provided 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)

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 through Five, as well as the Wilderness Evaluation, the Forest Service Region 9 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. 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. 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 was eliminated during the mapping process of Step Two, the remaining 4 areas were subsequently eliminated during the field inspection and core area buffering of Step Three.

FINAL RESULT – 9 ROADLESS AREAS (Including two exceptions)

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 acre)

This includes seven 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

A. 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.

This category includes 1 Area totaling 6,349 National Forest acres.

1. FLYNN LAKE RARE II –Washburn Ranger District

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

B. NON-CONFORMING RARE II AREAS – SPECIAL CONSIDERATION

- Total Area < 5,000 acres
- Improved Road Density < 0.5 mile/1,000 acres
- RARE II Area.

This category includes 1 Area totaling 4,631 National Forest acres.

2. ST. PETERS DOME RARE II –Great Divide Ranger District

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 of less than 0.5 mi/1,000 ac.

7 Areas meet minimum standard totaling	49,714 NF acres
2 Areas that do not meet minimum standard	10,980 NF acres
9 Areas TOTAL	60,694 NF acres

Part Three. The Wilderness Evaluation Process

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

B. 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 primitve 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

Challenge is the degree to which the area offers visitors the opportunity to experience adventure, excitement, challenge, initiative, or self-reliance. The 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

The Forest Service's ability to manage an area as an enduring resource of Wilderness, untrammeled 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.

C. 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 Un-confined 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)

The 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.

D. 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. 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 Nationwide 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 (USDA Forest Service pg 14)

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

- Long term increase in demand for primitive recreation opportunities, coupled with increasing development of private land base 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 Forests 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.

Part Four: 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. The basic criteria for a roadless area is that it has a "core area of solitude" amounting to 2,500 acres or more (1986 ROS Book, USDA-Forest Service). However, there is not a minimal acreage requirement if the area is contiguous to an existing Wilderness, with no significant landform or constructed barrier between the two. The Porcupine Lake Addition is due south and directly adjacent to the existing 4,488-acre Porcupine Lake Wilderness. The Addition alone has a core area of solitude of 243 acres; however, this total core area expands to 1,569 acres when considered as part of the existing Porcupine Lake Wilderness.

The Porcupine Lake Addition is essentially a square-shaped area, bordered on the east and south by FR 212 (Ryberg Lake Rd, Diamond Lake Rd/Lake Owen Dr), on the west by FR 374 (Diamond Lake Rd), and on the north by Porcupine Lake Wilderness Area.

There are two parcels of private lands within the Porcupine Lake Addition boundary; a 101-acre parcel in the southeast corner of the addition and a 20-acre parcel in the northeast corner of the Addition (directly adjacent to the existing Wilderness). In total these parcels contain three residences, all directly accessed from perimeter roads (with a 0.09 mile segment of improved road on National Forest land). The private parcels have no evidence of timber cutting.

The Porcupine Lake Addition has a total of fifteen approaches providing access to National Forest Land along the roaded perimeter of the Addition, including both improved and unimproved travelways. There are 0.74 miles of improved travelways and 6.26 miles of unimproved travelways within the perimeter of the area.

It is likely that the recreation activity in the Porcupine Lake Addition is concentrated on the trail system, with the bulk of the activity on Bayfield County Snowmobile Trail #15 and a lesser amount on Diamond Lake Hunter/Walking Trails.

Eighteenmile Creek lies within the Porcupine Lake Addition boundary. This creek is relatively flat and is bordered by intermittent moderate speed traffic and shoreline development (along Diamond Lake). Traffic sounds from the paved roads, snowmobile traffic on Trail #15, and motorboat traffic on Diamond Lake may be audible in every part of the Porcupine Lake Addition, thus making a sense of isolation rather difficult to obtain. However, 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, it is likely that the expansion would enhance the potential for a visitor to feel a sense of isolation and closeness to nature that is embedded in the wilderness experience.

Degree of Disturbance Evaluation

There are some signs of recent disturbance in the Porcupine Lake Addition Roadless Area. A total of 43 acres have undergone a regeneration harvest during the past 10 years, including a 13-acre unit that is still under contract to be harvested. Another nine acres are maintained as permanent wildlife openings. There are no developed recreation sites (other than the aforementioned snowmobile and hunter/walking trails) and there are utility corridors adjacent to the west and south perimeters of the Addition. There is one special use permit that traverses through the northeast corner of the Addition and into private property (located in the existing Wilderness). There are also three residences located on two parcels of private land within the Addition, totaling 121 acres.

The Porcupine Lake Addition has 0.74 miles of unimproved travelways within the perimeter of the area, a density of 0.44 miles of improved travelways per 1,000 National Forest Acres. The Addition has 15 access points to National Forest land along the 5.65 miles of perimeter roads and trails, or about 1.4 access points to interior National Forest land per mile of perimeter road.

The most profound motorized influence within the Porcupine Lake Addition is the 1.8-mile Bayfield County Snowmobile Trail #15. Snowmobile Trail #15 is located in the southwest corner of the Addition. The trail intersects FR 212 (Pioneer Rd) (along the southern boundary of the Addition) and FR 212 (Ryberg Rd) (along the western boundary of the Addition). It is groomed for snowmobile use in the winter months but it is unmaintained during the rest of the year. The trail is frequently used by ATVs in the summer months.

The southern portion of the Addition has a greater travelway density than the northern portion, 4.0 miles per square mile and 1.0 miles per square mile, respectively. However, only a small portion of these miles are improved. Therefore, with the exception of Bayfield County Snowmobile Trail #15; 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, and in which natural processes hold sway.

Biological Evaluation

Northern hardwood/oak dominates the northeast quarter of the Porcupine Lake Addition, while early-successional forest types (aspen/fir/birch) dominate the southern portion and much of the northwest quarter, accounting for nearly 38% of the total area. Red, jack and white pine plantations account for about 16% of the area. Only 121 acres within the Porcupine Lake Addition Roadless Area are classified as wetlands and there are 1.6 miles of perennial streams within the area.

The northeast quarter of the Porcupine Lake Addition Roadless Area includes an outstanding natural feature; about 350 acres of the Eighteenmile Creek Special Management Area (SMA). The Special Management Area is a 1602-acre complex found in the existing Wilderness and in the Addition. The most significant feature of the SMA complex contained within the Porcupine Lake Addition Roadless Area is the high quality, mostly closed-canopy, Eighteenmile Creek, Class I trout stream.

The Eighteenmile Creek stream banks 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-hardwood forest type near the Eighteenmile Creek Headwaters.

Notably, the Eighteenmile Creek 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 a large block of mature hardwood forest on the Chequamegon land base of the National Forests.

The Porcupine Lake Addition also includes the southern quarter of Colburn Lake, a 10-acre seepage lake located on the southern boundary of Porcupine Lake Wilderness. Colburn Lake has a maximum depth of nine 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 Porcupine Lake Addition Roadless Area contains approximately 350-acres of the 1602-acre Eighteenmile Creek Special Management Area complex. This 350-acre section (of the Eighteenmile Creek SMA) is directly adjacent to the existing Porcupine Lake Wilderness Area. Since there are no natural or constructed impediments between the Porcupine Lake Addition and the existing wilderness, the expansion of wilderness designation to a larger contiguous area affords greater opportunity to provide quality semi-primitive habitat with Wilderness protections.

Ecological Evaluation

The Wisconsin Land Type Association (LTA) map is an ecological unit map based on a national hierarchical framework of ecological units featuring Edward A. Hammond's subdivision of landform types and the Bailey-Kuchler ecosystems classification. The LTA map classifies the Chequamegon-Nicolet as Laurentian Mixed Forest Province (Province 212). 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, representing 2.8% of all federal Wilderness in the lower 48 states. As a result, 1.3% of the ecoregion is represented as Wilderness (Cordell 1999).

In this map the Chequamegon-Nicolet is composed of six Ecoregion Sections, fourteen Ecoregion Subsections, and twenty-seven Land Type Associations.

The Porcupine Lake Addition Roadless Area falls within Section 212X. 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).

The Porcupine Lake Addition falls within two Subsections of Section 212X:

- Subsection: 212Xa - Glidden Loamy Drift Plain
  - ✓LTA: 212Xa03 – Chequamegon Washed Till and Outwash comprises 20% of Porcupine Addition. LTA 212Xa03 makes up 66% of the existing Porcupine Lake Wilderness Area
- Subsection: 212Xf – Hayward Stagnation Moraines has no current Wilderness representation
  - ✓LTA: 212Xf01 – Cable Rolling Outwash comprises 80% of Porcupine Addition.

Scientific/Educational Evaluation

The northeast quarter of the Porcupine Lake Addition Roadless Area contains a 350-acre portion of the larger 1602-acre Eighteenmile Creek Special Management Area (SMA) complex. 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, directly adjacent and due east of National Forest land. 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 northern portion of the Addition provides a greater challenge and adventure to the recreationist than the southern portion. Eighteenmile Creek is located in the northern portion of the Addition. Its presence can be considered a challenge to the cross-country traveler, or a deterrent to the visitor seeking to stay on established travelways. The northern portion of the Addition also contains most of the 121 acres of wetlands, has a relatively low travelway density of 1.0 mile/square mile, and abuts the Porcupine Lake Wilderness. 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

Primitive and Un-confined Recreation Evaluation

Hunting, hiking, and snowmobile activities are common throughout the Chequamegon-Nicolet. These activities are probably also the dominant recreation activities in the Porcupine Lake Addition Roadless Area.

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 hunters with a network of primitive travelways through predominately early-successional habitat. The opportunity to hunt in a non-motorized setting has value to a particular segment of the hunting population, and these opportunities are limited in the Chequamegon land base area. Such opportunities are consistent with the characteristics of a roadless area.

Colburn Lake and Eighteenmile Creek are Class I trout streams within the Addition. Class I trout streams are attractive to anglers because they are a high quality trout water with natural reproduction.

Bayfield County Snowmobile Trail #15 extends for approximately 1.85 miles through the Porcupine Lake Addition Roadless Area. If the Addition were designated as Wilderness this 1.8-mile section of Snowmobile Trail would potentially be relocated outside of the area, if a feasible alternative location can be found.

Special Features Evaluation

The northeast quarter of the Porcupine Lake Addition Roadless Area contains a 350-acre portion of the larger 1602-acre Eighteenmile Creek Special Management Area (SMA) complex. The most significant feature of the SMA complex, contained within the Porcupine Lake Addition Roadless Area is the high quality, mostly closed-canopy, Eighteenmile Creek, Class I trout stream.

Notably, the Eighteenmile Creek 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 a large block of mature hardwood forest on the Chequamegon land base of the National Forests.

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 is an average of just over one open access point per mile of perimeter road. 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.

The most profound motorized influence within the Porcupine Lake Addition is the 1.80-mile Bayfield County Snowmobile Trail #15. Snowmobile Trail #15 is located in the southwest corner of the Addition. The trail intersects FR 212 (Pioneer Rd) (along the southern boundary of the Addition) and FR 212 (Ryberg Rd) (along the western boundary of the Addition). It is groomed for snowmobile use in the winter months and left unmaintained during the rest of the year. The trail is frequently used by ATV's in the summer months. If the Addition becomes a Wilderness, the 1.8-mile section of Snowmobile Trail (within the Addition) would be relocated outside of the area, when a feasible alternative location was found. However, it will be difficult to identify an alternative location for Snowmobile Trail #15. Pioneer Road and Ryberg Road are both paved Town Roads, and therefore it is unlikely that they will be designated as corridor trails. The most feasible solution would be to re-route Snowmobile Trail #15 by creating a corridor trail running east/west alongside Pioneer Road (Traffic Service Level B/Maintenance Level 3) and north/south alongside Ryberg Road (Traffic Service Level A/Maintenance Level 5). The east/west running section of this trail would most likely have to be between the Addition and Pioneer Road since private land abuts Pioneer Rd to the south. If the area were designated Wilderness by Congress, the trail would be re-routed or closed.

There has been recent timber harvest activity within the Addition, with a 30-acre aspen clear-cut in 1999. Both of these units are relatively close to the southern perimeter of the

Addition. Designating the area as Wilderness would require discontinuing all timber management activities within the area.

There are two parcels of private lands within the Porcupine Lake Addition boundary; a 101-acre parcel in the southeast corner of the addition and a 20-acre parcel in the northeast corner of the Addition (directly adjacent to the existing Wilderness). In total these parcels contain three residences that are all directly accessed from perimeter roads (with a 0.09 mile segment of improved road on National Forest land). The private parcels have no evidence of timber cutting.

There are no outstanding mineral leases or claims within the roadless area. There are utility corridors along the perimeter roads (FR 212 and FR 374). The 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. However, the location of the utility corridors, does not, in itself, negatively affect the manageability of the area as Wilderness.

Availability Evaluation

Approximately 91% of the National Forest land (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 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 Nicolet National Forest.

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 Addition falls within the boundaries of two 5^{th} level watersheds- the White and the Upper Namekagon 5^{th} level watersheds. Water quality should improve slightly given that ground-disturbing activities are held to a minimum in all Wilderness Areas.

The Diamond Lake Hunter/Walking Trail is the only designated foot trail within the Addition. A 1.80-mile section of Bayfield County Snowmobile Trail #15 lies within the Addition; but it does not appear that off-road motorized use is pervasive elsewhere in the Addition.

Hunting is a popular recreation activity on the Chequamegon-Nicolet, and this roadless area provides quality opportunities for hunters to traverse much of the southern portion of the area by foot. Early-successional habitat is plentiful in the southern portion of the Addition; 636 (38%) upland acres are in early-successional habitat, providing quality forage for deer, bear, and ruffed grouse. 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.

There is an estimate of 2.80 miles of system roads (numbered travelways) within the Porcupine Lake Addition, and only 0.35 miles of these are improved. If the Addition is designated as Wilderness, the 1.8-mile section of Snowmobile Trail (within the Addition) would potentially be relocated outside of the area, if a feasible alternative location was found. If the Addition is designated as Wilderness, the 1.0-mile section of Snowmobile

Trail #15 (within the Addition) would potentially be relocated outside of the area, if an alternative location is feasible. The other travelways, both improved and unimproved, may be obliterated or converted to foot trails, regardless of whether or not they are system roads. This may result in a net loss of at least 2.80 miles from the total road miles of the Chequamegon-Nicolet.

There is documentation of a cultural resource (historical logging camp) in the Addition (reference CRIF No. 09-02-04-126), and there is moderate to high potential that other sites may exist in the area. The absence of ground disturbing activities would enhance the protection of any sites within the area.

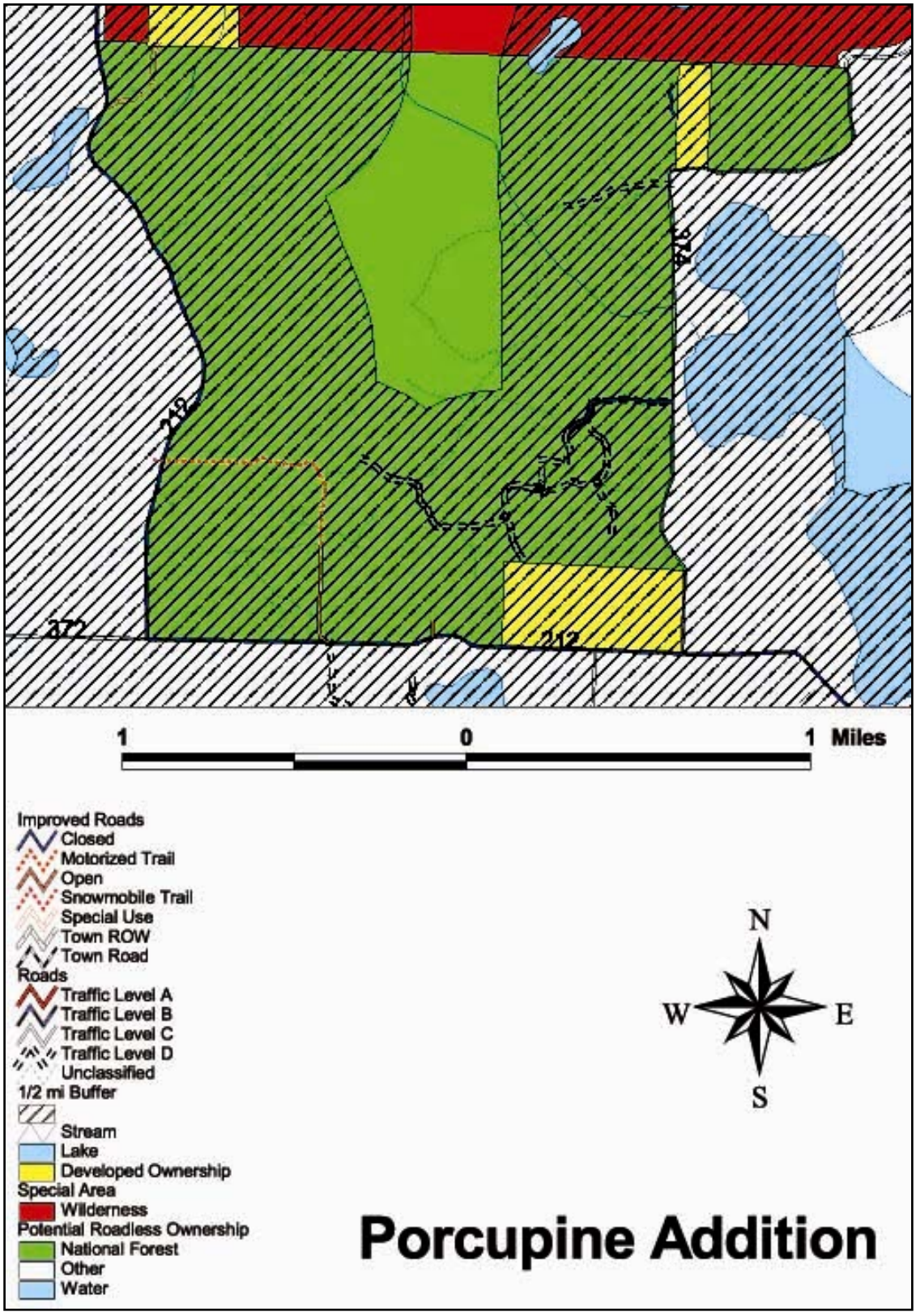

Figure C-1. Map of Porcupine Lake Addition

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 core area of solitude is defined as a contiguous core of National Forest land that is separated by "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" (1986 ROS Book, USDA-Forest Service). The core area of the St. Peters Dome Roadless Area is 2,174 acres.

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 in the nationwide Roadless Area Review and Evaluation. 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 Plan is to "Protect the St. Peters Dome area, where naturally existing plants and animals can reproduce undisturbed" and to "Provide opportunities for non-motorized recreation use while restricting motorized use to areas where it is already established."

The St. Peters Dome Roadless Area is bordered on the west and south by FR199 (Morgan Creek Rd), on the east by 187 (Mineral Lake Rd), on the northwest by FR 253 (Long Lake Rd), and on the north by Glidden Rd (Forest Service boundary).

There are 6 unimproved approaches providing access to private land along the perimeter of St. Peters Dome Management Area. The private ownership within the St. Peters Dome Roadless Area is dispersed into five separate locations. The largest single parcel is a 160-acre section, while the other parcels consist of two 40-acre parcels, and one 190-acre section divided into 4 parcels. In total, there are collapsed homesteads or dilapidated cabins on three of these parcels, the other parcels are free of development.

The St. Peters Dome Roadless Area has a total of 12 approaches providing access to National Forest land along the roaded perimeter of the Area. One of these approaches is the 0.04-mile parking area for the Morgan Falls/St. Peters Dome hiking trails. This approach is the only improved travelway accessible to full sized motor vehicles in the entire roadless area. (The Morgan Falls trail is the only other improved travelway, a recently constructed 0.6-mile handicapped accessible trail). Of the 11 other approaches; 2 provide access to the user-developed Veikko cross-country ski trail system, 3 provide access to the State Snowmobile Corridor 25, and 3 of the remaining 6 unimproved travelways are closed with berms.

One significant influence on the core area of the St. Peters Dome Roadless Area is the 4.4-mile section of State Snowmobile Corridor #25. Corridor #25 is a major north-south route within the state snowmobile system. The 1986 Chequamegon Forest Plan permits 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 but it may diminish the feeling of remoteness and challenge.

The Morgan Falls and St. Peters Dome hiking trails may also diminish feelings of remoteness and challenge. The 0.6-mile Morgan Falls trail is probably the most popular day hike on the Chequamegon land base of the National Forest. It was recently improved with gravel surfacing, a constructed viewing area and 7 footbridges. The St. Peters Dome

hiking trail has fewer visitors and requires crossing the Morgan Falls tributary and traversing a rocky, relatively steep 1.5-mile trail. The St. Peters Dome trail requires more of a commitment on the part of the visitor.

Both of these foot trails are among the most heavily used hiking trails on the Chequamegon-Nicolet National Forest and the user density in these locations can exceed the recommended amount for a semi-primitive non-motorized 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, and closeness to nature that is characteristic of the semi-primitive non-motorized experience. The limiting factor for this entire area is that it 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 was 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.” Furthermore, “vegetative composition will evolve through natural succession.” Due to this prescription, no timber has been harvested within this area for over 30 years. There are no maintained wildlife openings within the area. An old stone quarry (documented cultural resource) that ceased operations around 1960 lies within the roadless area. 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 their ownership.

The Morgan Falls trail has a total of 7 footbridges. Five of these footbridges are over flowing or intermittent streams and wet areas. In addition to these structures, two footbridges have been constructed to maintain grade. 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.

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.

With only 0.54 miles 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 the 66 areas considered in the Roadless Area Inventory; 0.5-miles of that total is an improved hiking trail, and .04 miles of that total is the Morgan Falls/St. Peters Dome parking area. 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 of 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 4.3 mile section of state snowmobile trail (#25), and two of the private access points are actually recognizable as

access points for motorized vehicles; the remaining travelways have vegetative cover, and many are becoming overgrown. Overall, the St. Peters Dome Roadless Area has the appearance of a natural landscape with minimal evidence of human activity.

Geological Evaluation

The St. Peters Dome Roadless Area is one of the few locations on the Chequamegon-Nicolet National Forests 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 a rock outcrop exists, 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, are relatively uncommon within this area (accounting for 193 acres, or 4% of the vegetative composition).

The entire 5,116-acre St. Peters Dome/Morgan Falls is an Ecological Reference Area (ERA) complex, a large portion of which is candidate for Research Natural Area designation. This complex represents a large block of unfragmented, contiguous upland northern mesic 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 ERA include widespread advanced regeneration of hemlock, white cedar, and white pine; numerous sensitive species and sites; extensive exposed cliffs and talus; the headwaters of several important cold water streams; populations of Canada yew; Long Lake (a 19-acre softwater seepage); the 80-foot Morgan Falls; and the greatest elevation gradient within the Chequamegon-Nicolet National Forests (500 feet).

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 Forests, the most prominent of these streams, Morgan Creek, is a class II trout stream and is typed as an NLOg. NLOg segments are narrow, alkaline, cool water streams with ground water inflow. Morgan Creek has two significant tributaries, with natural brook trout reproduction.

The headwaters for Frames and Waboo Creeks, both Class I trout streams, are intermittent streams that begin in the St. Peters Dome Roadless Area. Long Lake is a narrow 19-acre soft water seepage lake with a maximum depth of 5 feet and no established fishery.

The St. Peters Dome 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 Regional Forester Sensitive Species (RFSS) such as Braun's holly fern, *Polystichum braunii*; fragrant fern, *Dryopteris fragrans*; spreading wood fern *Dryopteris expansa*; white mandarin, *Streptopus amplexifolius*; and Mingan's moonwort, *Botrychium minganense*. Purple clematis, *Clematis occidentalis*, which is listed by the WDNR as a "species of special concern," also occurs in the area.

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 threatened. This pack was estimated to contain six wolves as of spring 2001. The wood turtle, *Clemmys insculpta*, a RFSS and a state of Wisconsin threatened species, has been observed in the eastern portion of the St. Peters Dome area. The northern goshawk, *Accipiter gentiles*, another Regional Forester Sensitive Species, has been spotted within the area but no nests have been located.

Biotic Species Requiring Primitive Surroundings

A large portion of the 5,116-acre St. Peters Dome/Morgan Falls Ecological Reference Area (ERA) is a candidate for Research Natural Area designation, with the remainder designated as a Special Management Area (MA8F).

The St. Peters Dome/Morgan Falls 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. The aquatic communities are 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 ERA is a valuable condition, and the variety and condition of the 10 individual communities within the ERA contribute equally to the outstanding character of this site.

Neither the ERA, nor the entire roadless area is 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 on wilderness.

Ecological Evaluation

The Wisconsin Land Type Association (LTA) map is an ecological unit map based on a national hierarchical framework of ecological units featuring Edward A. Hammond's subdivision of landform types and the Bailey-Kuchler ecosystems classification. The LTA map classifies the Chequamegon-Nicolet as Laurentian Mixed Forest Province (Province 212). 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, representing 2.8% of all federal Wilderness in the lower 48 states. As a result, 1.3% of the ecoregion is represented as Wilderness (Cordell 1999).

In this map the Chequamegon-Nicolet is composed of six Ecoregion Sections, fourteen Ecoregion Subsections, and twenty-seven Land Type Associations.

The St. Peters Dome Roadless Area falls within Section 212J, Southern Superior Uplands. Section 212J is currently represented by the following Congressionally-designated Wilderness Areas: Sylvania, Sturgeon River Gorge Wilderness Areas (Ottawa

NF) and Rainbow Lake, Porcupine Lake (33%) Wilderness Area (Chequamegon-Nicolet NF)

St. Peters Dome Roadless Area is comprised of Subsection 212Jb and Land Type Association 212Jb01, Gogebic-Penokee Iron Range. Subsection 212 Jb has no current wilderness area representation

Scientific/Educational Evaluation

The St. Peters Dome Roadless Area contains a 5,116-acre 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 is allocated as a candidate Research Natural Area and Special Management Area. The presence of a variety of geological and topographical features and microclimates provide a forest classroom of biological diversity and evolutionary adaptation to climate and geography.

The extensive ecological features of this area, including large blocks of contiguous upland northern mesic forest with extensive stands of maturing hemlock-hardwood, 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 land type in Northern Wisconsin.

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. One of these resources is Morgan Falls Campground (reference FS Site No. 09-02-02-129). This campground (which may include the post-civil war homestead of an early European American settler) was abandoned around 1960. However, remnants of campground features are visible. If the location of the homestead can be located within the old campground, the site may have potential for recognition on the National Register of Historic Places (NRHP). The second cultural resource site is the St. Peter's Dome Quarry (reference FS Site No. 09-02-02-044) The Quarry operated from *circa* 1930 through 1960, leaving a number of quarry-related features (i.e. sump hole and quarried rock faces) still visible today. 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. Wilderness designation would not adversely affect either recorded site, or other sites that may be found when further cultural resource surveys are conducted.

Challenge Evaluation

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. 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.

The improvements made to the Morgan Falls trail make the trail accessible at a difficult level, in essence providing a challenging semi-primitive experience for persons with

disabilities. The trail is one of the few on the Chequamegon-Nicolet that provide accessibility to a "backcountry" feature. The improved Morgan Falls trail 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.

Snowmobiling is not consistent with the non-motorized emphasis of the St. Peters Dome area, however the 1986 Chequamegon Forest Plan permits this winter motorized use in an otherwise non-motorized management area. 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 (traversing the northern third of the area) has fallen into disuse and disrepair. 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.

With as much as 23% of the St. Peters Dome Roadless Area in early-successional habitat, particularly aspen, this area provides good opportunity to hunt white-tailed deer, black bear, and ruffed grouse. 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

Morgan Falls and St. Peters Dome are the most unique and most visited natural features in the Chequamegon-Nicolet National Forests. The entire area falls within the St. Peters Dome/Morgan Falls ERA, with a large portion of that complex being 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.

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 Morgan Falls trail also lies within the St. Peter's Dome Roadless area. The trail is a special feature because it is one of the few on the Chequamegon-Nicolet that are accessible to a prominent "backcountry" feature.

Manageability Evaluation

The size, shape and history of St. Peters Dome makes its' preservation practical. Township roads border 85% of the area and 15% of the perimeter is bordered by the National Forest boundary. The perimeter roads are well defined in the transportation network, open to the public, and consistently traveled by passenger vehicles. The size of St. Peter's Dome Roadless area is conducive to management, although the total area is smaller than the normal 5,000-acre minimum recommended for a potential Wilderness

Study Area, and the core area is less than the minimum recommended for a semi-primitive non-motorized experience.

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 any of the travelways in the area. If the St. Peters Dome Roadless Area were allocated as recommended Wilderness (MA5B), the snowmobile trail would be re-routed when a feasible route could be developed. If the area was designated Wilderness, the trail would have to be re-routed or closed

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 1 to a parking lot, another that is not drivable, and a third that is a relocation of a snowmobile trail entrance). For the past 30 years management in the St. Peters Dome area has focused on recreation resources, with particular emphasis on the Dome itself, Morgan Falls, Morgan Creek, and the snowmobile trail.

The St. Peters Dome Roadless area has not had any type of timber harvest for over 30 years, and is recognized as having unique geological and ecological features. The St. Peters Dome RARE II Area was an inventoried area included in the Roadless Area Conservation Rule Final Environmental Statement. This Rule 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 accessible via perimeter roads. There are two interior 40-acre parcels that currently have access across other private parcels. There is no expectation that any of these parcels will need special use permits or access across National Forest land in the future.

An old stone quarry (documented cultural resource) that ceased operations around 1960 lies within the roadless area. 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 their ownership. Even if the area was designated as Wilderness, the Forest Service could 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 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 of the 1986 Chequamegon Plan.

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 Watershed Analysis for the Chequamegon-Nicolet National Forest indicated that the St. Peters Dome Roadless Area falls within the boundaries of Marengo River 5th level watersheds.

Foot travel is the preferred mode of transportation in the St. Peters Dome Roadless Area for most of the year. If the area were designated as a wilderness, the hiking trails would likely remain in place and would continue to experience the level of visitation that currently takes place. With the designation as a Wilderness, management of any improvements (i.e. footbridge care) to the hiking trails may take on some subtle changes. 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.

Snowmobile travel is probably the preferred mode of transportation in the winter. State Snowmobile Corridor #25 is a major north-south route within the state snowmobile system. The 1986 Chequamegon Forest Plan permits this winter motorized use in an otherwise non-motorized management area. If the St. Peters Dome Roadless Area were allocated as recommended Wilderness (MA5B) in the Forest Plan, the snowmobile trail would be re-routed when a feasible route could be developed. If the St. Peters Dome Roadless Area is recommended as a potential Wilderness Study Area the 4.4-mile section of Snowmobile Trail #25 (within the Area) would be relocated outside of the area.

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 as much as 23% of the vegetative composition of the St. Peters Dome Roadless Area. 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. Designation of this area as a Wilderness would not change the management approach from its current direction. Timber harvesting would continue to be prohibited and natural disturbance would dictate the age and distribution of habitat.

There is an estimated 9.6 miles of system roads (numbered travelways) within the St. Peters Dome Roadless Area, and none of these system roads are improved. The designation of this area as Wilderness would result in a net loss of at least 9.6 miles from the total road miles of the Chequamegon-Nicolet.

The eastern timber wolf, *Canis lupus*, a federally listed Threatened Species (TES) has been known to occur within and around the St. Peters Dome Roadless Area. The designation of the area as Wilderness would not result in any immediate management changes that would negatively impact the TES.

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 could enhance the habitat for all of these species by assigning permanent protective status of 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 trail 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 1900s (although the St. Peters Dome Roadless Area itself does not appear to have been mined). This ore played out early, and the low-grade taconite that remains is plentiful but not economical. 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. The possibility of extracting building stones from this area has its limitations. Whatever the future of mineral exploration and/or development in the St. Peters Dome area, if this area were designated as a Wilderness, the Forest Service would 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.

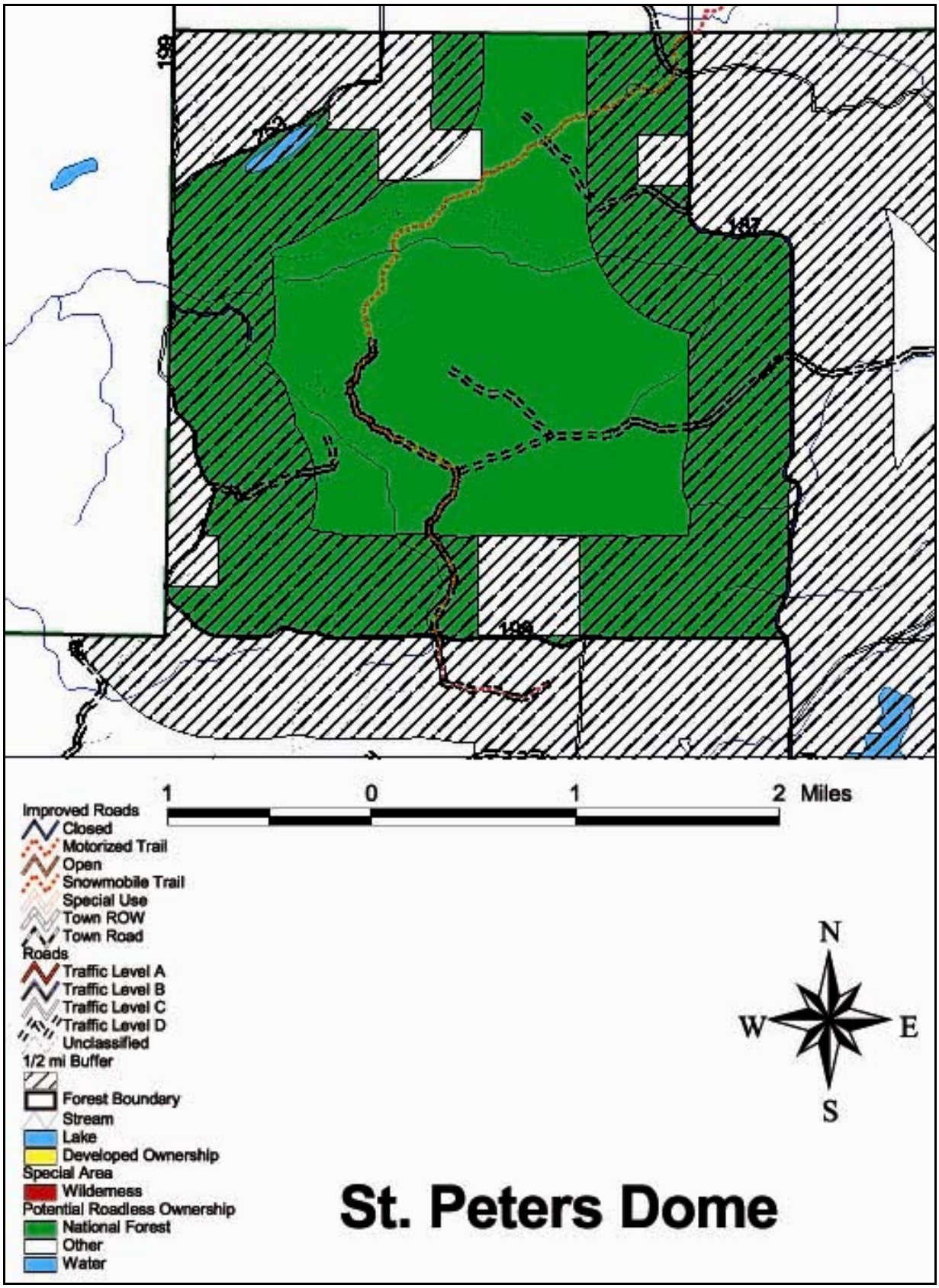

Figure C-2. Map of St. Peters Dome Roadless Area (Rare II)

3. Iron River Roadless Area (Great Divide District)

Solitude Evaluation

The Iron River Roadless Area is 8,969 acres in size, including 8,331 acres (96%) of National Forest land. The bulk of the 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. There are three interior parcels, none developed. The developed perimeter parcels include a 40-acre unit with one seasonal cabin and one newly developed cabin, and an 80-acre unit subdivided among several different owners, with three year-round residences and two seasonal cabins.

Approximately 84% of the Iron River Roadless Area is bordered by Township Roads, with the remainder by an active railroad track and the National Forest boundary. The Roadless Area is bordered on the north by Forest Road 184, on the west by Forest Road 183, on the south by Forest Road 354, and on the east by National Forest boundary.

The core area of the Iron River Roadless Area 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 28-acre shortfall may be due to field measurement imperfections. Therefore, a 28-acre shortfall is not sufficient to preclude the Iron River area from designation as a roadless area.

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 that total 3.75 miles. All but 3 of these 24 approaches are open to motorized vehicles. 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.

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; 3 of these 5 are improved short gravel driveways providing access to year-round residences along Fitch Darrow Road. The other 3 approaches provide access to a 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 and two 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 2.5 mile McCarthy Lake Hunter/Walking (H/W)Trail. There is a 1-2 car parking area at the entrance to the trail (adjacent to FR 183), where a gate obstructs motorized access to the travelway.

There has been no timber harvest or road construction/reconstruction within the Iron River Roadless Area since 1992.

The numerous streams and rivers which bi-sect the Iron River Roadless Area limits 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. 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.

With no designated trails other than the relatively short McCarthy Lake H/W Trail, it is most likely that the primary recreation activities in this area are hunting and possibly some fishing. It is probably rare that a visitor would encounter another person, especially outside of hunting season. 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, and closeness to nature in this area.

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 ¾-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. 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. The gravel pit is about a ½ 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 64% of the outstanding and reserved mineral rights are in other ownership. There are no special use permits or developed recreation sites within the roadless area. The presence of five homes and/or cabins along one of the perimeter roads (Fitch Darrow Road) gives the appearance of a residential area with some level of development. However this is not the character of the remainder of the perimeter roads.

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 average for the newly inventoried roadless areas. The presence of these access points does give the impression of a once-managed forest however; their presence does not give the impression of an overly developed or manipulated landscape given the percentage of travelways that are revegetated with grasses, brush, or young trees; the relatively low density of travelways; and the low standard of improved roads.

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 Aquatic Ecological Classification System definitions for "valley segments" within the Chequamegon-Nicolet National Forest, the headwaters of the Iron River are typed a narrow, soft, warm water stream (NSW) and the lower reaches of the river are classified as 20 to 50 feet wide, alkaline, with temperatures between 23 to 26 degrees Celsius (MLO). Both segments are found in this roadless area.

NSW segments may harbor 1 to 5 fish species, including central mud minnow, brook stickleback, northern redbelly dace, and pearly dace. No mussel species are known to occur in these segments.

MLO segments support a viable coldwater aquatic community is very limited; but it can support a fish community including blacknose dace, creek chub, and white sucker. Trout have been known to occur within MLO 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.

There are a number of other streams traversing the Iron River Roadless Area, including Edies Creek and its tributaries, typed as Narrow, alkaline, with warm water (NLW); and Squaw and Brush Creeks, which are typed as Narrow, alkaline, with cool water (NLO). Fish species in NLW segments include creek chub, white sucker, and blacknose dace. It is highly unlikely that mussels occur in NLW segments. NLO segments support 3 to 12 species of fish, and 0 to 1 species of mussel. The dominant fish species in NLO segments are creek chubs.

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

The Iron River Roadless Area includes a 374-acre Ecological Reference Area called the "Iron River Hardwoods." This complex is designated old growth, is compact in size and has several significant inclusions of old growth hemlock-hardwood forest type with super-canopy white pine and spruce trees. 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 species. 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 Regional Forester Sensitive Species.

Biotic Species Requiring Primitive Surroundings

The 374-acre Iron River Hardwoods complex is a designated Old Growth (8G) complex. The ecological values inherent to this complex would directly benefit from designation of the encompassing Iron River Roadless Area as Wilderness. This designation would embed this Old Growth complex in area free from modifications to the landscape.

This area alone 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

The Wisconsin Land Type Association (LTA) map is an ecological unit map based on a national hierarchical framework of ecological units featuring Edward A. Hammond's subdivision of landform types and the Bailey-Kuchler ecosystems classification. The LTA map classifies the Chequamegon-Nicolet as Laurentian Mixed Forest Province (Province 212). 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, representing 2.8% of all federal Wilderness in the lower 48 states. As a result, 1.3% of the ecoregion is represented as Wilderness (Cordell 1999).

In this map the Chequamegon-Nicolet is composed of six Ecoregion Sections, fourteen Ecoregion Subsections, and twenty-seven Land Type Associations.

The Iron River Roadless Area falls within two sections: 212J and 212X. The following describes the ecological classification of the Iron River Roadless Area:

Section: 212J - Southern Superior Uplands comprises 60% of the Iron River Roadless Area. 212J is currently represented by the following Congressionally-designated Wilderness Areas: Sylvania, Sturgeon River Gorge Wilderness Areas (Ottawa NF) and Rainbow Lake, Porcupine Lake (33%) Wilderness Area (Chequamegon-Nicolet NF)

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

Section: 212X – Northern Highland comprises 40% of the Iron River Roadless Area. 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 – Glidden Loamy Drift Plain is represented by LTA 212Xa03 in 66% of the Porcupine Wilderness.
  - ✓Land Type Association (LTA): 212Xa01 – Glidden Drumlins.

Scientific/Educational Evaluation

The Iron River Roadless Area contains a 374-acre Old Growth (8G) complex. 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

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, interior streams present a natural impediment to cross-country travel. The riparian areas along the upper reaches of the Iron 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. 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 for beaver dam locations). It is generally possible to cross the smaller tributaries to the Iron River. 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 the Iron River Roadless Area, there may be some change in personal risk as a person moves deeper into the core area (south of Iron River and east of Forest Road 349). There are few, if any discernable travelways in this area. For the remainder of the area, a person is never more than 1.5 miles from a perimeter road or trail, and rarely more than ½ mile from any travelway. Visitors are never really isolated in a remote setting with only their outdoor skills to get them back to safety due to all the perimeter roads that are within close proximity and the streams which can act as landmarks.

Primitive and Un-confined Recreation Evaluation

Hunting is probably the dominant recreation activity in the Iron River Roadless Area. 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 land base of the National Forests.

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 1½ miles. The

lower reaches of the river are considered Class II and Class III trout waters, providing the only potential for fishing within the Roadless Area.

Special Features Evaluation

The Iron River Roadless Area includes a 374-acre designated old growth (8G) complex called the "Iron River Hardwoods." It 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.

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 very 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.

For the most part, the emphasis for this area over the past decade has been 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 since 1992, so this would essentially be a continuation of the de-facto policy of the past 11 years.

There are three perimeter parcels, two developed and one undeveloped. There are three interior parcels, none developed. The developed perimeter parcels include a 40 acre unit with one seasonal cabin and one newly developed cabin, and an 80 acre unit subdivided among several different owners, with three year-round residences and two seasonal cabins. One of the 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 parcels of interior land may have an effect on the manageability of the roadless area, particularly if any of the owner's 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 their ownership. 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 Wilderness, the Forest Service is required to provide access for privately owned mineral rights. Hunters often use the old gravel/borrow pit (along FR 183B) as an RV camping spot. The site is easily accessed from the Township road. Motorized use of the pit would be discontinued if the area was 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.

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 affects 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.

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. 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. None of these streams is part of a municipal watershed, and there is no known water storage needs. The Roadless Area falls within the boundaries of two fifth level watersheds – the Upper Bad and the Marengo. Water quality could improve slightly from current levels should this 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. If an area is designated as Wilderness, ground-disturbing activities are held to a minimum, and roads, temporary or otherwise, would not be necessary to support management activities.

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.

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 used 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 4-Wheel Drive vehicles (some with 2WD), and they enhance the ease with which hunters may traverse the area in search of their prey. 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.

The designation of the Iron River Roadless Area as a Wilderness would result in a net loss of at least 10.75 miles of system roads (numbered travelways), and probably more, from the total road miles on the Chequamegon-Nicolet.

Fishing is not likely to be affected one way or the other by a Wilderness designation. However, unimpeded beaver activity could lead to increased sedimentation at dam sites covering potential trout spawning habitat potentially affecting trout species.

The eastern timber wolf, a federally-listed threatened species, has been known to occur within and around the Iron River Roadless Area. The designation of the area as a Wilderness is not likely to result in any immediate change for the timber wolf, although fewer travelways may result in less human interaction which creating more suitable conditions for the timber wolf.

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. If the area is designated as a Wilderness, the Forest Service would 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 for 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.

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

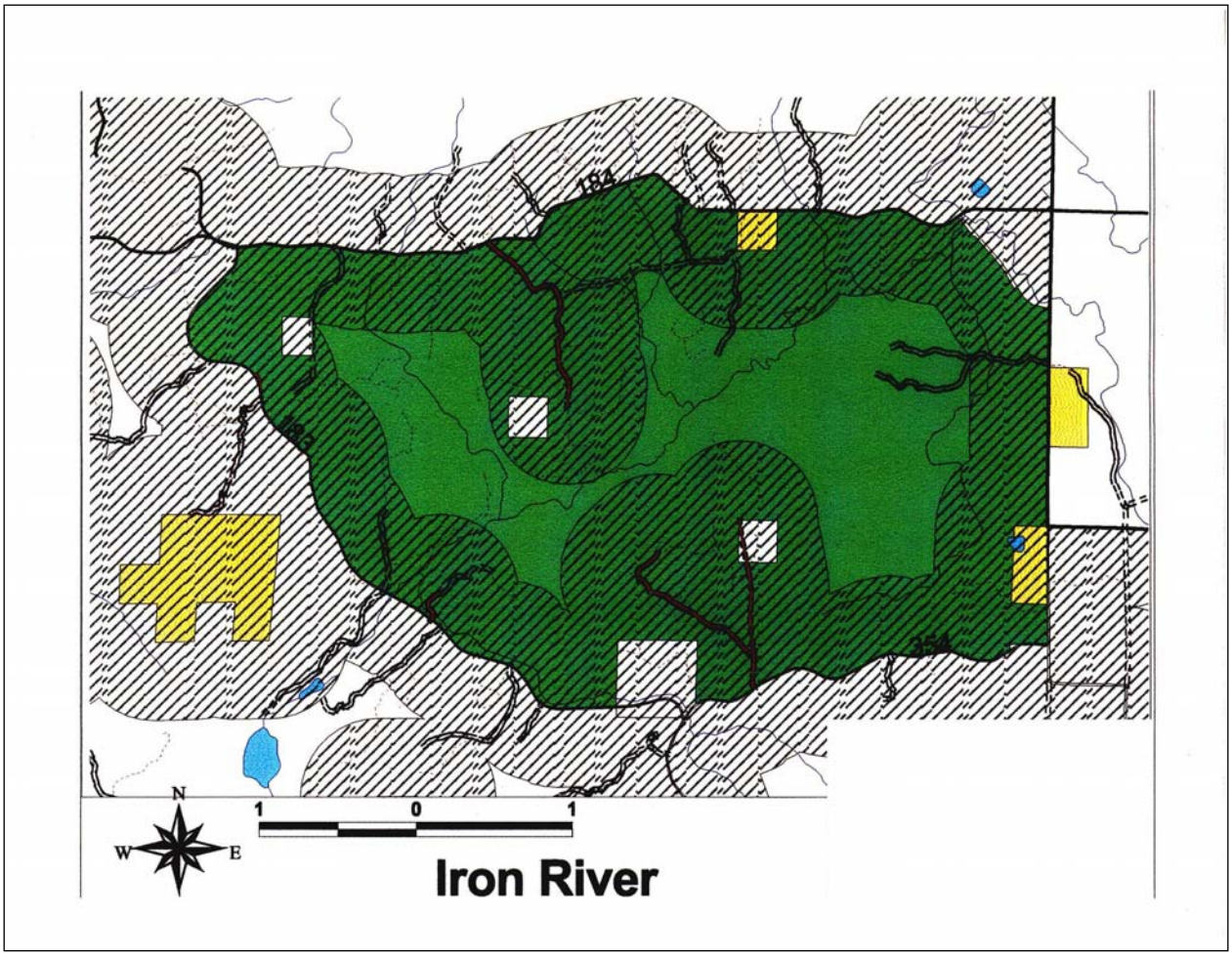

Figure C-3. Map of Iron River Roadless Area

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 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, one 80-acre undeveloped parcel and one 26-acre parcel with a structure on it (either a residence or a seasonal cabin).

The core area of solitude is defined as a contiguous core of National Forest land that should contain at least 2,500 acres and must be at least ½-mile from the influence of motorized traffic and land uses inconsistent with the semi-primitive non-motorized experience. The core area of solitude for the Hungry Run Roadless Area is 2,610 acres, or about 35% of the total National Forest acres within the roadless area.

Approximately three-quarters (10.3 miles) of the boundary follow perimeter roads that are well defined in the transportation network, open to the public and consistently traveled by passenger vehicles. The Hungry Run Roadless Area is bordered on the north by Forest Road 164, on the east by Forest Road 162, on the west by Township Road 1240 and County GG, and on the south by Forest Road 326, private property, and stream, river, and lake shoreline.

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 and another 12 are less than 200’ in length. At least 3 of these access points were developed for or by ATV’s, but this does not appear to be an overriding recreational use for this area. 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 (however 4 are not drivable).

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. A large majority of the wetlands are lowland conifers (29% of total roadless area), characterized by dry hummocks and pine islands. The terrain of the Roadless Area presents a challenge and risk to visitors. Rescue in the area could prove very difficult; and to get lost here could mean hypothermia or frostbite in the winter, and insect bites in the summer.

None of the perimeter roads have a profound influence on the core area of solitude in the Hungry Run Roadless Area. The core area begins nearly 1.5 miles east of Highway GG, and the center of the core is nearly 3 miles east of Highway GG, making the influence of GG on the core area negligible. Forest Roads 164 and 162 are infrequently traveled, Forest Road 1240 is not drivable, and Forest Road 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. Despite all of these 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. Approximately 1.2 acres within the roadless area are maintained as permanent wildlife openings; 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 is a special use permit providing access to a private 80-acre parcel on the east perimeter of the roadless area and there are no residences within view of the perimeter roads. 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 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 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 (however 4 are not drivable). 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, brush, and 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 slightly 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. Aspen/birch account for 975 acres (13% of the total vegetative composition) and northern hardwoods account for most of the remaining composition with 1,344 acres (or 18% of the total). 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, the 2,331 acre Bear Lake Slough Ecological Reference Area. A small portion of that complex (approximately 5%) is a candidate for Research Natural Area designation, and the remainder (approximately 95%) is a candidate Special Management Area. Bear Lake is a drainage lake on the east fork of the Chippewa River. There is a large (second-growth red and white pine) forested island between the Bear Lake Slough and Bear Lake's northern shore. 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 large-diameter hemlock. Wet-mesic, hemlock-cedar forest types are common and super-canopy white pines are present. A large 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, *Falcipennis Canadensis,* is a Regional Forester's Sensitive Species and listed as Threatened by the State of Wisconsin.

A 363-acre portion of the Hungry Run Pines and Cedars Ecological Reference Area complex is a designated Old Growth within this Roadless Area. 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. Both Hungry Run and Hay Creek are classified as NLW by the Aquatic Ecological Classification System for "valley segments" within the Chequamegon Nicolet. Both Creeks fully traverse the Roadless Area from north to south. NLW segments are narrow (less than 20' wide), alkaline (greater than 20ppm), warm water (greater than 26 degrees Celsius) streams. Five to nine fish species may occur in NLW segments, and northern redbelly dace, creek chub, central mud minnow, and blacknose dace dominate these. It is highly unlikely that mussels occur in NLW 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 East Fork of the Chippewa River is typed as WLW. WLW segments are wide (greater than 50 feet), alkaline (greater than 20ppm), warm water (temperatures greater than 26 degrees Celsius) streams. Typically, these segments support a rich fishery, with 11-14 species, including various species of redhorse, darters, dace, shiners, walleye, smallmouth bass, muskellunge, and northern pike. This particular section of the East Fork 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 fulvenscens*, 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 East Fork 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, *Haliaetus leucocephalus*, are federally-listed threatened species.

Biotic Species Requiring Primitive Surroundings

The 2,331-acre Bear Lake Ecological Reference Area (ERA) is found within the Hungry Run Roadless Area, with portions designated as a Research Natural Area and Special Management Area. The 363-acre portion of the Hungry Run Pines and Cedars area is a designated Old Growth complex within this Roadless Area. The ecological values inherent to these complexes would directly benefit from designation of the encompassing Hungry Run Roadless Area as a Wilderness. This designation would embed these ERAs within an area that would not be modified.

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

The Wisconsin Land Type Association (LTA) map is an ecological unit map based on a national hierarchical framework of ecological units featuring Edward A. Hammond's subdivision of landform types and the Bailey-Kuchler ecosystems classification. The

LTA map classifies the Chequamegon-Nicolet as Laurentian Mixed Forest Province (Province 212). 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, representing 2.8% of all federal Wilderness in the lower 48 states. As a result, 1.3% of the ecoregion is represented as Wilderness (Cordell 1999).

In this map the Chequamegon-Nicolet is composed of six Ecoregion Sections, fourteen Ecoregion Subsections, and twenty-seven Land Type Associations. The Hungry Run Roadless Area falls within the following ecological units:

Section: 212X – Northern Highlands 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 – Glidden Loamy Drift Plain is currently represented by 66% of the Porcupine Wilderness Area in LTA 212Xa03.

  ✓Land Type Association (LTA): 212Xa01 – Glidden Drumlins.

Scientific/Educational Evaluation

The Hungry Run Roadless Area contains the 2,331-acre "Bear Lake Slough" Ecological Reference Area, and a 363-acre portion of the Hungry Run Pines and Cedars designated Old Growth complex. 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

Most of the travelways in the Roadless Area 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. These creeks are generally not more than 20 feet wide in any one place (except where beavers have dammed them). The presence of the creeks and 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).

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. 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 upon upland 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. Rescue in this area could prove very difficult; and to get lost here could mean hypothermia or frost bite in the winter, and insect bites in the summer. 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.

Primitive and Un-confined Recreation Evaluation

Hunting, fishing, and boating are probably the dominant recreation activities in the Hungry Run Roadless Area. The amount of early-successional hardwoods is much lower in this area than the Chequamegon-Nicolet average (20%) however; there is still a sufficient amount of early-successional habitat to provide 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 segment of the hunting population, and these opportunities are limited on the Chequamegon land base of the National Forest.

Fishing and boating are essentially limited to the East Fork of the Chippewa River and Bear Lake, both excellent smallmouth bass fisheries. Both of these bodies of water create a boundary to the roadless area, therefore neither have restrictions on motorized use. There are opportunities for shoreline fishing, but this experience could also be influenced by motorized activity on the water. Development on the south shoreline would be another influencing factor, making the boating/fishing experience neither primitive nor un-confined.

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. If the Hungry Run Roadless Area was allocated as recommended Wilderness the 1.3 mile section of Dead Horse Run trail (within the Roadless Area) would be relocated outside of the area, if a feasible alternative location was found. If the area were designated Wilderness by Congress the trail would be relocated outside the area.

Special Features Evaluation

There are five special features within the Hungry Run Roadless Area: The East Fork of the Chippewa River, Bear Lake, the Bear Lake Slough Ecological Reference Area, the Hungry Run Pines and Cedars 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. 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 East Fork of the Chippewa River, and it supports a similar fishery.

The Bear Lake Slough Ecological Reference Area includes a candidate Research Natural Area, and a 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 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. If the Hungry Run Roadless Area is allocated as a potential Wilderness Study Area (MA5B) in the Forest Plan the 1.3 mile section of Dead Horse Run trail (within the Roadless Area) would be relocated outside of the area, when a feasible alternative location was found.

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 rest of the boundary consists of 2.1 miles of drivable road, 1.7 miles of undrivable road, a 1.25 mile segment of property line, and 3 miles of stream, river, or lake shoreline. 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 and another 12 are less than 200’ in length. At least 3 of these access points were developed for or by ATVs, but this does not appear to be an overriding recreational use for this area. 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 (however 4 are not drivable). For the most part, the primary emphasis for this area has been multiple use resource management. If the Hungry Run Roadless Area is designated as a potential Wilderness Study Area (MA 5B) the 1.3-mile section of Dead Horse Run trail (within the Roadless Area) would be relocated outside of the area, when a feasible alternative location was found. If the area were designated as Wilderness by Congress, the 1.3-mile section of trail would be relocated or closed.

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 a 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 their ownership. Most of these rights are in the hands of former landowners, and there has been no exploration for over 10 years now. 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 the East Fork of the Chippewa River 5th level watershed. Water quality could 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 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. If the Hungry Run Roadless Area is designated as Wilderness, the ATV and motorcycle trail will be relocated outside of the area or closed if a feasible reroute cannot be found. 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.

Hunting is a popular recreation activity on the Chequamegon-Nicolet, and this roadless area provides quality opportunities for hunting deer, bear, and ruffed grouse. 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. 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. However, given the level of access and the amount of early-successional habitat within the remainder of the National Forest and the 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.

The designation of the Hungry Run Roadless Area as a Wilderness would result in a net loss of at least 6.50 miles of system roads (numbered travelways), 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 other streams within the roadless area, Hungry Run and Hay Creek, are not sport fisheries. Currently there is beaver activity along these watercourses, if the area is designated as a Wilderness this

beaver activity may possibly increase which would further diminish any potential for a sport fishery.

The eastern timber wolf, a federally-listed threatened species, has been known to occur within and around the Hungry Run Roadless Area. The designation of the area as a Wilderness is not likely to result in any immediate change for the timber wolf, although fewer travelways may result in less human interaction, which creates more suitable, conditions for the timber wolf.

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.

There are as many as five cultural resource sites recorded within the Hungry Run Roadless Area, with a moderate to high potential for existence of other sites within the area. Designation of the area as Wilderness would have no foreseeable impact on these sites, or on any potential site.

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.

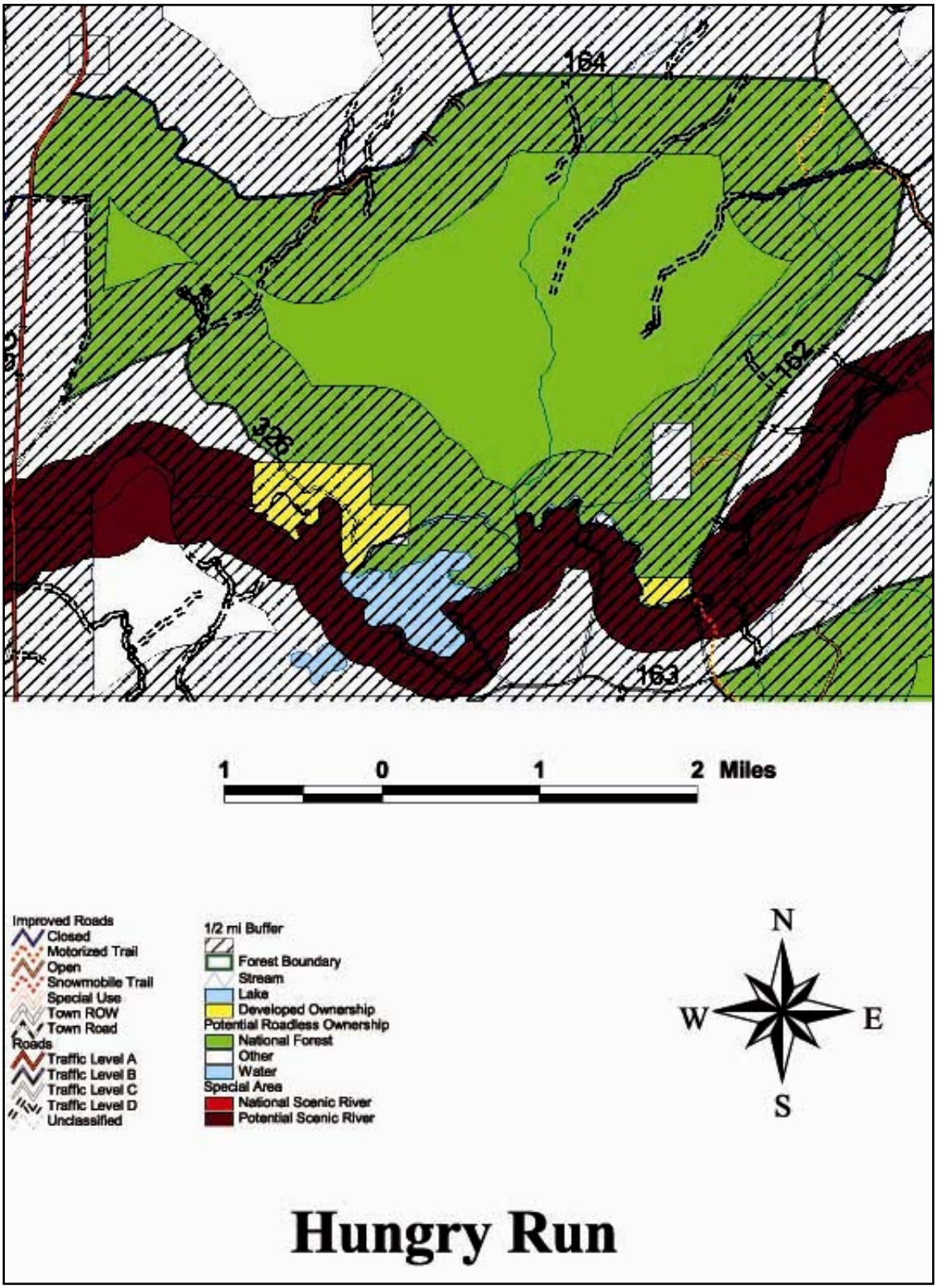

Figure C-4. Hungry Run Roadless Area

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, undeveloped 84-acre parcel, without direct access.

The Spring Brook Roadless Area is bordered by National Forest boundary on the east. The remainder of the Spring Brook Area boundary alternates between Township Roads (161, 162, 163, and 164) and short sections of the Dead Horse Run Motorized Trail.

The core area of the Spring Brook Roadless Area is 3,849 acres, or about 50% of the total National Forest acres within the roadless area. This 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.

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. 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 4 WD vehicle, two others are open but not drivable, and the remainder is closed and not drivable. Of the 6 open travelways, only 3 improved travelways are even marginally drivable with a passenger vehicle, and the longest of these is little more than ½-mile.

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). ATVs 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. Most of the travelways that have, at one time, penetrated into the core area, are now overgrown, at least in 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. 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.

The Dead Horse Trail is the most profound motorized influence on the Spring Brook Roadless Area. Snowmobile and ATV sounds can be heard for quite a distance, perhaps even penetrating into the core of this roadless area. The sound of an occasional passing vehicle on the lightly traveled perimeter roads may penetrate the core; but 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. In the north portion of the Roadless Area, 614 acres of mostly northern hardwoods have undergone selection harvest, commercial thinning, or overstory removal within the last few years. 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. However, these openings have been left unmaintained and there has not been a recent inventory. It is probable that many of the openings have returned to the condition of the forested land around them. Approximately 74% of the Spring Brook area is part of one large closed canopy patch of 40 year plus lowland conifers.

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 strands. A number of aspen stands along the west and north perimeter of the area have been clearcut and are in the process of regeneration. 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 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 the logging era of the late 1800's and early 1900's are still evident; and in some cases are travelways within the Spring Brook 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. 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 4 WD vehicle, two others are open but not drivable, and the remainders are closed and not drivable. Of the 6 open travelways, only 3 improved travelways are even marginally drivable with a passenger vehicle, and the longest of these is little more than ½-mile.

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 signs encouraging foot travel/prohibiting motorized travel. 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, 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 the 2,800-acre "Spring Brook Drumlins" Ecological Reference Area. 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. 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. Spring Brook Meadows, a sedge meadow/white cedar swamp, is another special feature within the Spring Brook Roadless Area.

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 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 NLW. NLW segments are narrow (less than 20' wide), alkaline (greater than 20ppm), warm water (greater than 26 degrees Celsius) streams. There are no known Threatened and Endangered aquatic species in any of these creeks.

Spring Brook itself is typed as NLO, a narrow, alkaline, cool water stream with no local source of groundwater. 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, acidic coldwater (less than 23 degrees Celsius) stream. Just downstream from the Spring Brook area, Camp Fifteen Creek is influenced by groundwater sources, changing the type to NLC; a moderate alkalinity coldwater stream. This segment of the stream is also typed as a Class II trout stream, 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. 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 threatened species.

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

There are three Botrychium sites within the Spring Brook Roadless Area, two sites with blunt-lobed grape fern, *Botrychium oneidense* (Regional Forester Sensitive Species), and one site with Mingan's moonwort, *Botrychium minganense* (Regional Forester Sensitive Species). Another species of note within the Spring Brook area is butternut, *Juglans cinerea* (Regional Forester Sensitive Species).

Biotic Species Requiring Primitive Surroundings

The 2,800-acre Spring Brook Drumlins is an Ecological Reference Area (ERA) contained almost totally within the Spring Brook Roadless Area.

On the landscape scale, the community matrix within the Spring Brook Drumlins is much as it has always been historically, containing relatively unfragmented upland drumlin hardwoods with intervening communities (northern wet mesic, northern wet, northern sedge meadow) occurring infrequently enough that the canopy remains contiguous.

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

The Wisconsin Land Type Association (LTA) map is an ecological unit map based on a national hierarchical framework of ecological units featuring Edward A. Hammond's subdivision of landform types and the Bailey-Kuchler ecosystems classification. The LTA map classifies the Chequamegon-Nicolet as Laurentian Mixed Forest Province (Province 212). 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, representing 2.8% of all federal Wilderness in the lower 48 states. As a result, 1.3% of the ecoregion is represented as Wilderness (Cordell 1999).

In this map the Chequamegon-Nicolet is composed of six Ecoregion Sections, fourteen Ecoregion Subsections, and twenty-seven Land Type Associations. Using the revised classification, the Spring Brook Roadless Area falls within the following ecological units:

Section: 212X - Northern Highlands 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 – Central/Northwest Wisconsin Loess Plain has no current representation as wilderness

  ✓Land Type Association (LTA): 212Xd02 – Flambeau Silt-capped Drumlins.

Scientific/Educational Evaluation

The 2,800-acre "Spring Brook Drumlins" Ecological Reference Area (ERA) provides excellent opportunities for scientific investigation and/or education. This entire complex is a 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.

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 house place 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 Spring Brook area is permeated by wetlands and upland hardwoods. In the eastern half of the area, a traveler in the uplands may encounter any number of old travelways, although many segments of these travelways are overgrown. In the west half of the roadless areas, there are access points 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 have more difficulties 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).

A person experiencing a debilitating injury in the Spring Brook area could find themselves in a serious situation. Depending on where a person is located within the roadless area, they may be miles from the nearest habitation, even if they reach a perimeter road. A person on a perimeter road needing assistance 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 has been semi-primitive non-motorized recreation. Overgrown travelways are available for hiking, however, there are no designated trails within this area.

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.

Special Features Evaluation

The Spring Brook Roadless Area contains a 2,800-acre "Spring Brook Drumlins" Ecological Reference Area (ERA), noted for its outstanding ecological significance. This complex is considered a strong candidate for Special Management Area designation. Few places within Northern Wisconsin provide such a contiguous interior forest of older, maturing hardwoods in a relatively remote, undisturbed setting. Spring Brook Meadows, a sedge meadow/white cedar swamp is another special feature within the Spring Brook Roadless Area.

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 and traveled by passenger vehicles. 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.

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. 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. Virtually all of this recent activity has taken place in the northern half of the roadless area. Much of the interior hardwoods patch, and all of the interior wetlands have remained undisturbed for much of the past half century. Designating the area as a Wilderness would require a discontinuation of all timber management activities within the area.

There is only one privately-owned parcel 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. 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. 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 (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 few 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 River. None of these streams is part of a municipal watershed, and there are no known water storage needs. The Spring Brook Roadless Area falls within the boundaries of the East Fork of the Chippewa River 5th level watershed . Water quality could improve slightly from current levels should the area be designated as Wilderness.

The Spring Brook Roadless area has been managed as a Semi-Primitive Non-Motorized Area since 1986, and many of the travelways within the area are overgrown and suitable now only for foot travel. 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 ATVs within the area. In either case, designation of this area as a Wilderness 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, and at least 4 of these travelways may be negotiated with 4WD vehicles (several with 2WD).

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.

The designation of the Spring Brook Roadless Area as a Wilderness would result in a net loss of at least 9.50 miles of system roads (numbered travelways), 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. A Wilderness designation will neither change the nature of any of the streams within this roadless area, nor make them more attractive to anglers.

The eastern timber wolf, *Canis lupis*, a federally-listed threatened species, has been known to occur within and around the Spring Brook Roadless Area. The designation of the area as a Wilderness is not likely to result in any immediate change for the timber wolf, although fewer travelways may result in less human interaction, which creates more suitable, conditions for the timber wolf.

The northern goshawk, *Accipiter gentiles*, has been known to nest within the Spring Brook Roadless Area. This area is also home to some sensitive species of flora. Designation of the Spring Brook 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. 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 is required to provide access to the private 80-acre parcel within the roadless area if the land owner requests it in the future.

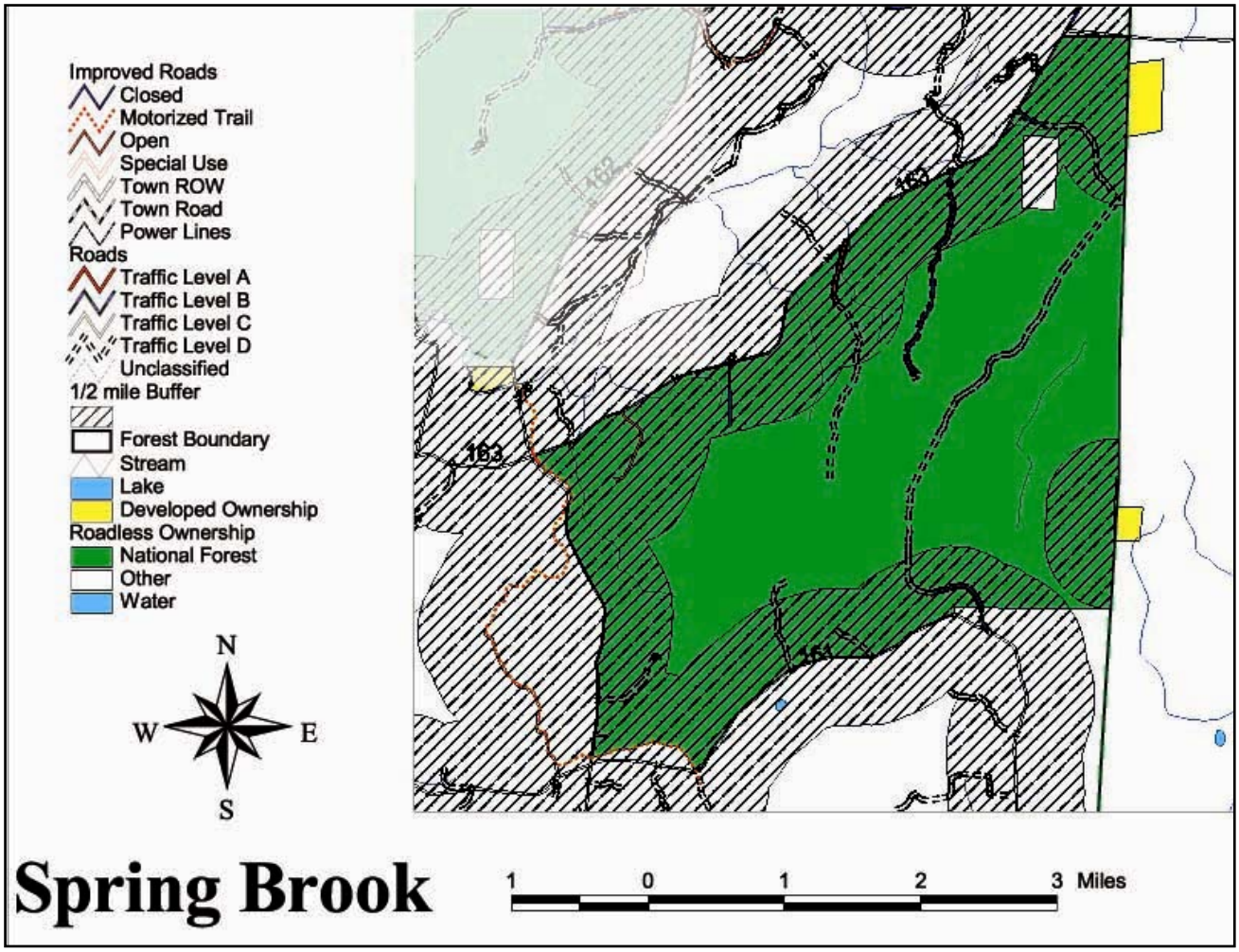

Figure C-5. Spring Brook Roadless Area Map

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.

The Schmuland/Popple Creek Roadless Area is bordered on the north by the Flambeau Motorized Recreation Trail (FT 121), on the west by Forest Road 139 (Sailor Lake Rd), on the south by Forest Road 136 (Gates Lake Rd), and on the east by Forest Road 137 (Riley Lake Rd).

The core area of solitude of the Schmuland/Popple Creek Roadless Area is 2,623 acres, or about 37% of the total National Forest acres within the roadless area. This 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.

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.

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. There are approximately 21 acres of permanent forest openings that are maintained for certain wildlife 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. 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 the only private ownership within the Schmuland/Popple Creek Roadless Area is in one 45-acre block on the west perimeter (accessible via FR 139).

Despite the lack of development within this area, there is significant evidence of recent ground disturbing activity and motorized recreation. There are bulldozer clearings along the east perimeter (that may have been constructed as fire breaks for controlled burns in the adjacent Riley Lake Wildlife Management Area).

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.

There are several locations where ATV operators leave the north boundary of this Roadless Area (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 of 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 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 a narrow, mildly alkaline warm water stream (NSW). 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. 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 species.

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

The Wisconsin Land Type Association (LTA) map is an ecological unit map based on a national hierarchical framework of ecological units featuring Edward A. Hammond's subdivision of landform types and the Bailey-Kuchler ecosystems classification. The LTA map classifies the Chequamegon-Nicolet as Laurentian Mixed Forest Province (Province 212). 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, representing 2.8% of all federal Wilderness in the lower 48 states. As a result, 1.3% of the ecoregion is represented as Wilderness (Cordell 1999).

In this map the Chequamegon-Nicolet is composed of six Ecoregion Sections, fourteen Ecoregion Subsections, and twenty-seven Land Type Associations.

The Schmuland/Popple Creek Roadless Area falls within the following ecological units:

Section 212X- Northern Highlands 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 – Glidden Loamy Drift Plain is currently represented by 66% of the Porcupine Wilderness Area in LTA 212Xa03.
  - ✓Land Type Association (LTA): 212Xa03 – Chequamegon Washed Till/Outwash.

Scientific/Educational Evaluation

There are no existing or candidate Ecological Reference Areas in this roadless area. No unique scientific or educational opportunities are readily apparent in this area.

Cultural Evaluation

The Sailor Lake CCC Camp (reference CRIF No. 09-02-01-037) is one cultural resource property documented in the Schmuland/Popple Creek Roadless Area. The uplands of this roadless area offer moderate potential for prehistoric and historic human utilization and habitation.

Challenge Evaluation

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. 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. In these lowlands, which can be several hundred acres, it is likely 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.

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 (FT 121) as a connection, makes 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. 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: the northern boundary (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; and Popple Creek Flowage, a managed waterfowl impoundment.

Manageability Evaluation

The size and shape of the Schmuland/Popple Creek Roadless Area make 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 does 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 operators.

The private land within the boundary of the Schmuland/Popple Creek Roadless Area is located in one 45-acre block adjacent to a perimeter road (FR 139). The block is small enough and situated such that it would present no management concerns for this area.

Outstanding mineral rights 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 (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 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 a popular off-road vehicle route between the trail and a perimeter road (FR 136). There are several other open travelways within the roadless area that could provide access to off-road vehicles. If the Schmuland/Popple Creek Roadless Area were designated as Wilderness, the motorized travelways (within the Roadless Area) would close to motorized use.

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 breeched 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 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 in an interior forest setting may be a welcome alternative for certain segments of the hunting population.

The designation of the Schmuland/Popple Creek Roadless Area as a Wilderness would result in a net loss of at least 6.00 miles of system roads (numbered travelways), 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. Nearly 5,000 acres of the Riley Lake Wildlife Management Area (due east of the Roadless Area) is managed with prescribed burning, in large part to promote habitat for the sharp-tailed grouse.

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.

The eastern timber wolf, a federally-listed threatened species, 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 Schmuland/Popple Creek Roadless Area falls within the boundaries of the South Fork Flambeau and the Elk 5th level watersheds. Water quality could improve slightly from current levels should this area be designated as Wilderness.

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

There is one large active gravel pit (Clover Creek Pit) located near the north boundary of the area, and it has four active use permits. The Clover Creek Pit has been a productive source for crushed aggregate for decades, however it has reached the end of its crushable material, and it will likely shut down within the next 5-10 years. There is also an old borrow pit on the south side of the roadless area. Another site has been identified as a possible gravel source for the future. Approximately 15% of the Schmuland/Popple Creek Roadless Area has either reserved or outstanding mineral rights.

The Sailor Lake CCC Camp (reference CRIF No. 09-02-01-037) is one cultural resource property documented in 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. There will be no additional access via roads or trails, nor facilities needed to support this area should it be designated as Wilderness.

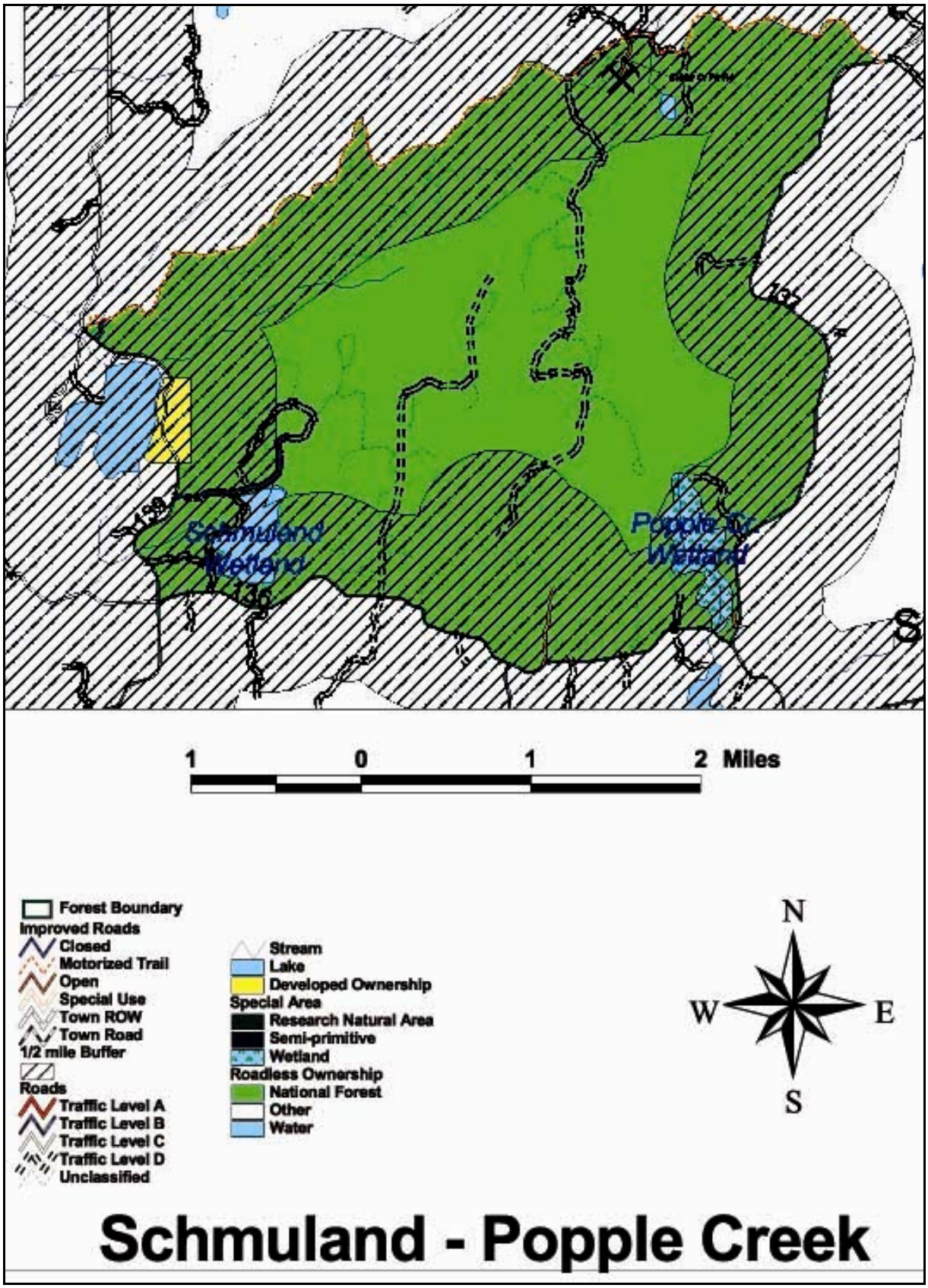

Figure C-6. Schmuland/Popple Creek Roadless Area Map

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. There are three sections of private lands and one parcel of state land within the Mud Lake Roadless Area boundary. The private land consists of a 200-acre block in the northeast corner of the roadless area, a 15-acre parcel in the southwest corner, and a 40-acre parcel in the interior of the area. The 200-acre block is subdivided and developed, forming the small community of Pike Lake. The interior block is undeveloped and does not currently have access across National Forest land, but may require such access in the future. The 15-acre parcel is actually a corner of a larger 80-acre parcel that extends outside of the Mud Lake Roadless Area. The state land includes a 120-acre parcel of State of Wisconsin School Trust lands. This has direct access from a perimeter road.

The Mud Lake Roadless Area is bordered on the north by State Highway 70, on the west by Forest Road 505 (Hemlock Road), on the south by Forest Road 517 (Spring Creek Road) and Spring Creek, and on the east by Forest Road 519 (Foulds Creek Road), Forest Road 132 (Sheep Ranch Road), and State Snowmobile Corridor #19.

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. The core area of solitude in the Mud Lake Roadless Area is 4,163 acres, or about 42% of the total National Forest acres within the Roadless Area.

The Mud Lake Roadless Area has 2.34 miles of improved travelways within the perimeter of the area, a density of 0.23 miles 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. Eleven of these are drivable and open to the public, including the 5 improved roads over 200’ in length. The majority of the access points that are drivable 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.

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. However, the area may not attract a substantial amount of visitors because it is predominately a wetland.

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 3 years. 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. 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 the east perimeter road (Forest Road 519), but it does not appear to be a prominent use elsewhere within the roadless area.

The interconnected parcels of private land in the northeast corner of the roadless area 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. Pike Lake is essentially a small community, but can be viewed separately from the Mud Lake Roadless Area. The presence of State Highway 70 is a significant development.

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. In 1987, the Foulds Springs Fire burned nearly 1,100 acres, mostly to the east of the Mud Lake Roadless Area. The primary evidence of these disturbances is the young age of the aspen stands along portions of the east and west perimeters of the Mud Lake Roadless 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.

The Mud Lake Roadless Area has 2.34 miles of improved travelways within the perimeter of the area, a density of 0.23 miles 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. Eleven of these are drivable and open to the public, including the 5 improved roads over 200’ in length. The majority of the access points that are drivable 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.

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. 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%.

Two large Ecological Reference Area (ERA) complexes have significant roles in the ecological composition of the Mud Lake Roadless Area. The "Mud Lake Bog and Cedar Swamp" ERA 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.

The principle community types found in the Mud Lake Bog and Cedar Swamp ERA complexes are: Northern wet forest (including both white cedar and black spruce/tamarack types), Northern wet-mesic forest (hemlock/yellow birch), acid bog lake (Mud Lake), and emergent and submergent aquatics. This site includes a small stand of hemlock-hardwood forest with some remnant old growth inclusions. Small, intermittent drainages flow out of several "perched" ash swamps in upland locations. 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.

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

Using Aquatic Ecological Classification System definitions for "valley segments" within the Chequamegon-Nicolet National Forest, Foulds Creek, is typed as a narrow, cool, alkaline stream with ground water inflow (NLOg). It is a Class I trout stream, local groundwater is present and the fishery is more species rich than the standard NLO type.

The unnamed tributary to the Elk River is typed as a narrow, alkaline, warm-water stream (NLW). This creek does not support much of a fishery.

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 is a Class I trout stream. Spring Creek headwaters are typed as NAC, which is not commonly found on the Chequamegon-Nicolet. NAC segments are narrow, acidic, coldwater streams. Spring Creek reaches Grant Springs, shortly after it enters the Mud Lake boundary. Grant Springs is a groundwater source that feeds the stream and changes the stream type to NLOg. The section of Spring Creek from Grant Springs west to its confluence with Elk River is 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. Mud Lake is a 27-acre acid bog lake with a maximum depth of 4 feet. A spruce/leatherleaf/tag alder bog also surrounds this lake.

The Mud Lake Roadless Area is within the range of the Bootjack Lake wolf pack, *Canis lupus* (federally-listed threatened Species). Spruce grouse, *Falcipennis canadensis* (Regional Forester's Sensitive Species), has been seen along the perimeter of the roadless

area. There is also a great blue heron rookery just to the east of the Mud Lake Roadless Area.

Biotic Species Requiring Primitive Surroundings

The Mud Lake Roadless Area contains the 2,531 acre "Mud Lake Bog and Cedar Swamp" ERA complex and the 640 acre "Pond Lake Muskeg" ERA complex. The ecological values inherent to these complexes would directly benefit from designation of the encompassing Mud Lake Roadless Area as a Wilderness. This designation would embed these ERA's within an area that would not be modified.

This area in and of itself is not large enough to provide wildlife species with primitive surroundings. However, the Roadless Area contributes to the overall forest mosaic. There are no wildlife species within the Chequamegon-Nicolet that are dependent upon Wilderness.

Ecological Evaluation

The Wisconsin Land Type Association (LTA) map is an ecological unit map based on a national hierarchical framework of ecological units featuring Edward A. Hammond's subdivision of landform types and the Bailey-Kuchler ecosystems classification. The LTA map classifies the Chequamegon-Nicolet as Laurentian Mixed Forest Province (Province 212). 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, representing 2.8% of all federal Wilderness in the lower 48 states. As a result, 1.3% of the ecoregion is represented as Wilderness (Cordell 1999).

In this map the Chequamegon-Nicolet is composed of six Ecoregion Sections, fourteen Ecoregion Subsections, and twenty-seven Land Type Associations.

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

Section: 212X – Northern Highlands 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 – Glidden Loamy Drift Plain is currently represented by 66% of the Porcupine Wilderness Area in LTA 212Xa03.
  - ✓Land Type Association (LTA): 212Xa03 – Chequamegon Washed Till/Outwash.

Scientific/Educational Evaluation

The two 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 been surveyed, however one cultural resource has been recorded (reference FS Site No. 09-02-01-099). This resource 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 wetlands, 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.

Challenge Evaluation

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. The flat and featureless terrain can make getting lost quite easy. 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 unaware. Being on foot in the heart of a massive concentration of wetlands may amplify the risk to a slightly higher level.

There are very few travelways that penetrate the core of this roadless area. With the exception of the 3.1 mile section of Snowmobile Corridor #19, 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 very challenging and 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.) 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 in 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 obstacles.

Primitive and Un-confined Recreation Evaluation

Hunting, fishing and snowmobiling are probably the dominant recreation activities in the Mud Lake Roadless Area. With a significant portion of the limited upland 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, with thick brush along their shorelines, making the fishing experience somewhat of a task.

Snowmobile activity in this area is generally limited to State Snowmobile Corridor #19. There is evidence of ATV use on the gated portion of FR 519, and the perimeter section of the snowmobile trail, as well as the 3.1 mile section of Snowmobile Corridor that penetrates 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 Ecological Reference Areas (ERA), the 2,531-acre Mud Lake Bog and Cedar Swamp and the 640-acre Pond Lake Muskeg. 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.

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.

Approximately 5.75 miles of State Snowmobile Corridor #19 either forms the boundary or bisects the interior of this area, thus having a significant influence on the Mud Lake Roadless Area. If the Mud Lake Roadless Area is allocated as recommended Wilderness (MA 5B) in the Forest Plan, the 3.1-mile section of Snowmobile Corridor #19 (within the Roadless Area) would be relocated outside of the area, when a feasible alternative location is found. If the area were designated as Wilderness by Congress, any motorized use within the area would be discontinued.

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 and traveled by passenger vehicles. Another 8% (1.50 miles) of the boundary is a Forest Service 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 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, producing 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.

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. Designating the area as a Wilderness would require a discontinuation of all timber management activities within the area.

There are three sections of private lands and one parcel of state land within the Mud Lake Roadless Area boundary. The private land consists of a 200-acre block in the northeast corner of the roadless area, a 15-acre parcel in the southwest corner, and a 40-acre parcel in the interior of the area. The 200-acre block is subdivided and developed, forming the small community of Pike Lake. The interior block is undeveloped and does not currently have access across National Forest land, but may require such access in the future. The 15-acre parcel is actually a corner of a larger 80-acre parcel that extends outside of the Mud Lake Roadless Area. The state land includes a 120-acre parcel of State of Wisconsin School Trust lands. This has direct access from a perimeter road.

Availability Evaluation

Approximately 40% of the National Forest land (4,035 acres) within the Mud Lake Roadless Area is classified as suitable for timber production. In the last 10 years approximately 150 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 0.4% 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 Mud Lake Roadless Area falls within the boundaries of the Elk River and the Upper South fork of the Flambeau River 5th level watersheds . Water quality could improve slightly from current levels should the area be designated as Wilderness. 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 mode of transport in the Mud Lake Roadless Area; but the only established recreation trail in the roadless area is State Snowmobile Corridor #19. If the Mud Lake Roadless Area is allocated as Wilderness (MA 5B) in the Forest Plan, the 3.1-mile section of Snowmobile Corridor #19 (within the Roadless Area) would be relocated outside of the area, when a feasible alternative location was found. There is evidence that other travelways within the roadless area are utilized periodically by ATVs.

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, 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.

The designation of the Mud Lake Roadless Area as a Wilderness would result in a net loss of at least 9.20 miles of system roads (numbered travelways), 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 because this may result in increased or unchecked beaver activity along two Class I trout streams within the Mud Lake Roadless Area. Increased beaver activity 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 species, 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.

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.

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. 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.

Regardless of designation, the Forest Service is required to provide access to the private 40-acre parcel within the roadless area, if access is requested..

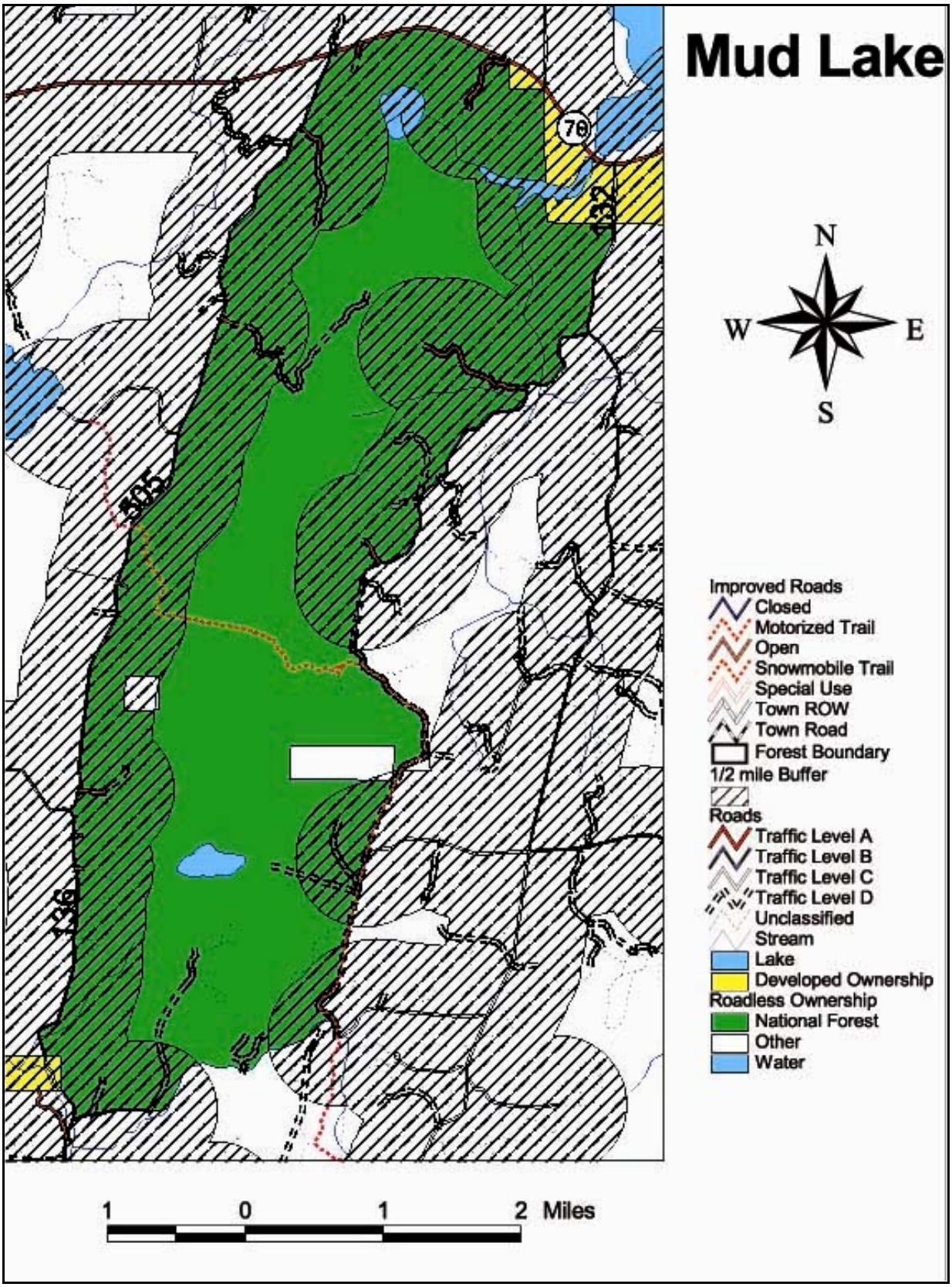

Figure C-7. Mud Lake Roadless Area Map

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 Stony Creek Roadless Area is bordered on the north by Forest Road 131 (Steiger Road), on the west by Forest Road 132 (Pike Lake Road), on the south by Forest Road 501 (Two Mile Road) and State Snowmobile Corridor #12, and on the east by Forest Road 130 (Headquarters Road).

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 consists of two interior 40-acre parcels in 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.

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 would not be consequentially different from activities the Forest Service would consider on 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. The core area for the Stony Creek Roadless Area is 3,266 acres (about 44%) of the total National Forest acres within the Roadless Area.

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. Ten of these are drivable and open to the public, including 3 of the improved roads over 200' in length.

The Stony Creek Roadless Area is characterized by wetlands, and northern hardwoods concentrated in low-lying, poorly drained terrain. The result of this is that much of the Stony Creek area is wet most of the time. 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.

State Snowmobile 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 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.

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 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.

The only developed recreation resources within the Stony Creek area are the 6.3 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. 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 cabins on the two private 40-acre parcels; however the owners do not have developed access or special use permits to get to these cabins from a perimeter road. Some State School Trust lands may have had some level of timber harvest over the past few years.

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.

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. 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 gives the impression of a managed forest. And, even though half of the 46 travelways within the area are less than 200’ in length, the existence of these short clearings along the perimeter gives the impression of active management. 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 of a lightly disturbed landscape where some activity takes place periodically.

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 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 Ecological Reference Area (ERA) complexes within the Stony Creek Roadless Area.

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. 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, acidic, coldwater streams. There are no known Threatened and Endangered (TES) aquatic species within 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 species.

Biotic Species Requiring Primitive Surroundings

No existing or potential Ecological Reference Area (ERA) has 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. There are no wildlife species within the Chequamegon-Nicolet that are dependent upon Wilderness.

Ecological Evaluation

The Wisconsin Land Type Association (LTA) map is an ecological unit map based on a national hierarchical framework of ecological units featuring Edward A. Hammond’s subdivision of landform types and the Bailey-Kuchler ecosystems classification. The LTA map classifies the Chequamegon-Nicolet as Laurentian Mixed Forest Province (Province 212). 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, representing 2.8% of all federal Wilderness in the lower 48 states. As a result, 1.3% of the ecoregion is represented as Wilderness (Cordell 1999).

In this map the Chequamegon-Nicolet is composed of six Ecoregion Sections, fourteen Ecoregion Subsections, and twenty-seven Land Type Associations.

The Stony Creek Roadless Area falls within the following ecological classification:

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

The Stony Creek Roadless Area falls within two Subsections of Section 212X:

- Subsection: 212Xa – Glidden Loamy Drift Plain is currently represented by LTA 212Xa03 in 66% of the Porcupine Wilderness Area.
  - ✓Land Type Association (LTA): 212Xa01 – Glidden Drumlins comprises 25% of the Iron River Roadless Area.
- Subsection: 212Xd – Central/Northwest Wisconsin Loess Plain has no current Wilderness representation.
  - ✓Land Type Association (LTA): 212Xd02 – Flambeau Silt-capped Drumlins. 212Xd02 comprises 75% of the Iron River Roadless Area.

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. 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.

Primitive and Un-confined Recreation Evaluation

Hunting and snowmobiling are probably the dominant recreation activities in the Stony Creek Roadless Area. 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.

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 6.3 miles of State Snowmobile Corridor #19 that bisects the interior of this area. If the Stony Creek Roadless Area is allocated as designated Wilderness, the 6.3-mile section of State Snowmobile Corridor #19 (within the Area) would be relocated outside of the area, when a feasible alternative location was found. Designation as Wilderness by Congress would preclude most use. 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 size and shape of the Stony Creek Roadless Area make its preservation practical. Approximately 91% (14.53 miles) of the Stony Lake boundary follows perimeter roads that are open to the public and traveled by passenger vehicles. Another 9% (1.35 miles) of the boundary follows a utility corridor (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 and the east boundary of the area. The predominate vegetative types within this area are intermediate northern hardwoods and wetlands. 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. Other than the aforementioned clearcuts, evidence of harvesting operations is almost non-existent within the area. If the Stony Creek Roadless Area were Congressionally designated as Wilderness, the 6.3-mile section of State Snowmobile Corridor #19 (within the Area) would be relocated outside of the area. Designating the area as a Wilderness would also require 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 consists of two interior 40-acre parcels in 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. The State School Trust land is essentially in three locations. There are two connected, interior 40-acre parcels (without direct access) and another interior 80-acre parcel (without direct 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 but the remainder of the land is separated from FR 130 by strips of National Forest land. 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 Lynne Deposit, lies within 3 miles of the eastern boundary of the Stony Creek Area. This deposit 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. 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 (5,160 acres) within the Stony Creek Roadless Area is classified as suitable for timber production. In the last 10 years approximately 220 acres of timber have undergone a regeneration harvest within the Stony Creek area. 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 Watershed Analysis for the Chequamegon-Nicolet National Forest indicates that the Stony Creek Roadless Area falls within the boundaries of the Elk River and the Middle Tomahawk River 5th level watersheds. Water quality could improve slightly from current levels should the area be designated as Wilderness.

Foot travel is an available, but not popular, mode of transport in the Stony Creek Roadless Area; however, the only established recreation trail in the roadless area is State Snowmobile Corridor #19. If the Stony Creek Roadless Area is allocated as recommended Wilderness the 6.3-mile section of State Snowmobile Corridor #19 (within the Area) would be relocated outside of the area when a feasible alternative location was found. Wilderness designation by Congress would preclude motorized use. There is evidence that ATV's utilize other travelways within the roadless area periodically. This would be prohibited in a designated Wilderness.

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) 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.

The designation of the Stony Creek Roadless Area as a Wilderness would result in a net loss of at least 4.35 miles of system roads (numbered travelways), 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. A Wilderness designation will neither change the nature of any of the streams within this roadless area, nor make them more attractive to anglers.

The eastern timber wolf, *Canis lupus*, a federally-listed threatened species, 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.

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 Lynne Deposit, lies within 3 miles of the eastern boundary of the Stony Creek Area. This deposit 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. 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. 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.

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. 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. For example, 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 is required to provide access to the two private 40-acre parcels within the roadless area upon owners' request. These parcels currently have cabins or structures on them, but the access is essentially via a user-developed ATV route.

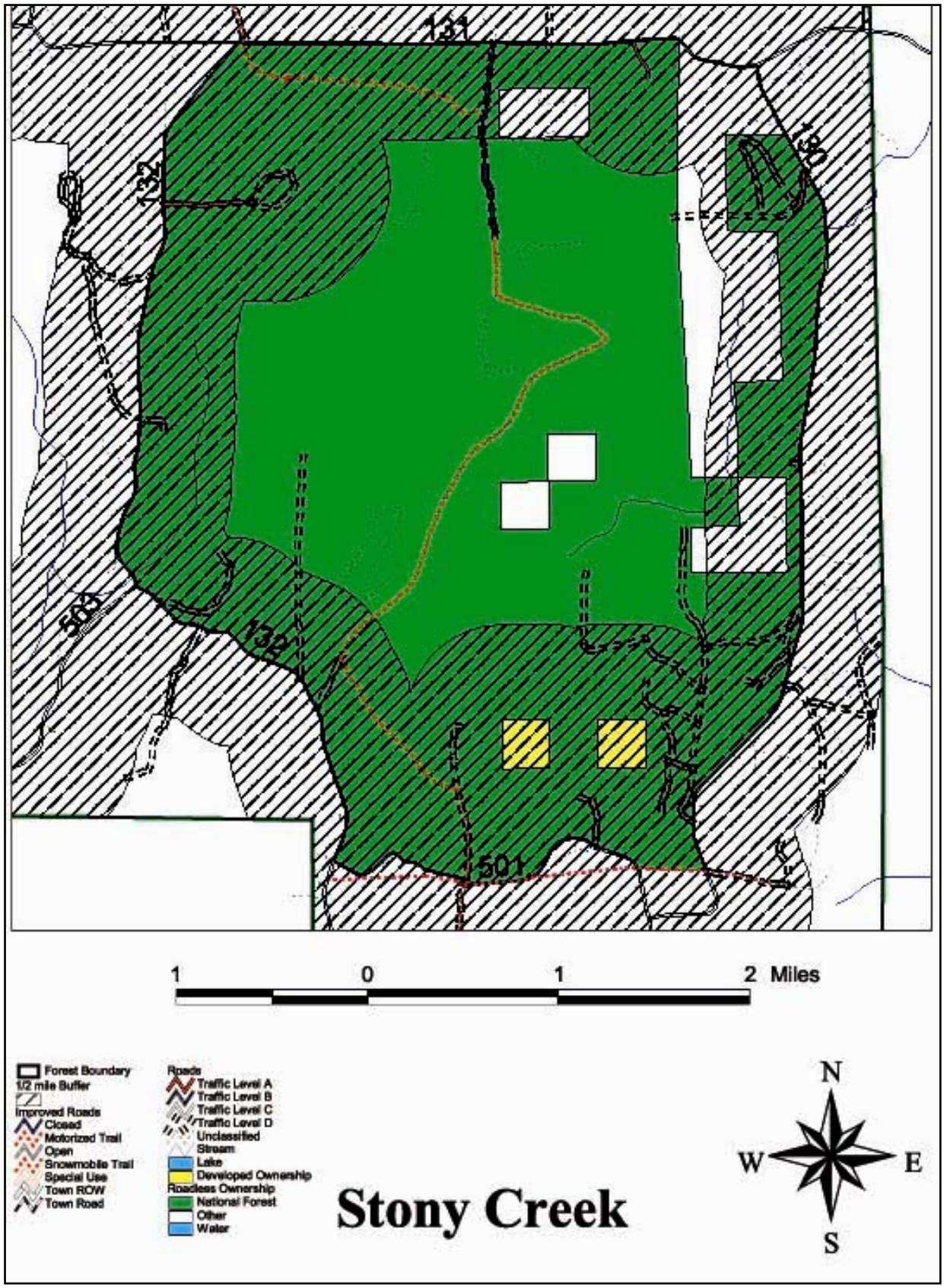

Figure C-8. Stony Creek Roadless Area Map

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%) National Forest land, and 202 acres (3%) surface water. The private ownership within the Flynn Lake Roadless Area is dispersed into 3 individual parcels. One parcel is 14-acres and accessible via perimeter Forest Road 223, while the other two parcels include a 16-acre interior parcel and an 11-acre interior parcel. The 14-acre perimeter parcel is predominately a wetland, but includes two dilapidated and uninhabitable trailer homes. The 11-acre interior parcel is on Armstrong Lake, has a year-round residence, and has an existing special use permit providing access across National Forest land. The 16-acre interior parcel is south of Armstrong Lake and currently has no access.

The Flynn Lake Roadless Area has long been identified for its attributes as a roadless area. In 1975 Flynn Lake was identified as a Wilderness Study Area. Four years later Flynn Lake was identified as a RARE II Area. It wasn't until 1986 that the Chequamegon Land and Resource Management Plan designated Flynn Lake Roadless Area as a Semi-Primitive Non-Motorized Area (SPNM).

The Flynn Lake Roadless Area does not follow precisely the boundaries of the Flynn Lake RARE II Area, or the Flynn Lake SPNM Area. The Roadless Area is bordered on the north by Forest Road 392, on the west and southwest by Forest Road 228 and Forest Road 396, and on the east by Forest Road 223 (Delta-Drummond Rd).

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. 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 a Wilderness Study Area, a RARE II Area, and a Semi-Primitive Non-Motorized Area; close proximity to the Rainbow Lake Wilderness; the outstanding recreational resources found within the area; and the role of Flynn Lake as a large landscape patch of greater than 50% northern hardwoods that produces northern hardwood interior conditions.

There is only one open, partially improved travelway (Forest Road 812) providing access to the interior of the Flynn Lake Roadless Area, producing an average of 0.1 open access points per mile of perimeter road. 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. In addition to the primary access roads to the interior, there are 9 additional access points to the Flynn Lake Roadless Area. 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.

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.

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), almost none of these are drivable (with the possible exception of the blocked access from County Highway N).

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.

Hunting is another recreation activity that takes place in this area. 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 considered treatment of some of the severely effected timber and did treat fuels on the south and west sides of Forest Roads 228 and 396 bordering Flynn Lake to mitigate wildfire potentials.

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 developed recreation sites (other than the North Country Trail). 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 presence of numerous old railroad grades is not an uncommon sight, nor does it overtly detract from the natural appearance of the area.

Perhaps the greatest evidence of disturbance within the Flynn Lake Roadless Area was caused by the windstorm of July 1999. This windstorm left 1,600 acres of forestland damaged. However, 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.

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 makes 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. (Most of the damage from the July, 1999 windstorm was concentrated in the eastern portion of the area.)

Mixed northern hardwoods of moderate to large patches make up a majority of the landscape within the roadless area. Interspersed among these upland hardwood areas are small to moderate sized lowland conifer areas. Patch sizes range from 5 acres to hundreds of acres. 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. Wabigon Lake is 35 acres, stained and has an undeveloped shoreline. It supports a fishery of largemouth bass, northern pike, and yellow perch. Armstrong Lake is 48 acres, clear, and has one house on the shoreline. The fishery on this lake consists of largemouth bass and panfish. 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. 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 are 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 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 for red-shouldered hawks exists. 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 are very favorable habitat for Bald Eagles, due to the numerous lakes. The eastern timber wolf, *Canis lupus*, and bald eagle, *Haliaetus leucocephalus*, are federally-listed threatened species. 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. Habitat does exist that could support 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 Area (ERA) has been identified within the Flynn Lake Roadless Area. 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.

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

The Wisconsin Land Type Association (LTA) map is an ecological unit map based on a national hierarchical framework of ecological units featuring Edward A. Hammond's subdivision of landform types and the Bailey-Kuchler ecosystems classification. The LTA map classifies the Chequamegon-Nicolet as Laurentian Mixed Forest Province (Province 212). 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, representing 2.8% of all federal Wilderness in the lower 48 states. As a result, 1.3% of the ecoregion is represented as Wilderness (Cordell 1999).

In this map the Chequamegon-Nicolet is composed of six Ecoregion Sections, fourteen Ecoregion Subsections, and twenty-seven Land Type Associations. The Flynn Lake Roadless Area falls within two Sections: 212J and 212X. The following describes the ecological classification of the Flynn Lake Roadless Area.

Section: 212J – Southern Superior Uplands comprises 75% of the Flynn Lake Roadless Area 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 – Winegar Moraine is currently represented by the Sylvania Wilderness Area.

  ✓LTA 212Jc02 – Morse/Winegar Moraines

✓LTA 212Jc05 – Valhalla/Marenisco (McDonald) Moraines.

Section: 212X – Northern Highland comprises 25% of the Flynn Lake Roadless Area. 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 – Hayward Stagnation Moraines has no current Wilderness Area representation.

  ✓LTA 212Xf01 – Cable Rolling Outwash.

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 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

There is little variation in terrain within the roadless area, virtually no streams or rivers, and 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. 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. 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 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 ¼-mile from any travelway or a ½-mile from one of the lakes or ponds within the area. 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

Hiking, backpacking, hunting, fishing and camping are the dominant recreation activities within the Flynn Lake Roadless Area. 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 via ATV's or other off-road motorized vehicles. The early-successional habitat may be maturing beyond the age where it provides adequate forage for the most popular game species, due to 30 years of management as a Wilderness Study Area or Semi-Primitive Non-Motorized Area. However, some portion of the 1,000 acres within the roadless area that experienced blowdown (in 1999) 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.

The presence of Rainbow Lake Wilderness directly to the north enhances the non-motorized opportunities within this region of the National Forest. 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. This is a unique and special feature of the combined Flynn Lake/Rainbow Lake area given the increasing scarcity of these kinds of lakes throughout all of Wisconsin.

Manageability Evaluation

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 and the remaining 2.25 mile section of the 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. 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, which provides access to the water body named Flynn Lake, would most likely be closed and obliterated, or converted to a foot trail.

There has been no timber harvest in the Flynn Lake Roadless Area since 1986, and possibly longer. With the July 1999 blowdown, the Forest Service has done fuels reduction treatment along Forest Roads 396 and 228. This involved removing damaged trees and scattering and flattening potential forest fuels.

The private ownership within the Flynn Lake Roadless Area is dispersed into 3 individual parcels. One parcel is 14-acres and accessible via perimeter road (FR 223), while the

other two parcels include a 16-acre interior parcel and an 11-acre interior parcel. The 14-acre perimeter parcel is predominately a wetland, but includes two dilapidated and uninhabitable trailer homes. The 11-acre interior parcel is on Armstrong Lake, has a year-round residence, and has an existing special use permit providing access across National Forest land. The 16-acre interior parcel is south of Armstrong Lake and currently has no access. 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.

Availability Evaluation

Approximately 90% of the National Forest land (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 2000 Watershed Analysis for the Chequamegon-Nicolet National Forest indicates that the Flynn Lake Roadless Area falls within the boundaries of the White River 5th level watershed. Water quality may improve slightly from current levels should the area be designated as Wilderness.

Foot travel is the preferred mode of transport in the Flynn Lake Roadless Area. There is a 1.5-mile segment of the North Country Trail that traverses the northeast corner of the Flynn Lake Roadless Area. 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. For the most part, access to Flynn Lake is restricted to non-motorized travel. If this area were designated as a Wilderness, there would be little change in the current access, with the exception of Forest Road 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. However, there has been a non-motorized emphasis in this area for the past three decades and today most hunting (maybe all) is done on foot in the area. 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. Designation of this area as a Wilderness would not change the 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 designation of the Flynn Lake Roadless Area as a Wilderness would result in a net loss of at least 1.50 miles of system roads (numbered travelways), and probably additional unclassified road miles on the Chequamegon-Nicolet.

The eastern timber wolf, a federally-listed threatened species, 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.

Approximately 3,000 acres of the Flynn Lake Roadless Area are favorable habitat for Bald Eagles, another federally-listed TES. 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 would have little effect on the potential habitat of these species.

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.

Fire protection and pest control techniques could be significantly altered by Wilderness designation. The activities to reduce fire fuels would not be possible within a designated Wilderness, unless an exception were made to prevent a life-threatening situation.

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.

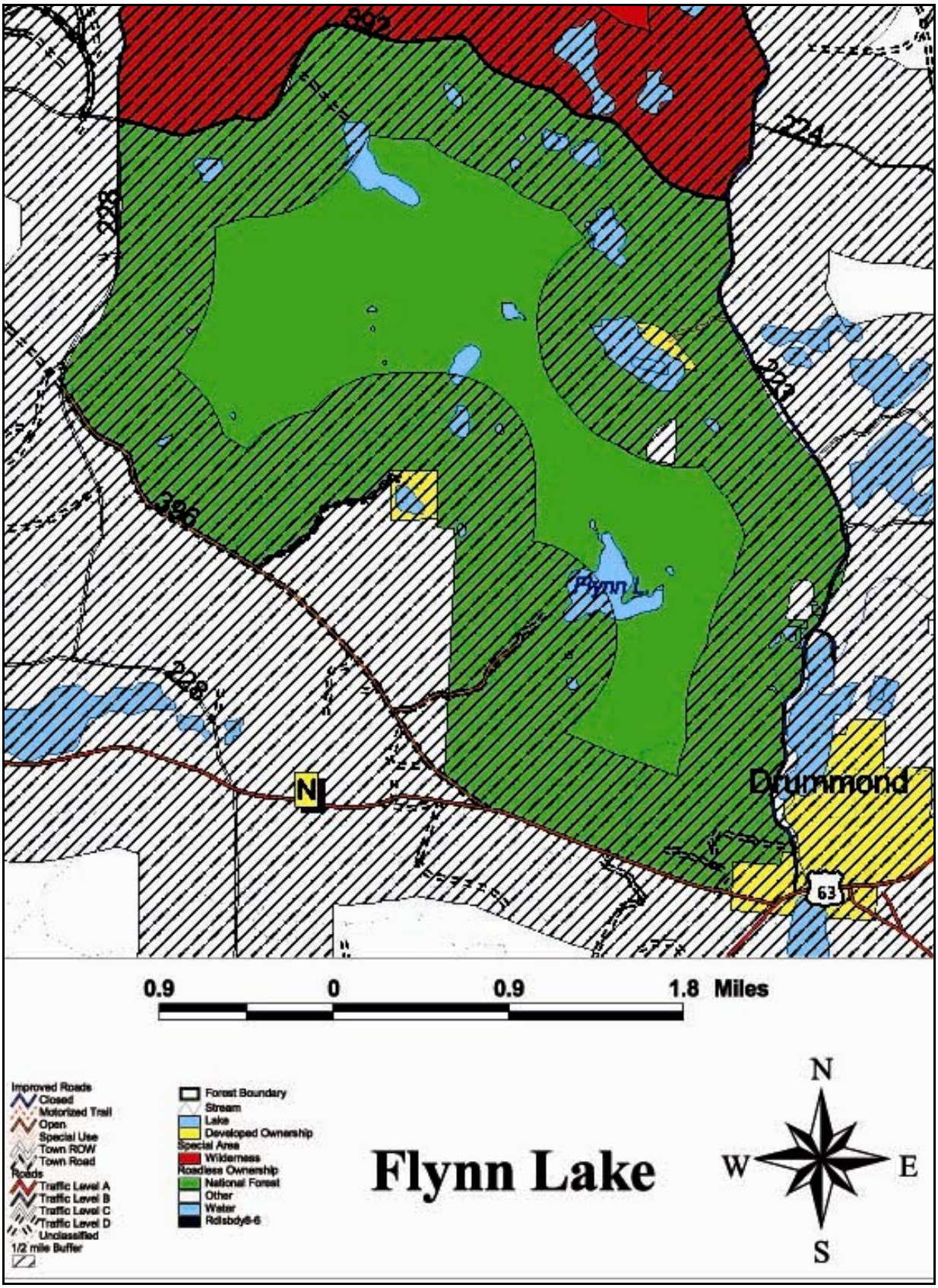

Figure C-9. Flynn Lake Roadless Area Map

Part Five: Results of Wilderness Evaluation

Eight of the nine areas evaluated were selected for inclusion into Forest Plan Alternatives. St. Peter's Dome was not included as a potential Wilderness Study Area due to several factors collectively. They are: 1) The core area size is less than 2,500 acres; 2) Forest Service acreage is less than 5,000 acres; and 3) Presence of newly constructed footbridges and trail surfacing specially designed for use by people with disabilities. The Forest decided that Management Area 6A would better fit use in the area and would protect its recreation and ecological characteristics.

Table C-1 lists each area and displays how each area is included in Forest Plan Revision Alternatives. See Chapter 3 of the Draft Environmental Impact Statement for details and comparison of effects of recommending various combinations of these areas for Wilderness designation. Additional detail related to Roadless Inventory and Evaluation can be found in the *Chequamegon-Nicolet National Forest, Forest Plan Revision Roadless Area Inventory and Wilderness Evaluation, June 17, 2002*, available at the Supervisor's Office, Rhinelander, Wisconsin.

Table C-1. Inventoried and Evaluated Roadless Areas included in Revision Alternatives as a potential Wilderness Study Areas.

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