



DESIGNATION ORDER

USDA Forest Service, Eastern Region
Chequamegon-Nicolet National Forest
Great Divide Ranger District
Sawyer County, Wisconsin

No-name Lake

RESEARCH NATURAL AREA

Designation Order

By virtue of the authority vested in me by the Secretary of Agriculture in accordance with 7 CFR 2.42, 36 CFR 251.23, and 36 CFR Part 219, I hereby establish the No-name Lake Research Natural Area. It shall be comprised of 283 acres (115 hectares) of land in Sawyer County, in the state of Wisconsin, on the Great Divide District of the Chequamegon-Nicolet National Forest, as described in the section of the Establishment Record entitled "Location" [and in the Land and Resource Management Plan for the Chequamegon-Nicolet National Forest map]

Approved by:



Kathleen Atkinson
Regional Forester



Date

SIGNATURE PAGE

for

RESEARCH NATURAL AREA ESTABLISHMENT RECORD

No-name Lake

Research Natural Area

Chequamegon-Nicolet National Forest

Sawyer County, Wisconsin

The undersigned certify that all applicable land management planning and environmental analysis requirements have been met and that boundaries are clearly identified in accordance with FSM 4063.21, Mapping and Recordation, and FSM 4063.41, Establishment Record Content, in arriving at this recommendation.

Prepared by: Margary E. Brzeskiewicz Date 01/12/2015
Marjory E. Brzeskiewicz, Botanist, Chequamegon-Nicolet National Forest

Draft by: /s/ Dawn Hinebaugh Date: 2005
Dawn Hinebaugh, WI DNR

Recommended by: Michael A. Martin Date 2/24/2015
Michael A. Martin, District Ranger, Great Divide District

Recommended by: Paul I.V. Strong Date 3/17/15
Paul I.V. Strong, Forest Supervisor, Chequamegon-Nicolet National Forest

Concurrence of: Michael T. Rains Date 3/16/15
Michael T. Rains, Station Director, Northern Research Station



TITLE PAGE

United States
Department of
Agriculture

Forest
Service

October 2014



Establishment Record for *No-name Lake* Research Natural Area

**Chequamegon-Nicolet National Forest,
Great Divide District,
Sawyer County, Wisconsin**



Cover photo: A view looking east in No-name Lake RNA (Photo: Linda Parker USFS 2004)

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

CONTENTS

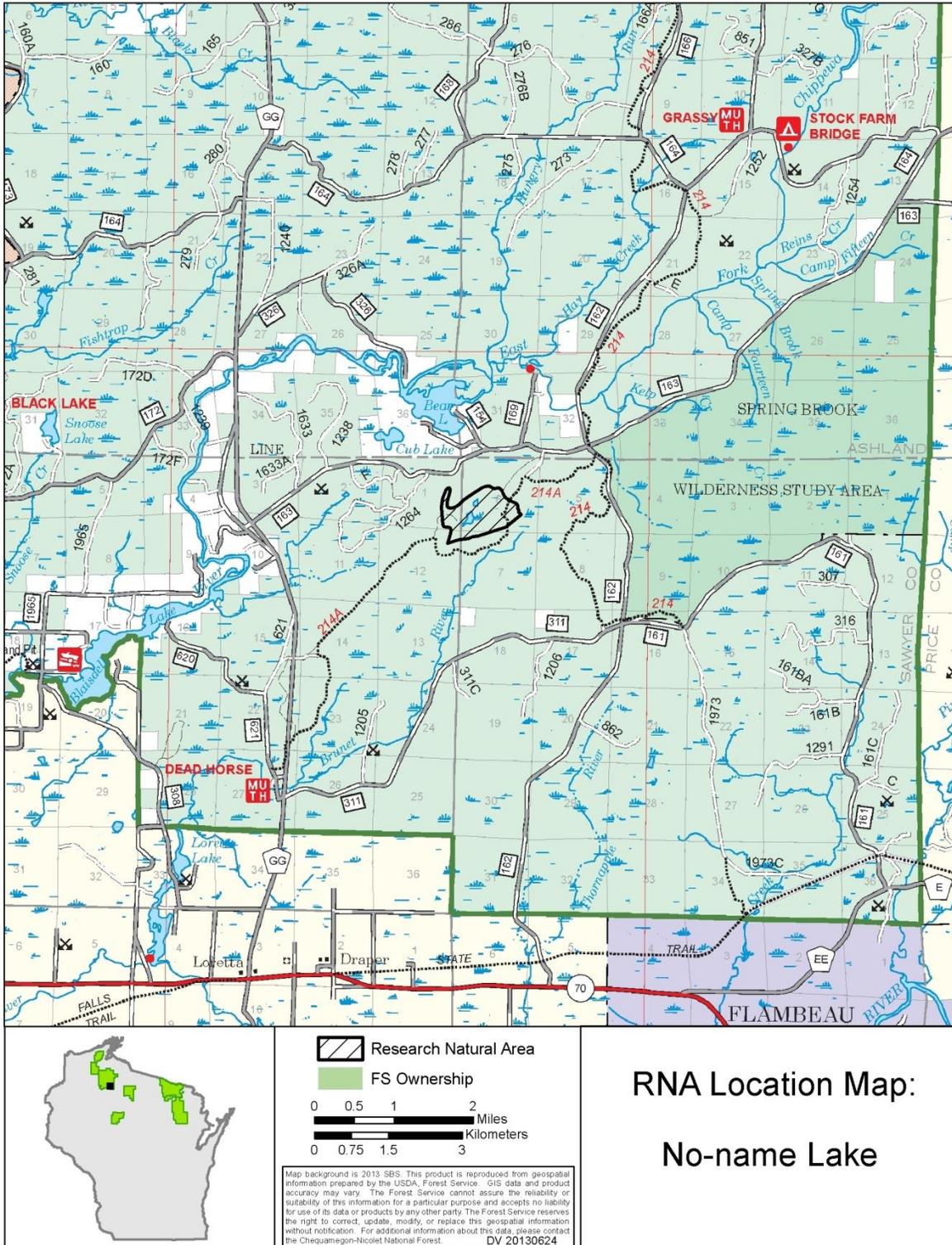
1. IDENTIFICATION SECTION	5
Location Map	5
Boundary Map.....	6
Landscape Overview No-name Lake RNA	7
Legal Description.....	8
2. ADMINISTRATIVE SECTION.....	10
3. BODY OF ESTABLISHMENT RECORD.....	11
a. INTRODUCTION	11
b. JUSTIFICATION SECTION	12
(1) Justification Statement.....	12
(2) Principal Distinguishing Features	12
(3) Objectives.....	13
c. LAND MANAGEMENT PLANNING	13
d. MANAGEMENT PRESCRIPTION.....	14
e. USE OR CONTROL OF FIRE AND GRAZING.....	14
f. APPENDICES	15
4. Appendix 1 Ecological Evaluation.....	15
a. PHYSICAL SITE DESCRIPTION AND CLIMATIC CONDITIONS.....	15
(1) Location	15
(2) Size in acres/hectares.....	15
(3) Elevation range.....	15
(4) Access to the site.....	15
(5) Climatic data.....	16
b. ECOLOGICAL DESCRIPTION	16
(1) Eco-region (to the lowest level of detail currently available).....	16
(2) Plant community types	16
(3) Description of the values of the Research Natural Area.....	20
c. RESOURCE INFORMATION.....	24
(1) Minerals.....	24
(2) Grazing.....	24
(3) Plants (including timber and special forest products)	25
(4) Watershed values	25
(5) Recreation use	25

(6) Wildlife.....	26
(7) Transportation/road system.....	26
d. HISTORICAL INFORMATION.....	26
(1) Research/education use and interest: history of establishment.....	26
(2) Cultural/heritage.....	27
(3) Disturbance history	27
(4) Occurrence of exotic species.....	28
e. OTHER INFORMATION	28
(1) Any permanent research plots and/or photo points.....	28
(2) Bibliography	29
(3) Potential research topics.....	29
f. EVALUATION OF SPECIFIC MANAGEMENT RECOMMENDATIONS ON THE RESEARCH NATURAL AREA	30
(1) Potential or existing conflicts; principal management issues.....	30
(2) Special management area if the Research Natural Area is within one.....	30
g. PHOTOGRAPHS	30
Appendix 2 Bibliography.....	31
Appendix 3 Forest Management Area Direction	34
Appendix 4 Wisconsin Natural Heritage Working List – Rank Definitions.....	37
Appendix 5 Contributors.....	39

Note: The Alpha/Numeric ordering in this document follows that within Forest Service Manual direction (FSM 4063) for Establishment Records.

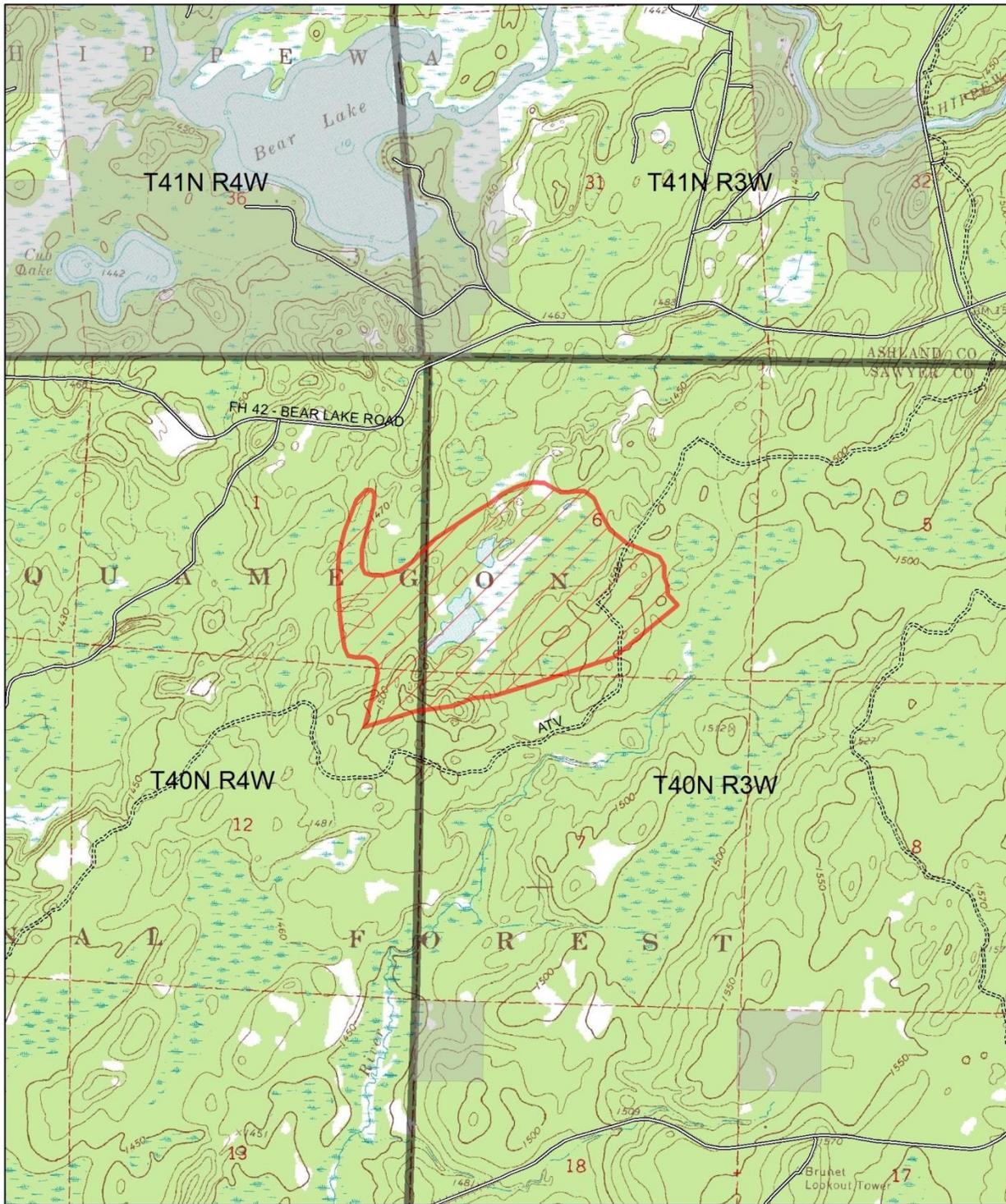
1. IDENTIFICATION SECTION

Location Map



BOUNDARY MAP

RNA Boundary Map: No-name Lake

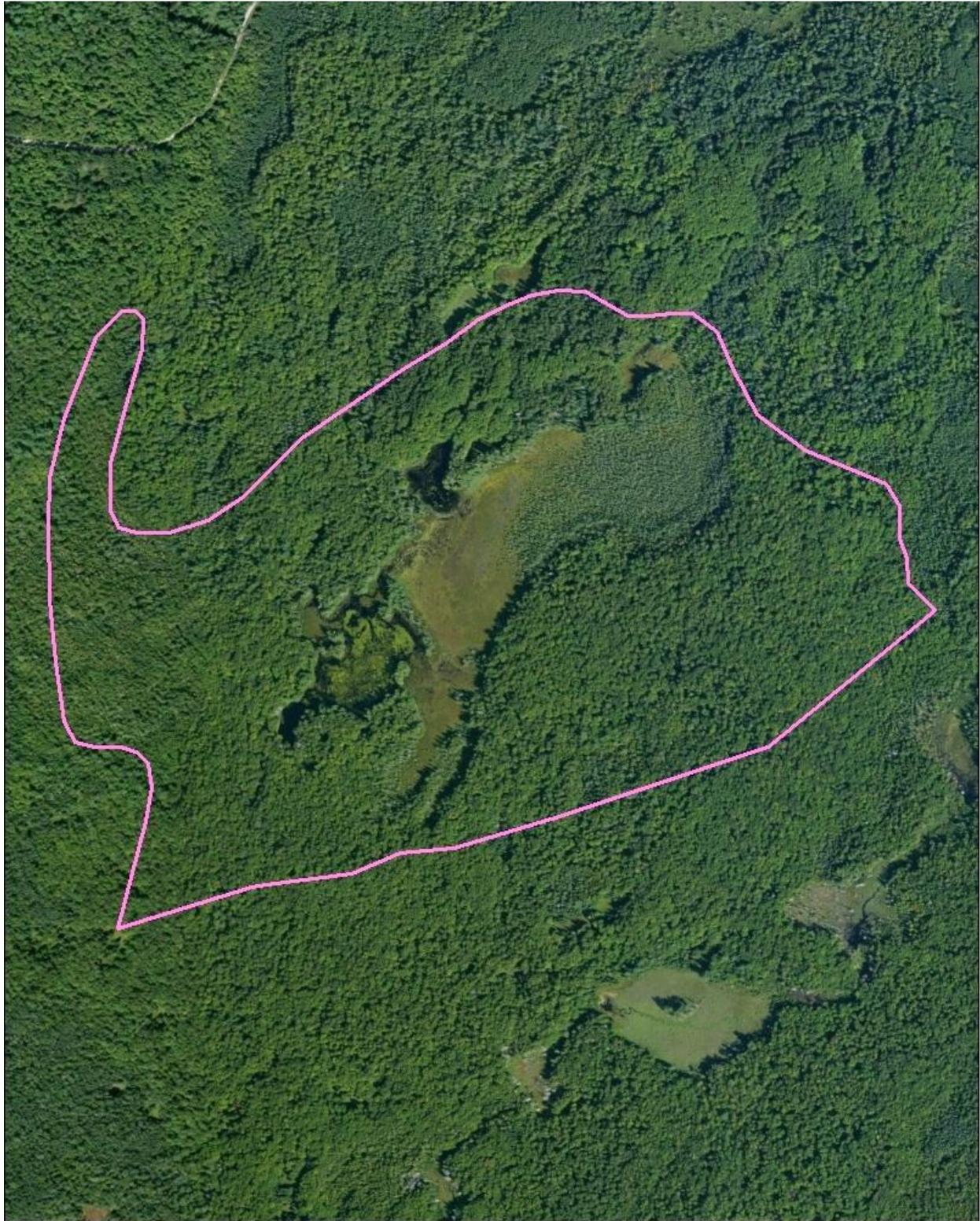


- Research Natural Area
- Open Road
- NonFS ownership
- Trail



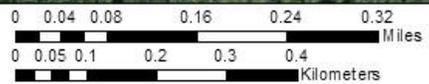
DV 20140417
Acres: 283

LANDSCAPE OVERVIEW NO-NAME LAKE RNA



 RNA Boundary

ESRI Basemap World Imagery
MB 2013



LEGAL DESCRIPTION

No-name Lake RNA is located on the Great Divide Ranger District of Chequamegon-Nicolet National Forest in Sawyer County in the State of Wisconsin. T 40 N, R 3 W, Sections 6 and 7, and T 40 N, R 3 W, Sections 1 and 12. The boundary is delineated as follows:

Commencing at the Southwest corner of Section 06, T 40 N, R 3 W, thence south along the East line of Section 12, 584.46 feet to the **Point of Beginning**.

Thence Southwesterly, S 82 89.5 ft. thence S 73 W 831.7 ft.

Thence Northerly, N 15 E 661.1 ft, thence N 10 E 200.6 ft, thence N9W 140.4 ft

Thence northwesterly the following courses:

Direction	Distance (ft)
N 42 W	87.9
N 70 W	108.5
S 90 W	160.7
N 76 W	120.4
N 25 W	137.1
N 8 W	361.4
N 6 W	366.8
N 1 W	452.8

Thence Northeasterly the following courses:

Direction	Distance (ft)
N 2 E	270.5
N 14 E	368.4
N 21 E	508.4
N 44 E	222.0
N 90 E	87.5

Thence Southeasterly the following courses:

Direction	Distance (ft)
S 41 E	67.3
S 2 W	175.5
S 16 W	365.0
S 15 W	339.9
S 0 W	284.6
S 28 E	107.8
S 75 E	113.4
N 90 E	189.9

Thence Northeasterly the following courses:

Direction	Distance (ft)
N 73 E	244.8
N 57 E	253.1
N 45 E	505.9
N 56 E	730.9

N 59 E	271.8
N 53 E	245.3
N 62 E	189.4
N 68 E	157.3
N 80 E	163.3

Thence southeasterly the following courses:

Direction	Distance (ft)
S 87 E	160.7
S 60 E	294.4
N 90 E	116.8
N 84 E	139.5
N 90 E	124.2
S 53 E	182.5
S 23 E	238.7
S 28 E	307.2
S 53 E	348.9
S 67 E	17.0
S 67 E	513.1
S 31 E	154.1
S 0 W	190.0
S 21 E	124.6
S 3 E	146.2
S 42 E	227.4

Thence Southwesterly the following courses:

Direction	Distance (ft)
S 51 W	1276.0
S 72 W	1359.8
S 73 W	602.9
S 85 W	322.5
S 67 W	317.3
S 82 W	507.3

to the **Point of Beginning**.

/s/ Randy Erickson March 18, 2013
Randy Erickson Date
Land Surveyor, Chequamegon-Nicolet National Forest

2. ADMINISTRATIVE SECTION

This Establishment Record has been prepared pursuant to Forest Service Manual direction (FSM 4063). Establishment of the No-name Lake RNA is documented with a signature page and a Designation Order which are separate documents accompanying this document (FSM 4063.41.2) (USDA Forest Service 2004c).

The Station Director of the Northern Research Station (NRS) in consultation with the Chequamegon-Nicolet Forest (CNNF) Supervisor, Great Divide District Ranger, and NRS RNA Coordinator(s) will approve and coordinate research conducted in the RNA.

Requests to conduct research are referred to the Station Director, Northern Research Station, who will coordinate a review of the application. The Director or NRS RNA Designate will approve research proposals, and prior to the initiation of any projects, will coordinate the project or activity with the District Ranger. Any plant, animal, vegetation, or soil specimen(s) collected in the course of research conducted in the RNA are to be housed at a location designated by the Forest or approved by the Station Director.

Hard copies of research data files will be maintained in the following offices:

Chequamegon-Nicolet National Forest
1170 4th St. South
Park Falls, WI 54552

Station Director
c/o Station RNA Field Representative
Northern Research Station
5985 Highway K
Rhineland, WI 54501

3. BODY OF ESTABLISHMENT RECORD

a. INTRODUCTION

No-name Lake Research Natural Area (RNA) is a secluded tract of older, second-growth northern hardwood/hemlock (*Tsuga canadensis*) forest with a small bog lake, perennial ponds, sedge meadow, and conifer swamp. The lake and its surrounding wetlands and near shore uplands do not have signs of recent disturbances (Hoffman 1999). The area was identified through the Chequamegon-Nicolet National Forest Landscape Analysis and Design project (Parker 1999).

The 283-acre (115 hectares) No-name Lake RNA is located on the Chequamegon-Nicolet National Forest (CNNF), Sawyer County on the Great Divide Ranger District. The RNA is situated entirely on National Forest Service Land and is approximately 20 miles northwest of Park Falls, Wisconsin (Identification Section: *Location Map* and *Boundary Map*).

History Native American tribes have lived on the lands that make up the CNNF for thousands of years through a long and complex history. They hunted, fished, gathered food, and obtained forest products for shelter, moved plants from other areas, and sometimes used fire to manipulate the land. No-name Lake RNA is within 50 miles (80 km) of three modern day Ojibwe reservations. Ojibwe tribes entered into session treaties with the United States in which rights to hunt, fish and gather were reserved by these tribes. See Section 4 d.(2)-*Cultural/Heritage* for further explanation of Native American gathering rights pertaining to RNAs.

Northern Wisconsin was extensively logged in the late 1800s, virtually clear cutting much of the area. Catastrophic wildfires burned the logging slash across the region. The area was surveyed in the 1860s and the surveyor's notes describe the numerous swamps and good, second-rate soil (BCPL 2004). The area containing the RNA then became National Forest in the 1930s.

Use Timber harvest (thinning) again occurred within the RNA in upland stands in the decades from 1968 to the early 1990s. A large area south of the lake was scarified to encourage regeneration of eastern hemlock and yellow birch (*Betula alleghaniensis*). Species composition was maintained in



Figure 1. A peninsula with older white pine (*Pinus strobus*) and hemlock on the north shore of No-name Lake. (Photo: Linda Parker, USFS 2004)

all stands and no cutting occurred in a buffer zone in riparian areas. Several hardwood stands adjacent to the RNA were thinned in 1998. There are several small upland areas that in the past were maintained in an open grassy condition for wildlife habitat but they have not been cleared since the early 1980s. There is heavy motorized recreational use in both winter and summer on a designated trail (Spickerman personal communication) traversing part of the uplands in the south (a dotted line labeled ATV on the *Boundary Map* in the Identification Section). Deer, bird, and bear hunters also take advantage of this area. Hunting is compatible with RNA status.

Ownership & Administration No-name Lake RNA is owned outright by the USDA Forest Service. Administration and protection of the RNA is the responsibility of the Forest Supervisor of the CENN, or designate. The Great Divide Ranger District, CENN, provides day-to-day protection and maintenance of the area.

Congressionally Designated Areas No-name Lake RNA does not occur within any other administratively or congressionally designated areas.

b. JUSTIFICATION SECTION

(1) JUSTIFICATION STATEMENT

No-name Lake RNA protects an undeveloped, soft-water seepage lake and large wetland plant communities in a remote setting. The lowland conifer swamps and bog lake are representative of the ecological land type known as *Glidden Drumlins*. The area was dissected by old glacial drainages which are poorly drained and support these wetland plant communities. The upland communities represented within the RNA are a fine example of second-growth forest on rolling ground moraine. The immediate shoreline and surrounding uplands includes eastern hemlock-white pine (*Tsuga canadensis*, *Pinus strobus*) stands that are also typical within this Land Type Association (Knight and Krause 1996).

The forest communities within the RNA include eastern hemlock and northern white cedar (*Thuja occidentalis*) of large diameter (over 100 years old) with super-canopy white pine scattered throughout. Sugar maple (*Acer saccharum*), white ash (*Fraxinus americana*), and basswood (*Tilia americana*) dominate the uplands. Black ash (*Fraxinus nigra*) is common in the lowlands and on perched wetlands within the mesic forest.

(2) PRINCIPAL DISTINGUISHING FEATURES

No-name Lake RNA has at its center an undeveloped, soft-water seepage lake in a remote setting (Knight and Krause 1996). Despite evidence of past and more recent logging, the area maintains a healthy community gradient from lowland bog to upland, mesic hardwood forest and the species composition is intact. The lake itself has a highly irregular and hilly shoreline with numerous bays and backwater ponds created by glacial ice collapse. Lake level fluctuations are common with water levels determined by changes in ground water levels. There is no inlet or outlet but general ground-water flow is to the northeast.



Figure 2. Large hemlock and white pine above a sedge meadow on the shore of No-name Lake. (Photo: M. Brzeskiewicz 2001)

An extensive open wetland dominated by sphagnum, sedges, and bog ericads grading into tamarack (*Larix laricina*) swamp occurs on the north side of the lake. The lake and these associated wetland communities appear to have intermittent drainage northeast to the East Fork of the Chippewa River.

Significant plant communities include large acreages of lowland eastern hemlock forest with upland northern white cedar and super-canopy pines as common associates (Figure 2).

Other uplands in this site include stands that were thinned in the 1960s to late 1980s and now consist of 6-10 inch diameter (15-25 cm) hardwoods with significant amounts of yellow

birch, eastern hemlock, and other long-lived conifers. On the eastern side are stands of richer, more mature hardwood forest on silt loam soils (Figure 5 - *Existing Vegetation map*). Mature black ash and yellow birch are an almost constant component on these moderately well drained soils. Wet-mesic stands of hemlock dominated forest bordering somewhat poorly drained depressions are scattered throughout this hardwood block. A high diversity of the genus *Botrychium* fern allies were noted in the ground layer. This is significant because several rare *Botrychiums* tend to occur in such genus communities, though no rare specimens have been found to date. Wildlife observed on the site include a wide variety of waterfowl and marsh birds, belted kingfisher (*Ceryle alcyon*), northern saw-whet owl (*Aegolius acadicus*), and red-tailed hawk (*Buteo jamaicensis*).

(3) OBJECTIVES

The No-name Lake RNA will be managed to meet the research and education objectives of the national RNA program. The specific objectives of this RNA are to provide areas for research and study of excellent representations of forest, wetland, and aquatic communities associated with LTA Xa01 Glidden Drumlins. This complex of communities is large enough to maintain genetic diversity of species. It serves as a control area to monitor effects of resource management elsewhere and long-term ecological changes from natural events such as large scale wind throw.

c. LAND MANAGEMENT PLANNING

No-name Lake RNA was recommended for RNA designation in the 2004 Chequamegon and Nicolet National Forest's Land and Resource Management Plan (hereinafter referred to as "2004 CNNF Forest Plan") and is incorporated by reference per the page citations that occur in this Establishment Record (USDA Forest Service 2004a pg 3-50). The alternative effects on RNA establishment were analyzed and disclosed in the Final Environmental Impact Statement (USDA Forest Service 2004b pg 3-110) and Record of Decision (USDA Forest Service 2004c pg 9). No-name Lake RNA is part of a national network of ecological areas designated in perpetuity for

research and education, and to provide important components of biological diversity for the Forests. The RNAs and candidate RNAs on the Forest have been assigned to a management prescription (8E) that is consistent with RNA objectives (USDA Forest Service 2004c pg 9).

Management Area 8E is characterized by ecologically significant natural features and representative ecosystems. It includes a broad array of community types occurring on the range of landforms and soil types that occur on the CNNF. Plant communities are generally of an older age class and contain all or most species characteristic of that community in the region (Appendix 3 - *Forest Management Area Direction* and USDA Forest Service 2004a pg 3-50).

d. MANAGEMENT PRESCRIPTION

The management prescription for No-name Lake RNA is embodied in the management area direction and guidance presented in the 2004 CNNF Forest Plan.

The CNNF has not developed an individual site management plan for No-name Lake RNA. When developed, such a plan will provide more specific detail of management needs and ensure that the objectives for which the RNA was created are met. In general, the management objectives are to allow natural processes to drive the structure and function of the ecosystems. Any site plans will be coordinated with the state as this is also a State Natural Area and as such has compatible management goals (WI DNR 2011). The CNNF non-native invasive plant strategy (USDA Forest Service 2009) will detect, manage and prevent invasive plants as RNAs are high priority for monitoring and controlling invasives.

Refer to Appendix 1, section f.(1) *Potential or existing conflicts* to reference unique management issues that should be addressed for this RNA.

e. USE OR CONTROL OF FIRE AND GRAZING

Fire is not generally used as a management tool in these mesic and wetland community types. Fire is allowed per the FSM and the CNNF Forest Plan if needed for specific objectives and could be designed in the No-name Lake RNA site plan. However, fire has not been identified as a management need.

According to CNNF fire management records, occasional wildfires do occur in dry years, but they are most often small in size; usually less than one acre (0.4 ha), limited by lack of fuel, and easily suppressed. Spring fires that occasionally occur in wetlands can be as large as 100 acres (40 ha). Wildfire suppression within the RNA would employ those methods that cause the least disturbance.

There is currently no grazing on the Chequamegon-Nicolet National Forest, nor is grazing allowed in RNAs per 2004 CNNF Forest Plan standard.

4. APPENDIX 1 ECOLOGICAL EVALUATION

The following ecological evaluation is included as an appendix to the establishment record and tiers to the 2004 CNNF Forest Plan (USDA Forest Service 2004a) and to the Final Environmental Impact Statement (USDA Forest Service 2004b). This evaluation provides the initial baseline information for the Research Natural Area, serves as a source of data for reports on the Research Natural Area program, and provides information to researchers seeking research sites or projects. More specific information on research sites can be obtained from the Forest RNA Coordinator.

a. PHYSICAL SITE DESCRIPTION AND CLIMATIC CONDITIONS

(1) LOCATION

No-name Lake RNA is located on the Great Divide Ranger District of the Chequamegon-Nicolet National Forest, Sawyer County, in the state of Wisconsin. The RNA's Mercator coordinates are 45^o 58' N latitude and 90^o 47' W longitude (map datum WGS 84)

See Establishment Record Identification Section for the *Boundary Certification, Location Map and Boundary Map*.

(2) SIZE IN ACRES/HECTARES

The RNA is comprised of 283 acres (115 hectares). Note that the lake is under state jurisdiction and is not technically included in the RNA.

(3) ELEVATION RANGE

Elevations range from 1,460 feet (445 m) to 1,510 feet (460 m) above sea level. As a comparison, the highest elevation in Wisconsin is Timm's Hill in Price County at 1,951 feet (595 m) above sea level approximately fifty miles (80 km) southeast.

(4) ACCESS TO THE SITE

From Park Falls, WI drive west approximately 11 miles (18 km) on County Hwy E then turn right on State Hwy 70. Drive approximately 2 miles west on Hwy 70 and turn right (north) on Forest Road (FR) 162. Travel north 6 miles (10 km) to the intersection of FR 162 and FR 163. Then drive west on FR 163 approximately 0.6 mile (1 km) to a gated road (FS trail 221) and park here. Walk south 0.75 mile (1.2 km) to the intersection of FS snowmobile trail 214. Go southwest approximately 0.5 mile (0.8 km) into the site (see Identification Section maps).

(5) CLIMATIC DATA

The weather station nearest to the No-name Lake RNA is Park Falls DNR Headquarters (station no. 476398, latitude 45° 55' N, longitude 90° 26' W). The station is about 20 mi (32 km) to the southeast of the RNA and experiences similar weather and climate. This station has recorded temperature and precipitation data since 1910 (Midwestern Regional Climate Center 2003).

Table 1. Climate Data for Park Falls Weather Station, Price County, WI from the years 1910 to 2003

Temperature	°F	°C
Mean annual	41.0	5.0
Mean monthly - April through September	58.0	14.4
Mean monthly - October through March	24.0	-4.4
Average daily maximum	51.0	11.0
Average daily minimum	31.0	-.05
Record high	106.0	41.0
Record low	-45.0	-43.0
Precipitation	in	mm
Mean annual rainfall	32.0	813.0
Mean monthly - April through September	3.7	94.0
Mean monthly - October through March	1.7	43.0
Mean annual snowfall	41.2	1,046.0

b. ECOLOGICAL DESCRIPTION

(1) ECO-REGION (TO THE LOWEST LEVEL OF DETAIL CURRENTLY AVAILABLE).

No-name Lake RNA is located in the Laurentian Mixed Forest Province, 212X Northern Highland Section, Subsection Xa Glidden Loamy Drift of the Ecological Units of the Eastern United States (Cleland et al. 2007). It includes Land Type Association (LTA) Xa01 Glidden Drumlins.

(2) PLANT COMMUNITY TYPES

Nomenclature for flora follows the USDA PLANTS database (USDA, NRCS. 2012); nomenclature for birds follows AOU Checklist (1983); nomenclature for vertebrates follows Watermolen & Murrell (2001). In Wisconsin, commonly used references for describing ecosystems include Forest Habitat Types (Kotar 2002) and Natural Communities (Curtis 1959).

This area of glacial moraine is characterized by rolling, gravel hills and silt-capped drumlins that support a rich diversity of flora. This rolling ground moraine includes an extensive mature eastern hemlock and northern white cedar wet mesic forest with super-canopy white pine. The oldest conifers are approximately 18-24" (46-61 cm) dbh and over 100 years old. Several small patches of old hemlock with super-canopy pines also border the lakeshore (Figures 1 and 2). The northern mesic forest is mature, second-growth sugar maple and yellow birch with 10-18" (25-46cm)

diameter hemlock and scattered white pine. The drier hills are dominated by white ash, sugar maple, and basswood.



Figure 3. The mesic forest in No-name Lake RNA occurs on glacial moraine of sharp relief in places. The recently fallen hemlock in the foreground exemplifies the developing old-growth characteristics. (Photo: Linda Parker 2011)

The closed canopy provides for an open, park-like understory (Figure 3) with a sparse shrub layer that includes American fly honeysuckle (*see Table 4 for scientific names*), mountain maple, and winterberry. Ground flora consists of spinulose wood fern, club-mosses, sedges, and grasses. Dominant herbs are wild sarsaparilla and Canada mayflower with bunchberry, mountain wood sorrel, three-leaved goldthread, and fragrant bedstraw. A high diversity of *Botrychium* fern allies was also noted in the groundlayer (Knight and Krause 1996), including the uncommon lance-leaved grapefern.

Along the lake edge is a floating bog mat of leather-leaf, which widens out into a large, open sedge meadow grading into black spruce and tamarack swamp to the northeast (Figure 4).

No-name Lake is sometimes known locally as “Dry Lake” since its water level fluctuates during periods of draught. There is a large wetland adjoining the lake where water seeps to the northeast, but there is no surface water in this location much of the year.

A black ash hardwood swamp forms a natural east boundary for the RNA. This swamp is the source of the Brunet River and this adjoining area has been designated as the *Dry Lake Old Growth and Special Features* management area in the 2004 CNNF Forest Plan. This upper portion of the river is classified in the state as *Class I-A* trout water (WI DNR 2013).

Table 2. Natural vegetation community types within No-name Lake RNA using common classification systems for Wisconsin (Curtis 1959 and Kotar et al. 2002) and NGDC (2012)

Community Type (Curtis 1959)	Habitat Types (Kotar et al. 2002)	Dominant Species	NVCS Associations (NGDC 2012)*
Northern mesic forest	TMC	eastern hemlock, white cedar, paper birch (red pine, white pine)	CEGL002598 <i>Tsuga canadensis</i> - (<i>Betula alleghaniensis</i>) Forest
Northern mesic forest	ATM	sugar maple, white ash, basswood	CEGL005008 <i>Acer saccharum</i> - <i>Fraxinus americana</i> - <i>Tilia americana</i> / <i>Acer spicatum</i> / <i>Caulophyllum thalictroides</i> Forest
Northern mesic forest	ATD	sugar maple, yellow birch, basswood (black ash)	CEGL002457 <i>Acer saccharum</i> - <i>Betula alleghaniensis</i> - (<i>Tilia americana</i>) Forest
Northern wet-mesic forest	TMC	eastern hemlock, white cedar, yellow birch (white pine)	CEGL005003 <i>Tsuga canadensis</i> - <i>Betula alleghaniensis</i> Saturated Forest
Northern wet forest	N/A	black spruce - tamarack	CEGL005271 <i>Picea mariana</i> - (<i>Larix laricina</i>) / <i>Ledum groenlandicum</i> / <i>Sphagnum</i> spp. Forest
Lake - shallow, soft, seepage	N/A	not evaluated	
Open bog	N/A	leatherleaf, Labrador tea	CEGL005278 <i>Chamaedaphne calyculata</i> - <i>Ledum groenlandicum</i> - <i>Kalmia polifolia</i> Bog Dwarf-shrubland
Northern sedge meadow	N/A	<i>Carex</i> spp.	G112 Eastern North American Wet Meadow Group
Ephemeral ponds	N/A	not evaluated	

* These National Vegetation Classification System associations are initial approximations.



Figure 4. No-name Lake RNA contains a large diverse sedge meadow community that extends north and east from the lake. Wetlands such as these store tremendous quantities of water in northern Wisconsin. (Photo: Linda Parker 2011)

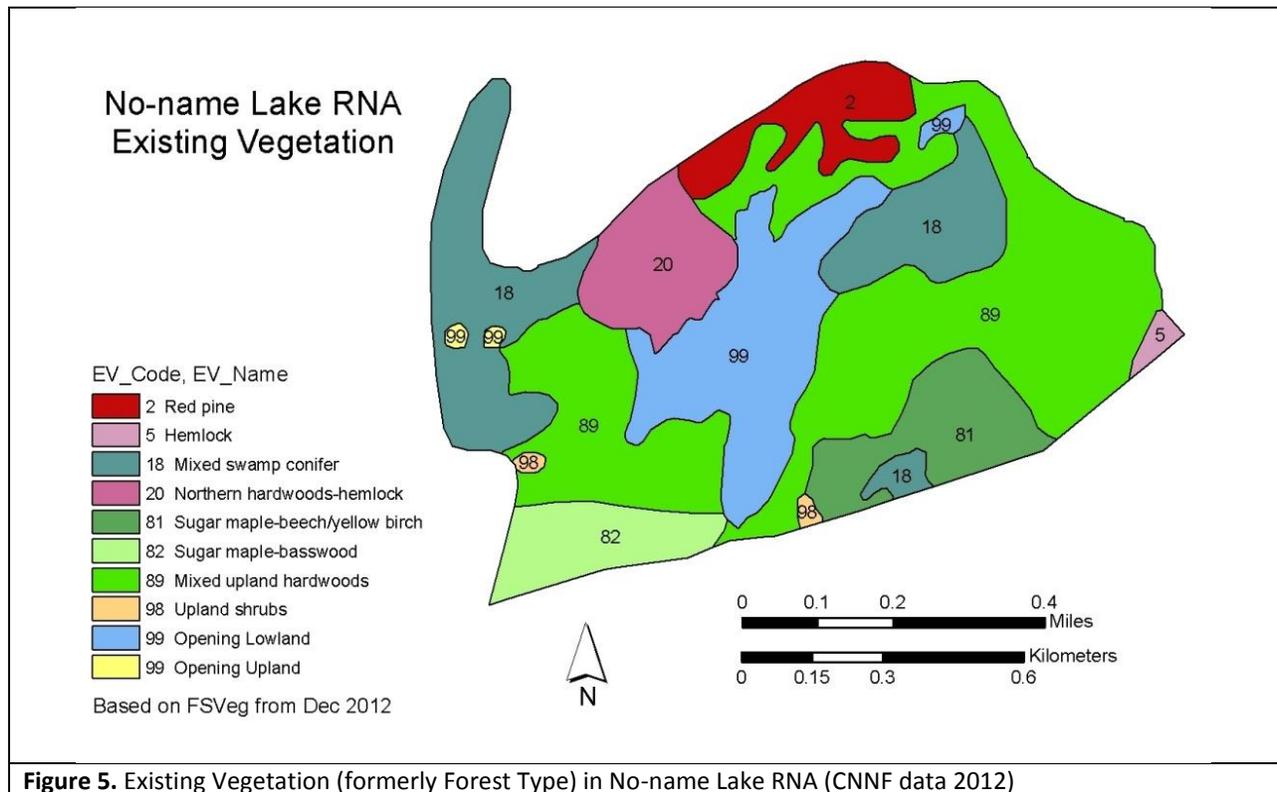


Figure 5. Existing Vegetation (formerly Forest Type) in No-name Lake RNA (CNNF data 2012)

Table 3. Existing Vegetation (as dominant tree cover) and area in No-name Lake RNA and key to Figure 5

EV Code	Existing Vegetation (EV)	Acres	Hectares
2	Red pine	15.2	6.1
5	Hemlock	1.7	0.7
18	Mixed swamp conifer	51.7	20.9
20	Northern hardwoods-hemlock	19.3	7.8
81	Sugar maple(-beech)/yellow birch	20.9	8.4
82	Sugar maple-basswood	15.9	6.4
89	Mixed upland hardwoods	114.5	46.4
98	Upland shrubs	1.2	0.5
99	Opening Upland	0.9	0.4
99 water	Opening Lowland	1.1	0.4
99 lake	Opening Lowland	40.5	16.4
Grand Total		282.9	114.4

(3) DESCRIPTION OF THE VALUES OF THE RESEARCH NATURAL AREA.

(A) FLORA LIST

Site surveys were conducted in the mid-1990s by CNNF ecologists who compiled the flora in Table 4. The lake and marshes need further inventory.

Table 4. Flora of No-name Lake RNA (from 1995 & 1996 Forest Service surveys; names: USDA PLANTS 2012)

No-name Lake RNA Vascular Plant List		No-name Lake RNA Vascular Plant List	
Scientific name	Common name	Scientific name	Common name
<i>Abies balsamea</i>	balsam fir	<i>Chamaedaphne calyculata</i>	leatherleaf
<i>Acer rubrum</i>	red maple	<i>Cicuta bulbifera</i>	bulblet water hemlock
<i>Acer saccharum</i>	sugar maple	<i>Clintonia borealis</i>	bluebead lily
<i>Acer spicatum</i>	mountain maple	<i>Coptis trifolia</i>	goldthread
<i>Actaea rubra</i>	red baneberry	<i>Corallorhiza trifida</i>	yellow coralroot
<i>Adiantum pedatum</i>	maidenhair fern	<i>Cornus canadensis</i>	bunchberry
<i>Agrimonia gryposepala</i>	tall hairy agrimony	<i>Dirca palustris</i>	leatherwood
<i>Allium tricoccum</i>	wild leek	<i>Dryopteris carthusiana</i>	toothed wood fern
<i>Alnus rugosa</i>	speckled alder	<i>Dryopteris cristata</i>	crested wood fern
<i>Anemone canadensis</i>	Canada anemone	<i>Dryopteris intermedia</i>	fancy wood fern
<i>Anemone quinquefolia</i>	woods anemone	<i>Elymus virginicus</i>	Virginia wild rye
<i>Apocynum androsaemifolium</i>	spreading dogbane	<i>Equisetum sylvaticum</i>	woodland horsetail
<i>Aralia nudicaulis</i>	wild sarsaparilla	<i>Fragaria virginiana</i>	strawberry
<i>Arisaema triphyllum</i>	jack-in-the-pulpit	<i>Fraxinus americana</i>	white ash
<i>Asclepius syriaca</i>	common milkweed	<i>Fraxinus nigra</i>	black ash
<i>Aster lateriflorus</i>	calico aster	<i>Galium triflorum</i>	sweet-scented bedstraw
<i>Aster macrophyllus</i>	big-leaf aster	<i>Gaultheria procumbens</i>	wintergreen
<i>Athyrium filix-femina</i>	lady fern	<i>Gymnocarpium dryopteris</i>	oak fern
<i>Betula alleghaniensis</i>	yellow birch	<i>Hepatica nobilis var. obtusa</i>	roundlobe hepatica
<i>Betula papyrifera</i>	paper birch	<i>Hieracium aurantiacum</i>	orange hawkweed
<i>Botrychium lanceolatum v. angustisegmentum</i>	lance-leaved grapefern	<i>Huperzia lucidula</i>	shining club-moss
<i>Botrychium matricariifolium</i>	daisy-leaved grapefern	<i>Lemna minor</i>	lesser duckweed
<i>Botrychium virginianum</i>	rattlesnake fern	<i>Lonicera canadensis</i>	American fly honeysuckle
<i>Brachyelytrum erectum</i>	northern shorthusk	<i>Luzula acuminata</i>	hairy wood rush
<i>Calamagrostis canadensis</i>	bluejoint grass	<i>Lycopodium clavatum</i>	running club-moss
<i>Caltha palustris</i>	marsh marigold	<i>Lycopodium dendroideum</i>	northern tree club-moss
<i>Campanula aparinoides</i>	marsh bellflower	<i>Maianthemum canadense</i>	wild lily-of-the-valley
<i>Carex arctata</i>	drooping woodland sedge	<i>Mitchella repens</i>	partridgeberry
<i>Carex crawfordii</i>	Crawford's sedge	<i>Mitella diphylla</i>	two-leaf miterwort
<i>Carex disperma</i>	sedge	<i>Onoclea sensibilis</i>	sensitive fern
<i>Carex intumescens</i>	greater bladder sedge	<i>Oryzopsis asperifolia</i>	roughleaf ricegrass
<i>Carex pedunculata</i>	long-stalked sedge	<i>Osmorhiza claytonii</i>	sweet cicely
<i>Carex pennsylvanica</i>	Pennsylvania sedge	<i>Osmunda claytonii</i>	interrupted fern
<i>Carex stipata</i>	awl-fruit sedge	<i>Ostrya virginiana</i>	ironwood
<i>Carex stricta</i>	tussock sedge	<i>Oxalis montana</i>	mountain wood sorrel
<i>Carex tuckermanii</i>	Tuckermans' sedge	<i>Parthenocissus quinquefolia</i>	Virginia creeper
<i>Caulophyllum thalictroides</i>	blue cohosh	<i>Picea glauca</i>	white spruce

No-name Lake RNA Vascular Plant List	
Scientific name	Common name
<i>Picea mariana</i>	black spruce
<i>Pinus strobus</i>	white pine
<i>Polygonatum pubescens</i>	hairy Solomon's-seal
<i>Populus tremuloides</i>	trembling aspen
<i>Prunella vulgaris</i>	self-heal
<i>Prunus serotina</i>	black cherry
<i>Pteridium aquilinum</i>	bracken fern
<i>Pyrola americana</i>	American wintergreen
<i>Ranunculus abortivus</i>	little-leaf buttercup
<i>Ribes cynosbati</i>	prickly gooseberry
<i>Rubus allegheniensis</i>	blackberry
<i>Rubus idaeus</i>	red raspberry
<i>Rubus pubescens</i>	dwarf red blackberry
<i>Salix spp.</i>	willow
<i>Sanguinaria canadensis</i>	bloodroot
<i>Scirpus atrovirens</i>	green bulrush

No-name Lake RNA Vascular Plant List	
Scientific name	Common name
<i>Stellaria longifolia</i>	longleaf starwort
<i>Streptopus lanceolatus v. longipes</i>	rosy twisted stalk
<i>Thalictrum dioicum</i>	early meadow rue
<i>Thelypteris palustris</i>	eastern marsh fern
<i>Thuja occidentalis</i>	northern white cedar
<i>Tilia americana</i>	basswood
<i>Toxicodendron radicans</i>	poison ivy
<i>Trientalis borealis</i>	starflower
<i>Trifolium aureum</i>	golden clover
<i>Trillium cernuum</i>	nodding trillium
<i>Trillium grandiflorum</i>	large-flowered trillium
<i>Tsuga canadensis</i>	eastern hemlock
<i>Uvularia sessilifolia</i>	sessile bellwort
<i>Viola canadensis</i>	Canadian white violet
<i>Viola cucullata</i>	marsh blue violet

(B) FAUNA LIST

Some of the wildlife observed during surveys includes a wide variety of waterfowl and marsh birds and the species listed in Table 5 (Knight and Krause 1996). The large diameter trees present provide nesting sites for saw-whet owls and pileated woodpecker (*See Table 5 for scientific names*). The gray wolf has established pack territories just west of this area. Spring peepers and wood frogs are found in the ephemeral ponds.

Table 5. Fauna observed in No-name Lake RNA from surveys in 1995, 1997 (AOU Checklist 1983, Watermolen & Murrell 2001)

No-name Lake RNA Fauna List	
Common Name	Scientific Name
Birds	
Mallard	<i>Anas platyrhynchos</i>
Common loon	<i>Gavia immer</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Northern saw-whet owl	<i>Aegolium acadicus</i>
Belted kingfisher	<i>Ceryle alcyon</i>
Pileated woodpecker	<i>Dryocopus pileatus</i>
Hairy woodpecker	<i>Picoides villosus</i>
Eastern wood pewee	<i>Contopus virens</i>
Northern parula	<i>Parula americana</i>
Ovenbird	<i>Seiurus aurocapillus</i>
Common yellowthroat	<i>Geothlypis trichas</i>
Ovenbird	<i>Seiurus aurocapillus</i>

No-name Lake RNA Fauna List	
Common Name	Scientific Name
Red-winged blackbird	<i>Agelaius phoeniceus</i>
White-throated sparrow	<i>Zonotrichia albicollis</i>
Other Vertebrates	
spring peeper	<i>Pseudacris crucifer crucifer</i>
wood frog	<i>Rana sylvatica</i>
gray wolf	<i>Canis lupus</i>
river otter	<i>Lontra canadensis</i>
beaver	<i>Castor canadensis</i>
white-tailed deer	<i>Odocoileus virginicus</i>
black bear	<i>Ursus americana</i>
red squirrel	<i>Tamiasciurus hudsonicus</i>

(C) GEOLOGY

The geology of northern Wisconsin was shaped by long periods of cooling climate and expansion of glaciers; the last expansion is known as the Wisconsin Glaciation. This glacial advance began about 26,000 years ago when the Laurentide Ice Sheet spread across the continent. As this glacier retreated, till deposition and glacial melt-water formed an irregular landscape of hills pocked with depressions that later became lakes and wetlands (WGNHS 2011).

Bedrock includes igneous, metamorphic, and volcanic rock (WI DNR 2003). The RNA (LTA Xa01) has bedrock that is generally within 5 feet of the land surface. Topography is rolling with drumlin moraines. Geomorphologic processes include till deposition.

(D) SOILS

Soils of No-name Lake RNA are well-drained loamy sands and sandy loams in the western portion and moderately well to well drained silt loams in the eastern portion (Knight and Krause 1996). Soil series include the Pelissier-Pence sandy loams.

The Pelissier series consists of very deep, excessively drained soils on outwash plains, stream terraces, eskers, kames and end moraines (USDA NRCS 2004). They formed in gravelly and sandy outwash deposits. Slopes range from 1 to 45 percent. Most areas of Pelissier soils are in woodland. The forest cover is mixed coniferous and deciduous forest. Quaking aspen, white birch, red maple, and northern pin oak are the common deciduous trees. Jack Pine, red pine, balsam fir, white pine, and white spruce are the common coniferous trees.

The Pence series consists of very deep somewhat excessively drained soils which are shallow to stratified sandy outwash (USDA NRCS 2004). They formed in a thin mantle of loamy alluvium or eolian deposits and in the underlying stratified sand or stratified sandy outwash on glacial lake plains, outwash terraces, outwash plains, eskers, and kames within moraines. Most areas remain in woodland. Forest vegetation is mixed coniferous and deciduous forest.

The bog contains deep, strongly acid soils that are moderately decomposed and very poorly drained. Organic material is derived largely from sphagnum mosses and herbaceous plants. The water table is at the surface throughout the year.

(E) TOPOGRAPHY

The entire complex is rolling glacial deposited topography with some fairly steep knolls (Figure 3). Elevation changes rarely exceed 40 feet (12 m).



Figure 6. Some low areas within No-name Lake RNA hold water year round such as this perennial pond. The ripples on the pond's surface are from wood frogs. (Photo: Marjory Brzeskiewicz 1995)

natural lakes of the state and the DNR is charged with management of fishery resources (Kent & Dudiak 2001).

(F) AQUATIC/RIPARIAN

Water resources include No-name Lake (Figure 1), and extensive wetlands (Figure 4). No-name Lake has no stream inlet but the outflow during periods of high water is generally to the north into the Chippewa River basin. In places the poorly drained soils support ephemeral as well as permanent ponds (Figure 6). The ground water of some of the wetlands flows outside the RNA into the Brunet River, a high quality trout stream with natural trout reproduction. The state of Wisconsin maintains authority over the

(G) RARE, THREATENED, ENDANGERED, OR SENSITIVE SPECIES

No Rare, Threatened, Endangered, or Regional Forester Sensitive Species have been found within the RNA. Survey work is needed on plants, lichens, birds, bats, reptiles, amphibians, and insects which may turn up additional elements.

(H) LIST OF RARE ELEMENTS AND RARE PLANT COMMUNITIES

The plant communities found within the No-name Lake RNA that are listed by Wisconsin Natural Heritage Inventory are shown in Table 6. The balance of the plant communities within the site are secure. This remote area is also unique in that it contains a mosaic of plant communities in a fairly undisturbed condition.

Table 6. Rare Plant Communities within No-name Lake RNA

Element/Community Name	Global Rank	State Rank ¹
Northern wet-mesic forest	G3?	S3/S4
Northern sedge meadow	G4	S3

¹ see Appendix 4: *Natural Heritage Working List-Rank Definitions*

c. RESOURCE INFORMATION

This section discusses resources that occur in the RNA framed within the context of *potentially conflicting uses* - where future conflicts may arise. No-name Lake RNA is owned outright by the United States government and is administered by the USDA Forest Service, Chequamegon-Nicolet National Forest.

(1) MINERALS

The mineral estate within the RNA includes land that is federally owned, reserved, and outstanding (Table 7). Outstanding, Reserved, and Federal-owned minerals are open to hardrock prospecting within the Research Natural Area and the Forest Service must allow access to the surface to the mineral owner. The state of the knowledge of the bedrock geology and where actual ore bodies may be found (if they exist and are commercial) is not precise enough to assign relative probability of prospecting activity within the RNA (Knight pers comm 2013). Mineral ownership does not preclude use of the site for research but if prospecting took place disturbance to localized areas could occur. To date there has been no hardrock prospecting permit activity in the RNA.

Table 7. Mineral resource ownership within No-name Lake RNA (CNNF data 2005)

Township-Range	Section	Acres*	Hectares	Mineral ownership	Comments
40N 4W	1	10	4	Reserved	Balance is Federally owned
		40	16	Outstanding	
	12	12	5	Outstanding	Balance is Federally owned
40N 3W	6	all	all	Federally owned	
	7	all	all	Federally owned	

Definitions:

Outstanding: Third party (mineral rights were not owned by the surface land owner when the land was sold to the National Forest) mineral ownership rights are described in deed and State Law. Forest Service must allow access to the surface to the mineral owner.

Reserved: The surface land owner owned the mineral rights and retained those mineral rights when they sold the surface land to the National Forest. These mineral rights are subject to Secretary of Agriculture's Rules & Regulations and State laws based on date of land purchase. Forest Service must allow access to the surface to the mineral owner.

Federally owned: Mineral estate is administered by Bureau of Land Management and is open for prospecting.

All: Means the total acreage within the RNA boundary in that section.

Balance: Means the remaining acreage minus the listed acres within the RNA boundary in that section.

***Acres:** This represents only a rough estimate of the number of acres within the proposed RNA boundary. Mineral ownership acreage is estimated because RNA boundaries are meander lines and mineral ownership is a legal description.

(2) GRAZING

There is no grazing on the Chequamegon-Nicolet National Forest. The 2004 CNNF Forest Plan includes a standard that prohibits grazing in Research Natural Areas (Appendix 3 -*Forest Management Area Direction*).

(3) PLANTS (INCLUDING TIMBER AND SPECIAL FOREST PRODUCTS)

There are no outstanding timber rights on any of the tracts in the RNA, nor are there any special use permits outstanding. The RNA contains 239 acres (97 ha) of upland forest types that are typically managed elsewhere on the CNNF (Figure 5; Table 3). Due to regeneration concerns however, eastern hemlock is currently not targeted for harvest. The CNNF also does not currently manage lowland mixed swamp conifer [52 acres (21 ha)].

The 2004 CNNF Forest Plan includes a guideline that prohibits gathering Special Forest Products for personal use or commercial sale within RNAs (USDA Forest Service 2004a pg 3-50). When the CNNF issues a permit to gather products such as club moss or firewood, the permittee is provided with a map of areas, including RNAs, which are off-limits to harvesting. The CNNF supplement to the Forest Handbook (FSH2409.18) states that “gathering small amounts of fruit, nuts, berries, and fungi (mushrooms) for personal use is allowed” in RNAs.

This new RNA has not as yet been designated as an Ojibwe Tribal RNA (Tribal-USDA MOU) which may limit tribal gathering. The CNNF is continuing to work with the Tribes to protect these unique features but still provide for the exercise of treaty-reserved hunting and gathering rights throughout the national forest (See Section d.(2) - *Cultural/Heritage*).

(4) WATERSHED VALUES

The wetland communities store a tremendous amount of water. The bog and lowland species present within No-name Lake RNA are adapted to the saturated soils. These areas are sensitive to trampling and the RNA protects them from excessive disturbances as well as preventing sedimentation that could occur with logging on the steep slopes around the lake. The RNA also helps protect the headwaters of the Brunet River, a Class I-A brook trout stream (WI DNR 2013).

(5) RECREATION USE

Non-motorized use of the area such as hunting and hiking is compatible with RNA status and no conflict is anticipated. Currently, an all-terrain vehicle trail cuts through the uplands on the eastern side (Identification Section - *Location Map*). The trail should be monitored for invasive exotics, soil erosion, and illegal off-trail motorized use (see Disturbance History, section D(3) for additional details). If it is found to be incompatible with RNA designation, the trail will be re-routed.

(6) WILDLIFE

RNA designation will positively benefit both plants and wildlife and uncommon species such as lance-leaved grapefern (*Botrychium lanceolatum v. angustisegmentum*). The area is starting to develop old growth characteristics that are valuable to numerous wildlife and plant species. Large course woody debris (Figure 3) shelter salamanders and are used as runways for squirrels in evading predators. Large standing dead trees provide nesting sites for saw-whet owls and pileated woodpeckers both observed within the RNA. No bat surveys have been done but the area likely supports tree bats due to the presence of large trees for roosting and a water source (Heeringa pers comm).



Figure 7. Prop-rooted yellow birch and down logs are features within No-name Lake RNA that are beneficial to wildlife. (Photo: M. Brzeskiewicz 1995)

(7) TRANSPORTATION/ROAD SYSTEM

There are no CNNF system roads within or adjacent to the RNA although there is an all-terrain vehicle trail (see section 5- *Recreation*). The current rule guiding motorized access on the National Forest is contained in the Travel Management Project Decision Notice and Motorized Vehicle Use Map for 2012 (USDA Forest Service 2012). This map shows roads available for motorized use. Native-surface roads within the RNA left over from past management needs will be treated if necessary to restore hydrologic, geomorphic, and ecological processes and properties.

d. HISTORICAL INFORMATION

(1) RESEARCH/EDUCATION USE AND INTEREST: HISTORY OF ESTABLISHMENT

History of establishment:

The CNNF began a forest-wide ecological inventory to identify high quality ecological features in the early 1990s (Parker 1999). No-name Lake was one of the highest ranking sites based on its ecological values. It was assigned a high conservation priority and deferred from management activity. About the same time, the Eastern Region and Northern Research Station undertook a gap analysis of high-quality examples of alliances (ecological communities) within each subsection (Tyrrell et al 2000). This site filled a cell in that gap analysis.

The Natural Heritage Inventory Section of the Bureau of Endangered Resources (Wisconsin DNR) worked closely with Forest ecologists in evaluating this site, making numerous field visits and assisting with ecological inventory and evaluation. They completed a *Site Evaluation* and recommended No-name Lake for protection.

The Wisconsin Department of Natural Resources is also interested in achieving ecosystem representation within the State Natural Area Network (WI DNR 2011). They signed a Memorandum of Understanding (MOU) in 2008 with the CNNF to co-designate all current and future RNAs and CNNF Special Management Areas (SMAs) as State Natural Areas. This designation does not restrict the goals of research and education for the site.

No-name Lake was identified as a Candidate RNA in the Draft Forest Plan and analyzed in the Environmental Impact Statement. It was recommended for designation as a Research Natural Area in the Land and Resource Management Plan Record of Decision (USDA Forest Service 2004c).

A 2008 region-wide analysis was conducted in conjunction with the Northern Research Station to evaluate all candidate RNAs in the Eastern Region. Based on this analysis, the Eastern Regional Office recommended No-name Lake RNA for establishment.

(2) CULTURAL/HERITAGE

USDA Forest Service cultural resource information indicates there are no known cultural sites recorded in No-name Lake (USDA Forest Service 2003b).

While other Indian tribes currently live in Wisconsin, Ojibwe tribes specifically retained the right to hunt, fish, and gather on lands that make up the CNNF through a series of session treaties. The Forest Service (and Eastern Region, Northern Research Station and USFS Law Enforcement) recognizes treaty rights through a "Memorandum of Understanding" with eleven sovereign and federally recognized tribes of Ojibwe Indians (Tribal-USDA MOU). Today, these treaty rights are being exercised by Ojibwe Indian tribes under rules promulgated and enforced by the tribes. One of these rules recognizes twelve existing RNAs on the CNNF as "Tribal Research Natural Areas" because it is important to protect the unique features that these areas provide. The rule prohibits gathering in Tribal RNAs except for tribally-permitted ceremonial use.

At the time of establishment No-name Lake RNA has not been adopted as an Ojibwe Tribal RNA which would require that tribal members follow the gathering regulation in the MOU. The CNNF is continuing to work with the Ojibwe Tribes to protect these unique features and to provide for the exercise of treaty-reserved rights. Upon establishment, the Tribes will have an opportunity to also designate it as a Tribal RNA (Tribal-USDA MOU). The 2004 CNNF Forest Plan includes an objective (USDA Forest Service 2004c p. 1-7) that "nothing in this Forest Plan or its implementation (i.e. establishing the RNA) is intended to modify, abrogate, or otherwise adversely affect tribal reserved or treaty guaranteed rights applicable within the CNNF".

(3) DISTURBANCE HISTORY

Following the extensive clear-cutting of the late 1800s, the land containing the RNA became National Forest in the 1930s with little to no cutting for decades. Long-lived conifers in this site are prevalent but in some places have been reduced to scattered individuals and small inclusions in upland hardwood stands due to thinning harvests in the 1960s to 1980s (detailed stand records can be obtained from the CNNF Silviculturist or RNA coordinator). Balsam fir occurs in some areas formally occupied by hemlock. There are eight to ten constructed wildlife openings created in the 1980s (Figure 5 code 98 and 99) that were kept open by mowing. They were longer being maintained as of 1990 and should succeed to forest. Illegal use of all-terrain vehicles occurs in several places. There are several unauthorized corridors remaining within the RNA from past

management activity. Forest plan guidelines state to restore decommissioned roads to some level of landscape restoration. See section f. (1) for a discussion of management needs.

(4) OCCURRENCE OF EXOTIC SPECIES

The CNNF has developed an invasive plant strategy (USDA Forest Service 2009) that utilizes adaptive pest management to discover, prioritize, and control non-native invasive plants wherever they occur. There are no high priority invasive species within the RNA as of 2012. If any are found, invasive plants will be controlled with methods that avoid damage to native plants.

e. OTHER INFORMATION

(1) ANY PERMANENT RESEARCH PLOTS AND/OR PHOTO POINTS

There is a permanent vegetation monitoring plot placed in 1990 that also has photo points. Beginning in 1990, the Chequamegon-Nicolet National Forest established an extensive set of long-term monitoring plots on the Chequamegon side of the forest. The intent was to provide baseline data and a means by which managed forests could be rigorously compared to unmanaged forests for forest health and biodiversity indicators (Vora 1997). This RNA includes one of the control (unmanaged) plots in this monitoring network.

Dr. James Cook (University of Wisconsin Stevens Point) and several graduate students began a study in 2011 to look at change within the *Chequamegon National Forest* vegetation monitoring network and comparisons of managed and unmanaged forests using the monitoring plots mentioned above (Cook in progress).

The Station Director shall establish and maintain a system for archiving data and reports from the RNA in a manner that will facilitate the exchange and transfer of information among Stations and scientists. Research data files are maintained by the following office: Chequamegon-Nicolet National Forest, 1170 Fourth Avenue South, Park Falls WI 54552.

Plant collections will be housed at a herbarium located at the University of Wisconsin-Madison Herbarium or a place approved by the Station Director. All animal specimens collected in the course of research will be properly preserved and maintained within the Chequamegon-Nicolet National Forest Supervisor's office or designated university.



Figure 8. Not many people experience this tranquil view of the lake in No-name Lake RNA as one has to travel on foot to reach it. (Photo: L. Parker 2000)

(2) BIBLIOGRAPHY

A listing of citations used in this document, useful references, reports, and journal articles that resulted from study within this RNA are listed in Appendix 2 – *Bibliography*.

(3) POTENTIAL RESEARCH TOPICS

No-name Lake RNA needs basic inventory for many taxa. Potential research topics include successional changes, habitat characteristics along the gradient from upland to wetland, long-term forest dynamics, bat population, acid bog lake ecology, and amphibians of the ponds and lake.

The Northern Research Station along with the Chequamegon-Nicolet National Forest shall encourage the use of this RNA by scientists and educators. This site has been co-designated by the State of Wisconsin as a State Natural Area and as such appears on their web site (WI DNR 2011).

f. EVALUATION OF SPECIFIC MANAGEMENT RECOMMENDATIONS ON THE RESEARCH
NATURAL AREA

(1) POTENTIAL OR EXISTING CONFLICTS; PRINCIPAL MANAGEMENT ISSUES

A site-specific management plan for the RNA, when developed, will follow the Forest Plan standards and guidelines and help direct resolution of conflicts within and adjacent to the RNA. The eastern boundary of the RNA is Management Area 8G-*Old Growth and Special Features Complexes* and is compatible with RNA designation. Here no timber harvest occurs unless it is needed to maintain specific goals for the site. The balance of the boundary is Management Area 2B *Northern Hardwood: Interior Forest* with a restoration emphasis: alternative management area, larger diameter trees, and longer rotations. This management is also compatible.

The all-terrain vehicle trail cutting through the eastern quarter of the RNA will have to be monitored closely for illegal off-trail use and non-native invasive plants. It will be re-routed off the RNA if resource degradation occurs. Some off-trail use has occurred in the past. The trail itself is widened in places by ATV use and has some areas with poor drainage that may have to be corrected.

Other old logging road corridors within the site will be monitored for illegal motorized use and will be treated if necessary to restore hydrologic, geomorphic, and ecological processes and properties.

(2) SPECIAL MANAGEMENT AREA IF THE RESEARCH NATURAL AREA IS WITHIN ONE

The No-name Lake RNA does not include any lands designated in any special management category.

g. PHOTOGRAPHS

All photographs used in this Establishment Record are the property of the Chequamegon-Nicolet National Forest but not copyrighted. Some original slides from circa 1995 are with the site file housed in the Park Falls office of the Forest. An electronic file is part of this establishment record.

APPENDIX 2 BIBLIOGRAPHY

Below is all literature cited in this establishment record, references useful for researchers, and journal articles or publications that have resulted from study conducted on the site.

BIBLIOGRAPHIC REFERENCES:

American Ornithological Union. 1983. Check-list of North American birds, 6th edition.

BCPL: Board of Commissioners of Public Lands. 2004. Wisconsin Public Land Survey Records: Original Field Notes. <http://bcpl.state.wi.us/asx/> Accessed October 12, 2004.

Brzeskiewicz, M. 1995. Undated Preliminary Evaluation Report for No-name Lake. On file in Park Falls Headquarters.

Cleland, D.T.; Freeouf, J.A.; Keys, J.E., Jr.; Nowacki, G.J.; Carpenter, C; McNab, W.H. 2007. Ecological Subregions: Sections and Subsections of the Conterminous United States [1:3,500,000] [CD-ROM]. Sloan, A.M., cartog. Gen. Tech. Report WO-76. Washington, DC: U.S. Department of Agriculture, Forest Service. Available online; http://fsgeodata.fs.fed.us/other_resources/ecosubregions.html

Curtis, J. T. 1959. Vegetation of Wisconsin. University of Wisconsin Press, Madison WI.

Heeringa, B. 2013. Brian Heeringa, CNNF Wildlife Technician and local bat expert, Washburn Ranger District. Personal communication with Marjory Brzeskiewicz.

Hoffman, R. 1999. Unpublished Project Report on No-name Lake. On file in Park Falls Headquarters.

Kent, P. G. and T. A. Dudiak. 2001. Wisconsin Water Law, A guide to water rights and regulations. University of Wisconsin-Extension. Copyright 2001 by the Board of Regents of the University of Wisconsin System.

Knight, G; Krause, J. 1996. Chequamegon-Nicolet National Forest Biological Survey Project Evaluation: No-name Lake. Unpublished report on file in Park Falls Headquarters.

Knight, G. 2013. Chequamegon-Nicolet Forest Soil Scientist. Personal communication with Marjory Brzeskiewicz

Kotar, J., J. Kovach, T. Burger. 2002. A Guide to Forest Communities and Habitats of Northern Wisconsin (2nd edition). Madison: University of Wisconsin, Department of Forest Ecology and Management.

Midwestern Regional Climate Center. 2003. Historical Climate Data. Climate of the Midwest. http://mcc.sws.uiuc.edu/prod_serv/prodserv.htm Accessed 2005.

NGDC. National Geographic Data Committee. 2012. National Vegetation Classification Standard (NVCS). Available online: <http://usnvc.org/explore-classification/> Accessed 2012.

Parker, Linda. 1999. Landscape analysis and design on the Chequamegon-Nicolet national forest. Unpublished Forest Service draft report on file in Park Falls office.

Spickerman, Steven. 2013. Plant Ecologist, CNNF, Great Divide Ranger District. Personal Communication with Marjory Brzeskiewicz.

Tribal-USDA MOU. 2012 Memorandum of Understanding Regarding Tribal - USDA Forest Service Relations on National Forest Lands Within the Territories Ceded in Treaties of 1836, 1837, and 1842. Amended March 2012. Available online: http://www.fs.fed.us/spf/tribalrelations/documents/agreements/mou_amd2012wAppendixes.pdf and MOU Appendix A 1998 (amended from time to time): Off-reservation Gathering code, Tribal Wildernesses, Tribal Research Natural Areas, and Tribal Vehicle Permit Areas on National Forests.: http://www.baymills.org/resources/glifwic_wilderness_permits.pdf

Tyrrell, Lucy E., Faber-Langendoen, Don, and Snow, Kristin. 2000. Establishing a region-wide network of representative research natural areas (RNAs): an assessment for the eastern region's RNA framework. Unpublished Forest Service draft report on file in Park Falls office.

USDA Forest Service. 2003a. Chequamegon-Nicolet National Forest Soils (ELTP) Inventory Reports. On file in Park Falls Headquarters.

USDA Forest Service. 2003b. Chequamegon-Nicolet National Forest Heritage Site Points Shapefiles cd and database.

USDA Forest Service. 2004a. Chequamegon-Nicolet National Forests Land and Resource Management Plan. <http://www.fs.usda.gov/main/cnnf/landmanagement/planning>

USDA Forest Service. 2004b. Final Environmental Impact Statement to accompany the 2004 Land and Resource Management Plan. Available online at: <http://www.fs.usda.gov/main/cnnf/landmanagement/planning>

USDA Forest Service. 2004c. Record of Decision, 2004 Land and Resource Management Plan. <http://www.fs.usda.gov/main/cnnf/landmanagement/planning> (select ROD at this website)

USDA Forest Service. 2009. Chequamegon-Nicolet National Forest Invasive Plant Strategy and Desk Reference, unpublished. Available from CNNF Invasive Plant Program coordinator, Park Falls, WI.

USDA Forest Service. 2012. Motor Vehicle Use Map (MVUM) Decision Notice and Finding of No Significant Impact. Available online: <http://www.fs.usda.gov/detail/cnnf>

USDA NRCS. 2004. US Department of Agriculture, Natural Resource Conservation Service, Official Soil Series Descriptions. <http://soils.usda.gov/soils/technical/classification/osd/index.html> Accessed November 23, 2004

USDA, NRCS. 2012. The PLANTS Database (<http://plants.usda.gov>, 11 May 2012). National Plant Data Team, Greensboro, NC 27401-4901 USA.

Watermolen, D.J.; M.D. Murrell. 2001. Checklists of Wisconsin Vertebrates (out of print). Wisconsin Department of Natural Resources. Now available online: <http://dnr.wi.gov/files/PDF/pubs/ss/ss0954.pdf>

WGNHS: Wisconsin Geological and Natural History Survey. 2011. Wisconsin's Glacial Landscapes. An online publication updated December, 12, 2011. Accessed 1/13/2012: http://wisconsingeologicalsurvey.org/ice_age.htm

WI DNR. 2003. Wisconsin Department of Natural Resources, Ecological Landscapes of Wisconsin. CD compilation and Handbook, Madison, WI.

WI DNR. 2010. Wisconsin Department of Natural Resources, NR-40 Invasive Species Rule, Sept. 29, 2010. Available from the DNR website at: <http://dnr.wi.gov> Link to NR-40 list: <http://dnr.wi.gov/topic/Invasives/documents/NR40ListsSep292010.pdf>

WI DNR. 2011. State Natural Areas Program. Available online: <http://dnr.wi.gov/topic/Lands/naturalareas/>

WI DNR 2012. Natural Heritage Inventory, Wisconsin Department of Natural Resources Bureau of Endangered Resources. Online: <http://dnr.wi.gov/topic/nhi/>

WI DNR 2013. Wisconsin Watersheds and Basins Website. <http://dnr.wi.gov/topic/watersheds/> Accessed on January 13, 2013.

PUBLICATIONS FROM STUDIES ON RNA:

Cook, James. Study on: *Change associated with the CNNF vegetation monitoring network, and comparisons of managed and unmanaged forests*. no publication as of 2013. Preliminary data available from CNNF RNA coordinator at Park Falls Office.

Vora, R. S. 1997. Developing programs to monitor ecosystem health and effectiveness of management practices on Lakes States National Forests, USA. *Biol. Conserv.* 80:289-302

APPENDIX 3 FOREST MANAGEMENT AREA DIRECTION

The management prescription for the No-name Lake RNA is embodied in the management area (MA) direction and guidance presented in the Chequamegon-Nicolet National Forests 2004 Land and Resource Management Plan under Management Area 8E - Existing and Candidate Research Natural Areas (USDA Forest Service 2004b pg 3-50). A copy of that management prescription follows:

MA 8E Existing and Candidate Research Natural Areas (RNA)

Theme

In this document, the term RNA will refer to both Existing and Candidate Research Natural Areas. MA 8E is characterized by ecologically significant natural features, representative ecosystems, and/or unique areas managed as Candidate or Existing Research Natural Areas. A broad representation of Forest community types is included in this MA. In combination with other RNAs in the nation, they form a national network of ecological areas for research, monitoring, education, and maintenance of biological diversity.

Landscape Description

MA 8E is characterized by nearly level to steep topography with slope gradients ranging from 0 to 30%. Glacial landforms include drumlin ground moraine, collapsed and uncollapsed outwash plains, washed moraines and eskers. The soils range from sandy to silty in the surface over loamy to sandy sediments. Soil moisture regimes range from dry to mesic and nutrient status ranges from poor to rich. A broad array of Forest Habitat Types and LTAs are represented in this MA.

Desired Future Condition

Landscape Composition and Structure

RNAs are chosen as high quality representatives of ecological communities found on the Forest. In general, they exhibit minimal evidence of past human disturbance, and contain all or most species characteristic of that community in the region. They may range in size from less than 100 acres to thousands of acres. They are generally well buffered from incompatible activities on nearby lands. RNAs are meant to include a representation of ecological types and vegetative cover across the Forest. However, composition results primarily from natural ecological processes rather than human-caused activities. As a result, late-successional upland types such as northern hardwoods, northern hardwood/hemlock, and mixed-conifers dominate the MA. A variety of wetland types may be present, from small isolated ponds and bogs to large (over 1000 acre) wetland complexes.

Site-Level Composition and Structure

Compositional diversity typically reflects late successional mature conditions. Dominant upland tree species are sugar maple, hemlock, yellow birch, basswood, and American beech. Lowland areas support tree species such as black spruce, northern-white cedar, and tamarack. Shade-intolerant species such as aspen, white birch, and jack pine are uncommon, limited to areas affected by natural disturbance such as windfall. Ground flora reflects the full diversity of native upland and lowland communities, and is generally unaffected by invading exotics. Structural diversity is complex, with features such as super-canopy trees, snags, den trees, downed woody debris, and canopy gaps commonly found.

Disturbance Regime

Natural ecological processes and natural disturbances shape the landscape-level and site-level vegetation composition. Components of the natural disturbance regime include individual tree throw and infrequent larger scale blowdown, infrequent low-intensity fire, insect damage, and beaver flooding. Timber harvesting does not occur.

Standards and Guidelines

Minerals

Standard:

- Prohibit the development of new sources of common variety minerals.

Guidelines:

- Surface disturbing mineral activities will be approved or disapproved on a case-by-case basis where minerals are federally owned. Whenever possible surface disturbance will be limited.
- When surface disturbing mineral exploration and development of reserved and outstanding mineral rights is proposed, consider reasonable alternatives that minimize impacts to RNA values.
- Acquisition of reserved and outstanding mineral rights will be considered on a willing seller / willing buyer basis.
- Existing common variety minerals developments may be utilized. Consider RNA values if full utilization requires vegetation disturbance.

Biological Diversity

Guideline:

- Use native plant species for restoration activities. Use non-native plant species only if they are needed to prevent irreversible resource damage.

Vegetation

Standard:

- Prohibit domestic livestock grazing.

Guidelines:

- Vegetation management is not permitted unless the desired vegetation type would be lost or degraded without treatment. Management practices will approximate the vegetation and processes that govern natural succession.
- Hazard trees may be cut but not removed.

Special Forest Products

Guideline:

- Prohibit the gathering of special forest products for personal use or commercial sale.

Wildlife and Fish

Guideline:

- Wildlife and fish habitat manipulation will not be permitted unless it's consistent with RNA objectives and is needed to maintain the character or purpose of the area.

Fire Management

Guidelines:

- Allow prescribed fire within a prescription designed to accomplish specific RNA objectives where it is part of the natural disturbance regime, where it is needed to maintain or restore ecosystems, and where it is called for in the establishment record.
- Minimize the disturbance of soil and water resources by designing fire suppression activities to fit each individual situation.

Insects and Disease

Guideline:

- Minimize the disturbance of soil and water resources. Minimize control actions against native insects and diseases, and native plant and animal pests. Allow limited control actions to protect adjacent resources or the features for which the research natural area was established.

Recreation

Standard:

- Prohibit recreational use that threatens or interferes with the objectives or purposes for which the RNA was established.

Guidelines:

- Do not install signs or construct trails or other improvements unless they contribute to RNA objectives or area protection.
- Prohibit the use of horses, bicycles, and motorized vehicles on RNA trails.

Heritage Resources

Guideline:

- Protect significant heritage resources by dispersing or limiting public use of RNAs.

Lands

Guideline:

- Clearly identify RNA boundaries, monument corners, and turning points.

Special Uses

Standard:

- Prohibit the establishment of new facilities and corridors for utility rights-of-way.

Guideline:

- Do not issue special use permits except as mandated by law or agreement. Exceptions may be made for research or educational activities. Phase out existing special use permits when feasible.

Facilities

Guideline:

- Do not construct buildings unless they are needed to meet RNA objectives. Existing structures may be maintained.

Transportation Systems

Guidelines:

- Do not construct new roads.
- Restore all decommissioned roads to some level of landscape restoration.

Research

Standard:

- Permit educational and research use as long as it will not result in unacceptable impacts to RNA values.

APPENDIX 4 WISCONSIN NATURAL HERITAGE WORKING LIST – RANK DEFINITIONS

The Wisconsin NHI Working List records which elements are tracked in the state. The working list is revised as species' populations change (increase or decrease) and as knowledge about their status and distribution in Wisconsin increase. The Working List was revised in 2012. Definitions of ranks are provided below, along with definitions for other abbreviations used in the Working List.

US Status: Current federal protection status designated by the Office of Endangered Species, U.S. Fish and Wildlife Service indicating the biological status of a species in Wisconsin. LE = listed endangered; LT = listed threatened; PE = proposed as endangered; NEP = nonessential experimental population; C = candidate for future listing; CH = critical habitat

State Status: Protection category designated by the Wisconsin DNR. END = Endangered; THR = Threatened; SC = Special Concern.

WDNR and federal regulations regarding Special Concern species range from full protection to no protection. The current categories and their respective level of protection are as follows: SC/P = fully protected; SC/N = no laws regulating use, possession, or harvesting; SC/H = take regulated by establishment of open closed seasons; SC/FL = federally protected as endangered or threatened, but not so designated by WDNR; SC/M = fully protected by federal and state laws under the Migratory Bird Act.

Special Concern species are those species about which some problem of abundance or distribution is suspected but not yet proved. The main purpose of this category is to focus attention on certain species before they become threatened or endangered.

Global Element Ranks

G1 = Critically imperiled globally because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extinction.

G2 = Imperiled globally because of rarity (6 to 20 occurrences or few remaining individuals or acres) or because of some factor(s) making it very vulnerable to extinction throughout its range.

G3 = Either very rare and local throughout its range or found locally (even abundantly at some of its locations) in a restricted range (e.g., a single state or physiographic region), or because of other factor(s) making it vulnerable to extinction throughout its range; typically 21-100 occurrences.

G4 = Uncommon but not rare, (although it may be quite rare in parts of its range, especially at the periphery) and usually widespread. Typically >100 occurrences.

G5 = Common, widespread, and abundant (although it may be quite rare in parts of its range, especially at the periphery). Not vulnerable in most of its range.

GH = Known only from historical occurrence throughout its range, with the expectation that it may be rediscovered.

GNR = Not ranked. Replaced G? rank and some GU ranks

GU = Currently unrankable due to lack of data or substantially conflicting data on status or trends. Possibly in peril range-wide, but status is uncertain.

GX = Presumed to be extinct throughout its range (e.g. Passenger pigeon) with virtually no likelihood that it will be rediscovered.

Species with a questionable taxonomic assignment are given a "Q" after the global rank.

Subspecies and varieties are given subranks composed of the letter "T" plus a number or letter. The definition of the second character of the subrank parallels that of the full global rank. (Examples: a rare subspecies of a rare species is ranked G1T1; a rare subspecies of a common species is ranked G5T1.)

State Element Ranks

S1 = Critically imperiled in Wisconsin because of extreme rarity, typically 5 or fewer occurrences and/or very few (<1000) remaining individuals or acres, or due to some factor(s) making it especially vulnerable to extirpation from the state.

S2 = Imperiled in Wisconsin because of rarity, typically 6 to 20 occurrences and/or few (1000-3000) remaining individuals or acres, or due to some factor(s) making it very vulnerable to extirpation from the state.

S3 = Rare or uncommon in Wisconsin, typically 21-100 occurrences and/or 3000-10,000 individuals.

S4 = Apparently secure in Wisconsin, usually with >100 occurrences and >10,000 individuals.

S5 = Demonstrably secure in Wisconsin and essentially ineradicable under present conditions.

SNA = Accidental, non-native, reported, but unconfirmed, or falsely reported.

SH = Of historical occurrence in Wisconsin, perhaps having not been verified in the past 20 years, and suspected to be still extant. Naturally, an element would become SH without such a 20-year delay if the only known occurrence were destroyed or if it had been extensively and unsuccessfully looked for.

SNR = Not Ranked, a state rank has not yet been assessed.

SU = Currently unrankable. Possibly in peril in the state, but status is uncertain due to lack of information or substantially conflicting data on status or trends.

SX = Apparently extirpated from the state.

State Ranking of Long-Distance Migrant Animals

Ranking long distance aerial migrant animals presents special problems relating to the fact that their non-breeding status (rank) may be quite different from their breeding status, if any, in Wisconsin. In other words, the conservation needs of these taxa may vary between seasons. In order to present a less ambiguous picture of a migrant's status, it is necessary to specify whether the rank refers to the breeding (B) or non-breeding (N) status of the taxon in question. (e.g. S2B,S5N).

(http://dnr.wi.gov/org/land/er/wlist/06_2011_Working_List.pdf Last Revised: May 31, 2012)

APPENDIX 5 CONTRIBUTORS

USDA Forest Service, Chequamegon-Nicolet National Forest

Linda Parker, Forest Ecologist, Forest RNA Coordinator, Supervisor's Office, Park Falls
Steven G. Spickerman, Plant Ecologist, Great Divide District, Glidden Office
Deborah Veen, GIS Specialist, Supervisor's Office, Rhinelander
Greg Knight, Forest Soil Scientist, Supervisor's Office, Rhinelander
Kim Potaracke, Assistant Forest Archeologist, Supervisor's Office
Randy Erickson, Land Surveyor, Supervisor's Office, Park Falls
David Campbell, Engineer - roads, Supervisor's Office, Park Falls
Mark Theisen, Forest Silviculturist (ret), Supervisor's Office, Rhinelander
Mary Lucas, Fire and Fuels Planner, Supervisor's Office, Rhinelander

Other Agencies, Groups, and Individuals Consulted:

Sue M. Lietz, Forester, USFS Northern Research Station, Rhinelander WI
Craig Anderson, NHI Program Botanist, WI Department of Natural Resources, Madison WI
Eric Epstein, NHI Program Community Ecologist, WI Department of Natural Resources, Madison
Randy Hoffman, Conservation Biologist, WI Department of Natural Resources, Madison WI
Thomas Meyer, Conservation Biologist, WI Department of Natural Resources, Madison WI
Eunice Padley, Forest Ecologist, WI Department of Natural Resources, Madison WI
Bill Smith, NHI Program Zoologist, WI Department of Natural Resources, Madison WI

Eastern Region RNA Review Committee 2012:

Sue Lietz, Forester, Northern Research Station
Linda Parker, Ecologist, Chequamegon-Nicolet National Forest
Greg Nowacki, Regional Ecologist, Forest Service Eastern Region
Diane Burbank, Green Mountain/Finger Lakes NF
Christel Kern, Research Forester, Northern Research Station
Jennifer Pontius, Research Assistant Professor, University of Vermont Rubenstein School of Environment and Natural Resources and Research Ecologist, USDA Forest Service Northern Research Station