

United States
Department of
Agriculture

Forest
Service

Washington
Office

14th & Independence SW
P.O. Box 96090
Washington, DC 20090-6090

Reply To: 4060-3

Date: July 12, 1991

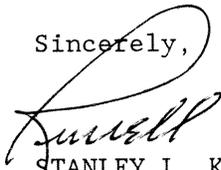
Stony Point

Ronald D. Lindmark
Station Director
North Central Forest
Experiment Station
1992 Folwell Avenue
Saint Paul, Minnesota 55108

Dear Dr. Lindmark:

Attached is the approved signed Decision Notice/Designation Order and
Establishment Record for The Stony Point RNA within Chippewa National Forest,
Itasca County, Minnesota.

Sincerely,



STANLEY L. KRUGMAN
Forest Management Research

Copy sent to Lew Ahmann 8/1/91

*DEL
7/24/91*

DECISION NOTICE/DESIGNATION ORDER

Decision Notice
Finding of No Significant Impact
Designation Order

By virtue of the authority vested in me by the Secretary of Agriculture under regulations at 7 CFR 2.42, 36 CFR 251.23, and 36 CFR Part 219, I hereby establish the Stony Point Research Natural Area. It shall be comprised of lands described in the section of the Establishment Record entitled "Location."

The Regional Forester has recommended the establishment of this Research Natural Area in the Record of Decision for the Chippewa National Forest Land and Resource Management Plan. That recommendation was the result of an analysis of the factors listed in 36 CFR 219.25 and Forest Service Manual 4063.41. Results of the Regional Forester's analysis are documented in the Chippewa National Forest Land and Resource Management Plan and Final Environmental Impact Statement which are available to the public.

The Stony Point Research Natural Area will be managed in compliance with all relevant laws, regulations, and Forest Service Manual direction regarding Research Natural Areas. It will be administered in accordance with the management direction/prescription identified in the Establishment Record.

I have reviewed the Chippewa National Forest Land and Resource Management Plan (LRMP) direction for this RNA and find that the management direction cited in the previous paragraph is consistent with the LRMP and that a Plan amendment is not required.

The Forest Supervisor of the Chippewa National Forest shall notify the public of this decision and mail a copy of the Decision Notice/Designation Order and amended direction to all persons on the Chippewa National Forest Land and Resource Management Plan mailing list.

Based on the Environmental Analysis, I find that designation of the Stony Point Research Natural Area is not a major Federal action significantly affecting the quality of the human environment. (40 CFR 1508.27.)

This decision is subject to appeal pursuant to 36 CFR Part 217. A Notice of Appeal must be in writing and submitted to:

The Secretary of Agriculture
14th & Independence Ave., S.W.
Washington, D.C. 20250

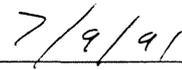
and simultaneously to the Deciding Officer:

Chief (1570)
USDA, Forest Service
P.O. Box 96090
Washington, D.C. 20090-6090

The Notice of Appeal prepared pursuant to 36 CFR 217.9(b) must be submitted within 45 days from the date of legal notice of this decision. Review by the Secretary is wholly discretionary. If the Secretary has not decided within 15 days of receiving the Notice of Appeal to review the Chief's decision, appellants will be notified that the Chief's decision is the final administrative decision of the U.S. Department of Agriculture (36 CFR 217.17(d)).



Chief



Date

PHOTOGRAPHIC RECORD

PHOTOGRAPHER
Dave Shadus

HEADQUARTERS UNIT
Chippewa Nat'l Forest

LOCATION
Cass Lake, MN

DATE SUBMITTED
November 1987

INSTRUCTIONS: Submit to Washington Office in quadruplicate. Permanent numbers will be assigned and the forms will be distributed as follows: (1) Washington Office, (2) RO or Station, (3) Forest or Center and (4) Photographer.

TEMP. NO.	PERMANENT NO. (To be filled in by the FO)	SELECTED FOR W.O. PHOTO LIBRARY	DATE OF EXPOSURE	LOCATION (State and National Forest or County)	DESCRIPTION OF VIEW
(1)	(2)	(3)	(4)	(5)	(6)
1			5/86	T147N, R28 W. NW1/4 Sec 34 Chippewa N.F.	Old growth Black ash-American elm-red maple SAF cover type showing characteristic open understory and richness of ground flora.
2			5/86	T147N, R28 W. Sec 34	Low, wet areas dominated by Black Ash.
3			5/86	T147N, R28 W. Sec 34	Cutleaved toothwort (<i>Dentaria laciniata</i>), a southerly ranging spring ephemeral abundant at the site.
4			5/86	T147N, R28 W. NE1/4 Sec 3.	Lake Winnibigoshish beach ridges.
5			5/86	T147N, R28W NE1/4 Sec 3	Marsh between series of multiple beach ridges.



Photograph 1. Old growth Black ash-American elm-Red maple SAF cover type showing characteristic open understory and richness of ground flora.



Photograph 2. Low, wet areas dominated by Black Ash.



Photograph 3. Cutleaved toothwort (Dentaria laciniata), a southerly ranging spring ephemeral abundant at the site.



Photograph 4. Lake Winnibigoshish beach ridges.



Photograph 5. Marsh between series of multiple beach ridges.

SIGNATURE PAGE

for

RESEARCH NATURAL AREA ESTABLISHMENT RECORD

Stony Point Research Natural Area

Chippewa National Forest, Blackduck Ranger District

Itasca County, Minnesota

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 5.e(3) in arriving at this recommendation.

Prepared by Keith M. Wendt Date 7/26/90
Keith M. Wendt, Plant Ecologist
Minnesota Natural Heritage Program

and by David A. Shadis Date 7/24/90
David A. Shadis, Soil Scientist, Chippewa National Forest

and by Nancy Sather Date 7/26/90
Nancy Sather, Botanist, Minnesota Natural Heritage Program

Recommended by Robert Paddock Date 8/6/90
Robert Paddock, District Ranger, Blackduck District

Recommended by William F. Spinner Date 8/29/90
William F. Spinner, Forest Supervisor
Chippewa National Forest

Recommended by Floyd J. Marita Date 9/6/90
Floyd J. Marita, Regional Forester, Eastern Region

Recommended by John D. Roboy Date 11/15/90
for Ronald D. Lindmark, Station Director
North Central Forest Experiment Station

Establishment Record for the
STONY POINT RESEARCH NATURAL AREA

Chippewa National Forest
Blackduck Ranger District

Itasca County, Minnesota

INTRODUCTION

The Stony Point Natural Area is located entirely within the Chippewa National Forest. The site is bounded by Lake Winnibigoshish on the south. The Research Natural Area (RNA) boundaries encompass approximately 404 acres (163.5ha.) of National Forest System lands (see Figures 1 and 2). The Stony Point Natural Area represents an undisturbed, old-growth stand of Black Ash-American Elm-Red Maple, Society of American Foresters cover type 39 (Eyre, 1980).

The significance of the Black Ash-American Elm-Red Maple stand (i.e. northern hardwoods on a wet-mesic site) at Stony Point was brought to the attention of the Minnesota Natural Heritage Program (NHP) in November, 1984, by Jack Mooty, a Department of Natural Resources nongame biologist. In 1985, NHP staff surveyed the site and collected vegetation data. In 1986 the Chippewa National Forest RNA evaluation committee recommended the Stony Point Natural Area for RNA status.

In addition to the exemplary stand of northern hardwood forest located at the extreme western edge of its range, the site contains an unusual abundance and richness of spring ephemerals and spring blooming herbs that rarely occur this far north and west. The site also contains a series of beaches along the Lake Winnibigoshish shoreline of geologic interest.

Approved regional guides and the Chippewa National Forest Plan and Environmental Impact Statement (1986) included the proposed Stony Point Research Natural Area. The environmental analysis conducted as part of the planning process supports the recommendation to establish the Research Natural Area whose primary use shall be for development and maintenance of the late successional northern hardwoods community located on the point.

OBJECTIVES

The primary objective for establishing the Stony Point RNA is to protect an intact example of the Black Ash-American Elm-Red Maple (SAF Type 39) forest type found at the extreme western edge of its range. Establishment of the proposed RNA will play a part in meeting the Forest's objective of maintaining natural diversity on national forest land as required by the National Forest Management Act (NFMA) of 1976.

JUSTIFICATION

The prelogging era (1880-1920) northern forest of Minnesota was characterized by a complex mosaic of plant communities. Fires, of varying frequency and intensity, largely created this mosaic and prevented, over large areas, long term development toward "climax" associations such as the northern hardwood types Sugar Maple (SAF Type 27), Sugar Maple-Beech-Yellow Birch (SAF Type 25), Sugar Maple-Basswood (SAF Type 26) and Black Ash-American Elm-Red Maple (SAF Type 39). These northern hardwood types developed and persisted in areas where natural disturbances, particularly fire, were relatively rare. The most conspicuous area occupied by these forest types were a remarkably narrow

belt along the North Shore Highlands of Lake Superior that stretched from Duluth to the Canadian border (Flaccus and Ohmann, 1964). Scattered stands were also found on fire-protected sites inland as far west as Cass Lake. Today, after a century of intensive logging, slash fires, crop clearing, and development, mature and old-growth stands of these northern hardwood forest types are rare and are considered by the Minnesota Natural Heritage Program to be threatened within the state. A survey conducted by the Natural Heritage Program, during the summers of 1982, 1983, and 1984 of old-growth (150 years or older) northern hardwood-conifer forest stands, occurring in the North Shore Highlands, found intact examples of these forest types (SAF Types 25,26,27,39) in only isolated, remnant tracts (Coffin and Engstrom, 1984, unpublished). Partial surveys westward in the Sugar Hills moraine area and in the Chippewa National Forest confirm the rarity of the northern hardwood forest types. Today, only two stands of prelogging era quality northern hardwood types are known for the Chippewa National Forest, these are the proposed Battle Point (SAF Type 26) and Stony Point (SAF Type 39) RNA's. Both these stands are located at the western edge of the range for the northern hardwood forest types in North America.

The National Forest Management Act (NFMA) of 1976 calls for multiple resource land management by requiring the maintenance of natural diversity on national forest lands. The National Forest System Land and Resource Management Planning regulations state that National Forest System management shall:

"...provide for diversity of plant and animal communities and tree species consistent with the overall multiple-use objectives of the planning area."
(219.26)

"...preserve and enhance the diversity of plant and animal communities...so that it is at least as great as that which would be expected in a natural forest..." (219.27(g)).

The concept of natural diversity was used as an organizing principle for forest planning in the U.S. Forest Service document, Proposed Land and Resource Management Plan for the Chippewa National Forest. Intact northern hardwood stands are a rare and important diversity component of the Chippewa National Forest. The establishment of Research Natural Areas (Management Area 8.2) within the Chippewa National Forest can play an integral role in maintenance of the northern hardwood types which complies with the diversity requirement of the NFMA.

Research Natural Areas also serve as baseline areas for measuring long-term ecological changes, and they can help us monitor the effects of resource management techniques and practices on similar lands. These features assist National Forest compliance with the monitoring provisions of the NFMA.

PRINCIPAL DISTINGUISHING FEATURES

The Stony Point Natural Area is a fine example of one of the prelogging era northern hardwood vegetation types. The mesic, nutrient rich site conditions at Stony Point combined with a history of natural fire protection has allowed the development and persistence of a late successional Black Ash-American Elm-Red Maple forest with an extremely rich ground flora. The site is an excellent example of the wet mesic northern hardwoods type (SAF Type 39). Wet-mesic tree species including yellow birch (Betula alleghaniensis)¹, American elm (Ulmus americana), black ash (Fraxinus nigra) and basswood (Tilia americana) are major components of the forest canopy. Sugar maple (Acer saccharum) increases in importance on drier sites.

The abundance and richness of spring ephemerals and spring blooming herbs is unusual for a northern hardwoods stand this far north and west. The following species are near their northwestern range limits at Stony Point: cut leaved toothwort (Dentaria laciniata)², spring beauty (Claytonia virginica), dutchman's breeches (Dicentra cucullaria), wood anemone (Anemone quinquefolia), wild leek (Allium tricoccum), blue cohosh (Caulophyllum thalictroides), and wild ginger (Asarum canadense). The occurrence of Dentaria laciniata at Stony Point is an Itasca County record (Ownbey and Morley, in press),

Two nests of the federally threatened bald eagle (Haliaeetus leucocephalus)³ lie just outside the RNA boundary. (Minnesota Natural Heritage Program, unpublished data.)

LOCATION

Stony Point RNA is located within the Blackduck Ranger District of the Chippewa National Forest in SE Section 28, SW Section 27 and NW Section 34, T147N, R28W at latitude 47°30' and longitude 94°14'. The area can be legally described as follows: The south half of the southeast quarter, the south half of the southwest quarter and the south half of the north half of the southwest quarter of section 27; the south half of the southeast quarter and the south half of the north half of the southeast quarter of section 28; government lot 1, government lot 2 and government lot 3 of section 33 and all section 34,

¹Source used for scientific and common names of trees: Little, E.L. Jr., 1979. Checklist of United States Trees (Native and Naturalized), Agriculture Handbook No. 541, Washington, D.C.; U.S. Department of Agriculture, 375 p.

²Source used for scientific and common names of non-tree plant species come from: Fernald, M.L., 1970. Grays Manual of Botany. Eighth Edition. D. VanNostrand Company, New York, 1632 p.

³Source used for scientific and common names of birds: Peterson, Roger T. 1947. A Field Guide to the Birds. Houghton Mufflin Company. Boston, MA.

all of Township 147 North, Range 28 West of the 5TH Principal Meridian, containing 789.00 acres according to the original Government Land Office survey of 1874, excepting those portions of Sections 28, 33 and 34 as described above, which are below the high water level of Lake Winnibigoshish.

Elevation ranges from approximately 1300 feet (396 m.) at the shore of Lake Winnibigoshish to 1313 feet (400 m.) within the interior of Stony Point. To get to Stony Point from Deer River, take U.S. highway 2 west for 1 mile to 46. Take 46 northwest for approximately 19 miles to 33. Go west on 33 for about 9 miles (14.5 km) to Forest Road 3114. (West of Pigeon Dam Lake, 33 and Forest Road 2171 are the same road). Stony Point is two miles southeast on FR 3114. Follow this road to the point where it is closed to vehicle traffic and proceed into the RNA on foot. From Route 33, southerly along Forest Road 3114, vehicular passage is limited to ORV's and 4-wheel drive vehicles.

Stony Point can be found on the Chippewa National Forest general map, 1985, and the U.S. Geological Survey 7.5 minute quadrangle map "Pigeon Dam Lake." It can also be seen on aerial photos taken by Itasca County, Minnesota on September 26, 1979 (flight line 8 numbers 678-239, 240, and flight line 9 numbers 578-104, 105).

AREA BY COVER TYPES

1. Society American Foresters (SAF) Types

The proposed Stony Point RNA contains two SAF cover types. These are type 39 (Black Ash-American Elm-Red Maple) and type 16 (Aspen).

<u>SAF No.</u>	<u>SAF Type</u>	<u>Acres</u>	<u>Hectares</u>
39	Black Ash-American Elm-Red Maple	225	91.1
16	Aspen	92	37.2

2. Kuchler Types (Kuchler 1964)

There is no Kuchler equivalent to SAF Type 39. Aspen (SAF Type 16) is a seral component of numerous Kuchler types: 7, 11, 13, 14, 19, 20, 84, etc. throughout the northern U.S.

In addition to the above forest cover types, the Stony Point Natural Area contains 11 acres (4.4 ha) of sand beach/marsh, and 76 acres (30.8 ha) of lowland brush.

A cover type map of the Stony Point RNA is found in Figure 3.

The Stony Point RNA is located within the Bemidji Sand Plain geomorphic unit (University of Minnesota, 1980). The landform is a nearly level ground moraine bordering the north end of Lake Winnibigoshish. It ranges from 1 foot (0.3 m) to 10 feet (3 m) above lake level.

PHYSICAL AND CLIMATIC CONDITIONS

A summary of climatic data from the Winnibigoshish Dam weather station 9.5 miles (15 km.) ESE of Stony Point indicates that the area has a typical continental climate with average annual precipitation of 25 inches (635 mm.) per year, with 11 inches (279 mm.) average summer precipitation and 50-60 inches (127-152 cm.) average winter snowfall. The area has an average of 110 days per year with snow cover of more than 6 inches (15.2 cm.), and between 60 and 70 days of snowcover in excess of 12 inches (30.5 cm.). The average date of last spring frost is May 27 and the average date of first fall frost is on September 16 (Baker and Strub, 1963a,b; 1966, 1967). Lake Winnibigoshish has an ameliorating influence on the local climate.

DESCRIPTION OF VALUES

Flora

The vegetation communities on the Stony Point RNA are mapped in Figure 3. Vegetation data describing in more detail the composition and structure of the northern hardwood type was also taken. Two 20x20 meter plots were sampled using the Braun-blauquet Releve' system (Van der Maarel and Westhoff 1975). These plots were located in the featured black ash-American elm-red maple (SAF Type 39) stand. The results (Appendix A) provide a list of plants found in the stand, describe percent cover and abundance of each species, and summarize the structural layers of the vegetation. In addition to the releve, tree diameters and numbers were taken in the plot.

The mesic, nutrient rich site conditions at Stony Point have allowed the development of an extremely rich ground flora. The abundance and richness of spring ephemerals and spring blooming herbs is unusual for a northern hardwoods stand this far north and west. The following species are at or near their northwestern range limit at Stony Point: cut leaved toothwort (Dentaria laciniata)⁴, spring beauty (Claytonia virginica), dutchman's breeches (Dicentra cucullaria), wood anemone (Anemone quinquefolia), wild leek (Allium tricoccum), blue cohosh (Caulophyllum thalictroides), and wild ginger (Asarum canadense). The occurrence of Dentaria laciniata at Stony Point is an Itasca County record.

Fauna

A total of 40 mammals have been documented in Itasca County (Coffin and Pfannmuller, 1988). Of these the gray wolf (Canis lupus)⁵ is listed as

⁴Source used for scientific and common names of non-tree plant species come from Fernald, M.L., 1970, Grays Manual of Botany. Eighth Edition. D. VanNostrand Company, New York, 1632p.

⁵Source for common and scientific names of mammals: Hazard, Evan. 1982. The Mammals of Minnesota. University of Minnesota Press, Minneapolis.

threatened at both the state and federal level, and the northern myotis (Myotis septentrionalis) is special concern in Minnesota.

The area including Stony Point RNA is identified in the Chippewa National Forest Land and Resource Management Plan as essential habitat for the bald eagle (Haliaeetus leucocephalus). An eagle nest in NWSW Section 28 was active in 1983 but was not active for the next six years and has now fallen to the ground. An eagle nest in NWNW Section 27 has been active for five of the last six years, last produced young in 1987 and is active in 1990. In addition to the federally endangered bald eagle, the Lake Winnibigoshish area provides potential habitat for the osprey (Pandion haliaetus) listed as a state species of special concern.

Geology

The proposed Stony Point RNA is located within the Pennington - Spring Lake Moraine (LTA J) and the Big Fork Lacustrine Plain (LTA K) (ECS Handbook for the Chippewa NF, 1985). This gently rolling ground moraine is composed of calcareous till of the Koochiching lobe, contemporaneous with the St. Louis sublobe and Des Moines lobes of the east Wisconsin glaciation (Hobbs, personal comm.). Elevations range from 1 foot (0.3 m) to 10 feet (3 m) above lake level. According to a letter addressed to the Chippewa National Forest by Wink Hastings, of the Bureau of Land Management, U.S. Department of the Interior (February 19, 1987), the Winnibigoshish beaches (eastern portion) are considered of high significance on a local and state level. The beach ridges apparently formed by long shore currents acting on sediment being deposited in Lake Winnibigoshish from Stony Point Brook. Glacial till in the region of Stony Point RNA is underlain at depths of 150 feet (45.7 m) to 350 feet (106.7 m) (Jirsa, pers. comm.) by Archean granites 2600 to 2750 million years in age (Morey et. al, 1982).

Soils

Soil information for the RNA is available from the Chippewa National Forest Ecological Classification System for the Land Type Association (LTA) and the Ecological Type (ET) levels. The soils on the western portion (LTA J) of Stony Point are predominately somewhat poorly drained and have silt loam surfaces and clay loam subsoils. On the surface of the mineral soil there is three (7.6 cm) to six (15.2 cm) inches of well decomposed organic matter (humus), making this one of the most nutrient rich sites found on the Chippewa National Forest. The soils on the eastern portion (LTA K) are much more variable. To the southeast are the sandy Winnie beach ridges. Just to the north of the ridges are wetlands with organic soils. To the north of the wetlands (northeast corner of the RNA) are somewhat poorly drained clayey lacustrine soils.

Lands

The entire candidate RNA lies within compartment 281 of the Blackduck Ranger District, Chippewa National Forest. Since it is public domain land, the U.S. government owns the rights to all surface and subsurface minerals.

Cultural

The Stony Point area has a number of potentially significant archaeological sites identified.

Site No. 111	Habitation Site
Site No. 117	Prehistoric Habitation Site
Site No. 118	Stony Point Indian Village
Site No. 120	Prehistoric Indian Burial
Site No. 121	Old Mission Church
Site No. 122	Indian Cornfields (1870s)

(Johnson, Harrison, and Schaaf, 1977)

(Site numbers also found in Forest Service Cultural Resource Inventory)

These sites overlap each other and are located basically within the critical core area of northern hardwoods, as indicated on Figure 2, or are suspected to have become inundated when the water level in Lake Winnibigoshish was raised (University of Minnesota, 1976). All of them are potentially eligible for listing on the National Register of Historic Places. Evaluation units will need to be put in to determine their listing.

IMPACTS AND POSSIBLE CONFLICTS

Cultural Resources

Evaluation units will be required to determine each archeological site's eligibility for the National Register of Historic Places. These units involve some surface soil displacement. However, they will only need to be done once and both the soil and vegetation will be replaced as much as possible. Being located in this RNA will be desirable protection for the sites, but is not the purpose of RNA designation.

Mineral Resources

The Stony Point area is underlain by Archean granites unlikely to contain commercially valuable minerals. At the present time no prospecting is being conducted and no commercially exploitable mineral resources are known within the boundaries of the Stony Point natural area (Jirsa, pers. comm.).

Grazing

The Stony Point natural area has not been grazed and there is no anticipated demand for grazing in the area in the future.

Timber

Three hundred seventeen (317) acres (128.3 hectares) were withdrawn from the timber producing base during the Forest Planning process. Acreage withdrawn is broken down by SAF cover type listed below.

<u>SAF No.</u>	<u>SAF Cover Type</u>	<u>Acres</u>	<u>Hectares</u>
39	Black Ash-American Elm-Red Maple	225	91.1
16	Aspen	92	37.2

Watershed Values

The proposed RNA is bounded by Lake Winnibigoshish on the south. Several very small wetlands occur throughout the area. Stony Point Brook runs through the area. The RNA will help protect watershed values.

Recreation Values

This area receives light amounts of dispersed recreation use. Forms of recreation include hunting, fishing, wildlife observation, and camping. Recreation uses within the RNA boundary are largely confined to the shoreline. Intensity and extent of recreation activities do not interfere with RNA objectives.

Wildlife and Plant Values

Maintaining the integrity of the old-growth northern hardwoods community at Stony Point should be sufficient to protect the distinctive flora and fauna of the area.

Wilderness, Wild and Scenic River, National Recreation Values

The Stony Point Research Natural Area is not part of any congressionally designated area.

Transportation Plan

The Stony Point Natural Area is located two miles (3.2 km) southeast on Forest Road 3114 from the intersection of Highway 33 and FR 3114 (see Figure 1). FR 3114 is closed to vehicle traffic from February-September to protect nesting bald eagles. At other times of the year the road is open and extends through the proposed RNA to Stony Point on Lake Winnie. FR 3114 will be permanently closed at the boundary of the RNA, upon designation by the Chief.

MANAGEMENT PRESCRIPTION

As designated in the Forest Plan and the draft Opportunity Area plan, the objective of the Stony Point RNA is:

To protect and sustain an example of an undisturbed wet mesic northern hardwoods stand (SAF Type 39) with an unusually rich ground flora containing an abundance of spring ephemerals and spring blooming plants of more southerly distribution.

Transportation

Forest Road 3114, which runs through the site, will be closed to all motorized traffic at the boundary of the RNA (see Figure 1). This RNA will have effectively no impact on the forest transportation system.

Vegetation Management

No direct management is needed to maintain the ecologic conditions of this Black Ash-American Elm-Red Maple forest. This late successional forest will perpetuate itself under natural conditions.

There is no anticipated need for prescribed fire or other manipulative management.

In order to perpetuate the old-growth nature of the mesic northern hardwoods stand, no salvage operations will be permitted. This applies at all times, including the event of severe damage from wind, insects, disease or wildfire.

Infestation of indigenous forest insects and disease will be allowed to follow their natural course without chemical or biological control. Introduced exotic species may be controlled as explained under Monitoring.

Recreation

Dispersed recreation, including hiking, camping, fishing, and hunting, occurs within the RNA seasonally at low levels, and does not threaten the values of the RNA. The Forest Service will discourage additional recreational use through signing and contacts with user groups. However, recreational use could increase anyway and some increase may be accepted. If recreational use threatens or interferes with the objectives for which the RNA is established, such use will be prohibited.

Cultural Resources

Site evaluation and registration will be conducted in a manner that will not impact RNA objectives.

As required by law, the existing cultural resource sites within this RNA will be evaluated by digging the standard evaluation plots. This will be done with the least impact possible by requiring the archeologists to coordinate their work with the Nature Conservancy or the Minnesota Heritage Program. They will also be required to camp outside the RNA, avoid creating trails, and to leave the area as it was found as much as possible. This can be accomplished without impacting the values for which this RNA is set aside.

None of these sites will be interpreted to the general public, even if found to be significant enough for listing on the National Register of Historic Places.

Wildfire

Staffing and mobilization will be the same as for the predominant Management Prescription in the surrounding area. Wildfires will normally be extinguished as quickly as possible when they involve or threaten the RNA. Natural fires will be permitted to burn only if a prescribed fire plan has been approved which calls for the use of fire to accomplish management objectives, and then only within prescription guidelines.

In general, wildfire will be suppressed using aerial or hand methods only, with preference given to aerial methods. No chemical retardants will be used in aerial drops; aerial drops will be limited to lake water. No heavy earth-disturbing equipment will be used at any time within the RNA boundaries because this could disturb the protected vegetation and could destroy archeological sites.

Minerals

The Forest Service will not consent to any mineral activity within the area. If established as an RNA, the Forest Supervisor will request that the Regional Forester ask the Bureau of Land Management to withdraw the area from mineral entry.

Research

When use of the RNA for research is desired, a proponent must contact the Station Director, North Central Forest Experiment Station, and must outline to the Station Director the activity planned. Station Directors approve study plans proposed by Forest Service and non-Forest Service scientists and execute cooperative agreements, where appropriate. Access to the Research Natural Area by parties external to the Forest Service is approved by the District Ranger.

Forest Service scientists shall cooperate in research conducted by scientists from outside of the Forest Service, whenever possible, to keep informed as to the nature and progress of the work and to ensure that Research Natural Area values are maintained. All scientists conducting research on a Research Natural Area must file copies of all research data, reports, and other pertinent documents with the Station, Region, and Forest.

All researchers conducting investigations which involve the collection of flora and/or fauna in the Stony Point Research Natural Area must, as a condition of approval by the Station Director to use the area:

1. Obtain appropriate permits from State and Federal Agencies.
2. Carefully control collection of endangered, threatened, or rare plants.
3. Deposit a voucher sample of each plant collected in University of Minnesota Herbarium.

Monitoring

The Blackduck Ranger District is responsible for monitoring the condition of this RNA. Monitoring will be completed by foot on an annual basis. The initial inspection will document the existing condition of the vegetation, recreation use, and cultural resource sites.

In later inspections, evidence of additional recreation use (ie: campsites, trails...) will be evaluated by an interdisciplinary team which includes a botanist from either the Nature Conservancy or the Minnesota Heritage Program and a research scientist from North Central Forest Experiment Station.

If exotic plants or animals have been introduced, the Station Director and Regional Forester shall exercise control measures in keeping with established management principals and standards to eradicate them, when practical.

Any significant change noticed during monitoring inspections will be dealt with in accordance with the Forest Service Manual.

ADMINISTRATIVE RECORDS AND PROTECTION

The administrator and protector of this area is:

District Ranger
USDA - Forest Service
Chippewa National Forest
Blackduck, Minnesota 56630

The research coordinator is:

Director
North Central Forest Experiment Station
1992 Folwell Avenue
St. Paul, Minnesota 55108

Herbarium vouchers are maintained at:

Herbarium
Department of Botany
University of Minnesota
St. Paul, MN

Vegetation and botanical data are included as Appendix A and are also available from:

Minnesota Natural Heritage Program
DNR, Box 7
500 Lafayette Road
St. Paul, Minnesota 55155-4007

REFERENCES

- Baker, D. G. and J. H. Strub. 1963a. Climate of Minnesota. Part I. Probability of Occurrence in the spring and fall of selected low temperatures. Minn. Agr. Exp. Sta. Tech. Bull. No. No. 243.
- Baker, D. G. and J. H. Strub. 1963b. Climate of Minnesota. Part II. The Agricultural and Minimum Temperature-Tree Seasons. Minn. Agr. Exp. Sta. Tech. Bull. No. 245.
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APPENDIX A

RELEVE REPORT FORM, MINNESOTA VEGETATION DATABASE

DNR RELEVE NUMBER: 0112 MINNESOTA NATURAL HERITAGE PROGRAM
 DATE: 24 MAY 1985 Department of Natural Resources
 BY: C. Converse and K. Wendt Box 7, 500 Lafayette Road
 Itasca County, MN St. Paul, Minnesota 55146
 Quadrangle Code: 4709452 (M3C) (612) 296-3344

Site Name: *Stony Point*
 Location: SW of SW of S. 27, T. 147N, R. 28W
 Heritage Community Element: Northern Hardwood - Conifer Forest
 Element Occurrence Size (a.): 140, Rank: AB, Site Size (a.): .
 Soil Atlas Mapping-Unit: Bemidji Sand Plain, CCPL
 Other Data Collected: Forestry

PLOT CHARACTERISTICS

Releve Size (sq. m): 400, Elev. (ft.): 1310, Slope (deg./aspect): FLAT

Releve located on nearly level, slightly hummocky silty clay soils w/
 6 in. of organic matter. Representative of least disturbed sites
 dominated by wet-mesic species.

Broadleaf Deciduous, Height: 8, Cover: I

- 3.1 *Betula allegheniensis* Britt.
- 2.1 *Ulmus rubra* Muhl.
- + .1 *Ulmus americana* L. DD

Broadleaf Deciduous, Height 7, Cover C

- 4.1 *Acer saccharum* Marsh.
- + .1 *Tilia americana* L.

Broadleaf Deciduous, Height 6, Cover R

- 2.1 *Acer saccharum* Marsh.

Broadleaf Deciduous, Height 5, Cover B

- 1.1 *Acer saccharum* Marsh.

Broadleaf Deciduous, Height 4, Cover B

- 1.1 *Acer saccharum* Marsh.

Broadleaf Deciduous, Height 3, Cover P

- 3.1 *Acer saccharum* Marsh.
- + .1 *Corylus cornuta* Marsh.
- + .1 *Fraxinus nigra* Marsh.
- + .1 *Prunus virginiana* L.
- + .1 *Tilia americana* L.

EXAMPLE RECORD

Cover	Sociability	Genus	Species	Author	Variety	Author	Remark
!	+ .2	Epigaea	repens	L.	var. glab.	Fern.	fl ## !

FOR CODES, SEE RELEVE CODE SHEET OR RELEVE MANUAL

Broadleaf Deciduous, Height 2, Cover I

- 3.1 *Acer saccharum* Marsh.
- 2.2 *Ribes cynosbati* L.
- 2.2 *Ulmus americana* L.
- 1.2 *Rubus* cf. *pubescens* Raf. ##
- +1 *Fraxinus nigra* Marsh.
- +1 *Tilia americana* L.

Graminoids, Height 1-2, Cover A

- +2 *Carex* ##

Forbs, Height 2, Cover C

- 3.2 *Allium tricoccum* Ait.
- 3.2 *Claytonia virginica* L.
- 2.2 *Asarum canadense* L.
- 2.2 *Dicentra cucullaria* (L.) Bernh.
- 1.2 *Anemone quinquefolia* L. var. *bifolia* Farw.
- 1.2 *Circaea alpina* L.
- 1.1 *Laportea canadensis* (L.) Wedd.
- 1.1 *Maianthemum canadense* Desf.
- 1.1 *Osmorhiza claytonii* (Michx.) Clarke
- 1.1 *Viola*
- +1 *Aralia racemosa* L.
- +1 *Arisaema triphyllum* (L.) Schott
- +1 *Athyrium angustum* (Willd.) Presl
- +1 *Botrychium virginianum* (L.) Sw.
- +1 *Caulophyllum thalictroides* L. (Michx.)
- +2 *Dentaria laciniata* Muhl. ex Willd.
- +1 *Dryopteris intermedia* (Muhl.) Gray
- +1 *Galium triflorum* Michx.
- +1 *Geum* cf. *canadense* Jacq. ##
- +1 *Matteuccia struthiopteris* (L.) Todaro var. *pennsylvanica*
(Willd.) Morton
- +2 *Mitella nuda* L.
- +1 *Pilea pumila* (L.) Gray
- +1 *Polygonatum*
- +2 *Sanguinaria canadensis* L.
- +1 *Smilax* cf. *lasioneura* Hook. ##
- +1 *Streptopus roseus* Michx. var. *longipes* (Fern.) Fassett
- +1 *Trillium cernuum* L.
- +1 *Uvularia grandiflora* Sm.
- +1 *Viola pubescens* Ait.

EXAMPLE RECORD

Cover	Sociability	Genus	Species	Author	Variety	Author	Remark
I	+2	<i>Epigaea</i>	<i>repens</i>	L.	var. <i>glab.</i>	Fern.	fl ##

FOR CODES, SEE RELEVÉ CODE SHEET OR RELEVÉ MANUAL

RELEVE DATA SHEET

24 May 1985

Legal Description of Plot:

T147N R28W SEC34 400 sq. ac. S

Natural Area: Stony Point
Chippewa NF

Cover Type:

Species	DBH (in.)	DBH (cm.)	BASAL AREA	Rel. BA.	DENSITY	Rel. Den.	#SAPLINGS	DENSITY	Re De
Trees \geq 3 in d.b.h. (7.6 cm.)									
<i>Acer saccharum</i>	5.7								
	3.6								
	11.6								
	5.5								
	4.3								
	4.0								
	6.0								
	11.0								
	4.1								
	3.4								
	4.2								
	6.3								
	4.3								
<i>Betula lutea</i>	16.6								
	12.0								
	17.4								
	15.4								
	13.5								
	24.0								
			cored to center		81 years				
			Forestry pointed	Symbol = 2 red lines			# C-417		
<i>Ulmus rubra</i>	14.0								
<i>U. americana</i>	12.0								
	16.7								
	12.3								
	11.1								
Saplings $<$ 3 in dbh but \geq 8 in tall									
<i>Tilia americana</i>	6.1								
<i>Ulmus</i> (dead)	7.7								
	13.8								
	16.4								
	16.8								
	7.4								
	3.8								
Saplings $<$ 3 in dbh but \geq 48 inches tall									
<i>Acer saccharum</i>							27		
<i>Tilia americana</i>									
Seedlings $<$ 8 in tall									
							2 sprouts 3 saplings		

RELEVE CODE SHEET

RELEVE PHYSIOGNOMY, KUCHLER'S PHYSIOGNOMIC SYSTEM

LIFE-FORM CATEGORIES

STRUCTURAL CATEGORIES

Woody Plants		Herbaceous Plants		Height	Coverage		
B	broadleaf evergreen	G	graminoids	8	>35 m	c	>75% continuous
D	broadleaf deciduous	H	forbs	7	20-35 m	i	50-75% interrupted
E	needleleaf evergreen	L	lichens, mosses	6	10-20 m	p	25-50% parklike, patchy
N	needleleaf deciduous			5	5-10 m	r	5-25% rare
			Special Life Forms	4	2-5 m	b	1-5% barely present
		C	climbers (lianas)	3	.5-2 m	a	<1% almost absent
		K	stem succulents	2	.1-.5 m		
		X	epiphytes	1	<.1 m		

RELEVE FLORISTICS

BRAUN-BLANQUET'S FLORISTIC SYSTEM

Cover/Abundance		Sociability	
r	single occurrence	1	growing singly
+	<5% occasional	2	grouped, few plants
1	<5% plentiful	3	large group, many plants
2	5-25% very numerous	4	small colonies, extensive patches, broken mat
3	25-50% any number of plants	5	extensive mat
4	50-75% any number of plants		
5	75-100% any number of plants		

CODE FOR RELIABILITY OF IDENTIFICATION

- 0 Name assigned without qualification (variety certain or understood)
- 1 Species identification is certain, but variety is in doubt
- 2 Species identification is certain, but named varieties not distinguished
- 3 Species complex or species aggregate
- 4 Genus identification is certain, but species identification is in doubt
- 5 Genus identification is certain, but species not distinguished
- 6 Genus identification is uncertain
- 7 Unknown or indeterminable, but only one species is probably included

CODE FOR SELECTED REMARKS

Vitality	Condition	Miscellaneous
DY dying	BU budding	GR grazed
DD dead	BR browsed	MS multiple stemmed
EX being driven out	DF defoliated	MW mowed
OO poor vitality	FL flowering	OG open grown
LU luxurious growth	FR fruiting	PF past fruiting
	FS fire scarred	SE present as seed
	GE germinating	ST sterile
		IN introduced in Minn.
		RA rare in Minn.
		OP just outside plot
		# any two-digit number means that a specimen was collected

The above codes and classes have been adopted as standard for releves collected by the Minnesota Natural Heritage staff. The above was largely copied from a form created by Edward J. Cushing for student use at the University of Minnesota.