



Department of Environmental Conservation

Division of Lands and Forests

HA-DE-RON-DAH
Wilderness
Unit Management Plan
First Five Year Revision

January 1995



New York State Department of Environmental Conservation
GEORGE E. PATAKI, Governor MICHAEL D. ZAGATA, Commissioner

**FIRST 5-YEAR REVISION TO
HA-DE-RON-DAH WILDERNESS
UNIT MANAGEMENT PLAN**

JANUARY, 1995

New York State Department of Environmental Conservation
GEORGE E. PATAKI
Governor

MICHAEL D. ZAGATA
Commissioner

**MEMORANDUM FROM
LANGDON MARSH, Commissioner**

New York State
Department of Environmental Conservation



DEC 14 1994

TO: The Record

RE: Unit Management Plan (UMP)
Ha-De-Ron-Dah Wilderness Area

A revised UMP for the Ha-De-Ron-Dah Wilderness Area has been completed. The UMP is consistent with the guidelines and criteria of the Adirondack Park State Land Master Plan, the State Constitution, Environmental Conservation Law, and Department rules, regulations and policies. The UMP includes management objectives for a five year period and is hereby approved and adopted.



*** IN MEMORY OF ***

Mabel F. Gleason

who typed the first manuscript for the
original Ha-De-Ron-Dah Unit Management Plan;
and whose passing left the preservation
of those things wild;
from the mountains of the Adirondacks,
to the shores of Cape Cod,
less one invaluable comrade.

dvg

*** HA-DE-RON-DAH WILDERNESS REVISED UNIT MANAGEMENT PLAN ***

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PREFACE

HA-DE-RON-DAH WILDERNESS

UNIT MANAGEMENT PLAN

First Revision

Ha-De-Ron-Dah, like the legendary Phoenix was reborn and rose again. In the early 1900's, this unit was the site of one of the most destructive forest fires in New York State. Today, this small wilderness is a refreshing place of trees, lands and water, and a monument to those who believe that with a little protection and wise use, you can have a thing of beauty forever. To know that this place shall never be developed, altered or 'civilized', but shall instead be forever wild, and to know that Middle Settlement shall be the same in the twenty-first century as it is today, is certainly sufficient grist for the 'mill' of wilderness stewardship.

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GENESIS

ADIRONDACK FOREST PRESERVE UNIT MANAGEMENT PLANNING IN THE HA-DE-RON-DAH WILDERNESS

(From a talk given at the Ha-De-Ron-Dah Wilderness
to Members of the Wilderness Group Tour on the Occasion of the
Society of American Foresters Annual Meeting - October, 1988)

Early attempts to settle the wild Adirondacks have ended in failure and often, tragedy. In the late 18th century, a fellow by the name of John Brown (no kin to the abolitionist) became the owner of a huge tract of land including what is now the Ha-De-Ron-Dah Wilderness where we now stand. Land maps still show these lands as John Brown's Tract of the early Macomb's Purchase. Although John Brown only visited the area once, he did direct a very costly attempt to establish a farming and lumbering settlement near what is now the hamlet of Old Forge. The poor soils and rigorous, long winters however, discouraged one settler after another and they all gradually headed south, leaving the clearings to the brambles and the wolves.

Shortly after the turn of the century, Brown's son-in-law, Charles Herreshoff attempted to establish a mining and farming community adjacent to the unit. In order to separate the anticipated iron ore from the slag, he hauled a forge over rough terrain at great effort. Herreshoff also found that the settlers were not willing to suffer the hardships and tough winters. As more and more abandoned cabins dotted his clearings, his desperate financial plight hung on the diminishing hopes of a major iron strike. A flood in his mine shaft was the last straw. Full of despair, Herreshoff slowly walked back to the mansion he had prepared for his wife and family, placed a gun to his head and brought the second attempt at civilizing the Adirondacks to an end. Parts of the "old forge" still grace Main Street in the nearby hamlet of the same name.

Following this, the area reverted back to the hunters and trappers who went to the mountains, stalked their prey and returned to their communities in the Mohawk and Black River Valleys. These same wild lands are now under management of the Department of Environmental Conservation.

There are now over 2.8 million acres of Forest Preserve land in New York State. The preserve was created in 1885 by a law which also created a three-man Forest Commission to administer the 715,000 acres of protected state land in the Adirondack and Catskill Mountains. The law was amended at the 1894 Constitutional Convention and approved by the People of the State of New York in the General Election of that year. In 1892, the Adirondack Park was created by the drawing of a blue line on a map of northern New York. This line surrounded 2,800,000 acres of state and private land in the north country. The Conservation Commission was born in 1911 from earlier commissions and the Division of Lands and Forests was created as the agency responsible for the administration of the Forest Preserve. In 1927, the Conservation Commission was renamed

the Conservation Department which became the Department of Environmental Conservation (DEC) in 1970.

The 1968 Temporary Study Commission on the Future of the Adirondacks made a report to then New York State Governor Nelson A. Rockefeller which made nearly 200 specific recommendations regarding the Adirondack Park. Among the Commission's major recommendations was the creation of the Adirondack Park Agency and the preparation by that agency, in consultation with DEC, of a master plan for state lands within the Adirondack Park. This came to pass and the original State Land Master Plan² was approved in 1972.

The theme of New York's centennial celebration in 1985 was "Heritage of the Past - Stewardship for the Future". At that time, we New Yorkers were reminded of the heritage of the past that the Adirondack and Catskill Parks represented to the People of the State of New York as landowners of this vast preserve. We were given an opportunity to reflect on the values that these natural resource gems represented to us as citizens of New York State. At the same time, we were made aware of the responsibility of owning this unusual treasure. We were reminded that along with the heritage of the past that we enjoy, we also receive the responsibility for stewardship for the future. Forest Preserve management is the way we acknowledge this responsibility. It is the key to perpetuating the unique values that the Forest Preserve represents. Unit management planning is the means by which management of this complex system is accomplished by DEC.

Wilderness Management in the Adirondacks has a number of interesting constraints which limit the options that those DEC foresters involved in Forest Preserve land management have available to them. We mentioned before the early beginnings of the Forest Preserve itself and the constraints which were placed by the 'forever wild' clause of the NYS Constitution back in the late 1800's. The Constitutional wording relative to the lands within the Forest Preserve states; "Nor shall the timber thereon be sold, removed or destroyed." As foresters, we might look at this as a bit of insanity, but it must be remembered that this came at a time when our profession was not yet viable and the mountain watersheds were being cut indiscriminately without the benefit of scientific forestry methods. It's a fact that managing for other than timber requires a change in the thinking of those foresters involved with Forest Preserve management. Their thinking needs to change from forest wood products management to other categories of forest land management and their expertise must become recreational-oriented people management rather than silvics-oriented tree management.

It is also important to recognize the five user groups for whom our management of wilderness areas in the Forest Preserve is based³⁶. Included are two passive groups; those who never visit a wilderness area, but gain satisfaction from knowing that the wilderness is 'out there' and those who enjoy the wilderness from a distance, but do not actually enter. The three active groups include the true wilderness advocate who desires little but the spiritualistic refreshment of solitude. Another group is comprised of day-trippers and overnight campers who desire a social wilderness experience with easy access, a marked, well maintained trail system and a leanto at a select location as a terminus. The final group is made up of those for whom the social factor completely occludes the basic values of a "true" wilderness experience.

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The Adirondack Park State Land Master Plan (APSLMP) was completed in 1972 by the Adirondack Park Agency (APA) in consultation with D.E.C. This document was the first step in wilderness management in New York State because it designated part of the Adirondack Park as wilderness and provided basic guidelines for its management and use. The State Land Master Plan defines a wilderness area in contrast to those areas where man and his own works dominate the landscape, as "an area where the earth and its community of life are untrammelled by man - where man himself is a visitor who does not remain." It goes on to further define a wilderness area as "an area of state land or water having a primeval character, without significant improvements or permanent habitation, which is protected and managed so as to preserve, enhance and restore, where necessary, its natural conditions."

The book 'Wilderness Management' by Hendee, Stankey and Lucas describes wilderness as "essentially the management of human use and influence to preserve naturalness and solitude. It includes everything the persons responsible for a wilderness do in administering the area; for example, the formulation of goals and objectives for individual areas and all policies, standards and field actions to achieve them." In New York State, due to the constitutional restriction against timber harvesting and a number of restrictions in the State Land Master Plan, we have been forced to consider that managing for natural beauty and solitude is proper and another form of land use has taken precedence in the Forest Preserve.

In defining our goals and objectives in unit management planning, we need to consider that proper wilderness management is more than just an easy continuance of traditional practices that do not strictly violate wilderness policy. It is becoming a more judgmental process using uncommon land management criteria and we need to base our thinking on the philosophical principals for which wilderness was set aside. This is really not a concession to the "can't-use-it" phobia that many foresters share, rather it is an acceptance of the reality of what we are dealing with and a realignment of our normal goals and objectives to be more akin to those found in Hendee, Stankey and Lucas. And finally, we find it necessary to sooner or later focus on the futility of attempting traditional management while encumbered by non-traditional, non-motorized maintenance, rehabilitation and construction constraints as well as increasingly shrinking budgets.

The attempt to maintain historical usage is humorous at best and involves the very Ha-De-Ron-Dah Wilderness upon which we all stand. Not being allowed vehicular access by virtue of the unit's wilderness designation, it seemed like a good idea to use horses and a sled to get the leanto materials from the highway into the interior where the unit management plan called for the re-construction of an open camp near Cedar Pond. The sled was piled high with pre-cut logs, boards, shingles, nails etc. and the horses began their arduous trek into the forest, breaking through the snow's crust with every step. Slowly, they inched their way toward the frozen wilderness lake that was their destination. Finally, the futility of their efforts was apparent and the sled was turned around. Department Operations personnel and the rented horses had given a gallant effort, but it was necessary to give up and abort the project part way in. The wilderness had won! Even if this had been successful, maintenance of wilderness leantos is difficult, expensive and, from the 'true' wilderness management perspective, it is unnecessary. A wilderness leanto provides a false sense of security

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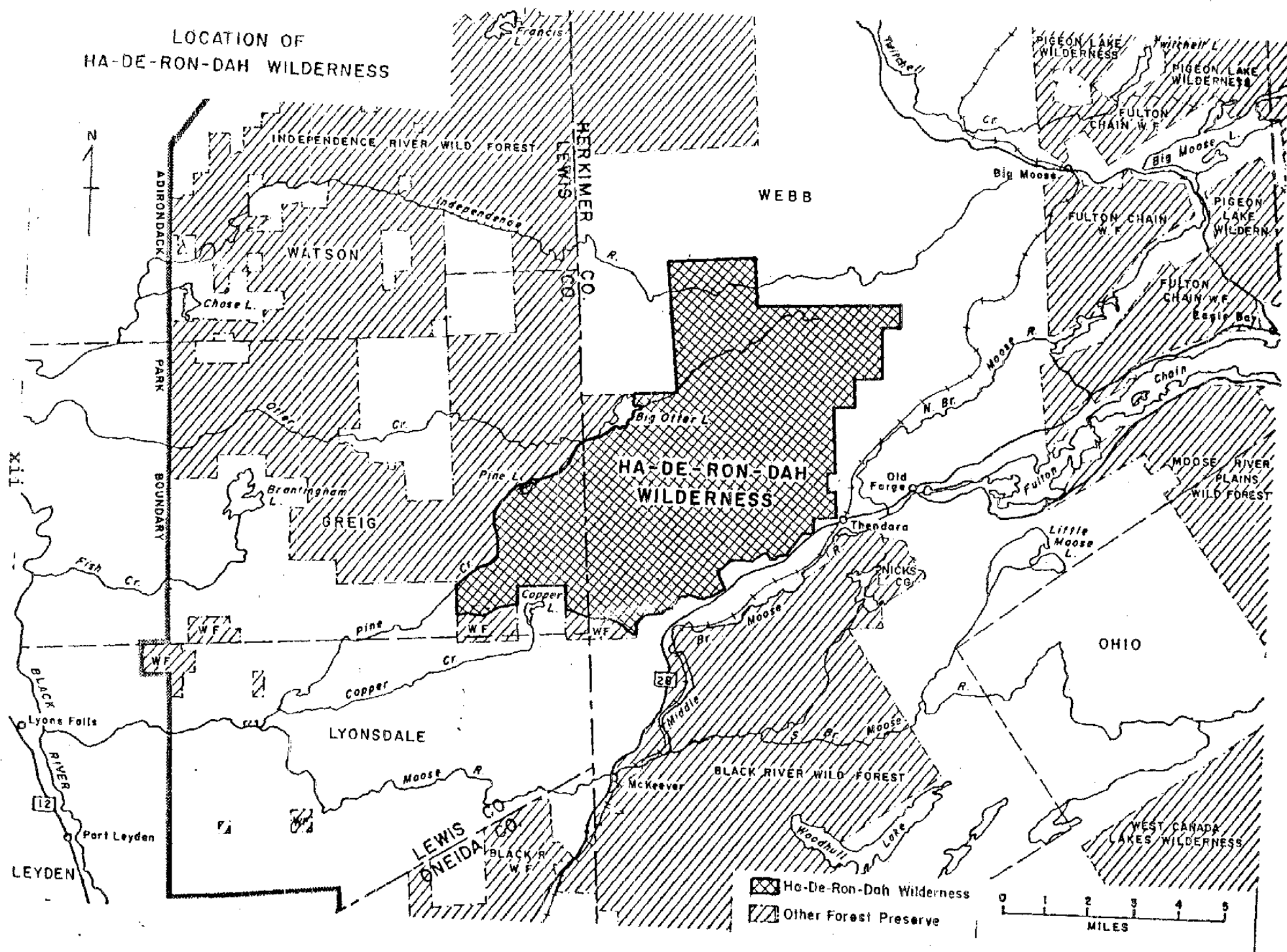
by providing a shelter which may be full when the camper arrives after a long hike, perhaps with no tent.

Unit Management Plans for the various land units within the Adirondack Park were mandated by the same State Land Master Plan that classified them. DEC foresters working for the Department's Bureau of Preserve Protection and Management are in the process of drafting statewide plans for a total of 16 wilderness areas, 24 primitive areas, 1 canoe area and 17 wild forest areas in the Adirondack Park with additional plans for Catskill units.

The Ha-De-Ron-Dah Wilderness Area Unit Management Plan was completed in April 1986 utilizing input from Department Division of Lands and Forests, Operations and Fish and Wildlife personnel. The plan is directing the management of this wilderness for a five year period. Although the goals stated in the management plan were to "perpetuate a natural plant and animal community with indigenous fish and wildlife and the qualities of a wilderness experience," historical usage of the unit was more in line with lands in the less restrictive wild forest classification. The southern section of the area is laced with foot trails and these are used to an extent not commensurate with 'true wilderness management' goals, but that are still within the guidelines and conformances stated in the State Land Master Plan. Closing trails is not a popular option and one that we elected not to use initially on this unit. Historical use was kept rather intact in the management plan, at least in the well-used southern portion. By doing this and by keeping the northern-most area 'trail-less', most public interests were somewhat satisfied with the management plan. By suggesting re-building of one leanto in the southern 'zone' and by not re-building another to the north, we struck the balance of a compromise and ended up with a plan which did not elicit much criticism. What more could one ask?

After a few years of living with this plan, we realize that we made some promises which we will be (were) hard-pressed to keep. In addition to the normal funding problem, we saddled our Operations unit with some difficult projects. They were involved in the planning process and were also reticent to deny historic recreational opportunity. Bridge replacement and leanto construction are two projects from which they have felt the strain of non-traditional construction constraints. The outcome of one proposed leanto has already been indicated, materials for another had to be flown in by helicopter and the bridge replacement was accomplished under much hardship and at great expense due to the inability to use motorized equipment. It's a safe bet that when the time comes for the five-year revision to this unit management plan, there will be some changes made...

LOCATION OF HA-DE-RON-DAH WILDERNESS



This document represents management objectives rather than a work plan of commitments. Accomplishment of the management actions outlined herein is entirely dependent on legislative budget appropriations for project funding and sufficient personnel to carry them out. Where possible, the Department will work with volunteer groups and pursue alternative funding sources to accomplish some of the proposed projects. If specific scheduled projects are not funded in the year budget requests are made, they will be resubmitted in the following year so that important plan management objectives may eventually be realized.

I. INTRODUCTION

A. AREA DESCRIPTION

1. General Location

The Ha-De-Ron-Dah Wilderness is located in the western foothills of the Adirondack Mountains, west of the hamlet of Old Forge and the Fulton Chain of Lakes. The Wilderness Area is readily accessible by car, lying 45 miles north of Utica and the Thruway, via Routes 12 and 28. It is located in Herkimer County, Town of Webb and extends into Lewis County, Town of Greig. Ha-De-Ron-Dah is located in Townships #1, 2 and 7 of the early land purchase known as John Brown's Tract of Macomb's Purchase. It is roughly bordered on the east by Route 28; on the south by the Copper Lake Road, Copper Lake exception and the Abbey Trail; on the west by Pine Creek and a DEC-maintained trail from Eight Foot Creek to Big Otter Lake; and on the north by private land. A more specific boundary description can be found in Appendix 1.

2. Acreage

There are 26,600 acres in the Ha-De-Ron-Dah Wilderness with 21,500 acres in Herkimer County and 5,100 acres in Lewis County.

B. HISTORY OF LAND UNIT

Alfred Donaldson's "History of the Adirondacks", David Beetle's "Up Old Forge Way" and Joseph Grady's "Story of a Wilderness" are among the literature giving concise historical background on the region. A short compilation of some interesting history of the area in addition to the Introduction - Genesis is as follows;

1. The word Ha-De-Ron-Dah is the Iroquois name for "eater of trees". This name was contemptuously bestowed by the Iroquois upon their rivals, the Algonquins,

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back in the early history of the Adirondacks. The guttural Iroquois pronunciation of this name sounded, to early white traders, like "Adirondack".

2. The current history starts with John Brown of Providence, Rhode Island and Revolutionary War fame, who purchased part of the Macomb holdings and built John Brown's Remsen Road. The road followed old Indian trails from what is now Remsen and crossed the Black and Moose Rivers east of the present highway to Old Forge. Little or no evidence of this historic road is presently visible or marked.
3. Brown's son-in-law, Charles Frederick Herreshoff, built the Brown's Tract Road (which forms part of the southeasterly bounds of this Unit) from Boonville to Old Forge and attempted settlement, farming and industry (iron mine and forge) at Thendara, but these were a failure (see introduction.) Remnants of the Brown's Tract Road are now an obscure path through the woods except for the portions maintained as part of DEC's trail system.
4. Settlement and development of the Old Forge area to the east was sporadic and slow. It eventually became a summer vacation attraction, with many hotels and cottages to lure the Adirondack tourist and sportsman. It remains so to this day.
5. At one time, logging and the forest products industry dominated the area. Prior to State ownership, historians note that several sawmills and logging camps on and adjacent to the area, provided markets with lumber and sawtimber as evidenced by old logging roads. Indications of old logging camp sites can be found on Lost Creek and Blackfoot Pond. Big Otter Lake was used as a water storage or log pond and logs were floated down Otter Creek. Evidence of a flood or sluice dam is still visible at the outlet of Big Otter Lake. At one time, many small mills operated in the area of Thendara and Copper Lake.
6. A mica mine was active near Blackfoot Pond. The product was transported out by mules.
7. The so-called Peg-Leg Railroad was built of wooden ties and rails, held together with 6 inch wire nails. It ran from bygone Moose River Village to Minnehaha and generally paralleled the Brown's Tract Road, south and east (See Appendix 19.) Transportation was by steamboat from Minnehaha to what is now Old Forge and the first four lakes of the Fulton Chain.
8. The Adirondack Division of the New York Central Railroad, the only rail line through the Adirondacks from Utica to Lake Placid and on to Montreal, was the main transportation link preceding the present road systems and contributed to the use, enjoyment and development of the area. Construction on the Adirondack Division began in 1891 with service beginning in 1892. Scheduled passenger service terminated in 1965, but freight service was continued with increasing infrequency until 1972

when this also ceased. Penn Central abandoned the line in 1976, after acquisition by the State of New York in 1975. A subsequent lease to the Adirondack Railway Company which ran the line for the 1980 Winter Olympics in Lake Placid, remained valid until November 10, 1988. At that time, the State Department of Transportation regained control of the railroad when it was the successful bidder at the line's auction. In 1992 and 1993, the Adirondack Centennial Railroad provided tourist passenger service on a scenic 4 mile section of track between Thendara and Minnehaha. This very successful project is under permit by the New York State Department of Transportation for the third season, as the Adirondack Scenic Railroad. Future activities related to the Adirondack Railroad and it's management are under study. The right-of-way of this historic rail line is in the valley corridor just south and east of the Wilderness Area border.

9. An historical marker on Route 28 at the Copper Lake Road gives testament to a ravaging forest fire in the area. This sign was erected in 1935 as part of the 50 year anniversary of the Forest Preserve and replaced during the Centennial in 1985. It reads as follows:

"A 25,000 acre fire burned west of this point during May and June, 1903. It was one of the largest forest fires in New York State."

II. RESOURCE AND PUBLIC USE INVENTORY OVERVIEW

A. NATURAL RESOURCES

1. Physical

a. Geology

Geologists explain that the Adirondacks were formed approximately 1100 million years ago. Dynamic geological processes including submergence beneath the sea, sedimentation and crustal sagging, volcanism, metamorphism of pre-existing rocks, deep erosion and re-submergence were all involved in forming the Adirondacks. Intense pressure and high temperature caused re-crystallization of igneous granite into the metamorphic, granitic bedrock common in the Adirondacks.²³

During the ice age, approximately 9,000 years ago, the moving ice mass ground and scoured the bedrock, shaping mountains and forming U-shaped grooves or valleys in between. As the ice retreated, it left behind an irregular cover of rock rubble. It was during this structuring of the Adirondacks that the Ha-De-Ron-Dah area was left as a great field of irregularly sized and shaped rock fragments over granitic bedrock. Minerals common to the granitic base are quartz, feldspar, mica and hornblende.

As the ice blocked the valleys, sand and stone settled out and formed into natural dams, creating ponds and lakes. Gradually as the ice receded, leaving the area a tundra, vegetation began to invade the lower slopes. That vegetation has evolved into the present forests while contributing to the humus components of today's soil (See Appendix 2.)

b. Soils

A brief general description follows:

The soils of this area are related to the physiographic area appropriately named the Adirondack highlands and they were developed by glacial pressure and movement over primarily granitic bedrock. The glacial ice deposited a heterogeneous mixture of stones, gravel, sand, silt and clay-glacial till.

Although soil studies of the area have been very limited, scientists identify the soils as Becket, Berkshire and Potsdam. The soils contain an iron and humus enriched layer that is strongly acid, they are usually moist and they retain water well, but drain freely. The dominant soils have fragipans or very compact dense layers that are a barrier to roots and water while small areas have permeable subsoils that are suitable for a wide range of uses. Most of the acreage is very

stony and areas of rock outcrop occur throughout Ha-De-Ron-Dah, especially in the northern portion. These areas of bare bedrock are often the most conspicuous features of the landscape and they dictate the use of the land.⁷ The Pine Lake area contains peat and mucks with ridges of well-drained glacial till (See Appendix 3.)

c. Terrain

The Ha-De-Ron-Dah terrain features hilly, rocky, scenic views, with a variety of streams, swamps, meadows, lakes and ponds. It has tranquil, rolling woodland areas and interesting rock-faced shorelines on ponds and lakes. Big Otter Lake, part of the Independence River Wild Forest lies adjacent to the northwest boundary of the area and it is the largest, most spectacular and scenic of the many lakes in the vicinity. There are no outstanding topographic features in this Wilderness Area. Unit elevations have a total difference of 800 feet and they rise from 1,500 feet in the western portion to the higher hill elevations in the east which do not exceed 2,360 feet. The area appears as gently rounded, rocky hills, interspersed with swamps, beaver meadows, small streams, ponds and lakes spread over the entire proximity.

d. Water

The drainage systems in this area empty primarily into large streams flowing westerly, which comprise a part of the Black River-St. Lawrence River Drainage Basin.

Located within the Ha-De-Ron-Dah Wilderness are 21 lakes and ponds, nine of which are greater than 10 acres. Fifteen of these ponds are located in Herkimer County, with the remaining six located in Lewis County. The approximate total acreage of these waters is over 318 acres with over 198 acres in Herkimer County and 120 acres in Lewis County.

Also located within this unit are many small streams, six of which are large enough to be named. The approximate mileage of these streams is 21.7 miles. Eleven of the water bodies on this unit have been inventoried by the Adirondack Lakes Study. The results of this study are shown in Appendix 7. There are no identified or perceived water quality problems within the unit except for acid conditions in East, Little Simon, Blackfoot Bear and Grass Ponds and Lost Lake. East Pine and Cedar Ponds and Middle Settlement and Little Pine Lakes are becoming acid and this may be a growing problem (See Appendices 4 and 7.)

e. Wetlands

Most of the wetlands designated in this unit are under 10 acres in size. Only three appear to be 75 acres or larger. (See Appendix 16) The largest occurs along South Inlet and is approximately 150 acres in size. Other large areas exhibiting an extensive wetland ecosystem include Middle Branch Creek and its tributaries in the vicinity of Mud Hole Pond and areas adjacent to East Pine Pond and Pine Lake. These wetlands provide interest in addition to their value to furbearers and waterfowl.

They have been inventoried, mapped and protected under the 1975 NYS Freshwater Wetlands Act by the Department of Environmental Conservation and the Adirondack Park Agency. The inventory for this area was completed in 1983 and is reflected on detailed 7.5 min. inventory sheets for the Stillwater Mt., Big Moose, Copper Lake, Thendara and Old Forge quadrangles, (APA, 1984.) The APA inventory using the Cowardin National Wetlands Inventory and Classification portrays information useful in describing the wetland cover types and hydrologic regimes. This information can be used to assess general wetlands values which also depend on other information such as wildlife use, rare plant species, fish spawning, etc.

2. **Biological**

a. Vegetation

The general climax forests of Ha-De-Ron-Dah are those identified by the Society of American Foresters as Forest Cover Types of the Eastern United States.¹⁰ Included are Types #25 (sugar maple, beech, yellow birch) and #31 (red spruce, sugar maple and beech.) The wet to swampy areas are generally Types #5 (balsam fir), #38 (tamarack) and #32 (red spruce) or a variation or combination of these types. Normal biological succession was interrupted in the western portion of the unit by a severe fire which burned 25,000 acres in May and June of 1903. This area is in a state of transition and will eventually return to a stable, climax forest type. There are extensive areas of aspen and bracken fern and it is here that the lack of mature red spruce and balsam fir is most striking. A few large, scattered white pine can be found in the vicinity of Big Otter Lake, Pine Lake and East Pine Pond. Tamarack, spruce and balsam are found in wet areas. All drainages exhibit a young softwood element. Alders frame streams and are found in swamp areas. Cover types on ridges and higher elevations range from mixed hardwood-conifer stands of pole size to pure hardwoods totally lacking spruce and fir (See Appendices 5 and 17.)

b. Wildlife

Because it is located within easy driving distance of the Mohawk Valley, Syracuse and other urban areas, Ha-De-Ron-Dah is very popular with wildlife enthusiasts. The most heavily used access by the general public is the Big Otter trail at Thendara. The western portion is in a pioneer plant succession stage due to the aforementioned fire. Poplar, pin cherry, wild shrubs and coarse grasses with many openings can be found here. These conditions are considered to be attractive to many wildlife forms, including white-tailed deer. Historic deer wintering areas existing within this unit are in the drainage northeast of Copper Lake and in the North Inlet and South Inlet to the Big Otter Lake area. These areas are used irregularly. Important wintering areas near Balsam Flats, Otter Creek and Tommy Roaring Creek are just to the west and northwest of the Ha-De-Ron-Dah Wilderness. A major deer wintering area of long standing is located adjacent to, but not within, the unit.

Following is an inventory of wildlife that occurs within the Region, either as resident or transient species:

Common wildlife species occurring on the unit include black bear, white-tailed deer, coyote, raccoon, river otter, beaver, mink, varying hare, red squirrel and eastern chipmunk. Less common species include fisher, marten, bobcat, red and gray fox, muskrat, porcupine and gray squirrel.

Common bird species include ruffed grouse, American woodcock, wood duck, American black duck, mallard, common loon, great blue heron and northern raven. Bird species considered scarce to the unit are the gray or Canada jay and the turkey vulture. Species whose abundance is unknown include the marten, osprey, moose, bald eagle and lynx.

Middle Settlement Lake appears as a common loon nesting area on the list of significant wildlife habitats, compiled by the Bureau of Wildlife, (SW 22-028.) Additional information is available at DEC offices in Watertown and Albany.

Unusual wildlife species that may occur include the bald eagle (endangered.) Osprey (threatened) probably migrate through the area. The bobcat is definitely a resident but, as is common in bobcat populations, its numbers are small. Pine marten have been known to traverse the area. Additional studies are required to document marten density and distribution throughout the western Adirondack foothills.

More common wilderness wildlife species such as the black bear, fisher, otter and common loon (species of special concern) add interest to this unit. Though less common, the northern raven (species of special concern) is here and the

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soaring turkey vulture is also seen at times. Beaver dams and lodges are numerous and the resulting impoundments create habitat for other wildlife.

Since 1980, a few moose have been resident in New York State. Transients from Vermont and Canada, some of these animals have moved through the Ha-De-Ron-Dah Wilderness. One radio-collared bull wintered in the Little Pine Lake-Mud Hole Pond area in 1987. If moose are introduced into the Adirondacks in the future, the Ha-De-Ron-Dah Wilderness will provide important habitat.

The Breeding Bird Atlas compiled by DEC and the Federation of N.Y.S. Bird Clubs lists 114 bird species as occurring on Ha-De-Ron-Dah and includes 15 species as possible breeders, 30 species as probable breeders and 69 species as confirmed breeders (see Appendix 15.) The Atlas deals with those species actually breeding and nesting. Additional species undoubtedly use the area in periods of migration.

The wildlife spectrum of Ha-De-Ron-Dah is diverse and interesting (see Appendices 6 and 15.)

c. Fisheries

There are 5 lakes and 16 ponds of significant surface acreage in this unit. Of these waters, nine are known to support fish life. The remaining ponds are too shallow, too small, or require additional study. These lakes and ponds are scattered throughout the area. Ten are accessible by an existing trail system. Included in this number are all major ponded waters.

Also occurring in this area is a portion of the Independence River and many small streams, six of which are named, (Indian Brook, Pine Creek, Lost Creek, South Inlet, Middle Branch Creek and Middle Settlement Creek.) At least part of each stream is close to an existing trail and, therefore, limited user access is possible.

Brook trout provide fair to good fishing in Pine, Middle Settlement and Middle Branch Lakes and Cedar, Mud Hole and Grass Ponds. Brown bullheads and yellow perch may provide very limited fishing opportunities in Pine Lake, Little Pine Lake, East Pine Pond, Mud Hole Pond and Rock Pond. Of all the streams, only Indian Brook and the Independence River have been surveyed. Native, naturally reproducing brook trout are found in both of these waters. Even though not studied, it is highly probable that Lost Creek, South Inlet, Middle Branch Creek and Middle Settlement Creek also contain native brook trout in all or part of their course (See Appendix 7.)

3. Visual

The lakes and streams in the area are aesthetically attractive. In winter, the green coniferous growth contrasts with winter snows and the silhouetted spruce provide a memorable scene. The greatest period of aesthetic delight is probably during the fall coloration period, when the red maple blaze with glory in contrast to the drabness of the spruce and hemlock. Big Otter Lake, adjacent to the area, provides a pleasing scenic vista. The Independence River is an outstanding feature for its two-mile course through the northern section of the unit. Rolling hills, scattered lakes and ponds, beaver meadows and interesting rock outcrops are among Ha-De-Ron-Dah's virtues.

4. Unique Areas

Although the lakes and streams are attractive and interesting, there are no truly unique areas within the unit. The Moose River and its branches including the Fulton Chain of Lakes are the outstanding features in this locality and are adjacent to, but not within the wilderness area. The Independence River in the northern part of the unit is designated a scenic river as part of the New York State Wild, Scenic and Recreational Rivers System.

5. Wilderness

Compared to the grandeur of a "high peaks" wilderness experience, Ha-De-Ron-Dah may at first appear to have little to offer. Its proximity to urban areas however, makes the unit of priceless value to those who treasure wilderness.

"Wilderness Management" by Hendee, Stankey and Lucas¹³ cites three historical wilderness themes and values which are pertinent to any wilderness area.

- a. Experiential - John Muir, who founded the Sierra Club in 1892, felt that the essence of wilderness was freedom, solitude and beauty and that these qualities could satisfy all of man's needs. Although a short drive from the civilized hub of the Mohawk Valley, Ha-De-Ron-Dah does offer freedom to the urbanite. Although located adjacent to a major highway and an area of high tourism, Ha-De-Ron-Dah does offer solitude. With a few exceptions, the area is little used and the chance of seeing someone else is slim, except on the Big Otter trail or at the leanto sites. Although the area is not mountainous, Ha-De-Ron-Dah does offer beauty of a varying nature; from aesthetic rock outcroppings, to wetlands, to many lakes and ponds, to the trailless area near the Independence River.
- b. Mental and Moral Restoration - The pressure of today's way of life drives some individuals to seek a sanctuary into which one can withdraw to interrupt the strain, to sort out basic values by meeting nature on its own terms and to temporarily redirect a somewhat repetitive life-style. Properly managed as a

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wilderness area, Ha-De-Ron-Dah can satisfy this requirement with minimal physical effort by the visitor and minimal impact on the wilderness environment.

- c. Scientific - Wilderness has a scientific value to society. Biological communities unaffected by man offer an ecological laboratory of the natural progression of things. Many branches of scientific endeavor (as diverse as wildlife research and human behavior) can benefit from wilderness. Ha-De-Ron-Dah with its varying environs can fulfill this need. Although perhaps a 'minor wilderness' when compared to the high peaks, Ha-De-Ron-Dah can indeed offer much to the wilderness advocate.

B. MAN-MADE FACILITIES

There are a number of man-made facilities in the Ha-De-Ron-Dah Wilderness. The non-conforming facilities have been removed.

1. Leantos

There are two leantos on the unit, one is located on Middle Branch Lake and the other at Middle Settlement Lake. Privies are located at both leanto sites. The Cedar Pond leanto was scheduled for rehabilitation in the previous unit management plan, but this proved impossible to accomplish and the deteriorating leanto was dismantled.

2. Foot Trails

The unit has approximately 35 miles of foot trails with related bridges and signs as follows: (See Appendices 13, 14 and 20)

- a. Big Otter Trail - (Blue) 7.8 miles Thendara to Big Otter Lake. This former truck trail is now closed to vehicular use by 2 barriers at Thendara. The southerly barrier is on private land and state maintenance of this bar gate is required by deeded administrative easement. The Big Otter Trail is an officially designated novice ski trail and is also designated as a horse trail. Equestrian use is presently limited to the 7.6 mile section previously used as a truck trail.
- b. Lost Creek Trail - (Red) 1.9 miles Big Otter Trail northerly to a dead end on Lost Creek.
- c. East Pond Trail - (Yellow) 2.8 miles Big Otter Trail to East Pond via Little Simon Pond.
- d. East Pond-Lost Creek Link Trail - (Blue) 2.1 miles Connects Lost Creek Trail with East Pond Trail.
- e. Blackfoot Pond Trail - (Red) 1.0 miles East Pond Trail to Blackfoot Pond and remnants of mica mine.
- f. Middle Branch Lake Trail - (Yellow) 1.6 miles Former Cedar Pond leanto to Big Otter Trail.

- g. Middle Branch Lean-to Trail - (Red) .25 miles Middle Branch Lake Trail to former lean-to site on Middle Branch Lake.
- h. Middle Settlement Lake Trail - (Yellow) 3.7 miles Cedar Pond lean-to to Brown's Tract Trail via Middle Settlement Lake.
- i. Vista Trail - (Blue) .15 miles Middle Settlement Lake Trail to top of scenic cliff.
- j. Middle Settlement Lake Access Trail - (Blue) 1.2 miles Middle Settlement Lake Trail to Brown's Tract Trail.
- k. Cedar Pond Lean-to Trail - (Red) 2.15 miles Brown's Tract Trail to Cedar Pond Lean-to.
- l. Grass Pond Trail - (Yellow) .45 miles Cedar Pond lean-to Trail to Grass Pond.
- m. Brown's Tract Trail - (Yellow) 5.85 miles Thendara to Copper Lake Road.
- n. Scusa Access Trail - (Red) .6 miles Route 28 to Brown's Tract Trail.
- o. Lost Lake Trail - (Blue) 3.75 miles Middle Settlement Lake Trail to Pine Lake Trail via Lost Lake.

3. Nordic Ski Trails

In addition to the Big Otter Trail, cross-country skiing opportunities on unit foot trails are as follows:

- a. Scusa Access Trail to Big Otter Trail via Middle Settlement and Middle Branch Lakes.
(Intermediate) 5.5 miles
- b. Middle Settlement Lake to Pine Lake via Middle Settlement Lake Trail and Lost Lake Trail.
(Expert) 4.8 miles

4. Trailhead Parking Areas

a. Herkimer County

- (1) North of Okara Lakes
- (2) South of Route 28 at the D.O.T. parking lot (Scusa Access)
- (3) north of Thendara at the Big Otter gate.

b. Lewis County

- (1) West of Huzzy's on the south side of Otter Creek
- (2) Near Brantingham Lake on the Steam Mill Road
- (3) Near Big Otter Lake in the Town of Greig

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Mileage and identification of the Pine Lake Trail and other trails relevant to the northwestern portion of Ha-De-Ron-Dah are part of the Independence River Wild Forest and are addressed in the Unit Management Plan for that area.

Sources of additional information on trail locations and descriptions can be found in the D.E.C. brochure, "Trails in the Old Forge-Brantingham Lake Region" and other publications, some of which are listed in the Bibliography. (See Appendix 20.)

C. CULTURAL

The Unit is located within Townships 1, 2 and 7 of the historic John Brown's Tract. John Brown, from Providence, Rhode Island, of Revolutionary War fame and the founder of Brown University, named the tract's eight townships as follows: Township #1 - Industry; #2 - Enterprise; #3 - Perseverance; #4 - Unanimity; #5 - Frugality; #6 - Sobriety; #7 - Economy; #8 - Regularity.

D. ECONOMIC

1. Impact of State Ownership on Adjacent Private Lands

The impact of state ownership on adjacent private lands is minor yet desirable because of an increase in private land value due to confidence in future stability of area use. Although the state pays taxes on Forest Preserve lands, there may be some future impact on the area's private taxpayers. If the land were privately held and "improved," property taxes would increase adding to the tax base. State ownership precludes property tax increases based on improvements. However, unimproved state land does not generate the same public service demands as improved private lands. The local economy depends, at least in part, on the undeveloped lands in the park of which Ha-De-Ron-Dah is a part.

2. Impact of Adjacent Private Lands on State Holdings

Private holdings generally produce a slight economic impact on adjacent State lands. Establishment and maintenance of a visible boundary is required. Law enforcement costs for frequent patrols are necessary to combat trespasses by snowmobile and ATV's which occur on access trails and State lands adjacent to private holdings.

E. PUBLIC USE OF AREA AND CAPACITY OF THE RESOURCE TO WITHSTAND USE

Trailhead use figures (number of persons) for this wilderness are as follows;

Ha-De-Ron-Dah Wilderness Use Figures 1982-1992

YEAR	SCUSA	OKARA	BIG OTTER	TOTAL
1982	958	96	536	1590
1983	909	116	623	1648
1984	813	103	519	1435
1985	946	57	494	1497
1986	741	72	322	1135
1987	717	68	386	1171
1988	961	83	218	1262
1989	933	87	379	1399
1990	865	17*	540	1422*
1991	1164	16*	783	1963*
1992	963	106	838	1907

* Incomplete data

As can be expected, current use of the Ha-De-Ron-Dah Wilderness is highest during July and August. Trailhead register use figures indicate an average of **1494** visitors annually in **1982** through **1992** with a generally downward trend until 1986 when an upward swing occurred. Although trailhead register forms are the best source of use information currently available, these figures are somewhat inaccurate on the low side due to the failure of many hikers, especially day users, to take the time to sign the registers. Undeveloped camping permits for the area average **20** for the year and represent an average of **156** people as stated in the original unit management plan. Permits for the five year period **1986-90** are as follows:

1986 - 18 permits at 144 persons
1987 - 16 permits at 156 persons
1988 - 15 permits at 125 persons
1989 - 20 permits at 184 persons
1990 - 16 permits at 129 persons

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The two lean-tos within the area, a number of favored sites and the Pine Lake lean-to on the edge of the area, provide a degree of controlled camping. Recent Assistant Ranger reports consistently indicate the areas of highest use to be Middle Settlement and Middle Branch Lakes.

Hunting permits show that the south shore of Big Otter Lake and the Lost Creek-Independence River area are favored for that purpose. Moderate hunting use occurs along the southeastern boundary near Route 28 and the Otter Lake-Pine Lake area. Trapping use is limited, although some occurs every season. Little stream fishing occurs in this area. There is moderate fishing pressure ranging from an estimated 90 to 150 use-days primarily in the springtime, on Middle Settlement Lake, Pine Lake, Middle Branch Lake and Little Pine Lake. Very light fishing pressure estimated at 30 to 40 user-days per year occurs on East Pine Pond, Cedar Lake, Mud Hole Pond, Rock Pond and Grass Pond.

Even though there are a number of old roads and trails, which lead into the area, these are not accessible to the general public. In many cases, adjacent private lands, which are posted, effectively block public use. Denial of access from Route 28 across private property on the Copper Lake Road precluded passage to the southwestern portion of the unit until recently. The initial management plan deferred maintenance of the affected trails until access was realized. The recent acquisition of a conservation easement from the Nature Conservancy across lands of the Lyons Falls Pulp and Paper Company, Inc. (see Appendix 22.) provides for parking and access to the western portion of the Brown's Tract Trail and the southern-most part of the Middle Settlement Lake Trail. These trail sections should be reinstated to the list of maintained unit trails and the appropriate maintenance (clearing, signing, etc.) initiated when the easement access trail has been completed. A new trailhead register should be placed at the intersection of the Brown's Tract Trail and the Copper Lake Road at that time.

The area receives some pressure in the form of illegal motorized use from adjacent private land in the vicinity of Copper Lake and Okara Lakes. Minor use comes from private lands at North Pond and Otter Creek. The established access at Thendara to Big Otter Lake provides some private non-conforming snowmobile use. Illegal snowmobile use also occurs due to the proximity of snowmobile trails on adjacent lands. Illegal snowmobile, ATV and trail bike use occurs on Pine Lake and in the Mud Hole area in Lewis County.

Public mis-use on the unit is typical of the interior and consists of:

1. The cutting of small, green trees and dead standing trees at Middle Settlement and Middle Branch Lakes and other higher impact areas.
2. Littering and poor human waste disposal.
3. Theft and damage of signs. A graphic example of this occurred on the Scusa Access Trail recently when an axe was used to remove or severely chop the majority of the trail markers along most of the route to the Brown's Tract Trail.
4. Destruction of privies.

Current observable environmental conditions on Ha-De-Ron-Dah indicate that the unit receives light total use, with moderate use concentrated in popular areas, mainly near Middle Settlement Lake, Middle Branch Lake, the south shore of Big Otter Lake, East Pond, Grass Pond and Pine Lake. Accurate use figures by area are not available.

It is difficult to obtain accurate use figures for a wilderness area due to physical size, multiple accesses and the cost of maintaining a reliable information system. As indicated earlier, trailhead register information, although inaccurate, is the only data source available. The Assistant Ranger Program yields good use information and valuable contact between Department managers and the user public during peak months; however, this program is affected annually by the level of budget allocation.

The capacity of the fisheries resource to withstand use has similar criteria because the basic goal in the management of this resource in the Adirondack Park is the quality of the experience as opposed to the quantity of use.

The capacity of the wildlife resource to withstand use is probably of less relative importance because present levels of consumptive use may never reach a maximum in any wilderness area. It is improbable that enough people will spread out over sufficient area to have a detrimental effect on wildlife given this resource's ability to renew itself. The current overall use of this unit is low enough to suggest that there is little probability of significant disturbance, even of low tolerance wildlife species. Although the "critter component" is a major part of the wilderness ecological web, wildlife reaction to wilderness use has received very little systematic research.

F. CARRYING CAPACITY AND THE LIMITS OF ACCEPTABLE CHANGE (LAC)

A discussion in "Wilderness Management"¹³ by John C. Hendee, George H. Stankey and Robert C. Lucas suggests that "although many qualities are associated with wilderness, two of them, naturalness and solitude, are most frequently prescribed in popular literature and the law. Both qualities are sensitive to the use an area receives and an excessive number of users can impact the quality of the natural setting as well as the sense of solitude that one experiences. As use levels rise, these qualities can be jeopardized to the point that the area no longer constitutes wilderness in either a conventional or legal sense."

The book states that carrying capacity is a fundamental concept in natural resource and environmental management and defines it as the maximum level of use that an area can sustain based on both an ecological and a social capacity. It further relates that in the process of developing a wilderness management program, managers and the public must recognize that what wilderness is and therefore how it should be managed, is based on value judgements. These value judgements reflect the philosophical, emotional, spiritual, experiential and economic responses of those making the judgements. The task facing those who manage wilderness is to determine value judgements regarding what constitutes

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desired wilderness conditions and further, how those conditions should be maintained within the various existing constraints. Inherent in this collective value judgement is the recognition that management of wilderness is really management of wilderness users and their impacts.

Desired resource conditions are described somewhat in the Adirondack Park State Land Master Plan (See Appendix 8.) Due to its wilderness classification, the management of Ha-De-Ron-Dah should be directed at maintaining the unit's primeval character and preserving, enhancing and restoring it's historically documented natural plant and animal community while keeping man's influence to a minimum.

Desired social conditions however, are somewhat more flexible and as pointed out in "Wilderness Management", every experience theoretically results in a different carrying capacity. As cited in the Introduction to this plan, five user groups with varying and conflicting requirements come into focus. These groups include 1.) those who never visit a wilderness area, but gain satisfaction from knowing the wilderness is "out there"; 2.) those who enjoy the wilderness from a distance but do not actually enter; 3.) the true wilderness advocates who rely on "woodsmanship" to venture into the interior primarily for the spiritualistic refreshment of solitude; 4.) some daytrippers and over-nighters who desire a social wilderness experience with easy access, a marked, well maintained trail system and a lean-to at a select location as a terminus and 5.) those for whom the social factor completely occludes the basic values of a "true" wilderness experience. Hikers, campers, hunters and fishermen can be found among those in the last three groups.

In order to assist in the determination of proper carrying capacity judgements, the Limits of Acceptable Change (LAC) concept has evolved. The LAC concept suggests that the proper management of recreational use and its impact requires that we must first determine the kinds of impacts that will occur and their possible implications. The first basic consideration is that natural resource, sociopolitical and managerial factors must all be considered. Second, the inevitability of change is a critical consideration that we must consider in prescribing carrying capacities. We need to realize that any recreational use of an area leads to some change in character of the foregoing factors. The LAC focuses attention on deciding the amount of change that will be allowed to occur. Third, the value judgements used to determine the acceptable change are derived from stated management objectives for the unit. Desired conditions need to be expressed explicitly and quantitatively so there will be no flexibility of interpretation. Finally, we need to consider that the impacts of use on the resource and other users is sometimes more important than the number of users. This includes such things as the type, timing and location of use and visitor behavior.

"Wilderness Management" contends that the LAC concept recognizes and seeks to enhance and protect diversity in wilderness conditions. Variability is not only inevitable, it is desirable up to a point, because it enables the divergent tastes and desires of the recreational

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visitor groups cited above to be met. No single condition constitutes wilderness, rather a range exists, from the absolutely pristine to more modified states.

It is our intent through the LAC process to establish a clear measure of what constitutes acceptable wilderness conditions on the Ha-De-Ron-Dah unit in the form of explicit, measurable standards. The four major components of the LAC process are as follows: 1.) the specification of acceptable and achievable resource and social conditions, defined by a series of measurable parameters; 2.) an analysis of the relationship between existing conditions and those judged acceptable; 3.) identification of management actions judged to best achieve these desired conditions; and 4.) a program of monitoring and evaluating management effectiveness. Using the nine steps necessary to facilitate these four components the following specifics come into focus for management of the Ha-De-Ron-Dah Wilderness.

Step 1: Identification of Area Issues and Concerns

1. The unit offers outstanding opportunity for a wilderness recreational experience less than an hour from a major population center.
2. The unit provides habitat for the bald eagle (endangered), osprey (threatened), common loon and northern raven (species of special concern.)
3. Difficulty of control of illegal snowmobile, ATV and mountain bike use.
4. The effect of historic high use on the southern unit trail system and the leantos at Middle Settlement and Middle Branch Lakes on the 'wilderness experience'.
5. Traditional maintenance with non-motorized access and increasing funding limits.

Step 2: Definition and Description of Opportunity Classes

1. Primitive (North of the Big Otter Trail)

This area is characterized by an essentially unmodified natural environment where interaction between users is very low.

2. Semi-primitive (South of the Big Otter Trail)

This area is characterized by a predominantly natural or natural-appearing environment where evidence of other users is often present.

Step 3: Selection of Resource and Social Condition Indicators

Resource Factors

1. Trail conditions - Eroded, wet
2. Campsite conditions - Litter, poor drainage
3. Water Quality - Lack of aquatic vegetation or fish

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4. Wildlife populations - Lack of wildlife encounters

Social Factors

1. Solitude while traveling - Number of encounters/day
2. Solitude while camping - Sites within sight and sound
3. Conflicting uses - Number of incidents/day
4. Party size - Number of individuals/site
5. Noise - Level and frequency of occurrence

Step 4: Inventory of Existing Resource and Social Conditions

Existing unit resource and social factors keyed to those listed in Step 3 are as follows:

1. Resource Factors

- a. Trail conditions on the unit are variable and mostly confined to annual brushing and limited facilities improvement by Operations personnel and volunteers. Only bridges considered somewhat major have been repaired or replaced. Some eroded, wet areas do occur, especially in the northern portion.
- b. Designated campsite conditions are generally satisfactory, with littering variable depending on location and amount of use. Fireplaces will be replaced with fire rings as they deteriorate which will enhance the perception of wilderness and eliminate difficult fireplace maintenance.
- c. Water quality is site specific reflecting the acidity of any particular water body which may vary dramatically from the next one. Other water quality parameters are not generally a problem in the unit.
- d. Wildlife populations are consistent with existing wilderness levels, ranging from frequent small game sightings to a lack of traditional wilderness species.

2. Social Factors

- a. Solitude while traveling and camping in the southern half of the unit is dependent mainly on time periods. During the off season, interparty contacts are infrequent, certainly within accepted limits. During the summer, higher contacts will occur with numbers on popular trails exceeding levels appropriate for absolute wilderness use, especially on weekends. The northern portion is used to a much lower degree especially north of the minimal-maintenance area.

- b. Possible conflicting uses on the Ha-De-Ron-Dah Wilderness include hiking/horseback use on the Big Otter Trail and solitude/social conflicts in the heavier used areas and periods in the southern portion of the unit.
- c. Party size has the potential of destroying a true wilderness experience in the southern areas during times of high use. While noise distraction may not be consistently linked to party size, studies indicate that the possibility of its occurrence is improved with larger groups.

Step 5: Standards For Resource and Social Indicators By Opportunity Class

Primitive

This opportunity class is to provide a high degree of solitude and individual self-reliance. Natural processes and a wild character will dominate the area. Acceptable trail condition standards appropriate for this opportunity class are less than those in the higher use areas closer to access points on this wilderness unit. Conditions to be expected in this higher solitude zone are minimal, a lower degree of trail maintenance is required and user convenience is secondary to natural processes and aesthetic character. Fireplaces will be phased out as they deteriorate and they will be replaced with low-maintenance fire rings. Due to the difficulty and expense of wilderness maintenance and rehabilitation, leanto retention will be considered on a case-by-case basis. It may be more prudent to spend available funds on more easily accessible leantos in wild forest units. Additionally, wilderness camping at any level suggests user self-reliance and a leanto gives the perception of a shelter when in fact, the facility may be full. Solitude is the ultimate consideration for this class and standards will reflect the 'true' wilderness experience.

Semi-Primitive (Non-Motorized)

Use levels in this opportunity class will require active management to protect natural resources and assure solitude at camp sites. Somewhat wider trails with appropriate bridging and trail hardening where absolutely necessary will be utilized. Campsite requirements are less, low impact camping is still desirable, fireplaces will not be utilized and leantos may not be retained. Designated campsites will consider a degree of user convenience and comfort commensurate with this opportunity class (a fire ring, minimal signing, pit privies) but less than that in a wild forest.

Step 6: Identification of Alternate Opportunity Class Allocations Reflecting Area Issues and Concerns and Existing Resource and Social Conditions

We have stated that management goals in the Adirondack Park require maintaining the unit's primeval character and preserving, enhancing and restoring it's natural plant and animal community while keeping man's influence to a minimum. Close proximity to a high urban area increases the value of Ha-De-Ron-Dah as a wilderness unit and as

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a source of recreational opportunity under conditions of solitude. Desired social conditions are somewhat more flexible. As discussed earlier, the five cited wilderness user groups have varying and conflicting requirements. Those issues and concerns stated in Step 1 are helpful in concentrating on those options which should be considered.

Step 7: Identification of Management Actions for Alternatives

The above cited wide spectrum of user types would require as wide a range of management goals; if not tempered by the Master Plan guidelines and classification system and also by the dictates of "best use" planning logic. The concept that management of wilderness primarily for solitude constitutes "best use" may be difficult for some land managers to accept as they consider that the land is being managed for a small group of constituents. The number of those "purist" individuals in the third user group may be comparatively small when considered exclusively, but it should be remembered that the larger first and second groups, though not physical users, are constituents and they also have a "word in the matter." Also, it is felt that many in the fourth group would also find that solitude enhances their experience and they would be likely to act in ways that would not impact others in a "purer" wilderness setting. Another consideration that should motivate the land manager to manage "wilderness as wilderness" is a personal acceptance of the concept that "true" wilderness management is strengthened by mitigation when managing wild forest units along with the reality of budgetary limitations.

Step 8: Evaluation and Selection of a Preferred Alternative

To manage the Ha-De-Ron-Dah Wilderness for the alternatives cited above, it is necessary to divert the fifth user group to the many adjacent wild forest areas, because management goals which would fulfill the requirements for their enjoyment would be incompatible with the other four groups; it would exceed the limits of State Land Master Plan restrictions and guidelines for the Wilderness classification; and it would not fit the scheme of managing primarily for some degree of solitude. The means to satisfy the varying preferences of the other four groups requires that we continue the zones of acceptable use established in the previous unit management plan.

Step 9: Implementation of Actions and Monitoring of Conditions

The Management and Policy Section (III.) will address the specific goals and objectives to be adopted in considering the LAC procedure to satisfy the requirements of the first four user groups with minimal impact upon the environment of this wilderness area. Although current use appears to be low, early management procedures should be set because it is probable that use will increase as more and more people "take to the woods" in lieu of increasingly expensive recreation alternatives.

III. MANAGEMENT AND POLICY

A. PAST MANAGEMENT

State stewardship of the parcels comprising the Ha-De-Ron-Dah Wilderness (See Appendix 9) began in 1909. These lands are currently under the mandate of Section One of Article XIV of the New York State Constitution (See Appendix 10.) The care, custody and control sections of the Environmental Conservation Law allow only for the protection of Forest Preserve lands from fire, insect and disease problems and unauthorized use and trespass.

Following a large forest fire in 1903, a fire management truck trail approximately eight miles in length was built by the State from Thendara to Big Otter Lake. This road was originally known as the Big Otter Truck Trail. Since motorized vehicles are not permitted in a wilderness area, except for sudden, actual and ongoing emergencies, the state land portion of this trail is now simply known as the Big Otter Trail. In 1976, a standard barrier gate was erected at the Big Otter entrance to state land to bring this trail into conformance with Master Plan mandates by preventing vehicular access. This trail has been designated as an official department horse trail, in part due to its ability to withstand damage. It is also managed as a cross country ski trail.

The Conservation Commission's Ninth Annual Report³⁴ states that a fire tower was opened in 1912 at a location "on the Highway from McKeever to Port Leyden" and that in 1919, "the Moose River Mountain Station (was) changed from its old location on the highway (in the Town of Lyonsdale, Lewis County) to a hill between Fulton Chain and Big Otter Lake from which a far better view (was) obtainable". This successor to the original wooden structure was a steel tower and the "hill" upon which it was erected is the summit of Moose River Mountain within the boundaries of Ha-De-Ron-Dah. During the week of May 15, 1977, this tower was dismantled to conform with the unit's wilderness designation. The supporting observer's cabin and about 3 miles of telephone line were also removed (See Appendix 11.)

Facilities construction and maintenance in the 1960's were well funded and unit facilities were kept in good condition. Maintenance in recent years, however, has been limited to necessary repairs to leantos, privies and bridges and the brushing and signing of trails by Forest Rangers, Assistant Rangers and Operations personnel. Volunteer work in the past provided by the Youth Conservation Corps, Adirondack Mountain Club, Herkimer County Community College students and more recently, the leanto adoption program has furnished very valuable assistance. Maintenance is difficult because of access problems, the need to transport materials and the lack of manpower resulting from budget restrictions and workloads.

Leantos on the unit were originally built by private individuals under permit and conformed to standard plans. Leantos and trails were taken over by the State, brought up to State standards and designated as official department facilities in the 1950's. Two of the four

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original leantos (East Pond and Middle Branch Lake) have been destroyed by accidental fires. The Middle Branch leanto was replaced in 1988, but the East Pond structure was not reconstructed due to physical difficulty and to address true wilderness management in the pilot unit plan.

There have been Assistant Forest Rangers on Ha-De-Ron-Dah for the past fifteen years, but season lengths have varied and field time on the unit was shared with other units in later years.

Past wildlife management in the Ha-De-Ron-Dah Wilderness has not been intensive. It has consisted mainly of enforcement of state-wide seasons for large and small game, the collection of deer and bear harvest data from D.E.C. deer check stations and hunter reports and the tagging of otter, bobcat, fisher and beaver. Carcass examinations have yielded some biological information on otter, bobcat and fisher. Reports of rare or endangered species are solicited from D.E.C. personnel and other reliable sources.

Historical highlights pertaining to wildlife management that have affected this unit during the past 25 years are as follows:

Hunting

Species	Year	Legislative or Policy Change
Deer	1960	Original Deer Management Units (DMU's) established by Bureau of Wildlife. These original zones have been modified and revised to the current classification. DMU zone boundaries are patterned after ecological zones and eventually will lead to a finer tuned management more specific to given areas. Ha-De-Ron-Dah is included in DMU 25 (See Appendix 6.)
	1970	
Deer & Bear	1977	Antlerless deer harvest prohibited during the regular firearm season.
Deer & Bear		First special muzzleloader season started, lasting one week, in wilderness areas only. Ha-De-Ron-Dah was one of these original units.
Small Game	1960-1980	Length of season has changed periodically.

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Species	Year	Legislative or Policy Change
Deer	1986	Second tag for successful bow hunters was passed by the Legislature. This option provides an incentive for deer hunters to hunt the Northern Zone and still be able to hunt in other parts of the State during the regular season.
	1991	Legislation was passed allowing successful muzzleloader hunters to obtain a replacement tag for a second deer. This change will stimulate additional recreational opportunity in areas open for muzzleloading hunting, including the Ha-De-Ron-Dah Wilderness.

Trapping

The length of all furbearer seasons has varied during the 20-year period. There have never been bag limits established for trapping furbearers in the Northern Zone.

Species	Year	Legislative or Policy Change
Beaver	1900's 1901-1906	Beaver nearly extirpated from Adirondacks. 20 wildtrapped beaver from Ontario, Canada released in Adirondacks
	1907-14	Wildtrapped beaver from Yellowstone Park released in Adirondacks
	1924	First regulated trapping season opened (March) . 1924 & 1925 - 6,000 beaver harvested
	1926 & 1927	Season closed
Fisher Canidae	1928	5,000 beaver harvested
	1929-1933	Season closed
	1934-1938	Open season
	1939-1940	Season closed
	1941	Present regulated harvest seasons have existed
All furbearers	1977	One year closure
	1976	Red Fox, Gray Fox and bobcat were elevated to game animal status and added to the list of protected species.
	1977	Coyote added to protected species list
	1980	New Furbearer Management Units (FMU's) were established. Ha-De-Ron-Dah is included in FMU #4 (See Appendix 6.)

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Species	Year	Legislative or Policy Change
Fisher and pine marten	1983 & 1984	Trapping season closed.
Endangered species	1969	Passage of the Endangered Species Act by Congress permitted New York to expand research on unique, threatened and endangered species.
Significant habitats	1975	Program was initiated to inventory habitats or sites having geological, historical, or ecological significance.
Non-Game	1980	Passage of the Non-Game Species Management Act by Congress authorized expenditures to states for fish and wildlife.
Avian Surveys	1980	Breeding bird atlas was initiated with cooperation between the Department of Environmental Conservation and the Federation of New York State Bird Clubs, Inc. (See Appendix 15.)

Active management of the fisheries of this unit began with the biological survey of 1931. Subsequent activities have included stocking, harvest regulation and routine survey and inventory (See Appendix 7.)

Projects recommended in the Ha-De-Ron-Dah Unit Management Plan which were subsequently budgeted for, funded and completed are as follows:

1. Annual facilities maintenance, annual boundary line maintenance, game animal and furbearer harvest monitoring as part of the statewide program, maintenance fish-stocking and water quality monitoring, resource inventory data surveys of unit waters and annual trail maintenance.
2. Initial brushing and clean-up of East Pond-Lost Creek Trail loop and the Big Otter Trail.
3. Directional sign installation and correction where necessary was initiated but needs completion.
4. Construction of the bridge at South Inlet (Big Otter Lake) .
5. Big Otter and Scusa Access trailhead registers and pertinent signing were moved into the interior.
6. East Pond lean-to and privy remnants were eliminated.
7. Miscellaneous Title Investigation Number 434 on the Keyes parcel is in progress.
8. Acquisition of a conservation easement to allow improved access to the southern portion of the unit was completed.

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9. The Middle Branch lean-to was rebuilt.
10. Initial designated sites were selected.

B. MANAGEMENT GOALS

The goal of the Ha-De-Ron-Dah Wilderness Unit Management Plan is to continue to perpetuate a natural plant and animal community while providing the public with the opportunity to enjoy appropriate forms of outdoor recreation in a wilderness atmosphere as follows:

1. Land Management

- a. To perpetuate a wilderness quality in this unit in accordance with the State Land Master Plan. Resource degradation will be continuously monitored and identified and where it has occurred, wilderness characteristics will be restored.
- b. To protect this wilderness unit from fire and insect and disease problems, unauthorized use, trespass and all other influences that damage wilderness values and to do so in a planned manner consistent with wilderness policy.

2. Wildlife Management

To perpetuate indigenous wildlife as a part of the Adirondack environment at levels compatible with their habitat, while sustaining these species for the public interest, in a wilderness atmosphere.

3. Fisheries Management

- a. To perpetuate indigenous fish as a part of the Adirondack environment and to manage this resource so that fishery numbers and occurrences are compatible with their wilderness habitat.
- b. To provide the opportunity for the enjoyment and beneficial utilization of the fishery by the public as a part of the wilderness experience.

4. Public Use Management

- a. To recognize the lack of appropriate facilities and the detrimental effects of camping by large groups by discontinuing the issuance of group camping permits on this area. This activity should be supported by proposed Department policy prohibiting the practice on all wilderness areas.
- b. To maintain the qualities of a wilderness experience by managing the unit consistent with established wilderness management principles.
- c. To provide the opportunity for people to use and enjoy the Ha-De-Ron-Dah Wilderness in a manner consistent with wilderness values.

5. Water Quality Management

To maintain a quality aquatic environment where possible, and to preserve natural habitats on the unit to a degree consistent with wilderness values.

C. MANAGEMENT OBJECTIVES

1. Land Management

- a. To maintain sufficient Department personnel to accomplish the goals and objectives of this plan.
- b. To develop an inventory of all plant species (including those rare and endangered) within the unit.
- c. To continue maintenance of a marked boundary line around the unit on a five to seven year rotation, especially where the unit is adjacent to private land and to keep maintenance records. Actual frequency of maintenance on any given line will be determined by its condition at the five-year interval.
- d. To acquire those parcels of land, if and when they become available, that would improve access and protect against encroachment and erosion of this unit's wilderness character.
- e. To obtain additional natural resource data to support a comprehensive revision of this plan by 1998.

2. Wildlife Management

- a. To continue annual monitoring of game animal and furbearer harvests assuring management consistent with statewide wilderness management objectives while maximizing recreational opportunities and perpetuating indigenous species in the unit.
- b. To encourage the development of research projects to identify wildlife species and/or wildlife habitat that could improve the unit's wilderness character and address necessary management deviations in future plan updates.
- c. To complete a feasibility study for the reintroduction of species known to be extirpated from the Ha-De-Ron-Dah Wilderness.
- d. To stress non-consumptive uses of the wildlife resource and to encourage the concept that hunting and trapping on the unit are only a part of a larger wilderness experience.
- e. To provide well-identified legal access to all sides of the unit for the benefit of wildlife users.

3. Fisheries Management

- a. To continue to provide trout fishery consistent with wilderness management objectives by annual stockings in suitable ponds.

- b. To maintain resource inventory data of all fish species for all waters suitable for fisheries management.
- c. To use current inventory data to make management decisions consistent with wilderness management objectives for the good of the fishery resource.

4. Public Use Management

- a. To continue maintenance of existing trails within the southern portion of the unit (bounded on the north by the Big Otter Trail.) Maintenance and rehabilitation of trails will be performed in the manner and time frame indicated in Sections IV.B. and V. of this plan. With the exception of the LFP&P Easement trail from the south, no new trails will be constructed.
- b. To continue "light" maintenance on the minimal maintenance loop (approximately 7 miles bounded on the south by the Big Otter Trail.) Affected trails include the loop composed of the East Pond trail, East Pond-Lost Creek Link Trail, Lost Creek Trail and Blackfoot Pond Trail. The southern portion of the Lost Creek Trail in the vicinity of Big Otter Lake is excepted because of existing hunting, fishing and hiking use. As in the past, maintenance will be accomplished only on a five year basis and will consist of clearing brush and large blowdown within a narrow walking corridor (2 feet wide by 9 feet high) as well as necessary bridging at consistent problem areas on the trails. This area shall be for the wilderness seeker who desires a more natural experience. No additional trails will be built in this part of the unit and no facilities will be constructed. The northernmost section above the existing loop trail will serve as a trailless area for use by the wilderness advocate who seeks solitude and self-reliance and no facilities, including trails will be constructed (See Appendix 20.)
- c. To continue to place appropriate signs along the boundary to make people aware that this is a wilderness area. Informational signs will be placed at trailheads showing the area as a wilderness area and stating rules, regulations and proper wilderness habits.
- d. To publish the Ha-De-Ron-Dah Wilderness pamphlet and map with emphasis on user education. A vigorous public education program relative to the logic of "pure" wilderness management within the Adirondack state-land structure should be actively pursued.
- e. To complete campsite designation to allow for well-dispersed use at prime areas and to assist in compiling use statistics by department personnel. Specific designated site locations will comply with the State Land Master Plan primitive campsite guidelines as the minimum standard and shall be monitored after initiation to preclude site degradation.
- f. To control camping in accordance with the rules and regulations including enforcement of the permit system and stress on the "if you carry it in, carry it out" regulation (190.3) to eliminate the illegal practice of users burying refuse in this unit.

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- g. To refurbish existing informational and directional signs and to correct any existing inaccuracies of indicated mileages.

5. Water Quality Management

- a. To continue monitoring water quality, particularly pH in productive waters.
- b. To identify and rectify any problem areas that are sources of pollution to unit waters.

IV. PROJECTED USE AND MANAGEMENT PROPOSED

The projected use of Ha-De-Ron-Dah is not expected to increase beyond the unit's carrying capacity as a wilderness area within the five-year time frame of this plan. No new facilities will be installed. Improved monitoring of high use areas is proposed to increase the accuracy of use figures within this period. Any change in current light use levels of area fisheries will probably be a decrease if current trends in water quality deterioration due to low pH continue. Wildlife trends on the unit should not change dramatically within the five-year period, given the absence of a major forest fire or blow-down. However, the second deer for successful bow and muzzleloader hunters passed by the legislature in 1986 may provide the impetus for increased recreational use of the area by those desiring a wilderness hunting experience.

A. FACILITIES DEVELOPMENT AND/OR REMOVAL

1. Leantos

Although leantos represent a unique Adirondack structure to which strong emotional attachment is common, improvements in camping equipment since leantos were first introduced have made these once needed structures merely items of convenience. The difficulty of leanto management on this wilderness area has been exemplified in the Genesis preceding this unit management plan.

As stated in the finalized unit management plan for the Five Ponds Wilderness Area³⁸, the existence of these unnecessary structures within wilderness areas detracts from the goal of wilderness management in that they:

- a. Detract from the criteria of naturalness and solitude that are the distinguishing qualities of classified wilderness^{13 P. 109}.
- b. Provide focus for the establishment of garbage dumps.
- c. Undermine the objective of promoting user self reliance.
- d. Attract persons in user group five. (See Section II.F, Carrying Capacity and the Limits of Acceptable Change).
- e. Create sanitary problems by concentrating use.
- f. Undermine the objective of prohibiting camping use by large groups by attracting such groups.

For these reasons, new leantos will not be considered for this area. Although the existing leantos present management problems, they will be retained until they can no longer be maintained with heavy reliance on volunteer maintenance assistance unless early removal is warranted by excessive user abuse. Fire rings will be substituted for fireplaces at designated sites.

B. MAINTENANCE AND REHABILITATION OF FACILITIES

1. Trails

- a. The East Pond-Lost Creek Trail Loop will be maintained in the first year as the first step in the second 5-year maintenance schedule for this minimal-maintenance area. Maintenance will consist of removal of brush and blowdown within a narrow walking corridor of two feet in width and nine feet in height. Trail markers will be placed at reasonable intervals. (Approximately 7 miles.)
- b. Other trails on the unit will be maintained annually to specifications set forth in final Forest Preserve policy and will include blowdown and problem tree removal and side and overhead trimming. Trail markers will be put up as needed (including horse and cross-country ski trail markers on the Big Otter Trail) and litter will be removed. Work requiring the use of chainsaws will be accomplished in the spring prior to the May 24 deadline, on a 3-year interval, barring extraordinary conditions. (Approximately 28.5 miles)
- c. The westerly .2 miles of the Big Otter Trail should be converted to horse trail classification, the same as the rest of the trail to tie-in with the equestrian use of the Independence River Wild Forest. There is also interest in possible future connection with the Otter Creek Horse Trail complex and the Remsen-Lake Placid Corridor. Details will be addressed in management plans for the Independence River Wild Forest and/or Remsen-Lake Placid Corridor.

2. Bridges

Bridges will be maintained or replaced only when their absence would constitute a significant safety hazard, a serious erosion threat or a deprivation of access rather than a lack of convenience as specified in the Forest Preserve policy for bridges.

3. Barriers

The Big Otter Trail private land bar gate will be maintained to provide high visibility. The Adirondack Park State Land Master Plan (1989, p.19) indicates that roads, snowmobile trails and State truck trails will be blocked "by logs, boulders or similar means other than gates." To conform with this mandate, the state land barrier gate will be replaced with boulders.

4. Directional Signs

Illegible directional signs will be replaced and errors corrected. Removal of the word "lean-to" from East Pond directional signs is of high priority. Signs indicating that a degree of orienteering skill is necessary due to limited trail maintenance will continue to be placed at the beginning of trails that enter the northern part of the area (See Appendix 18.)

5. Established Camping Locations

- a. Since litter tends to encourage more of the same, accumulated litter and garbage will be removed from high-use areas as needed.
- b. Maintenance of leantos and privies as needed until they are no longer serviceable. When this occurs, the retention of leantos will be considered on an individual basis. Privies may be replaced per Forest Preserve policy for privies. Fireplaces are non-conforming structures and will be phased out as they deteriorate. They will be replaced by fire rings per Forest Preserve policy. Evaluation will be made of existing sites which have not yet been designated. These sites will either be designated or closed depending on the site's compliance with SLMP guidelines. Selected designated sites will be monitored and mapped, said map to be appended to this revised unit management plan.

6. Trail Head Registers

Trailhead registers will be maintained in an aesthetic condition. Register forms and signage will be kept at levels adequate for their purposes.

7. Boundary Lines

Approximately 25 miles of boundary line will be painted on a 5 to 7 year rotation. The interval will be set by the Land Manager after evaluation of the line by the area Forest Ranger at five-year intervals. Signs on the portion of the boundary with private land and the remaining interior boundary (approximately 11 miles) will be inspected annually and replaced when necessary.

C. PUBLIC USE MANAGEMENT AND CONTROLS

1. Designated campsite locations in addition to those already instituted will be indicated in an effort to acquire more accurate use determination and to minimize degradation of sensitive areas. Monitoring of sites will follow designation.
2. Leantos, trailheads and registers will display legible rules and regulations and stress that the "if you carry it in, carry it out" philosophy is not just good stewardship, but also a regulation (190.3 of the Official Compilation of Codes, Rules and Regulations of the State of New York), in an effort to keep misuse at a manageable level. Each trailhead should have a large, suitable sign indicating that the unit is a wilderness area.

D. FISH AND WILDLIFE

1. Annual stocking of brook trout to maintain fisheries in the following waters (all waters are in the Black River Watershed):

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Watershed #	Name	Stocking
P707	Middle Branch Lake	1100 FF
P699	Pine Lake	1600 FF
P704	Middle Settlement Lake	600 FF

Stocking policies are subject to change based on revised survey and inventory data. This Management Plan will be amended to include other lakes and streams if surveys so indicate.

2. Periodic field surveys of selected waters to maintain resource inventory data files.
3. Continue monitoring water quality conditions, particularly pH in productive waters, especially in NSA (Natural Spawning Adequate) brook trout ponds and reduce acidity if the fishery becomes endangered. Middle Settlement Lake and Little Simon Pond have been identified as potential liming candidates (See Appendix 7.) If it becomes necessary to undertake these actions within the five-year period of this management plan, the UMP will be amended accordingly. Aerial liming will be carried out in accordance with Department policy and the Final Generic Environmental Impact Statement on the NYSDEC Program of Liming Selected Acidified Waters (Oct. 1990.)
4. Regulation changes for NSA-Brook Trout ponds if future data trends indicate a need to preserve these fisheries.
5. Carry out pond reclamation and barrier dam construction and maintenance if surveys indicate that these activities are needed for the protection of the unit's historic, indigenous fishery. The Pine Lake-East Pine Pond system has been identified for potential reclamation and re-stocking with a heritage Adirondack strain of brook trout (See Appendix 7.) If it becomes necessary to undertake these actions within the five-year period of this management plan, the UMP will be amended accordingly.
6. Annual monitoring of game animal and furbearer harvests.
7. Continue current Adirondack studies by the College of Environmental Science and Forestry and others on:
 - a. the identification of existing rare and endangered species
 - b. the feasibility of the reintroduction of extirpated species
 - c. the effect of acid rain on the reproductive success of Adirondack mammals
8. Initiate appropriate projects if a review of the general literature by the Bureau of Wildlife identifies a need for additional study specific to Ha-De-Ron-Dah.

E. WILD, SCENIC AND RECREATIONAL RIVERS

The Independence River, which winds through the northern tip of Ha-De-Ron-Dah for two miles, is designated a scenic river with a river corridor width of 1/2 mile from the mean high water mark. As such, it is required that the natural character of the river and its immediate shoreline be preserved.

This plan continues the original designation of this portion of the unit as a trail-less area. No facilities will be constructed. There are no conflicting uses, present or planned.

F. FIRE MANAGEMENT

DEC is currently charged with fire protection on Ha-De-Ron-Dah under provisions of Article 9 of the Environmental Conservation Law. Since the unit is located in two counties, responsibility for fire prevention and suppression is divided by county between two ranger districts; one at Old Forge (Herkimer County), assigned to the Herkimer Office and the other at Brantingham (Lewis County) assigned to the Lowville Office. Fire detection consists of scheduled aerial reconnaissance detection flights contracted through the Herkimer and Lowville Offices.

Present access is adequate for fire control purposes, but access roads are becoming increasingly unreliable due to mandated lack of maintenance. Truck access on the Big Otter Trail is currently possible in cases of severe fire emergency. Other roads which still provide limited emergency access include the Copper Lake Road, North Pond Road and the Independence Lake Road (See Appendix 20.)

Some question the validity of fire control within a wilderness unit because natural fires are part of the wilderness ecosystem. Any changes to current fire management techniques will depend upon finalization and implementation of a statewide wilderness fire management policy. DEC's responsibility for public safety, risk level determinations and emergency response planning should also be considered.

G. ADMINISTRATION

1. Staffing

With the exception of the critical, currently empty Natural Resource Supervisor position, the present authorized administrative level of Regional Forestry Manager, Associate Foresters, Regional Ranger, District Rangers and Forest Ranger II's is sufficient to handle the administration of this unit. Adjoining unit plans shall be coordinated and updated by the Bureau of Preserve Protection and Management. Currently there is no Preserve Protection and Management Forester in the Lowville sub-office.

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Currently, four ranger districts, (Old Forge, Brantingham, Stillwater and Otter Lake) are essential to the efficient control of public use, fire pre-suppression and suppression and environmental impact monitoring on this unit. Ranger position openings should be filled immediately since ranger district performance is adversely affected by vacancies in adjacent districts.

An Assistant Forest Ranger is needed annually from Memorial Day to Labor Day. Assistant Ranger patrol is a catalyst to good unit management and is invaluable to both the public and the department.

In order for Operations staffing to be adequate, continued use of the two-person Forest Preserve trail crew is essential for a four-month period beginning mid-April. Incumbents will be required to stay in the interior when necessary and practical to eliminate the time spent travelling in and out.

The existing regional wildlife technical staff is adequate if maintained at full strength and if time constraint deadlines are not imposed for specific projects. It is important that the regional fisheries technical staff also be kept at full strength to provide adequate input for this unit.

2. Budgeting

Normal program funding will support personnel costs for the following activities;

- a. Boundary line maintenance.
- b. Monitoring game animal and furbearer harvests.
- c. Maintenance fish-stocking and water quality monitoring.
- d. Resource inventory data surveys of unit waters.

Additional estimated project expenses to be incurred upon implementation of this plan include;

Year	Project	Estimated Cost
1995 (I)	Assistant Ranger (16 weeks)	\$5,550
	Annual trail maintenance	4,000
	Boundary line maintenance (materials)	200
	Wilderness brochure	1,000
	Open Middle Settlement Lake and Brown's Tract Trails when easement trail to Copper Lake Road is complete and install trailhead register.	5,000

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1996 (II)	Assistant Ranger (16 weeks)	\$6,000
	Annual trail maintenance	2,600
	Boundary line maintenance	220
1997 (III)	Assistant Ranger (16 weeks)	\$6,475
	Annual trail maintenance	2,700
	Boundary line Maintenance	240
1998 (IV)	Assistant Ranger (16 weeks)	\$7,000
	Annual trail maintenance	2,800
	Boundary line maintenance	260
1999 (V)	Assistant Ranger (16 weeks)	\$ 7,550
	Annual trail maintenance	2,900
	Boundary line maintenance	290

3. Education

- a. Assistant Forest Rangers are seasonal employees whose primary assignment is the proper education of the public in wilderness ways, concepts and good recreational habits.
- b. Publication of a Ha-De-Ron-Dah Wilderness brochure can be both a valuable tool for public education and a service to users desiring a wilderness experience. Ha-De-Ron-Dah's relationship with the adjacent Independence River Wild Forest should be reflected throughout the brochure especially in the cartography. The mapping in the "Old Forge-Brantingham Lake Region" brochure has proven to be very popular with users. (See Appendix 21.) In addition to a map of the unit, the brochure should include;
 - (1) available facilities including locations of designated sites.
 - (2) unit description
 - (3) rules and regulations with emphasis on litter
 - (4) importance of registering
 - (5) safety suggestions stressing personal responsibility (including sanitation, giardia and water treatment) and
 - (6) wilderness use recommendations (proper apparel and camping equipment, wilderness difficulties and wild forest diversion information, etc.)
- c. Signing at trailheads and leantos shall be coordinated to encourage the public to reduce littering and other recreational impacts. Adequate numbers of signs with consistent content, placed at appropriate locations will be initiated during the year following approval of this plan.
- d. Educational programs traditionally given by various DEC bureaus should be continued with emphasis on wilderness values and recreational management. These programs include legislative and public hearings; speeches to sportsmen, conservation and service-oriented groups; occasional publications and brochures.

H. PROBLEM AREAS

1. Accessibility

Current access points are sufficient except for the Big Otter Trail which crosses private land. Acquisition of any property offered for sale at the beginning of the Big Otter Trail should be handled expeditiously. When access is acquired at this location, a parking area should be constructed.

2. Trespass

The only deterrent to existing trespass lies in the local Forest Ranger's vigorous efforts at patrol, successful prosecution, education and the signing and painting of boundaries. Vehicular use of the Copper Lake Road has led to trespass when large-tired vehicles attempt to get around bad areas in the road. A temporary revocable permit issued to a Copper Lake landowner has allowed limited maintenance within the bounds of the original route and this has helped reduce the need for by-passes.

3. Land Titles

A parcel on the east end of the Old Brown's Tract Road apparently has a duplicate deed for several acres and buildings on State land claimed by Keyes (formerly Witte.) This parcel is located in Lot 10, Range 2 of Township 7, John Brown's Tract, in the Town of Webb, Herkimer county and is assigned Title Investigation Number 434 (1965.) Some legal activity has occurred since the original unit management plan, but there is still no resolution of this matter. Steps should be taken to finalize litigation to facilitate boundary line completion (See Appendix 12.)

4. Environmental Problems

a. Water

One of the greatest environmental problems in Ha-De-Ron-Dah as in the Adirondacks in general, is the increasing acidity and the resulting death of fish in area lakes and ponds (See Appendix 7.) Until resolution of the acid rain problem, it is necessary to maintain water quality in order to keep unit fisheries at current levels. "Acidity Status of Lakes in the Adirondack Region of New York in Relation to Fish Resources"²⁶ provides insight into this widespread problem and addresses recent studies assessing the extent of lake acidification. Presently the only known source of water pollution within this unit are user litter, debris and fecal contamination in high use areas which are currently not judged to be a significant problem. Site designation, frequent patrolling and education of the user public in good wilderness recreational habits are ways of controlling this potential problem.

b. Solid Wastes

There are no known large refuse areas within this unit. The refuse disposal problem is primarily litter, small disposal sites in heavily used areas and improper human waste disposal. The situation can best be improved by educating the public in 1) good wilderness recreational habits and 2) the difficulty and expense of clean-up in areas where motorized vehicles are prohibited. Stressing "if you carry it in, carry it out" and patrolling problem areas should help to prevent unsightly litter and protect the public's health and enjoyment of this unit.

c. Air

Although this area is exposed to air pollution emissions as a result of weather patterns that transport smog from the industrial midwest, there are no known sources of air pollution in this unit. No such problems are anticipated because all public development of the area is constitutionally prohibited.

d. Vegetation

Some tree mortality, typical of the Adirondacks, is in evidence on Ha-De-Ron-Dah. In some cases, environmental stresses linked to acid rain, climatic changes, defoliation, increasing air pollution and the accumulation of heavy metals on the forest floor, rather than disease vectors may be responsible. Beech bark disease and red spruce decline are clearly having a significant impact on the forest cover on this unit.⁵

5. **Land Acquisition**

The following parcels are desirable for future acquisition if and when they are offered for sale: (See Appendix 9)

- a. To solve the Big Otter Trail access and parking problem the State should purchase the parcels necessary to extend the unit's boundary at this location to include lands south and west of the present road to the State barrier and lands north of Route 28 and Brown's Tract Trail extension. These lands are located in Herkimer County, Town of Webb, Macomb's Purchase, John Brown's Tract, Township 7 and include parts of Range 4, Lots 9 and 10 and Range 3, Lot 10.
- b. Acquisition of the eastern half of Township 7, Range 3, Lot 8 for consolidation and reduction of boundary line maintenance.
- c. Acquisition of lands in Township 6 south of the Independence River, west of the International Paper Company Road and north and east of the present Ha-De-Ron-Dah boundary. These include Township 6, range 1, lots 8 through 12 and part of lot 7; and range 2, part of lots 7 through 12.

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- d. Acquisition of the northern half of lot 5, range 4 in Township 7 to include the west flowing drainage of South Inlet upstream from Half Moon Pond.
- e. Acquisition of lands in Township 2, ranges 5 and 6, lots 7 through 10. This would consolidate drainages into Big Otter Lake.

I. STATE LAND MASTER PLAN AMENDMENTS RECOMMENDED

In the statistical section of the Ha-De-Ron-Dah description in the State Land Master Plan approved in November, 1987, page 44, the quoted 602 acres for water bodies far exceeds the Fisheries estimate of 318 Acres (See Appendix 7.)

Two small isolated parcels of Forest Preserve land classified as Wild Forest lie south of the Copper Lake Road. Logically, these parcels should be reclassified as wilderness when the non-conforming motorized access ceases. The north boundary of the parcel west of Copper Lake is an old snowmobile trail which is no longer used and it is difficult, if not impossible, to locate the trail for unit classification sign placement. It is recommended that the parcel west of Copper Lake be re-classified as wilderness if deeded access is non-existent or resolved. The parcel east of Copper Lake should remain classified as wild forest due to a deeded right of access to Copper Lake until such time as the road can no longer be utilized for motor vehicle access.

J. SEQR REQUIREMENTS

Actions proposed by this unit management plan for the next five years are covered under 6NYCRR Part 617.13(d)(15) of the Type II list which states "routine or continuing agency administration and management not including new programs or major reordering of priorities".

K. RELATIONSHIP OF UNIT MANAGEMENT TO FOREST PRESERVE AND ADJACENT UNITS

Ha-De-Ron-Dah adjoins the Independence River Wild Forest at three locations. These dividing points consist of creeks, trails and Big Otter Lake. The differences in management techniques may be in evidence at these locations, but improved facilities on wild forest areas within the Adirondack Park will mitigate the reduced services in the Wilderness Area.

Ha-De-Ron-Dah's wilderness classification and subsequent management as outlined in this plan restricts some uses addressed in the unit management plan for the Independence River Wild Forest. The elimination of both vehicular traffic at the western tip of Big Otter Lake and the Pine Creek Snowmobile Trail Loop, as well as the restriction of motor boats on Big Otter Lake are attempts to protect the integrity of this portion of the wilderness unit. The upgrading of the Steam Mill Road and the parking lot at Drunkard Creek has benefitted access from the west to within reasonable walking distance for Ha-De-Ron-Dah

*** HA-DE-RON-DAH WILDERNESS REVISED UNIT MANAGEMENT PLAN ***

users. Continued maintenance of the Pine Lake Lean-to in the Independence River Unit provides the only permanent shelter on the western edge of the Wilderness Area.

The parking lot provision included in the Brown's Tract Easement with Lyons Falls Pulp & Paper, Inc. will increase the number of users frequenting Ha-De-Ron-Dah and expand the pattern of use to the Middle Settlement Lake area.

L. PROPOSED REGULATIONS

Possible changes for NSA (Natural Spawning Adequate) brook trout ponds if future data trends indicate a need to preserve these fisheries.

V. **SCHEDULE FOR IMPLEMENTATION**

The following schedule will be applied over the next five year plan period:

YEAR	ACTIVITY
Annually	<ol style="list-style-type: none">1. Boundary line maintenance.2. Monitor game animal and furbearer harvests.3. Maintenance fish-stocking and water quality monitoring.4. Resource inventory data surveys of unit waters.5. Annual trail maintenance.6. Leanto/pit privy maintenance.7. Consider the economics of leanto retention and phase out fireplaces on the unit as these facilities become unserviceable.8. Identify willing vendors to carry out acquisition goals as funds become available (See Appendix 9.)
Year I.	<ol style="list-style-type: none">1. Initial brushing and clean-up of East Pond-Lost Creek Trail loop and the Big Otter Trail.2. Directional sign installation and correction where necessary.3. Complete Miscellaneous Title Investigation Number 434 on the Keyes parcel.4. Complete and publish the Ha-De-Ron-Dah wilderness brochure.5. Re-open the Middle Settlement Lake and Brown's Tract Trails when the access trail from the parking lot on the easement is completed. Install a trailhead register at the intersection of the Brown's Tract Trail and the Copper Lake Road.6. Replace wilderness barrier on Big Otter Trail with boulders.
Year II.	<ol style="list-style-type: none">1. Brushing, signing and clean-up of unit trails other than the East Pond--Lost Creek Trail Loop.2. Complete designated campsite implementation on unit lakes and ponds and append a location map to this UMP.
Years III. and IV.	<ol style="list-style-type: none">1. Trail maintenance per year II.2. Compile more comprehensive resource data to include in plan revision in Year V.3. Monitor designated site impact.
Year V.	<ol style="list-style-type: none">1. Repeat of activities per years III. and IV.2. Draft updated material for the five-year revision of this plan.

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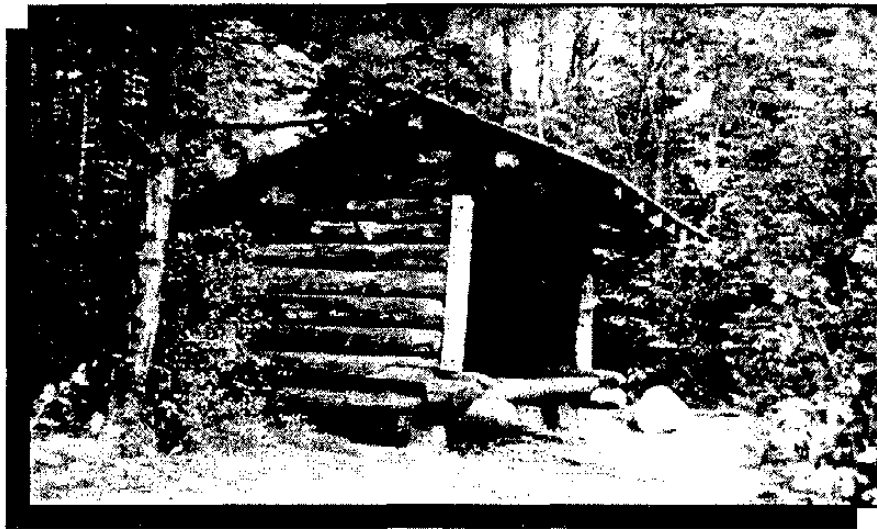
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VII. APPENDICES



Wilderness Leanto...Middle Settlement Lake

HA-DE-RON-DAH WILDERNESS UNIT MANAGEMENT PLAN


APPENDIX 1 BOUNDARY LINE DESCRIPTION

Beginning at the most northeasterly corner of the wilderness area, said point being located at the northeast corner of lot 1, range 6, township 7, John Brown's Tract, Town of Webb, Herkimer County; thence from said point of beginning along the following courses in township 7, southerly along the east line of Lot 1, range 6; thence westerly along the south line lot 1, range 6; thence southerly along the east line of lots 2 and 3, range 5; thence westerly along the south line lot 3, range 5; thence southerly along the east line lot 4, range 4; thence westerly along the south line of lot 4, range 4; thence southerly along the east line of lots 5, 6 and 7, range 3; thence westerly along the south line lot 7, range 3, 20 chains \pm ; thence southerly in lot 8, range 3 and parallel to the east line, to the south line of said lot; thence easterly 20 chains \pm to the southeast corner said lot; thence southerly along the east line of lot 9, range 3, thence westerly along the south line lot 9, range 3; thence southerly along the east line of lot 10, range 2 to the center of the John Brown's Tract road; thence westerly along the said tract road through lots 10 and 11, range 2 and lot 11, range 1, to the westerly line of lot 11, also being the westerly line of township 7, John Brown's Tract. For more specific details on above courses and distances in township 7, see Conservation Department survey map number 1479 by James B. Dexter. Thence continuing in township 1, John Brown's Tract in a generally southwesterly direction along the state boundary in lots 2 and 3, range 6; lots 3 and 4, range 5; and lots 4 and 5, range 4 to the Copper Lake road. For a more precise description of the state boundary, see deed DeCamp to state recorded in book 200, page 294, in Herkimer County Clerk's Office in 1909, and Conservation Department map number 682; thence northwesterly along the northerly bounds of the Copper Lake Road in Lot 5, ranges 4 and 3, crossing from Herkimer into Lewis County to the boundary line between the Copper Lake parcel and the state; thence $N6^{\circ}30'E$, 40 chains (estimated) along the said boundary line to the northeast corner of the Copper Lake parcel; thence $N82^{\circ}45'W$, 81.40 chains along the boundary line between Copper Lake parcel and state to the northwest corner of the Copper Lake parcel; thence $S6^{\circ}30'W$, 24 chains (estimated) along said boundary line to the Abbey Trail; thence westerly along the Abbey Trail to the west line of township 1, John Brown's Tract; thence northerly about 28 chains to the center of Pine Creek; thence northeasterly along Pine Creek through the mudhole to the first major tributary coming in from the west, known as Eight Foot Creek; thence up Eight Foot Creek to the foot trail crossing Eight Foot Creek; thence along the foot trail to the Pine Lake-Big Otter Lake Foot Trail and Snowmobile Trail; thence northeasterly along the southerly and easterly bounds of the combination trail to the bridge over the outlet of Big Otter Lake; thence easterly and northeasterly along the south and east shore of Big Otter Lake to the inlet from North Pond; thence northerly up the inlet to the state boundary on the north line of lot 6, range 7, township 2, John Brown's Tract; thence easterly along the north line of lot 6, range 6 and 5 to the west line of range 4; thence northerly along the state boundary between range 5 and 4 to the north line of township 2; thence easterly along the north line township 2 to the west line of township 6; thence southerly along township 6 and the state land boundary to the north line of township 7; thence easterly along the north line of township 7 to the place of beginning.

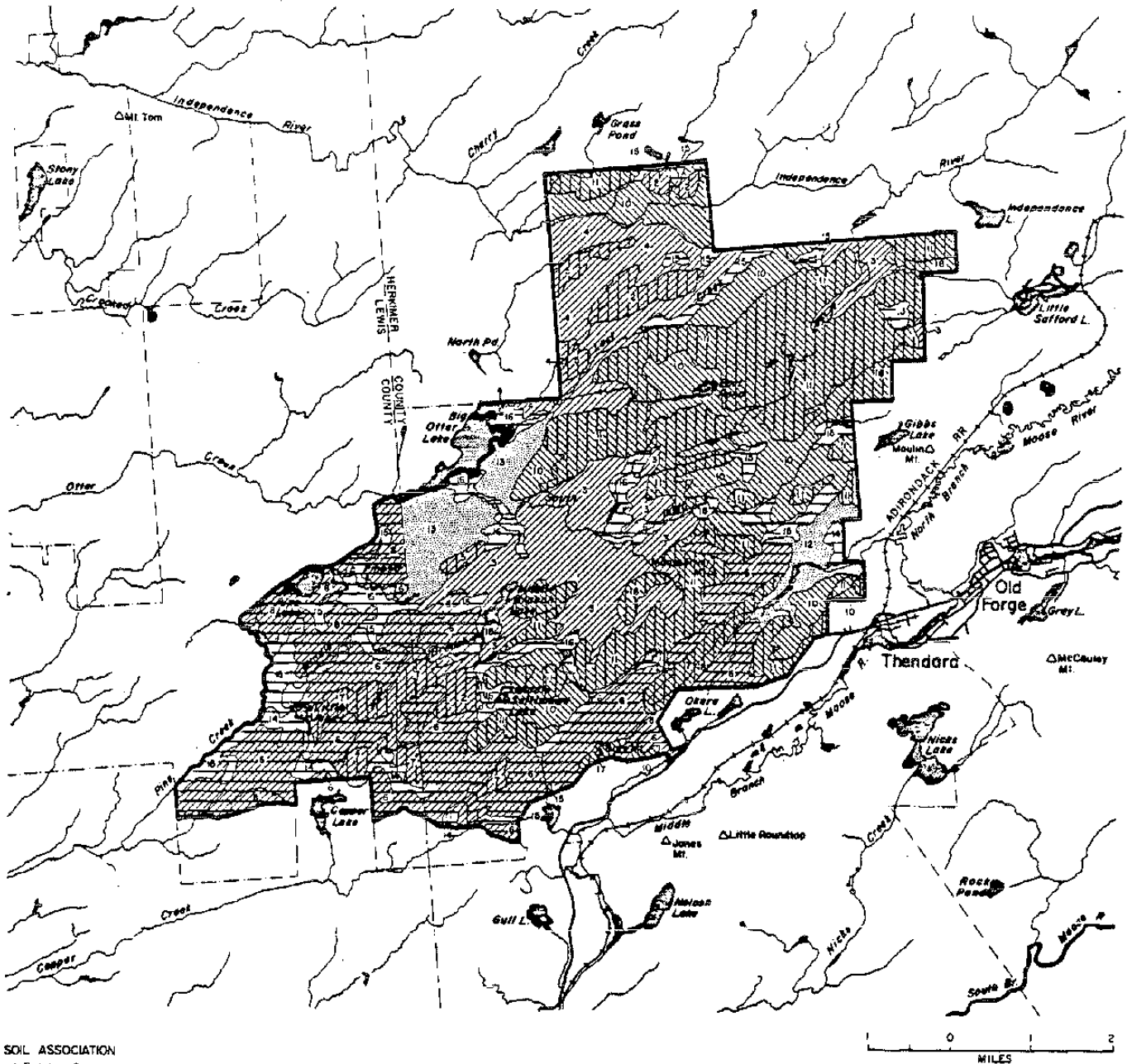
HA-DE-RON-DAH WILDERNESS UNIT MANAGEMENT PLAN

APPENDIX 2

GEOLOGICAL HISTORY OF THE ADIRONDACK REGION DURING THE PAST BILLION YEARS

GEOLOGICAL HISTORY OF THE ADIRONDACK REGION DURING THE PAST BILLION YEARS					
SUBSIDENCE AND SEDIMENTATION	UPLIFT AND EROSION	MILLIONS OF YEARS AGO	ERA	GEOLOGIC PERIOD	NATURE OF THE ADIRONDACK REGION IN THE GEOLOGIC PAST
		?	PRECAMBRIAN		A submerged continental shelf, which receives deposits of sand, clay and calcium carbonate from the mainland
		1100			Geosynclinal prism of sediments buckles to form the Ancestral Adirondack Mts., a towering range which begins to erode and supply impure sandstone (graywacke) to a new northerly trending basin developing to the east.
		600+		Lower Cambrian	Ancestral Adirondacks, somewhat lowered by erosion, continue to supply graywacke to the east.
			Middle Cambrian	Now worn down to a nearly level plain, the beveled roots of the Ancestral Adirondacks supply clean sandstone and carbonate mud to the eastern sea.	
			Upper Cambrian	Adirondack plain submerges beneath the westward advancing eastern sea and the region once again becomes the site of continental shelf deposits (now represented by sandstone and associated thick deposits of sandy dolomite and limestone); algal reefs flank the submerging Adirondack surface on the south and east.	
		500		Lower Ordovician	Brief, gentle upwarp and erosion of this continental margin, followed by resubmergence and the formation of fringing coral reefs concurrently, the deeper eastern part of the geosynclinal sea (now eastern New England) continues to fill with graywacke and volcanic material supplied by an offshore arc of islands
			Middle Ordovician		
			Upper Ordovician		
			425	Silurian Devonian Mississippian Pennsylvanian Permian	Upwarp of Adirondack region accompanied by stripping off of earlier Paleozoic sediments into a western sea as the geosynclinal prism of sediments to the east buckles to form a fold mountain range in eastern New England.
		230		Triassic Jurassic Cretaceous	No record of sedimentation in the Adirondacks; if sediments were laid down, they have since been removed; area was probably eroded to a surface of low relief by the beginning of Cretaceous time.
			MESOZOIC		
		CENOZOIC		Tertiary	Regional upbowing elevates eastern North America, causing renewed, vigorous erosion; major features of the present Adirondacks were sculptured following this uplift; the rock debris carried down from the rejuvenated Adirondacks now lies buried in the continental shelf beneath the surface of the Atlantic Ocean.
				0.6	Pleistocene
			Present		Champlain Valley and St. Lawrence Valley become temporary estuaries of the sea immediately following recession of glacial ice sheet. Upper New York State begins to rebound in response to unburdening of ice; rebound to date is more than 500 feet near Canadian border.
					Area undergoing erosion, and supplying sediments to continental shelf

SOILS HA-DE-RON-DAH WILDERNESS



SOIL ASSOCIATION

- | | |
|--|--|
| 1 Berkshire-Osmond, very stony, sloping | 10 Canaan-Rock outcrop, sloping |
| 2 Becraft, very bouldery, moderately steep | 11 Canaan-Rock outcrop, moderately steep |
| 3 Becraft-Peru, bouldery, sloping | 12 Adams, sloping |
| 4 Becraft-Canaan, very bouldery, sloping | 13 Colton, sloping |
| 5 Becraft-Canaan, very bouldery, moderately steep | 14 Rumney-Saco, level |
| 6 Potsdam-Crary, very bouldery, sloping | 15 Greenwood-Cathro, level |
| 7 Potsdam, very bouldery, moderately steep | 16 Greenwood-Saco, level |
| 8 Brayton-Dunhamora, stony, gently sloping | 17 Rock outcrop-Canaan, moderately steep |
| 9 Ridgebury-Whitman, very bouldery, moderately steep | 18 Rock outcrop-Canaan, steep |

SOIL PROPERTIES AFFECTING MANAGEMENT

- | | |
|--------------------|------------------|
| Steep slopes | Seasonal wetness |
| Stoniness | Few hazards |
| Shallow to bedrock | |

HA-DE-RON-DAH WILDERNESS UNIT MANAGEMENT PLAN

APPENDIX 3.B.

INTERPRETATIONS FOR SOILS IN THE HA-DE-RON-DAH WILDERNESS

SOIL AREA	Number ¹ of 5-acre parcels per square mile							Dominant woodland suitability class and main soil problems ²	Kind and quality of dominant wildlife habitat ³	Principal soil problems ⁴
	Buildings with basements		Septic Tank filter fields		Summer camp sites		Sources of Gravel			
	Slight Problems	Moderate Problems	Slight Problems	Moderate Problems	Slight Problems	Moderate Problems				
Becket, Berkshire and Potsdam areas; very stony	Common	Common	Common	Common	Common	Many	Common	Fair-X	Wood-F	Slow permeability, very stony
rock outcrop areas; steep	Few	Few	Few	Few	Few	Few	Few	Poor-d	Wood-p	Shallow soil, steep

¹ Parcels for buildings, filter fields, and camp sites: Few-less than 5 per square mile; common-5 to 15; Many-more than 15.
Parcels for gravel: Few-less than 1 per square mile; Common-1 to 3; Many-More than 3.

² Good, Fair and Poor productivity of adapted species. Associated soil problems are indicated as: o-slight or none; c-clayey soil; d-restricted depth; r-steep slope; s-sandy soil; w-wetness; and x- stoniness or rockiness.

³ Kinds of wildlife habitat listed as Open-openland; Wood-Woodland; and wet-wetland; and ranked according to quality as G-Good; F-Fair; and P-Poor.

⁴ Soil Problems contributing to interpretations in the table.

Appendix 4

HA-DE-RON-DAH WILDERNESS AREA LAKE, POND AND STREAM INVENTORY

LAKE INVENTORY

Herkimer County - Town of Webb

Elevation	Water Body	Acres
1,622	Middle Branch Lake	42
1,726	Middle Settlement Lake	<u>39</u>
		81

Lewis County - Town of Greig

1,524	Little Pine Lake	34
1,618	Lost Lake	6
1,538	Pine Lake	<u>60</u>
		100

POND INVENTORY

Herkimer County - Town of Webb

2,000	Bear Pond	12
1,770	Beaver Pond	6
1,940	Blackfoot Pond	9
1,700	Cedar Pond	8
1,820	East Pond	29
1,770	Grass Pond	13
1,820	Half Moon Pond	12
1,800	Little Simon Pond	4
1,900	Lost Pond	12
1,727	Rock Pond	5
1,940	Unnamed Pond	6
1,600	Unnamed Pond	1
??	Unnamed Pond	<u>?</u>
		117

Lewis County - Town of Greig

1,540	East Pine Pond	13
1,520	Mudhole Pond	6
1,620	Unnamed Pond	<u>1</u>
		20

STREAM INVENTORY

Miles

Independence River	2.0
Indian Brook	2.8
Lost Creek	2.8
Middle Branch Creek	3.9
Middle Settlement Creek	3.5
S. Inlet (Big OtterLake)	7.7

Forest Cover Types of the United States and Canada

F. H. Eyre, Editor

Society of American Foresters
5400 Grosvenor Lane
Washington, D.C. 20014

1980

Balsam Fir

5

Definition and composition.—Balsam fir characteristically is pure or comprises a majority of the growing stock. It is associated with many species, mostly those common to moist and wet sites. In the boreal region of Canada, black spruce, white spruce, paper birch, and quaking aspen are associates. On upland sites in the more southerly northern forest region, associates are white spruce, paper birch, quaking aspen, bigtooth aspen, mountain-ash, yellow birch, American beech, red maple, sugar maple, eastern hemlock, and eastern white pine. In lower topographic positions such as flats and swamps, associates are black spruce, white spruce, tamarack, red maple, black ash, and northern white-cedar. Red spruce, an associate in the northern forest region, is confined to the eastern part of the type range and is especially important in New Brunswick and Maine. Balsam poplar, gray birch, red pine, and American elm are occasional associates.

In Canada several subtypes are recognized; see the section on variants and associated vegetation.

Geographic distribution.—The type is very common in Quebec, the Maritime Provinces, northern New England, and the mountainous sections of eastern New York. In these areas, it represents the greatest proportion of total growing stock. In the Avalon Peninsula of eastern Newfoundland, balsam fir accounts for 70 percent of the volume of all conifers (Wilton 1956). In the Lake States, the type represents much less of the total forest area, although it is fairly common in the northern part. In Ontario, it is a somewhat less distinct type accounting for only a small proportion of accessible growing stock (Bakuzis and Hansen 1965).

Ecological relationships.—The type occurs on a wide range of organic and glaciated soils including heavy clays, loams and sandy loams, and sandy glacial till. It occupies optimum sites in the boreal region, becoming progressively more subordinate towards the southern reaches of its range, where competition by other species confines it to less than optimum edaphic conditions. In the northeastern United States, balsam fir may be climax on extensive areas on upper slopes and tops of mountains; only black spruce grows above it. In the lower topographic zones of New England, balsam fir competes with red spruce. In the Lake States, balsam fir succeeds aspen and paper birch and may succeed black spruce on the better sites. Although not as tolerant of shade as red spruce, balsam fir is more so than its other two spruce associates, black spruce and white spruce (Westveld 1953).

Balsam fir seeds prolifically and has a larger seed and emergent radicle than spruce. Seedling roots

develop promptly followed by relatively rapid seedling height growth. These characteristics foster development of an almost ubiquitous understory of seedlings which helps to ensure continuance of the type. At times, however, balsam fir is temporarily set back in favor of other species by depredations of the spruce budworm; the insect prefers the fir.

Variants and associated vegetation.—Balsam fir is an important component in a number of other types, including red spruce—balsam fir, black spruce, aspen, and paper birch. In its U.S. occurrence, commonly associated undergrowth includes speckled alder, beaked hazel, mountain maple, and pin cherry. Other subordinate vegetation includes Canada yew, dwarf raspberry, red raspberry, red-osier dogwood, blueberries (low sweet and velvet-leaf), and hobblebush. Among the more common herbaceous plants are twinflower, bunchberry, starflower, sedges, and a variety of mosses.

In Quebec, five principal subtypes are recognized, each having specific conditions of habitat: (1) The balsam fir—red maple subtype occurs in southern Quebec on deposits of coarse materials that may be either thick or shallow but are always well drained. Red spruce, paper birch, eastern hemlock, and eastern white pine are tree associates. The undergrowth always includes common woodsorrel, false violet, bluebead lily, tree clubmoss, and painted trillium (Jurdant and Roberge 1965). (2) The balsam fir—northern white-cedar subtype also occurs in southern Quebec but on thick soils imperfectly to poorly drained. Principal tree associates are black ash, red maple, red spruce, white spruce, and yellow birch. Several herbaceous hygrophytes comprise the undergrowth: dwarf raspberry (catherinets), cinnamon fern, false miterwort, sweetscented bedstraw, and an important cover of sphagnum and other mosses (Dovon 1975). (3) In the balsam fir—yellow birch subtype, paper birch, white spruce, and red maple are associates. It is a climax in a great part of the Quebec mixedwood forest, where it occurs on medium slopes and on moderately well drained deposits. Undergrowth generally consists of mountain maple, hobblebush, common woodsorrel, wild sarsaparilla, starflower, and Canada mayflower (Blouin and Grandtner 1971). (4) The balsam fir—paper birch subtype is a more boreal climax growing on medium slopes that are moderately well drained. It regularly contains white spruce as an associate. Undergrowth includes mountain maple, bunchberry, twinflower, wild sarsaparilla, Canada mayflower, bluebead lily, and common woodsorrel. On thick deposits, spinulose woodfern is abundant, while on shallow or rocky deposits, mountain-fern moss is highly abundant (Jurdant 1964). (5) In the balsam fir—black spruce subtype, paper birch and white

spruce are occasionally present, occurring on coarse, well-drained materials. The undergrowth vegetation is the most sparse of all balsam fir subtypes. Nevertheless, there are frequent occurrences of species such as velvetleaf and low sweet blueberry, bunchberry, twinflower, and creeping snowberry, and more particularly a dense cover of mosses dominated by Schrebers moss (Jurdant 1964).

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Northeastern Forest
Experiment Station
ZORAN MAJCEN and
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Quebec Department of Lands
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Red Spruce—Sugar Maple—Beech

31

Definition and composition.—Sugar maple and beech predominate in this type. Red spruce is a minor but characteristic component comprising 20 percent of the basal area and occasionally more. Associated tree species are balsam fir, eastern hemlock, yellow birch, red maple and, more rarely, black cherry. White pine sometimes is present.

Geographic distribution.—The type occurs in the Maritime Provinces, southern Quebec, northern New England, the Adirondacks of New York and, rarely, in Ontario. Formerly the type was much more common. In elevation it ranges from 90 to 240 m (300 to 800 ft.) in the Maritimes to 460 to 760 m (1,500 to 2,500 ft.) in New York and New

Hampshire (Heimbürger 1934, Leak and Graber 1974).

Ecological relationships.—This cover type is confined to sites where both edaphic and climatic parameters come sharply into play. It occurs especially in the higher elevational ranges of sugar maple and beech. The type tends to be site specific and is restricted to coarse, open-textured, uncompacted acidic tills. Thus the sites are most frequently deep, well-drained soils located on lower slopes of mountainous areas or on other sites with equivalent ecological and topographical characteristics: upper slopes of hilly areas, benches, and gentle ridges.

Red spruce—sugar maple—beech, if undisturbed, is a climax forest cover type (Westveld 1951). The red spruce regeneration that occurs in undisturbed stands, although far outweighed numerically by that of sugar maple and beech, is usually sufficient to maintain the type composition. Past harvesting, however, in the absence of cultural practices designed to maintain the proportion of spruce, has converted much of the type to a sugar maple—beech forest with only an occasional red spruce. Nonetheless, the original type still exists, scattered throughout its original distribution.

Variants and associated vegetation.—The type frequently adjoins the red spruce—yellow birch type. The former is differentiated from the latter by having better drainage and by the altitudinal limits of sugar maple and beech (yellow birch extends to higher elevations). With heavy disturbance, red spruce—sugar maple—beech yields to earlier successional stages dominated by such species as paper birch, red maple, striped maple, pin cherry, and occasionally even quaking aspen.

Heimbürger (1934) and Westveld (1951) described two vegetation sites that occur within the red spruce—sugar maple—beech forest cover type: *Viburnum* and *Viburnum*—*Oxalis*. These vegetation sites are characterized by witch-hobble and woodsorrel.

Undergrowth includes spinulose woodfern, shining clubmoss, false lily-of-the-valley, wild sarsaparilla, bluebead lily, rosy twistedstalk, Solomons-seal, partridgeberry, sweetscented bedstraw, and bigleaf white violet. Mosses are unimportant. Shrubs and lesser tree species include Canada yew, fly honeysuckle, witch-hobble, striped maple, and occasionally mountain maple. After clearcutting, witch-hobble largely disappears and red raspberry dominates the ground flora.

ALAN G. GORDON
Ontario Ministry of
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Central Forest Research Unit

Sugar Maple—Beech—Yellow Birch

25

Definition and composition.—Sugar maple, American beech, and yellow birch are the major species and together comprise most of the stocking. Associated in varying mixtures are red maple, hemlock, white ash, black cherry, basswood, sweet birch, northern red oak, white pine, balsam fir, American elm, rock elm, red spruce, white spruce, and eastern hophornbeam. Sugar maple is the most widely distributed of the three major species in the type. Beech is absent west of eastern Wisconsin and adjacent upper Michigan. Yellow birch, although present to varying degrees, diminishes in importance within the type southward from the Adirondacks in New York. In young stands that follow drastic disturbance, paper birch, pin cherry, and quaking and bigtooth aspen are associates. The early selective cutting of hemlock for tanbark accounts in part for the lesser proportion of this species in present forests in areas where such utilization took place.

Geographic distribution.—In Canada the type covers large areas in the Maritime Provinces and abuts the boreal forest in southern Ontario and Quebec. In the United States it extends from Maine south and west through New England, New York, and Pennsylvania and south into the southern Appalachians. It also is present in eastern Wisconsin and eastern upper Michigan, and in parts of Ohio and Indiana. In the northern portion of the range it occurs at elevations from near sea level to 800 m (about 2,500 ft.). In the southern Appalachians it occurs mostly at elevations between 800 m and 1,400 m (4,500 ft.). The type is extensive throughout the northern portion of its range, but southward becomes increasingly dispersed as the smaller areas that prevail there intermix with the types more common in the area.

Ecological relationships.—Best development of the type occurs on moist, well-drained, fertile loamy soils. Sugar maple, its principal component, unifies the association and is the least site-sensitive of the three species. It is absent only at the extremes of soil drainage. Where the type occurs on wet sites, it blends into a red maple—yellow birch—hemlock mixture. On the drier sites beech becomes increasingly prominent. Even-aged stands originating after clearcutting and natural disasters have varying representations of locally indigenous shade-tolerant species. Uneven-aged stands resulting from partial cuttings or no disturbance have sharply decreased representations of the shade-intolerant species with a concomitant increase in the tolerant sugar maple and beech and very tolerant hemlock. The type tends to be climax; where hemlock is present and there is no major disturbance, this species, with its

greater shade tolerance and normally longer life span, outlasts the hardwoods. Throughout the range, the blending of different subtypes and variants, past land use, cutting histories, soil characteristics, and differential deer browsing all significantly affect condition, structure, and composition of the type.

Fire is generally unimportant and few insects attack all species present in the type mixture. Among diseases, the beech-nectria complex, prevalent from New England to Pennsylvania, is responsible for the gradual reduction of beech as a primary component in many stands. Abiotic influences have been implicated in the yellow birch dieback of the 1950s in the Northeast. Selective browsing by whitetail deer or domestic cattle can eliminate seedlings of many species in the type except beech and spruce, which the animals usually bypass. High deer populations have prevented regeneration in many areas occupied by the type.

Variants and associated vegetation.—The sugar maple—beech—yellow birch type blends into many types identified as parts of the northern hardwood forest, among them black cherry—maple, beech—sugar maple, and sugar maple. In Ontario, with its fractured site complexes, the type shows some variability, with yellow birch favoring fresh-moist site-type and beech dry-fresh site-type, but the species merge continuously (H.W. Anderson 1979, personal communication).

Understory vegetation is likely to include seedlings of any of the main components and associated tree species of the type. However, unless released, seedlings of intolerant species persist for only a few years. On the other hand, sugar maple seedlings persist longer and, in some areas, literally cover the forest floor. Striped maple, witch-hobble (hobblebush), eastern hophornbeam, witch-hazel, viburnums, and serviceberry seedlings, as well as root suckers of beech are also common. Hay-scented fern, bracken, and shorthusk grass are often found in the undergrowth. Spring geophytes, such as ladyslippers, hepaticas, trilliums, and jack-in-the-pulpits, are locally common, as are various club-mosses, violets, asters, and species of woodsorrel.

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Red Spruce—Sugar Maple—Beech

31

Definition and composition.—Sugar maple and beech predominate in this type. Red spruce is a minor but characteristic component comprising 20 percent of the basal area and occasionally more. Associated tree species are balsam fir, eastern hemlock, yellow birch, red maple and, more rarely, black cherry. White pine sometimes is present.

Geographic distribution.—The type occurs in the Maritime Provinces, southern Quebec, northern New England, the Adirondacks of New York and, rarely, in Ontario. Formerly the type was much more common. In elevation it ranges from 90 to 240 m (300 to 800 ft.) in the Maritimes to 460 to 760 m (1,500 to 2,500 ft.) in New York and New

Hampshire (Heimbürger 1934, Leak and Graber 1974).

Ecological relationships.—This cover type is confined to sites where both edaphic and climatic parameters come sharply into play. It occurs especially in the higher elevational ranges of sugar maple and beech. The type tends to be site specific and is restricted to coarse, open-textured, uncompacted acidic tills. Thus the sites are most frequently deep, well-drained soils located on lower slopes of mountainous areas or on other sites with equivalent ecological and topographical characteristics: upper slopes of hilly areas, benches, and gentle ridges.

Red spruce—sugar maple—beech, if undisturbed, is a climax forest cover type (Westveld 1951). The red spruce regeneration that occurs in undisturbed stands, although far outweighed numerically by that of sugar maple and beech, is usually sufficient to maintain the type composition. Past harvesting, however, in the absence of cultural practices designed to maintain the proportion of spruce, has converted much of the type to a sugar maple—beech forest with only an occasional red spruce. Nonetheless, the original type still exists, scattered throughout its original distribution.

Variants and associated vegetation.—The type frequently adjoins the red spruce—yellow birch type. The former is differentiated from the latter by having better drainage and by the altitudinal limits of sugar maple and beech (yellow birch extends to higher elevations). With heavy disturbance, red spruce—sugar maple—beech yields to earlier successional stages dominated by such species as paper birch, red maple, striped maple, pin cherry, and occasionally even quaking aspen.

Heimbürger (1934) and Westveld (1951) described two vegetation sites that occur within the red spruce—sugar maple—beech forest cover type: *Viburnum* and *Viburnum—Oxalis*. These vegetation sites are characterized by witch-hobble and woodsorrel.

Undergrowth includes spinulose woodfern, shining clubmoss, false lily-of-the-valley, wild sarsaparilla, bluebead lily, rosy twistedstalk, Solomons-seal, partridgeberry, sweetscented bedstraw, and bigleaf white violet. Mosses are unimportant. Shrubs and lesser tree species include Canada yew, fly honeysuckle, witch-hobble, striped maple, and occasionally mountain maple. After clearcutting, witch-hobble largely disappears and red raspberry dominates the ground flora.

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Tamarack

38

Definition and composition. — Tamarack, characteristically a wetland type, is pure or comprises a majority of the stocking. Extensive pure stands occur on poorly drained sites. In mixed stands, black spruce is usually the main associate on all sites. Other common associates include balsam fir, white spruce, and quaking aspen in the boreal region of Canada and northern white-cedar, balsam fir, black ash, and red maple on the better organic-soil (swamp) sites in the northern forest region.

Geographic distribution. — Tamarack is a widespread type stretching from Quebec across the boreal forest to northwestern Alberta. Although the species range extends farther north and west than Alberta, apparently the type does not (C.T. Dyrness 1978, personal communication). There are extensive areas of tamarack fen in the Hudson Bay lowlands, where the type grades into black spruce — tamarack, type No. 13 (John K. Jeglum 1978, personal communication). The tamarack type is present in northern parts of the Lake States and in Minnesota occupies extensive areas on poorly drained sites. It also occurs in New York, New England, and the Maritime Provinces. Along the southern limits of the type's range tamarack is found in small scattered stands on poor organic-soil (bog) sites.

Ecological relationships. — Tamarack occurs in even-aged stands because it is very intolerant of shade and thus cannot compete with its associates. It is a pioneer type, especially on burned organic soil and open unburned bogs. Stands on organic soil have been reproduced in the past mainly in areas cleared by wildfire. Now tamarack is often reproduced by clearcutting mature stands and it is favored by slash burning (Johnston 1975).

Tamarack occurs on well-drained to very wet sites but mainly on poorly drained sites, especially those with organic soil. It cannot compete with its associates on better sites. The type commonly occupies wetter sites than black spruce. Nonetheless, tamarack stands are often killed or their growth reduced by abnormally high water levels, such as occur when beavers dam watercourses. The larch sawfly has caused great losses in growth and mortality throughout the range of the tamarack species. Recurring outbreaks have probably reduced the type's area considerably and speeded the usual succession to black spruce or other associates.

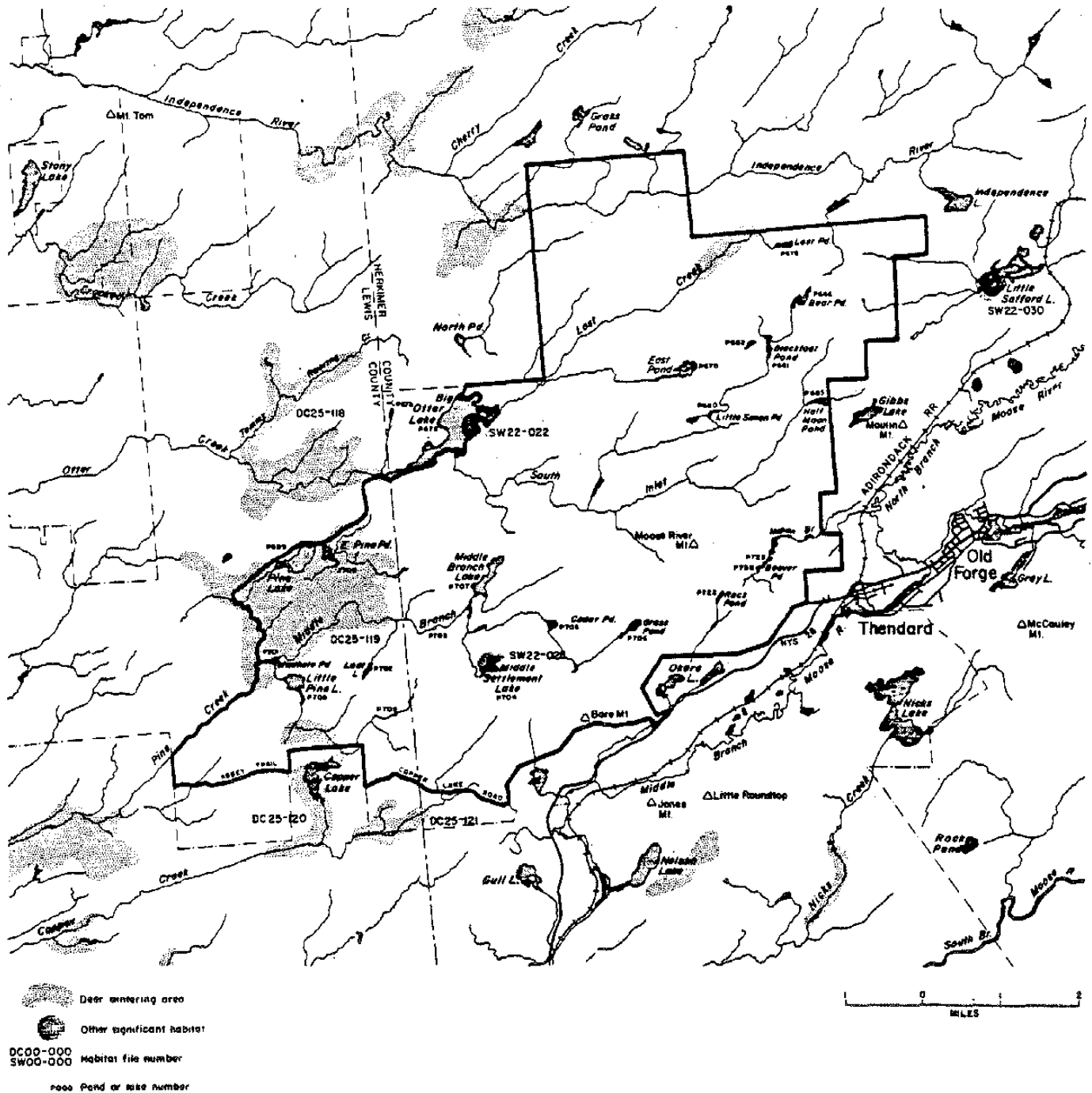
Variants and associated vegetation. — The black spruce — tamarack type (No. 13) occurs sporadically in northern Minnesota and is usually considered a variant there. Another variant, which occurs principally in Michigan on good swamp sites, is a mixture of northern white-cedar, spruce (black and white), balsam fir, and tamarack — none of which comprises a majority. Here, however, the propor-

tion of tamarack has become insignificant in many stands due to infestations of the larch sawfly (Benzie 1963).

The tamarack type commonly supports an understory of black spruce, and because of the light shade cast, it usually has a dense undergrowth of shrubs and herbs. Dominant tall shrubs include birch (dwarf and swamp), willows, speckled alder, and red-osier dogwood; low shrubs include Labrador-tea, bog-rosemary, leatherleaf, and small cranberry. Characteristically the herbaceous cover includes sedges, cottongrass, false Solomons-seal, marsh cinquefoil, marsh-marigold, and bogbean. Ground cover is usually composed of sphagnum and other mosses.

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USDA Forest Service
North Central Forest
Experiment Station

WILDLIFE HA-DE-RON-DAH WILDERNESS



APPENDIX 6.B.
HA-DE-RON-DAH WILDERNESS AREA
WILDLIFE INVENTORY

Common Wildlife

Black Bear	<i>Ursus americanus</i>
White-tailed deer	<i>Odocoileus virginianus</i>
Coyote	<i>Canis latrans</i>
Raccoon	<i>Procyon lotor</i>
River otter	<i>Lutra canadensis</i>
Beaver	<i>Castor canadensis</i>
Mink	<i>Mustela vison</i>
Varying hare	<i>Lepus americanus</i>
Red squirrel	<i>Tamiasciurus hudsonicus</i>
Eastern chipmunk	<i>Tamias striatus</i>

Less Common Wildlife

Fisher	<i>Martes pennanti</i>
Bobcat	<i>Lynx rufus</i>
Red fox	<i>Vulpes vulpes</i>
Gray fox	<i>Urocyon cinereoargenteus</i>
Muskrat	<i>Ondatra zibethica</i>
Porcupine	<i>Erethizon dorsatum</i>
Gray Squirrel	<i>Sciurus carolinensis</i>

Common Birdlife

Ruffed grouse	<i>Bonasa umbellus</i>
Woodcock	<i>Philohela minor</i>
Wood duck	<i>Aix sponsa</i>
Black duck	<i>Anas rubripes</i>
Mallard	<i>Anas platyrhynchos</i>
Common loon +	<i>Gavia immer</i>
Great blue heron	<i>Ardea herodias</i>
Northern raven +	<i>Corvus corax</i>

Less Common Birdlife

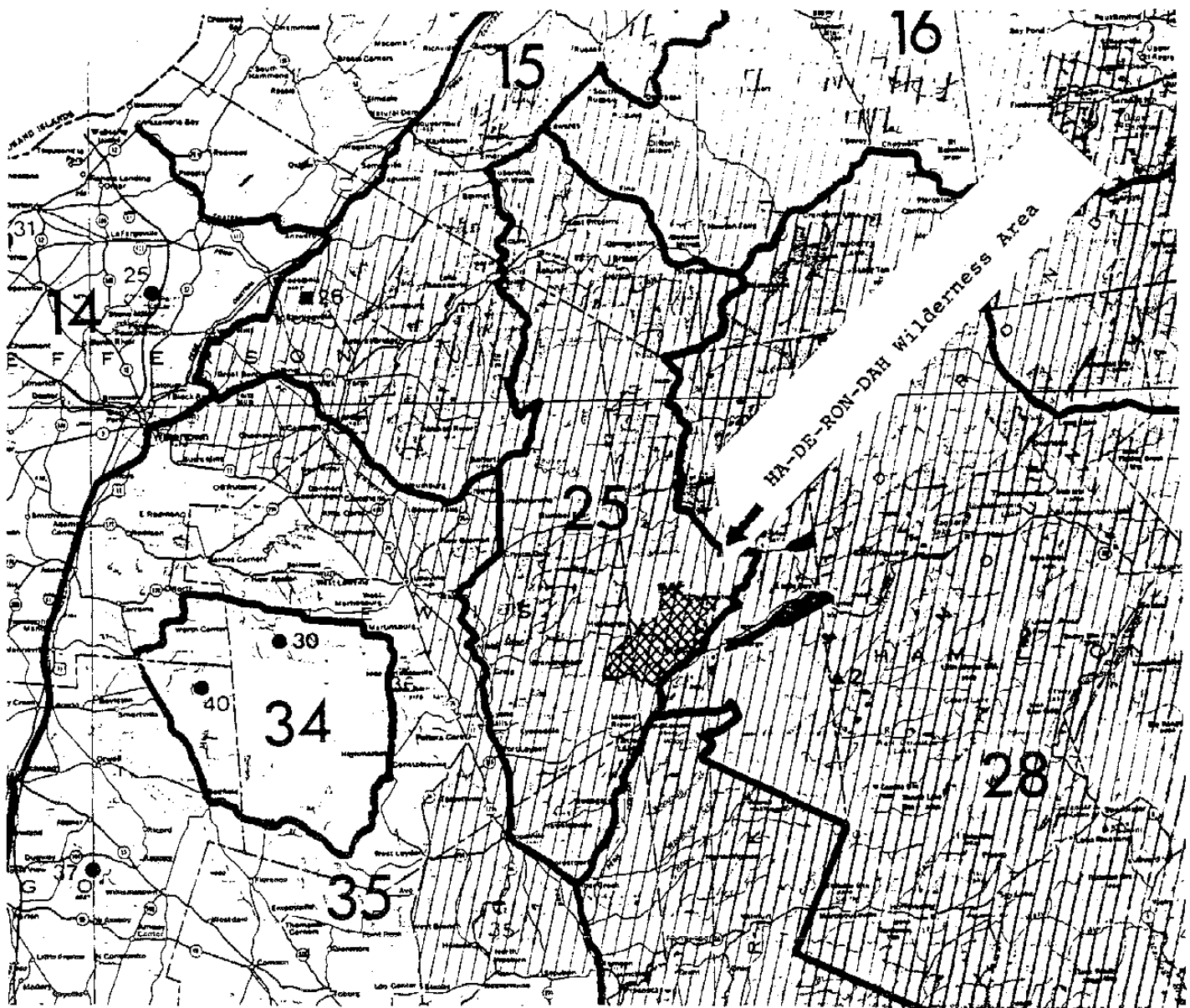
Gray jay	<i>Perisoreus canadensis</i>
Turkey vulture	<i>Cathartes aura</i>

Abundance Unknown

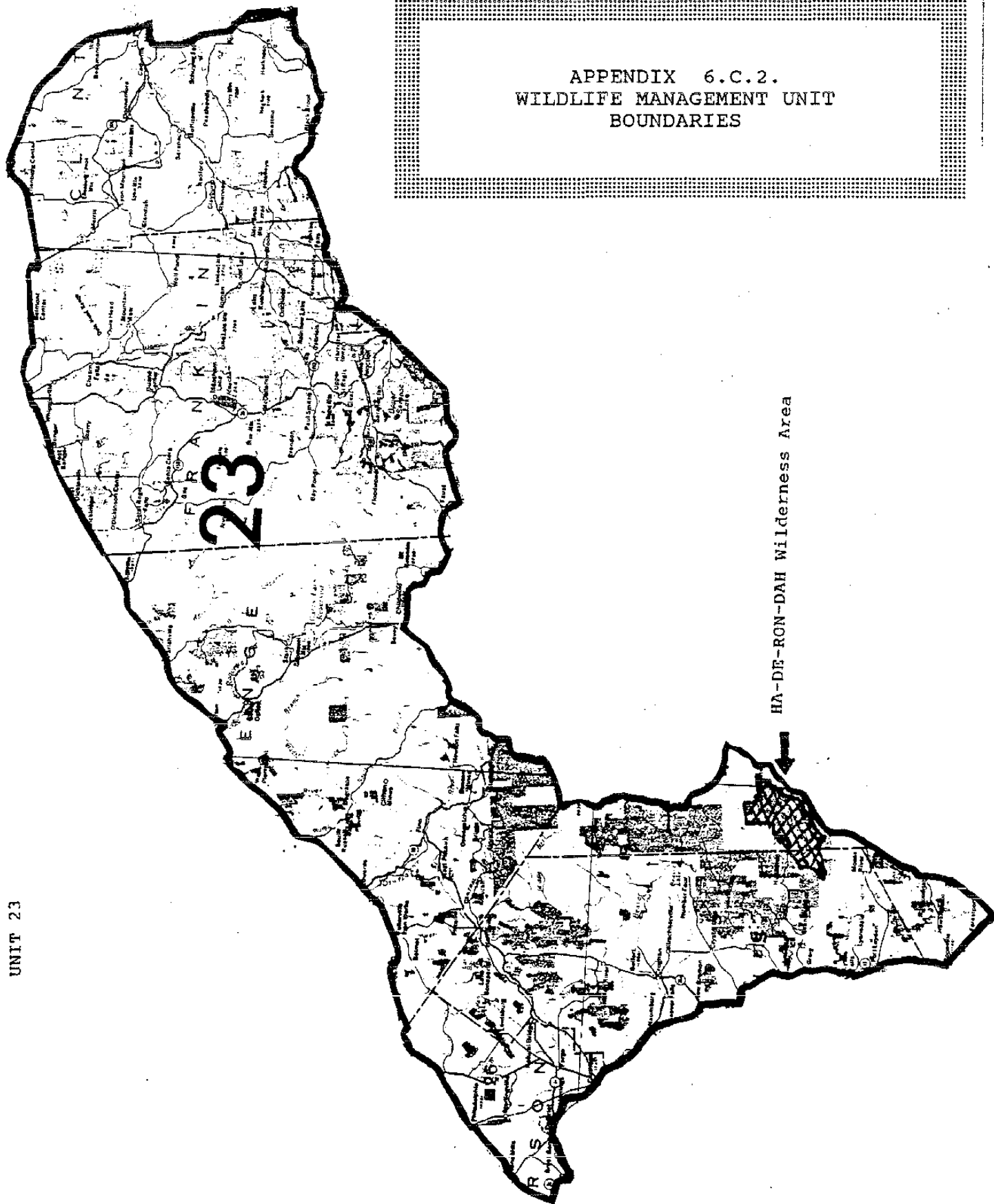
Marten	<i>Martes americana</i>
Moose	<i>Alces alces</i>
Bald eagle *	<i>Haliaeetus leucocephalus</i>
Lynx	<i>Lynx canadensis</i>
Osprey **	<i>Pandion haliaetus</i>

- * Endangered species - NYS and USDI
- + Special concern species - NYS
- ** Threatened

APPENDIX 6.C.1.
DEER MANAGEMENT UNIT
BOUNDARIES



1991-92 Wildlife Management
UNIT 23



APPENDIX 7

HA-DE-RON-DAH WILDERNESS - LAKE AND POND INVENTORY January 1992

KEY #	WATER	COUNTY	TOWN	USGS QUAD 15°	SIZE (Acres)	FISH SPECIES	WATER QUALITY pH (Year)	MANAGEMENT		
								PAST	PRESENT	FUTURE
P646	Bear Pond	Herkimer	Webb	Number Four	17	None	Acidified - 4.47 (85)	1985 ALSC	Acid	Same
P678	East Pond	Herkimer	Webb	McKeever	29	None	Acidified - 4.9 (84)	1984 ALSC	Acid	Same
P679	Lost Pond	Herkimer	Webb	Number Four	17	None	Acidified - 4.47 (85)	1985 ALSC	Acid	Same
P680	Little Simon Pond	Herkimer	Webb	McKeever	4	ST	Acidified - 4.59 (84)	1984 ALSC	Acid	Potential lime, stock
P681	Blackfoot Pond	Herkimer	Webb	McKeever	9	None	Acidified - 4.31 (84)	1984 ALSC	Acid	Low potential
P682	Unnamed Pond	Herkimer	Webb	McKeever		None	Unknown	1973 DEC	None	Same
P683	Half Moon Pond	Herkimer	Webb	McKeever	9	ST, BB, CC, GS, PS	Acid threat - 5.68 (85)	1985 ALSC	NSA Brook trout	Same
P699	Pine Lake	Lewis	Greig	McKeever	60	ST, WS, BB, GS, PS, CC	Satisfactory - 6.86 (84)	1984 ALSC	Stocked ST 1500 FF	Same Potential reclaim
P700	East Pine Pond	Lewis	Greig	McKeever	13	BB, WS, PS, CC, ST (Rare)	Acid threat - 5.72 (84)	1984 ALSC	ST	Reclaim and potential stock
P701	Mudhole Pond	Lewis	Greig	McKeever	6	BB, WS, PS, CC, ST (Rare)	Satisfactory - 7.25 (81)	1976 DEC	NSA Brook trout	Same
P702	Lost Lake	Lewis	Greig	McKeever	6	None	Acidified - 4.60 (84)	1984 ALSC	Acid	Low potential
P703	Unnamed Pond	Herkimer	Webb	McKeever		Unknown	Unknown		None	Same
P704	Middle Settlement Lake	Herkimer	Webb	McKeever	39	ST, CM	Acid threat - 5.02 (84)	1984 ALSC	Stocked ST 600 FF	Same, potential lime
P705	Cedar Pond	Herkimer	Webb	McKeever	8	ST, WS, CC, CS, CM	Acid threat - 5.88 (84)	1984 ALSC	NSA Brook trout	Same
P706	Grass Pond	Herkimer	Webb	McKeever	13	ST, WS, CS	Acidified - 4.87 (84)	1984 ALSC	NSA Brook trout	Same
P707	Middle Branch Lake	Herkimer	Webb	McKeever	42	ST, WS, PS, CC	Satisfactory - 6.87 (84)	1984 ALSC	Stocked ST 1100 FF	Same
P708	Little Pine Lake	Lewis	Greig	McKeever	34	WS, PS, BB, ST	Acid threat - 5.98 (84)	1984 ALSC	None	Potential stock

APPENDIX 7 - Page 2

HA-DE-ROH-DAH WILDERNESS - LAKE AND POND INVENTORY January 1992

KEY #	WATER	COUNTY	TOWN	USGS QUAD 15'	SIZE (Acres)	FISH SPECIES	WATER QUALITY pH (Year)	MANAGEMENT		
								PAST	PRESENT	FUTURE
P709	Unnamed Pond	Lewis	Greig	McKeever		Unknown	Unknown		None	Same
P722	Rock Pond	Herkimer	Webb	McKeever	3	YP,PS,GS,BB, WS,CC	Satisfactory - 6.44 (85)	1985 ALSC	None	Same
P729	Unnamed Pond	Herkimer	Webb	McKeever		Unknown	Unknown		None	Same
P730	Beaver Pond	Herkimer	Webb	McKeever	6	Unknown	Unknown		None	Same

All waters are in the Black River watershed.

Fish Species: BB - Brown bullhead, BT - Brown trout, CC - Creek chub, CM - Central mudminnow, CS - Common shiner, GS - Golden shiner, PS - Pumpkinseed,
ST - Brook trout, WS - White sucker, YP - Yellow perch

HA-DE-RON-DAH WILDERNESS - RIVER AND STREAM INVENTORY

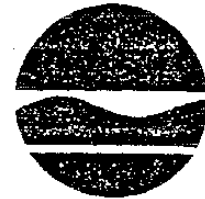
January 1992

KEY N	STREAM	COUNTY	TOWN	USGS QUAD	SIZE (Miles)	FISH SPECIES
ONT-19-57	Independence River	Herkimer	Webb	Number Four	2.0	ST
ONT-19-81-18-17-2	Indian Brook	Herkimer	Webb	McKeever	2.8	ST, BlkD, JD, CC
ONT-19-60-P676-2	Lost Creek	Herkimer	Webb	McKeever/ Number Four	2.8	
ONT-19-81-7-1-P701-1	Middle Branch Creek	Lewis/ Herkimer	Greig/ Webb	McKeever	3.9	
ONT-19-18-6	Middle Settlement Ck	Herkimer	Webb	McKeever	2.5	ST, CC, BlkD, CM
ONT-19-60-P676-4	South Inlet	Herkimer	Webb	McKeever	7.7	

All waters are in the Black River watershed.

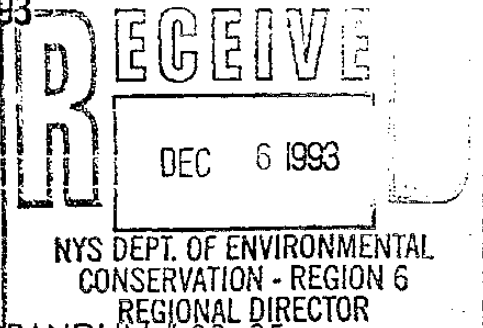
Fish Species: BlkD - Blacknose dace, CC - Creek chub, CM- Central mudminnow,
JD - Johnny darter, ST - Brook trout

MEMORANDUM FROM
THOMAS C. JORLING, Commissioner



APPENDIX 7.B.
FISHERY MANAGEMENT IN
WILDERNESS, PRIMITIVE AND CANOE
AREAS - POLICY

DEC 02 1993



TO: Executive Staff, Division and Regional Directors

FROM: Thomas C. Jorling

RE: ORGANIZATIONAL AND DELEGATION MEMORANDUM # 93-35
POLICY: FISHERY MANAGEMENT IN WILDERNESS, PRIMITIVE AND
CANOE AREAS—AMENDED 11/02/93

BACKGROUND

Fisheries management in wilderness, primitive and canoe areas of the Adirondack and Catskill Parks has a strong foundation in law, policy, tradition and resource planning. The New York State Legislature has directed DEC to efficiently manage, maintain and improve the fish resources of the State and make them accessible to the people of New York. This includes a mandate to develop and carry out programs and procedures which prompt both natural propagation and maintenance of desirable species in ecological balance and lead to the observance of sound management practices to achieve those goals (ECL Section 11-0303).

Similarly, the State Land Master Plans for the Adirondack and Catskill Parks adopt the principle of resource management and provide strong guidance for fish management (APA 1987, DEC 1985). The primary management guideline for wilderness, primitive and canoe areas is to "achieve and perpetuate a natural plant and animal community where man's influence is not apparent." While these plans recognize these areas as places "where the earth and its community of life are untrammelled by man, where man is a visitor who does not remain," they are also defined as areas which are protected and managed so as to "preserve, enhance and restore, where necessary, its natural conditions...". Thus, opportunities to manage ecosystems have been preserved in these Master Plans and are conducted in a manner to meet plan guidelines. Fish management practices, such as fish stocking, pond reclamation, pond liming, barrier dam construction and maintenance, and resource survey and inventory, are permitted when conducted within guidelines for wilderness, primitive and canoe area management and use.

For more than a decade, the Division of Fish and Wildlife has managed ecosystems consistent with legal mandates and professional concerns, with sensitivity for wilderness values and with the intent of providing unique recreational experiences. The

Master Plans set no numerical standards on use intensity but indicate that fishing is "compatible with wilderness and should be encouraged as long as the degree and intensity of use does not endanger the wilderness resource itself."

Important precepts contained in a Division of Fish and Wildlife position paper on wilderness area management have guided the Department's fish management programs in such areas since 1977 (Doig 1977). The position paper recognizes fishing as: a legitimate activity in wilderness, primitive and canoe areas which should be considered as part of a larger experience not just a quest for fish; where quality includes the expectation of encounter with unique fish and wildlife in natural setting, aesthetic surroundings, and limited contact with other persons. It directs management activities at species which are indigenous to or historically associated with the Adirondacks and Catskills. It provides that fish populations will be managed on a self-sustaining basis, but permits maintenance stocking to be used where unique, high quality recreational fishing experiences can be provided without impairing other objectives. It further directs that fish management activities should be compatible with area characteristics, conducted in an unobtrusive manner and restricted to the minimum means necessary to accomplish management objectives.

The formal traditions of fisheries management in New York State are rooted 120 years in the past, dating back to 1868 when the New York Commission of Fisheries was created (Shepherd et al. 1980). The elements of New York's fisheries program have evolved both in emphasis and priority with shifts being dictated by need, experience and availability of funding as well as the evolution of fishery science. Formal goals for the Fish and Wildlife program have been in existence for more than a decade and remain the foundation for DEC's modern fish and wildlife program activities. They are:

- perpetuate fish and wildlife as a part of various ecosystems of the state;
- provide maximum beneficial utilization and opportunity for enjoyment of fish and wildlife resources; and
- manage these resources so that their numbers and occurrences are compatible with the public interest.

Goals for each program of the Division of Fish and Wildlife have been described in DEC's 1977 Division of Fish and Wildlife Program Plan. Environmental impacts of the Division of Fish and Wildlife's fish species and habitat management activities are discussed in programmatic environmental impact statements prepared by Shepherd et al. (1980) and Odell et al. (1979), respectively.

The evolution of fisheries management in New York State and the Adirondack zone has been discussed in Shepherd et al. (1980) and Pfeiffer (1979). Program goals,

objectives, policies and management strategies for lake trout including guidelines for stocking were developed by Plosila (1977). The strategic plan recognizes the importance of native Adirondack lake trout stocks and the considerable importance of these lake trout resources to the entire State. In 1979, a strategic plan for the management of wild and hybrid strains of brook trout was completed (Keller 1979). Preservation of native strains in the Adirondack and Catskill Mountains was a major component of that plan. Pfeiffer (1979) established goals, objectives and strategies for the management of broad classes of Adirondack fishery resources and significantly enunciated the importance of angling in wilderness, primitive and canoe areas and guidelines for fisheries management within these areas. The latter were consistent with those formulated earlier by Doig (1977). The philosophical and scientific underpinnings for trout stream management in New York with application to management of wilderness, primitive and canoe area trout streams, was completed in 1979 (Engstrom-Heg 1979 a). A recent draft plan for intensification of management of brook trout in 47 Adirondack ponds has been developed by DEC Regions 5 and 6 (Miller, 1986).

Salmonid stocking by the Division of Fish and Wildlife is guided by policies and criteria presented in Engstrom-Heg (1979 b). The evolution of DEC's criteria for establishing salmonid stocking policies in New York has been reviewed by Pfeiffer (1979), while the general objectives of fish stocking are discussed in Shepherd et al (1980) and Engstrom-Heg (1979).

Liming of acidified waters by the Division of Fish and Wildlife is presently guided by the draft policy and criteria established by Wich (1987). A final generic environmental impact statement for DEC's liming program is being prepared following extensive public review of the draft statement. It will include a revision of the Division of Fish and Wildlife's liming policy and criteria (Simonin 1990). Findings and the Commissioner's decision for the liming program are being completed.

The history of pond reclamation in New York has been discussed by Pfeiffer (1979). Reclamation goals are discussed in Shepherd et al (1980), while general policy guidance and rules and regulations covering the use of piscicides including rotenone, are provided in Part 328 of 6NYCRR. Fish barrier dams, which are frequently associated with pond reclamation, are permitted when constructed or maintained in accordance with SLMP guidelines.

PURPOSE

The purpose of this memorandum is to state the Department's policies on fisheries management in wilderness, primitive and canoe areas within the Adirondack and Catskill Parks.

POLICY GUIDELINES

Legally established goals for the Forest Preserve recognize that fish and wildlife are integral to the values society places on the Preserve. Charges include management to "foster the wild Adirondack environment and all the flora and fauna historically associated there with" and, "encouragement of indigenous species presently restricted in numbers." Fisheries management activities are essential to achieve these goals and to perpetuate unique opportunities for high quality wilderness, primitive and canoe area fishing experience provided within the Adirondack and Catskill Parks. Specific guidelines for fisheries management activities are as follows:

1. The primary purpose of aquatic resource management in wilderness primitive and canoe areas is to perpetuate natural aquatic ecosystems, including perpetuation of indigenous fish species on a self-sustaining basis.
2. Angling is recognized as a compatible recreational pursuit in wilderness, primitive and canoe areas. Aquatic resource management will emphasize the quality of the angling experience over quantity of use.
3. Aquatic resources in wilderness, primitive and canoe areas will be protected and managed so as to preserve, enhance and restore, where necessary, their natural conditions. Aquatic resource management, including stocking of game and nongame fishes and pond reclamation, may be necessary to achieve and perpetuate natural aquatic ecosystems.
4. Brown trout, rainbow trout, splake and landlocked Atlantic salmon are coldwater fish species historically associated with the Adirondack Park. Smallmouth bass, largemouth bass, northern pike and walleye are warmwater species historically associated with the entire Adirondack and Catskill Parks and indigenous to some lowland areas. These species may be included in the management and stocking regime of specific waters in wilderness, primitive, and canoe areas in instances when indigenous fish communities cannot be protected, maintained, or restored in those waters. Fish species, other than indigenous species and species historically associated with the Adirondack and Catskill Parks, will not be stocked in the waters of wilderness, primitive and canoe areas.
5. Waters found to be naturally barren of fish species will not be stocked. Waters which are self-sustaining or which otherwise would be self-sustaining except that they have been compromised by human-caused disturbances may be stocked consistent with these guidelines.
6. Pond reclamation will be practiced as appropriate to prepare or maintain waters in wilderness, primitive and canoe areas but only for the restoration or perpetuation of indigenous fish communities.

7. The Unit Management Plan for each wilderness, primitive, or canoe area shall identify aquatic resource management actions on a water-body-specific basis through analysis of unit inventory data adequate to support the actions.
8. In those instances where a Unit Management plan has not yet been approved for a given wilderness, primitive, or canoe area, aquatic resource management actions to stock waters may be continued in waters so managed before December 31, 1989, consistent with these guidelines pending approval of the Plan. Waters reclaimed prior to December 31, 1989 may be reclaimed subject to case-by-case review by the Adirondack Park Agency for consistency with these guidelines pending approval of the Plan. New waters may be stocked, reclaimed or limed only to prevent significant resource degradation, subject to case-by-case review by the Adirondack Park Agency for consistency with these guidelines pending approval of the Plan.
9. Liming to protect and maintain indigenous fish species may be continued as a mitigation measure for acid rain in Horn Lake (PO4854) and Tamarack Pond (PO6171). As UMP's are completed, new waters may be limed in accordance with the provisions of the Division of Fish and Wildlife Liming Policy presented on pages 2-7 of the Final GEIS on the NYS Department of Environmental Conservation Program of Liming Selected Acidified Waters. As provided in the Liming Policy, no naturally acidic waters or bog waters will be limed. All limed waters will be relimed in accordance with the provisions of the Liming Policy. Any water that must be relimed more than three times in ten years, except for original sources of heritage strains, will be allowed to reacidify.
10. All aquatic resource management activities in wilderness, primitive, and canoe areas will be consistent with guidelines for use of motor vehicles motorized equipment, and aircraft as stated in the State Land Master Plan.

LITERATURE CITED

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APPENDIX 7.C.

HA-DE-ROH-DAH WILDERNESS AREA

FISH SPECIES

Common Name	Scientific Name	Abbrev.
Bullhead, brown	Ameiurus nebulosus	BB
Chub, creek	Semotilus atromaculatus	CC
Mudminnow, central	Umbra limi	CM
Perch, yellow	Perca flavescens	YP
Pumpkinseed	Lepomis gibbosus	PS
Shiner, common	Luxilus cornutus	CS
Shiner, golden	Notemigonus crysoleucas	GS
Sucker, white	Catostomus commersoni	WS
Trout, brook	Salvelinus fontinalis	ST
Trout, brown	Salmo trutta	BT

WILDERNESS

Definition

A wilderness area, in contrast with those areas where man and his own works dominate the landscape, is an area where the earth and its community of life are untrammelled by man--where man himself is a visitor who does not remain. A wilderness area is further defined to mean an area of state land or water having a primeval character, without significant improvement or permanent human habitation, which is protected and managed so as to preserve, enhance and restore, where necessary, its natural conditions, and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least ten thousand acres of contiguous land and water or is of sufficient size and character as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological or other features of scientific, educational, scenic or historical value.

Significant portions of the state lands within the Park are in a wilderness or near-wilderness condition today. These areas constitute nearly 20% of all designated federal and state wilderness east of the Rocky Mountains and 85% of the designated wilderness in the eleven northeastern states. At the time of the original enactment of this master plan, a majority of these areas contained some structures and improvements or were subjected to uses by the public or by official personnel that were incompatible with wilderness. However, the extent of these non-conforming uses was very modest from the standpoint of the total acreage involved. Since 1972 all but a few of those non-conforming uses have been removed by the Department of Environmental Conservation.

GUIDELINES FOR MANAGEMENT AND USE

Basic guidelines

1. The primary wilderness management guideline will be to achieve and perpetuate a natural plant and animal community where man's influence is not apparent.

2. In wilderness areas:

(a) no additions or expansions of non-conforming uses will be permitted;

APPENDIX 8 STATE LAND MASTER PLAN CLASSIFICATION SYSTEM AND GUIDELINES

(b) any remaining non-conforming uses that were not removed by the December 31, 1975 deadline provided for in the original version of the master plan will be removed by March 31, 1987;

(c) non-conforming uses resulting from newly-classified wilderness areas will be removed as rapidly as possible and in any case by the end of the third year following classification; and,

(d) primitive tent sites that do not conform to the separation distance guidelines will be brought into compliance on a phased basis and in any case by the end of the third year following adoption of a unit management plan for the area.

3. No new non-conforming uses will be permitted in any designated wilderness area.

4. Construction of additional conforming structures and improvements will be restrained to comply with wilderness standards for primitive and unconfined types of recreation and to permit better maintenance and rehabilitation of existing structures and improvements.

5. No new structures or improvements in any wilderness area will be constructed except in conformity with finally adopted unit management plans. This guideline will not prevent ordinary maintenance or rehabilitation of conforming structures or improvements, minor trail relocation, or the removal of non-conforming uses.

6. All conforming structures and improvements will be designed and located so as to blend with the surrounding environment and to require only minimal maintenance.

7. All management and administrative action and interior facilities in wilderness areas will be designed to emphasize the self-sufficiency of the user to assume a high degree of responsibility for environmentally-sound use of such areas and for his or her own health, safety and welfare.

8. Any new, reconstructed or relocated lean-tos or primitive tent sites planned for shorelines of lakes, ponds, rivers or major streams will be located so as to be reason-

ably screened from view from the water body to avoid intruding on the natural character of the shoreline and public enjoyment and use thereof. Any such lean-tos will be set back a minimum of 100 feet from the mean high water mark of lakes, ponds, rivers or major streams.

9. All pit privies will be located a minimum of 150 feet from the mean high water mark of any lake, pond, river, or stream or wetland.

Structures and improvements

1. The structures and improvements listed below will be considered as conforming to wilderness standards and their maintenance, rehabilitation and construction permitted:

- scattered Adirondack lean-tos, not including lean-to clusters, below 3,500 feet in elevation;

- primitive tent sites below 3,500 feet in elevation that are out of sight and sound and generally one-quarter mile from any other primitive tent site or lean-to:

- (i) where physical and biological conditions are favorable, individual unit management plans may permit the establishment, on a site specific basis, of primitive tent sites between 3,500 and 4,000 feet in elevation; and,

- (ii) where severe terrain constraints prevent the attainment of the guideline for a separation distance of generally one-quarter mile between primitive tent sites, individual unit management plans may provide, on a site-specific basis, for lesser separation distances, provided such sites remain out of sight and sound from each other, be consistent with the carrying capacity of the affected area and are generally not less than 500 feet from any other primitive tent site;

- pit privies;
 - foot trails;
 - cross country ski trails;
 - foot trail and cross country ski trail bridges constructed of natural materials and, where absolutely necessary, ladders constructed of natural materials;
 - horse trails, except that any new horse

trails will be limited to those that can be developed by conversion of appropriate abandoned roads, snowmobile trails, or state truck trails;

- horse trail bridges constructed of natural materials;

- horse hitching posts and rails;

- existing or new fish barrier dams, constructed of natural materials wherever possible;

- existing dams on established impoundments, except that, in the reconstruction or rehabilitation of such dams, natural materials will be used wherever possible and no new dams will be constructed;

- directional, informational and interpretive signs of rustic materials and in limited numbers; and,

- peripheral visitor registration structures.

- wildlife management structures on a temporary basis where essential to the preservation of wilderness wildlife values and resources.

2. All other structures and improvements, except for interior ranger stations themselves (guidelines for which are specified below), will be considered non-conforming. Any remaining non-conforming structures that were to have been removed by the December 31, 1975 deadline but have not yet been removed, will be removed by March 31, 1987. These include but are not limited to:

- lean-to clusters;

- tent platforms;

- horse barns;

- boat docks;

- storage sheds and other buildings;

- fire towers and observer cabins;

- telephone and electrical lines;

- snowmobile trails;

- roads and state truck trails;

- helicopter platforms; and,

- buoys.

Ranger stations

1. No new interior stations will be constructed and all remaining interior stations, other than Lake Colden, will be phased out on a scheduled basis determined by the Department of Environmental Conservation, in favor of stations or other facilities at the periphery of the wilderness

areas at major points of access to provide needed supervision of public use. This phase-out should be accomplished as soon as feasible, as specified in the individual unit management plans.

2. New methods of communication and supply, complying with wilderness guidelines, will be employed with respect to all ranger stations maintained by the Department of Environmental Conservation after December 31, 1975.

3. Due to heavy existing and projected winter use in the Eastern High Peak area and the presence of the most rugged terrain in the Adirondacks, the Lake Colden station together with an associated on-ground line (i.e., a line laid on or just under the ground surface which rapidly becomes covered by leaves) for telephone communication may be retained indefinitely but their status will be periodically reviewed to determine if their eventual removal is feasible.

Motor vehicles, motorized equipment and aircraft

1. Public use of motor vehicles, motorized equipment and aircraft will be prohibited.

2. Administrative personnel will not use motor vehicles, motorized equipment or aircraft for day-to-day administration, maintenance or research.

3. Use of motorized equipment or aircraft, but not motor vehicles, by administrative personnel may be permitted for a specific major administrative, maintenance, rehabilitation, or construction project if that project involves conforming structures or improvements, or the removal of non-conforming structures or improvements, upon the written approval of the Commissioner of Environmental Conservation.

4. Such use of motorized equipment or aircraft will be confined to off-peak seasons for the area in question and normally will be undertaken at periodic intervals of three to five years, unless

extraordinary conditions, such as a fire, major blow-down or flood mandate more frequent work or work during peak periods.

5. Irrespective of the above guidelines, use of motorized equipment or aircraft, but not motor vehicles, for a specific major research project conducted by or under the supervision of a state agency will be permitted if such project is for purposes essential to the preservation of wilderness values and resources, no feasible alternative exists for conducting such research on other state or private lands, such use is minimized, and the project has been specifically approved in writing by the Commissioner of Environmental Conservation after consultation with the Agency.

6. Irrespective of the above or any other guidelines in this master plan, use of motor vehicles, motorized equipment and aircraft will be permitted, by or under the supervision of appropriate officials, in cases of sudden, actual and ongoing emergencies involving the protection or preservation of human life or intrinsic resource values-- for example, search and rescue operations, forest fires, or oil spills or similar, large-scale contamination of water bodies.

7. In light of the special circumstances involving Whitney Lake in the West Canada Lake Wilderness Area, seasonal float plane use from spring ice-out to and including June 15 and from October 15 to fall or winter ice-in may be allowed on that lake, by, and subject to permit from the Department of Environmental Conservation for an interim period ending no later than December 31, 1993. Such permits shall require annual reporting of all flights and the number of passengers to and from Whitney Lake. During the winter of 1988-89 the Department shall determine, from the use trends indicated, whether Whitney Lake should then be closed to float plane use for either or both seasonal periods or whether such use should be allowed to continue until the final deadline of December 31, 1993.

8. Written logs will be kept by the Department of Environmental Conservation

recording use of motorized vehicles, motorized equipment and aircraft. The Department will prepare an annual report providing details of such motorized uses and the reasons therefor and file it with the Agency.

Roads, snowmobile trails and state truck trails

1. No new roads, snowmobile or state truck trails will be allowed.

2. Existing roads and state truck trails that were to have been closed by the December 31, 1975 deadline but have not yet been removed will be closed by no later than March 31, 1987. Any non-conforming roads, snowmobile trails or state truck trails resulting from newly classified wilderness areas will also be phased out as rapidly as possible and in any case will be closed by the end of the third calendar year following classification. In each case the Department of Environmental Conservation will:

- close such roads and snowmobile trails to motor vehicles as may be open to the public;
- prohibit all administrative use of such roads and trails by motor vehicles; and,
- block such roads and trails by logs, boulders or similar means other than gates.

3. During the phase-out period:

- the use of motorized vehicles by administrative personnel for transportation of materials and personnel will be limited to the minimum required for proper interim administration and the removal of non-conforming uses; and,
- maintenance of such roads and trails will be curtailed and efforts made to encourage revegetation with lower forms of vegetation to permit their conversion to foot trails and, where appropriate, horse trails.

All Terrain Bicycles

1. Public use of all terrain bicycles will be prohibited.

2. Administrative personnel will not

use all terrain bicycles for day-to-day administration but use of such vehicles may be permitted for specific major administrative research, maintenance, rehabilitation or construction projects involving conforming structures or improvements, or the removal of non-conforming structures in the discretion of the Department of Environmental Conservation.

Flora and fauna

There will be no intentional introduction in wilderness areas of species of flora or fauna that are not historically associated with the Adirondack environment, except: (i) species which have already been established in the Adirondack environment, or (ii) as necessary to protect the integrity of established native flora and fauna. Efforts will be made to restore extirpated native species where such restoration appears feasible.

Recreational use and overuse

1. The following types of recreational use are compatible with wilderness and should be encouraged as long as the degree and intensity of such use does not endanger the wilderness resource itself:

- hiking, mountaineering, tenting, hunting, fishing, trapping, snowshoeing, ski touring, birding, nature study, and other forms of primitive and unconfined recreation.

Access by horses, including horse and wagon, while permitted in wilderness, will be strictly controlled and limited to suitable locations and trail conditions to prevent adverse environmental damage.

2. Each individual unit management plan will seek to determine the physical, biological and social carrying capacity of the wilderness resource. Where the degree and intensity of permitted recreational uses threaten the wilderness resource, appropriate administrative and regulatory measures will be taken to limit such use to the capability of the resource. Such administrative and regulatory measures may include, but need not be limited to:

- the limitation by permit or other appropriate means of the total number of persons

permitted to have access to or remain in a wilderness area or portion thereof during a specified period;

-- the temporary closure of all or portions of wilderness areas to permit rehabilitative measures.

3. An intensified educational program to improve public understanding of backcountry use, including an anti-litter and pack-in, pack-out campaign, should be undertaken.

Boundary structures and improvements and boundary marking

1. Where a wilderness boundary abuts a public highway, the Department of Environmental Conservation will be permitted, in conformity with a duly adopted unit management plan, to locate within 500 feet from a public highway right-of-way, on a site-specific basis, trailheads, parking areas, fishing and waterway access sites, picnic areas, ranger stations or other facilities for peripheral control of public use, and, in limited instances, snowmobile trails.

2. Where a wilderness boundary abuts a water body accessible to the public by motorboat, the Department of Environmental Conservation will be permitted, in conformity with a duly adopted unit management plan, to provide, on a site-specific basis, for ranger stations or other facilities for peripheral control of public use or for the location of small, unobtrusive docks made of natural materials on such shorelines in limited instances where access to trailheads or the potential for resource degradation may make this desirable.

3. Special wilderness area boundary markers will be designed and installed at major access points to enhance public recognition of wilderness boundaries and wilderness restrictions.

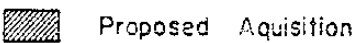
DESIGNATION OF WILDERNESS AREAS

The application of the wilderness definition and criteria described above results in the current designation under this

master plan of sixteen wilderness areas scattered throughout the Adirondacks. As of the effective date of this revision of the master plan, eleven of these areas meet wilderness standards, and five (Five Ponds, High Peaks, Pharaoh Lake, Siamese Ponds and West Canada Lake) have a few remaining non-conforming uses. These areas encompass approximately 1,016,000 acres or about forty-three percent of the forest reserve within the Adirondack Park. Virtually every Adirondack ecosystem is represented in these wilderness areas, from the alpine, sub-alpine and boreal (spruce-fir) communities of the higher mountains through various mixtures of hardwoods at the middle elevations to the lowland lakes and ponds and a variety of wetland environments -- truly an unparalleled spectrum of wilderness resources for this and future generations of New Yorkers.

These areas are identified and their boundaries delineated on the map forming part of this master plan. A general description of each designated wilderness, identifying the principal features and facilities of the area and specifying the non-conforming uses that were not removed by the original December 31, 1975 deadline or that exist as a result of recent acquisition and, in each case, remain in existence is contained in Chapter II. These descriptions also point out certain resource concerns that may be particularly relevant to the administration of the area and the preparation of the individual management plans by the Department of Environmental Conservation.

APPENDIX 9
ACQUISITION HISTORY
AND PROPOSED ACQUISITIONS



Herkimer CountyLewis County

Present text
1968

Article 14

Section 1. The lands of the state, now owned or hereafter acquired, constituting the forest preserve as now fixed by law, shall be forever kept as wild forest lands. They shall not be leased, sold or exchanged, or be taken by any corporation, public or private, nor shall the timber thereon be sold, removed or destroyed. Nothing herein contained shall prevent the state from constructing, completing and maintaining any highway heretofore specifically authorized by constitutional amendment, nor from constructing and maintaining to federal standards federal aid interstate highway route five hundred two from a point in the vicinity of Glens Falls, thence northerly to the vicinity of the villages of Lake George and Warrensburg, the hamlets of South Horicon and Pottersville and thence northerly in a generally straight line on the west side of Schroon Lake to the vicinity of the hamlet of Schroon, then continuing northerly to the vicinity of Schroon Falls, Schroon River and North Hudson, and to the east of Makomis Mountain, east of the hamlet of New Russia, east of the village of Elizabethtown and continuing northerly in the vicinity of the hamlet of Towers Forge, and east of Poke-O-Moonshine Mountain and continuing northerly to the vicinity of the village of Keeseville and the city of Plattsburgh all of the aforesaid taking not to exceed a total of three hundred acres of state forest preserve land, nor from constructing and maintaining not more than twenty miles of ski trails thirty to eighty feet wide on the north, east and northwest slopes of Whiteface Mountain in Essex county, nor from constructing and maintaining not more than twenty miles of ski trails thirty to eighty feet wide, together with appurtenances thereto, on the slopes of Belleayre Mountain in Ulster and Delaware counties and not more than thirty miles of ski trails thirty to eighty feet wide, together with appurtenances thereto; on the slopes of Gore, South and Pete Gay Mountains in Warren county, nor from relocating, reconstructing and

maintaining a total of not more than fifty miles of existing state highways for the purpose of eliminating the hazards of dangerous curves and grades, provided a total of not more than four hundred acres of forest preserve land shall be used for such purpose and that no single relocated portion of any highway shall exceed one mile in length. Notwithstanding the foregoing provisions, the state may convey to the village of Saranac Lake ten acres of forest preserve land adjacent to the boundaries of such village for public use in providing for refuse disposal and in exchange therefor the village of Saranac Lake shall convey to the state thirty acres of certain true forest land owned by such village on Roaring Brook in the northern half of Lot 113, Township 11, Richards Survey. Notwithstanding the foregoing provisions, the state may convey to the town of Arietta twenty-eight acres of forest preserve land within such town for public use in providing for the extension of the runway and landing strip of the Piseco airport and in exchange therefor the town of Arietta shall convey to the state thirty acres of certain land owned by such town in the town of Arietta.

Section 2. The legislature may by general laws provide for the use of not exceeding three per centum of such lands for the construction and maintenance of reservoirs for municipal water supply, and for the canals of the state. Such reservoirs shall be constructed, owned and controlled by the state, but such work shall not be undertaken until after the boundaries and high flow lines thereof shall have been accurately surveyed and fixed, and after public notice, hearing and determination that such lands are required for such public use. The expense of any such improvements shall be apportioned on the public and private property and municipalities benefited to the extent of the benefits received. Any such reservoir shall always be operated by the state and the legislature shall provide for a charge upon the property and municipalities benefited for a reasonable return to the state upon the value of the rights and property of the state and the services of the state rendered, which shall be fixed for terms not exceeding ten years and be readjustable at the end of any term. Unsanitary conditions shall not be created or continued by any such public works.

Section 3. 1. Forest and wildlife conservation are hereby declared to be policies of the state. For the purpose of carrying out such policies the legislature may appropriate monies for the acquisition by the state of land, outside of the Adirondack and Catskill parks as now fixed by law, for the practice of forest or wildlife conservation. The prohibitions

of section 1 of this article shall not apply to any lands heretofore or hereafter acquired or dedicated for such purposes within the forest preserve counties but outside of the Adirondack and Catskill parks as now fixed by law, except that such lands shall not be leased, sold or exchanged, or be taken by any corporation, public or private.

2. As to any other lands of the state, now owned or hereafter acquired, constituting the forest preserve referred to in section 1 of this article, but outside of the Adirondack and Catskill parks as now fixed by law, and consisting in any case of not more than ten contiguous acres entirely separated from any other portion of the forest preserve, the legislature may by appropriate legislation, notwithstanding the provisions of section 1 of this article, authorize:

(a) the dedication thereof for the practice of forest or wildlife conservation; or (b) the use thereof for public recreational or other state purposes or the sale, exchange or other disposition thereof; provided, however, that all monies derived from the sale or other disposition of any of such lands shall be paid into a special fund of the treasury and be expended only for the acquisition of additional lands for such forest preserve within either such Adirondack or Catskill park.

Section 4. A violation of any of the provisions of this article may be restrained at the suit of the people or, with the consent of the supreme court in appellate division, on notice to the attorney-general at the suit of any citizen.

225 W. Main Street
Herkimer, New York
May 26, 1977

C. E. BOONE:

Subject: Removal of Moose River Mt. Fire Tower

This is to advise you that during the week of May 16, 1977, the Moose River Mt. Fire Tower was dismantled and removed to the Boonville Field Headquarters by Fire Management and Operations personnel.

The tower was pulled to the ground with a small bulldozer and then cut into salvagable lengths. It was then taken out to the Big Otter Truck Trail, over an existing stone road, where it was loaded on to a stake rack truck and removed to Boonville.

A final policing of the area was undertaken and all non-conforming materials were either removed or buried at the site where the observer's cabin once stood.

I've enclosed photographs of both the tower and the cabin sites for your file. It's interesting to note that the entire project required only 20 man-days to complete.

Sincerely,

Paul T. Hartmann
District Ranger

PTH/mg

Encs.

STATE OF NEW YORK

CONSERVATION DEPARTMENT

Report of Trespass on the Forest Preserve

TO THE DIRECTOR OF LANDS AND FORESTS,

ALBANY, N. Y.

Dear Sir:

A trespass on State land has been committed by (give full name and address of trespasser)

Name Alois C. & Henriette WitteAddress Trendelenburg, N.Y.On Lot No. 10, R. 2 Tract or Patent John Brown's Township No. 7Town of Webb County of Herkimer

Number and kind of trees cut _____ spruce _____ hemlock _____ pine _____ balsam

_____ tamarack _____ hardwood. Date of cutting and by whom can same be proven _____

Give names and addresses of persons by whom cutting was done _____

If cutting done by persons other than trespasser, was same done at trespasser's direction and by whom can such fact be proven? _____

Has lot been located by survey, and if so, by whom? J. Dexter

If lot is not located by survey, are lot lines plainly marked? _____

By whom was count of trees cut made, and when? _____

Give the quantity of timber cut, in cords _____ or in the markets _____

By whom was said quantity estimated? _____

What is the market stumpage value for similar timber at location of trespass per cord _____

or per market _____

Where is the cut timber (state whether it is on State land, or land of the trespasser, in lake or river, or at a mill)? _____

If timber has been removed and sold, who received the proceeds of such sale? _____

Has trespasser ever cut timber on State land before to your knowledge; if so, when? _____

State fully all additional facts regarding trespass: Mr & Mrs. Witte purchased lot 5 and camp in 1924 from G.A. WAN-KA Inc. In 1958 lot 7 was purchased and a garage was erected on same. Lot 7 is also claimed by the Witte's. It is unoccupied and uncut.

Signature W. H. AllenTitle Forest RangerP. O. Address Trendelenburg, N.Y.Dated Feb. 15 1966

W Y

STATE OF NEW YORK
CONSERVATION DEPARTMENT
RECORD OF OCCUPANCY

Name Alois C. & Harriette Witte P. O. Address Thendura N. Y.
(Give first name in full—no initials)

On lot 10 R. 2; Twp. or Grt. Lot 7; Pat. or Purchase
Town of Webb County of Herkimer N. Y.

Has a warranty & full covenant deed dated April 26, 1924 from GA-WAN-KA Inc.
(Quit-claim or warranty) Oct. 9, 1958 Old Forge Realty.

P. O. Old Forge, N.Y. recorded Herkimer County Clerk's office Book of Deeds
No. 368 Page No. 499
323 310

No. acres cleared land _____; No. acres pasture _____; No. acres
wood land _____; No. acres under cultivation _____; No. acres en-
closed by fences _____; How long has land been cleared, pastured, culti-
vated or enclosed unknown

House 27.7 ft. x 31.8 ft.; _____ stories high; built of lumber
(Lumber, logs or brick)

Nature of foundation cement block when built 1964; value 4000.00

Barn _____ ft. x _____ ft.; of _____; when built _____; value \$ _____
(Lumber or logs)

Other buildings garage 14.3 x 20.5 approx. 5 years 2000.00

Occupant has lived on this lot since no information. He secured possession
from unknown who now lives at _____

Use of lot Camp
(Farm, wood lot, camp, etc.)

What if any timber cutting has been done on this property in last six years
none

Has such timber been cut for fuel, fences, or other use of the occupant and
if so, give particulars _____

Has party signed disclaimer of title no, if not, why did he refuse
claims title

Is he willing to vacate no

Remarks One lot #5 was purchased in 1924 and lot #4 was
purchased in 1958 and a garage erected on same lot 7
is also claimed although uncut and unoccupied

Signed Mont Allen
Official position Forest Ranger

Date Feb. 8, 1966 Address Thendura N.Y.

HA-DE-RON-DAH WILDERNESS AREA SIGN INVENTORY

Sign No.	Legend	Miles	Location
40	East Pond	3.5	At Big Otter Truck Trail Gate
	Middle Branch Lake	6.5	
	Big Otter Lake	8.0	
41	Thendara	1.5	East Pond Trail & Big Otter Truck Trail
42	Middle Branch Lake	1.0	Jct. Middle Branch Lake Trail
	Cedar Pond	2.25	& Big Otter Truck Trail
43	Cedar Pond	1.25	On trail at Middle Branch Lake
44	Big Otter Truck Trail	1.0	"
	Thendara	6.5	
45	Middle Branch Lake	1.25	On trail at Cedar Pond
	Big Otter Truck Trail	2.5	
	Thendara	8.5	
46	Thendara	8.0	Bridge across outlet at Big Otter Lake
	Middle Branch Lake	3.5	
47	East Pond Trail	1.5	Big Otter Truck Trail Gate
48	South Inlet	.8	East end of East Pond Trail
	Simon Pond	2.0	on Big Otter Truck Trail
	East Pond	2.5	
49	Old Mica Mine & Black Foot Pond	1.0	Junction Blackfoot Pond Trail & East Pond Trail
50	Thendara	3.0	Blackfoot Pond Trail near Mica Mine
51	East Pond	.3	Near East Pond at intersection
	Old Mica Mine	1.0	with Link Trail
52	Lost Creek Trail	2.0	"
	Big Otter Lake	3.0	
	Big Otter Truck Trail	4.0	
53	Simon Ponds	.6	"
	South Inlet	1.8	
	Thendara	4.6	

Sign No.	Legend	Miles	Location
54	Old Mica Mine	1.0	On East Pond trail at intersection of Blackfoot Trail
55	Thendara	3.0	"
56	East Pond	.1	"
57	East Pond Outlet	.1	On Lost Creek Trail at intersection with Link Trail
58	Big Otter Lake	1.0	"
	South Inlet	1.9	
	Big Otter Truck Trail	2.0	
59	East Pond	2.2	"
	Old Mica Mine	3.0	
60	West end of Big Otter Truck Tr.	.8	On Big Otter Truck Trail at inter- section of Lost Creek Trail
	Foot of Big Otter Lake	1.2	
61	Thendara	7.2	"
	Middle Branch Lake	2.7	
62	Lost Creek	2.0	"
	East Pond	4.0	
68	Trail to State land	.50	On Rte. 28 below Thendara at access trail to State land (Scusa)
	Brown's Tract Trail	.75	
	Grass Pond	2.0	
	Cedar Pond Lean-to	3.0	
69	Middle Branch Lake Lean-to	4.25	"
	Big Otter Lake	7.25	
	Middle Settlement Lake	4.25	
70	To Thendara	3.5	Jct. of access trail and Brown's Tract Trail
	Parking Area O'Kara Lake	2.0	
	Grass Pond	1.25	
	Cedar Pond Lean-to	2.25	
71	Middle Settlement Lake	4.5	"
	Middle Branch Lake Lean-to	3.5	
	Big Otter Lake	7.0	
72	Middle Settlement Lake	3.5	Jct. of access & Brown's Tract Trail (sign is on Old Brown's Tract Road)
73	To Route 28	.75	"

Sign No.	Legend	Miles	Location
74	Parking Area	1.5	Jct. Brown's Tract Trail & Cedar
	Thendara	3.0	Pond Trail NW of O'Kara Lakes
75	Grass Pond	.75	"
	Cedar Pond Lean-to	1.75	"
	Middle Settlement Lake	4.25	"
	Middle Branch Lake Lean-to	3.0	"
	Big Otter Truck Trail	6.5	"
76	To Route 28	1.25	"
77	Grass Pond	.50	On Cedar Pond Trail at jct. of spur trail to Grass Pond
78	Grass Pond	1.75	O'Kara Parking Lot
	Cedar Pond Lean-to	2.75	
	Middle Branch Lake Lean-to	4.00	
	Big Otter Lake	7.5	
	Middle Settlement Lake	5.75	
79	Middle Settlement Lake	2.25	At Cedar Pond Lean-to
80	Brown's Tract Trail	1.75	East end of Middle Settlement Lake, jct. Middle Settlement Tr. and Middle Settlement Access Tr.
81	Route 28	3.5	W End Brown's Tract Trail at jct.
	Thendara	7.0	with Middle Settlement Access Trail
82	Middle Settlement Lake	1.75	Jct. Brown's Tract Trail & Middle Settlement Access Trail N of Bare Mountain
	Cedar Pond	3.00	
	Middle Branch Lake	4.25	
	Big Otter Lake	7.25	
83	Route 28	1.75	"
	Thendara	4.50	"
84	Thendara	2.0	Parking area on gravel town road NE of O'Kara Lake on Brown's Tract Trail
85	Grass Pond	2.25	"
	Cedar Pond Lean-to	3.25	"
	Middle Branch Lake Lean-to	4.50	"
88	Big Otter Lake	8.0	"
	Middle Settlement Lake	5.75	"

- Historical Fire Sign

Adjacent to the unit on Rt. 28 R.O.W.

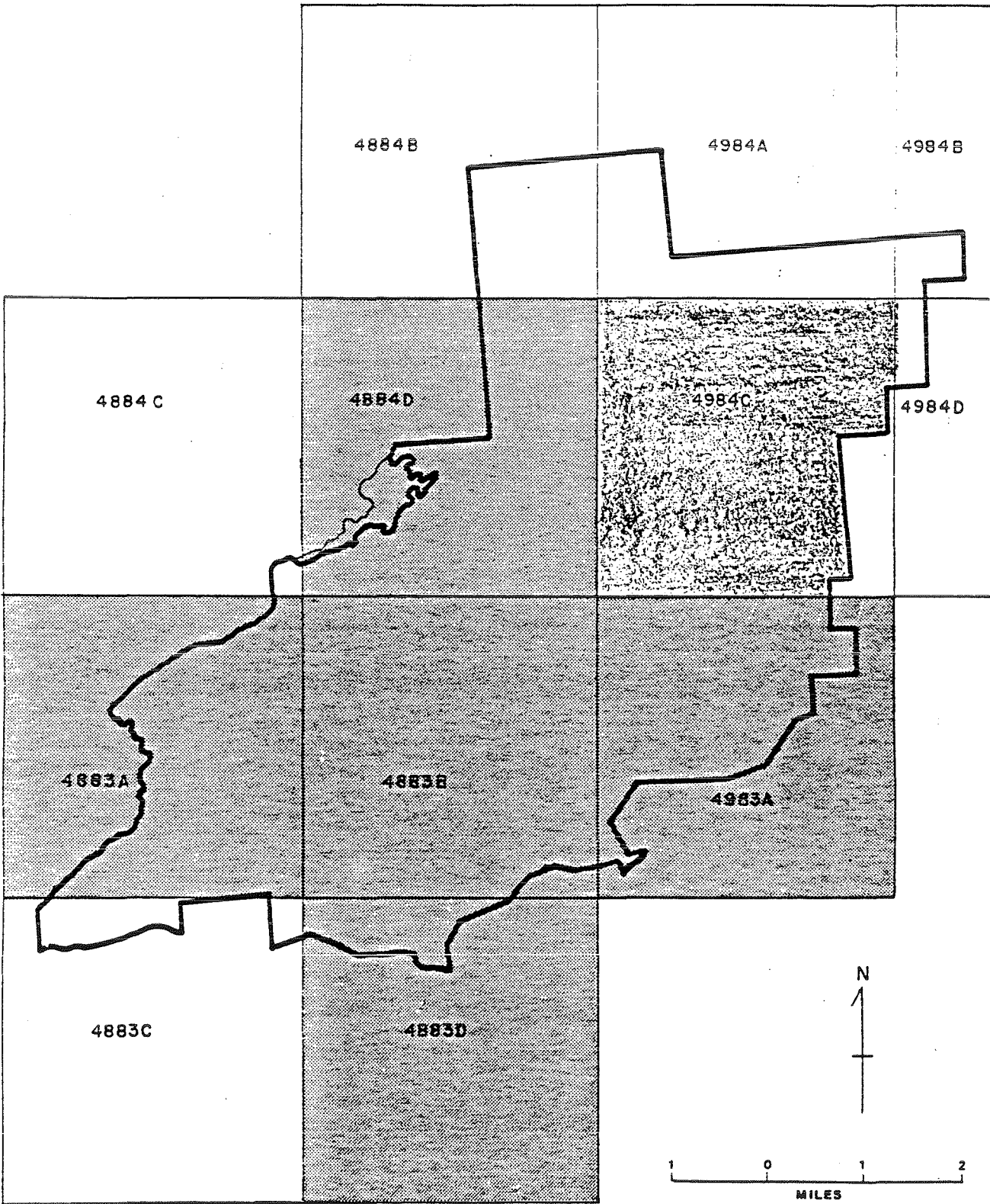
APPENDIX 14


HA-DE-RON-DAH WILDERNESS AREA

BRIDGE INVENTORY

Lost Creek Trail	2 Bridges - 1 ea. 25' and 1 ea. 12'
East Pond Trail	4 Bridges - 1 ea. 25', 1 ea. 15', 2 ea. 10'
Middle Settlement and Middle Branch Trails	6 Bridges - 12' Avg. Length
Scusa Access Trail - Route 28	3 Bridges - 12' sawed plank, 2 ea. 12' ripped cherry
O'Kara - Cedar Pond	1 Bridge - 12' length
Grass Pond	1 Bridge - 15' length
Lost Lake Trail	1 Bridge - 116' total length 1 Bridge - 94' total length

Ha-De-Ron-Dah Wilderness Breeding Bird Atlas Key



 Information included in summary

NEW YORK STATE BREEDING BIRD ATLAS
 BREEDING SPECIES OF : HA-DE-RON-DAH WILDERNESS
 1980-1985 DATA - ALPHABETICAL BY COMMON NAME

COMMON NAME	SCIENTIFIC NAME	NEW YORK LEGAL STATUS	NATURAL HERITAGE PROGRAM STATE RANK
CONFIRMED BREEDERS			
Alder Flycatcher	<i>Empidonax alnorum</i>	Protected	S5
American Bittern	<i>Botaurus lentiginosus</i>	Protected	S4
American Black Duck	<i>Anas rubripes</i>	Game Species	S4
American Crow	<i>Corvus brachyrhynchos</i>	Game Species	S5
American Goldfinch	<i>Carduelis tristis</i>	Protected	S5
American Redstart	<i>Setophaga ruticilla</i>	Protected	S5
American Robin	<i>Turdus migratorius</i>	Protected	S5
Bank Swallow	<i>Riparia riparia</i>	Protected	S5
Barn Swallow	<i>Hirundo rustica</i>	Protected	S5
Belted Kingfisher	<i>Ceryle alcyon</i>	Protected	S5
Black-and-white Warbler	<i>Mniotilta varia</i>	Protected	S5
Black-capped Chickadee	<i>Parus atricapillus</i>	Protected	S5
Black-throated Blue Warbler	<i>Dendroica caerulescens</i>	Protected	S5
Black-throated Green Warbler	<i>Dendroica virens</i>	Protected	S5
Blackburnian Warbler	<i>Dendroica fusca</i>	Protected	S5
Blue Jay	<i>Cyanocitta cristata</i>	Protected	S5
Broad-winged Hawk	<i>Buteo platypterus</i>	Protected	S5
Brown Thrasher	<i>Toxostoma rufum</i>	Protected	S5
Brown-headed Cowbird	<i>Molothrus ater</i>	Protected	S5
Canada Warbler	<i>Wilsonia canadensis</i>	Protected	S5
Cedar Waxwing	<i>Bombycilla cedrorum</i>	Protected	S5
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>	Protected	S5
Chimney Swift	<i>Chaetura pelagica</i>	Protected	S5
Chipping Sparrow	<i>Spizella passerina</i>	Protected	S5
Common Grackle	<i>Quiscalus quiscula</i>	Protected	S5
Common Loon	<i>Gavia immer</i>	Protected-Special Concern	S4
Common Merganser	<i>Mergus merganser</i>	Game Species	S5
Common Raven	<i>Corvus corax</i>	Protected-Special Concern	S4
Common Yellowthroat	<i>Geothlypis trichas</i>	Protected	S5
Cooper's Hawk	<i>Accipiter cooperii</i>	Protected-Special Concern	S4

HA-DE-RON-DAH WILDERNESS
 APPENDIX 15.B.
 NYSDEC and the FED. OF N.Y.S. BIRD CLUBS
 BREEDING BIRD ATLAS PROJECT DATA

NEW YORK STATE BREEDING BIRD ATLAS
 BREEDING SPECIES OF : HA-DE-RON-DAH WILDERNESS
 1980-1985 DATA - ALPHABETICAL BY COMMON NAME

COMMON NAME	SCIENTIFIC NAME	NEW YORK LEGAL STATUS	NATURAL HERITAGE PROGRAM STATE RANK
Dark-eyed Junco	<i>Junco hyemalis</i>	Protected	S5
Downy Woodpecker	<i>Picoides pubescens</i>	Protected	S5
Eastern Bluebird	<i>Sialia sialis</i>	Protected-Special Concern	S5
Eastern Kingbird	<i>Tyrannus tyrannus</i>	Protected	S5
Eastern Phoebe	<i>Sayornis phoebe</i>	Protected	S5
Eastern Wood-Pewee	<i>Contopus virens</i>	Protected	S5
European Starling	<i>Sturnus vulgaris</i>	Unprotected	SE
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	Protected	S5
Golden-crowned Kinglet	<i>Regulus satrapa</i>	Protected	S5
Gray Catbird	<i>Dumetella carolinensis</i>	Protected	S5
Great Blue Heron	<i>Ardea herodias</i>	Protected	S5
Hairy Woodpecker	<i>Picoides villosus</i>	Protected	S5
Hermit Thrush	<i>Catharus guttatus</i>	Protected	S5
House Sparrow	<i>Passer domesticus</i>	Unprotected	SE
House Wren	<i>Troglodytes aedon</i>	Protected	S5
Indigo Bunting	<i>Passerina cyanea</i>	Protected	S5
Killdeer	<i>Charadrius vociferus</i>	Protected	S5
Least Flycatcher	<i>Empidonax minimus</i>	Protected	S5
Lincoln's Sparrow	<i>Melospiza lincolnii</i>	Protected	S4
Magnolia Warbler	<i>Dendroica magnolia</i>	Protected	S5
Mallard	<i>Anas platyrhynchos</i>	Game Species	S5
Mourning Warbler	<i>Oporornis philadelphia</i>	Protected	S5
Nashville Warbler	<i>Vermivora ruficapilla</i>	Protected	S5
Northern Flicker	<i>Colaptes auratus</i>	Protected	S5
Northern Oriole	<i>Icterus galbula</i>	Protected	S5
Northern Parula	<i>Parula americana</i>	Protected	S3S4
Purple Finch	<i>Carpodacus purpureus</i>	Protected	S5
Red-breasted Nuthatch	<i>Sitta canadensis</i>	Protected	S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	Protected	S5
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	Protected	S5
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	Protected	S5
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	Protected	S5
Ruffed Grouse	<i>Bonasa umbellus</i>	Game Species	S5

NEW YORK STATE BREEDING BIRD ATLAS
 BREEDING SPECIES OF : HA-DE-RON-DAH WILDERNESS
 1980-1985 DATA - ALPHABETICAL BY COMMON NAME

COMMON NAME	SCIENTIFIC NAME	NEW YORK LEGAL STATUS	NATURAL HERITAGE PROGRAM STATE RANK
Rusty Blackbird	<i>Euphagus carolinus</i>	Protected	S3
Solitary Vireo	<i>Vireo solitarius</i>	Protected	S5
Song Sparrow	<i>Melospiza melodia</i>	Protected	S5
Swainson's Thrush	<i>Catharus ustulatus</i>	Protected	S5
Swamp Sparrow	<i>Melospiza georgiana</i>	Protected	S5
Tree Swallow	<i>Tachycineta bicolor</i>	Protected	S5
Turkey Vulture	<i>Cathartes aura</i>	Protected	S4
Veery	<i>Catharus fuscescens</i>	Protected	S5
White-breasted Nuthatch	<i>Sitta carolinensis</i>	Protected	S5
White-throated Sparrow	<i>Zonotrichia albicollis</i>	Protected	S5
Winter Wren	<i>Troglodytes troglodytes</i>	Protected	S5
Wood Duck	<i>Aix sponsa</i>	Game Species	S5
Yellow Warbler	<i>Dendroica petechia</i>	Protected	S5
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	Protected	S5
Yellow-rumped Warbler	<i>Dendroica coronata</i>	Protected	S5
PROBABLE BREEDERS			
American Woodcock	<i>Scolopax minor</i>	Game Species	S5
Barred Owl	<i>Strix varia</i>	Protected	S5
Black-backed Woodpecker	<i>Picoides arcticus</i>	Protected	S3
Blackpoll Warbler	<i>Dendroica striata</i>	Protected	S3
Boreal Chickadee	<i>Parus hudsonicus</i>	Protected	S3
Brown Creeper	<i>Certhia americana</i>	Protected	S5
Canada Goose	<i>Branta canadensis</i>	Game Species	S5
Common Snipe	<i>Gallinago gallinago</i>	Game Species	S5
Eastern Meadowlark	<i>Sturnella magna</i>	Protected	S5
Gray Jay	<i>Perisoreus canadensis</i>	Protected	S3
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	Protected	S5
Herring Gull	<i>Larus argentatus</i>	Protected	S5
Northern Cardinal	<i>Cardinalis cardinalis</i>	Protected	S5
Northern Mockingbird	<i>Mimus polyglottos</i>	Protected	S5
Northern Waterthrush	<i>Seiurus noveboracensis</i>	Protected	S5

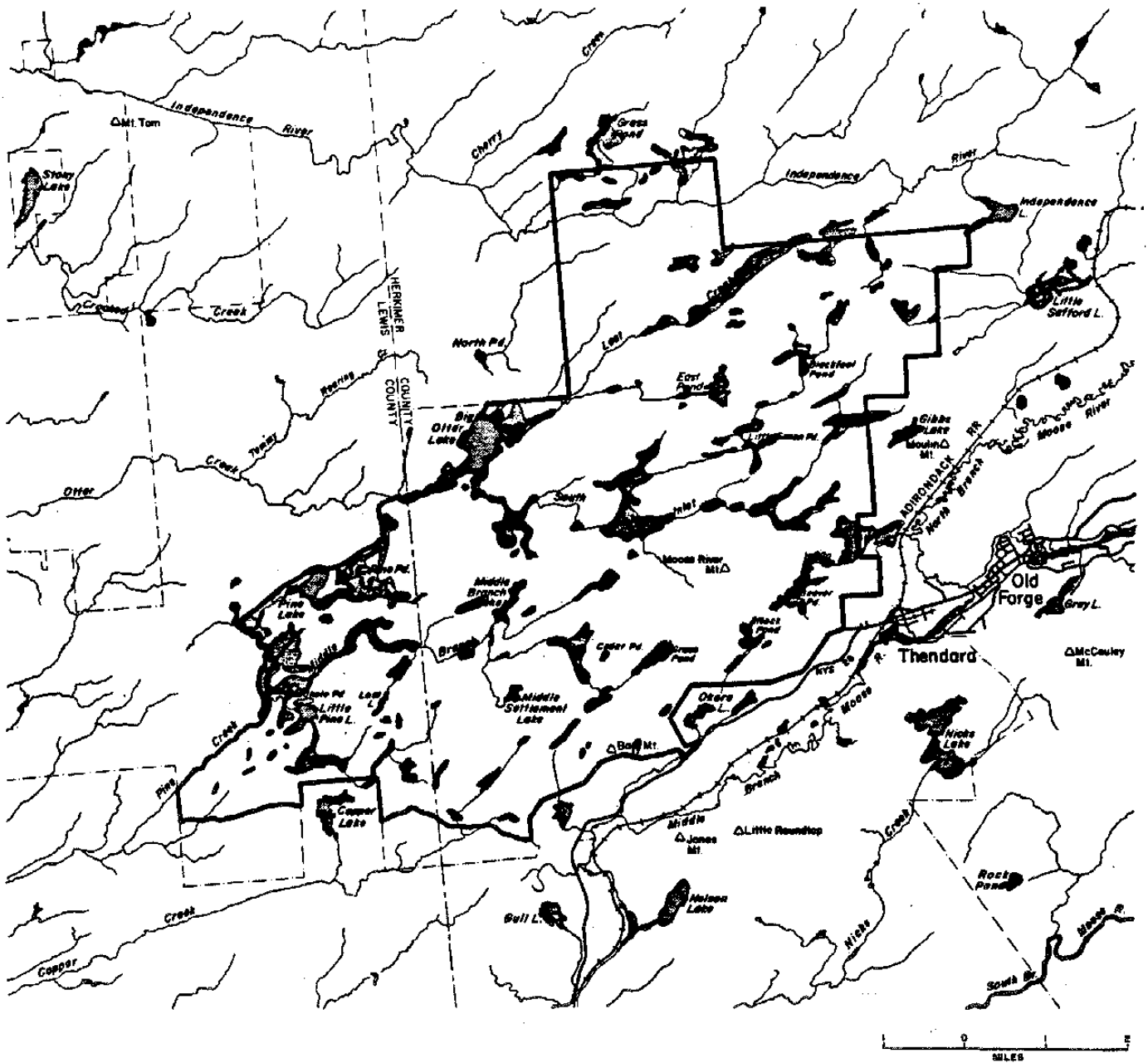
NEW YORK STATE BREEDING BIRD ATLAS
 BREEDING SPECIES OF : HA-DE-RON-DAH WILDERNESS AREA
 1980-1985 DATA - ALPHABETICAL BY COMMON NAME

COMMON NAME	SCIENTIFIC NAME	NEW YORK LEGAL STATUS	NATURAL HERITAGE PROGRAM STATE RANK
Osprey	<i>Pandion haliaetus</i>	Threatened	S4
Ovenbird	<i>Seiurus aurocapillus</i>	Protected	S5
Pileated Woodpecker	<i>Dryocopus pileatus</i>	Protected	S5
Pine Siskin	<i>Carduelis pinus</i>	Protected	S5
Red-shouldered Hawk	<i>Buteo lineatus</i>	Threatened	S4
Scarlet Tanager	<i>Piranga olivacea</i>	Protected	S5
Sharp-shinned Hawk	<i>Accipiter striatus</i>	Protected	S4
Spotted Sandpiper	<i>Actitis macularia</i>	Protected	S5
Tufted Titmouse	<i>Parus bicolor</i>	Protected	S5
White-winged Crossbill	<i>Loxia leucoptera</i>	Protected	S2S3
Wood Thrush	<i>Hylocichla mustelina</i>	Protected	S5
Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>	Protected	S3
Yellow-throated Vireo	<i>Vireo flavifrons</i>	Protected	S5

POSSIBLE BREEDERS

Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	Protected	S5
Bobolink	<i>Dolichonyx oryzivorus</i>	Protected	S5
Eastern Screech-Owl	<i>Otus asio</i>	Protected	S5
Green-backed Heron	<i>Butorides striatus</i>	Protected	S5
Hooded Merganser	<i>Lophodytes cucullatus</i>	Game Species	S4
Louisiana Waterthrush	<i>Seiurus motacilla</i>	Protected	S5
Mourning Dove	<i>Zenaida macroura</i>	Protected	S5
Northern Goshawk	<i>Accipiter gentilis</i>	Protected	S4
Northern Harrier	<i>Circus cyaneus</i>	Threatened	S3
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	Protected	S5
Olive-sided Flycatcher	<i>Contopus borealis</i>	Protected	S5
Red Crossbill	<i>Loxia curvirostra</i>	Protected	S3
Red-tailed Hawk	<i>Buteo jamaicensis</i>	Protected	S5
Rufous-sided Towhee	<i>Pipilo erythrophthalmus</i>	Protected	S5

WETLANDS HA-DE-RON-DAH WILDERNESS



HA-DE-RON-DAH WILDERNESS MINIMAL MAINTENANCE AREA

Trails from this point Northerly are on a Five-Year Minimal Maintenance Schedule for use by those desiring a more Wilderness-Type Experience. A degree of Orienteering Skill and Greater Self-Sufficiency are required. There are no Leantos and the area North of Lost Creek has No Maintained Trails. Those entering this area should be sure to have the Desire, Equipment, Maps and Experience Necessary for a Less Convenient Visit.



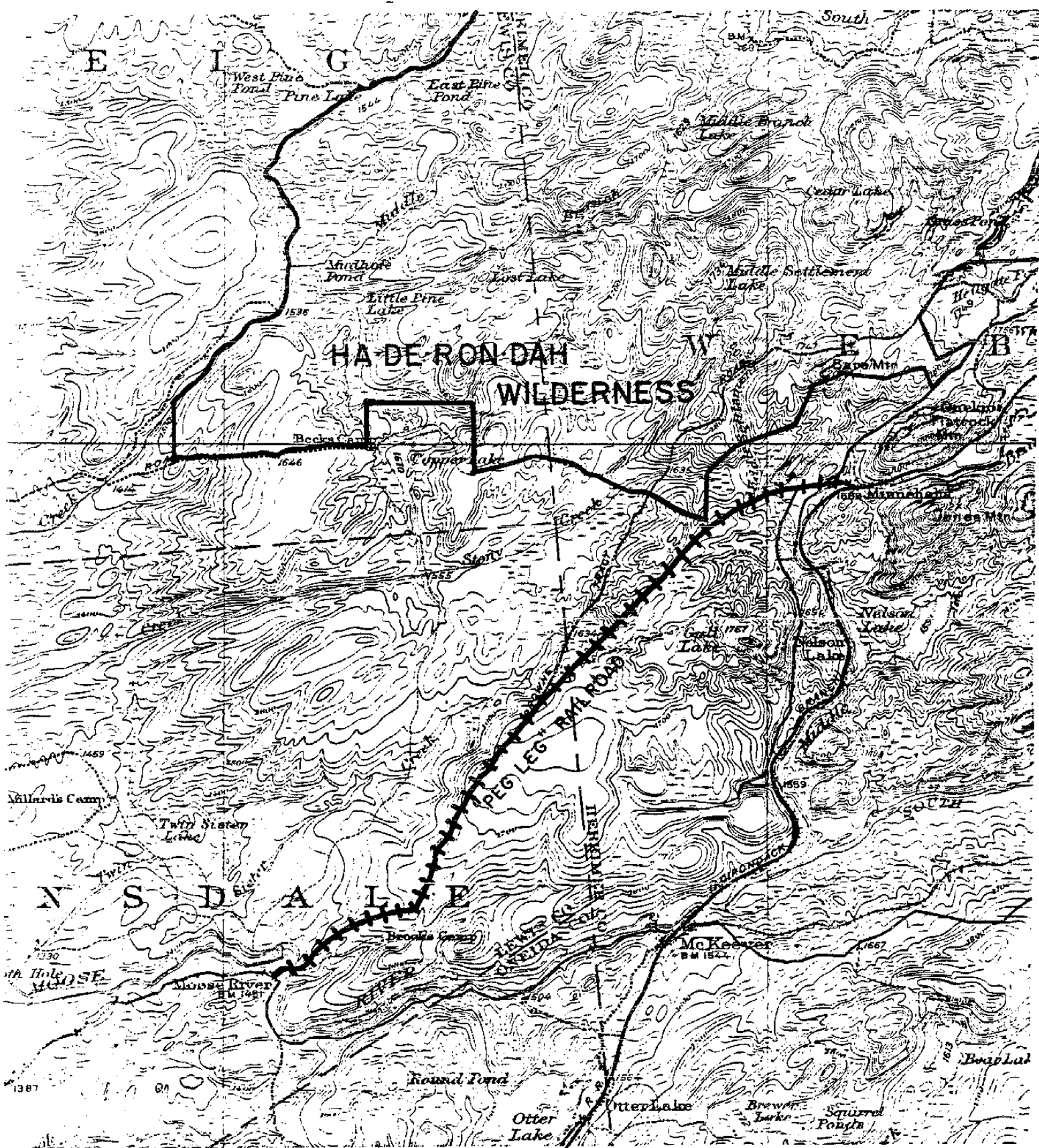
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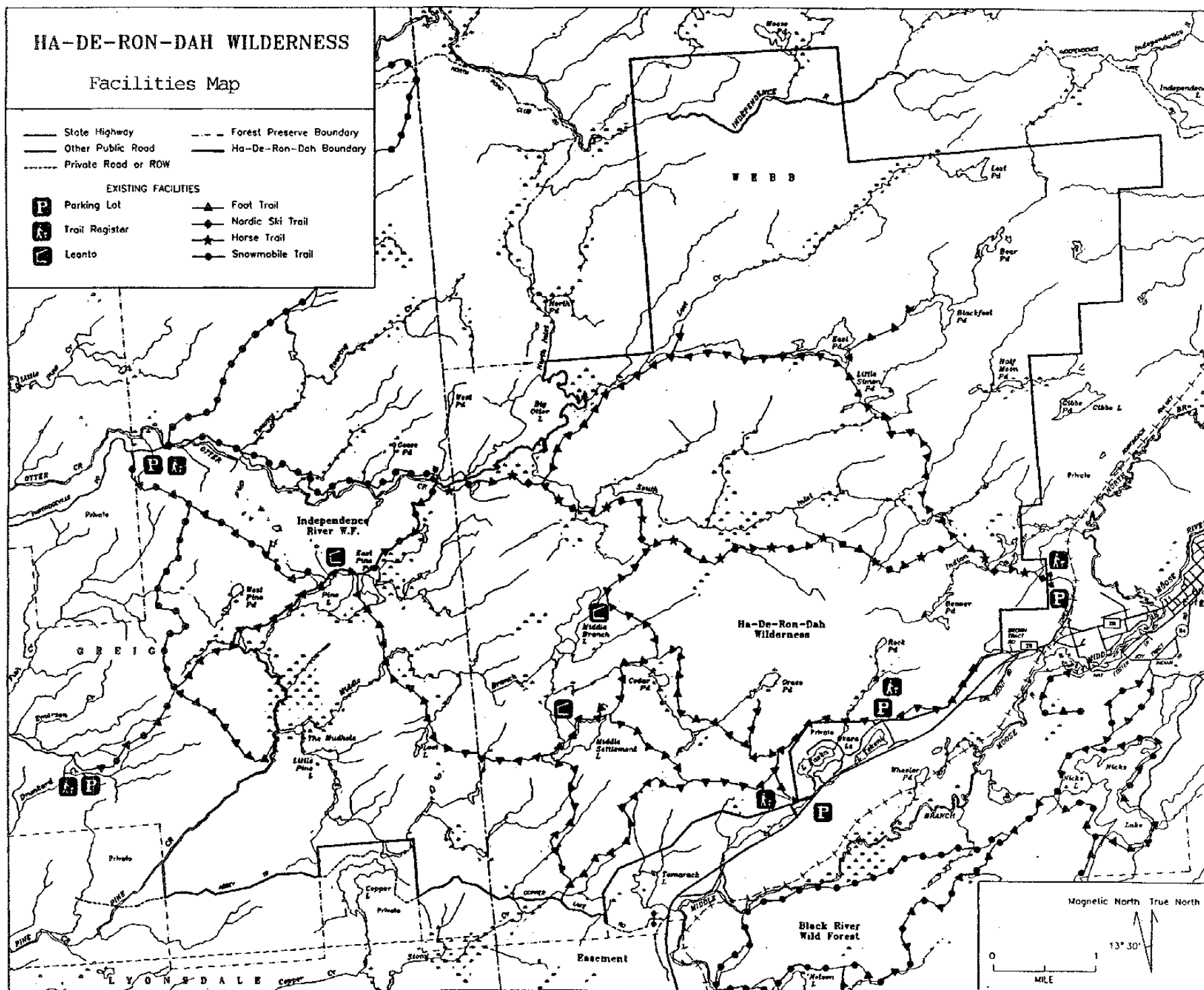


ALBANY, N.Y.

Minimal Maintenance Area Sign

Route of the "Peg Leg" (1888-1892)





FOR YOUR SAFETY

1. Plan your trip carefully according to routes and time available. Carry the latest guidebooks and maps.
2. Always let someone know where you are going and when you expect to return.
3. With your map and compass, orient yourself before entering the forest; if you become lost you will know in which direction to travel to find your way out.
4. Check weather reports before you set out and dress and equip yourself for expected conditions.
5. Be prepared for unexpected emergencies. Carry a compass, pocket knife, waterproof matches, high energy food items such as candy, a first aid kit and extra protective clothing.
6. It's just good common sense to insure that your drinking water is safe. Although there are no known problems in the area, water should be either boiled, chemically treated or filtered, prior to consumption.
7. In case of accident, at least one person should remain with the injured person. Others should carefully note the location and contact the local forest ranger.

IF YOU BECOME LOST

1. Having oriented yourself, use your predetermined compass bearing to find your way to safety.
2. Keep in mind that following a stream, creek or river downstream (downhill) will generally lead you to safety. This can, however, be difficult especially in flat swampy areas.
3. If you think you'll be spending the night, find a spot that is sheltered from the wind. Gather 10 armloads of dry wood to sustain your campfire through the night. At daybreak, move to an open area and/or prepare a smudge fire for signaling purposes. In this area, if the weather permits, the Department Forest Ranger **WILL** send up an airplane as part of the search effort.

TO REPORT EMERGENCIES

Contact any of the following:

Forest Ranger Douglas Riedman, Old Forge	(315) 369-3463
Forest Ranger Donald Buehler, Otter Lake	(315) 369-3423
Forest Ranger Robert Henrickson, Brantingham	(315) 348-8112

If none answer, contact the Department's 24 hour Emergency Answering Service to report either lost persons or forest fires in the western Adirondacks.



REMEMBER—Only You Can Prevent Forest Fires

1 F P-232 (11/91)—18a



Department of Environmental Conservation

TRAILS in the Old Forge—Brantingham Lake Region



The Old Forge—Brantingham Lake area is situated in the Town of Webb, Herkimer County and the Town of Greig, Lewis County, and consists of a scattering of small lakes and ponds among the gently rolling hills. Moose River Mountain, the highest point in the area, was once the site of a forest fire observation station which was closed in 1971, with the advent of DEC's aerial fire detection system.

Most of the trails are within the

bounds of the Ha-De-Ron-Dah Wilderness area. Refer to the map for the location of the wilderness boundary. It should be noted that these trails may not be maintained to the high level they once were, especially in the northern portion of the wilderness area. This is an attempt to provide the forest preserve user an opportunity to enjoy the area in its natural state. Wilderness areas are not for everyone.

A portion of Independence River

New York State Department of Environmental Conservation
MARIO M. CUOMO, Governor

APPENDIX 21

BROCHURE
TRAILS IN THE OLD FORGE-
BRANTINGHAM LAKE REGION

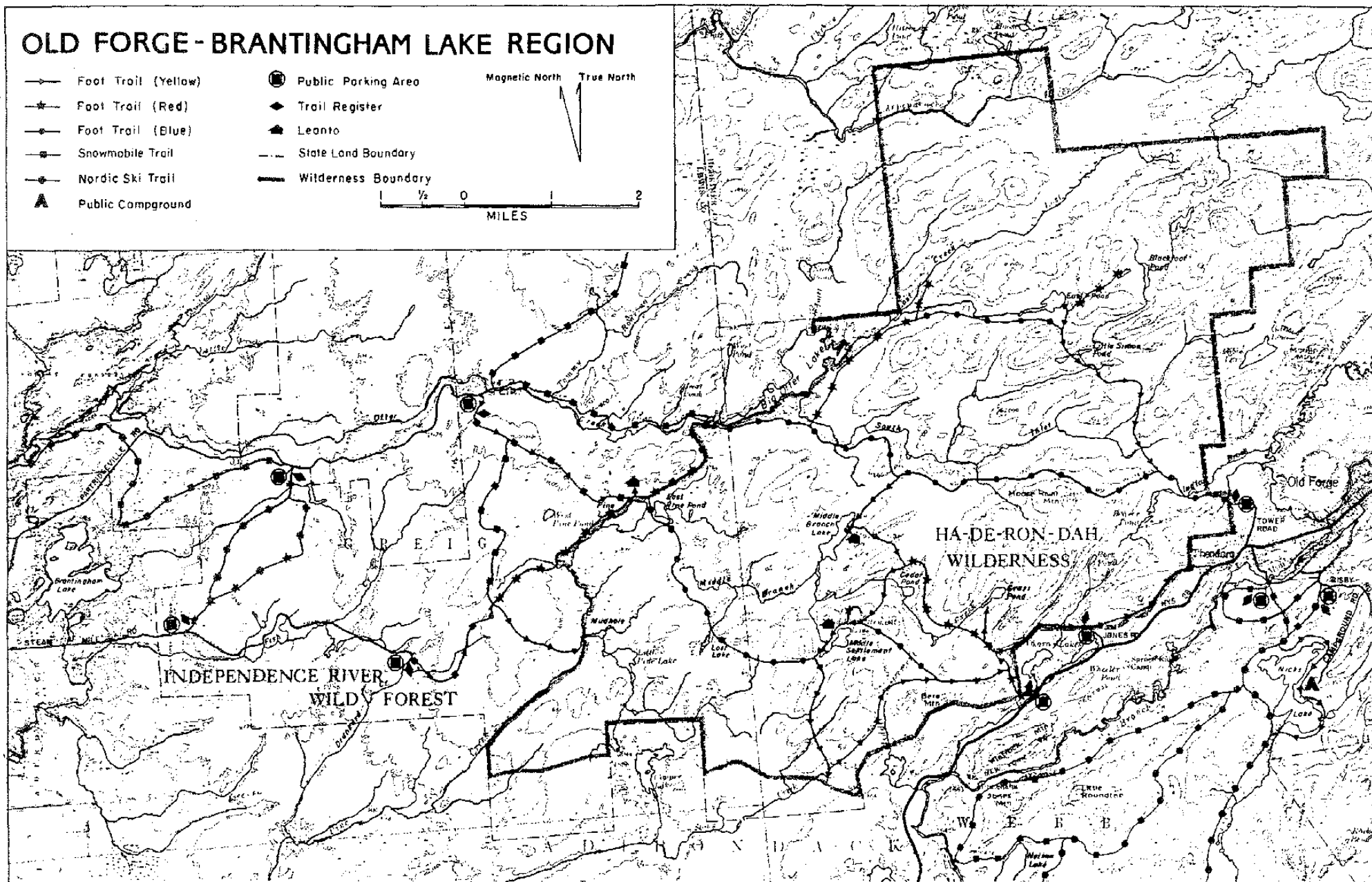
OLD FORGE - BRANTINGHAM LAKE REGION

- Foot Trail (Yellow)
- ★— Foot Trail (Red)
- Foot Trail (Blue)
- Snowmobile Trail
- Nordic Ski Trail
- ▲ Public Campground

- ⊙ Public Parking Area
- ◆ Trail Register
- ▲ Leanto
- State Land Boundary
- Wilderness Boundary

Magnetic North True North

1/2 0 1 2
MILES



Wild Forest Area, which lies to the west and north of Ha-De-Ron-Dah has been included in this brochure because of the opportunities and access it provides. Although the primary intent of this brochure is to depict the hiking or backpacking possibilities, other recreational activities can be enjoyed in the area.

A number of snowmobile trails in the Brantingham region offer excellent possibilities for this winter recreation pursuit. These trails serve a double purpose as they are well suited for foot travel during the warmer months.

Conversely, a number of foot trails offer good nordic skiing possibilities during the winter season with the most popular being from Thendara to Big Otter Lake and return. Other skiing opportunities are described in the Nordic Skiing Trails brochure available at most DEC offices.

Horseback riding is quite limited as it is not generally permitted on Department foot trails. Exceptions are made, however, when such use will not cause significant deterioration to the resource. There are two possibilities in the Old Forge—Brantingham area. The first follows the Big Otter Trail from Thendara westerly to the vicinity of Big Otter Lake. The second follows the Big Otter Road, from a point near Brantingham, easterly to the lake. While both terminate near Big Otter Lake, they currently do not join each other.

Access

The area can be accessed from Brantingham Lake on the west, or

Route 28 on the southeast.

To reach the area, watch for the Brantingham Lake sign on State Route 12, 15 miles north of Boonville and 10 miles south of Lowville.

Travel east on the Burdicks Crossing Road, 1.5 miles, to the Lyons Falls Road, turn left on the Lyons Falls Road and travel 0.8 miles to the Brantingham Lake Road, turn right on the Brantingham Lake Road and travel 3.7 miles to the four corners at Brantingham.

There are three trailhead parking areas in the vicinity of Brantingham Lake—two on the Partridgeville Road and one on the Steam Mill Road.

To reach the first parking area, turn left at the four corners at Brantingham onto the Partridgeville Road and travel 1.7 miles—at this point turn left on a gravel road and travel 6.1 miles to the first DEC maintained parking area.

To reach the second parking area, travel straight ahead at the four corners at Brantingham on the Steam Mill Road, a distance of 2.5 miles, to the DEC maintained parking area, servicing the Centennial Cross Country Ski Trail System. Proceed 3.3 miles to the third trailhead parking lot at the Drunkard Creek barrier.

There are three access points to the area on the southeasterly side. The first is at the end of Tower Road, north of the hamlet of Thendara. The second is a DOT parking area on Route 28, 3.0 miles south of the railroad station at Thendara; and the third, a small DEC parking area, is to the north of Okara Lakes. This

can be reached by taking the Jones Road north off of Route 28 and traveling approximately ½ mile to the state boundary and parking lot.

At most trailhead parking areas, registration books have been provided. Please take the time to sign in and out.

PLEASE REMEMBER

The public use of the Forest Preserve is ever increasing. In order to protect and preserve an often fragile environment and insure an enjoyable experience for years to come, certain rules and regulations have been implemented.

The following acts are violations of those Department regulations:

1. Cutting trees on state land. Wood for cooking or warmth should be taken from trees that are both down and dead.
2. Dumping, depositing or burying garbage, refuse, trash or litter on or in DEC lands, water, or structures. If you carry it in—carry it out.
3. Failing to clear an area of flammable material before building a campfire. The flammable humus layer must be cleared down to mineral soil for a distance of three feet from the edge of fire.
4. Leaving a campfire unattended. Be sure to extinguish your fire before you leave, as campfires are a major cause of forest fires in the Adirondacks.
5. Defacing, mutilating or destroying Department signs or structures. The next person to come along may become lost due to lack of a directional trail sign.
6. Operating a motorized vehicle on state lands. There are a few exceptions to this regulation, but for the most part they are prohibited.
7. Camping for more than three nights at one location, or in a group of 10 or more regardless of your length of stay, without a camping permit. Permits may be obtained, free of charge, from the local Forest Ranger.
8. Locating your camp less than 150 feet from any road, trail, stream or body of water.

By following the above regulations, you will be helping to protect one of New York's greatest assets—the Forest Preserve.

TO PROTECT THE RESOURCE

1. Instead of cooking over an open fire, use a backpackers stove whenever possible.
2. Don't wash your dishes in streams, lakes or ponds.
3. Nature will take care of human waste. Dig a shallow hole in the forest floor at least 150 feet from your campsite and the nearest water. Cover with leaf litter and soil before leaving.
4. Your pet should be under your control at all times. Restrain it on a leash when others approach and clean droppings away from the trail and camping area.

APPENDIX 22.
LYONS FALLS PULP & PAPER
JOHN BROWN TRACT EASEMENT MAP

LOCATION - COPPER LAKE TRAIL

In Accordance With the John Brown Tract Conservation Easement Indenture with Lyons Falls Pulp and Paper, Incorporated, Article 3.1 (ii) and as shown on the accompanying map, the Copper Lake Trail is located by the NYS Department of Environmental Conservation as follows;

Beginning adjacent to the parking lot and skid road gate, said point being 797 feet southwest of the bar gate on the old section of Route 28 prior to it's relocation, said bar gate being located 26 feet southwest of the boundary line between the lands of the Lyons Falls Pulp and Paper Company and the lands of William Brodock, proceeding across LFP&P and NYS Forest Preserve lands to the Copper Lake Road for a total trail length of 3,894 feet or .74 miles (LFP&P, 2872 feet, .54 miles; NYS (Independence River Wild Forest, 1,022 feet, .19 miles)

