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MANAGEMENT

FULTON CHAIN WILD FOREST

UNIT MANAGEMENT PLAN

JANUARY 1990

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FULTON CHAIN WILD FOREST

UNIT MANAGEMENT PLAN

New York State Department of Environmental Conservation
Mario Cuomo
Governor

Thomas Jorling
Commissioner

JAN 4 1990

TO: The Record

FROM: Thomas C. Jorling

RE: Unit Management Plan
Fulton Chain Wild Forest

The Unit Management Plan for the Fulton Chain Wild Forest has been completed. It is consistent with the guidelines and criteria of the Adirondack Park State Land Master Plan involved citizen participation, is consistent with the State Constitution, the Environmental Conservation Law, rules, regulations and policy. The Plan includes management objectives for a five-year period and is hereby approved and adopted.

cc: L. Marsh

Task Force Leader: D. V. Gray, Herkimer

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FULTON CHAIN WILD FOREST

Unit Management Plan

The Fulton Chain Wild Forest is a picturesque land of rolling woodlands, rocky hills, wetlands, lakes, ponds, and beaver meadows nestled within a mix of State and private ownerships. It includes part of the beautiful Fulton Chain of Lakes and is rich in local Adirondack history. This "forever wild" natural resource gem is a valuable public possession and with proper management, it will be a source of beauty, inspiration, and recreational pursuit forever. In an area of rapid change and development, these lands offer refreshing comfort for the future. We know that here, at least, wild things will reign supreme, and even though we are the managers of these lands, the natural order of things will draft their ultimate destiny.

David V. Gray
D.E.C. - Herkimer

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FOREWORD

In 1972, Governor Nelson A. Rockefeller approved the Adirondack Park Agency Master Plan for State-owned lands in the Adirondack Park. This culminated many years of work by several legislative study groups and, ultimately, the Temporary Study Commission on the Future of the Adirondacks, appointed by the Governor in 1968.

The Temporary Study Commission on the Future of the Adirondacks made nearly 200 specific recommendations regarding the Adirondack Park. Among its major recommendations were:

-- The creation of the Adirondack Park Agency;

-- The preparation, by the Agency, of a Master Plan for State-owned lands;

-- The classification of these lands "according to their characteristics and capacity to withstand use", and

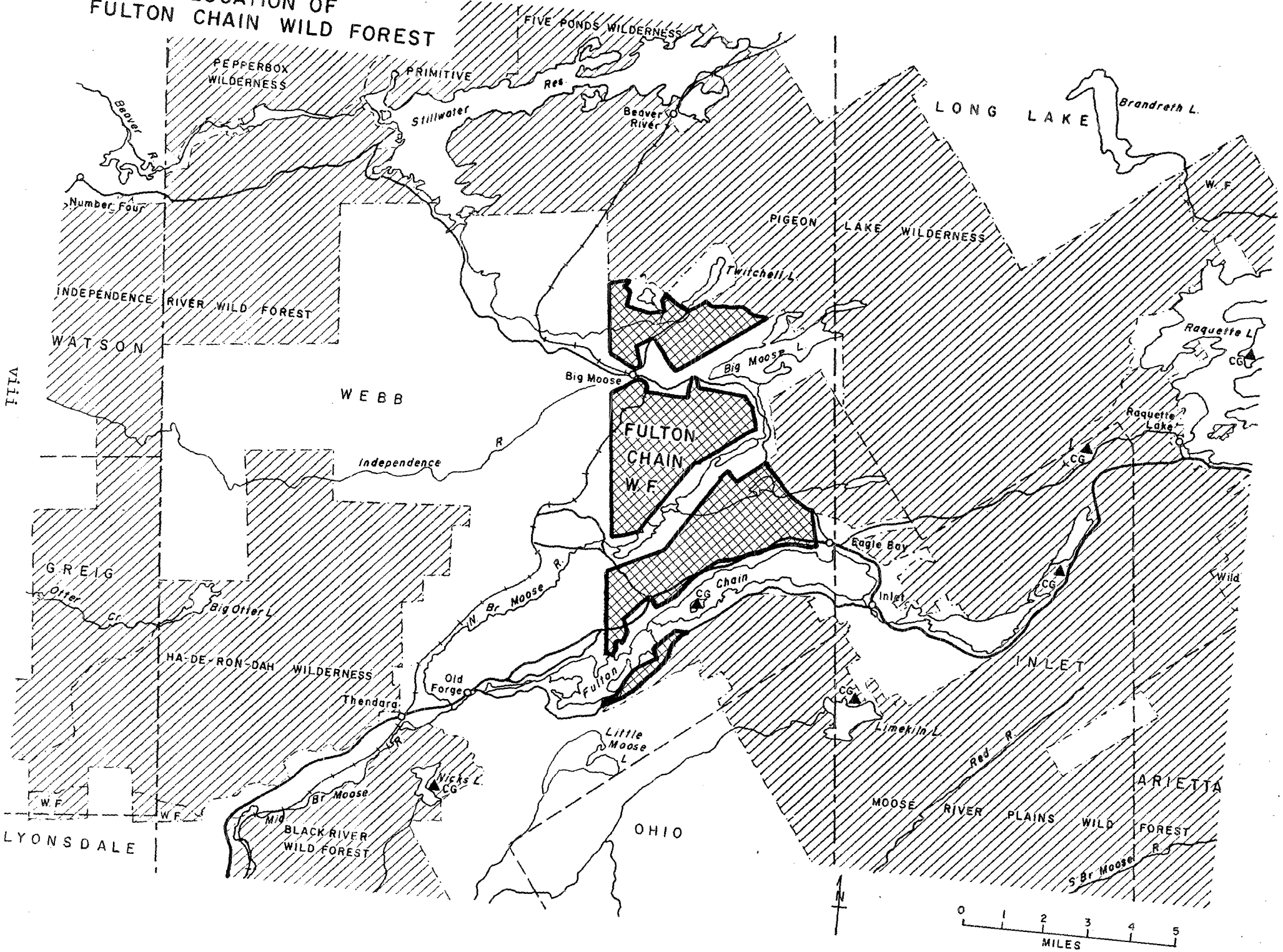
-- A set of extensive guidelines for the care, custody and control of State-owned lands under the Master Plan with particular emphasis on proposed wilderness and primitive areas.

The Temporary Study Commission also prepared legislation in final draft form, not only establishing the Agency, but providing a comprehensive framework for land use, both public and private.

The final legislative mandate provided for the Agency's

Master Plan for State-owned lands in the Adirondack Park. A revised master plan in accordance with Section 816 of the Adirondack Park Agency Act, Article 27 of the Executive Law, was signed by Governor Mario Cuomo on November 4, 1987. The Fulton Chain Wild Forest Unit Plan has been prepared by the New York State Department of Environmental Conservation with the State Land Master Plan setting the parameters and local citizens providing additional review.

LOCATION OF FULTON CHAIN WILD FOREST



I. INTRODUCTION

A. Area Description

The Fulton Chain Wild Forest is located in the west-central portion of the Adirondack Park in Herkimer County, Town of Webb (See Appendix 23). The unit is largely situate within Township 8, John Brown's Tract, Macomb's Purchase and comprises all or part of Parcels A, B, C, D, E, F, I, J, K, and L with an additional five smaller, undesignated parcels. Parts of the unit not in Township 8 include lands in Township 7, John Brown's Tract, Range 12, Lot 8 (DeCamp Island); and Township 3, Moose River Tract, all or part of Lots 77, 78, 89, 90, 101, 102, 113, 114, 125, 126 and 138 (Unit Section D).

The unit is divided into four main sections by three strips of privately-owned lands in the vicinity of: (from north to south)

1. Hamlet of Big Moose, Thirsty Pond and Big Moose Lake.
2. Lake Rondaxe, No. Branch - Moose River and Darts Lake.
3. Fulton Chain of Lakes

To prevent confusion, these sections are designated A - D, north to south.

The unit is roughly bordered on the north by the Razorback Pond Outlet, the Pigeon Lake Wilderness Area and the private lands adjacent to Silver and Twitchell Lakes; on the east by the Big Moose Road, Pigeon Lake

Wilderness Area, private lands near Big Moose Lake and the Hamlet of Eagle Bay; on the south by the Moose River Plains Wild Forest, Third Lake Creek and adjacent private lands and on the west by private lands and the west boundary of Township 8. The unit also includes DeCamp Island and adjacent Gumdrop Island, two small islands of Forest Preserve between the First and Second Lakes of the Fulton Chain. A permanent easement across private lands leads from this wild forest to Razorback Pond and the Pigeon Lake Wilderness Area (See Appendix 1).

Razorback Pond, Twitchell Lake and Rondaxe Lake lie outside of the unit and have less-than-total State land lake frontages. These adjacent water bodies are included in this plan due to the fact that the beds were deeded to the State by William Seward Webb et al in the 1897 deed. The total acreage of this wild forest is 14,775 acres, exclusive of the three lake beds named above.

B. History of the Land Unit

Some sources of historical background on the area are given in the Bibliography of this plan. Brief historical highlights for the area are as follows:

1. The unit is named after the Fulton Chain of Lakes, which are named and numbered First through Eighth. The first four lakes separate the southern extremity of this unit. In 1811, "An Act for the Improvement of the Internal Navigation of the

State for the purpose of establishing a communication by means of Canal Navigation between the Great Lakes and the Hudson River" was passed by the New York State Legislature. Steamboat inventor Robert Fulton was an enthusiastic member of the commission appointed to investigate the feasibility of an "Adirondack Canal" and he extolled the virtues of this unnamed chain of Adirondack Lakes. Although the idea never attained fruition, the lakes have been known as the Fulton Chain ever since. A dam at Old Forge under the jurisdiction of the Black River Regulating Board controls the water level of the first five lakes. Another dam at Sixth Lake controls the water level of Sixth and Seventh Lakes. Eighth Lake has a natural outlet.

2. The current history starts with John Brown of Providence, R.I., and Revolutionary War fame, who in 1792, purchased about 200,000 acres in the northern part of New York State from Alexander Macomb's vast holdings. He later divided this purchase into eight townships which he designated as follows: Township No. 1, Industry; No. 2, Enterprise; No. 3, Perseverance; No. 4, Unanimity; No. 5, Frugality; No. 6, Sobriety; No. 7, Economy and No. 8, Regularity. Most of the Fulton Chain Wild Forest lies in Township No. 8.

3. Early access to this area from "civilization" was

via the Brown's Tract Road and subsequently, the Adirondack Division of the New York Central Railroad (later part of Penn Central, now owned by the N.Y.S. Department of Transportation.) This line began operation on July 1, 1892 and is presently inactive (See Appendix 16).

4. In 1899, several wealthy Raquette Lake camp owners applied for a charter, secured trackage rights and built the 19 mile Raquette Lake Railway from Clearwater (now Carter Station) to Raquette Lake. This railway was opened to the public on July 1, 1900. In 1920, the New York Central Railroad Company assumed the Raquette Lake Railway Company's indebtedness and acquired its entire capital stock. In 1933, the Public Service Commission permitted the Raquette Lake and New York Central companies to abandon the entire line and its operation respectively. The bed of this early financial disaster now exists as a road through section B and C of the unit and is operated as a portion of the Town of Webb snowmobile trail, authority for which was deeded to the Town by the Raquette Lake Railroad Company in 1937 as recorded in Book 326, Page 149, at the Herkimer County Clerk's Office. The State's interest, if any, in the ownership of the railroad bed is the subject of Miscellaneous Title Investigation No. 492, submitted to the Department of Law on April

16, 1971. It is still unresolved.

5. Township 8 of the John Brown's Tract has some interesting restrictions contained in the deed between William Seward Webb et al and the People of the State of New York in January of 1896. Provisions of this "Webb Covenant" include:

   a. No Webb lands in the Township would be sold except for permanent forestry and hotel, camp and cottage purposes exclusively.

   b. The public has the unrestricted right to hunt and fish on lands not sold for camp or hotel sites.

   c. All trails and ways of communication either by land or water, not conveyed or under contract at the time of the deed, would remain open and free to the People of the State of New York.

   d. Webb and Na-Ha-Sa-Ne Park Association, their heirs and assigns did not release or relinquish the right to use any present established ways, highways, trails or ways of communication by land or by water from or to any of their lands in Township 8 (See Appendix 15).

6. One of the most prestigious girls' camps in the nation was located at Moss Lake. Operated by Dr. George Longstaff, the camp offered recreational and educational programs to a select clientele for some 49 years. On May 13, 1974, about one year after its acquisition by the State of New York,

the property was occupied by a group of Mohawk Indians who claimed the area and set up headquarters for the Ganienkeh Indian Territory. For three years to the day, the Indian occupancy created tense conditions for residents in the area. The last Indian left for granted lands in Clinton County in 1978, the former Moss Lake girls' camp buildings were razed by D.E.C. and the land was returned to its wild forest status.

7. Twitchell Lake was the home of Earl Covey, architectural builder of log and stone lodges. His works can be found in the area and include the Twitchell Lake Dam and the Big Moose Chapel, which is perhaps his most famous.

8. William Scott DeCamp who owned and lived on DeCamp Island (Treasure Island) attempted to collect tolls from passing Fulton Chain Steamers until the Legislature declared the chain of lakes a "public highway." The island's history includes residency by Joseph Young, the entrepreneur who, until his death, endeavored to develop "Hollywood Hills" on the North Shore of First Lake. Had it continued, this venture might well have rivaled its western namesake.

9. Big Moose Lake, adjacent to the unit, was the scene of the murder memorialized in Theodore Dreiser's book "An American Tragedy" and, more recently, Craig Brandon's "Murder in the Adiron-

dacks" and "Adirondack Tragedy" by Joseph Brownell and Patricia Wawrzaszek.

10. The State land portion of the Razorback Pond Trail is subject to a permanent easement for all purposes of ingress and egress including the right, but not the obligation to maintain a road over said easement by the landowner of the Silver Lake parcel, which is adjacent to the unit. The authority for this is granted in a deed recorded in the Herkimer County Clerk's office in Book 679, page 368, and is part of the deed between Arthur J. Foley, Jr. and the People of the State of New York recorded in Book 679, page 872 at the Herkimer County Clerk's office.

11. The former Old Forge Fish Hatchery (also called the Fulton Chain Fish Hatchery) was located in the Hamlet of Old Forge at the turn of the century, and served as the winter haven for seven beavers purchased by the State from the Canadian Exhibit at the Louisiana Purchase Exposition in St. Louis in 1904. A sign commemorating this event was established for the 50th celebration of the Forest Preserve in 1935 and was replaced verbatim for the 1985 centennial celebration. In April of 1905, two beavers were taken in a zinc-lined crate from Old Forge to Inlet by rowboat. From Inlet, they were carried to a small Moose River Tributary named Sumner Stream and released. The next year,

the State contracted with the Secretary of the Interior for the purchase of 25 live beavers to be captured and shipped from Yellowstone National Park. Excepting four animals that were lost to the rigors of the cross-country trip, these beavers were released to the wild. It was from the thirty beavers released between 1901 and 1907 by the State and by private individuals, that the present large population of beavers in the Adirondacks has developed.

An historical summary and map of State land acquisitions in the Fulton Chain Wild Forest appear in Appendix 12.

II. INVENTORY OF RESOURCES, FACILITIES AND PUBLIC USE

A. Resources

1. Geology and Soils

Geologists explain that the Adirondacks were formed approximately 1100 million years ago during the Precambrian period. Dynamic geological processes including submergence beneath the sea, sedimentation and crustal sagging, volcanism, metamorphism and pre-existing rocks, deep erosion and resubmergence were all involved in forming the Adirondacks. Intense pressure and high temperature caused recrystalization of rock into metamorphic types including granite, the common bedrock found in the area.

During the ice age, approximately one-half million years ago, the moving ice mass ground and scoured the bedrock, eventually shaping the mountains and forming u-shaped grooves or valleys in between. As the ice retreated, approximately 9000 years ago, it left behind an irregular cover of rock rubble. Sand and stone settled out and formed natural dams as the ice receded and melt water filled the newly formed lakes and ponds. Since this early structuring of the Adirondacks, vegetation has gradually reclaimed the land and has evolved into the present forests while contributing to the humus components of today's soils.

The glacial ice deposited a heterogenous mixture of stone, gravel, sand, silt and clay which is called

glacial till. Common minerals include quartz, feldspar, mica and hornblende. Soil scientists identify the very stony Becket and Potsdam classifications as the main soil series. A portion of the unit near Safford Pond is in the sandy, nearly level Naumburg classification. Also occurring are areas of very steep rock outcrops with associated shallow soils. A balanced rock near the fire tower on Bald or Rondaxe Mountain (hereafter called Bald Mountain) is a rather unique phenomenon.

The following soil characteristics must be considered in the management of this wild forest unit:

a. The soils are usually moist, retain water well, yet drain freely.

b. They contain a layer enriched in iron and humus that is strongly acid.

c. Over 50% of the acreage is very stony.

d. The dominant soils have fragipans - very compact dense layers that form a barrier to roots and water.

e. Small areas have permeable sub-soils that are suited for a wide range of uses (See Appendices 2 & 3).

2. Terrain

Topography on the unit consists of tranquil, rolling woodlands, rocky hills, wetlands, beaver meadows and picturesque lakes and ponds. Elevations vary from 1,700 to 2,500 feet rising from

south to north. Impressive relief in the form of precipitous rock faces occurs on Onondaga, Bald and Slide-Off Mountains and west of Moss Lake. Vistas on associated trails offer picturesque views (See Appendix 4).

3. Water, Wetlands and Fishery

The waters of the Fulton Chain Wild Forest comprise a portion of the Black River - St. Lawrence River Drainage Basin. The area's water enters this system as part of the Moose River, primarily via the North Branch of the Moose River and the Fulton Chain of Lakes. Only a small portion of these branches actually occurs within the boundaries of the unit.

The Fulton Chain Wild Forest has 22 lakes and ponds (totalling 4,058 acres) ranging in size from two acres (Silver Dollar Pond) to 2,137 acres (Fourth Lake). The unit also contains 27 streams, totalling approximately 18 miles.

Interesting, picturesque waterfalls occur on Twitchell Creek and West Pond Outlet. The North Branch of the Moose River also deserves recognition, due to it's designation under the Wild, Scenic and Recreational Rivers Act. The section from the outlet of Big Moose Lake to the outlet of Goose Pond is classified as scenic. The portion of river included in the unit (the outlet of Goose Pond to the confluence of the Middle Branch) is

classified as recreational (See Appendix 5.D.).

Water quality is variable with low productivity and fertility levels typical to the area. Increasing acidity is a growing problem in unit waters and current data indicates that at least three of the ponds (Pocket, Mountain and Silver Dollar) have lost their brook trout fisheries due to acid conditions. All waters within the unit reflect the damaging effects of atmospheric deposition in varying degrees. A survey in the spring of 1984 documented a problem with acidity in Twitchell Creek. Also, four additional water bodies (Razorback, Safford and Snake Ponds and Twitchell Lake) are becoming acid and may be a problem in the future (See Appendix 5.B.).

Elevated DDT levels in area waters have been identified and are being investigated. The focus of this concern is Fourth Lake. In 1982, DDT was found within the Fulton Chain system, in sediments and lake trout. This has since resulted in a health advisory on human consumption of lake trout from Fourth Lake. The source of the DDT remains uncertain (See Section N.3., Environmental Problems).

Traditionally, the lake and pond fishery of the Fulton Chain Wild Forest was characterized by Adirondack Brook Trout, with associated minnow and forage fish species and brown bullhead. Excepting

the Fulton Chain of Lakes, the fishery is still generally brook trout, but losses in quality and quantity due to atmospheric deposition, and invasion by warmwater species such as yellow perch are evident.

The most notable fishery within the unit is that found in the Fulton Chain of Lakes. Historically, these lakes have been an important and popular fishing area. The salmonid fishery has been the backbone of this resource, with the earliest anglers seeking native lake trout and brook trout. Over time, stocked rainbow trout and landlocked salmon, and to a lesser degree, brown trout were added to provide increased opportunities for the coldwater anglers. The fishery for lake trout and brook trout were also supplemented with stockings, as early as 1898. Smelt were reportedly introduced from Raquette Lake in the 1940's. Warmwater species such as smallmouth bass and panfish are also popular, but do not attract the attention salmonids and smelt do.

For most of the Fulton Chain's fish species, angler use of the resource is not limited by season. With a special year round season for salmonids, ice fishing is a popular and successful means of harvesting lake trout and landlocked salmon during the winter months. The smelt fishery, although limited to the short early May

spawning runs, is a popular and intense fishery. A declining trend in this fishery has been reported by anglers. A plan to monitor the spawning runs is underway. If problems with the fishery are identified, they will be rectified through additional regulation.

The location of the Fulton Chain of Lakes provides easy access for many New Yorkers coming from the Syracuse - Utica - Schenectady corridor, as well as other downstate metropolitan areas. As a result, the area receives heavy pressure for recreational uses, placing increasing demands on its fisheries and other natural resources. The development of vacation homes, ranging from small cottages to condominiums, is currently exerting much stress on the ecosystems surrounding the Fulton Chain of Lakes. To minimize and mitigate these impacts, all development activities in and on the shores of the Fulton Chain of Lakes are being reviewed actively through the Regulatory Affairs Permit Procedure.

Five smaller lakes within the unit also provide fisheries of notable quality. Two are Bubb and Sis Lakes. These are located very close to each other, separated by a very short tributary stream. They are both protected from upstream migration of undesirable fish species by the same barrier dam located near the outlet of Bubb Lake.

The fisheries of Bubb and Sis Lakes are maintained by reclamations every few years, followed by annual stockings of fingerling brook trout. After three to four years, natural spawning of brook trout supports the fishery in Sis Lake and when that occurs, stocking is discontinued. This "native" trout fishery maintains itself for a period of time until unwanted species, such as yellow perch, reinvade the lakes and reclamation is needed once again.

A third lake that provides a noteworthy fishery is Moss Lake. This fishery is currently self-sufficient with a natural spawning population of brook trout. In order to enhance this population, supplemental stockings of fall fingerling brook trout have been made in 1986 and 1987.

A fourth lake of note is Quiver Pond which is located in the southernmost section of the Fulton Chain Unit. It abuts the South Shore Road, and therefore is very accessible to public use. Through a history of intensive fishery management including brook trout stocking, barrier dam construction and maintenance and repeated limings and reclamation, Quiver Pond has maintained a reputation for good brook trout fishing.

The last lake to be noted here is Twitchell Lake. Although the property owners have succeeded in combatting pollution at Twitchell, this lake is

quite acid and its brook trout fishery is maintained by annual stockings of 5,000 fall-fingerlings.

A minimum estimate of angler use of Bubb, Sis, Twitchell and Moss Lakes and Quiver Pond would be: 1,000, 500, 1,400, 1,000, and 1,000 angler trips per year respectively. Although not documented, the actual use of these lakes by anglers is believed to be higher than average because of the excellent access available.

Stream fishing (See Appendix 5.C.) is limited within the Fulton Chain Wild Forest. The north branch of the Moose River between Rondaxe and Dart Lake is stocked annually with 1,300 yearling brook trout to maintain its fishery. Third Lake Creek is also stocked annually with yearling brook trout. Twitchell Creek is too acid for fish survival and is not stocked. The many tributary streams are also suspected of being acid, but some provide a limited fishery for native brook trout.

Past management of the fishery has included general fishing regulation, routine surveys of the fishery and its habitat, several reclamation and pond liming projects, and barrier dam construction. Future management activities are expected to be similar.

Major wetlands on the unit (See Appendix 6) include areas near:

a. Cary, Bubb, Sis and Moss Lakes

b. Safford, Goose, West, Silver Dollar and Pocket Ponds

c. Twitchell and Third Lake Creeks.

Wetlands are inventoried, mapped and protected under Article 24 of the Environmental Conservation Law, 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 Eagle Bay, Big Moose and Old Forge Quadrangles (APA, 1984).

The recent APA inventory using the Cowardin National Wetlands Inventory and Classification gives 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.

4. Vegetation

The general forest types on the Fulton Chain Wild Forest are those identified by the Society of American Foresters in "Forest Cover Types of the Eastern United States and Canada" (See Appendix 24). Basic types included on the unit are dependent for the most part on drainage patterns. The wet to swampy areas are generally Type #5, balsam

fir (Abies balsamea), #38 tamarack (Larix laricina), and #32 red spruce (Picea rubens) or a variation or combination of these types. As drainage improves, the hardwood constituent increases and the type gradually changes to Type #31; red spruce, sugar maple (Acer saccharum), beech (Fagus grandifolia) and Type #25; sugar maple, beech, yellow birch (Betula lutea). Associated species found on the unit include white pine (Pinus strobus), hemlock (Tsuga canadensis), red maple (Acer rubrum), black cherry (Prunus serotina) and black spruce (Picea mariana). Young coniferous growth and thickly growing alders can be found along unit streams.

Adirondack Park Agency 1978 Landsat data (See Appendix 20) indicates the following basic forest type acreages:

Hardwood	5904
Mixed (Predominately hardwood)	909
Mixed (Predominately Conifer)	5189
Conifer	1809
Wet Conifer	339
Brush	4
Grassland	7

Understory vegetation includes shade tolerant hardwood and softwood tree species, various ferns, club mosses (Lycopodium sp.) and viburnums (Viburnum sp.), dogwood (Cornus alternifolia) and honey-

suckle (Lonicera sp.). Common ground plants include trillium (Trillium sp.), adder's tongue (Erythronium americanum), spring beauty (Claytonia virginica), sarsaparilla (Aralia sp.), Indian cucumber (Medeola virginiana) and Solomon's Seal (Polygonatum pubescens).

There is no detailed vegetative inventory or mapping available for this unit at present. This information should be developed as needed and as personnel become available. The existence and abundance of rare and endangered flora are not documented.

5. Wildlife

All common wildlife species typical of central Adirondack ecosystems occur within the Fulton Chain Wild Forest. Wilderness fauna that occasionally may be seen include: osprey, raven, common loon, fisher and bobcat. Habitat for pine marten and spruce grouse exists within this unit and these species may occur as transients.

The black bear (Ursus americanus), one of the larger native New York species occurs within this unit. Conflicts between black bears and humans occur occasionally during years of a scarcity of natural foods; however, many people feel that the existence of this animal greatly adds to the enjoyment of viewing native wildlife species.

For the most part, white-tailed deer are

evenly distributed throughout the unit with the exception of the winter period, when they occur in several scattered concentrations as shown in Appendix 7.A. Major wintering occurs near Rondaxe Lake both in the southern portion of Section B and to a lesser degree in Section C. Irregular wintering occurs in some years near Snake Pond, Twitchell Creek and Third Lake Creek.

Artificial deer feeding programs, while not endorsed by the Department of Environmental Conservation, do occur in Section D and contribute to increased incidences of motor vehicle accidents, particularly along the South Shore Road. Pursuant to ECL 11-0907, Sub. 5, paragraph E, all hunting of big game is prohibited around the Fulton Chain of Lakes, which encompasses the portion of Section C south of Rt. 28 and the portion of Section D north of the South Shore Road (See Appendix 7.B.). Closed areas contribute to high populations of white-tailed deer which may be desirable by those who wish to view wildlife, however, it is detrimental to plant and tree regeneration. Ornamental shrubbery is often over browsed by deer. Harvest data for all of the town of Webb can be found in Appendix 7.C.

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

Common Wildlife

Black bear	Ursus americanus
White-tailed deer	Odocoileus virginianus
Coyote	Canis Latrans
Raccoon	Procyon lotor
Fisher	Martes pennanti
Otter	Lutra canadensis
Beaver	Castor canadensis
Mink	Mustella vision
Varying hare	Lepus americanus
Red squirrel	Sciurus hudsonicus
Eastern chipmunk	Tamias striatus

Less Common Wildlife

Marten	Martes americana
Bobcat	Lynx rufus
Red fox	Vulpes fulva
Gray fox	Urocyon cinereoargenteus
Muskrat	Ondatra zaibethica
Porcupine	Erethizon dorsatum
Gray squirrel	Sciurus carolinensis

Significant habitats on the unit (See Appendix 7.A.) are as follows:

a. PW 22-011 - Razorback Pond (potentially significant for wildlife)

b. PW 22-012 - Safford Pond (potentially significant for wildlife)

c. SW 22-016 - Bald Mountain (raven nest site)

d. Snake Pond (deer wintering area)

e. Moss Lake (loon nesting area) (See Appendix 7.A.).

Original Deer Managements Units (DMU'S) were established by the Bureau of Wildlife in 1960. 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 more finely tuned

management that is more specific to given areas. The Fulton Chain Wild Forest is primarily included in DMU 28 (See Appendix 7.D.).

The beaver was nearly extirpated from the Park in the early 1900's. A trap and transfer program to re-establish them was initiated between 1901 and 1907 by releasing wild trapped beaver from Canada and Yellowstone National Park (See History of the Land Unit). These early efforts were successful as evidenced by current region-wide population levels.

Furbearer Management Units (F.M.U.'s) that were established in 1980 were replaced by Wildlife Management Units (W.M.U.'s) in 1985. The Fulton Chain Wild Forest lies in W.M.U. #24 (See Appendix 7.E.).

The Breeding Bird Atlas compiled by D.E.C. and the Federation of Bird Clubs lists 111 bird species as occurring in Blocks 5084, A-D and 5085, C and D, which include the Fulton Chain Wild Forest. This includes 14 species as possible breeders, 16 species as probable breeders and 81 species as confirmed breeders (See Appendix 8).

6. Unique and/or Historical Areas

The Fulton Chain of Lakes is the most noteworthy feature in the area. Part of the Fulton Chain Canoe Route is contained within this unit. The Fulton Chain Section of the greater Adirondack

Canoe Route provides a unique opportunity for the canoeist to paddle nearly 20 miles (with several carries) from Old Forge to Raquette Lake. The adventurous canoeist can continue on to Tupper Lake, Blue Mountain Lake or the Saranacs. Some State land is available for overnight camping, including Alger Island State Campground. This Fourth Lake facility offers boat-accessible fee camping, a resident caretaker, fifteen lean-tos, and tenting and picnic areas. Nearby Fourth Lake Access, a State day-use area, provides access for cartop boats. Canoe access also exists adjacent to the town of Webb Tourist Information Center and parking lot in the hamlet of Old Forge.

Although not truly unique ecosystems in the botanical sense, the following areas are interesting, at least aesthetically:

a. Twitchell Creek and West Pond Outlets (waterfalls)
b. Bald and Onondaga Mountains (cliffs)
c. Silver Dollar Pond (natural bog)

Some traditional management practices might be avoided in the above areas although restrictive protection is not currently needed. The Bald Mt. summit is listed by the SLMP as a scenic, special interest area.

The Fulton Chain Wild Forest lies in an area rich in local history which is immortalized in

many interesting books. Specifics include accounts of early Adirondack railroads and trails, the unique Webb Covenant on lands in Township 8, the former girls camp at Moss Lake, and many historical accounts pertaining to the Fulton Chain and Big Moose Lake areas. Consult the Bibliography for a partial list of informational sources on this area.

B. Facilities (See Appendices 9 and 19)

1. Trails and Roads

a. Foot Trails (13.95 Miles)

(1) Razorback Pond Trail - From parking lot at South end of Twitchell Lake to Razorback Pond (.6 miles on State land - 1.3 miles on private land permanent easement)

Yellow Markers 1.90 Miles

(2) Snake Pond Trail - From Twitchell Lake Road to Twitchell Creek and Snake Pond

Blue Markers 0.60 Miles

(3) West Pond Trail - From Orvis Parking Lot (adjacent to Big Moose Road) to West Pond

Red Markers 0.60 Miles

(First .5 miles also a snowmobile trail)

(4) Safford Pond Trail - From West Pond Trail to Safford Pond (also a snowmobile trail)

Blue Markers 2.85 Miles

(5) Safford Pond Inlet Spur trail - Safford Pond Trail to Safford Pond Inlet

Red Markers 0.10 Miles

(6) Moss Lake Trail - From Moss Lake Trailhead to the shore of Moss Lake

0.08 Miles

(7) Bubb Lake - Sis Lake Trail - From Rt. 28 on the North side of Fourth Lake to the Moss Lake Circuit Trail via Bubb and Sis Lakes

Blue 2.25 Miles

(8) Bubb Lake and Sis Lake Spur Trails - From Bubb Lake - Sis Lake Trail to Bubb and Sis Lakes (1 each)

(Total) 0.10 Miles

(9) Scenic Mt. Trail - From Rondaxe Road Parking Area to Bubb Lake - Sis Lake Trail via Fly Pond, Cary Lake (Pond), Mountain Pond and Onondaga Mt.

Blue 4.20 Miles

(SW Section - Rondaxe Road to Mountain Pd. Trail, 1.7 miles. NE Section - Mt. Pond Trail to Bubb Lake - Sis Lake Trail, 2.5 miles)

(10) Fly Pond Spur Trail - From Scenic Mt. Trail to Fly Pond

Red 0.05 Miles

(11) Cork Mt. Spur Trail - From Scenic Mt. Trail to summit of Cork Mt.

Red 0.03 Miles

(12) Mountain Pond Spur Trail - From Scenic Mt. Trail to the shore of Mountain Pond

Red 0.04 Miles

(13) Mountain Pond Trail - From Scenic Mt. Trail to Cary Lake Road

Red 0.20 Miles

(14) Rondaxe Fire Tower Trail - From the Rondaxe Rd. Trailhead to the summit of Bald Mt. and the Rondaxe Fire Tower (Vistas)

Red 0.95 Miles

b. Combination Nordic Ski (Novice), Horse and Foot Trail

(1) Moss Lake Circuit Trail - From Moss Lake Trailhead completely around Moss Lake to point of beginning

Yellow 2.50 Miles

c. Nordic Ski Trails

(1) Lake Crossover Trail (Intermediate) - South Shore Road near Third Lake Creek to Limekiln Lake Public Campground (involves private land crossings)

0.60 Miles (this unit)

d. Snowmobile Trails (7.5 Miles)

(1) Safford Pond Trail - From Orvis Parking Area to N. Shore Rondaxe Road via West Pond, Safford Pond and Goose Pond

Class B. 4.50 Miles

(2) Goose Pond Spur Trail - Safford Pond Trail to Goose Pond

Class B. 0.10 Miles

(3) Moose River Spur Trail - Safford Pond Trail to State land boundary near Moose River

Class A. 0.90 Miles

(4) Ellis Road - South Shore Road to existing system in Moose River Plains Unit.

Class A. 2.00 Miles

(This unit)

e. Roads

(1) Twitchell Road (Town)	Section A
(2) Big Moose Road (County)	Section B&C
(3) Rondaxe Lake Road (N. Shore) (Town)	Section B
(4) Rondaxe Road (County)	Section C
(5) Route 28 (North Shore Road) (State Highway)	Section C
(6) Petrie Road (Town)	Section D
(7) South Shore Road (County)	Section D
(8) Numerous roads maintained under the Webb Covenant	Sections A-D

(9) Ellis Road - State and private access (0.5 Miles) — Section D

(10) Lake Crossover Road (0.6 Miles - this unit. Access to Adirondack League Club) — Section D

2. Other Facilities

a. Fire Tower and Support Facilities - Bald Mountain

Rondaxe Fire Tower
Observer's Cabin
1 Mile - phone line

b. Bridges

Safford Pond Trail - 7 bridges
Moss Lake Circuit Trail - 3 bridges, 4 culverts
Bubb Lake - Sis Lake Trail - 2 bridges
Scenic Mt. Trail - 1 walkway
Rondaxe Tower Trail - 1 bridge
Mountain Pond Trail - drytread
Ellis Road - 7 culverts, 1 bridge

c. Privies

Moss Lake (3)
Bald Mt. (1)
DeCamp Island (2)

d. Fireplaces

Moss Lake - 8 concrete fireplaces - Approximately 18" x 36"

e. Trailhead Parking - Maintained (Universal Transverse Mercator Coordinates to nearest 200 meters)

(1) Orvis Trailhead (Big Moose Rd.) - 8 cars (UTM-N4,851,600 - E509,200)
(2) Moss Lake (Big Moose Rd.) - 15 cars (UTM-N4,848,000 - E512,400)
(3) Rondaxe Trailhead (Rondaxe Rd.) - 20 cars (UTM-N4,843,400 - E508,000)

Trailhead Parking - Not Maintained

(1) Twitchell Road - Razorback Pond Trailhead - 20 cars
(2) Rondaxe Rd. (N. Shore) - Safford Pond

Trailhead - Roadside
(3) Rt. 28 - Bubb & Sis Trailhead - Roadside

(4) South Shore Road - Third Lake Creek Trailhead

f. Gates (Locking)

(1) Moss Lake
(2) Ellis Road

g. Registration Booths

(1) Orvis Trailhead
(2) Moss Lake
(3) Rondaxe Trailhead

h. Fish Barriers

Bubb Lake Outlet, Quiver Pond

i. Major Signs

(1) Orvis Trailhead (Map Mural)
(2) Moss Lake (Map Mural and Nature Conservancy plaque)
(3) Rondaxe Trailhead (Map Mural)
(4) Town of Webb Information Center, Old Forge (Adirondack Canoe Route Map Mural)
(5) Old Forge (Beaver Release Historical Marker - 1985)

C. Economic Impacts

State-owned lands have a minor, but desirable impact on adjacent, private lands. Under these circumstances, the value of private lands tends to increase because of more confidence in how the area will be used in the future.

Although the State does pay full taxes on Forest Preserve lands, there may be some negative impact on the area's remaining taxpayers. If the land were privately held and "improved", property taxes on this land would increase, thus adding to the tax base. State ownership precludes property tax increases based

on improvements. While not improved, however, this State land also does not generate normal public service demands. The local economy depends, at least in part, on the undeveloped lands in the Park of which the Fulton Chain Wild Forest is a part. In addition to the usual recreational attractions, thousands of sight-seers are drawn annually to the Rondaxe Fire Tower especially during the fall foliage season.

The importance of the big and small game resource for recreational hunting should not be overlooked even for a small, fragmented unit such as the Fulton Chain. Many individuals from outside the region use these State lands for sport hunting and contribute to the economy through local purchases as well as payment of sales and property taxes. If the resource was not there, they would have no reason to maintain their camps on private land.

Private holdings generally have a slight economic impact on adjacent State lands. Painting and/or signing of approximately 50 miles of boundary lines on this unit are necessary. Increasing law enforcement costs are required to combat trespasses which originate on private lands and access trails. These impacts, while basically true for all State lands, are especially relevant when applied to the Fulton Chain Wild Forest's sectioned interspersion with private lands.

D. Public Use of Area and Capacity of the Resource to Withstand Use

Trailhead register use figures are the only data currently available and these are considered to be on the low side due to failure of users to register. Education of users as to the importance of registering and the relocation of registers into the interior, are possible ways to increase the incidence of registry. Records indicate the following use:

1988 Rondaxe-6,510; Moss Lake-3,421; Orvis-387

1987 Rondaxe-6,197; Moss Lake-2,266; Orvis-418

1986 Rondaxe-5,513; Moss Lake-2,720; Orvis-566

1985 Rondaxe-6,592; Moss Lake-2,403; Orvis-620

1984 Rondaxe-4,225; Moss Lake-2,536; Orvis-597

1983 Rondaxe-6,008; Moss Lake-2,323; Orvis-708

Interior use camping permits issued for this unit total:

56 (315 people) for 1988

32 (175 people) for 1987

36 (206 people) for 1986

28 (273 people) for 1985

21 (124 people) for 1984

38 (191 people) for 1983

Although this unit is quite accessible, the carrying capacity has not been exceeded. Potentials for future overuse may exist for Moss Lake and the Rondaxe Trail and Fire Tower. This potential at Moss Lake should be mitigated by permit-only designated site implementation. The current impact on Bald Mountain is mitigated by the infrequency of overuse and the geological structure of the trail and tower site.

If carrying capacity on the unit approaches saturation in the future, and monitoring indicates that the resource is becoming endangered, subsequent unit management plans may require further trailhead parking expansion, trail hardening at strategic points or the imposition of other measures to control use.

III. SPECIAL CONSTRAINTS AND ISSUES

A. Constraints

Following are sources of constraints which must be considered in the management of the Fulton Chain Wild Forest:

1. Section One of Article XIV of the New York State Constitution (See Appendix 10).
2. The Environmental Conservation Law and the Official Compilation Codes Rules and Regulations of the State of New York.
3. Various Forest Preserve policies approved by D.E.C.
4. Wild forest guidelines are set forth in the Adirondack Park State Land Master Plan (SLMP) prepared by the Adirondack Park Agency, in consultation with D.E.C. (See Appendix 11).
5. Significant Habitats and/or Unique Ecosystems.
6. This plan is subject to requirements of the State Environmental Quality Review Act of 1975. A Positive Declaration can be found in Appendix 17, along with the Environmental Impact Statement for this plan. Some of the projects proposed in this plan will require preparation of individual environmental impact statements prior to implementation.

B. Issues

Issues on this unit are addressed in Section V as prerequisites for management decisions leading to cited specific projects.

C. SLMP Amendments Recommended

None

D. State Environmental Quality Review (SEQR) Requirements

A Positive Declaration and Final Environmental Impact Statement for this unit can be found in Appendix 17.

E. Relationship of Management of Area to Forest Preserve and Adjacent Areas

This unit borders on the Pigeon Lake Wilderness and Moose River Plains Wild Forest units as well as on private lands. Because of the unit's proximity to these areas, management decisions for the Fulton Chain Wild Forest must be in harmony with the requirements of these neighboring lands.

This unit offers an opportunity for those recreational pursuits which are not allowed in the adjacent wilderness area. Motorized access to this wild forest is abundant and the recreational potentials are optimum. Proper management of the Fulton Chain Wild Forest will complement the non-motorized opportunities in the adjacent Pigeon Lake Wilderness.

The common boundaries of adjacent wild forest units must be blended to assure consistent management

goals for the area where two units meet. Management plans for contiguous units must reflect collaborative objectives to meet common goals. This is exemplified in this plan by the need for the Big Moose snowmobile trail and the Norridge Connector Trail which requires collaboration with the Pigeon Lake Wilderness Unit Management Plan (See Section V.B.).

Similarly, the needs of the Moose River Plains Wild Forest have been considered in the development of this plan.

IV. IDENTIFICATION OF MANAGEMENT OBJECTIVES

A. To continue those custodial functions necessary for the support of public ownership by developing comprehensive annual work plans for the systematic maintenance of the following:

1. Approximately 14 miles of foot trails and necessary bridges.
2. Approximately 7.5 miles of snowmobile trails and necessary bridges.
3. Approximately 3 miles of nordic ski and/or horse trails and necessary bridges.
4. Painting and/or signing of approximately 50 miles of boundary lines and signing of approximately 10 miles of roadside.
5. Maintenance of the Rondaxe Fire Tower to insure public safety and an aesthetic appearance.
6. Maintenance of the Rondaxe Fire Tower support facilities - observer's cabin, phone line, privy

and parking lot.

7. Maintenance of privies at Moss Lake and DeCamp Island.
8. Maintenance of the parking areas, signing and registration booths at Orvis, Rondaxe, Ellis Road, Moss Lake and Razorback Pond Trailheads.
9. Maintenance of the gates at Ellis Road and Moss Lake.
10. Enforcement of rules and regulations on the unit including designated camping.

B. To promote the recreational potential of the unit in a manner that is consistent with a natural wild forest setting, SLMP guidelines and Forest Preserve Policy by:

1. Developing a pamphlet for public education and information.
2. Designating campsites and allowing camping only by permit where these actions are needed to protect the unit's resources and recreational potential.
3. Relocating trailhead registers within the interior to reduce vandalism and to possibly increase registration.
4. Controlling camping in accordance with the rules and regulations including enforcement of the permit system and stressing, "if you carry it in, carry it out" (Regulation 190.3) to eliminate the illegal practice of burying refuse by users of this unit.

5. Assuring consistency of unit signing on boundaries, trails and at trailheads. Informational accuracy will be determined and corrected where necessary, especially with reference to trail mileages.
6. Identifying the best use of unit facilities and assuring designation of separate areas for incompatible uses.
7. Acquiring those parcels of land, if and when they become available, that improve access and consolidate the unit.
8. Trail construction where needed for improved control of public use.

C. To perpetuate indigenous fish and wildlife species as part of the Adirondack environment and to provide optimum opportunity for the public's enjoyment and beneficial utilization of the resource by:

1. Managing fish and wildlife so that their numbers and occurrences are compatible with the habitat and the public interest.
2. Updating and maintaining resource inventory data for all waters.
3. Providing trout fishing opportunity through continued regulation, improved access, annual stocking, acid reduction, reclamation and barrier dam construction and maintenance in accordance with Department policy.

4. Continuing current studies for the Adirondacks in general on:

   a. The identification of rare and endangered wildlife species and/or habitat.

   b. The effect of atmospheric deposition on the reproductive success of Adirondack mammals, and initiating appropriate projects if a review of the general literature by the Bureau of Wildlife identifies a need for additional study specific to this unit.

5. Continuing and maintaining sport hunting, trapping and fishing as a compatible recreational resource activity.

D. To obtain additional natural resource data to support a comprehensive revision of this plan prior to fifth year revision.

V. SPECIFIC PROJECTS TO MEET MANAGEMENT OBJECTIVES

A. Trail Maintenance

1. Unit foot trails, bridges, culverts, walkways and dry tread will be maintained and signs repaired or replaced as needed, (including appropriate trail markers) to keep them serviceable and safe. Clearing will generally not exceed four feet in width and 10 feet in height.

2. The Moss Lake Circuit Trail will be cleared and signs repaired or replaced annually to standards consistent with Forest Preserve policies for horse and cross-country ski trails in wild forest areas. Current standards allow for a maximum width of eight feet and overhead cutting to ten feet. Continuing drainage problems on this trail will be appraised and appropriate actions taken. Any large, protruding rocks which might be hazardous to cross country skiers and/or horses will be removed.

3. Unit snowmobile trails will also be maintained annually according to Forest Preserve Policy specifications. Trail markers will be placed at frequent intervals. Trail grooming will not be a Department function.

4. Bridge replacement on the Bubb Lake - Sis Lake Trail (near the barrier dam) and walkway replacement on the Scenic Mt. Trail will be budgeted in Year 1 with project completion in Year 2.

5. The Ellis Road will be maintained and upgraded for passenger cars from the South Shore Road to the gate (0.5 miles). The road will receive adequate maintenance to provide for administrative access from the gate to the end of the road at Third Lake Creek (1.5 miles). This road is currently used as a snowmobile trail and appears in the D.E.C. brochure, "Snowmobiling in New York State." This usage will be retained and appropriate signs will be erected.

6. The Lake Crossover Trail near Third Lake Creek (0.6 miles of which is on this unit) will be maintained to nordic ski trail standards if the remainder of the trail in the Moose River Plains Wild Forest is approved in that unit's management plan. This trail is shown in the D.E.C. brochure, "Nordic Skiing Trails in New York State." Historically, this dirt road has been used as access to the Adirondack League Club and private camps. This Webb Covenant road has not, and will not be maintained for motorized use. Such use will be allowed, but not encouraged. The light snowmobile use on this road during the winter has not been problematic to it's use as a ski trail and this dual use will be allowed unless problems develop. The 7.4 mile trail to the Limekiln Campground and connecting loop trails are maintained under Temporary Revocable Permit by the Town of Inlet.

B. Trail Construction

1. A connecting trail will be constructed between the Razorback Pond Trail on the Fulton Chain Unit and the Norridge Trail on the Pigeon Lake Wilderness Area (See Appendix 18.B.). The completed Norridge Connector Trail, on the Fulton Chain unit, will be approximately 1400 feet long and four feet wide. The construction of this recently located connector will allow total public land location of the trail to Beaver River Station which is now partially on private land. At present, the D.E.C. maintained Norridge Trail leads hikers from Beaver River Station to private lands on the northwesterly shore of Twitchell Lake. Trail conditions on these private lands vary from good to non-existent and hikers become confused and disoriented when they can't find a maintained trail to the public access at Twitchell Lake. This is a major inconvenience for the hiker and a cause of concern for property owners who must deal with people who cannot locate the trail. These private landowners have voiced concern about numbers of confused strangers who appear unexpectedly on their property, and are disturbed to learn that they must hike another two miles across many parcels of private land to get to the public access at Twitchell Lake. The Twitchell Lake property owners have been advised verbally for a number of years that a

State connector trail would be built to alleviate this problem. The Foley acquisition and the Lewis easement were a means to attain that end.

2. The proposed snowmobile trail in the Big Moose Road corridor (See Appendix 18.A.) includes a combined horse/snowmobile trail in the Pigeon Lake Wilderness, and approximately 1 1/2 miles of snowmobile trail on this unit. The trail would generally utilize old wagon roads which are evident on the 1954 Big Moose NY 15 minute USGS quadrangle map. This Eagle Bay to Big Moose Trail is needed to significantly reduce the safety hazard by removing extensive snowmobile traffic from the public highway. Approval for unit construction of the Big Moose Horse/Snowmobile Tail is granted contingent on the continued interest by the Town of Webb in future maintenance and grooming. State land segments of this Class A trail may be built on the finally identified route as long as no segment invites trespass by leading snowmobilers to posted lands, or requires later relocation. This trail will be constructed and maintained to standards consistent with Forest Preserve policies for snowmobile and horse trails in wild forest areas.

3. The Safford Pond snowmobile trail is little used. This is due, in part because portions of the trail are poorly aligned and on undesirable topography.

This trail is shown as an official Department snowmobile trail in the "Snowmobiling in New York State" booklet, but it requires much maintenance and minor relocation to bring it to acceptable standards for public use. A study to determine the desirability of retention, or the possibility of abandonment, will be undertaken in Year I. If the trail is not abandoned, the sections needing realignment and relocation will be determined along with estimated total project cost in Year II, followed by appropriate budgeting and project completion in subsequent years.

C. **Rondaxe Trail and Fire Tower**

Because of the scenic view that it affords, the Rondaxe Fire Tower, located on Bald Mountain, receives the greatest amount of public use on the unit. Estimates on the extent of this use range from 400 - 600 per day on holidays and peak fall foliage weekends, with an average of approximately 5,800 registered visitors per year.

In addition to fire control value, the forest fire observer stationed in this tower has an excellent opportunity to inform the public about the history, management and inherent values of the Forest Preserve. The observer can also help educate the visitors on their role in maintaining the natural resources of the Adirondack Park. This individual represents direct Departmental contact with the public and this position

should continue to be filled annually. Because of the high use that this area receives, an initial training program for the observer will be continued.

A large percentage of visitors to the tower are not aware of conditions between the parking lot and the tower and many are ill-equipped to make the climb. Trailhead informational signing should stress the relative difficulty of the ascent especially when the trail is wet, and the need for caution and for proper wearing apparel, especially footwear.

The size of the trailhead parking area on the Rondaxe Road is currently insufficient and will be enlarged to accommodate approximately 30 cars. Squaring of the present parking area and the removal of stumps and brush within the periphery should be sufficient. The parking area will conform to Department criteria for a Class I trailhead in the Forest Preserve.

The old trail to the tower that was used in the past is no longer an official Department foot trail. This trail begins on private land and presents a problem as it provides historical access directly from Rt. 28. Due to difficult terrain and lack of maintenance, hiker injuries have been increasing. An appropriate sign closing the trail will be posted at the old trail's intersection with the State line. More importantly, a closure sign should be posted at the point of access from Route 28, contingent on the land-

owner's approval.

Adequate maintenance of the Rondaxe Tower is necessary for public safety and aesthetics in this high use area.

Occasional overuse of the Rondaxe Trail occurs during holiday and fall coloration periods. This overuse has an adverse impact on the resource but is mitigated by its infrequency, the resource's consequent recovery periods, and the mountain's geology. The congestion caused by parked vehicles at the entry points causes some safety problems, especially on Route 28, which is a main highway. The closing of the non-maintained access trail should solve this problem. This will, however, divert a greater number of users to the Rondaxe Road trailhead. The recommended parking lot enlargement will provide for this increase. If roadside parking becomes a problem again, it will be addressed at plan revision. The impact of increased trail use on the resource will be monitored. The trail currently requires some hardening, minor relocation and better signing.

Unless relocation is possible, rustic steps should be placed at one rocky, very steep location about 1/4 of the way up, for the safety of less athletic users.

D. DeCamp Island

The State purchased DeCamp Island in 1963 for use as a convenient overnight campsite for canoeists on

the Fulton Chain. Historical use had resulted in approximately nine campsites. Previous reports of loud, boisterous misuse of DeCamp Island were reiterated by public comments resulting from the initiation of the unit management planning process. Early, interim management decisions were made in the spring of 1985, culminating in special regulations signing and the establishment of designated campsites on DeCamp Island.

The historic nine campsites were reduced to four designated sites in order to protect the larger island and to comply with State Land Master Plan guidelines. Adjacent, smaller Gumdrop Island was posted for "no camping."

Signs (See Appendix 13) display the following special regulations:

1. Quiet Must Be Observed 10 p.m. to 7 a.m.
2. Camping At Designated Sites Only
3. Maximum 8 Persons Per Designated Site
4. No Tree Cutting

The signs also indicate that there will be patrolled enforcement pursuant to NYCRR Section 190.8 (p). Fire rings were removed from the closed sites and "no camping" signs were placed at these locations.

Interim regulations by signing and more thorough patrol by the Old Forge ranger have improved the situation on the island. Because of the island's small size, the lack of dead wood, the increasing

frequency of live tree cutting, and the issues raised by several people at the public meeting for this unit management plan, open fires will be prohibited. This will add "No Open Fires" to the list of regulations on the DeCamp Island sign. This regulation should help to further reduce environmental vandalism and disturbance. Larger signs will be erected and additional cooperation with other Law Enforcement officials will be a continuing goal.

Stressing of Regulation 190.3, (if you carry it in, carry it out), occasional patrol by the area forest ranger, and inspection and cleanup by Alger Island personnel will be necessary to adequately control public use of DeCamp Island. Clean-up projects that are needed to eliminate existing public safety hazards include demolition of the old fireplace, filling of the main lodge foundation with existing rocks and removal of I-beams from the old bridge (See Appendix 13).

E. Moss Lake

Aesthetic Moss Lake and its 10,560 feet of shoreline (See Appendix 14) provide an ideal location for limited camping. Existing policy allows camping by permit only, prohibits campfires except in the eight fireplaces, and excludes camping on the Moss Lake Island and the beach. Seven primitive tent sites will be designated at appropriate locations, as specified in the State Land Master Plan, and any existing sites

which do not comply with that plan's guidelines will be closed. Each site will be numbered and provided with a fire ring or small fireplace. These sites shall be limited to three tents and eight people.

In addition, one group camping site will be located for use by groups of up to 20 persons by permit only. Care will be exercised when choosing this site, to assure that an area will be selected which is environmentally compatible with the relatively heavy use of a group camping site. One of the two northern privies will be moved to an appropriate location near the beach for the convenience of users in that area. An additional privy will be sited at the group site and three others will be located mid way between each pair of the more remote sites in Year II of this management plan.

Informational signs at the trailhead parking area will include information on Regulation 190.3, fires in fireplaces only, camping at designated sites only, requiring a permit from the forest ranger. Signs will also be erected indicating that no outboard motors will be allowed.

Based on current use, the size of the existing parking lot should be sufficient for the time frame of this plan. This parking lot is, and will continue to be, plowed to facilitate parking by nordic skiers.

The use of the Moss Lake Circuit Trail as both a horse trail and hiking, or primitive campsite access

trail recognizes normally non-compatible uses. It is currently designated as an official horse trail, and the great potential for both uses makes it difficult to deny either. This trail was originally built by the former owners as a bridle path with an 8 - 12 foot wide gravel surface, and its design provides for dual use to a greater degree than most trails. Horseback use of this trail is relatively light and allowing both of these normally conflicting uses appears justified. Both recreational uses are currently in effect with no apparent problems. An annual reassessment of the amount of equestrian use will be made to determine if conflicts become apparent. If necessary, an alternate horse trail will be considered.

The deed between the State and the Nature Conservancy requires erection and maintenance of a permanent marker reading, "This area was acquired with the Assistance of the Nature Conservancy."

F. **Public Lands Along South Shore Road (Section D)**

Historically, and by consistent use in past years, State land along the South Shore Road was recognized as a desirable camping area. Prior to 1976, the Department treated this section as an undeveloped camping area and camping was allowed for three days without a permit. Small incidences of misuse and various abuses by groups of undisciplined individuals occurred periodically and culminated in a major incident on the Fourth of July in 1976. Records indicate

that passers-by were harassed and 8 - 10 acres of the resource were severely misused. This led to the closing of the area by "camping prohibited" signs and camping has been banned since. There have been no incidents during the interim.

Three sites shall be designated consistent with SLMP guidelines at appropriate locations on the shoreline and along Third Lake Creek to disperse use of DeCamp Island. Each site shall have a number and fire ring, and will be limited to three tents and eight people. These sites will be accessible only from the water as camping from the South Shore Road will continue to be prohibited.

G. **Webb Covenant Roads**

The restriction in the Webb deeds of 1896 and 1897 (referred to on page five under history) commonly known as the "Webb Covenant" provided that trails and ways of communication existing at that time would remain open and free to Webb, the Na-ha-sa-ne Park Association, and the People of the State of New York, their heirs and assigns. These deeds refer to a map (See Appendix 22) and survey made by David C. Wood; however that map and other maps prior to 1900 show only main roads and do not document all access roads and trails. This lack of mapping has made it difficult to verify which roads existed at the time when the covenant was written. Therefore, we must rely on information regarding route identification as it has

been passed down from generation to generation.

In 1977, the Department considered a proposal to document the location of Webb Covenant Roads by survey to be far beyond the capacity of the reduced surveying staff. Personnel in the Herkimer office and the forest ranger staff, including area native William Marleau, listed and mapped roads existing at that time on the USGS 1:62,500 sheets. This list and map would serve as interim documentation of probable road status under the Webb Covenant until such time as any future legal determination is made. In the past, D.E.C. has recognized the access ways and roads listed in 1977 as probable Webb Covenant Roads. In lieu of a future legal determination, these roads will continue to be recognized as authentic under the provisions of the Webb Covenant (See Appendix 15).

D.E.C. allows minimal maintenance of Webb Covenant access roads that cross State lands when requested by adjacent, otherwise land-locked property owners. This maintenance is not the responsibility of the Department and is limited to the maintenance of the road width. The constitution does not allow the Department the authority to permit improvements beyond the maintenance of the road surface.

H. Navigation Aids

Environmental Conservation Law, Article 41, Section 41-0103 (Regulation of navigation) states that "the Department shall, within the sixth Park region

(including Herkimer County), administer Articles 3 and 11 of the Navigation Law." Section 35 of the Navigation Law (aids to navigation) allows for the placement, by the Department, of navigation aids on lakes and rivers in the Adirondack Park. The Division of Operations unit headquartered in Ray Brook, New York has responsibility for placing and removing navigation aids annually on the Fulton Chain, as well as other lakes within the Adirondack Park.

I. Unit Trailheads and Designated Sites

All unit trailhead parking areas (See Appendix 9) will be maintained to meet Forest Preserve Policy criteria.

The Razorback Pond Trailhead at Twitchell Lake is not currently maintained and will be added to the "maintained" list. Needs at this recently acquired trailhead include accurate informational signing, a trailhead register in the interior, gravel application, minor drainage control and pre-season, post-season cleanup. The current parking lot accommodates approximately 20 vehicles and should meet the needs for the time frame of this plan.

A five car parking area and a registration booth will be provided at a suitable location adjacent to the existing gate, as a part of the Ellis Road upgrading project.

The current roadside parking accommodation along Route 28 for use of the Bubb Lake - Sis Lake Trail is

inadequate. Users must contend with a vertical pavement drop when parking. The feasibility of a paved turnout to accommodate up to three vehicles will be reviewed with DOT.

The trailhead for Safford Pond (Rondaxe North Shore Road) is not maintained and does not need maintenance unless use increases substantially (See Appendix 9).

Trailhead registers, except the one at Moss Lake, should be moved into the interior to encourage registration and discourage vandalism.

The Third Lake Creek Trailhead on the South Shore Road receives seasonal parking by nordic skiers using the Lake Crossover Trail. This parking area receives heavy use in the winter and it will continue to be plowed to facilitate parking. This lot will be added to the maintained list for this unit and perimeter posts and gravel will be placed at the site.

All unit ponds now receiving camping use will be evaluated for site designation. Active and potential sites on Razorback, West, Safford, Goose, Bubb, Sis, Fly and Mountain Ponds, Cary Lake and any other waters with active camping will be inventoried in Year II. Designation pursuant to SLMP guidelines will be implemented in Year III.

J. Fish and Wildlife

Specific fish and wildlife projects are as follows:

1. Periodic field surveys of the productive waters of

the unit to maintain resource inventory data and initial survey of major streams. Cary Lake is scheduled for its initial survey in 1989 to confirm its status as a brook trout pond, and to provide a basis for determining future management strategies.

As an integral part of the Bureau of Fisheries' Management Plan for the Fulton Chain of Lakes, the next installment for the long term monitoring program of the Chain's fishery resource is an intensive biological survey, scheduled for 1990.

2. Annual stocking of trout in the following waters:
   a. Twitchell Lake - 5,000 fall fingerling (FF) brook trout (ST).
   b. Bubb Lake - 2,400 FF ST
   c. Razorback Pond - 400 FF ST
   d. Sis Lake - 1,400 FF ST
   e. Quiver Pond - 1,000 FF ST
   f. Third Lake Creek - 300 Spring Yearling (SY) ST
   g. North Branch Moose River - 1,300 SY ST
   h. Third Lake - Rainbow trout - 1,800 SY
      Lake trout - 500 SY
   i. Fourth Lake - Rainbow trout - 9,200 SY
      Lake trout - 6,400 SY
      Landlocked Salmon - 4,300 SY
   j. Old Forge Pond - Rainbow Trout - 700 SY
   k. Other lakes and streams if surveys so indicate

3. Barrier dams at Bubb Lake and at Quiver Pond Outlets will be maintained (or rehabilitated as necessary) to insure effective control of unwanted upstream fish migration.

4. Reclaim Bubb and Sis Lakes, and Quiver Pond as needed to maintain their quality fisheries. These waters are scheduled for survey in 1989. If results indicate re-establishment of competitive non-trout species (ie: yellow perch, white sucker, golden shiner, etc.) reclamations will be scheduled for 1990 or 1991. The respective barrier dams will be in working condition before any reclamation is initiated.

5. Monitor ph conditions in productive waters. Under the guidelines of the D.E.C. Liming Policy and Pond Liming Environmental Impact Statement (when finalized), actions will be taken to reduce acidity by the addition of lime to unit waters when their fisheries become endangered. Quiver and Razorback Ponds are both candidates for liming. Quiver Pond's latest (July, 1988) pH and alkalinity (ANC), 6.89 and 108.2 ueq/1 respectively, do not indicate a need to re-lime. When its pH or ANC fall below 6.0 or 25 ueq/1 respectively, it will be scheduled for re-liming. This is expected within the next five years. Razorback Pond with a 1984 pH of 5.99 and ANC of 15.7 ueq/1, is in need of lime treatment. Because of its remote nature,

it is not included in the current Bureau of Fisheries Liming Program. Future modification or expansion of the program may include Razorback Pond.

6. Management strategies will be changed for the unit's most popular angling waters (Fulton Chain of Lakes, Moss, Bubb and Sis Lakes, and Quiver Pond) if needs arise. Potential modifications include stocking policy changes in terms of numbers, size or species, or special regulations to protect or enhance the fishery, such as increased size or decreased creel limits.
7. Game animal and furbearer harvests will be monitored annually.
8. Current studies for the Adirondacks in general will be continued on:
   a. The identification of existing rare and endangered species.
   b. The effect of atmospheric deposition on the reproductive success of Adirondack mammals.
9. Appropriate projects will be initiated if a review of the general literature by the Bureau of Wildlife identifies a need for additional study specific to the Fulton Chain Wild Forest.

K. Gates

The gates at Moss Lake and the Ellis Road will be checked periodically and kept in repair and highly visible.

L. Fire Management

D.E.C. is currently charged with fire protection on the Fulton Chain Wild Forest under the provisions of Article 9 of the Environmental Conservation Law. Responsibility for fire prevention and suppression is divided between two ranger districts: one at Old Forge (Unit Section B, C, D, and DeCamp Island), and the other at Stillwater (Section A). These districts are both assigned to the Herkimer Office.

Fire detection consists of scheduled aerial reconnaissance detection flights contracted through the Herkimer and Lowville Offices, supplemented by a staffed fire tower at Bald Mountain. Present access to the unit is sufficient for fire control purposes.

D.E.C.'s responsibility for public safety, risk level determinations and emergency response planning should be considered and integrated into the Department's fire management policy for this unit.

M. Administration

1. Staffing

Currently, four forest rangers (Old Forge, Stillwater, Otter Lake and Inlet) are essential to the efficient control of public use (when a team effort is required), fire presuppression and suppression and environmental impact monitoring on this unit. Openings for ranger positions should be filled immediately, since ranger district performance is adversely affected by vacancies in

adjacent districts.

Current staffing in the Division of Operations is below the required minimum, but this could be mitigated by the two person Forest Preserve trail crew recommended in the Ha-De-Ron-Dah Wilderness Area Unit Management Plan. This crew will be hired seasonally for a six month period and will work solely on projects for various regional Forest Preserve units including the Fulton Chain Wild Forest.

The current, authorized administrative number of associate foresters, regional ranger, district rangers, and forest ranger II's is insufficient to handle the administration of this unit. An additional forester should be assigned to the associate forester to handle the overall Forest Preserve workload in the Herkimer Sub-Region. Adjoining unit plans will be coordinated and up-dated by the Bureau of Preserve Protection and Management.

The existing regional wildlife technical staff is adequate if maintained at full strength and if short deadlines are not imposed for specific projects. It is important that the regional fisheries technical staff also be kept at full strength in order to provide adequate surveys and input for this unit. The enforcement of all fish and wildlife laws and regulations is dependent upon having an adequate staff of Environmental

Conservation Officers to cover a given area.

2. Budgeting

The Herkimer Sub-Office will budget for staff and for maintenance of facilities, as needed to support the various projects on this unit. A budgeting effort will be made in cooperation with the Operations Unit.

The Herkimer Operations Unit will prepare a budget request for both permanent and seasonal maintenance personnel, including funding for the Forest Preserve trail crew. Their budgeting efforts will also address the costs of supplies and materials, equipment and other expenditures needed to carry out the perpetual maintenance effort. Regional Operations annual work plans should include maintenance of the Herkimer County snowmobile and ski trails in unit Section D.

Routine fish and wildlife management activities, including permanent and seasonal personnel, supplies, materials and travel will be prepared by the appropriate bureau staff, in consultation with the operations unit as required.

New projects are generally approved at the division level before requests for funding are submitted in the Department budget.

3. Education

Publication of a brochure on the Fulton Chain Wild Forest will be initiated. Included in the

pamphlet will be: a map; a description of the unit; the importance of registering; safety suggestions including sanitation; information regarding Giardia and water treatment; brief information on available facilities, including trail descriptions and lengths; and rules and regulations, with emphasis on preventing litter.

The map in the Department's "Adirondack Canoe Routes" pamphlet (1985) would better serve the overnight camper if State lands (in addition to campgrounds) were indicated.

On the ground public education is carried out on this unit by forest rangers, the forest fire observer on Bald Mountain and seasonal assistant forest rangers.

N. Problem Areas

1. Boundary Line Surveys

a. Moss Lake Tract

Completion of the boundary line survey originally initiated prior to the Indian occupancy, is necessary to locate the north boundary of the Moss Lake Tract from the Moss Lake Outlet on the west to the corner in the Pigeon Lake Wilderness on the east. A survey request has been referred to the Bureau of Real Property in the Department's central office.

b. Raquette Lake Railroad

A complete record search and survey is required to determine the outbounds of the railroad fee strip, if any.

2. Trespass

a. Wood Case

A boundary line survey in 1972 verified a trespass across the east boundary in Parcel K, in unit Section C near Eagle Bay. This encroachment consisted of portions of two buildings erected by adjacent landowner, Ernest Wood, prior to the survey, even though he was notified of a possible trespass prior to the completion of construction. The trespass also included a driveway and a parking lot on State land.

Ensuing correspondence eventually resulted in the owner's removal of the "donut shop." The corner of the garage remained and use of the driveway and parking area on State land continued. A large file in the Herkimer Office on this trespass documents specifics of this unusual case of neighborly disrespect for public lands. The latest entry (1975) in the Herkimer Office file is a case summary which indicates that "Mr. Wood signed a stipulation (Index No. 49519 - Herk. Co. Clerk)" which he has violated (See Appendix 26). It further indicates that "he should be recalled to

Supreme Court, cited for contempt and ordered to remove that portion of the garage encroaching on Forest Preserve Lands" (See Appendix 26).

b. Buckley Case

A boathouse adjacent to the westerly edge of Parcel F. (Unit Section D) was inadvertently constructed on a small portion of State land under the water at First Lake of the Fulton Chain.

Because of the unusual physical conditions at the site, and because a very minor portion of the boathouse involved State land, a Temporary Revocable Permit (No. 251.0) was issued in 1967 (See Appendix 21). The permit states: "At the end of the useful life of the structure or upon prior revocation of this permit, no part of the boat house will be allowed to remain on State land." This case will be re-evaluated in regard to current policy, which does not permit permanent occupation by temporary revocable permit

3. Environmental Problems

a. Increasing acidity and the resultant death of fish in unit lakes and ponds is the greatest environmental problem in the Fulton Chain Wild Forest, as it is in the Adirondacks in general (See Appendix 5.B.). Until the atmos-

pheric deposition problem is resolved, it is necessary to monitor and maintain water quality, in order to keep unit fisheries at current levels.

b. Typical Adirondack tree morality is in evidence on this unit. Beech bark disease and spruce decline are clearly having an impact on the forest cover. In some cases, forest decline may be linked to atmospheric deposition, climatic changes, increasing air pollution and the accumulation of heavy metals on the forest floor, rather than being the result of disease or insect vectors. Defoliation will be monitored annually.

c. The following is from a paper entitled, "1988 Update - DDT Stream Sediment Investigation In The Fulton Chain Wild Forest", by D.E.C. Pesticide Specialist John F. Wainwright, Division of Hazardous Substance Regulation, Bureau of Pesticides.

In 1982, the Department's Bureau of Environmental Protection of the Division of Fish and Wildlife collected sediment samples for 10 streams within the Moose River drainage basin, in an effort to determine the levels of the persistent and bioaccumulative insecticide Dichloro-Diphenyl-Trichloroethane (DDT), which has been banned from use in this area since

1965. Three of these streams produced samples containing from 3.2 to 877 parts per billion (ppb) of DDT. Although this pesticide is known to last in the environment for upward of 25 years, it is usually reduced to its metabolites DDD and DDE relatively quickly. Since the amounts of DDT that were found were greater than these metabolites, a recent introduction into these streams seemed likely.

Before the 1965, ban nearly 3 1/2 tons of DDT were being applied annually in the Fulton Chain area. In 1970, lake trout were sampled and found to contain an average of 28.9 parts per million (ppm) of the persistent pesticide. The level had dropped to 3.51 ppm in 1978. Surprisingly, the levels started to rise in the early 1980's. Readings soon exceeded the 5 ppm tolerance level established by the Federal Food and Drug Administration by two-fold and caused the Department of Health to issue an advisory against eating lake trout from Fourth Lake.

Another study sponsored by the Bureau of Environmental Protection found that otter and mink trapped in this area also contained higher amounts of DDT than in other portions of the State. This again alerted the Department to a possible problem with an increasing

level of a chemical banned nearly two decades earlier.

In an attempt to determine how and where DDT was entering this ecological system, it was decided that stream sediment should be collected from each watershed within the Fulton Chain of Lakes. Hopefully, this would lead to tributaries containing significant levels of DDT and, through further investigation, actual location of introduction sites.

This ongoing investigation was initiated in 1984. Since then, 41 streams have been accessed, generating nearly 200 sediment samples. Eight of the streams found to contain significant levels of DDT are located within, or adjacent to, the Fulton Chain Wild Forest. These streams are Third Lake Creek, Indian Brook, Eagle Creek, Cascade Lake Outlet, the North Branch of the Moose River, Constable Creek, Sis & Bubb Lake Outlet, and Mountain Pond Outlet. Third Lake Creek, Constable Creek, Cascade Lake Outlet and Eagle Creek Watersheds contained relatively high levels of DDT. Individual reports are enclosed in Appendix 28.

Another significant find during 1988, was the location of a number of 55 gallon drums in Fourth Lake near Eagle Bay. Although attempts

to raise these containers were unsuccessful, sample analysis of nearby sediment did produce high concentrations of DDT. Further investigation is planned in 1989. All water and sediment sampling will continue until a logical conclusion can be ascertained. It might be necessary in some cases, for the Bureau of Pesticides to request assistance from the Division of Fish and Wildlife regarding contamination levels of fish in unit waters.

O. **Land Acquisition**

Appendix 12.C. delineates the Fulton Chain Wild Forest unit boundaries for land acquisition purposes. This boundary is described as follows:

> North and east by Pigeon Lake Wilderness, Eagle Bay to Big Moose Road and Rte. 28, South by South Shore Road to Ellis Road, Ellis Road south to Third Lake Creek, west on Third Lake Creek to Adirondack League Club, following League Club bounds and other private lands to South Shore Road to Rte. 28, Rte. 28 westerly to the Railroad Bed, northeasterly on the RR bed to the west bounds of Township 8, north on the township line to the RR crossing, thence northwesterly and northeasterly on the RR to the Pigeon Lake boundary.

Properties which become available in the future

and are listed in the "Inventory of Potential Acquisitions", should be considered for purchase. Specific interests include Silver Lake, undeveloped lands south of the Big Moose Road between Moss Lake and Thirsty Pond Outlet, Dart's Lake, a canoe launch site on the Carter Road at the N. Branch of the Moose River, Third Lake Crossover ski trail easements, consolidation near the Ellis Road, Town of Webb lands between the railroad and N. Branch of the Moose River, fishing access and canoe launch sites at Dart's and Rondaxe Lakes, shoreline frontage on the Fulton Chain and any properties within the corridor of wild, scenic and recreational rivers.

O. **Boundary Line Maintenance**

Approximately 50 miles of unit boundary lines will be painted and/or signed on a five to seven year rotation. The need will be determined by the area forest ranger after evaluation of line condition at the five year interval. Signs will be replaced annually as needed, including those along approximately 10 miles of roadside.

P. **Fulton Chain Floating Bog Mats**

A draft report by former D.E.C. Fish and Wildlife Technician, Thomas G. Voss, entitled, "Bogs on the Lower Fulton Chain of Lakes," is the source of the following information relative to the Fulton Chain Wild Forest.

Of the 1,177 acre total surface area of the Fulton Chain's First, Second and Third Lakes, about 45 acres is in large, floating bog mat communities. These bogs would be more accurately referred to as minerotrophic peatlands or fens (enriched bogs). Plant species growing in the peat moss mat (Sphagnum Sp.) of this bog community include sweet gale (Myrica gale), leatherleaf (Chamaedaphne calyculata), sheep laurel (Kalmia polifolia), labrador tea (Ledum groenlandicum), bog rosemary (Andromeda glaucophylla), lowbush cranberry (Vaccinium oxycoccus, v. Macrocarpon), pitcher plant (Sarracenia purpurea) and sundew (Drosera Sp.).

The diversity of vegetative communities varies within the mats and also, from bog to bog. Plant distribution is determined by the bog's location in the lake, the related water movement, desiccation during drawdown, and water depth. The potential for occurrences of rare and endangered species or communities is high due to several of these factors. A comprehensive inventory needs to be undertaken.

These wetlands offer distinct scenic qualities because of their unusual floating characteristics and the resulting contrast with adjacent covertypes. They provide valuable greenspace and offer an opportunity for nature study in close proximity to a populated area. There is the threat of possible development and of subdivision of the upland contiguous with these

significant areas. The probability of increased access pressure would intensify the current demand for dredging, or for the cutting of navigation channels through the mats. Evidence shows that additional higher speed propwash inundation from increased motorboat use in the area, would more adversely impact the spatulate leaf sundew population. The pressures brought to bear on these wetlands in the future will increase.

It is recommended that the sensitivity and the significance of this resource be verified and documented by the Natural Heritage Program. If they are found to be significant, the Fulton Chain Bog Mats should be considered for addition to the list of Special Management Areas in the State Land Master Plan. Following that, appropriate management decisions will be made and incorporated into the five year revision of this unit management plan.

Additionally, it is recommended that an evaluation be made in Year I by the Divisions of Operations and Lands and Forests, to determine the feasibility of stabilizing the mat zone to prevent the continued detachment of pieces of the bog. This method should be least impactive to this unique environment, as well as effective. Necessary budgeting should result in an appropriate field project in Year II to contain this historic problem.

VI. PRIORITY, SCHEDULES AND ESTIMATED COSTS OF PROJECTS

Costs cited are estimates for Year I based on 1989 figures. Successive years will need to be adjusted to key in increases due to inflation.

Project	Responsible Division **	Cost
Annually		
1. Maintenance of foot trails, horse and nordic ski trail and snowmobile trails.	(OP)	$7,000
2. Maintenance and necessary cleanup of primitive campsites and privies at Moss Lake, DeCamp Island, First and Third Lakes.	(OP)	$1,200
3. Maintenance of parking areas and registration booths at Rondaxe, Moss Lake, Orvis, Ellis Road and Razorback Pond Trailheads.	(OP)	$1,900
4. Gate maintenance at Moss Lake and Ellis Road.	(LF)	$ 100
5. Assure accurate and legible signing at unit trailheads, along trails and at facilities.	(LF)	*
6. Monitor environmental impact and regulation success of interim regulations on DeCamp Island and draft specific regulations when effectiveness has been determined.	(LF)	*
7. Monitor environmental impact on the Rondaxe Trail.	(LF)	*

** Divisions: Operations (OP), Lands and Forest (LF), Fish and Wildlife (FW), Legal Affairs (LA), Hazardous Substance Regulation (HSR)

TBD: To be determined
* : Normal Program Funding

Project		Responsible Division **	Cost
Annually			
8.	Maintenance as needed on the Rondaxe Fire Tower and support facilities.	(LF)	*
9.	Boundary line maintenance (50 miles plus 10 miles roadside signing as needed).	(LF)	$ 350
10.	Maintain Nature Conservancy permanent marker and all major signs at Moss Lake.	(LF)	*
11.	Monitor game animal and furbearer harvests.	(FW)	*
12.	Survey productive unit lakes, ponds and major streams to maintain resource inventory and water chemistry data as time and funding permit. This includes annual water chemistry surveys (pH, alkalinity, etc.) for liming candidates (ie. Quiver and Razorback Ponds).	(FW)	$ 1,000
13.	Stock trout in Twitchell, Bubb and Sis Lakes, Razorback and Quiver Ponds, North Branch Moose River, Third and Fourth Lakes of the Fulton Chain, Old Forge Pond and Third Lake Creek.	(FW)	$24,000
14.	Maintain fish barrier dam at Bubb Lake Outlet and Quiver Pond.	(OP)	$ 400
15.	Retain Rondaxe fire observer, Forest Preserve trail crew and assistant forest rangers.	(LF) (OP) (LF)	* * *
16.	Maintain active acquisition program if desirable parcels become available.	(LF)	*
17.	Continue the annual investigation of elevated DDT levels in unit waters.	(HSR)	$10,200
	TOTAL COST		$46,150

Project		Responsible Division **	Cost
YEAR I			
1.	Demolition of the old fireplace and filling of the main lodge foundation at DeCamp Island.	(OP)	$3,000
2.	Sign placement to discourage use of the old Rt. 28 access trail to Rondaxe Tower.	(LF)	$ 200
3.	Remove I-beams at site of the old bridge on DeCamp Island.	(OP)	$2,000
4.	Add Razorback Pond Trailhead to the inventory of maintained parking lots.	(LF)	*
5.	Complete boundary line survey on the north line of the Moss Lake Tract.	(LF)	*
6.	Complete the investigation and resolve the Parcel K encroachment.	(LA)	*
7.	Resolve First Lake trespass.	(LF)	*
8.	Construct Fulton Chain Unit portion of connector between Razorback. and Norridge Trails.	(OP)	$1,200
9.	Location and planning for the Big Moose Snowmobile Trail (contingent on approval of Pigeon Lake Wilderness UMP and agreements with private owners).	(LF)	*
10.	Publish Fulton Chain Wild Forest brochure.	(LF)	$1,000
11.	Up-grade the gate at Moss Lake.	(OP)	$ 800
12.	Rehabilitate the Bubb Lake Barrier Dam.	(FW) (OP)	$10,000
13.	Survey Quiver Pond and Cary, Bubb and Sis Lakes.	(FW)	$ 2,000
14.	Complete title investigation on Webb Covenant roads.	(LF)	*

Project		Responsible Division **	Cost
YEAR I			
15.	Locate sites for privies at Moss Lake and budget for same.	(LF)	*
16.	Initiate a study of the sensitivity, resource significance and vegetation of the Fulton Chain Bog Mats.	(FW)	*
17.	Budget for rehabilitation of the dock at Twitchell Lake.	(LF)	*
18.	Budget for trail hardening of the Rondaxe Trail, if needed.	(LF)	*
19.	Add Third Lake Creek trailhead to list of maintained trailheads and install gravel and posts.	(LF) (OP)	$2,500
20.	Evaluate feasibility of stabilizing Fulton Chain floating bog mats.	(LF) (OP)	*
	TOTAL COST		$22,700
YEAR II			
1.	Review parking at the Bubb and Sis Lake trailhead with DOT.	(LF)	*
2.	Designate camping sites at Moss Lake and promulgate rules and regulations to prohibit motor boats and to require camping by permit only.	(LF)	*
3.	Establish designated sites and install privies at Moss Lake as per determinations in Year I.	(OP)	TBD
4.	At Moss Lake, relocate pit privy near the beach area and change or add fireplaces as necessary.	(OP)	$ 2,000
5.	Designate camping sites on shoreline of Second and Third Lakes.	(LF)	*

Project		Responsible Division **	Cost
YEAR II			
6.	Do initial survey to determine needs and costs for rehabilitating Safford Pond Snowmobile Trail and budgeting for same if Year I study indicates retention.	(LF)	*
7.	Razorback Pond Trailhead initial rehabilitation as per Year I.	(OP)	TBD
8.	Rondaxe Trailhead parking lot and foot trail rehabilitation.	(OP)	$ 3,000
9.	Determine costs for up-grading Ellis Road and parking area.	(LF) (OP)	*
10.	Move trailhead registers to the interior.	(OP)	$ 500
11.	Comprehensive Fishery Survey - Fulton Chain of Lakes.	(FW)	$ 4,000
12.	Initiate construction of appropriate State land sections of Big Moose Snowmobile Trail as per criteria in Section V.B.2.	(OP)	TBD
13.	Promulgate formal rules and regulations on DeCamp/Gumdrop Islands.	(LF)	*
14.	Accomplish any appropriate project to stabilize Fulton Chain floating bog mats.	(OP)	TBD
15.	Bridge replacement on the Bubb Lake - Sis Lake Trail and walkway replacement on the Scenic Mt. Trail.	(OP)	$ 3,000
16.	Inventory active and potential campsites on unit waters preliminary to site designation.	(LF)	*
	TOTAL COST		$12,500

Project		Responsible Division **	Cost
YEAR III			
1.	Do initial maintenance and necessary re-alignment of the Safford Pond Snowmobile Trail, if it is retained.	(OP)	TBD
2.	Reclamation of Bubb and Sis Lakes and Quiver Pond. Rehabilitation of barrier dams if necessary.	(FW)	$5,000
3.	Up-grade Elliis Road and parking area.	(OP)	TBD
4.	Resolve Miscellaneous Title Investigation #492 regarding the State's interest in the former Raquette Lake Railroad bed. Initiate record search and survey to determine the outbounds of the fee strip and locate same.	(LF) (LA)	*
5.	Designate camping sites, pursuant to SLMP guidelines as per inventory determinations in prior year.	(LF)	*
YEAR IV			
1.	Obtain additional natural resource data to support plan revision in the next year.	(LF)	Unknown
2.	Lime Quiver Pond	(FW)	$1,000
YEAR V			
1.	Draft up-dated five year revision of this plan.	(LF)	*

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VIII.
APPENDICES

APPENDIX 1

Fulton Chain Wild Forest

Boundary Line Description

This unit is divided into four main sections which are separated by private land and/or lakes. The unit also includes DeCamp Island, located between First and Second Lakes of the Fulton Chain. For clarity, the four large sections are designated A through D, north and south.

Section A

Beginning at the intersection of the west line of Township 8, John Brown's Tract and the outlet of Razorback Pond thence easterly along the outlet to Razorback Pond, thence clockwise along the shoreline of Razorback Pond to the Silver Lake allotment boundary, thence southwesterly along the State - Silver Lake allotment boundary about 12 chains to a point, thence generally southerly and easterly along the State - Silver Lake Allotment boundary about 131.5 chains to the boundary line between the Silver Lake Allotment and the Twitchell Lake allotment, thence generally northerly along said boundary line about 38.6 chains, thence southeasterly 32.5 chains to the shore of Twitchell Lake, thence southeasterly along the shoreline of Twitchell Lake to a point near the "public" landing, thence southerly along the State - private boundary about 13.4 chains to a point on the northern boundary of Forest Preserve Parcel B, thence northeasterly along the State - private boundary (northerly boundary of Parcel B) about 40 chains to the intersection of the trail to South Pond and Big Moose Lake, thence easterly along said trail about 110 chains to the southerly boundary of Forest Preserve Parcel B and northerly boundary of the Big Moose Lake allotment, thence southwesterly along said boundary about 112 chains to the southwesterly corner of Forest Preserve Parcel B, north westerly along the western boundary of Parcel B, 75 chains to the northwest corner of Parcel B, thence southwesterly on the Northwest line of the Thirsty Pond Allotment about 38.9 chains, thence southerly along the west boundary of the Thirsty Pond Allotment about 37.8 chains, thence southwesterly along the State private boundary about 18.4 chains, thence northwesterly along the State boundary about 60.5 chains to the west boundary of Township 8 of John Brown's Tract, thence northerly along the township line about 129.6 chains to place of beginning.

Section B

Beginning at the intersection of the west line of Township 8

and the southerly line of Township 6, John Brown's Tract, thence northerly along the Township 8 line 207 chains to the northwesterly corner of Section B thence northeasterly along the State boundary about 60 chains thence southeasterly about 7.6 chains, thence northeasterly about 6.8 chains to the edge of the N.Y. Central Railroad southbounds (100' fee strip) thence generally southeasterly along said railroad to the southerly line of Thistlewaite parcel, thence easterly along the State boundary 80 chains, thence northerly 32 chains to the Big Moose Road thence easterly along said road 18.6 chains to the Big Moose Lake Allotment, thence southeasterly along the State - allotment boundary 37 chains, thence easterly 63 chains, thence southeasterly 3.8 chains, thence southerly along the east boundary of State parcel I and parcel D, 63 chains, thence southwesterly along the Dart's Lake, Thistlewaite, and Rondaxe Lake Allotments to the shore of Lake Rondaxe, thence southwesterly along the shoreline of Lake Rondaxe to the aforementioned Rondaxe Lake Allotment line, thence southwesterly to the southernmost corner of Forest Preserve Section D, thence to the point of beginning.

Section C

Beginning at a point on the west line of Township 8, John Brown's Tract, 133 chains south of the intersection of Township 6, thence northeast 307 chains along State parcel E, thence southeasterly along the Darts Lake Tract 23 chains, thence northeasterly along the north line of the Moss lake Tract 72 chains to the Big Moose Road, thence generally southeasterly along the Big Moose Road about 128 chains, thence leaving the Big Moose Road southeasterly 55 chains to the Fulton Chain Allotment, thence westerly along the northerly line of the Fulton Chain Allotment and lands of Barrett about 500 chains (6.2 miles) thence southerly along the west line of lot 24, Second Lake, Fulton Chain Allotment, to the north shore of Second Lake, thence westerly along the north shore and the north line of the "DeCamp Lot" to the west line of Township 8, thence north along the west line 139 chains to place of beginning. Excepting a 50' fee strip, formerly the Raquette Lake Railroad, and now owned by the town of Webb and used for a snowmobile trail from Eagle Bay to Carter Station.

Section D

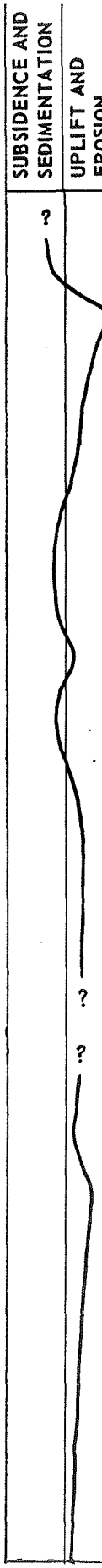
Beginning at the intersection of the southerly shore of Second Lake of the Fulton Chain of Lakes and the west line of Township 8, John Brown's Tract, thence northeasterly along the shoreline in part, and along the northerly boundary of Forest Preserve Parcel F to a point near the easterly intersection of Petrie Road and the South Shore Road, thence along the northerly boundary of Parcel F to its intersection with the Ellis Road,

thence southerly along Ellis Road and State boundary at the northwest corner of Lot 66, Township 3, Moose River Tract to the intersection of the Ellis Road and Third Lake Creek, thence generally westerly along Third Lake Creek as it winds and turns to its intersection with the division line between Lots 125 and 137, Township 3, Moose River Tract, thence northwesterly along said division line to the southeast corner of Lot 138, thence along the south and west boundary of said Lot, excluding the Northwestern 1/4, to the south boundary of Parcel F Township 8, John Brown's Tract, thence southwesterly and northerly along the Parcel F boundary to the point of beginning.

Section E

This section consists of two islands lying between First and Second Lakes in the Fulton Chain of Lakes. The larger island, formerly known as "DeCamp Island" and frequently called "Treasure Island," comprises about five acres. The smaller island, (known as Gumdrop Island) is less than one acre and lies approximately 200 feet north of DeCamp Island.

GEOLOGICAL HISTORY OF THE ADIRONDACK REGION DURING THE PAST BILLION YEARS



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+	PALEOZOIC	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	
		Middle 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
		Upper Ordovician	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. Adirondack region forms the western foothills of this range, and its Paleozoic rocks are block-faulted but not folded or metamorphosed; the valleys occupied by Lake George and Sacandaga Reservoir were probably created by down-faulting at this time.
425		Silurian Devonian Mississippian Pennsylvanian Permian	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.
?			
? 230	MESOZOIC	Triassic Jurassic Cretaceous	
63	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	Southward advancing continental ice sheet reaches Long Island, modifying the Tertiary drainage and landscape; during waning stages, mountain glaciation occurs sharpening Adirondack ridges and peaks, while glacial scouring of river valleys and damming by glacial debris brings into existence the many lakes and ponds of the Adirondacks. Finally ice recedes and vegetation begins to reclaim the land 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.
		Present	Area undergoing erosion, and supplying sediments to continental shelf

INTERPRETATIONS FOR SOILS IN FULTON CHAIN WILD FOREST

Soil Area	Number[1] of 5-acre parcels per square mile						Sources of Gravel	Dominant Woodland suitability class and main soil problems[2]	Kind and quality of dominant wildife habitat[3]	Principal soil Problems[4]
	Buildings With Basements		Septic Tank Filter Fields		Summer Camp Sites					
	Slight Problems	Moderate Problems	Slight Problems	Moderate Problems	Slight Problems	Moderate Problems				
Becket and Potsdam areas; very stony	Common	Common	Common	Common	Common	Many	Common	Fair-X	Wood-F	Slow Permability Very Stony
Rock outcrop areas; steep	Few	Few	Few	Few	Few	Few	Few	Poor-D	Wood-P	Shallow Soil, Steep
Naumburg areas	Common	Common	Common	Common	Common	Common	Common	Fair-W	Open-F Wood-P	Wetness Sandy

[1] Parcels for buildings, filter fields, and campsites: 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

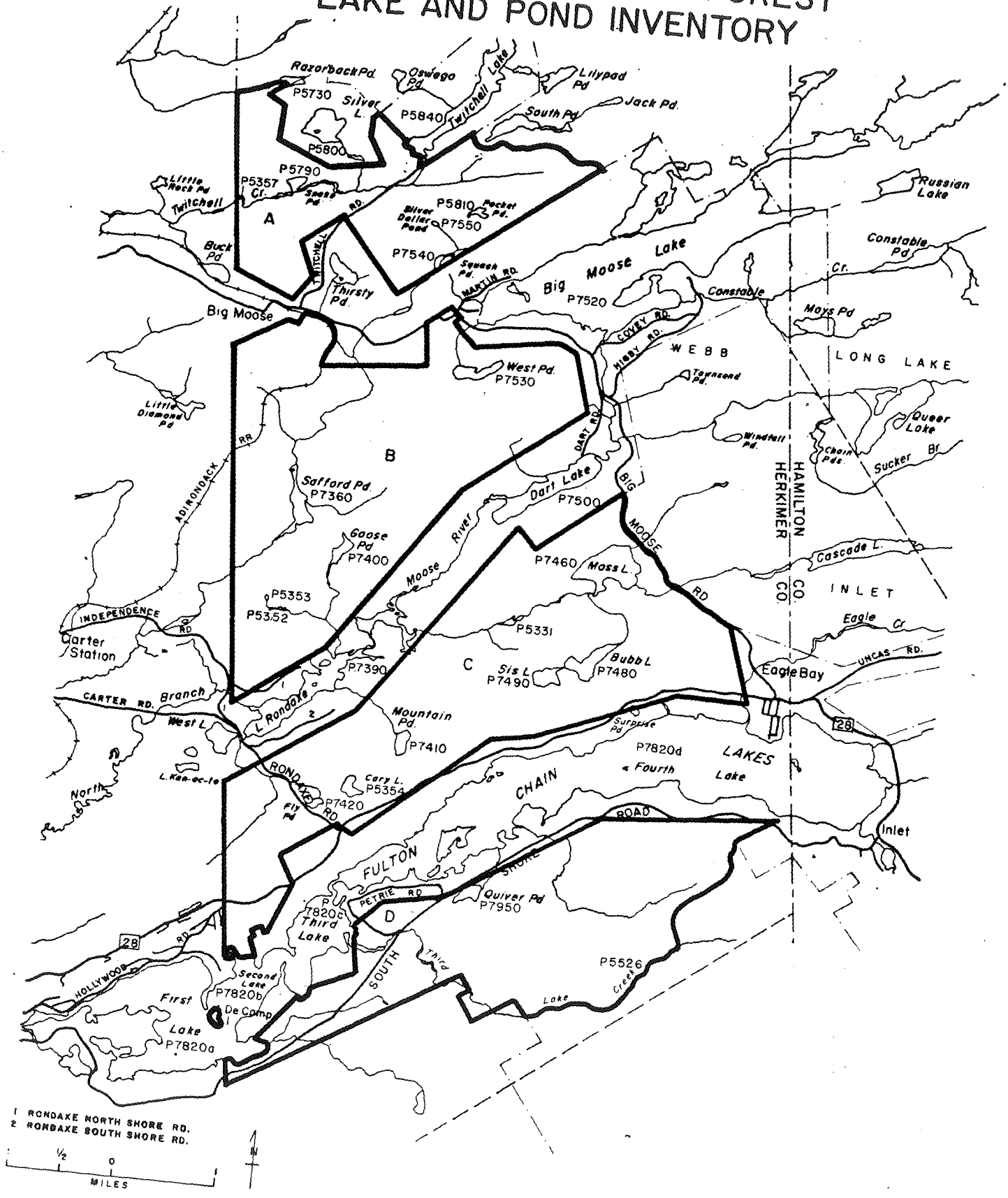
[3] Kinds of wildlife habitat listed as Open-Openland; Wood-Woodland; Wet-Wetland; and ranked according to quality as G-Good; F-Fair; and P-Poor

[4] Soil problems contributing to interpretations in the table

From: Soils of New York Landscapes - M. G. Cline and R. L. Marshall - 1977

APPENDIX 5.A.

FULTON CHAIN WILD FOREST LAKE AND POND INVENTORY



Water shed Key#	Pond Name	Major Fish Species	Acres /Elev.	Water Quality. Curr. pH	Past/ Last Survey/	Management Classif- ication	Future/ Proposals
p5730B	Razorback Pond#	Brook trout White sucker	13 2190	Becoming acid pH 5.85 7/84	Survey 1984 Stocked	Brook trout	Continue same Potential lime
p5790B	Snake Pond	Yellow perch Brown bullhead Brook trout Golden shiner	18 1928	Becoming acid pH 5.02 8	Survey 1984 Stocked 1933-54	Brook trout NSA	Continue same
p5810B	Pocket Ponds	None	5 2235	Acid pH 4.27 8/84	Survey 1984	Acid	Low potential
p5840B	Twitchell Lake	Brown bullhead Brook trout	140 2050	Becoming acid pH 5.47 7/82	Survey 1982 Stocked	Brook trout/ Stocked:5000/year	Continue same Monitor pH
p7360B	Safford Pond	Yellow perch Brook trout Golden shiner Brown bullhead White sucker	43 1962	Becoming acid pH 5.52 6/84	Survey 1984 Stocked 1929-54	Brook trout NSA	Potential reclaim & stock
p7390B	Lake Rondaxe#	Yellow perch Brown bullhead White sucker	230 1717	Warm	Survey 1986 Stocked smallmouth bass, brook & lake trout pre-1952	Warmwater	Bass introduction Public access enhancement
p7400B	Goose Pond	Golden shiner Brown bullhead Yellow perch	17/1771	Warm pH 5.81, 6/84	Survey 1984 Stocked 1929-34	Warmwater	Low potential
p7410B	Mountain Pond	None	7/2005	Acid	Survey 1983	Acid	Low potential
p7420B	Fly Pond	Yellow perch Brown bullhead Brook trout (rare)	6 1910	Warm pH 6.59, 8/84	Survey 1984 Reclaimed 1959 Stocked 1929-62	Warmwater	Low potential
p7460B	Moss Lake	Brook trout Brown bullhead Yellow perch,White sucker	96 1753	Satisfactory pH 6.21, 7/86	Survey 1986 Stocked brook trout 1942-55,86 & 87	Brook trout NSA	Continue same Rainbow smelt/ Lake trout
p7480B	Bubb Lake	Brook trout Brown bullhead	50 1815	Satisfactory pH 6.39, 7/82	Survey 1982 Stocked, Barrier Dam Reclaimed 1983	Brook trout	Continue same reclaim as need
p7490B	Sis Lake	Brook trout Brown bullhead	27 1821	Satisfactory pH 6.98, 7/82	Survey 1982 Reclaimed 1983 Stocked, Barrier Dam	Brook trout	Continue same reclaim as need

Water shed Key#	Pond Name	Major Fish Species	Acres /Elev.	Water Quality. Curr. pH	Past/ Last Survey/	Management Classif- ication	Future/ Proposals
p7530B	West Pond	Brook trout Brown bullhead	26/1898	Becoming acid pH 5.25 7/85	Survey 1985 Stocked 1894-97	Brook trout NSA	Continue same
p7550B	Silver Dollar Pond	None	2 2300	Acid pH 4.29, 7/84	Survey 1984	Acid	Low potential
?	Cary Lake	Unknown	12/1310	Unknown	None	None	Survey 1989
p7540B	Squash Pond	none	6/2120	Acid	Survey 1986	Acid	Low potential
p782	Old Forge Pond	Yellow perch Rainbow trout Smallmouth bass Brown bullhead Panfish	25 1707	Satisfactory	Survey 1987 RT Stocked	Warmwater/ Coldwater (limited)	Continue same Monitor shoreline development
p782-a	First Lake	Yellow perch Panfish Smallmouth bass	736 1707	Satisfactory pH 7.0	Survey 1987	Warmwater	Continue same Monitor shoreline development
p782-b	Second Lake	Yellow perch Panfish Smallmouth bass Brown bullhead	262 1707	Satisfactory pH 6.95	Survey 1987	Warmwater	Continue same Monitor shoreline development
p782-c	Third Lake	Yellow perch Lake trout Rainbow trout Brown bullhead	180 1707	Satisfactory pH 6.95	Survey 1987 Stocked 1898-1989	Mixed salmonids	Continue same Monitor shoreline development
p782-d	Fourth Lake	Lake trout Rainbow trout Yellow perch Rainbow smelt Brown bullhead Landlocked salmon	2,137 1707	Satisfactory pH 7.5	Survey 1987 Stocked 1898-1989	Mixed salmonids	Continue same Monitor shoreline development
P7850B	Quiver Pond	Brook trout Brown bullhead	20 1737	Satisfactory pH 6.89 7/88	Survey 1982 Stocked,Barrier dam Reclaimed 1983,Limed 1985	Brook trout	Continue same, lime or reclaim as needed

NSA = Natural Spawning Adequate ‡Only partially within Fulton Chain unit

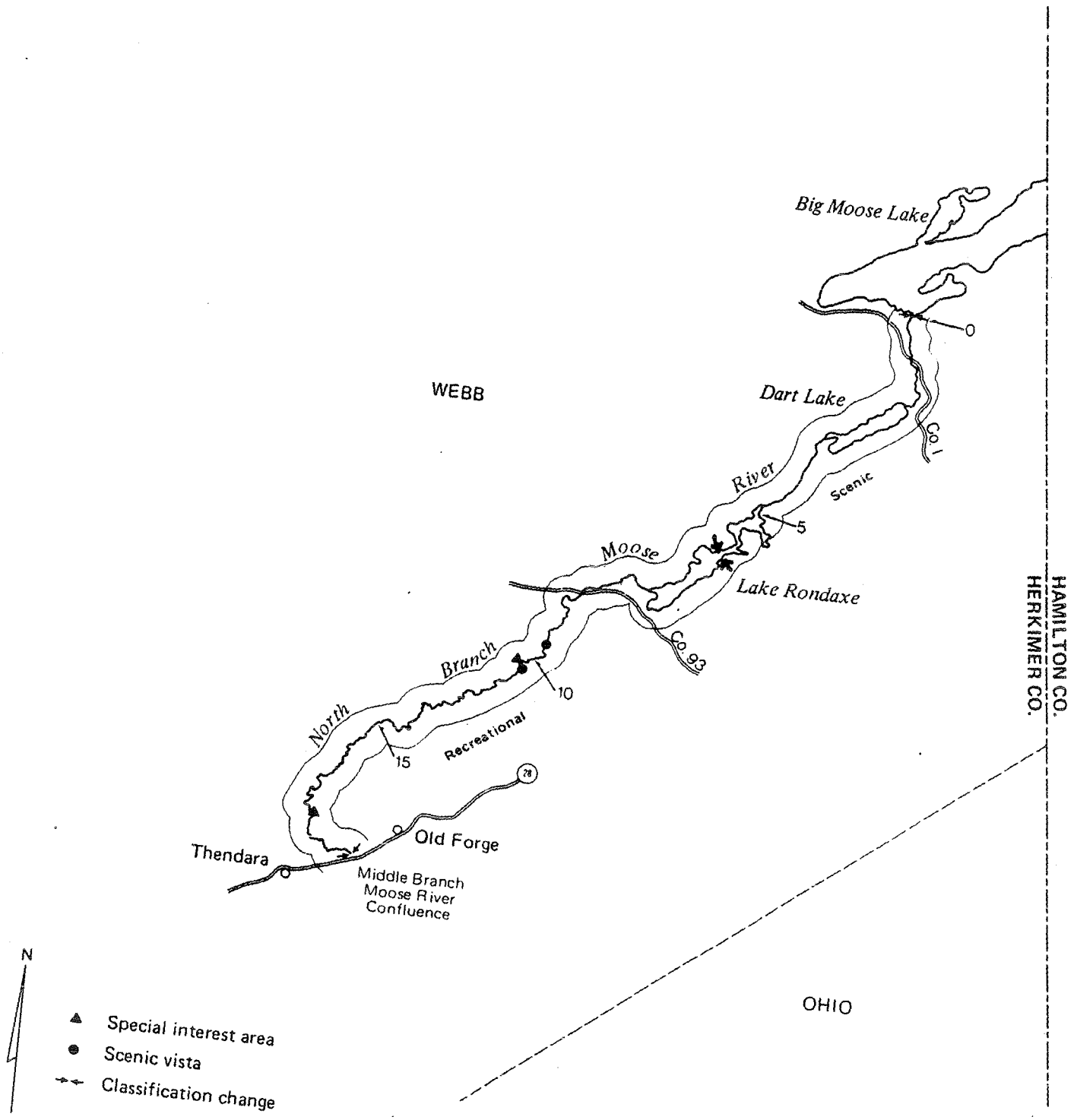
STREAM NAME	WATERSHED KEY #	WILD FOREST SECTION	MILES/ UNIT	YEAR OF LAST SURVEY	MAJOR FISH SPECIES	WATER QUALITY CLASS	COMMENTS
RAZORBACK POND OUTLET (W.BRANCH BEAVER RIVER)	019-40-P493-24	A	0.2	1974	BROOK TROUT	C(t)	NSA - BROOK TROUT STOCKED OUTSIDE OF UNIT
SILVER LAKE OUTLET	019-40-P493-32-15	A	0.2	1931	NO FISH REPORTED	D	SMALL, WARM
TWITCHELL CREEK (TWITCHELL LK OUTLET)	019-40-P493-32	A	3.4	1982	BROOK TROUT	C(t)	NSA ACID
SOUTH POND OUTLET	019-40-P493-32-16	A	0.5	1975	BROOK TROUT ?	C(t)	NSA?, SMALL
SILVER DOLLAR POND OUTLET (SQUASH PD INLET)	019-81-18-17-P752 -2-P754-1	A	0.1	1954	BROOK TROUT ?	C(t)	NSA? SMALL
WEST POND OUTLET	019-81-18-17 -P752-1	B	0.2	1954	BROOK TROUT ?	C(t)	NSA? SMALL
SAFFORD POND OUTLET	019-81-18-17-14	B	0.2	1954	BROOK TROUT	C(t)	NSA SMALL
SAFFORD POND INLETS	019-81-18-17-14-P736-1	B	0.6	1931	BROOK TROUT	C(t)	NSA
	019-81-18-17-14-P736-2	B	1.5		BROOK TROUT ?	C(t)	NSA ?
	019-81-18-17-14-P736-3	B	0.9		BROOK TROUT ?	C(t)	NSA ?
GOOSE POND OUTLET (TRIB 1 TO LAKE RONDAXE)	019-81-18-17-P739-1	B	0.4	1958	BROOK TROUT	C(t)	NSA SMALL, WARM
UNNAMED POND (p737) (OUTLET)	019-81-18-17-14-P736-2-4	B	0.4		BROOK TROUT ?	C(t)	NSA ?
MOOSE RIVER N BRANCH	019-81-18-17	B	0.1	1954	BROOK TROUT SMALLMOUTH BASS	C(t)	STOCKED BROOK TROUT (1300 SY) RONDAXE TO DART LK sCENIC rIVER
DART LAKE INLETS	019-81-18-17-P750-1	B	0.3	1931	NO FISH REPORTED	A	INTERMITTENT
MOSS LAKE INLETS:							
TRIB 1	019-81-18-17-15-P746-1	C	0.3	1978	NO FISH REPORTED	A	INTERMITTENT
TRIB 2	019-81-18-17-15-P746-2	C	0.3	1978	NO FISH REPORTED	A	INTERMITTENT
TRIB 3	019-81-18-17-15-P746-3	C	0.1	1978	BROOK TROUT FALLFISH	C(t)	NSA, SMALL
TRIB 4 - CASCADE LK	019-81-18-17-15-P746-4	C	0.4	1978	BROOK TROUT	A(t)	NSA, SMALL
TRIB 5 -BUBB LK	019-81-18-17-15-P746-5	C	0.5	1978	NO FISH REPORTED	C	INTERMITTENT
SIS LAKE OUTLET (TRIB OF BUBB LK)		C	0.02	1982	BROOK TROUT	C(t)	RECLAIMED 1983 AS PART OF BUBB AND

STREAM NAME	WATERSHED KEY #	WILD FOREST SECTION	MILES/ UNIT	YEAR OF LAST SURVEY	MAJOR FISH SPECIES	WATER QUALITY CLASS	COMMENTS
MOSS LAKE OUTLET	019-81-18-17-15	C	0.8	1960	BROOK TROUT	A(t)	NSA
MOUNTAIN POND OUTLET (TRIB 2 - LK RONDAXE)	019-81-18-17-P739-2	C	0.2	1951	BROOK TROUT ?	C(t)	NSA ? SMALL
EAGLE CREEK	019-81-18-P782d-7	C	0.1	1964	BROOK TROUT	B(t)	NSA
FLY POND OUTLET	019-81-18-17-P739-3-P743-1	C	0.4		BROOK TROUT ?	C(t)	NSA ?
LAKE RONDAXE INLETS:							
MOUNTAIN POND OUTLET (1ST LK CREEK)	019-81-18-P782a-21	D	0.5	1954	BROOK TROUT ?	C(t)	NSA ?, SMALL
THIRD LAKE CREEK	019-81-18-P782c-19	D	2.9	1972	BROOK TROUT RAINBOW TROUT LANDLOCKED SALMON	C(t)	STOCKED BROOK TROUT (300 SY)
INDIAN BROOK	019-81-18-P782d-17	D	2	1954	BROOK TROUT	C(t)	NSA
QUIVER POND OUTLET	019-81-18-P782d-18	D	0.2	1931	BROOK TROUT	C(t)	NSA ?
TOTAL 27 STREAMS		UNIT TOTAL 18.2 MILES					

WATER QUALITY CLASS KEY: (BASED ON BEST USE OF WATER)
A - DRINKING QUALITY
B - SWIMMING QUALITY
C - FISHING QUALITY
D - DRAINAGE QUALITY
(t) - DENOTES TROUT WATER

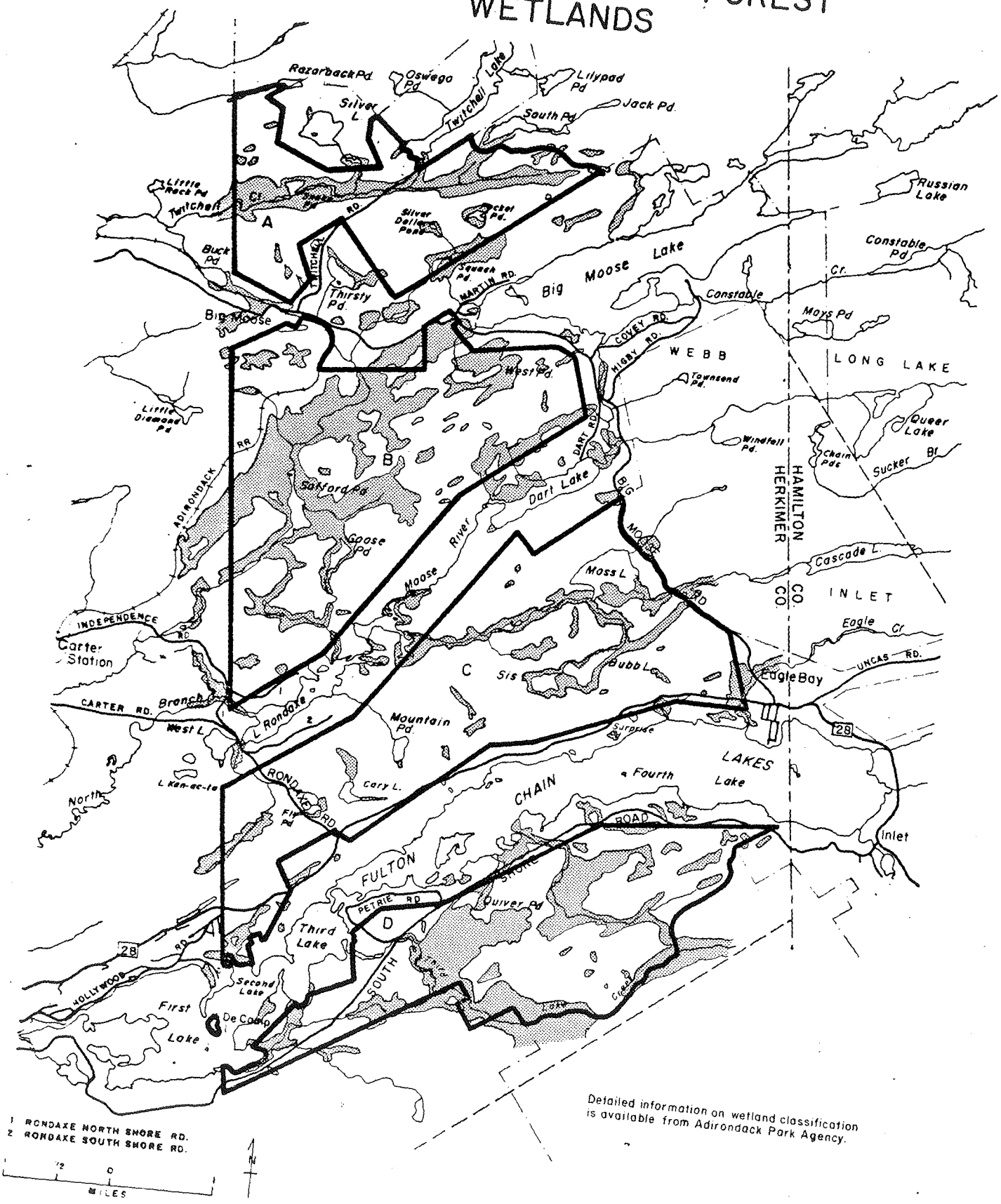
NSA: NATURAL SPAWNING ADEQUATE

APPENDIX 5.D.
CLASSIFICATION MAP
WILD, SCENIC AND RECREATIONAL RIVERS SYSTEM
NORTH BRANCH, MOOSE RIVER

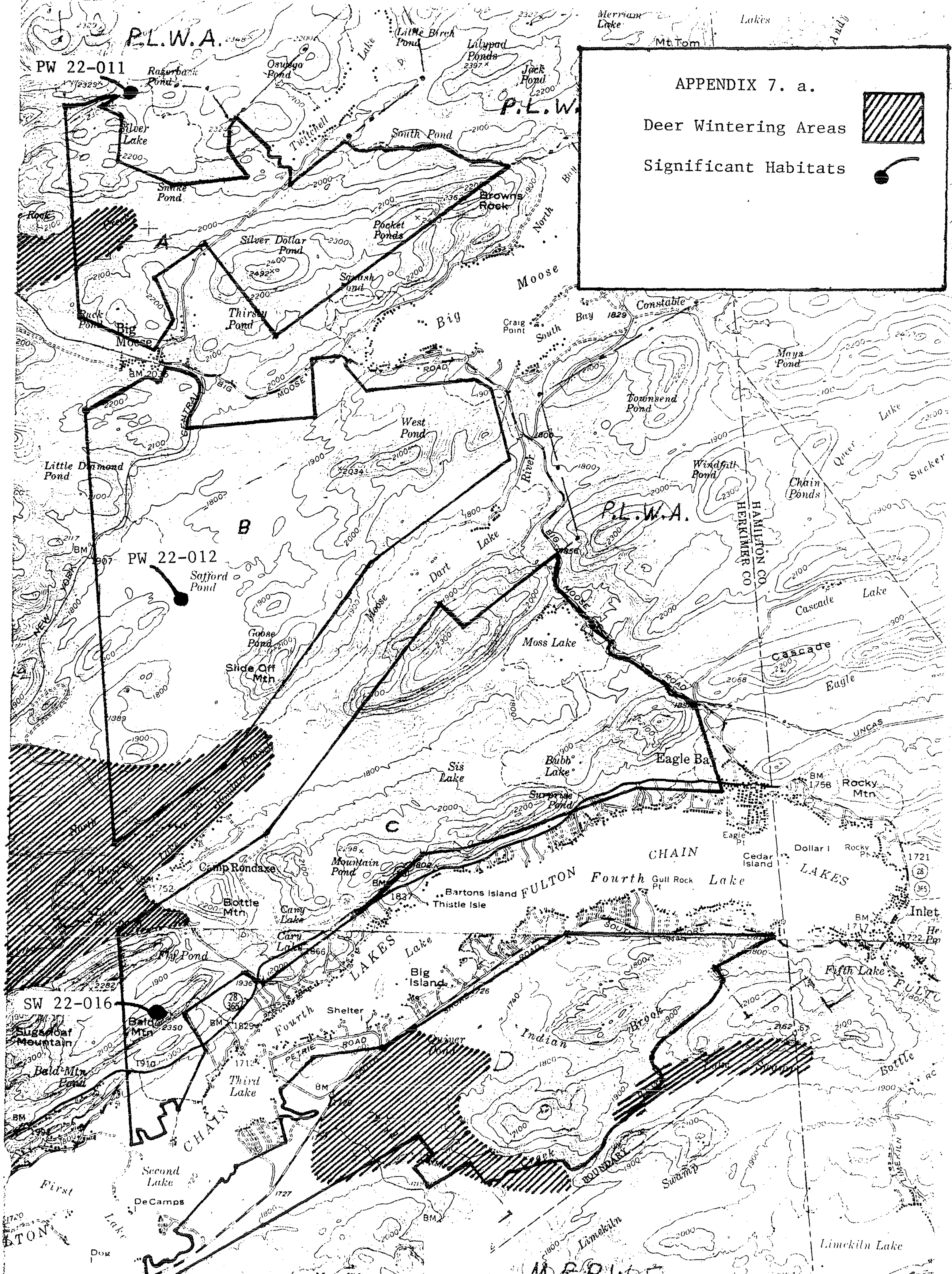


APPENDIX 6

FULTON CHAIN WILD FOREST WETLANDS



Detailed information on wetland classification is available from Adirondack Park Agency.

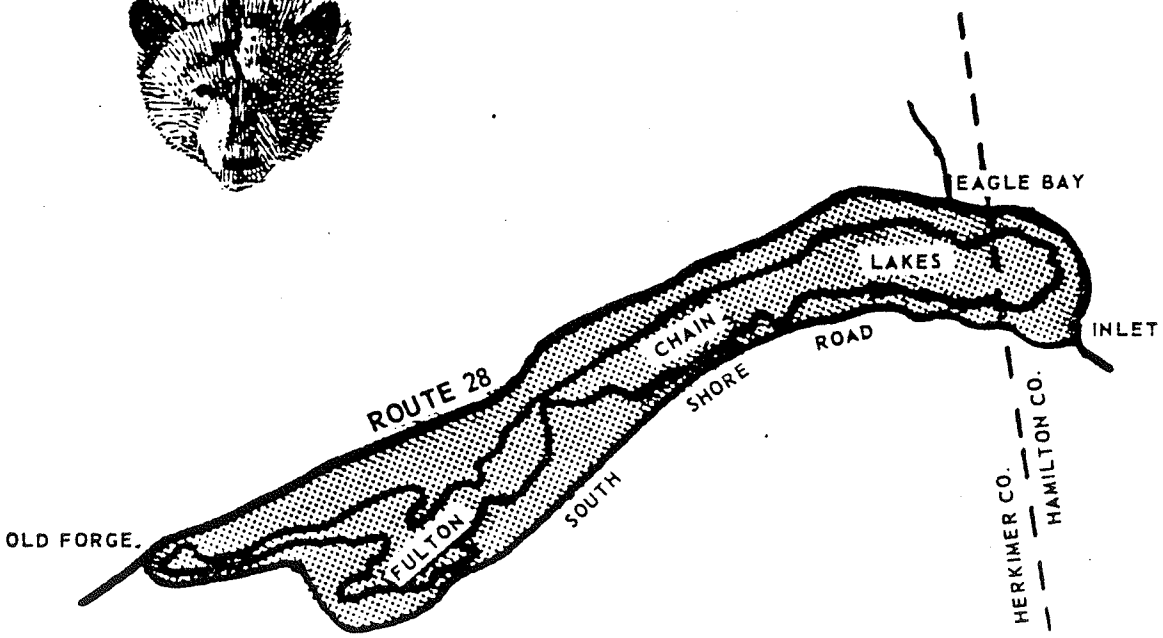

APPENDIX 7. a.
Deer Wintering Areas
Significant Habitats
P.L.W.A.
PW 22-011
PW 22-012
SW 22-016
A
B
C
D
Big Moose
Safford Pond
Slide Off Mtn
Camp Rondaxe
Eagle Bay
Moss Lake
Dart Lake
Fourth Lake
Fulton Chain Lakes
HAMILTON CO
HERKIMER CO
Bald Mtn
Sugarloaf Mountain
Third Lake
Second Lake
Limekiln Lake
M.R.P.W.F.

ATTENTION

★★★★

FULTON CHAIN LAKES BIG GAME HUNTERS

CLOSED DEER and BEAR HUNTING AREA



Closed to the taking of deer and bear are those parts of Herkimer and Hamilton Counties (above) bounded by a continuous line beginning at the junction of the South Shore Road and Route 28 in the Village of Old Forge and extending northeasterly along Route 28 to the hamlet of Inlet and thence southwesterly along the South Shore Road to the point of beginning.

NEW YORK STATE CONSERVATION DEPARTMENT

APPENDIX 7.C.

HARVEST DATA - TOWN OF WEBB (ENTIRE***)
DEER, BEAR AND FURBEARERS
1978-1989

YEAR	DEER	BEAR	BEAVER	BOBCAT	COYOTE	FISHER	OTTER
1978/1979	260	27	215	13	*	42	25
1979/1980	229	15	386	10	22	53	31
1980/1981	349	17	219	6	16	34	31
1981/1982	332	27	170	6	16	25	23
1982/1983	370	23	286	8	24	20	30
1983/1984	366	15	227	5	24	**	19
1984/1985	480	18	384	2	21	**	16
1985/1986	443	24	175	4	14	30	14
1986/1987	509	33	189	-	17	17	15
1987/1988	415	27	280	6	7	25	22
1988/1989	447	32	Not		Yet	Compiled	

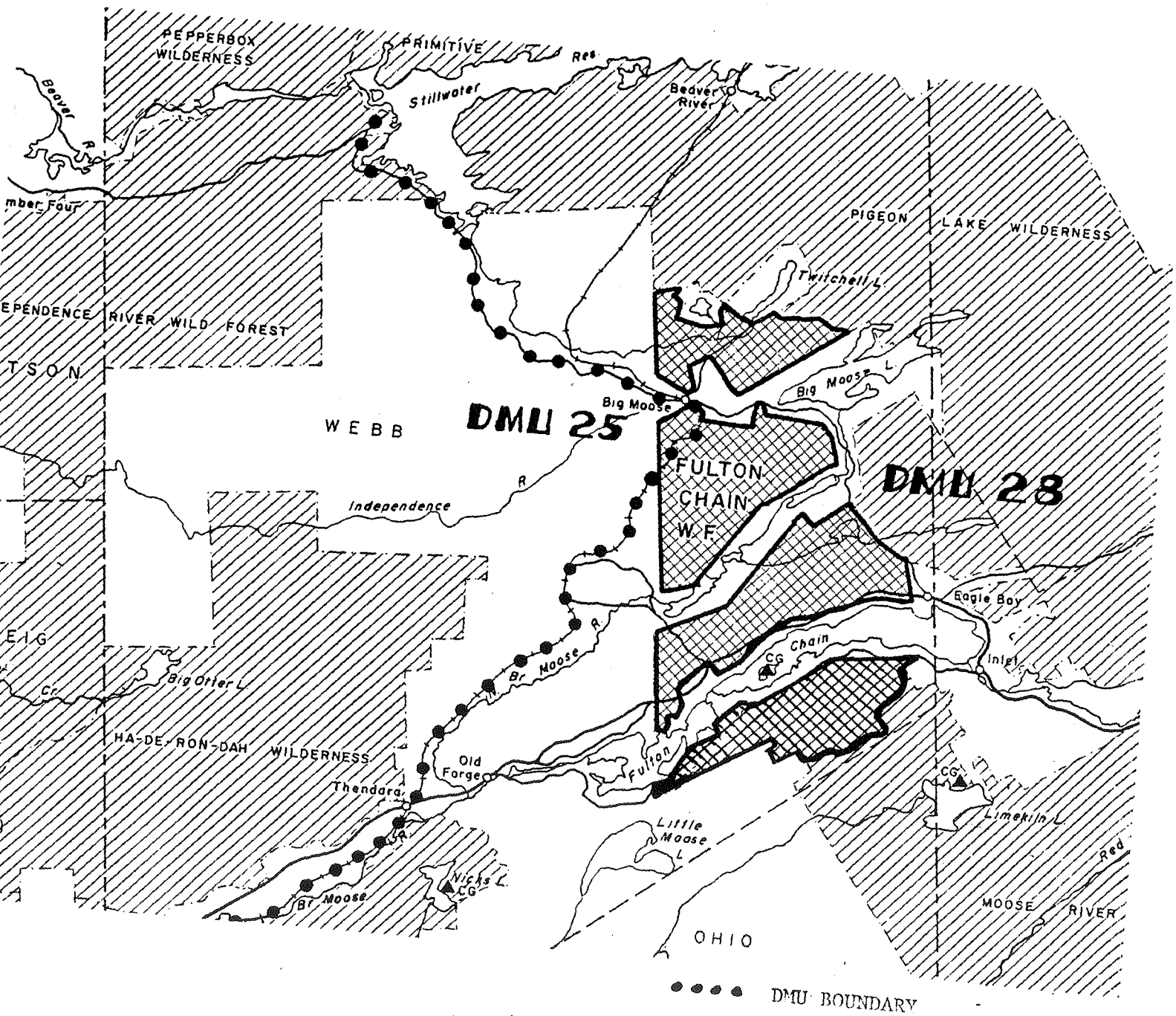
* No information as pelt tagging was not required prior to the 1979-1980 Season.

** Closed season on fisher.

*** The area of the Fulton Chain Wild Forest is approximately 1/20th of the Town of Webb.

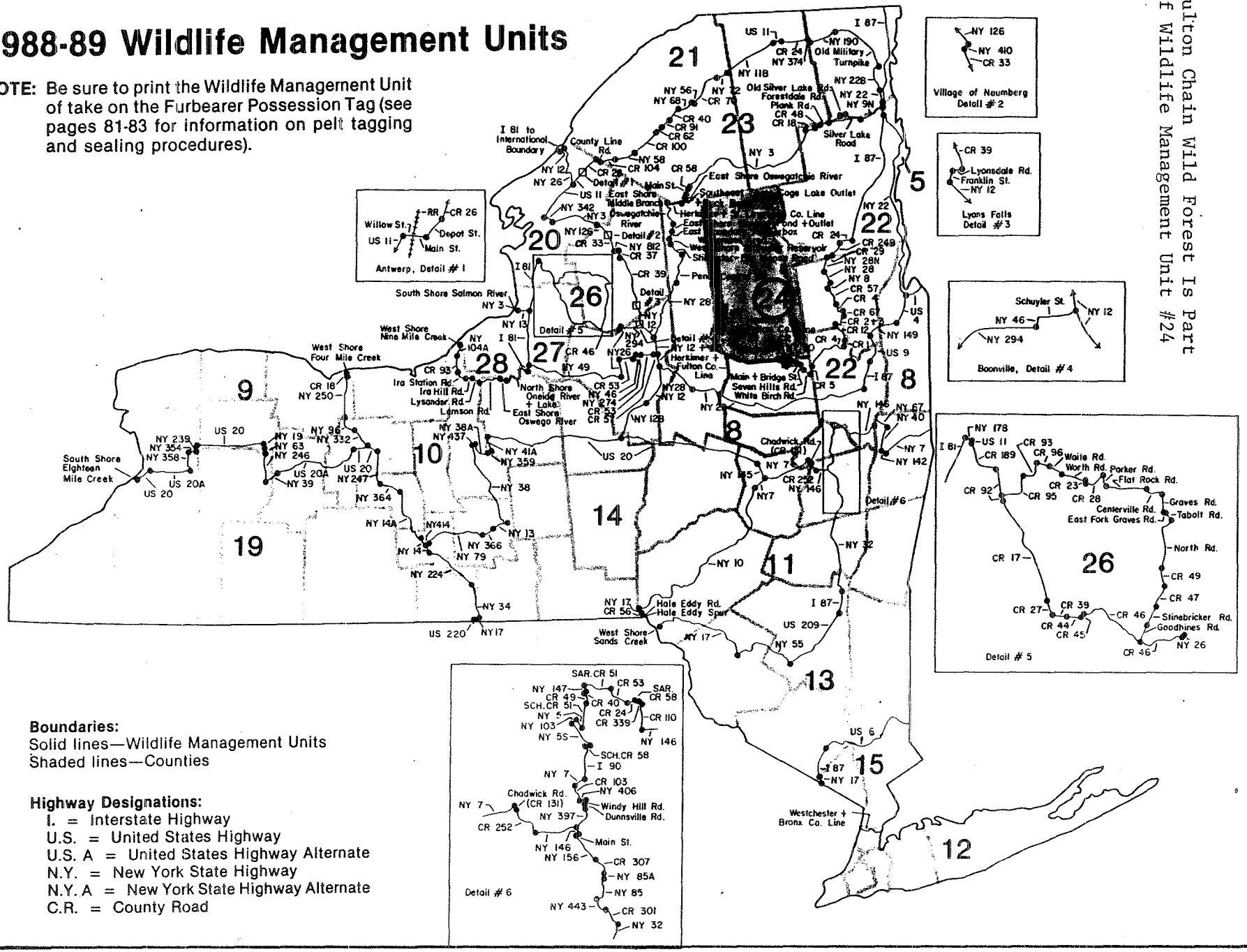
APPENDIX 7.D.

DEER MANAGEMENT UNIT BOUNDARY



1988-89 Wildlife Management Units

NOTE: Be sure to print the Wildlife Management Unit of take on the Furbearer Possession Tag (see pages 81-83 for information on pelt tagging and sealing procedures).



Appendix 8.A. - FULTON CHAIN WILD FOREST CONFIRMED BREEDERS

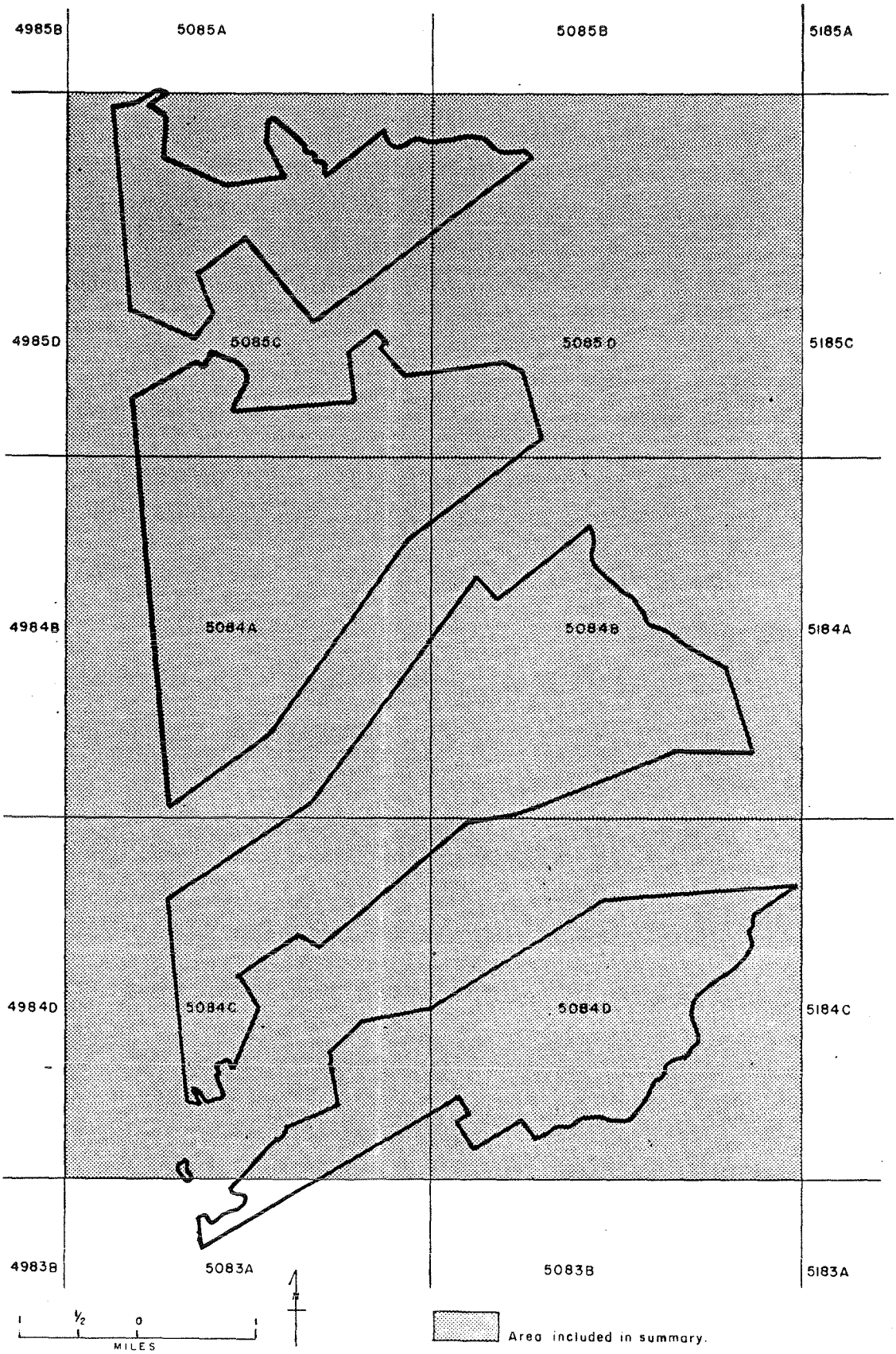
Common loon*
American bittern
mallard X black duck
hooded merganser
goshawk
osprey**
kildeer
herring gull
chimney swift
belted kingfisher
yellow bellied sapsucker
downy woodpecker
eastern kingbird
least flycatcher
bank swallow
barn swallow
blue jay
common crow
white-breasted nuthatch
brown creeper
winter wren
American robin
veery
golden-crowned kinglet
cedar waxwing
solitary vireo
black-and-white warbler
magnolia warbler
yellow-rumped warbler
blackburnian warbler
ovenbird
Canada warbler
house sparrow
northern oriole
scarlet tanager
rose-breasted grosbeak
evening grosbeak
American goldfinch
chipping sparrow
Lincoln's sparrow
song sparrow
olive-sided flycatcher
boreal chickadee

great blue heron
mallard
black duck
common merganser
broad-winged hawk
ruffed grouse
common snipe
barred owl
ruby-throated hummingbird
common flicker
hairy woodpecker
black-backed three toed woodpecker
great crested flycatcher
tree swallow
rough-winged swallow
gray jay
common raven*
black-capped chickadee
red-breasted nuthatch
house wren
gray catbird
hermit thrush
eastern bluebird*
ruby crowned kinglet
starling
red-eyed vireo
nashville warbler
black-throated blue warbler
black-throated green warbler
chestnut-sided warbler
common yellowthroat
American redstart
red-winged blackbird
common grackle
cardinal
indigo bunting
purple finch
dark-eyed junco
white-throated sparrow
swamp sparrow
mourning warbler
eastern phoebe

* Special Concern Species - NYS

APPENDIX 8B

FULTON CHAIN WILD FOREST BREEDING BIRD ATLAS KEY



APPENDIX 10

NEW YORK STATE CONSTITUTION
ARTICLE XIV

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, Town-

ship 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 law 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 not 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 appro-

priate 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.

APPENDIX 11

State Land Master Plan Classification System and Guidelines

APA Submission
Draft
February 1986

WILD FOREST

Definition

A wild forest area is an area where the resources permit a somewhat higher degree of human use than in wilderness, primitive or canoe areas, while retaining an essentially wild character. A wild forest area is further defined as an area that frequently lacks the sense of remoteness of wilderness, primitive or canoe areas and that permits a wide variety of outdoor recreation.

To the extent that state lands classified as wild forest were given or devised to the state for silvicultural or wildlife management purposes pursuant to statutory provisions specifying that these lands will not form part of the forest preserve (if such provisions are constitutional), the following guidelines are not to be interpreted to prevent silvicultural or wildlife management practices on these lands, provided that other guidelines for wild forest land are respected.

GUIDELINES FOR MANAGEMENT AND USE

Those areas classified as wild forest are generally less fragile, ecologically, than the wilderness and primitive areas. Because the resources of these areas can withstand more human impact, these areas should accommodate much of the future use of the Adirondack forest preserve. The scenic attributes and the variety of uses to which these areas lend themselves provide a challenge to the recreation planner. Within constitutional constraints, those types of outdoor recreation that afford enjoyment without destroying the wild forest character or natural resource quality should be encouraged. Many of these areas are under-utilized. For example the crescent of wild forest areas from Lewis County south and east through Old Forge, southern Hamilton and northern Fulton Counties and north and east to the Lake George vicinity

can and should afford extensive outdoor recreation readily accessible from the primary east-west transportation and population axis of New York State.

Basic guidelines

1. The primary wild forest management guideline will be to protect the natural wild forest setting and to provide those types of outdoor recreation that will afford public enjoyment without impairing the wild forest atmosphere.

2. In wild forest areas:

(a) No additions or expansions of non-conforming uses will be permitted.

(b) Any remaining non-conforming uses 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.

(c) Non-conforming uses resulting from newly classified wild forest areas will be removed as rapidly as possible and in any case by the end of the third year following classification.

(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 third year following adoption of the unit management plan for the area.

3. Effective immediately, no new non-conforming uses will be permitted in any designated wild forest area.

4. Public use of motor vehicles will not be encouraged and there will not be any material increase in the mileage of roads and snowmobile trails open to motorized use by the public in wild forest areas that conformed to the master plan at the time of its original adoption in 1972.

5. Care should be taken to designate separate areas for incompatible uses such as snowmobiling and ski touring or horseback riding and hiking.

6. When public access to and enjoyment of the wild forest areas are inadequate, appropriate measures may be undertaken to provide improved access to encourage public use consistent with the wild forest character.

7. No new structures or improvements in wild forest areas will be constructed except in conformity with a finally adopted unit management plan. This guideline will not prevent ordinary maintenance, rehabilitation or minor maintenance of conforming structures or improvements, or the removal of non-conforming uses.

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

9. All management and administrative actions and interior facilities in wild forest 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.

10. Any new, reconstructed or relocated lean-tos, primitive tent sites and other conforming buildings and structures located on shorelines of lakes, ponds, rivers or major streams, other than docks, fishing and waterway access sites and similar water-related facilities, will be located so as to be reasonably screened from the water body to avoid intruding on the natural character of the shoreline and the public enjoyment and use thereof. Any such lean-tos, ranger stations, storage sheds, horsebarns and similar structures will be set back a minimum of 100 feet from the mean high water mark of lakes, ponds, rivers or major streams.

11. All pit privies, seepage pits or leach fields will be located a minimum of 150 feet from any lake, pond, river or stream.

Structures and improvements

1. All structures and improvements permitted under the guidelines covering wilderness areas will be allowed in wild forest areas. In addition, the structures and improvements listed below will be allowed and their maintenance, rehabilitation and construction permitted:

-- small groupings of primitive tent sites below 3,500 feet in elevation, subject to the guidelines set forth below;

--nature and interpretive trails;

--trailheads adjacent to public highways;

-- stream improvement structures for fishery management purposes;

--fishing and waterway access sites adjacent to public highways and complying with the criteria set forth below;

--horse trails; and,

--picnic tables.

The maintenance and rehabilitation of the following structures and improvements will be allowed to the extent essential to the administration and/or protection of state lands or to reasonable public use thereof but new construction will not be encouraged:

--horse barns;

--small scale dams, constructed of natural materials wherever possible;

--boat docks, constructed of natural materials wherever possible;

--small fireplaces in fire-sensitive areas;

--storage sheds and similar rustic buildings for use of administrative personnel;

--small-scale electronic communication and relay facilities for official communications;

--telephone and electrical lines to service permitted administrative structures;

--buoys;

--small-scale water supply facilities under permit from the Department of Environmental Conservation;

--ranger stations as set forth below;

--roads, and state truck trails as set forth below;

--snowmobile trails as set forth below;

--fire towers and observer cabins as set forth below; and,

--wildlife management structures.

Ranger stations

Existing ranger stations may be retained and new ranger stations constructed, but only where absolutely essential for administration of the area, no feasible alternative exists, and no deterioration of the wild forest character or natural resource quality of the area will result.

Motor vehicles, motorized equipment and aircraft

1. All uses of motor vehicles, motorized equipment and aircraft permitted under wilderness guidelines will also be permitted in wild forest areas.

2. In addition, the use of motor vehicles, snowmobiles, motorized equipment and aircraft will be allowed as follows:

(a) by administrative personnel where necessary to reach, maintain or construct permitted structures and improvements, for appropriate law enforcement and general superwision of public use, or for appropriate purposes, including research, to preserve and enhance the fish and wildlife or other natural resources of the area;

(b) by the general public, subject to basic guideline 4 set forth above, but only on:

--existing public roads;

--Department of Environmental Conservation roads now or hereafter designated as open for public use by motor vehicles by the Department of Environmental Conservation; and,

--on rivers, lakes and ponds now or hereafter designated by the Department of Environmental Conservation as suitable for such motorized uses; and,

(c) by snowmobiles on snowmobile trails now or hereafter designated by the Department of Environmental Conservation in accordance with basic guideline 4 set forth above, and with the special guidelines for such trails specified below.

(d) by all terrain vehicles but only on existing public roads or Department of Environmental Conservation roads open to such vehicles, as specified in (b) above.

3. The Department of Environmental Conservation may restrict, under existing law and pursuant to authority provided in this master plan, the use of motor vehicles, motorized equipment and aircraft by the public or administrative personnel where in its judgment the character of the natural resources in a particular area or other factors make such restrictions desirable.

Roads, jeep trails and state truck trails

1. Continued use of existing roads, snowmobile trails and state truck trails by administrative personnel in wild forest areas will be permitted, to the extent necessary, to reach, maintain and construct permitted structures and improvements.

2. Existing roads or snowmobile trails, now open to and used by the public for motor vehicle use in wild forest areas, may continue to be so used at the discretion of the Department of Environmental Conservation, provided such use is compatible with the wild forest character of an area.

3. Established roads or snowmobile trails in newly-acquired state lands classified as wild forest may be kept open to the public, subject to basic guideline 4 set forth above and in the case of snowmobile trails to the special guidelines for such trails set forth below, at the discretion of the Department of Environmental Conservation, provided such use is compatible with the wild forest character of the area.

4. No new roads will be constructed in wild forest areas nor will new state truck trails be constructed unless such construction is absolutely essential to the protection or administration of an area, no feasible alternative exists and no deterioration of the wild forest character or natural resource quality of the area will result.

Snowmobile trails

Snowmobile trails should be designed and located in a manner that will not adversely affect adjoining private landowners or the wild forest environment and in particular:

--the mileage of snowmobile trails lost in the designation of wilderness, primitive and canoe areas may be replaced in wild forest areas with existing roads or abandoned wood roads as the basis of such new snowmobile trial construction, except in rare circumstances requiring the cutting of new trails;

--wherever feasible such replacement mileage should be located in the the general area as where mileage is lost due to wilderness, primitive or canoe classification;

--appropriate opportunities to improve the snowmobile trail system may be pursued subject to basic guideline 4 set forth above, where the impact on the wild forest environment will be minimized, such as (i) provision for snowmobile trails adjacent to but screened from certain public highways within the Park to facilitate snowmobile access between communities where alternate routes on either state or private land are not available and topography permits and, (ii) designation of new snowmobile trails on established roads in newly acquired state lands classified as wild forest; and,

--deer wintering yards and other important wildlife and resource areas should be avoided by such trails.

All Terrain Bicycles

All terrain bicycles may be permitted, in the discretion of the Department of Environmental Conservation, on roads legally open to the public and on state truck trails, foot trails, snowmobile trails and horse trails deemed suitable for such use as specified in individual unit management plans.

Fire towers

The educational and informational aspects of certain fire towers should be encouraged and wherever feasible these fire towers should be retained where consistent with their need from a fire control and communications standpoint.

Tent platforms

The Department of Environmental Conservation having removed all tent platforms previously existing under Department permit, erection of new tent platforms will be prohibited.

Small groupings of primitive tent sites

Small groupings of primitive tent sites designed to accommodate a maximum of 20 people per grouping under group camping conditions may be provided at carefully selected locations in wild forest areas, even though each individual site may be within sight or sound and less than approximately one-quarter mile from any other site within such grouping, subject to the following criteria:

--such groupings will only be established or maintained on a site specific basis in conformity with a duly adopted unit management plan for the wild forest area in question;

--such groupings will be widely dispersed (generally a mile apart) and located in a manner that will blend with the surrounding environment and have a minimum impact on the wild forest character and natural resource quality of the area;

--all new, reconstructed or relocated tent sites in such groupings will be set back a minimum of 100 feet from the mean high water mark of lakes, ponds, rivers and major streams and will be located so as to be reasonably screened from the water body to avoid intruding on the natural character of the shoreline and the public environment and use thereof.

Fishing and waterway access sites

Fishing and waterway access sites may be provided on any body of water irrespective of its size where the current or projected need for access clearly warrants such a site. Such sites will comply with the following management guidelines:

--Adequate public hand launching facilities or private facilities open to the public are not available to meet a demonstrated need.

--The physical, biological and social carrying capacity of the water body or other water bodies accessible from the site will not be exceeded.

--The site and attendant water uses will be compatible with the state and private land use classifications and attendant management guidelines and land use controls surrounding the water body.

--The site will be located in a manner to avoid adverse impact on adjacent or nearby state and private lands.

--Motor size limitations or the prohibition of motorized use as appropriate to the carrying capacity water body are provided for.

--There will be no adverse impacts on the physical, biological or scenic resources of the water body and surrounding land.

Any proposal to create a new fishing or waterway access site will be accompanied by an adequate demonstration that the above guidelines can be complied with.

Flora and fauna

The same guidelines will apply as in wilderness areas, although exceptions may be made by the Department of Environmental Conservation in accordance with sound biological management practices, particularly where such practices will improve the wildlife resources.

Recreational use and overuse

1. All types of recreational uses considered appropriate for wilderness areas are compatible with wild forest and, in addition, snowmobiling, motorboating and travel by jeep or other motor vehicles on a limited and regulated basis that will not materially increase motorized uses that conformed to the Master Plan at the time of its adoption in 1972 and will not adversely affect the essentially wild character of the land are permitted.

2. Certain wild forest areas offer better opportunities for a more extensive horse trail system than in wilderness, primitive or canoe areas and horse trails and associated facilities in these areas should be provided where appropriate.

3. Although the nature of most wild forest areas indicates that potential recreational overuse will not be as serious as in wilderness, primitive and canoe areas, care must nonetheless be taken to avoid overuse, and the basic wilderness guidelines in this respect apply also to wild forest lands. The relatively greater intensity of use allowed by the wild forest guidelines should not be interpreted as permitting or encouraging unlimited or unrestrained use of wild forest areas.

DESIGNATION OF WILD FOREST AREAS

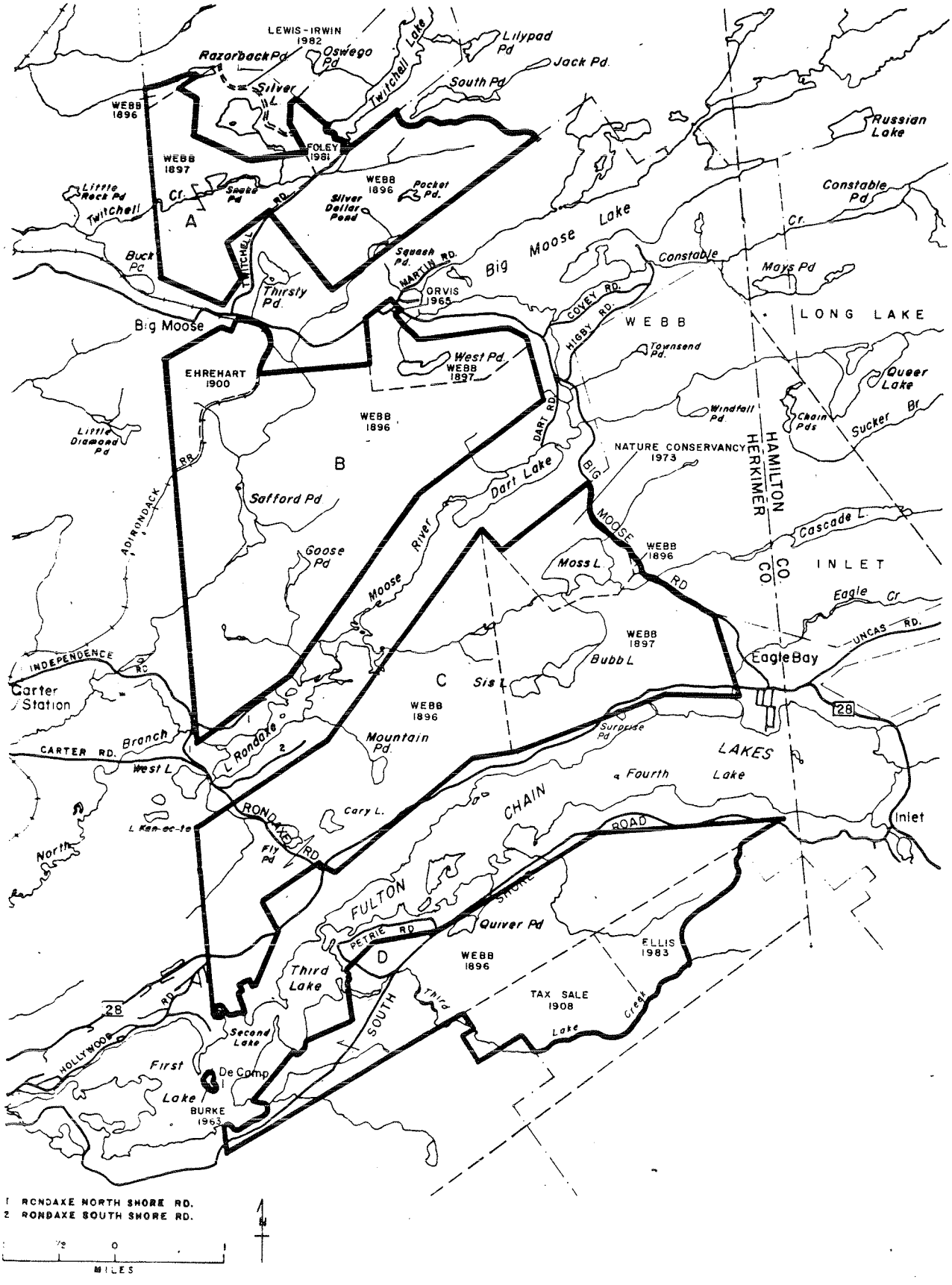
The application of the wild forest definition and criteria described above results in the urrent designation under the master plan of about 1.2 million acres of wild forest land, comprising approximately 53 percent of the forest preserve within the Adirondack Park. A wide variety of terrain and ecosystems is represented in these areas.

All wild forest areas are identified and their boundaries delineated on the map forming part of this master plan.

Chapter III contains a general description of seventeen wild forest areas in the Park.

APPENDIX 12a

FULTON CHAIN WILD FOREST ACQUISITION TRACTS



APPENDIX 12. B.
FULTON CHAIN WILD FOREST
ACQUISITIONAL HISTORY

1/16/1896 William Seward Webb and Wife and the Na-Ha-Sa-Ne Park Association To: People of the SNY
Parcels A-F, Township 8, John Brown's Tract
Book 157, Pg. 482 (Herkimer Co.) Recorded Feb. 1, 1896

12/1/1897 William Seward Webb and Wife and the Na-Ha-Sa-Ne Park Association To: People of the SNY
Parcels I, J, K and L, Township 8
Book 164, Pg. 81 Recorded Dec. 31, 1897

11/16/1900 Francis L. Ehrehart To: People of SNY
Parcel D, Township 8, NYCRR
Book 173, Pg. 479 Recorded Nov. 16, 1900

4/14/1908 Tax Sale Deed, Sale of 1895 (Samuel F. Garmon and Salmon Lumber Company) To: People of SNY
Lots 113, 114, 125, 126, 138, Township 3, Moose R. Tract
Book 196, Pg. 383 Recorded Aug. 1, 1908

11/27/1963 Raymond and Juanita G. Burke To: People of SNY
Book 566, Pg. 330 Recorded Nov. 27, 1963
(DeCamp Islands)

8/13/1965 Appropriation pursuant to Section 1-0503 of Conservation Law To: People of SNY
Forest Preserve Proposal 1614
(Orvis Parking Lot)

8/7/1973 The Nature Conservancy To: People of the SNY
Book 629, Pg. 672 Recorded Aug. 14, 1973
(Moss Lake)

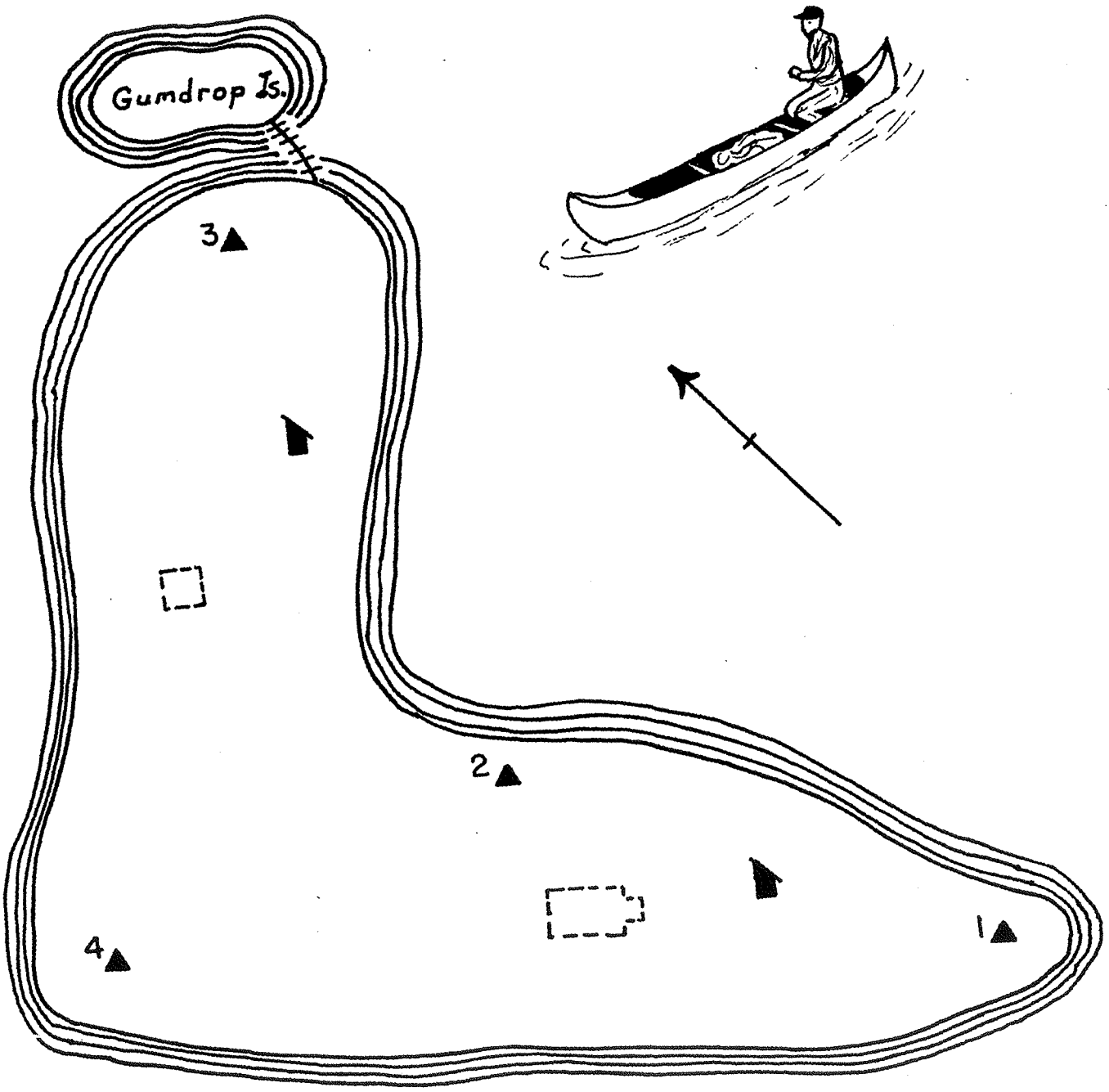
10/28/1981 Arthur J. Foley, Jr. and Gardner A. Callanen, Jr.
To: People of SNY
Lots 157 - 171, Twitchell Lake Allotment
Book 679, Pg. 872 Recorded Nov. 6, 1981

7/22/1982 Clifford Lewis III, SE National Bank of Penn., Katherine M. Irwin To: People of SNY
Book 683, Pg. 943 Recorded Sept. 20, 1982
(Razorback Pond Foot Easement)

9/1/1983 Arthur N. and Patrina L. Ellis To: People of SNY
Lots 77-78, 89-90, 101, 102, Township 3, Moose R. Tract
Book 689, Pg. 592 Recorded Sept. 30, 1983

APPENDIX 12.C.
UNIT BOUNDARIES ACQUISITION MAP

DeCAMP ISLAND



▲ - DESIGNATED SITES

▛ - PRIVY

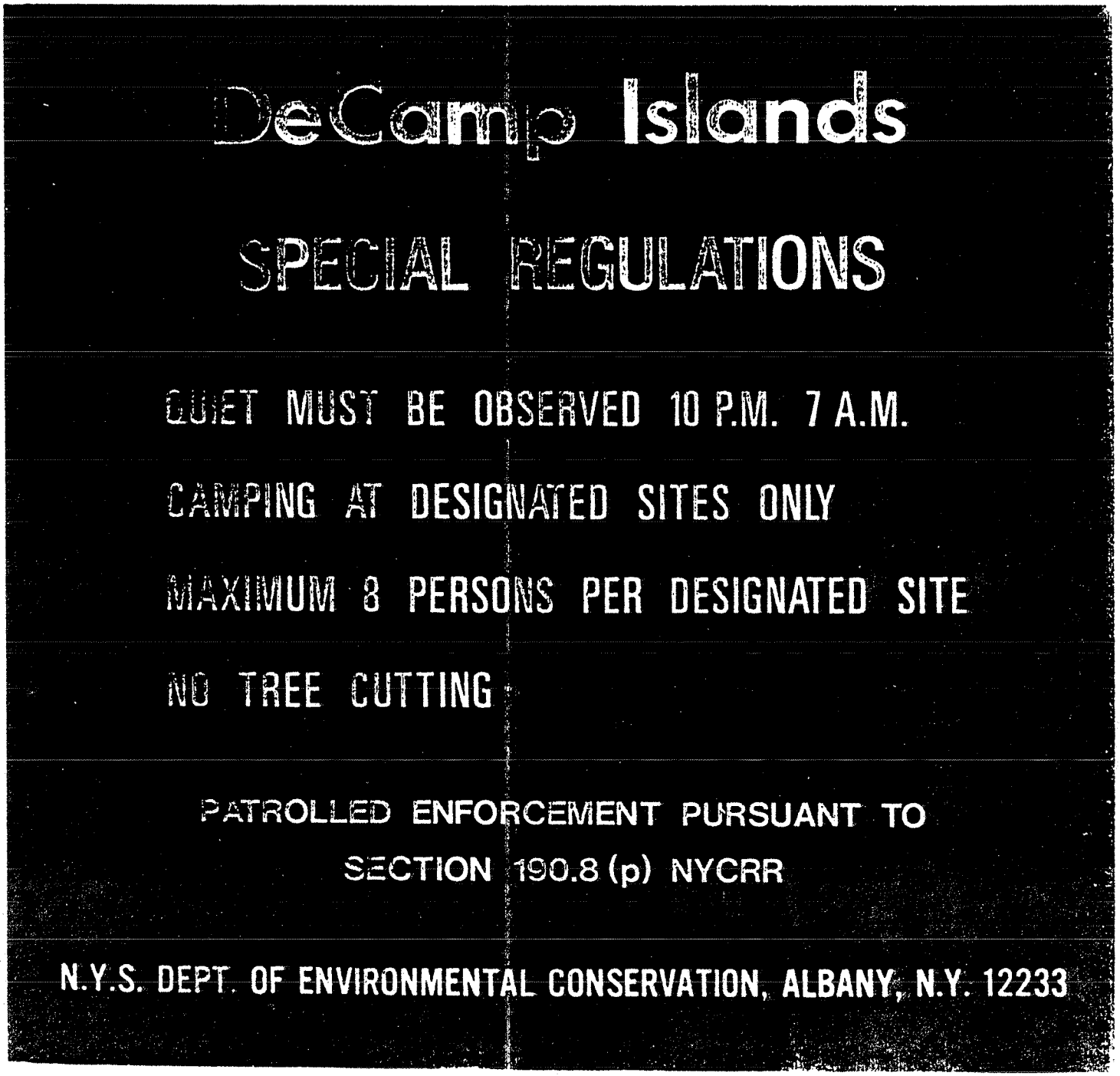
- BRIDGE REMNANT

- - - - OLD BUILDING SITE

NOT TO SCALE

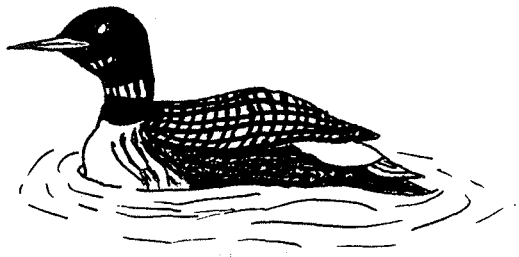
APPENDIX 13

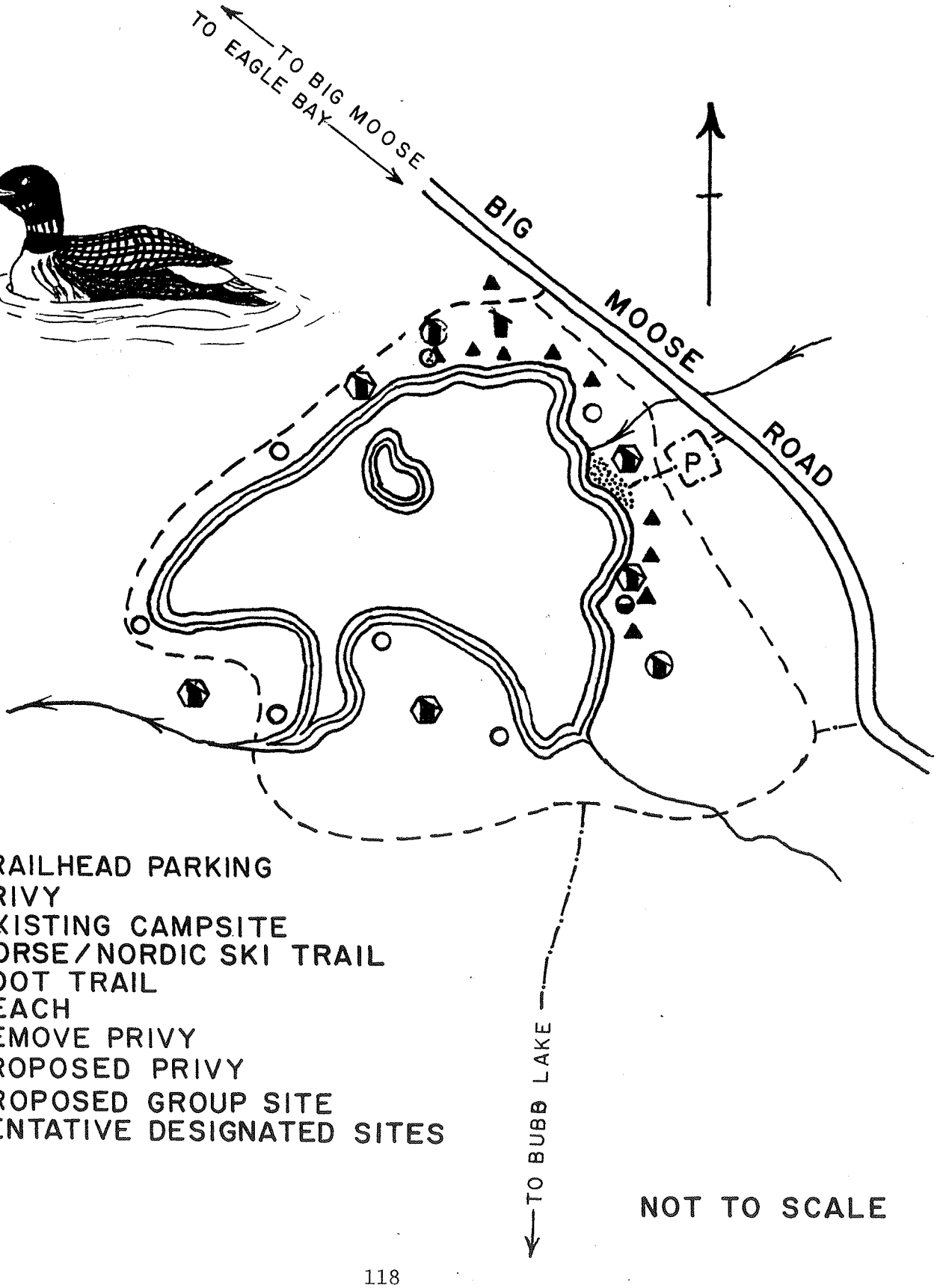
DeCAMP ISLAND SIGN



Final Sign Will Include 'No Open Fires'

MOSS LAKE




TO BIG MOOSE
TO EAGLE BAY
BIG
MOOSE
ROAD
P
TO BUBB LAKE
P -TRAILHEAD PARKING
-PRIVY
-EXISTING CAMPSITE
-HORSE/NORDIC SKI TRAIL
-FOOT TRAIL
-BEACH
-REMOVE PRIVY
-PROPOSED PRIVY
-PROPOSED GROUP SITE
-TENTATIVE DESIGNATED SITES
NOT TO SCALE

APPENDIX 15.B

MEMORANDUM

TO: E. G. West

FROM: G. S. Haderup

SUBJECT: Webb Covenant - What it covers and its restrictions.

Although a deed dated January 16, 1896 to the State from William Seward Webb and the Ne-ha-sa-ne Park Association covers 75,000 acres of land in Townships 38, 42, and 43, Totten and Crossfield's Purchase, the Triangle North of Township 38, Totten and Crossfield's Purchase and Townships 5 & 8, John Brown's Tract, it would appear from a perusal of the deed, that the "Webb Covenant" applies only to Township 8, John Brown's Tract.

There is no mention of the Webb Convenant in the deed to the State from Webb and Nehasane covering Townships 40 and 41, Totten and Crossfield's Purchase.

The Webb Covenant provides the following:

1. That none of the remaining lands in Township 8, John Brown's Tract belonging to the parties of the first part which have not heretofore been contracted to be sold shall not be used or sold for commercial-agricultural, manufacturing or other purposes except as mentioned in Thompson Contracts, but the same shall be sold by the parties of the first part, their heirs and assigns exclusively for permanent forestry, hotel, camp and cottage purposes and all deeds of the same from the parties of the first part, heirs and assigns shall contain a clause as to remaining lands in Township 8 binding the purchaser thereof their successor, heirs and assigns to a perpetual use of said lands for such use.

The parties of the first part, their heirs or assigns will not dispose of their remaining lands in said Township 8 so as to afford any individual, club, group or corporation exclusive use of any lake for a private preserve or the exclusive hunting or fishing privileges of any land beyond their individual camp site or hotel sites. It being agreed that no camp site sold shall exceed 25 acres in amount and no hotel site shall exceed 250 acres in amount. It is further promised that the public shall have the unrestricted right to hunt or fish on all lands in Township 8 which have not heretofore been sold or which in the future may not be sold for camp or hotel sites.

2. Parties of first part (Webb and Ne-ha-se-he Park Association) do not relinquish their rights to use any establish highways, trails or ways of communications by land or water to any of their lands in said Township 8.

3. All trails and ways of communications either by land or water over lands of parties of the first part not conveyed in deed or heretofore contracted to be conveyed shall remain open and free to the People of the State of New York.

4. Parties of the first part releases the State of New York from all damages to remaining lands as result of construction of Dams on the Beaver River at Stillwater and Middle Branch of Moose River at Old Forge and dam at Stillwater can be raised to height of 13 feet above present height (1896).

5. Parties of the first part agrees to cut a trail on lands conveyed from Big Crooked Lake in Township 43 through the valley of outlet of said lake to junction of said outlet with the trail from Gull Lake across the triangle north of Township 38.

The parties of the first part agree to cut a roadway from Beaver River Station across Township 42 on the lands conveyed so as to connect with the State road (Carthage - Lake Champlain Road) at or near the boundary line of Township 39.

During the succeeding years since the deed of 1896 which contained the original covenant, various interpretations and opinions have been rendered concerning this covenant as can be seen by the attached "Chronology of Webb Covenant" and "References material Township 8, Webb Covenant."

In the early years of the Webb Covenant, the Conservation Commission and its successor, the Conservation Department held that "permanent forestry" meant no cutting for commercial uses and instituted proceedings to prevent such cutting. People vs. Thistlewaite in which the court found the defendant had violated covenent by commercial cutting of timber.

In 1921 in an opinion of the Attorney General it was stated that cutting timber was not "permanent forestry" and therefore a violation of the Covenant.

There are two rather lengthy reports concerning apparent violations of the Covenant by Ne-ha-sa-ne Park Association themselves, one is by A. B. Strough, Land Clerk, dealing with land around Moss Lake in which the Association conveyed all the land about Moss Lake to one party in such a manner that the exclusive hunting and fishing privileges could be controlled. The owner posted the land against fishing and hunting.

The second deals with Cascade Lake in which a similar situation existed.

Since 1921 at various times the Conservation Department has authorized cutting on Webb Covenant lands under certain specifications and received many complaints because of the 1921 opinion.

In 1949 the Department adopted policy of requiring Webb Covenant owners to become FPA Cooperators before cutting.

As can be seen from enclosed material, proceedings have been started by various individuals against both cutters and the State claiming violations of the covenant, but it appears that either no action has been taken or the case has been dismissed by the courts.

As to the trails covered by the Webb Covenant, it would appear from the enclosed correspondence, that the opinion of the Department is that only those trails in use at the time the State acquired title are to be kept open forever for public use.

Glenn S. Haderup
Forest Surveyor

January, 1964

APPENDIX 15.C August 1977

WEBB COVENANT ROADS

TWP. 8 - JOHN BROWN'S TRACT
TOWN OF WEBB - HERKIMER COUNTY, N. Y.

EXAMPLE

ROAD NUMBER: 1

LOCATION: (Road No. or Name) Buck Pond to Silver Lake

FOREST PRESERVE PARCEL: J

OWNER: Begins on International Paper Company, crosses Parcel "J" N.Y.S. and ends on private property (Irwin & Lewis) Silver Lake.

DISTANCE THROUGH FOREST PRESERVE: Approximately 1 1/2 miles

ALLOTMENT & LOT NUMBER:

DISTANCE FROM CORNER ON PROPERTY LINE:

TYPE OF ROAD & WIDTH: (Gravel, etc.) Old wagon road, which at time (about 1896) was only access to Silver Lake.

DIRECTIONAL OR ADVERTISING SIGN:

WEBB ROAD:

PERMIT ROAD

ILLEGAL

TOWN

OTHER R.O.W.

REMARKS: (Violations; to several camps; old RR R.O.W.; old trail or log road, etc.)

See Township 8 Map for Road Location

Recorded by:

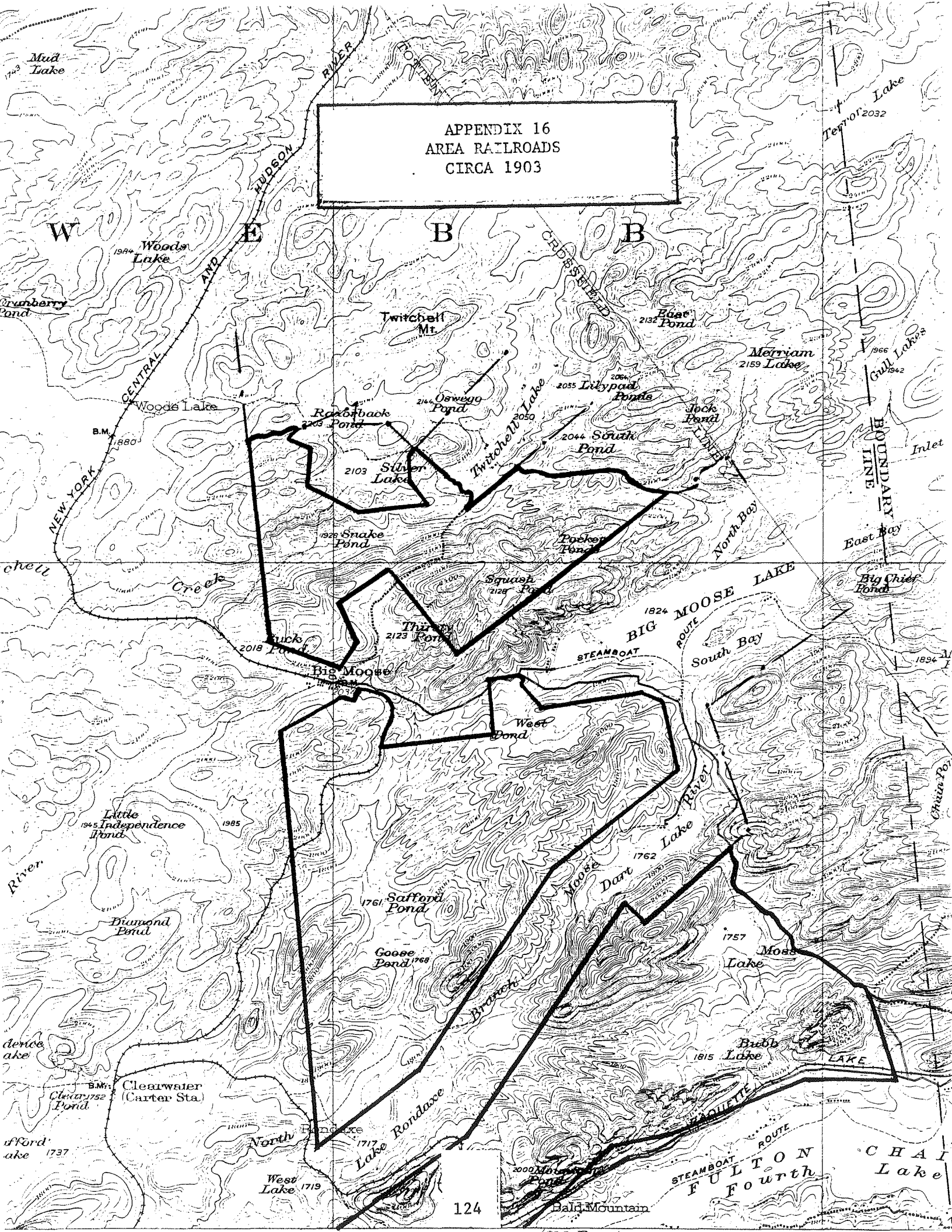
APPENDIX 15.D.

LAKES AND PONDS LISTED IN WEBB DEED - BOOK 164, PAGE 85

"Parcel M. All the land under water at low water mark under the following lakes and ponds in said Township Eight (8) Herkimer County, viz: -

Silver Lake	62	Acres
Twitchell Lake	145.6	Acres
Thirsty Pond	30.	Acres-
Big Moose Lake	975.2	Acres
Second Lake North Branch	115.	Acres
First Lake North Branch	84.4	Acres
Moss Lake	118.	Acres
Cascade Lake	60.	Acres
Fourth L. Fulton Chain	1790	Acres
Third Lake Fulton Chain	230	Acres
Second Lake Fulton Chain	140	Acres
Bubs Lake	52	Acres
Razor Back Lake	7.5	Acres
West Pond	5.2	Acres"

Total (Above) Conveyed 3814.9


APPENDIX 16
AREA RAILROADS
CIRCA 1903
W
E
B
B
HUDSON
AND
CENTRAL
RIVER
CHILSTED
Mud Lake
Woods Lake
Twitchell Mt.
East Pond
Merriam Lake
Gull Lakes
Terror Lake
Lily pad Ponds
Oswegg Pond
Razorback Pond
Twitchell Lake
Jock Pond
South Pond
Silver Lake
Snake Pond
Packer Pond
North Bay
East Bay
Big Chief Pond
BIG MOOSE LAKE
STEAMBOAT ROUTE
South Bay
Big Moose
West Pond
Little Independence Pond
Diamond Pond
Safford Pond
Goose Pond
Moose River
Dart Lake
Moose Lake
Bubb Lake
Clearwater (Carter Sta)
Clearwater Pond
North Rondaxe
Lake Rondaxe
West Lake
Mohawk Pond
Bald Mountain
FULTON CHAIN
Fourth Lake
BOUNDARY LINE
NEW YORK
Inlet
Creek

New York State Department of Environmental Conservation

SEQR
Positive Declaration
Notice of Intent to Prepare a Draft EIS
Determination of Significance

Project # _____ Date _____

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review) of the Environmental Conservation Law.

The Department of Environmental Conservation, as lead agency, has determined that the proposed action described below **may** have a significant effect on the environment and that a Draft Environmental Impact Statement will be prepared.

Title of Action: Fulton Chain Wild Forest Unit Management Plan

SEQR Status: Type I [X]
Unlisted [ ]

Description of Action: The Fulton Chain Wild Forest is comprised of 14,775 acres of Forest Preserve lands in the Adirondack Park. Possible management activities planned for this unit include: boundary line surveying and marking, trail maintenance, minor facilities construction, facilities maintenance, fish stocking, liming of ponds and lakes, fire suppression, search and rescue operations, research activities, public information and education, public use control systems and patrolling and surveillance activities. This unit management plan will direct all management activities for a period of five years from the date of final adoption. All actions will be carried out in accordance with applicable statutes and are designed to protect the natural environment while maximizing the wild forest recreational benefits that accrue to the people of the State of New York.

Location: (Include the name of the county and town. A location map of appropriate scale is also recommended)

Forest Preserve lands situate in Herkimer County, Town of Webb, classified as the Fulton Chain Wild Forest.

Reasons Supporting This Determination:

Management activities such as facilities construction and maintenance, liming of lakes and ponds and public use control systems might be construed as resulting in significant impacts to the environment. These impacts may include vegetative destruction, increased erosion and a deterioration of water quality.

For Further Information:

Contact Person: W. Garry Ives, Bureau of Preserve Protection & Management
Address: NYS Dept. of Environmental Conservation, Room 412
50 Wolf Road, Albany, N. Y. 12233-4255
Phone No.: (518) 457-7433

Copies of this Notice Sent to:

Commissioner-Department of Environmental Conservation, 50 Wolf Road, Albany, New York 12233-0001
Appropriate Regional Office of the Department of Environmental Conservation
Office of the Chief Executive Officer of the political subdivision in which the action will be principally located
Applicant (if any)
Other involved agencies (if any)

Appendix 17.B.

Final Environmental Impact Statement

Table of Contents

Final Environmental Impact Statement (FEIS)

FOREWORD

This project is a unit management plan (UMP) for State lands administered by the Department of Environmental Conservation within the Town of Webb, Herkimer County. This plan, upon adoption by the Commissioner, will provide guidelines for protection and management of the lands involved.

The Department of Environmental Conservation obtains its authority to manage Forest Preserve lands from Article 9 Section 0105 of the Environmental Conservation Law, which provides that the Department shall have the power, duty and authority to; "Exercise care, custody and control of the several preserves, parks and other state lands described in this article."

The recreational management policy of the Department of Environmental Conservation has been developed within the constraints of Article XIV of the Constitution of the State of New York, which provides that: "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."

It has been the function of the Department of Environmental Conservation in managing over 2.5 million acres of Forest Preserve, located within both the Adirondack and Catskill Parks, to develop an administrative policy which complies with the provisions of the Constitution and simultaneously provides the greatest possible benefit to the people of the State of New York, who are the owners of the Preserve.

In the performance of its obligation to provide for recreational pursuits within the Constitutional limitations relating to the Forest Preserve, the Department, with the advice of the Attorney General has evolved a recreational management policy based on the following premises:

1. No one shall have exclusive use of any portion of the Forest Preserve.
2. No one shall be allowed to claim any particular campsite from year to year.
3. State property shall not be used for commercial purposes.
4. Public property shall not be used for private profit.
5. Forest lands and water shall be enjoyed by all the people as far as possible and shall be compatible with the public policy expressed in the constitution.

Based on these premises, the Department, in the administration of its recreational management policy within the Forest

Preserve, has developed the following objectives:

1. To foster the widest possible temporary use of the Forest Preserve for the benefit of all the people in the State.
2. To reduce the abuses caused by unrestricted use and to protect the Forest Preserve by the enforcement of reasonable rules and regulations.
3. To provide and maintain recreational facilities in the Forest Preserve for the public to enjoy, and to provide the facilities authorized with the least possible disturbance of natural forest conditions.
4. To protect the forests from fire by providing the camping public with suitable, protected primitive campsites.
5. To create a favorable attitude on the part of the user of recreational facilities towards conservation of the environment in general.

Lands constituting the Fulton Chain Wild Forest were classified by the Adirondack Park Agency as authorized by Section 816 of the Adirondack Park Agency Act, Article 27 of the Executive Law and as shown on the Adirondack Park Land Use and Development Plan Map.

The Adirondack Park Agency Act also authorizes the development of unit management plans by the Department of Environmental

Conservation within the guidelines and criteria set forth by the Adirondack Park Agency in consultation with D.E.C., in the State Land Master Plan, approved by Governor Hugh Carey on October 24, 1979. (Revision signed by Governor Mario Cuomo on November 4, 1987.)

I. INTRODUCTION AND SUMMARY

A. Introduction

This FEIS is being prepared following a public hearing on the Draft Environmental Impact Statement for the Fulton Chain Wild Forest Unit Management Plan. Public input did not result in the introduction of any additional activities which would provide a significant negative environmental impact. The activities proposed in the first draft of the plan are addressed in this FEIS.

B. FEIS Summary

The activities contained in this unit management plan are proposed to allow for the positive development of public use on the Fulton Chain Wild Forest. These activities include facilities maintenance, designated campsite implementation, public information and education, trail development, parking lot enlargement, boundary line surveying and marking, fish stocking, acid reduction as necessary in unit waters, fire suppression, search and rescue operations, research activities, public use control systems, patrolling and surveillance activities and the purchasing of additional lands, if they become available.

Projects which might have the greatest adverse environmental impact include campsite designation,

trail development, parking lot enlargement and acid reduction. Mitigation measures are considered to the greatest extent possible and are addressed in individual Environmental Impact Statements (EIS's) for various programs, and/or will be considered in State Environmental Quality Review (SEQR) determinations prior to individual project commencement in addition to the EIS for this management plan.

II. Proposed Action

A. To continue those custodial functions necessary for the support of public ownership by developing comprehensive annual work plans for the systematic maintenance of the following:

1. Approximately 15 miles of foot trails and necessary bridges.
2. Approximately 7.5 miles of snowmobile trails and necessary bridges.
3. Approximately 3 miles of nordic ski and/or horse trails and necessary bridges.
4. Painting and/or signing of approximately 50 miles of boundary lines and signing of approximately 10 miles of roadside.
5. Maintenance of the Rondaxe Fire Tower to insure

public safety and an aesthetic appearance.

6. Maintenance of the Rondaxe Fire Tower support facilities - observer's cabin, phone line, privy and parking lot.
7. Maintenance of privies at Moss Lake and DeCamp Island.
8. Maintenance of the parking areas, signing and registration booths at Orvis, Rondaxe, Ellis Road, Moss Lake and Razorback Pond Trailheads.
9. Maintenance of the gates at Moss Lake and the Ellis Road.
10. Enforcement of rules and regulations on the unit including designating camping.
11. Maintenance of barrier dams on Quiver Pond and Bubb Lake Outlet.

B. To develop specific projects to promote the recreational potential of the unit consistent with a natural wild forest setting, the State Land Master Plan (SLMP) guidelines and Forest Preserve Policy by:

1. Developing a pamphlet for public distribution.
2. Initiating designated campsites at Moss Lake, and First and Third Lakes. Camping at Moss Lake will be by permit only.
3. Relocating trailhead registers within the interior

to reduce vandalism and possibly improve incidence of registration.

4. Controlling camping in accordance with the rules and regulations including enforcement of the permit system and stressing, "if you carry it in, carry it out" (regulation 190.3) to eliminate the illegal practice of burying refuse by users of this unit.
5. Assuring consistency of signing on unit boundaries, trails and trailheads. Informational accuracy will be determined and corrected where necessary, especially with reference to trail mileages.
6. Identifying the best use of unit facilities and assuring designation of separate areas for incompatible uses.
7. Acquiring those parcels of land, if and when they become available, to improve access and consolidate the unit.
8. Trail construction where needed for improved control of public use.

C. To perpetuate indigenous fish and wildlife species* as part of the Adirondack environment and to provide optimum opportunity for the public's enjoyment and

* Mandated by Environmental Conservation Law and a stated

goal of the Department of Environmental Conservation.

beneficial utilization of the fish and wildlife resource by:

1. Managing fish so that their numbers and occurrences are compatible with the habitat and the public interest.
2. Updating and maintaining resource inventory data for all waters.
3. Providing trout fishing opportunity through continued regulation, improved access, annual stocking, acid reduction, reclamation and barrier dam construction, and maintenance in accordance with Department policy.
4. Continuing current Adirondack studies on:
   a. The identification of rare and endangered wildlife species and/or habitat.
   b. The effect of atmospheric deposition on the reproductive success of Adirondack mammals, and initiating appropriate projects if a review of the general literature by the Bureau of Wildlife identifies a need for additional study specific to this unit.
5. Continuing and maintaining sport hunting, trapping and fishing as a compatible recreational resource activity.

D. To obtain additional natural resource data to support a comprehensive revision of this plan by Year V.

Additional specifics can be found in Part V of the Fulton Chain Wild Forest UMP and are discussed further in Section 4 of this FEIS.

III. ENVIRONMENTAL SETTING

The Fulton Chain Wild Forest is located in the west-central portion of the Adirondack Park in Herkimer County, Town of Webb. The unit is largely situate within Township 8, John Brown's Tract, Macomb's Purchase and comprises all or part of Parcels A, B, C, D, E, F, I, J, K, and L with an additional 5 smaller, undesignated parcels. Parts of the unit, not in Township 8 include lands in Township 7, John Brown's Tract, Range 12, Lot 8 (DeCamp Island) and Township 3, Moose River Tract, all or part of Lots 77, 78, 89, 90, 101, 102, 113, 114, 125, 126, 138.

The unit is divided into four main sections by three strips of privately-owned lands in the vicinity of: (from north to south)

1. Hamlet of Big Moose, Thirsty Pond and Big Moose Lake
2. Lake Rondaxe, N. Branch - Moose River and Darts Lake
3. Fulton Chain of Lakes

The unit is roughly bordered on the north by the Razorback Pond Outlet, the Pigeon Lake Wilderness Area and private lands adjacent to Silver and Twitchell Lakes; on

the east by the Big Moose Road, Pigeon Lake Wilderness Area, private lands near Big Moose Lake and the Village of Eagle Bay; on the south by the Moose River Plains Wild Forest, Third Lake Creek and adjacent private lands; and on the west by private lands and the west boundary of Township 8. The unit also includes DeCamp Island, and adjacent Gumdrop Island, two small islands of Forest Preserve between the First and Second Lakes of the Fulton Chain. A permanent easement across private lands leads from this wild forest to Razorback Pond and the Pigeon Lake Wilderness Area.

Razorback Pond, Twitchell Lake and Rondaxe Lake lie outside of the unit and have less-than-total state land lake frontages. These adjacent water bodies are included in this plan, due to the fact that the beds were deeded to the State by William Seward Webb et al in the 1897 deed. The total acreage of this wild forest is 14,775 acres, exclusive of the three lake beds named above (383 acres).

Soil scientists identify the Beckett and Potsdam classifications as the main soil series. Topography on the unit consists of tranquil, rolling woodlands, rocky hills, wetlands, beaver meadows and picturesque lakes and ponds. Elevations vary from 1700 to 2500 feet rising from south to north. Impressive relief, in the form of precipitous rock faces, occurs on Onondaga, Rondaxe and Slide-Off Mountains and west of Moss Lake.

Drainage systems on the unit empty primarily into the North Branch of the Moose River (the unit portion is designated as a recreational river) which comprises a part of the Black River - St. Lawrence River Drainage Basin. Only a small portion of this river occurs within the boundaries of the unit.

The major stream in the unit is Twitchell Creek, approximately 3.4 miles of which is located in the northern-most section. Interesting, picturesque waterfalls occur on Twitchell Creek and the West Pond Outlet. Twenty seven unit streams total approximately 18 miles.

The Fulton Chain Wild Forest has 22 lakes and ponds. The approximate total acreage of these waters is 4058 acres. The largest is Fourth Lake (2157 acres) and the smallest is Silver Dollar Pond (2 acres).

Water quality is generally good with low productivity and fertility levels typical to the area. Increasing acidity is a growing problem in unit waters and current data indicates that at least three of the ponds (Pocket, Mountain and Silver Dollar) have lost their brook trout fishery due to acid conditions. All waters within the unit reflect the damaging effects of atmospheric deposition to varying degrees. A spring, 1984 survey documented an acidity problem in Twitchell Creek. In addition, four other water bodies are becoming acid and may be a problem in the future.

Major wetlands on the unit include areas near:

a. Cary, Bubb, Sis, and Moss Lakes

b. Safford, Goose, West, Silver Dollar and Pocket Ponds

c. Twitchell and Third Lake Creeks

Wetlands on the unit are inventoried mapped, and protected under Article 24 of the Environmental Conservation Law by the Department of Environmental Conservation and the Adirondack Park Agency.

The general forest types on the Fulton Chain Wild Forest are those identified by the Society of American Foresters as Forest Cover Types of the Eastern United States. Basic types included on the unit are dependent for the most part on drainage patterns. The wet to swampy areas are generally Type #5 (balsam fir), #38 (tamarack) and #32 (red spruce) or a variation or combination of these types. As drainage improves, the hardwood constituent increases and the type gradually changes to Type #31 (red spruce, sugar maple, beech) and Type #25 (sugar maple, beech, yellow birch). Associated species found on the unit include white pine, hemlock, red maple, black cherry and black spruce. Young coniferous growth and thickly-growing alders can be found along unit streams.

Understory vegetation includes shade-tolerant hardwood and softwood tree species, various ferns, club mosses and viburnums, dogwood, wild raisin, witchhopple and honey-

suckle. Common ground plants include trillium, adder's tongue, spring beauty, sarsaparilla, Indian cucumber and Solomon's seal.

There is no detailed vegetative inventory or mapping available for this unit at present. This information should be developed as needed and as personnel become available. The existence and abundance of rare and endangered flora are not documented.

All common wildlife species typical of central Adirondack ecosystems occur within the Fulton Chain Wild Forest. Wilderness fauna that occasionally may be seen include: osprey, raven, common loon, fisher and bobcat. Pine marten and spruce grouse habitat exists within this unit and these species may occur as transients.

The black bear (Ursus americanus), one of the larger native New York species occurs within this unit. Black bear - human conflicts occur occasionally during years of a scarcity of natural foods; however, many people feel that the existence of this animal greatly adds to the enjoyment of viewing native wildlife species.

White-tailed deer are evenly distributed for the most part throughout the unit with the exception of the winter period, when they occur in several scattered concentrations. Major wintering occurs near Rondaxe Lake both in the southern portion of Section B and to a lesser degree in Section C. Irregular wintering occurs in some years

near Snake Pond.

Significant habitats on the unit are as follows:

1. PW22-011, Razorback Pond, and PW22-012, Safford Pond (potentially significant nesting areas).
2. SW22-016, Bald Mountain raven nest site.
3. 127, Snake Pond, deer wintering area.
4. Silver Dollar Pond has a natural bog ecosystem.
5. Moss Lake - Loon nesting area.

Additional specifics can be found in the Fulton Chain Wild Forest Unit Management Plan, parts I and II.

IV. SIGNIFICANT ENVIRONMENTAL IMPACTS

All environmental impacts of any significance resulting from adoption of the plan will be the result of the plan's influence over public use of the area. The principal influences over that use are the constraints provided by Article XIV of the Constitution of the State of New York, Department rules and regulations and the State Land Master Plan.

The most significant environmental impact would occur if no management activities were implemented, as the haphazard use of the area by the public, and the lack of maintenance would result in incidences of trespass, trail and road deterioration, increased littering and site deterioration caused by indiscriminate campsite location. None of the existing or proposed facilities or actions

will have any negative effect on significant habitat areas, with the exception of designated site implementation at Moss Lake.

Of the presently proposed activities, the following may have significant environmental impacts:

A. Establishment of Designated Campsites

The State Land Master Plan defines a primitive campsite as an undeveloped primitive tent site providing space for temporary or transient use by a maximum of eight people and three tents. It may contain a pit privy and fire ring and is located so as to accommodate the need for shelter in a manner least intrusive on the surrounding environment.

Designation of sites allows consideration of site specific environmental fragility but does contain the common minor impacts intrinsic to the use of primitive campsites in general. These impacts include the grouping of stones for fire rings, the removal of natural debris, minor brush cutting, the posting of 3 1/2" plastic markers and soil compaction within the site and access areas.

Site designation is desirable from a management viewpoint, because it provides a methodical inventory of sites used by the public, protects more fragile sites, and simplifies the compilation of more accurate figures on public use which assists in making proper

management decisions. Overall, the environmental significance of this proposed project is positive, as it attempts to limit public use to areas where only minimal environmental disruption is likely to occur.

B. Trail Construction

The construction of two trails on the unit will enhance the safe and enjoyable public use of specific areas. The feasibility of these trails is contingent on finalized recommendations in the Pigeon Lake Wilderness Area Unit Management Plan.

Associated impacts include some debris, brush and tree removal, possible drainage controls and the placement of trail markers and appropriate signs along the route.

The two trails are as follows:

1. A connecting foot trail between the Razorback Pond and Norridge Trails. This will allow total public land use of the trail which is now partially on private land. The completed Norridge Connector Trail will be approximately 1400 feet long (on this unit) and approximately 4 feet wide.
2. Big Moose Snowmobile Trail - This will allow safe snowmobile use of a route which now poses a hazard to public safety. This trail will follow old roads wherever possible, will be approximately

1 1/2 miles long on this unit and will have an average width of eight feet.

C. **Parking Lot Enlargement**

Enlargement of the parking lot at the Rondaxe trailhead is necessary for the safety and convenience of users of the trail system in this area. Present accommodations (approximately 20 cars) are not sufficient especially on peak weekends. Spillover onto the Rondaxe Road causes hazardous traffic congestion. The enlargement of this parking lot to handle at least five additional cars is required. Tree cutting, stump removal and minor grading are necessary.

D. **Fisheries Projects**

Stocking of fish, reclamation of lakes and ponds, construction and maintenance of barrier dams, and acid reduction (in accordance with Department policy) in unit waters are necessary to maintain the fishery on this unit. Possible impacts include the alteration of natural processes and water chemistry. However, the present "natural" conditions impact negatively on an otherwide healthy environment.

E. **Annual Maintenance of Facilities**

Annual facilities maintenance is necessary to prevent degradation of existing facilities and to

maintain control of public use. Impacts involve:

1. The removal of blowdown and problem trees and overhead trimming of trees above and along unit trails
2. Sign replacement
3. Maintenance of bridges, culverts, pit privies, gates, trailhead parking areas, registration booths and signs and the Rondaxe Fire Tower.

These impacts are perceived to be minor in nature and they are a continuation of historical maintenance projects.

V. ADVERSE IMPACTS THAT CANNOT BE AVOIDED IF THIS PROJECT IS IMPLEMENTED

A. Campsite designation, trail construction, parking lot enlargement and, to a lesser degree, facilities maintenance will result in some tree cutting, the numbers and sizes of which will be specified in the individual project EIS.

B. Existing public use may increase slightly, but environmental impact is not expected to increase substantially from the current level. This level will be monitored and the necessary steps to protect the resource will be taken if problems occur.

C. Minor adverse impacts such as erosion, soil compaction and degradation of ground water quality could occur,

but should not be major, because of the mitigation measures described in Section 7.

D. Actions will be taken to reduce acidity in unit lakes and ponds in accordance with Department policy, if the fishery becomes endangered.

VI. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The removal of a few trees is more than justified by the value to the People of the State of New York when these projects are completed. The commitments of resources involved will be mitigated by the environmental advantages of increased control of public use on this unit, the environmental awareness developed by the planning process and the systematics involved in drafting the unit management plan.

VII. MITIGATION MEASURES TO MINIMIZE ENVIRONMENTAL IMPACT

A. Primitive Campsites

Designation of primitive campsites will be instituted to ensure minimal user impact and to prevent the use of sensitive areas.

Constraints mandated by the State Land Master Plan include:

1. Locate so as to be reasonably screened from view from a water body to avoid intruding on the natural character of the shoreline and the public enjoyment and use thereof.
2. Group campsites can accommodate a maximum of 20 people per grouping.
3. All sites shall be located out of sight and sound and generally one-quarter mile from any other primitive tent site.
4. Group campsites will be widely dispersed, generally a mile apart.
5. Group campsites will be set back a minimum of 100 feet from the mean high water mark of lakes, ponds, rivers and major streams.

The primary constraint mandated by D.E.C. rules and regulations is contained in Section 190.3b which states, "Camping is prohibited within 150 feet of any road, trail, spring, pond or other body of water

except at camping areas designated by the Department.

By ensuring comparatively less environmental impact, campsite designation is, in itself, a mitigation measure. It replaces a haphazard user selection method of campsite location with a system designed to ensure consideration of the aforementioned constraints.

B. Foot Trail Establishment and Maintenance and Parking Lot Enlargement

The primary policy governing foot trail establishment and maintenance is contained in organization and delegation memorandum #84-06 which states:

Policy

Section 9-0105 of the Environmental Conservation Law provides that the Division of Lands and Forests has responsibility for the "care, custody, and control" of the Adirondack and the Catskill Forest Preserve. In accordance with this responsibility, all construction of new facilities, expansion or modification of existing facilities and maintenance of facilities, that will result in the cutting, removal or destruction of vegetation on any of the lands constituting the Forest Preserve shall require approval of the Director of the Division of Lands and Forests in accordance with the following procedure. However,

under no circumstances will approval be granted for the cutting of trees for firewood, timber or other forest products purposes. The Division of Lands and Forests policy for specific clearing and maintenance guides was issued on 3/19/86.

Procedure

1. Construction of New Facilities and the Expansion or Modification of Existing Facilities.

   All projects that involve the cutting, removal or destruction of trees or other vegetation in the Forest Preserve must have approval from the Director of the Division of Lands and Forests. Requests for approval to cut, remove or destroy trees for the purpose of new construction, expansion or modification projects must be submitted in writing and include the following information:

   a. The location of the project including a map delineating the project.
   b. A description of the project and its purpose.
   c. A count, by species, of all trees to be cut, removed or destroyed.
   d. A delineation of areas where vegetation, in addition to trees three inches or more in diameter, is to be disturbed.

e. A listing of any protected species of vegetation located within three hundred feet of the area to be disturbed during the project.

f. A description of measures to be taken to mitigate the impact on, and restoration of vegetation, if approprite, to the area impacted.

All decisions to approve any cutting, removal or destruction of trees will be subject to individual SEQR determinations.

2. Routine Maintenance

Responsibility for approval of all routine maintenance projects involving the cutting, removal or destruction of trees or other vegetation is delegated to the Regional Forestry Manager for the region in which the project is to occur.

C. Land Acquisition

Although the acquisition of land might be construed as representing an adverse impact by changing private lands to a Forest Preserve classification, it does not necessarily represent an adverse environmental impact. On the contrary, the fact that a steep mountain slope may never yield forest products or that a scenic valley cannot be converted to a mining operation may be a beneficial impact.

Lands in the Forest Preserve category within the

Adirondack and Catskill Parks make up 42% of the Parks. While this Forest Preserve will remain undeveloped by man and the forest products will not be harvested or mineral deposits extracted from acquisitions to be placed into the Forest Preserve, the needs for timber, fuelwood, minerals, wildlife habitat management, additional year-round and seasonal homes, industrial expansion, etc. may still be pursued on the 58% of the Parks in private lands as well as in the remainder of New York State.

D. Fire Control

It should be noted that land, after becoming a part of the Forest Preserve, still enjoys the same protection afforded private lands through municipal and volunteer fire companies and D.E.C.'s forest fire control system. Large uncontrolled forest fires can cause severe adverse environmental and economic impacts, and an efficient control system is essential to contain fires and prevent widespread damage.

E. Facilities Maintenance

Although environmental impacts from maintenance of facilities are presently perceived as positive, it should be noted that the overall supervision of these activities will be by a professional forester trained to deal with any unforeseen negative impacts that might arise.

F. Proposed Fisheries Projects

Mitigation measures for proposed fisheries projects such as stocking, acid reduction, reclamation and barrier dam construction are addressed in the Programmatic Environmental Impact Statement on Habitat Management Activities of the Department of Environmental Conservation, Division of Fish and Wildlife, dated December 15, 1979. DEC developed a GEIS on their program of liming selected waters and held public hearings on the draft in November of 1988. This GEIS is currently being revised based upon the comments received.

VIII. ALTERNATIVES

The unit management plan for the Fulton Chain Wild Forest directs projects which are of little impact to the environment, while still allowing concurrent Forest Preserve interior recreational use as authorized by Article 9, Section 0105 and Article 41, Section 0105 of the Environmental Conservation Law.

Alternatives include:

A. Do not prepare a unit management plan or draft a plan that does not allow public use. Lack of a plan is not feasible, since the Department is directed by Section 816 of the Adirondack Park Agency Act, Article 27 of the Executive Law to prepare plans. Lack of planning

is undesirable because environmental concerns and impacts might not be otherwise considered in a logical and preplanned manner. A plan that disallows public use is not possible, since the N.Y.S Constitution mandates such use.

B. Do not designate camping sites. This is not desirable managerially or environmentally, for the reasons outlined in Section IV.

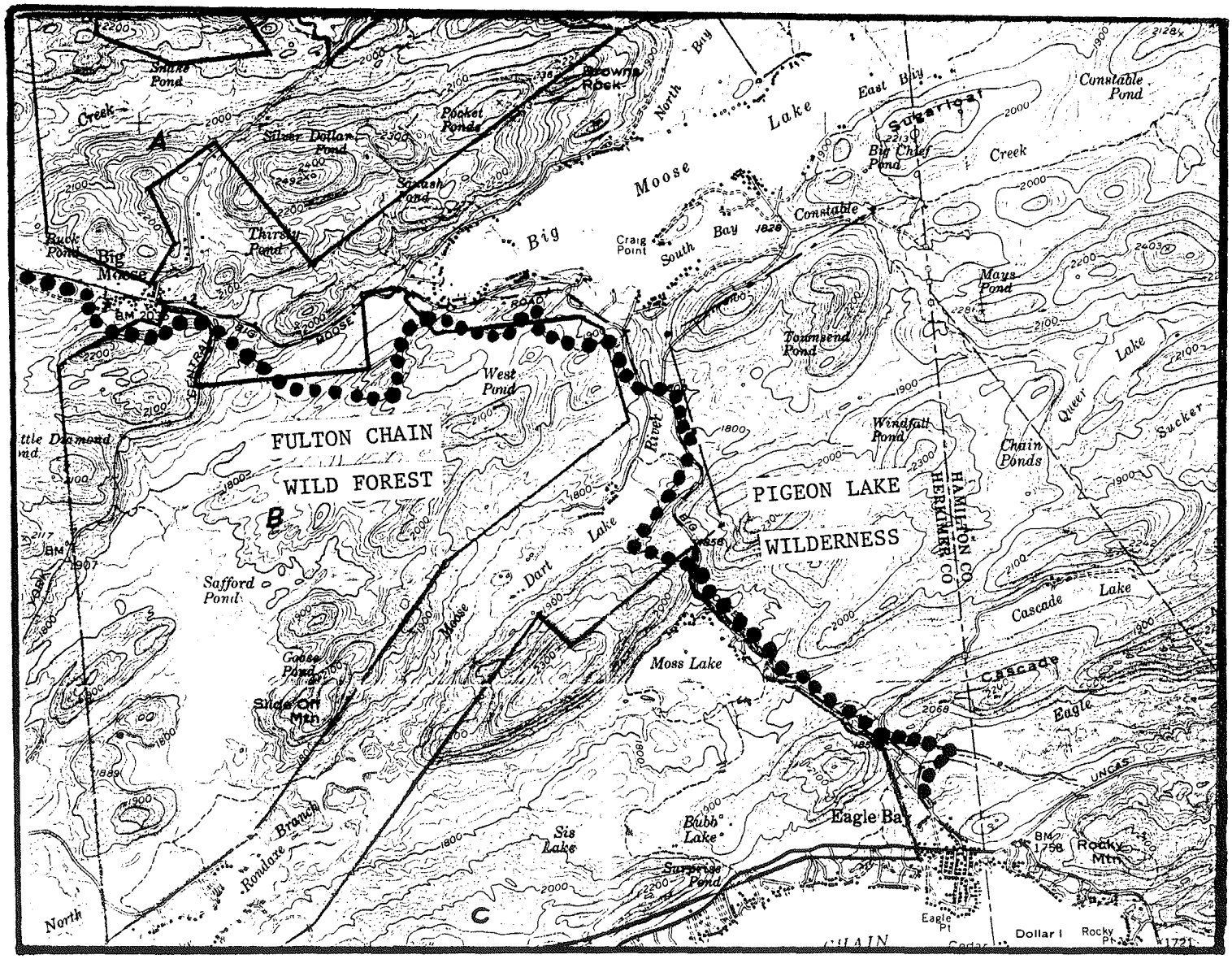
C. Do not construct the Razorback - Norridge connecting trail. This would prevent total public use of the Norridge Trail and would continue the current, undesirable use of private lands by the public. To not construct the snowmobile trail along the Big Moose Road as may be specified by the Pigeon Lake Wilderness Area Unit Management Plan, would promote the current use of the Big Moose Road by snowmobiles. This is highly undesirable and constitutes a public safety hazard. In addition, the local economy depends, in part, on this inter-community trail.

D. Do not enlarge the Rondaxe Trailhead parking lot. This would not help to alleviate the safety hazard and inconvenience to the public posed by the presently undersized parking lot.

E. Do not reduce acid conditions in Unit waters if the fishery becomes endangered. This would result in the irretrievable loss of the unit fishery.

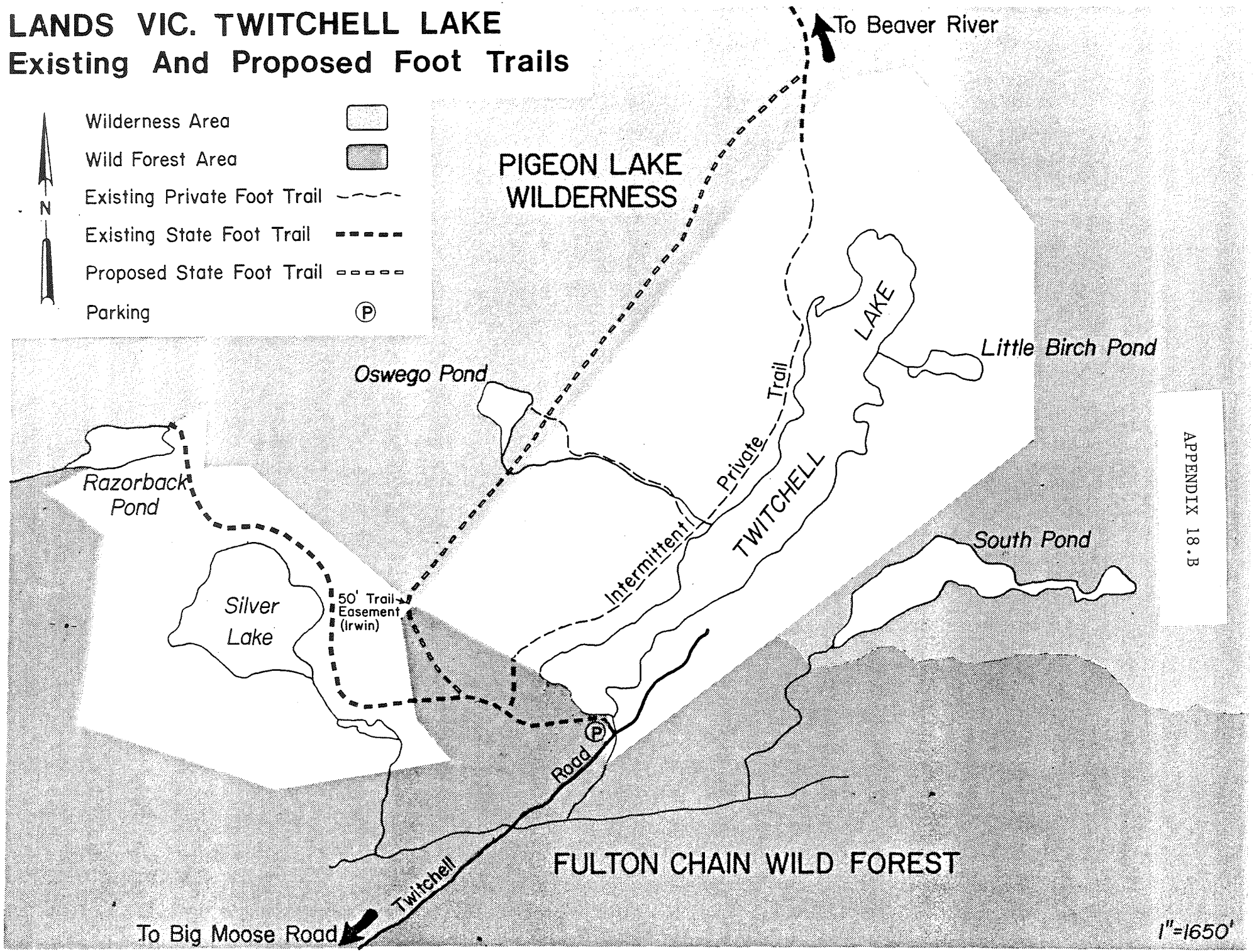
APPENDIX 18.A.

PROPOSED LOCATION OF THE INLET BIG MOOSE SNOWMOBILE TRAIL



VIII. COMMENTS RECEIVED ON DEIS

No comments specific to the DEIS were received during the comment period and/or public meeting/hearing.


LANDS VIC. TWITCHELL LAKE
Existing And Proposed Foot Trails
Wilderness Area
Wild Forest Area
Existing Private Foot Trail
Existing State Foot Trail
Proposed State Foot Trail
Parking
N
To Beaver River
PIGEON LAKE WILDERNESS
Oswego Pond
Private Trail
LAKE
Little Birch Pond
TWITCHELL
Intermittent
Razorback Pond
Silver Lake
50' Trail Easement (Irwin)
South Pond
Road
Twitchell
FULTON CHAIN WILD FOREST
To Big Moose Road
1"=1650'

APPENDIX 19 A.

FULTON CHAIN WILD FOREST

SIGN INVENTORY

Signs

No.	Arrow/Marker	Legend	Miles	Location
4	Left/Blue	Snake Pond	1.00	Twitchell Road
5	Left/Blue	Twitchell Lake	1.00	Snake Pond
6	Right/Blue	Big Safford Inlet	.25	One mile east of Big Safford
7	Left/Blue	Big Safford Pond Big Moose Lake	1.00 4.00	.25 Miles east of Big Safford
8	Left/Blue	Big Moose Lake	4.00	Big Safford Pond
9	Left/Blue	Big Safford Pond	4.00	Big Moose Road - 2.5 miles east of Big Moose Station
96	Left/Blue	West Pond Big Safford Pond	1.00 4.00	Orvis Trailhead Parking Lot
97	Left	West Pond	.25	.5 Miles from Orvis Parking Lot
145	Right	Mountain Pond Trail to Fly Pond Carry Pond Old Raquette RR Bed	1.75 .30 .60 .70	Trailhead on Rondaxe Road
-	-	Trailhead Parking Trail To: Limekiln Campsite Limekiln Road	 7.40 8.40	Third Lake Creek Trailhead

Miscellaneous Signs

3 Trailhead Routed Map Murals...Rondaxe, Moss Lake and Orvis Trailheads

1 Historic Beaver Centennial Sign.....Old Forge

1 Nature Conservancy Marker.....Moss Lake

APPENDIX 19.B.

FULTON CHAIN WILD FOREST

BRIDGE INVENTORY

Foot Trail Bridges

Bubb Lake - Sis Lake Trail

1 bridge - 35' length
1 bridge - 100' length

Moss Lake Circuit Trail

3 bridges - 1 ea. at 18', 26' and 45' lengths

Rondaxe Fire Tower Trail

1 bridge - 16' length

Ellis Road

1 bridge - 15' length

Snowmobile Bridges

Safford Pond Trail

4 Bridges ... 12' average length
1 Bridge .... 34' length
2 Bridges ... 24' length

APPENDIX 21

TEMPORARY REVOCABLE PERMIT

July 7, 1967

Dear Mr. Buckley:

Reference is made to the correspondence you have had with District Ranger Petrie at Herkimer regarding the boat house at your property on First Lake in the Town of Webb, Herkimer County, a portion of which rests on Forest Preserve land under the waters of that Lake.

In view of the unusual physical conditions which exist at the site and the fact that a very minor portion of the structure rests on State lands under the water, we are herewith granting you a temporary revocable permit for the maintenance of the boat house at its present location.

This permit is given subject to the following conditions:

1. Exercise of the permission herewith granted will at all times be subject to the approval of District Director of Lands and Forests S.E. Coutant, Herkimer, New York.

2. At the end of the useful life of the structure or upon prior revocation of this permit, no part of the boat house will be allowed to remain on State land.

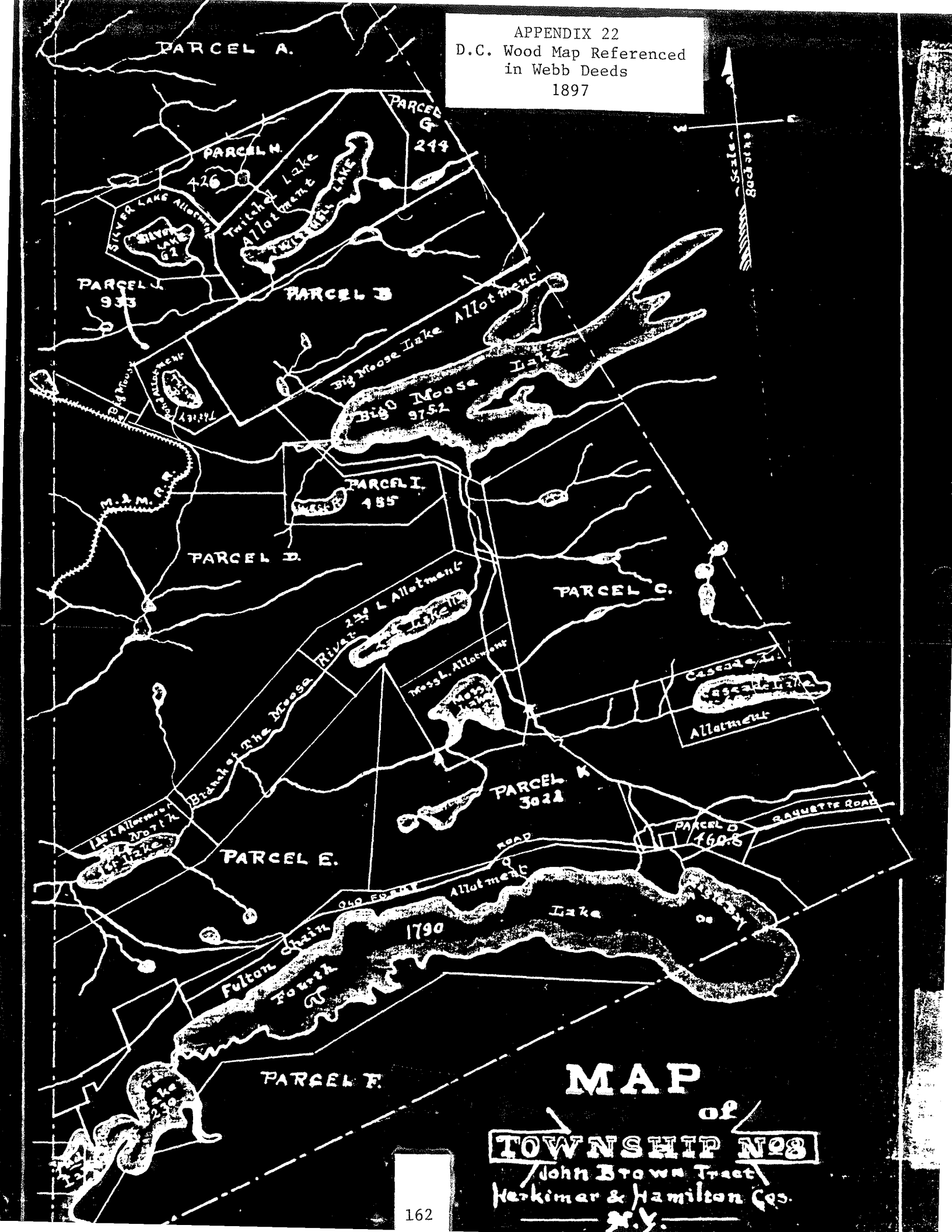
Your cooperation in removing the other items found on State land as a result of a recent survey is appreciated.

Very truly yours,

Director, Lands and Forests

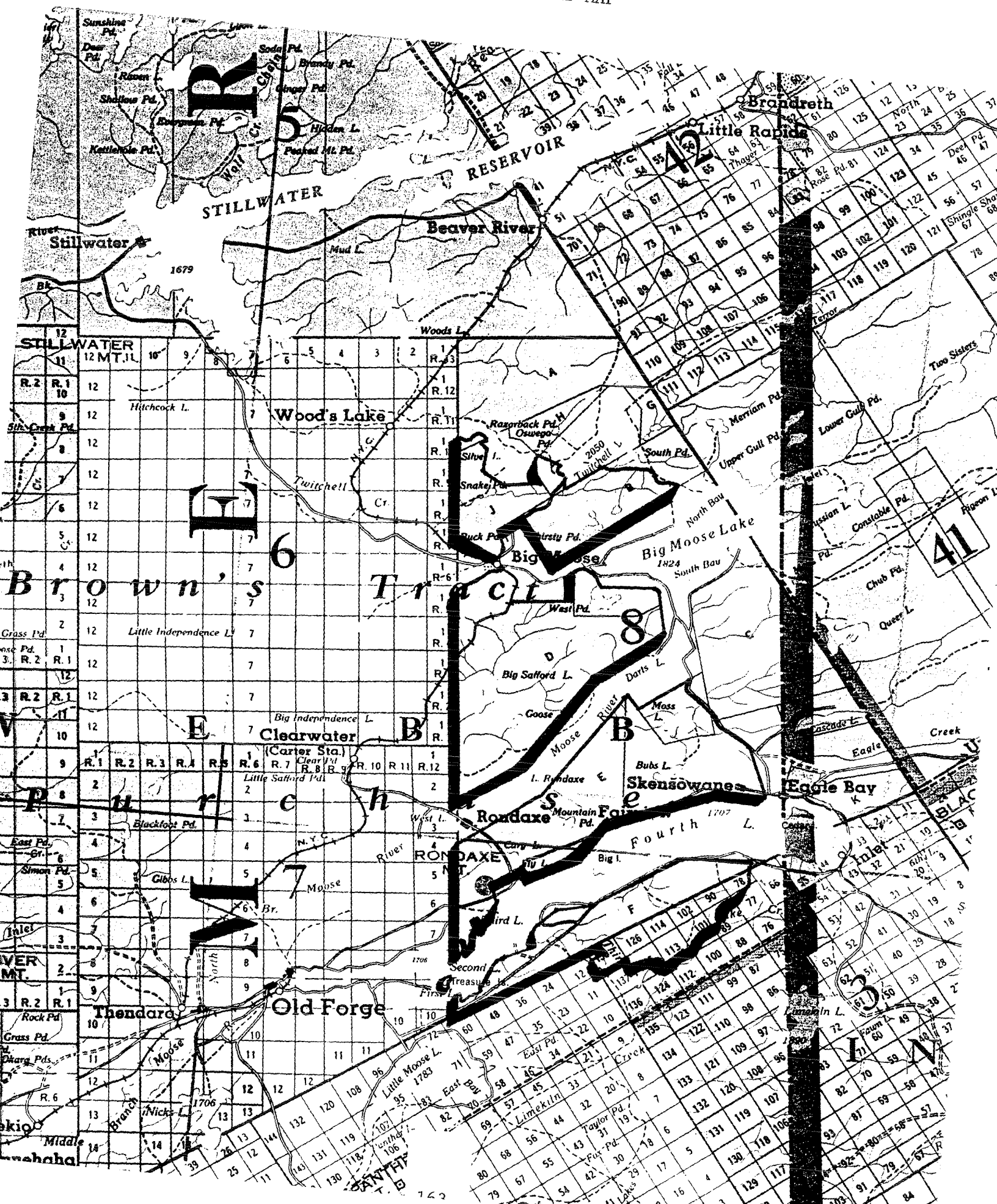
WDM:jh
cc: Coutant (2)

APPENDIX 22
D.C. Wood Map Referenced
in Webb Deeds
1897



APPENDIX 23

ADIRONDACK LAND MAP



APPENDIX 24

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 (catherinetts), cinnamon fern, false miterwort, sweetscented bedstraw, and an important cover of sphagnum and other mosses (Doyon 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).

ROBERT M. FRANK
USDA Forest Service
Northeastern Forest
Experiment Station

ZORAN MAJCEN and
GILLES GAGNON
Quebec Department of Lands
and Forests

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 ladys-slippers, hepaticas, trilliums, and jack-in-the-pulpits, are locally common, as are various clubmosses, violets, asters, and species of woodsorrel.

JOHN V. BERGLUND
State University of
New York, Syracuse

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 (Heimburger 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.

Heimburger (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, Solomonsseal, 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
Natural Resources
Central Forest Research Unit

Northern Forest Region

Spruce-Fir Types

Red Spruce
32

Definition and composition.—Red spruce is either pure or comprises a majority of the growing stock. Found primarily in the northern forest region, it is most frequently associated with balsam fir. Other common associates are red maple, yellow birch, eastern hemlock, eastern white pine, white spruce, and northern white-cedar; also paper birch and pin cherry in pioneer stages and black spruce on wet sites. Occasionally the type may also contain gray birch, mountain-ash, beech, striped maple, and sugar maple. Rare associates are northern red oak, red pine, and the aspens. In the southern Appalachians, Fraser fir and occasionally beech, sugar maple, and yellow buckeye are associates.

Geographic distribution.—The red spruce type occurs in the Maritime Provinces of Canada and adjacent portions of Quebec, throughout south central Ontario, northern New England, western Massachusetts, New York, and in the southern Appalachians. Red spruce is found near sea level in the Maritimes and eastern Maine, from 450 to 1,400 m (1,500 to 4,500 ft.) in New York, above 1,000 m (3,200 ft.) in West Virginia, and upwards of 1,400 m in North Carolina and Tennessee. The type is most abundant in eastern Canada and Maine.

Ecological relationships.—The type occurs over a range of sites including moderately well drained to poorly drained flats and the thin-soiled upper slopes. It is primarily found on acidic till derived from granites (Gordon 1976) or sandstone. On these sites the type is usually considered climax. It is present on fresh and moist acidic outwash (McPhee and Stone 1965) but is absent or rare on dry outwash sand plains. It occurs on well-drained slopes and on varying acidic soils in abandoned fields and pastures where it is usually subclimax, being replaced by shade-tolerant hardwoods such as sugar maple and beech.

In the absence of major disturbances, the type is relatively stable. Red spruce is both long lived and shade tolerant, and older stands that may have originated as even-aged stands or stands that succeeded less tolerant or shorter-lived associates, tend to assume an all-aged character. Indiscriminate harvesting and natural disturbances such as windthrow, however, create open conditions conducive to the establishment of balsam fir. Its seeds and seedlings have advantages over those of spruce with respect to seed weight and radicle size and consequently usually have a higher survival rate. Harvesting practices in the past have converted many areas of the red spruce type to red spruce—balsam fir, or to red maple, paper birch, willow or aspen.

Variants and associated vegetation.—Red spruce is predominant or a major component in at least three mixed types: red spruce—yellow birch, red spruce—balsam fir, and red spruce—Fraser fir. An important variant, red spruce—hemlock—white pine, is present in the northern forest region. Moreover, the red spruce species is represented across a wide range of sites and in many additional types.

The undergrowth in dense red spruce stands is characteristically sparse. Ground cover in these stands consists primarily of bryophytes, lichens, tree litter, and patches of young conifer germinants that rarely survive over two or three years. As stands open up and light conditions improve, though, an undergrowth of arboreal species, shrubs, and herbs develops in addition to the ground cover of bryophytes and lichens.

Typical red spruce sites on high slopes are characterized by woodsorrel and the feather mosses, while spruce flats usually support feather mosses, bunchberry, and Canada mayflower. Old-field red spruce sites are characterized by a ground cover of bunchberry and woodsorrel on the more poorly drained benches and by woodsorrel and witch-hobble on the well-drained areas.

Other shrubs common to the red spruce type include blueberry, witherod, rhodora, sheep-laurel, mountain-holly, and speckled alder. Subshrubs include wintergreen (teaberry), common winterberry, gooseberry, bog-rosemary, creeping snowberry, partridgeberry and twinflower. In disturbed areas, raspberries occur in abundance. Herbs include goldthread, Canada mayflower, starflower, naked miterwort, wild sarsaparilla, spikenard, woodfern, and mountain aster. Sedge is present on wet sites.

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-

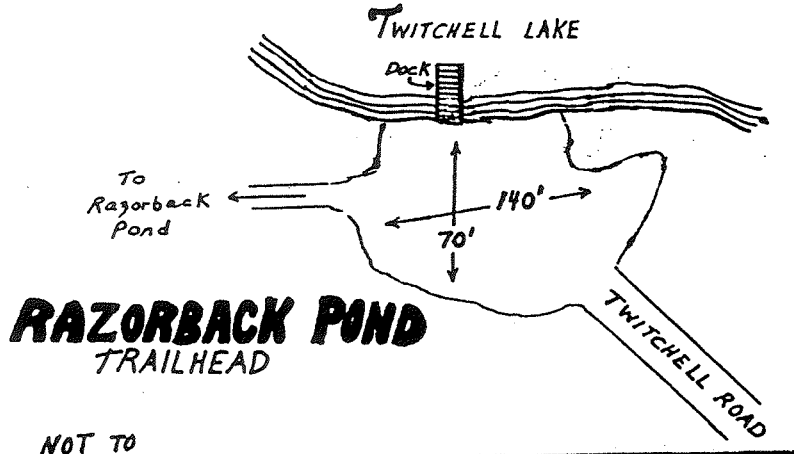
tion of tamarack has become insignificant in many stands due to infestations of the larch sawfly (Benzie 1963).

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.

WILLIAM F. JOHNSTON
USDA Forest Service
North Central Forest
Experiment Station

APPENDIX 25

TRAILHEAD PARKING AREA MAPS



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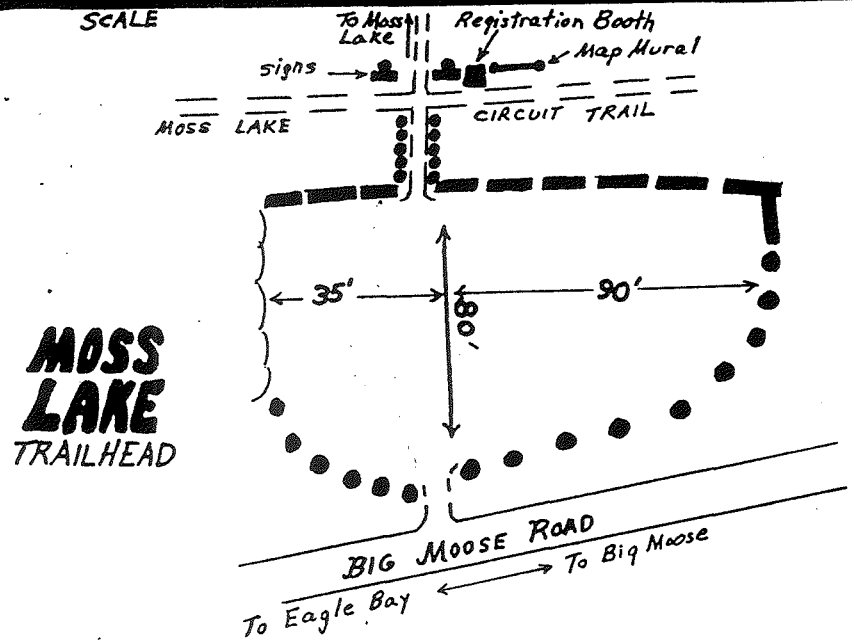

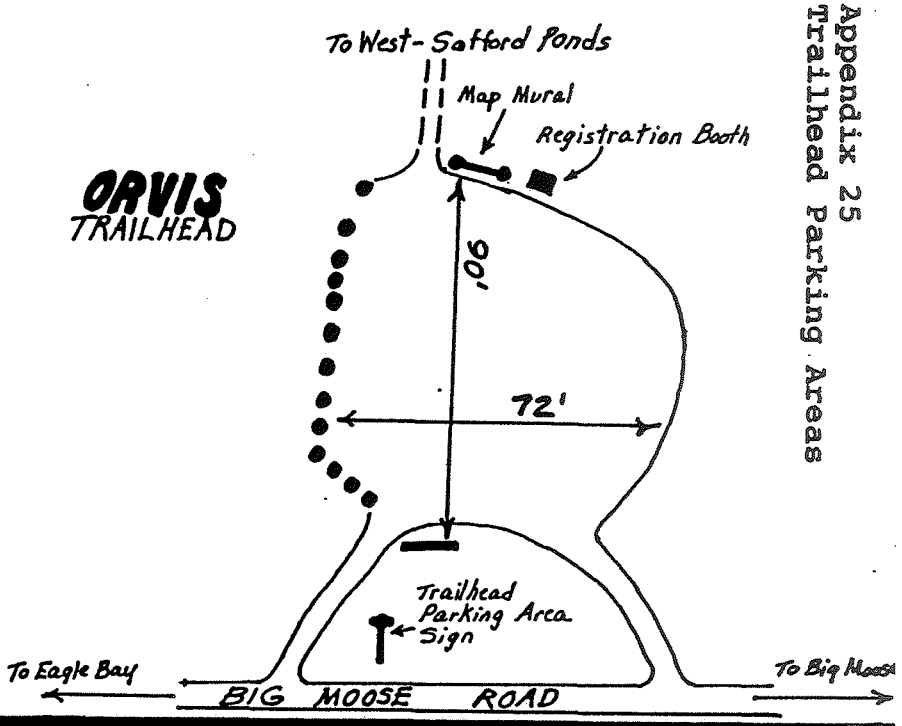

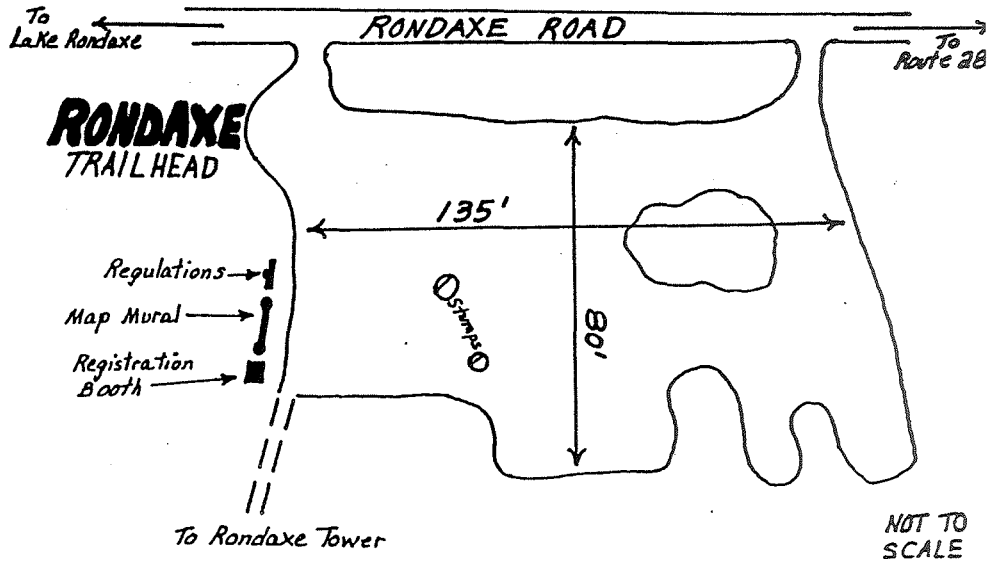

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APPENDIX 26

PARCEL K TRESPASS

STATE OF NEW YORK

SUPREME COURT : COUNTY OF HERKIMER

STATE OF NEW YORK,

Plaintiff,

- against -

ERNEST WOOD,

Defendant.

ORDER CONFIRMING STIPULATION

INDEX NO.

Upon the stipulation of Ernest Wood, defendant herein, and Robert T. Mulig, Esq., attorney for plaintiff, dated February 26, 1975, it is

ORDERED, that the defendant Ernest Wood, his agents, servants or employees, be and they are hereby enjoined from using Forest Preserve land as a driveway and parking area for the business known as the "DONUT SHOP" located in Eagle Bay, New York, and it is further

ORDERED, that the defendant Ernest Wood take all necessary action to ensure that the customers of the "DONUT SHOP" discontinue using Forest Preserve land as a driveway and parking area, and it is further

ORDERED, that the defendant is directed to remove those portions of the garage and business encroaching on State property on or before June 1, 1975, and it is further

ORDERED, that in the event defendant shall fail to so remove the encroaching structures by June 1, 1975, the State shall have the right to remove the structures at defendant's expense.

DATED: March 3, 1975
Albany, N.Y.

s/ Harold E. Koreman
Justice of the Supreme Court

APPENDIX 27
FULTON CHAIN BOG MATS

APPENDIX 28

Investigation of Elevated DDT Levels in Stream Sediments in the Fulton Chain Wild Forest 1984-1987

Eagle Creek

In 1984*, sediment samples were collected from this stream immediately downstream of New York Route 28 near the Hamlet of Eagle Bay. This sample contained 7.9 ppb of DDT, 3 ppb of DDD and 1.6 ppb of DDE. Although these overall levels were quite low, finding levels of the parent material at higher amounts than its metabolites, prompted the need for further investigation.

In 1985*, sediment samples were collected throughout this watershed. The sampling sites were chosen in an attempt to segment the stream in hopes of reducing the area of investigation. Samples were again collected at the 1984 Route 28 site. The other sites were as follows: immediately upstream of the bridge on the Big Moose Road; immediately upstream of the old Big Moose Road bridge which is approximately 15 yards upstream of the new road; approximately 3.25 miles upstream of the Big Moose Road and immediately upstream of an unnamed tributary which enters Eagle Creek from the south; and at a point in this tributary just upstream of Eagle Creek.

These sample results were quite interesting. The Route 28 site analysis was very similar to the 1984 figures with 3.7 ppb of DDT being present. The sample immediately upstream of the Big Moose Road produced 300 ppb of DDT and nearly as much DDE. Just upstream of the bridge on the old road, the level increased to 550 ppb. The next samples which were collected near the first significant tributary to Eagle Creek above the Big Moose Road showed very low levels of DDT of 1 ppb or less.

These results tended to suggest that the introduction site or sites of this material were upstream of the old Big Moose Road and relatively close by since this portion of stream has a rather slow moving, beaver meadow-type characteristic.

In 1986, see map #2, I concentrated my sampling in the vicinity of the Big Moose Road. Sediment was collected from six sites. Sample #10652, which was collected just downstream of the new road, only produced 4 ppb of DDT, 14 ppb DDD and 9 ppb DDE. Samples 10653 and 10654, which were collected from a small set-back lying between the old and new roads, produced 18 and 13 ppb DDT, 28 and 9 ppb DDD, and 9 and 6 ppb DDE respectively. Since this lagoon had an

* Map#1

extremely limited drainage area, the DDT found is either being introduced from the fill area related to the old and new roads or it receives DDT during the high spring water flows from an upstream source.

Sample #10655 was collected adjacent and downstream to the old road bridge, and 20-30 feet downstream of the 1985, 550 ppb site. This produced results of 32 ppb DDT, 54 ppb DDD and 8 ppb DDE.

The next sample 5194 was collected from a small set-back on the south side of Eagle Creek just upstream of the old road bridge. An old 55-gallon, rusted out drum was partially buried in the sediment of this mini-bay. This sample produced the highest levels found within this watershed; 720 ppb of DDT, 69 ppb DDD and 21 ppb DDE.

The last sample #5193 was collected 10-15 yards upstream of the point where the set-back related to sample 5194 empties into Eagle Creek. The level of DDT now dropped significantly to 11 ppb while DDD was 10 ppb and DDE 34 ppb.

The 1986 program did substantiate the location of one DDT hot spot, near the old barrel related to sample 5194. Although this does not eliminate the possibility of additional upstream contamination sources, it seems likely that this site is a significant contributor of DDT to this watershed.

The thrust of my 1987 sampling program in Eagle Creek was to determine if slugs of DDT had moved downstream of the Big Moose Road.

Four sample sites were chosen. The first site, sample #10920 was collected 30 yards downstream of the Big Moose Road. It produced 52 ppb of DDT, 10 ppb DDD, and 10 ppb DDE. Sample #10921 which was collected approximately 200 feet downstream of sample 10920 had 15 ppb DDT, 2 ppb DDD and 2 ppb DDE, and sample 10922 collected 200 feet further downstream produced readings of 26 ppb DDT, 5 ppb DDD and 3 ppb DDE. An additional sample was collected approximately 1,200 feet downstream just above the old railroad bed near Route 28. The level of DDT at this site was 20 ppb, DDD 7 ppb, and DDE 2 ppb.

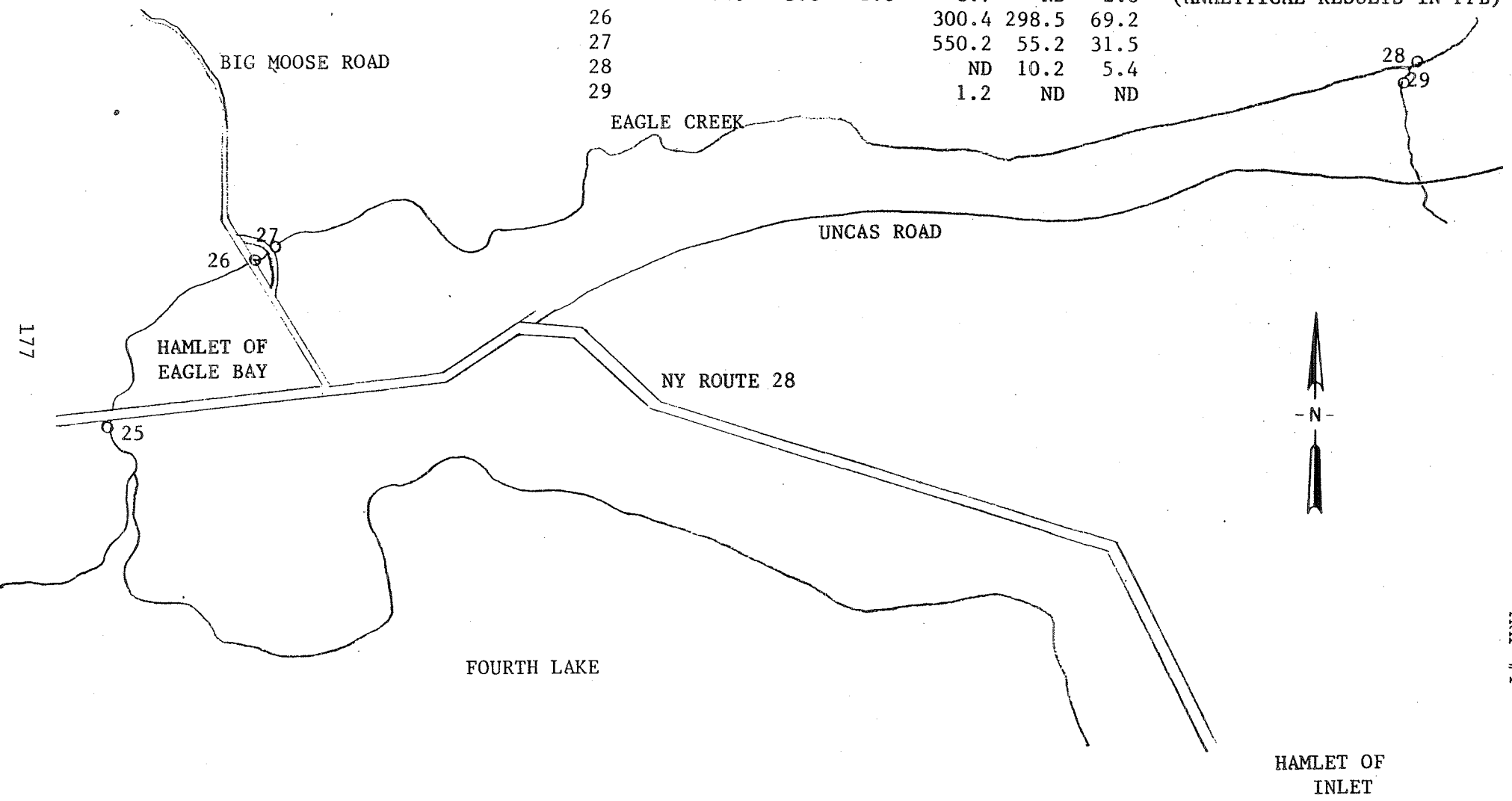
These results suggest a slow downstream movement of DDT and its metabolites from the Big Moose Road site. This seems logical since this stream is relatively slow moving with little vertical drop between sampling sites.

During the next few sampling programs, additional sites should be sampled above sample 5193 to determine the feasibility of upstream entry points.

FULTON CHAIN DDT SAMPLING SITES

MAP INDEX #	FALL 1984			FALL 1985		
	DDT	DDD	DDE	DDT	DDD	DDE
25	7.9	3.0	1.6	8.7	ND	2.0
26				300.4	298.5	69.2
27				550.2	55.2	31.5
28				ND	10.2	5.4
29				1.2	ND	ND

(ANALYTICAL RESULTS IN PPB)

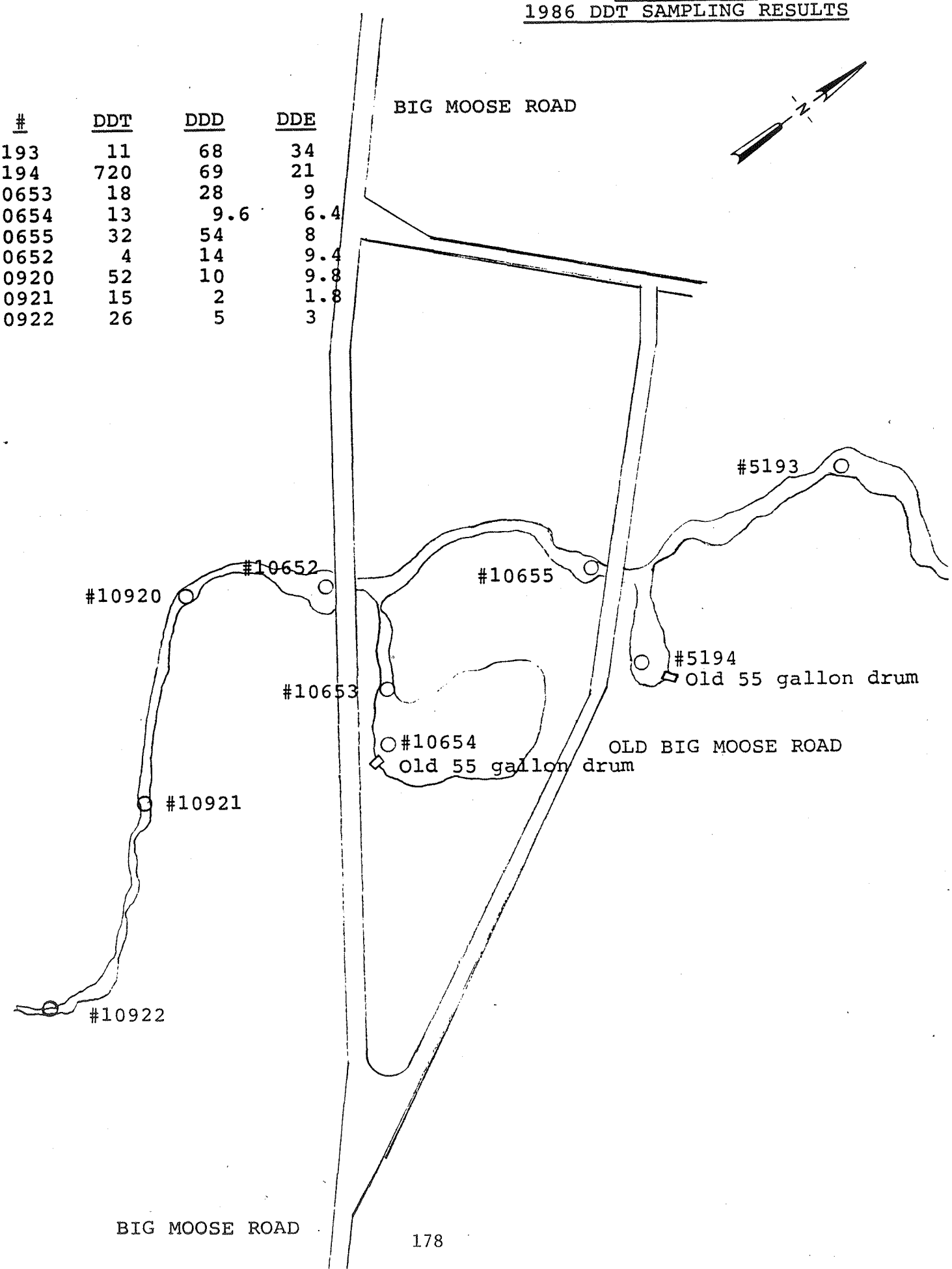


177

MAP #1

EAGLE CREEK
1986 DDT SAMPLING RESULTS

#	DDT	DDD	DDE
5193	11	68	34
5194	720	69	21
10653	18	28	9
10654	13	9.6	6.4
10655	32	54	8
10652	4	14	9.4
)87)10920	52	10	9.8
)87)10921	15	2	1.8
)87)10922	26	5	3



Mays Pond Outlet (Constable Creek)

Although this watershed does not impact the Fulton Chain of Lakes, Constable Creek was found to contain 11.8 ppb of DDT, 39.5 ppb DDD, 11.0 ppb DDE during the 1982 fall sampling.

In 1984, our objective was to determine which areas of the watershed were supplying the DDT. Constable Creek has two major tributaries approximately 1/2 mile upstream of the Higby Road where the 1982 sample was collected. Samples were taken from Big Chief Pond Outlet, Mays Pond Outlet and from Constable Creek upstream of the confluences of these two streams. This proved quite interesting. The only sample producing measurable levels of DDT was from Mays Pond Outlet which had a surprisingly high amount; 1,130 ppb (see attachment M1).

The obvious emphasis for 1985 was the privately owned Mays Pond and its outlet which is surrounded by state land. Samples were collected at or very near the 1984 site, at the outlet end of Mays Pond and at the only inlet to the pond. The 1984 site produced 3,723 ppb of DDT, 347 ppb DDD and 160 ppb of DDE, while the pond had 8.7 ppb DDT and the inlet 3 ppb DDT and 4.6 ppb DDE (see attachment M1).

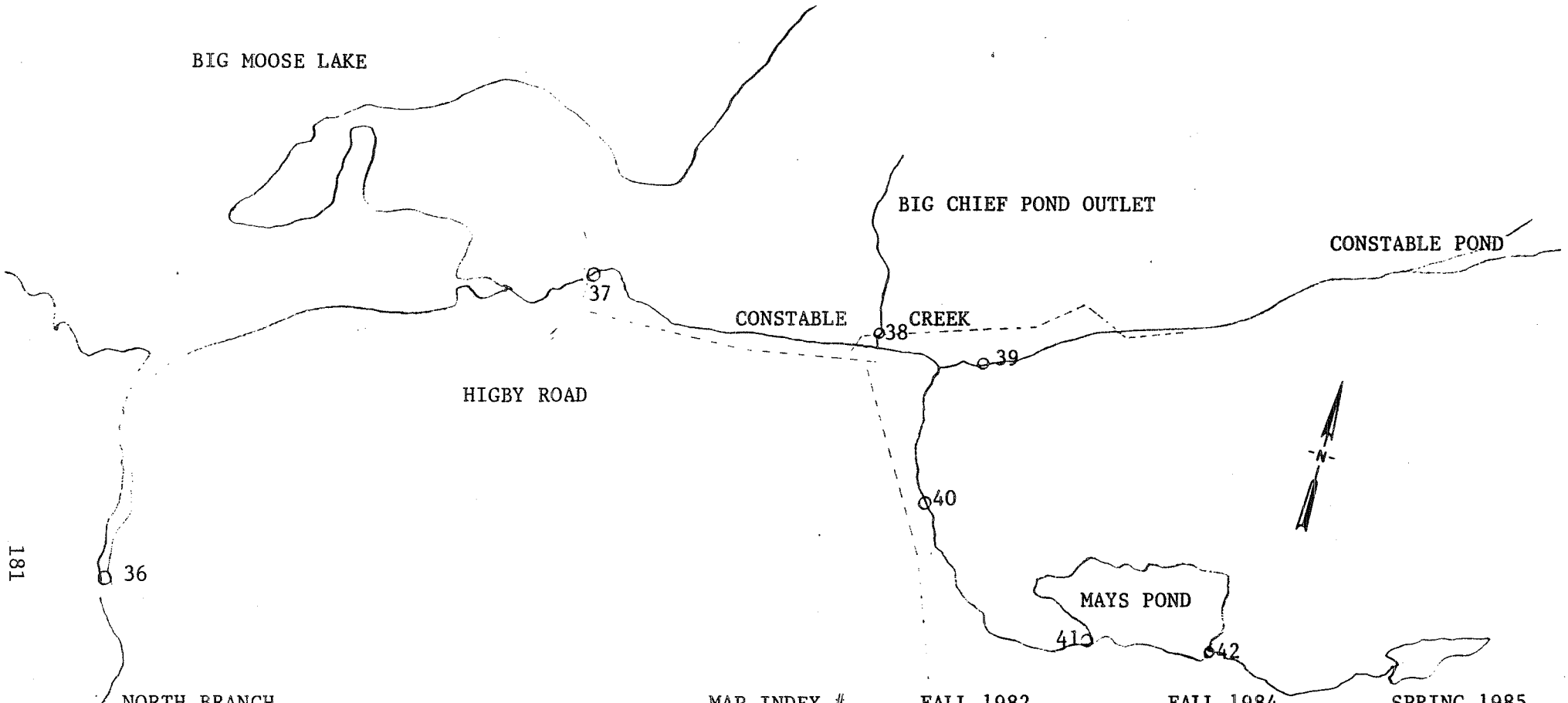
In 1986, we decided to collect a number of samples just downstream of the 3,723 ppb area and between that point and the lake sampling site. None of these six samples, which were spread over 800 feet of stream, produced significant levels of DDT. One site, approximately 100 feet upstream of the 3,000+ ppb 1985 spot, contained 7 ppb DDT, 48 ppb DDD and 28 ppb DDE which suggests an older introduction since the metabolites were found in greater amounts than the parent material.

In 1987, following the criteria observed in Gray Lake which suggests that DDT may move downstream in slugs, we sampled two sites from a beaver meadow approximately 300 feet downstream of the previously identified hot spot along with one upstream sample. The sample furthest downstream did contain 390 ppb DDT, while the others were negative (see attachment M2).

This supports the theory that an introduction of DDT had been made to Mays Pond Outlet between Constable Creek and Mays Pond prior to 1984. The slug of this contaminant is most likely within the slow moving segment of this beaver meadow.

In 1988, core sediment samples were collected from this area in an attempt to find DDT levels at various sediment depths. We do not have these analytical results at this time.

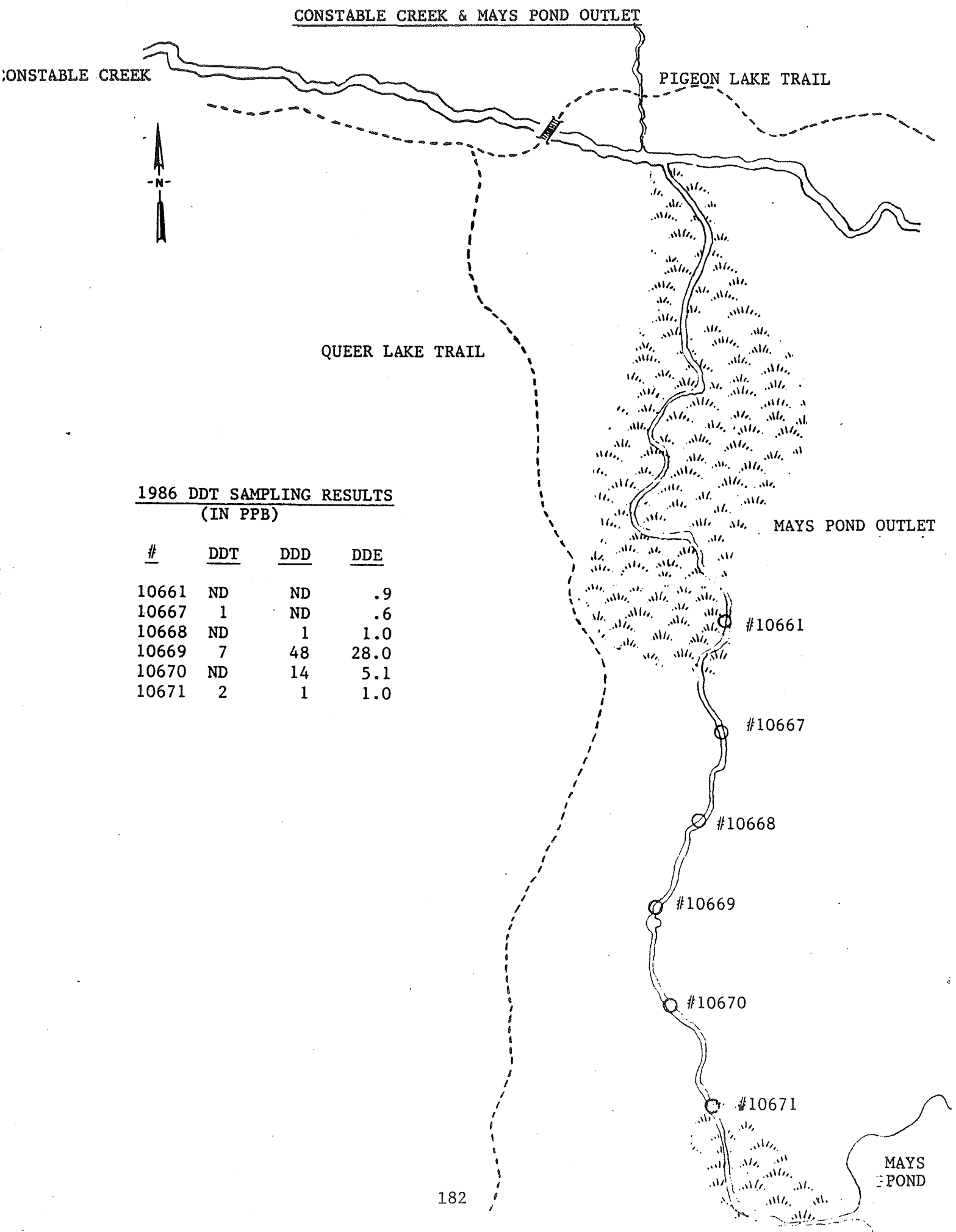
The 1989 program should concentrate on the wetland portion of Mays Pond Outlet in an effort to track the DDT as it moves downstream.



MAP INDEX #	FALL 1982			FALL 1984			SPRING 1985		
	DDT	DDD	DDE	DDT	DDD	DDE	DDT	DDD	DDE
36				7.7	2.0	1.9			
37	11.8	39.5	11.0						
38				ND	ND	4.4			
39				ND	ND	ND			
40				1130.0	83.5	11.7	3723.8	347.3	160.4
41							8.7	1.9	1.4
42							3.2	ND	4.6

ANALYTICAL RESULTS IN PPB

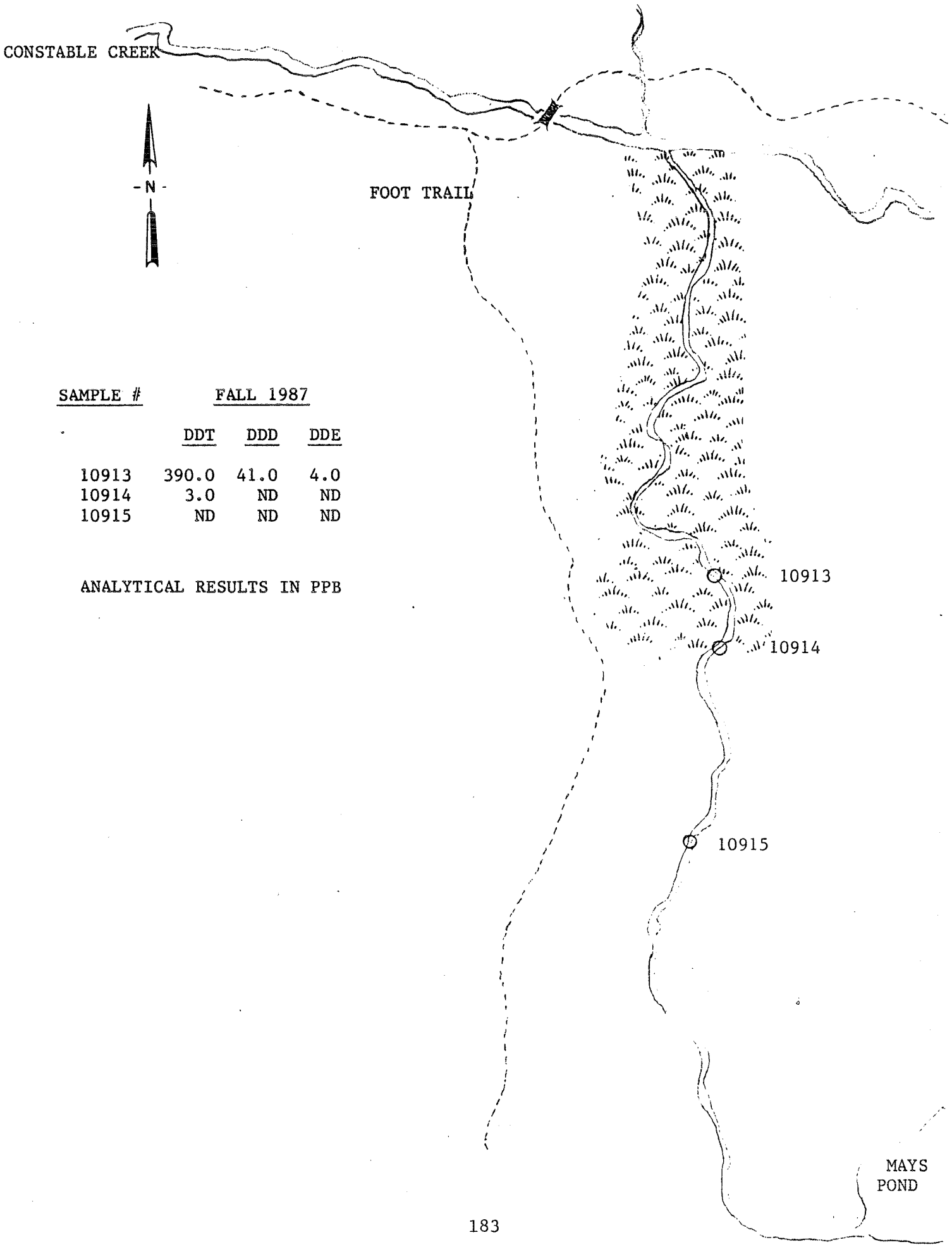
Fig 1



1986 DDT SAMPLING RESULTS
(IN PPB)

#	DDT	DDD	DDE
10661	ND	ND	.9
10667	1	ND	.6
10668	ND	1	1.0
10669	7	48	28.0
10670	ND	14	5.1
10671	2	1	1.0

FULTON CHAIN DDT SAMPLING SITES



SAMPLE #	FALL 1987		
	DDT	DDD	DDE
10913	390.0	41.0	4.0
10914	3.0	ND	ND
10915	ND	ND	ND

ANALYTICAL RESULTS IN PPB

Third Lake Creek

The first stream sediment sampling of Third Lake Creek was accomplished in 1984 at a point just upstream of the South Shore Road. It contained 102 ppb DDT, 13 ppb DDD and 13 ppb DDE. Additional sampling was done in 1985 at the 1984 site and at two sites near an old hunting camp 1.25 miles upstream. Only 3 ppb DDT was detected at the 1984 location while no DDT was found at the upstream locations.

In 1986 five samples were collected (see attachment TLC #1). Relatively low levels of DDT were found as follows: two hundred feet downstream of the South Shore Road 20 ppb DDT; one hundred feet downstream 1 ppb DDT; fifty feet upstream of the South Shore Road 15 ppb DDT; 1500 feet upstream 1 ppb DDT.

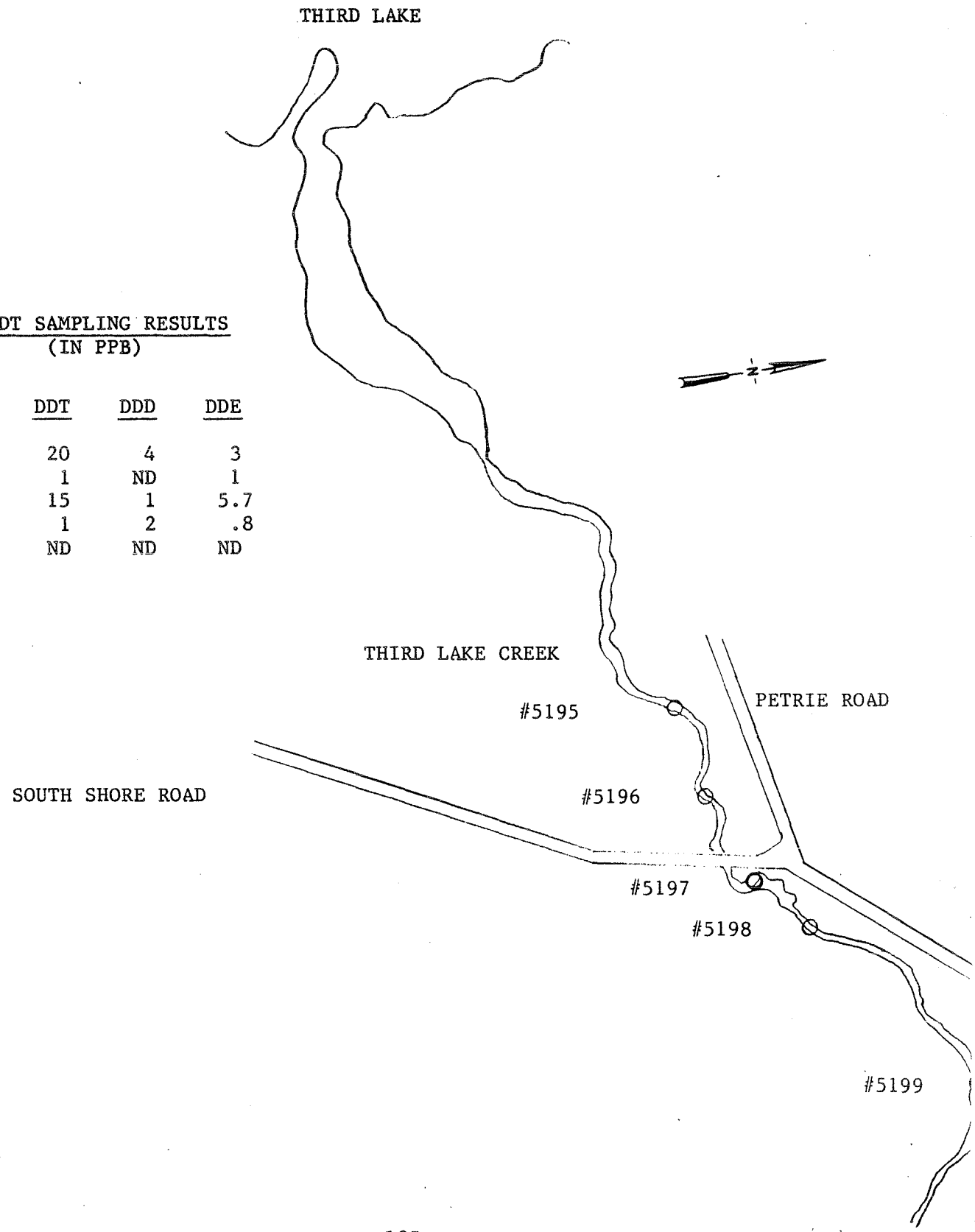
The 1987 sampling did produce 130 ppb of DDT 60 feet downstream of the South Shore Road, while samples collected at the 1984 site produced only 3 ppb and at a point where the stream enters Third Lake 12 ppb DDT was found.

The results of the past four years of sampling suggests that DDT entered this watershed just upstream of the South Shore Road during the last 10-15 years and has migrated towards Third Lake. Future sampling of the lake sediment is necessary to determine the magnitude of past DDT use in Third Lake Creek.

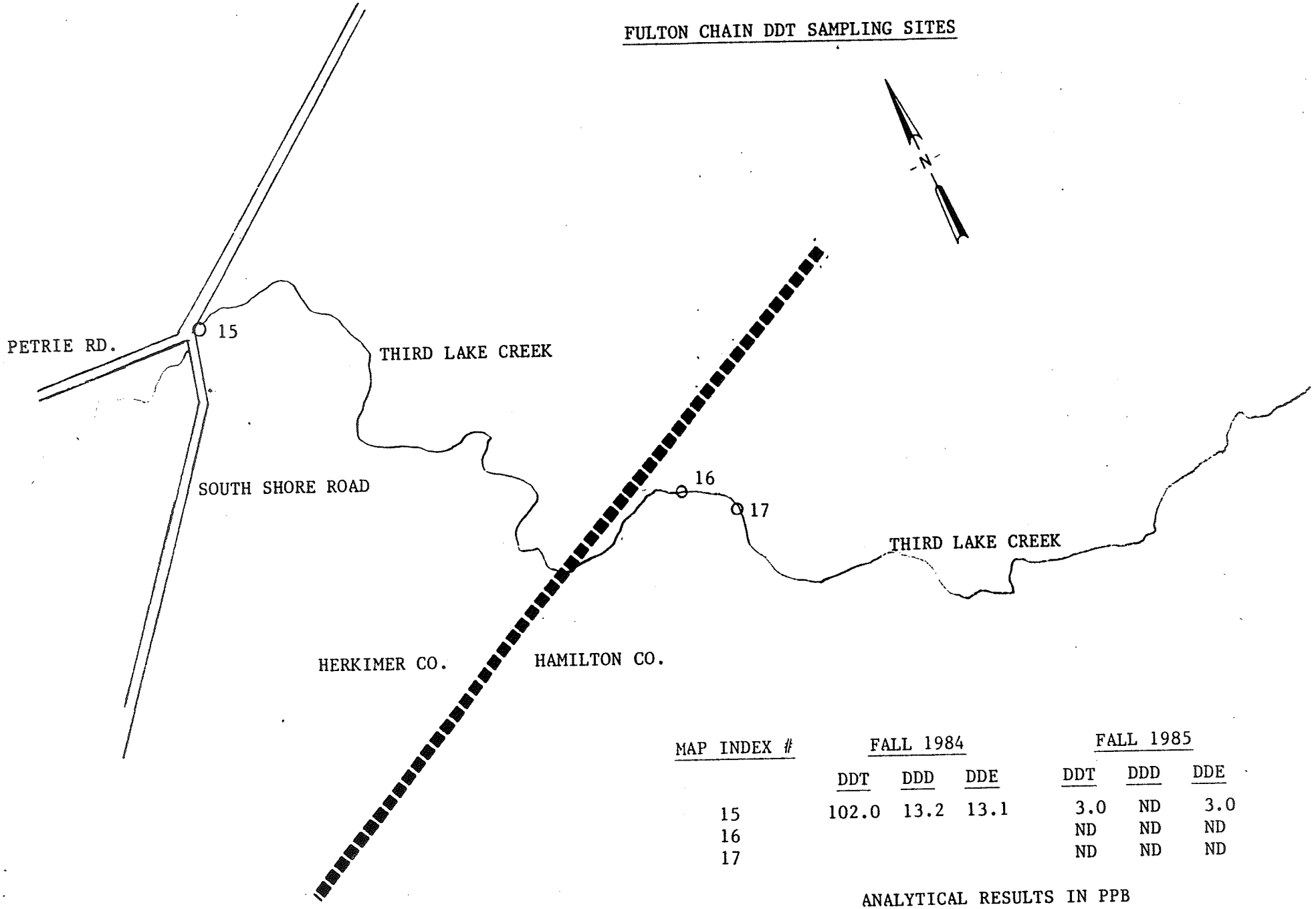
THIRD LAKE CREEK

1986 DDT SAMPLING RESULTS
(IN PPB)

#	DDT	DDD	DDE
5195	20	4	3
5196	1	ND	1
5197	15	1	5.7
5198	1	2	.8
5199	ND	ND	ND



FULTON CHAIN DDT SAMPLING SITES



MAP INDEX #	FALL 1984			FALL 1985		
	DDT	DDD	DDE	DDT	DDD	DDE
15	102.0	13.2	13.1	3.0	ND	3.0
16				ND	ND	ND
17				ND	ND	ND

ANALYTICAL RESULTS IN PPB

Cascade Lake Outlet

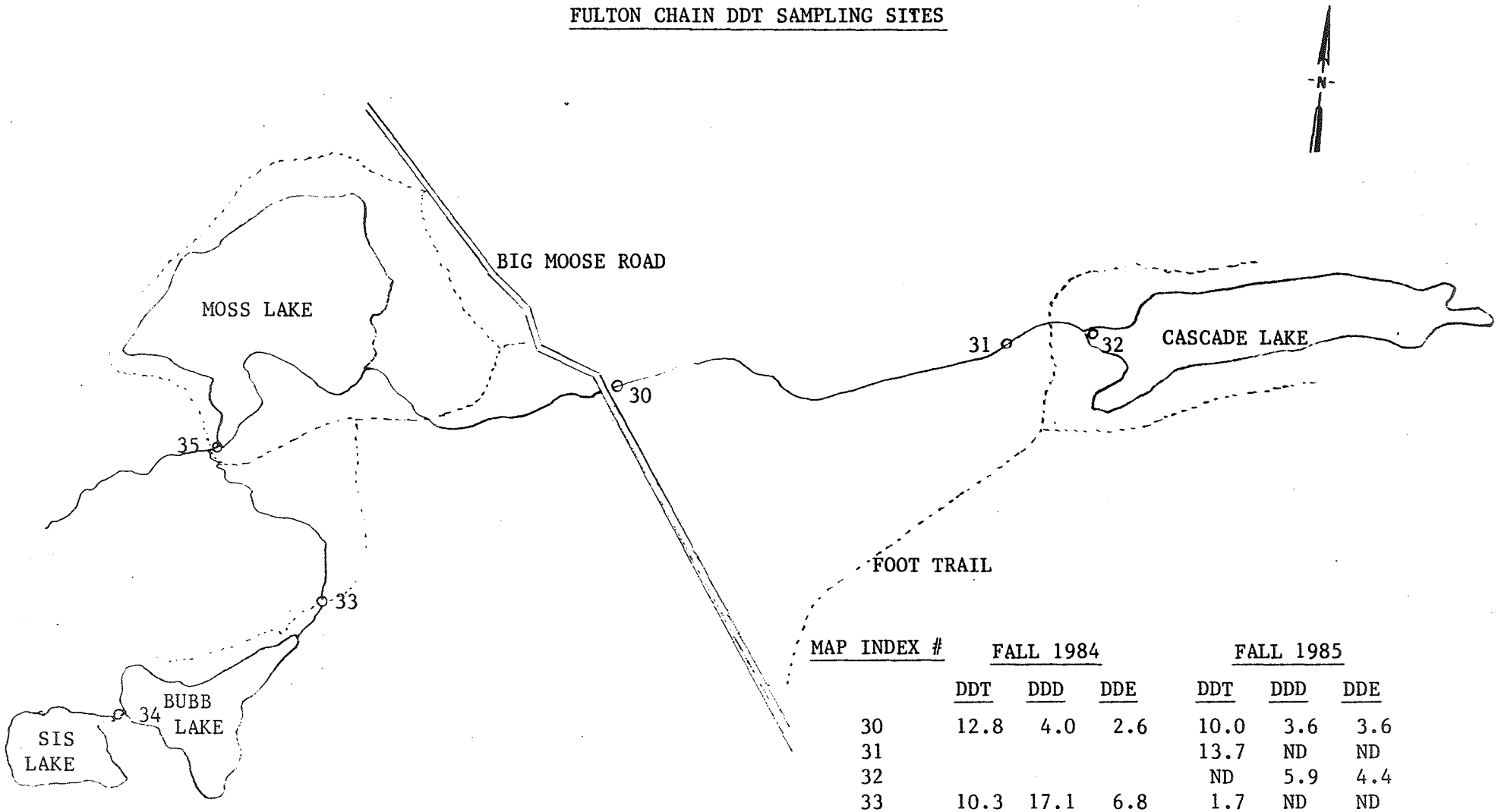
In 1984, a sediment sample was collected from Cascade Lake Outlet just upstream of the Big Moose Road that contained 12.8 ppb DDT, 4.0 ppb DDD, and 2.6 ppb DDE. This prompted additional upstream work in 1985. Again, just upstream of the Big Moose Road, the sample results were very similar to the 1984 amount - 10 ppb DDT. At the lake outlet, no DDT was detected, but 200 yards downstream 13.7 ppb of this contaminant was found. The other metabolites were not detected (see attachment CL1).

In 1986, we again found 10 ppb of DDT at the Big Moose Road site. Only .9 ppb was found near the lake. A soil sample collected from an old dump area adjacent to this stream and approximately 200 yards downstream of the lake produced 53 ppb of DDT. Stream sediment a short distance downstream had 8 ppb of DDT (see attachment CL2).

In 1987, three samples were taken. The highest level of 90 ppb DDT was found at the old dump site. Upstream of this area only 1 ppb was detected while just downstream, 13 ppb of DDT was found.

The evidence gathered during the four years of sampling suggest that a small amount of DDT is probably entering this stream via the old dump site. Additional soil samples were collected within the dump area in 1988. Results have not been received as of this writing.

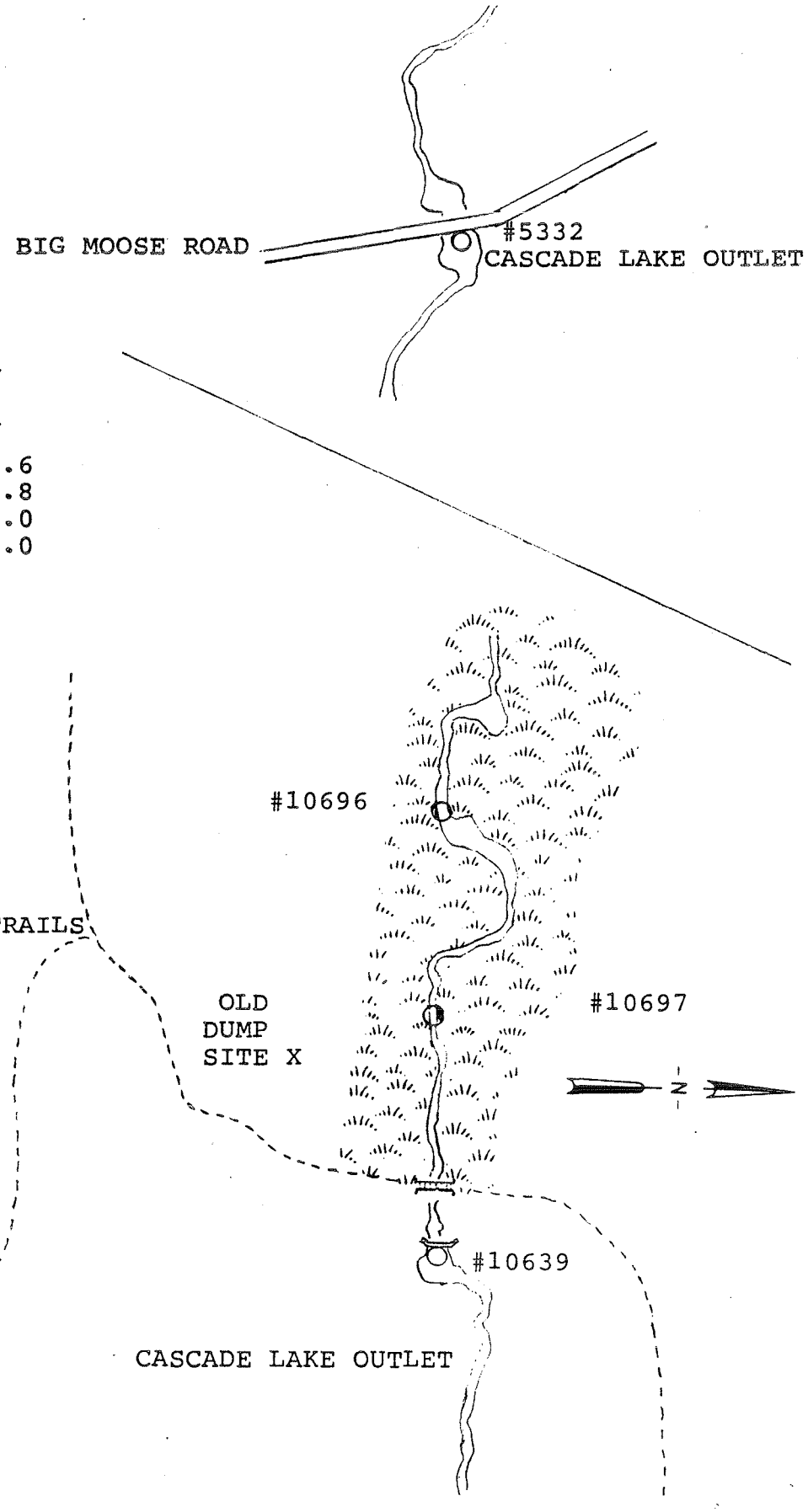
FULTON CHAIN DDT SAMPLING SITES



MAP INDEX #	FALL 1984			FALL 1985		
	DDT	DDD	DDE	DDT	DDD	DDE
30	12.8	4.0	2.6	10.0	3.6	3.6
31				13.7	ND	ND
32				ND	5.9	4.4
33	10.3	17.1	6.8	1.7	ND	ND
34				ND	250.0	40.4
35	ND	ND	ND			

ANALYTICAL RESULTS IN PPB

CASCADE LAKE OUTLET

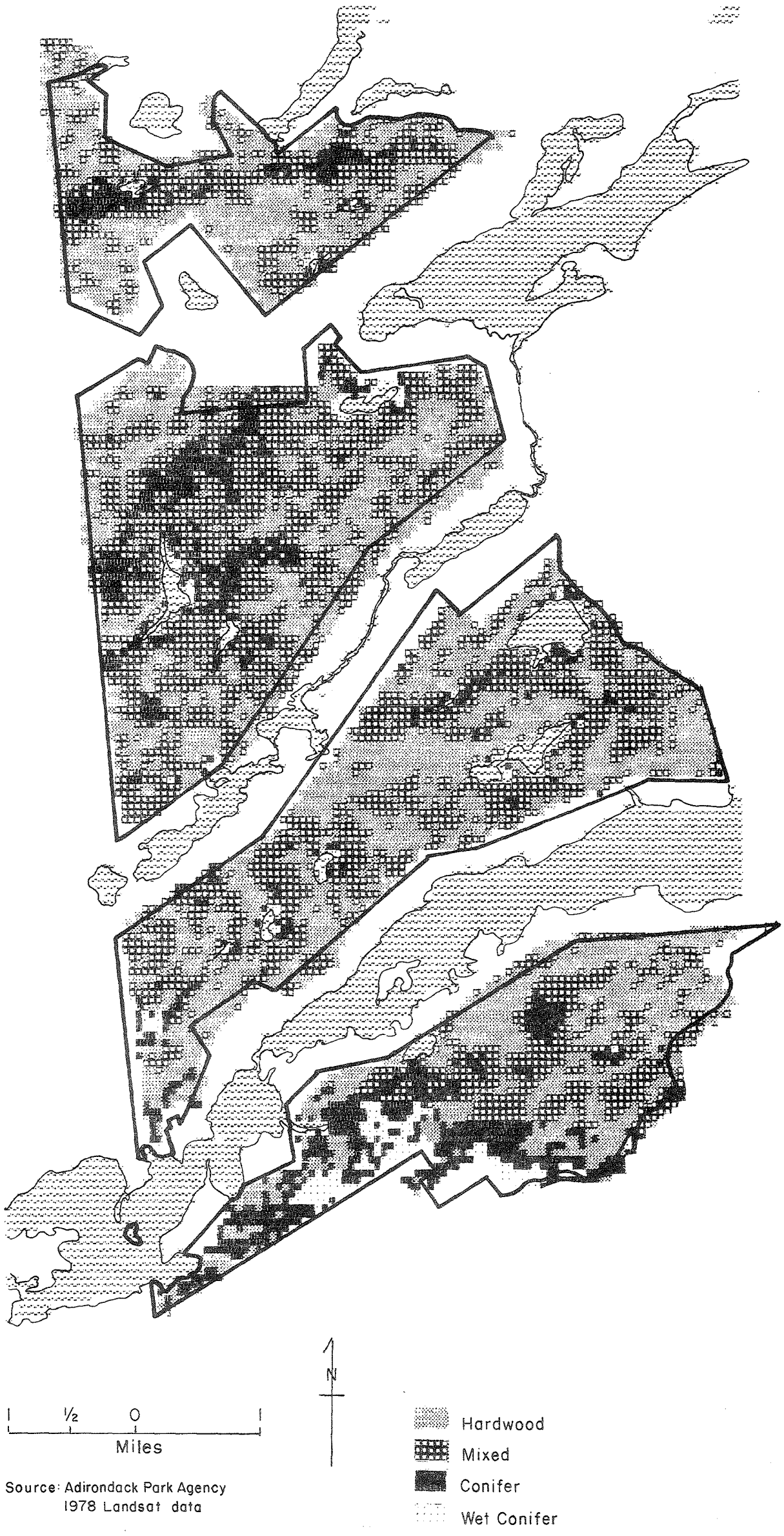


1986 DDT SAMPLING REPORT

#	DDT	DDD	DDE
5332	10	2	2.6
10696	7.8	ND	.8
10697	53	2	29.0
10639	ND	11	46.0

APPENDIX 20

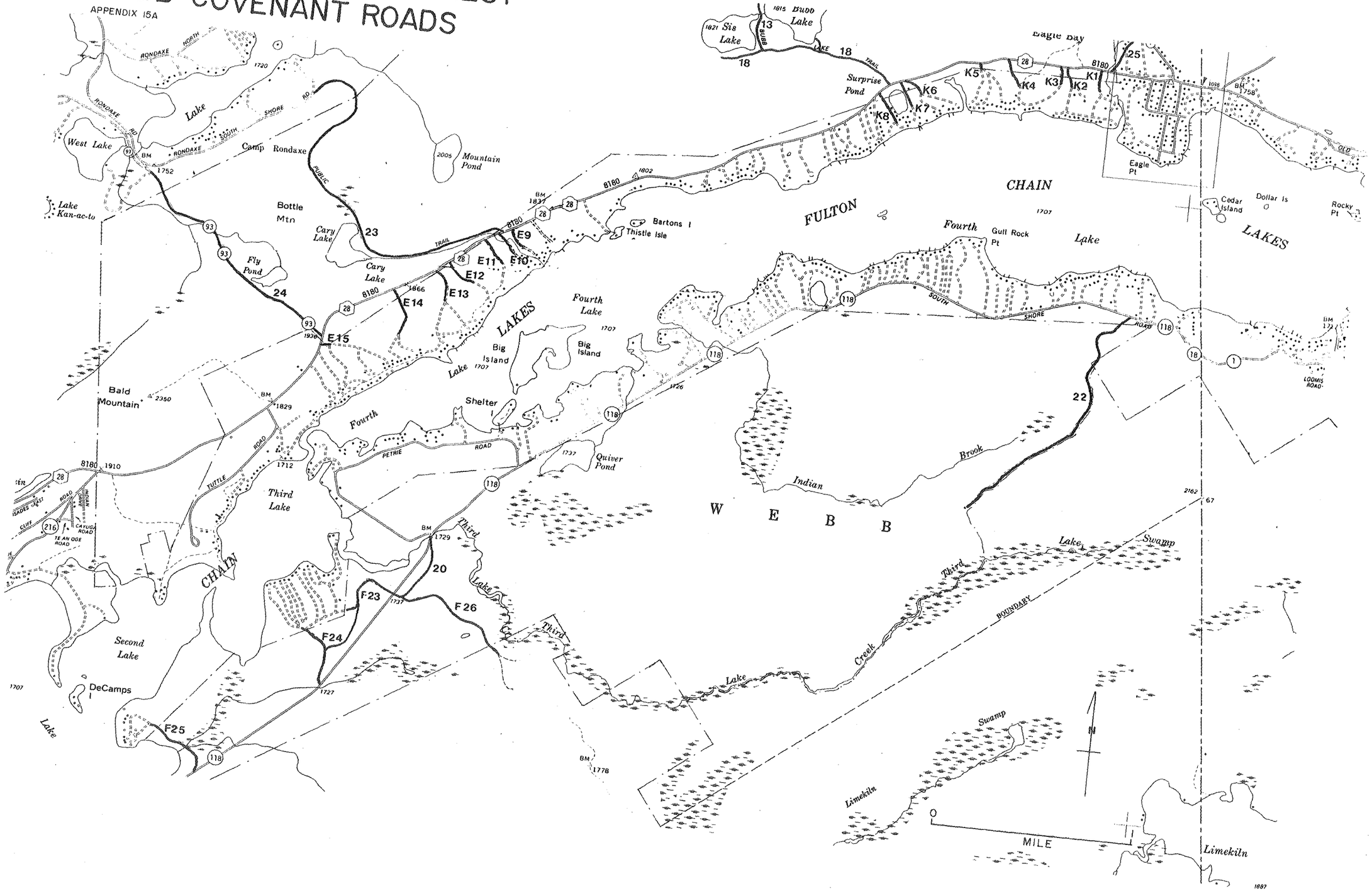
FULTON CHAIN WILD FOREST
LANDCOVER TYPES



Source: Adirondack Park Agency
1978 Landsat data

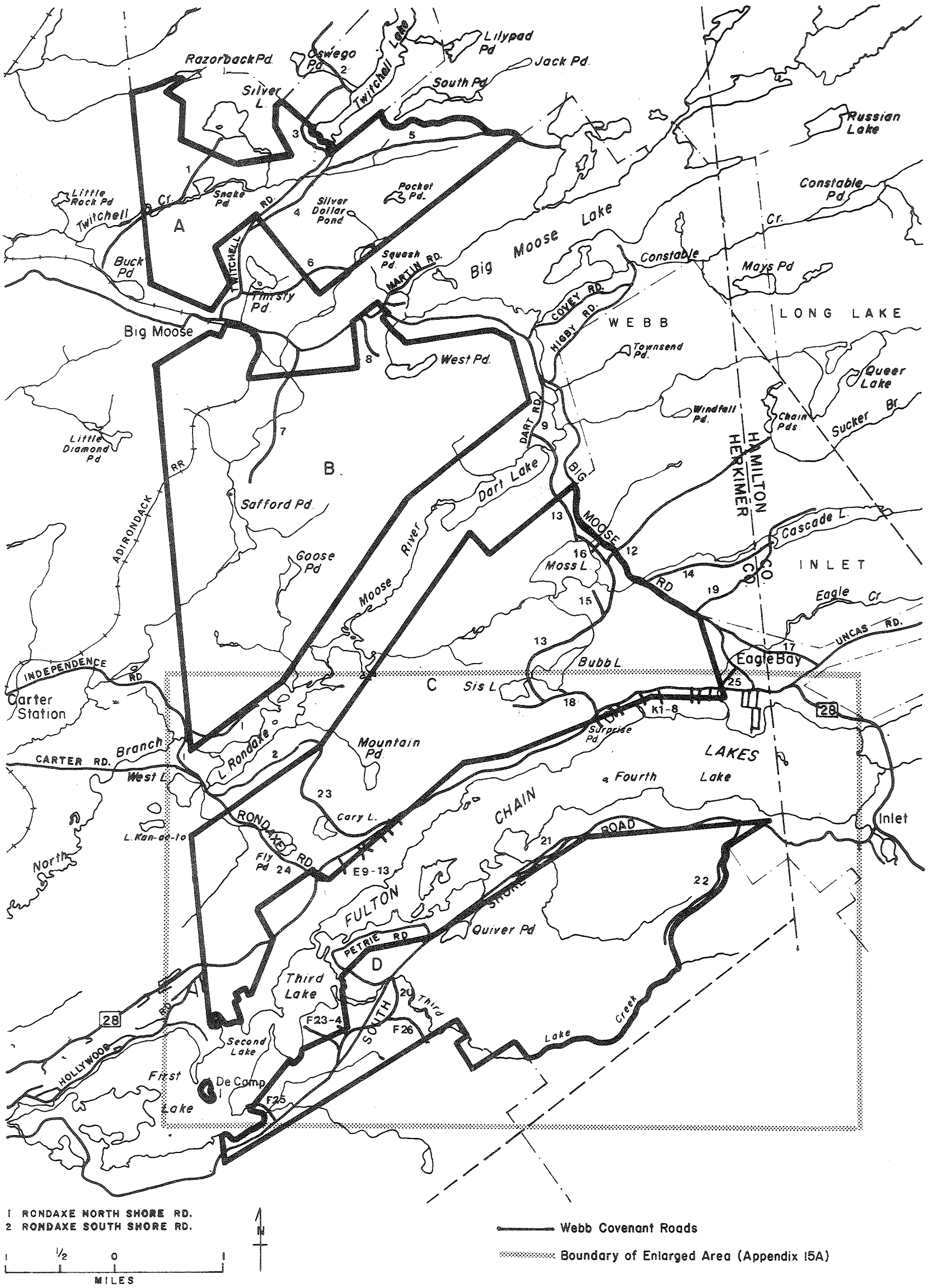
FULTON CHAIN WILD FOREST
WEBB COVENANT ROADS

APPENDIX 15A



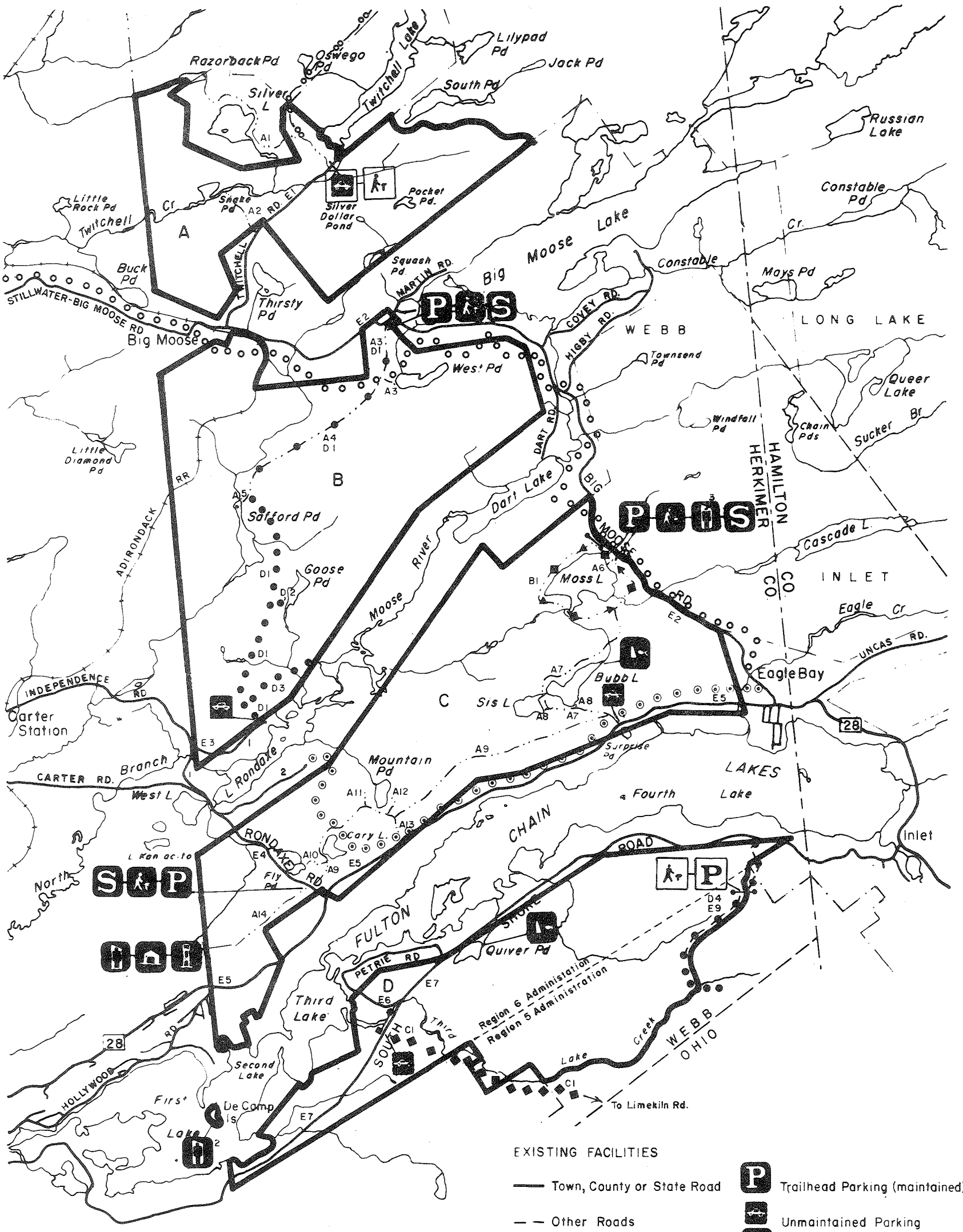
APPENDIX 15

FULTON CHAIN WILD FOREST
WEBB COVENANT ROADS



APPENDIX 9

FULTON CHAIN WILD FOREST FACILITIES



A1 RAZORBACK POND TRAIL
A2 SNAKE POND TRAIL
A3 WEST POND TRAIL
A4 SAFFORD POND TRAIL
A5 SAFFORD POND INLET TRAIL
A6 MOSS LAKE TRAIL
A7 BUBB LAKE-SIS LAKE TRAIL
A8 BUBB & SIS LAKE SPUR TRAILS
A9 SCENIC MOUNTAIN TRAIL
A10 FLY POND SPUR TRAIL
A11 CORK MOUNTAIN SPUR TRAIL
A12 MOUNTAIN POND SPUR TRAIL
A13 MOUNTAIN POND TRAIL
A14 RONDAXE FIRE TOWER TRAIL

B1 MOSS LAKE CIRCUIT TRAIL
C1 LAKE CROSSOVER TRAIL
D1 SAFFORD POND TRAIL
D2 GOOSE POND SPUR TRAIL
D3 MOOSE RIVER SPUR TRAIL
D4 ELLIS ROAD
E1 TWITCHELL ROAD
E2 BIG MOOSE ROAD
E3 RONDAXE LAKE (N. SHORE) RD.
E4 RONDAXE ROAD
E5 NYS ROUTE 28
E6 PETRIE ROAD
E7 SOUTH SHORE ROAD
E9 ELLIS ROAD

EXISTING FACILITIES

- Town, County or State Road
- Other Roads
- Foot Trail
- Snowmobile Trail (DEC)
- Town Snowmobile Trail (Former Raquette Lake RR bed)
- Horse Trail
- Ski Trail
- Gate
- Barricade
- Trailhead Parking (maintained)
- Unmaintained Parking
- Trail Register
- Fire Tower
- Observer's Cabin
- Pit Privy
- Fish Barrier Dam
- Major Sign

PROPOSED FACILITIES

- New Foot Trail
- New Snowmobile Trail
- New Trail Register
- New Parking Area
- Improve & Maintain Parking Area

APPENDIX 4

FULTON CHAIN WILD FOREST
TOPOGRAPHY