

MEMORANDUM

TO: E. G. West

FROM: G. S. Haderup

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

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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 covenant 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

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.

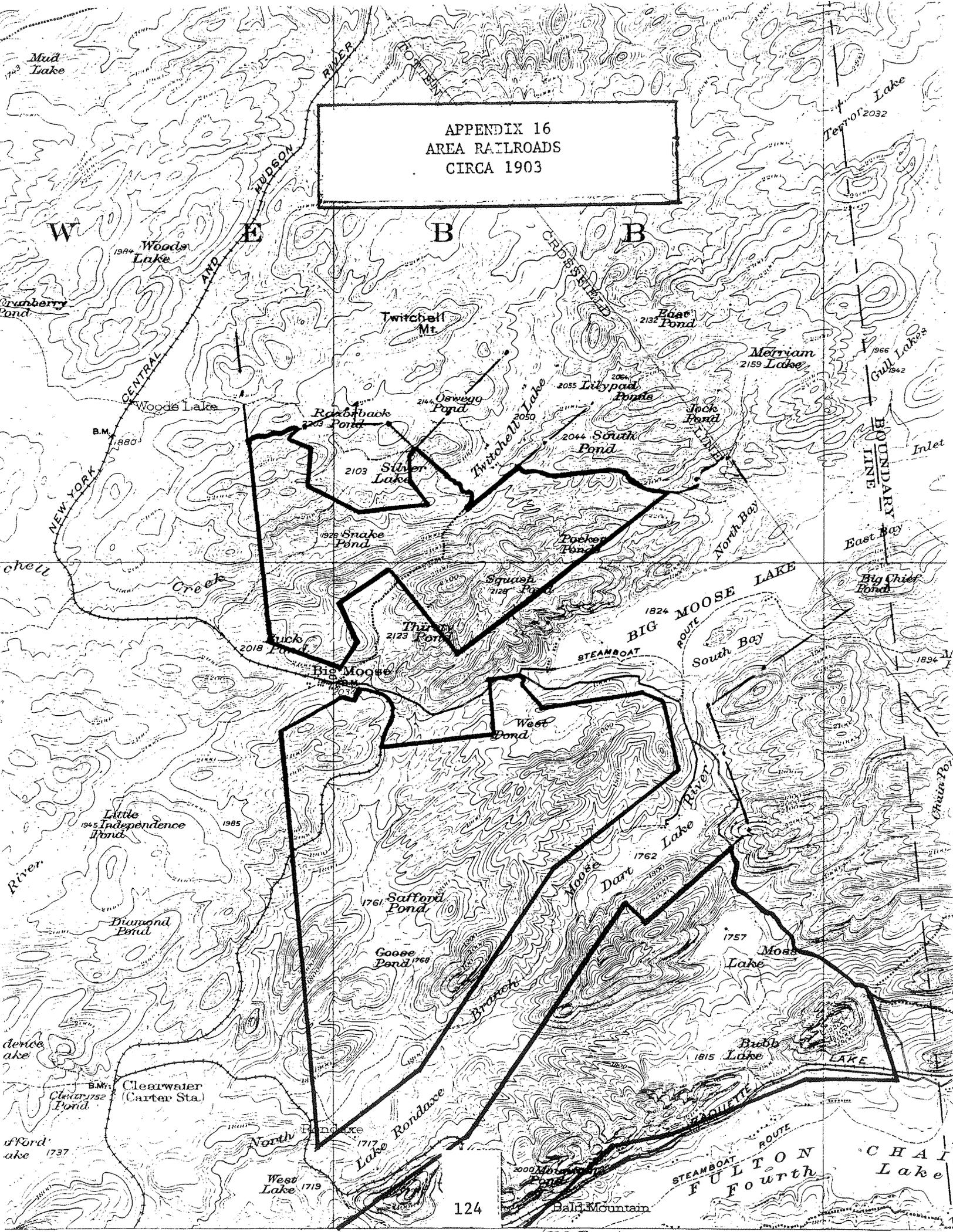
LAKES AND PONDS LISTED IN WEBB DEED - BOOK 164, PAGE 85

"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



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   
 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

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## 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 situated 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 Gumdrops 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, witchhopper 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 otherwise 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 appropriate, 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.

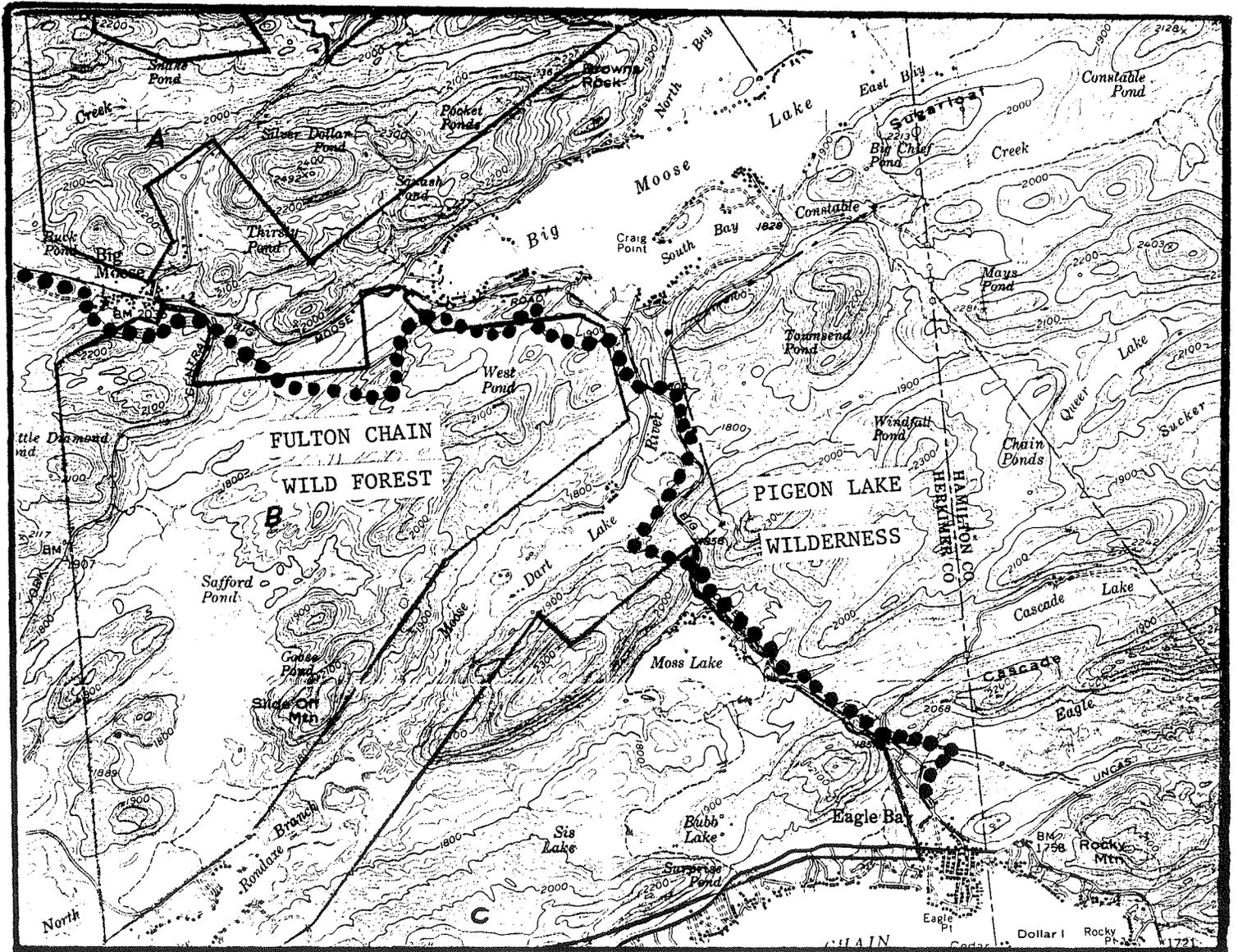
Alternatives include:

- 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

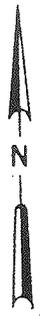


VIII. COMMENTS RECEIVED ON DEIS

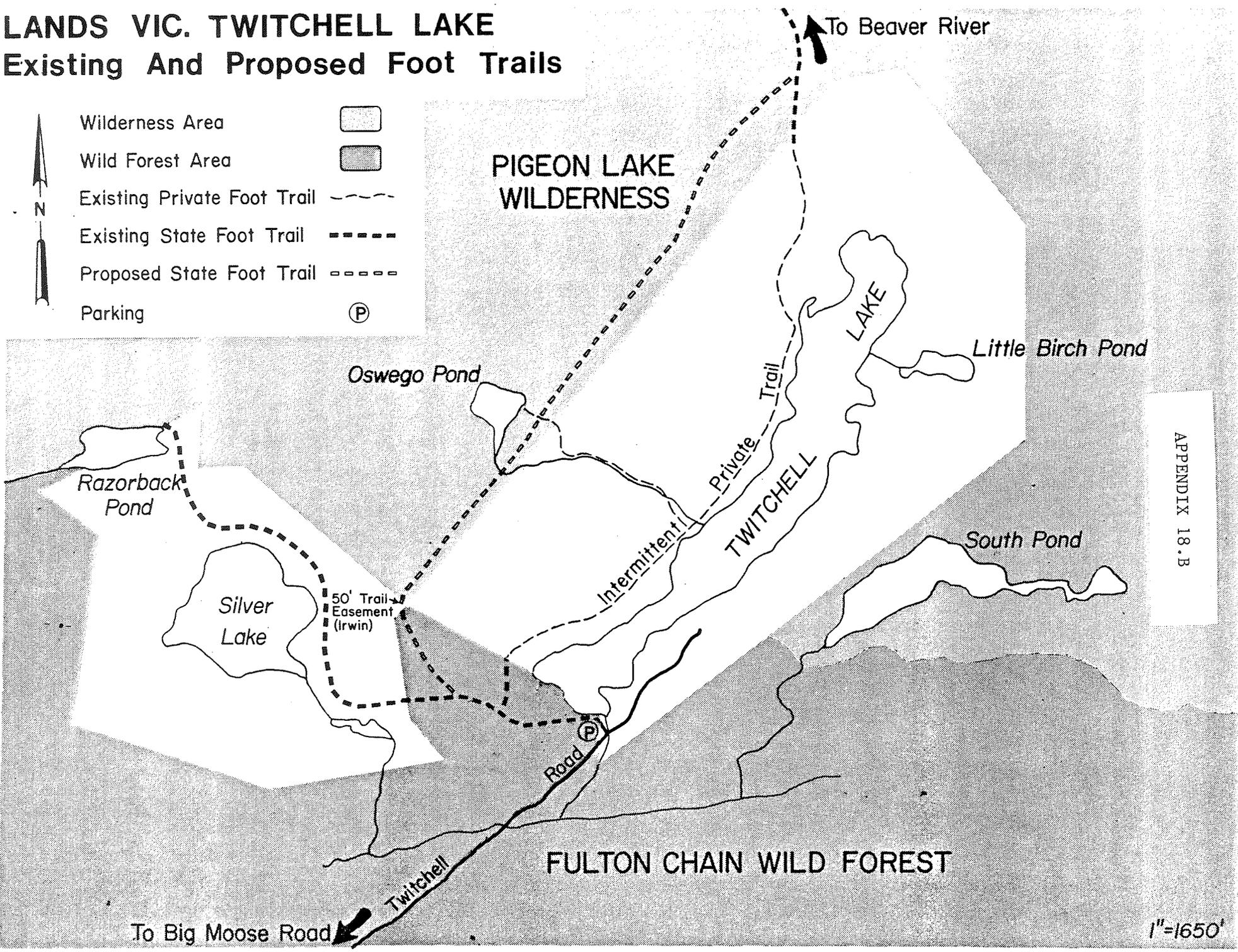
No comments specific to the DEIS were received during the comment period and/or public meeting/hearing.

# 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 P



APPENDIX 18.B

158

To Big Moose Road

1"=1650'

APPENDIX 19 A.

FULTON CHAIN WILD FOREST

SIGN INVENTORY

Signs

<u>No.</u>	<u>Arrow/Marker</u>	<u>Legend</u>	<u>Miles</u>	<u>Location</u>
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	1.00	.25 Miles east of
		Big Moose Lake	4.00	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	1.00	Orvis Trailhead
		Big Safford Pond	4.00	Parking Lot
97	Left	West Pond	.25	.5 Miles from Orvis Parking Lot
145	Right	Mountain Pond	1.75	Trailhead on Rondaxe
		Trail to Fly Pond	.30	Road
		Carry Pond	.60	
		Old Raquette RR Bed	.70	
-	-	Trailhead Parking		Third Lake Creek
		Trail To:		Trailhead
		Limekiln Campsite	7.40	
		Limekiln Road	8.40	

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.

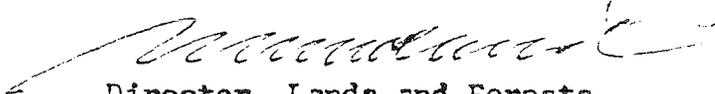
In view of the unusual physical conditions which exist at the site and the fact that a very minor portion of the structure rests on State lands under the water, we are herewith granting you a temporary revocable permit for the maintenance of the boat house at its present location.

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.

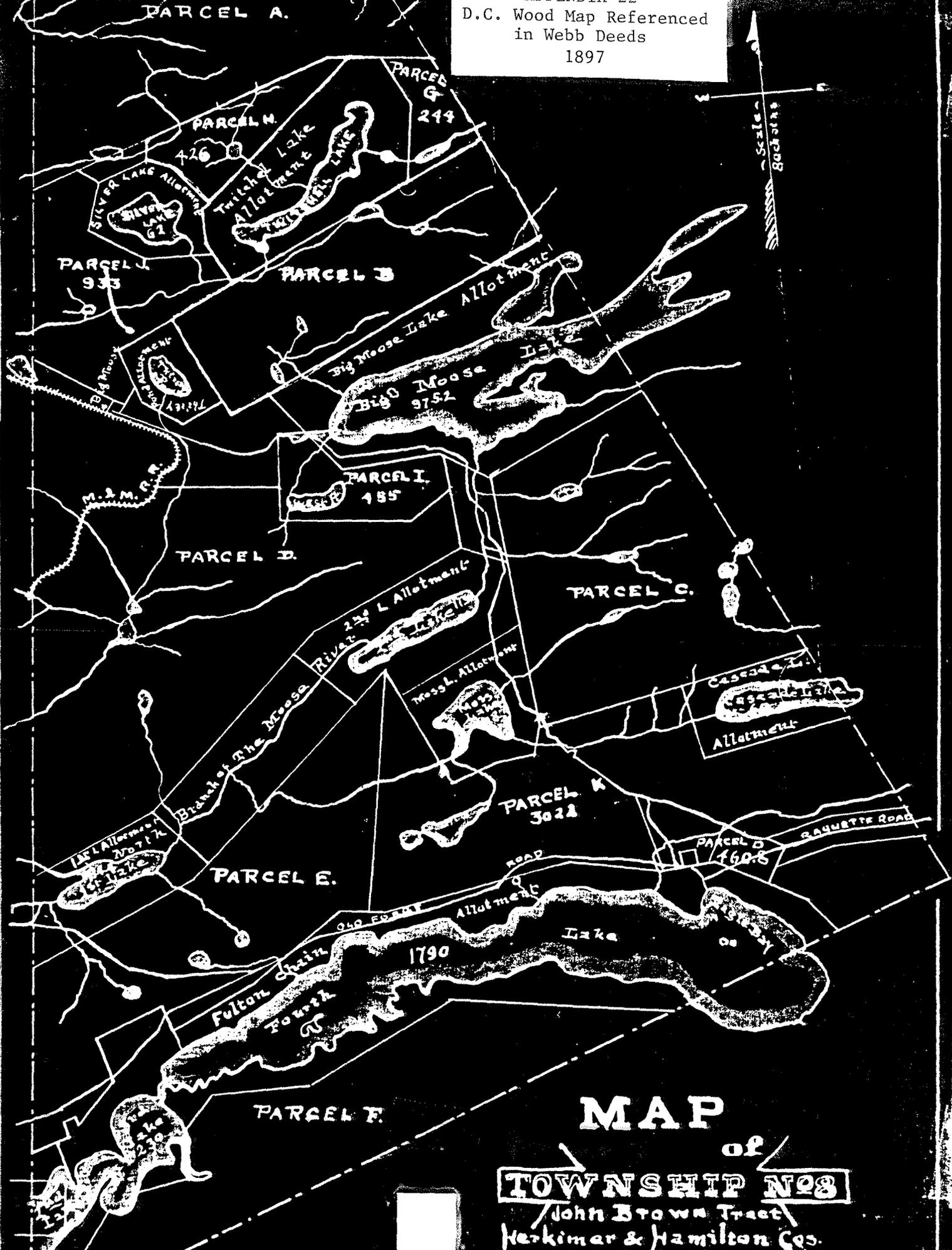
Very truly yours,



Director, Lands and Forests

WDM:jh  
cc: Coutant (2)

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



**MAP**  
of  
**TOWNSHIP NO. 8**  
John Brown Tract  
Herkimer & Hamilton Cos.  
N.Y.



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 (catherinets), 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

## EASTERN FOREST COVER TYPES

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

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Experiment Station

ZORAN MAJČEN and  
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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 (hobble-bush), eastern hophornbeam, witch-hazel, viburnums, and serviceberry seedlings, as well as root suckers of beech are also common. Hay-scented fern, bracken, and shorthusk grass are often found in the undergrowth. Spring geophytes, such as ladyslippers, hepaticas, trilliums, and jack-in-the-pulpits, are locally common, as are various club-mosses, violets, asters, and species of woodsorrel.

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Hampshire (Heimbürger 1934, Leak and Graber 1974).

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

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

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

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

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

ALAN G. GORDON  
Ontario Ministry of  
Natural Resources  
Central Forest Research Unit

## 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

## 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 wind-throw, 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. Har-

vesting 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.

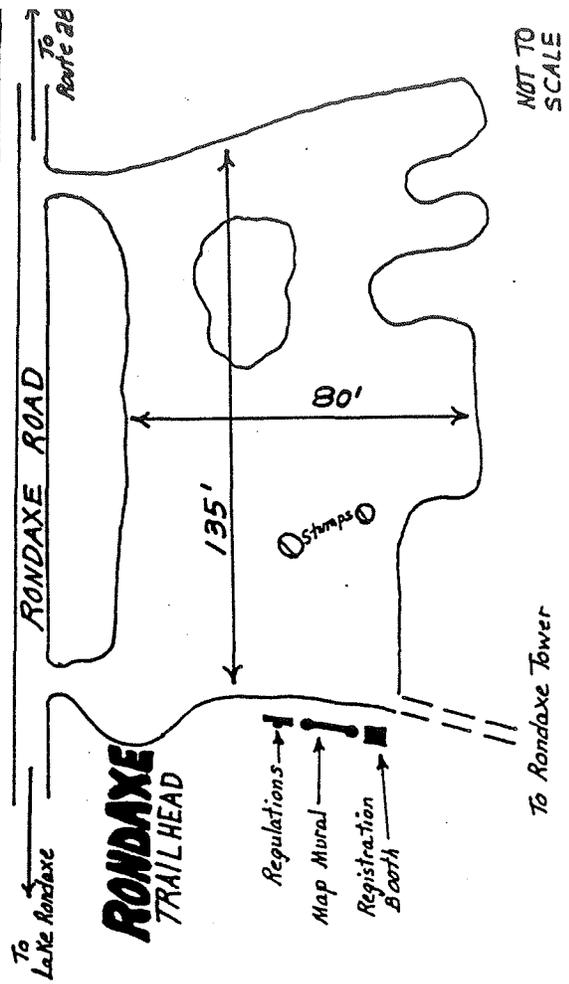
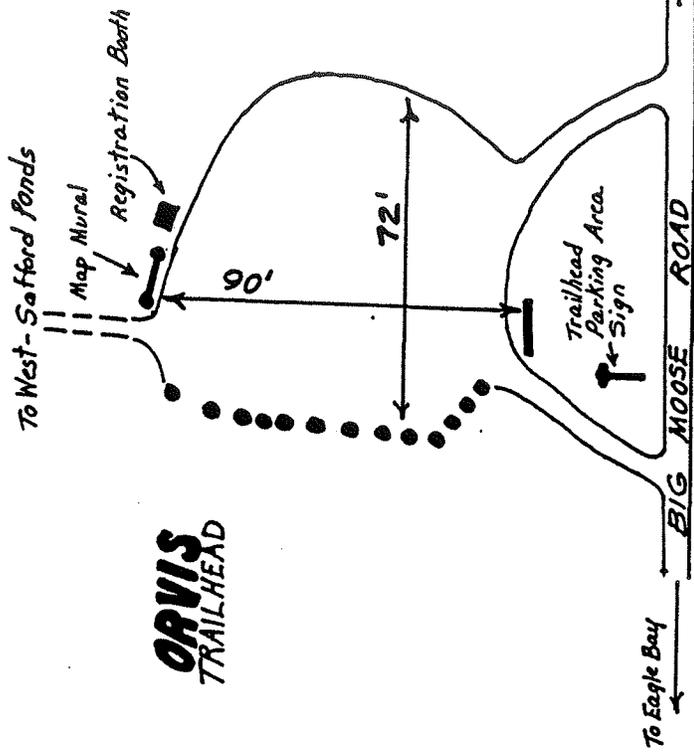
*Variants and associated vegetation.*—The black spruce—tamarack type (No. 13) occurs sporadically in northern Minnesota and is usually considered a variant there. Another variant, which occurs principally in Michigan on good swamp sites, is a mixture of northern white-cedar, spruce (black and white), 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).

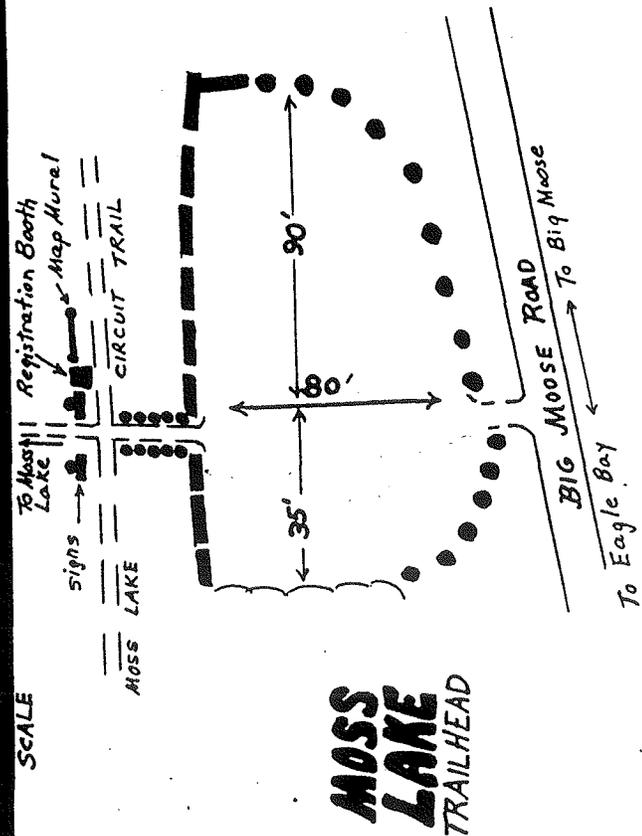
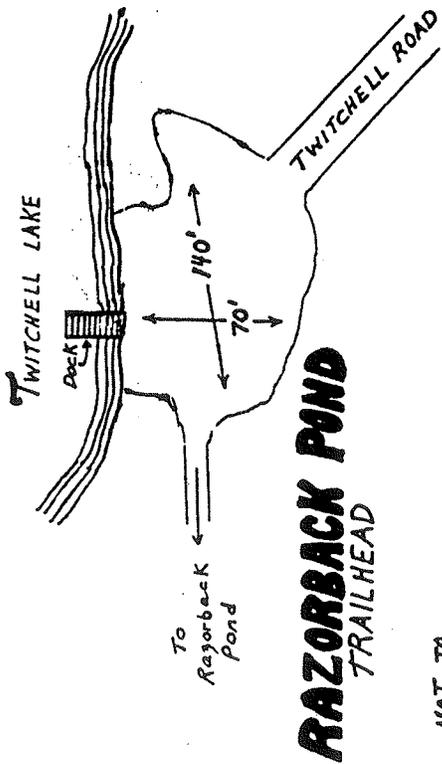
The tamarack type commonly supports an understory of black spruce, and because of the light shade cast, it usually has a dense undergrowth of shrubs and herbs. Dominant tall shrubs include birch (dwarf and swamp), willows, speckled alder, and red-osier dogwood; low shrubs include Labrador-tea, bog-rosemary, 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 Areas



APPENDIX 25  
TRAILHEAD PARKING AREA MAPS



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



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.

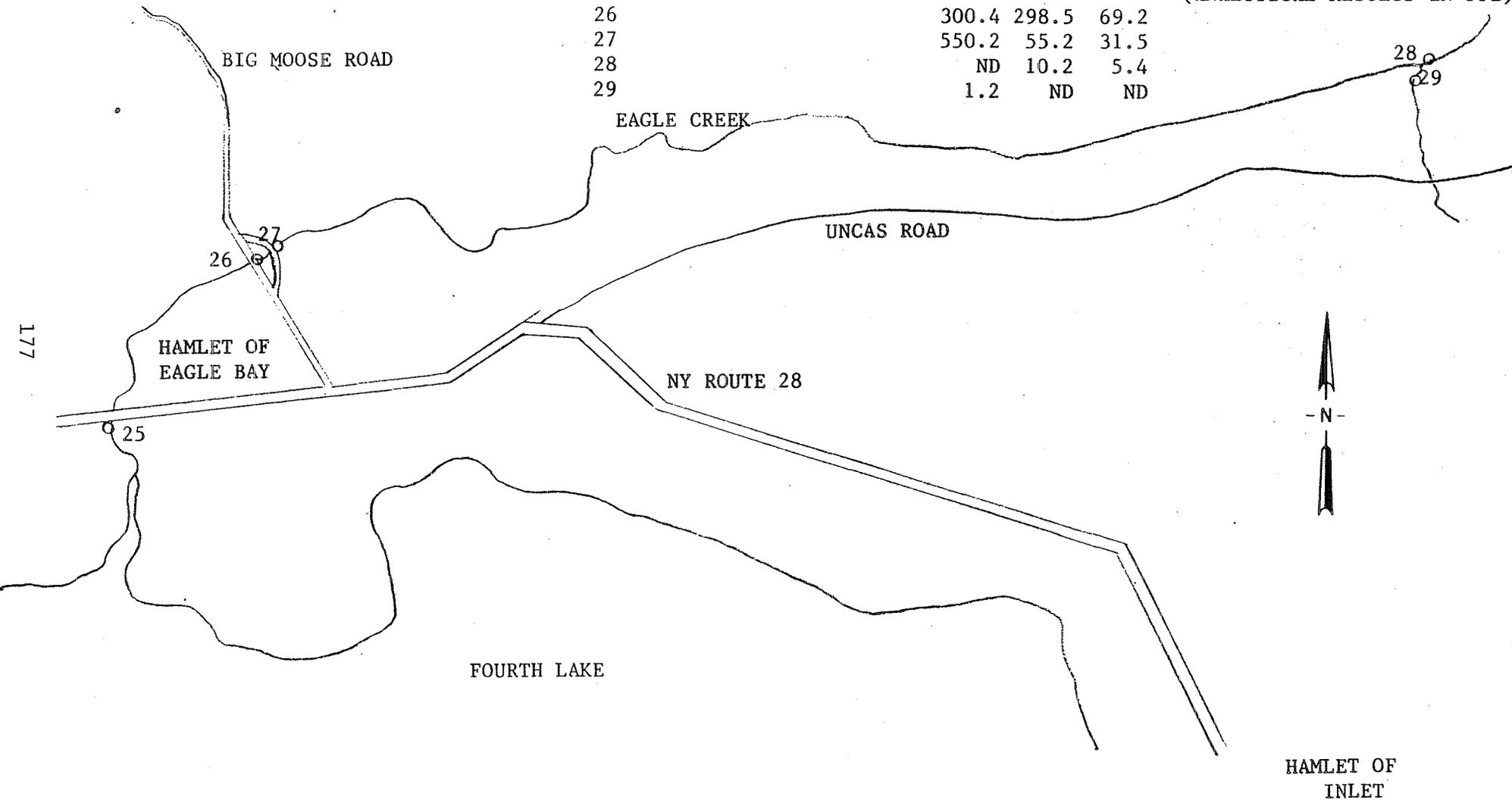
Four sample sites were chosen. The first site, sample #10920 was collected 30 yards downstream of the Big Moose Road. It produced 52 ppb of DDT, 10 ppb DDD, and 10 ppb DDE. Sample #10921 which was collected approximately 200 feet downstream of sample 10920 had 15 ppb DDT, 2 ppb DDD and 2 ppb DDE, and 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.

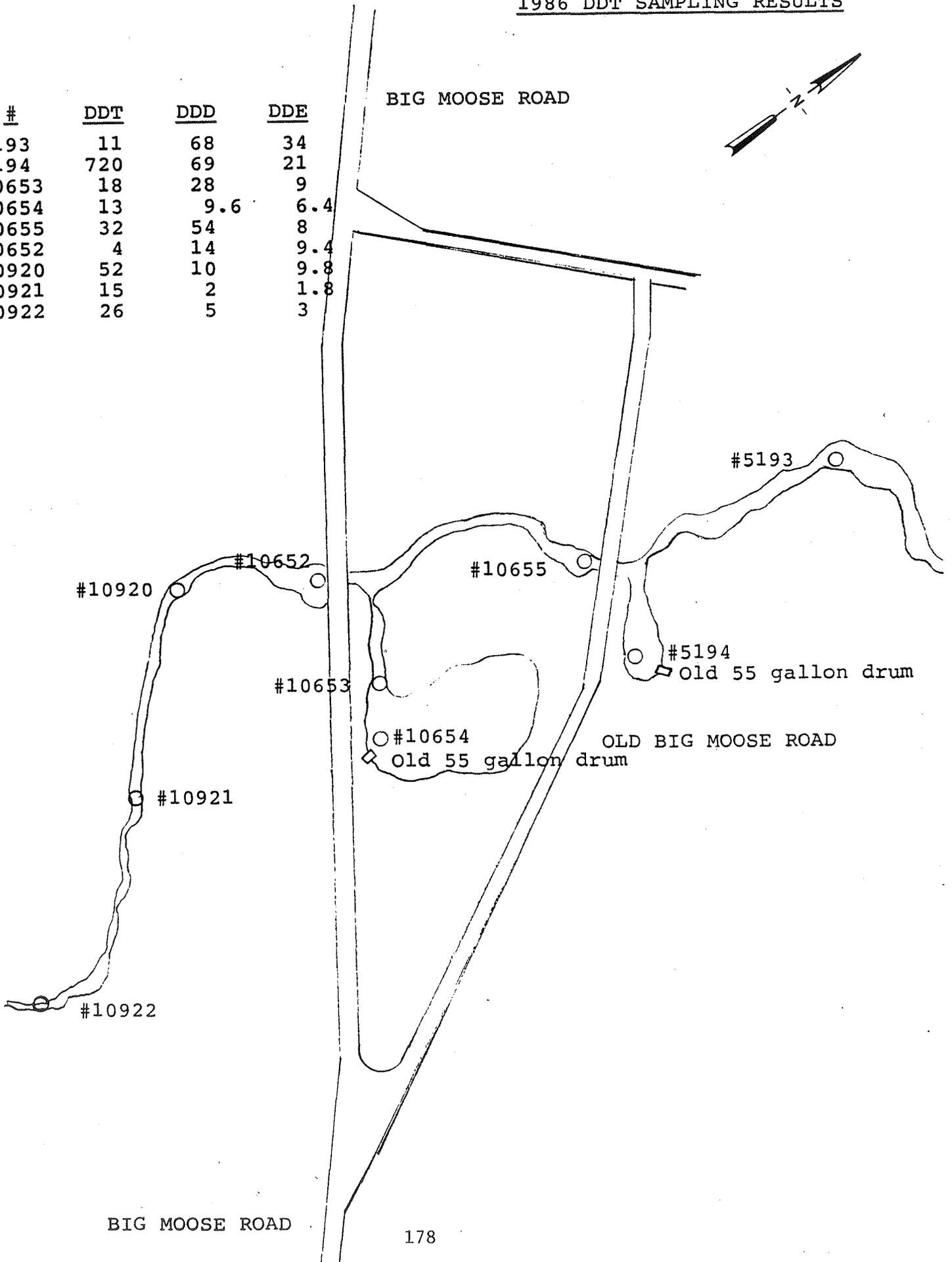
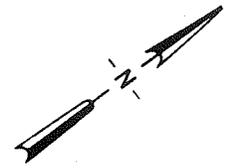
FULTON CHAIN DDT SAMPLING SITES

MAP INDEX #	FALL 1984			FALL 1985			(ANALYTICAL RESULTS IN PPB)
	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	



EAGLE CREEK  
1986 DDT SAMPLING RESULTS

<u>#</u>	<u>DDT</u>	<u>DDD</u>	<u>DDE</u>
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
987) 10920	52	10	9.8
987) 10921	15	2	1.8
987) 10922	26	5	3



BIG MOOSE ROAD

### 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).

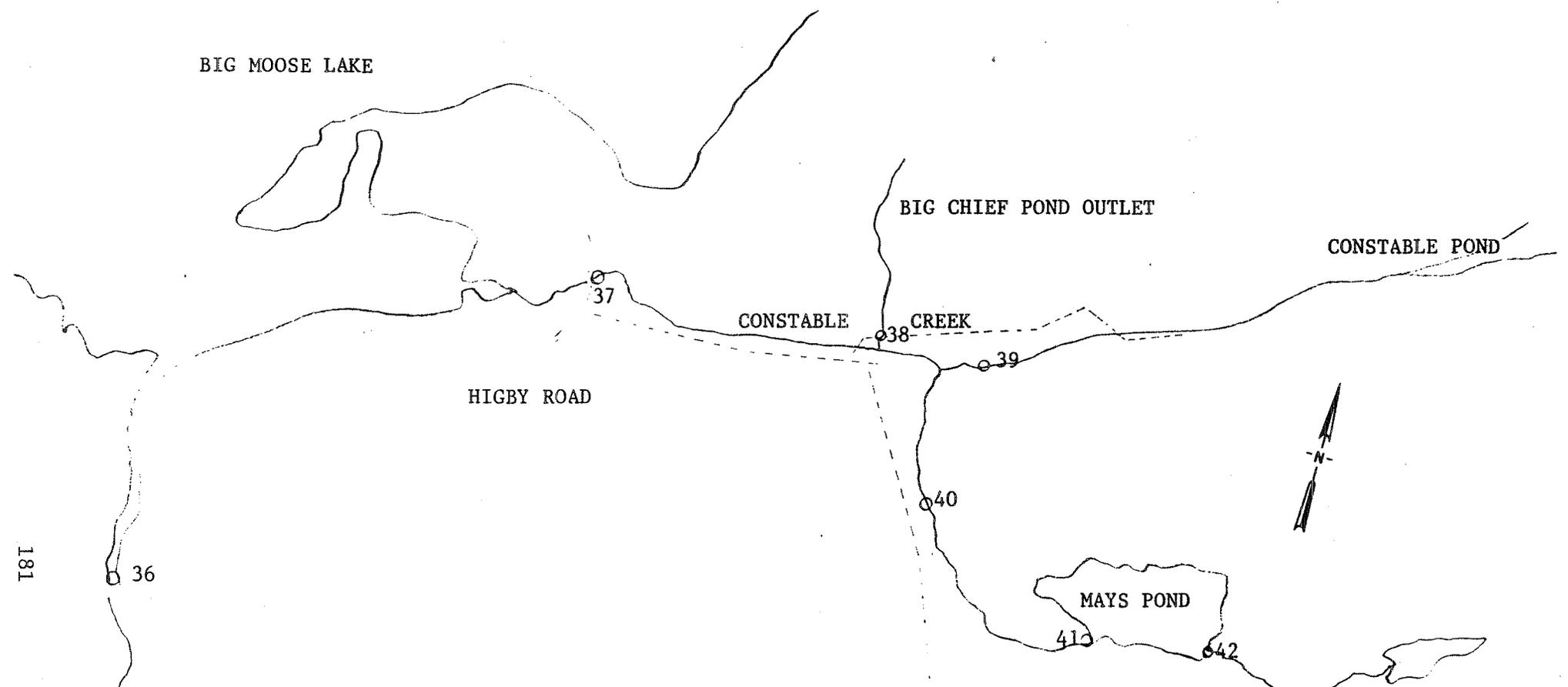
In 1986, we decided to collect a number of samples just downstream of the 3,723 ppb area and between that point and the lake sampling site. None of these six samples, which were spread over 800 feet of stream, produced significant levels of DDT. One site, approximately 100 feet upstream of the 3,000+ 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.

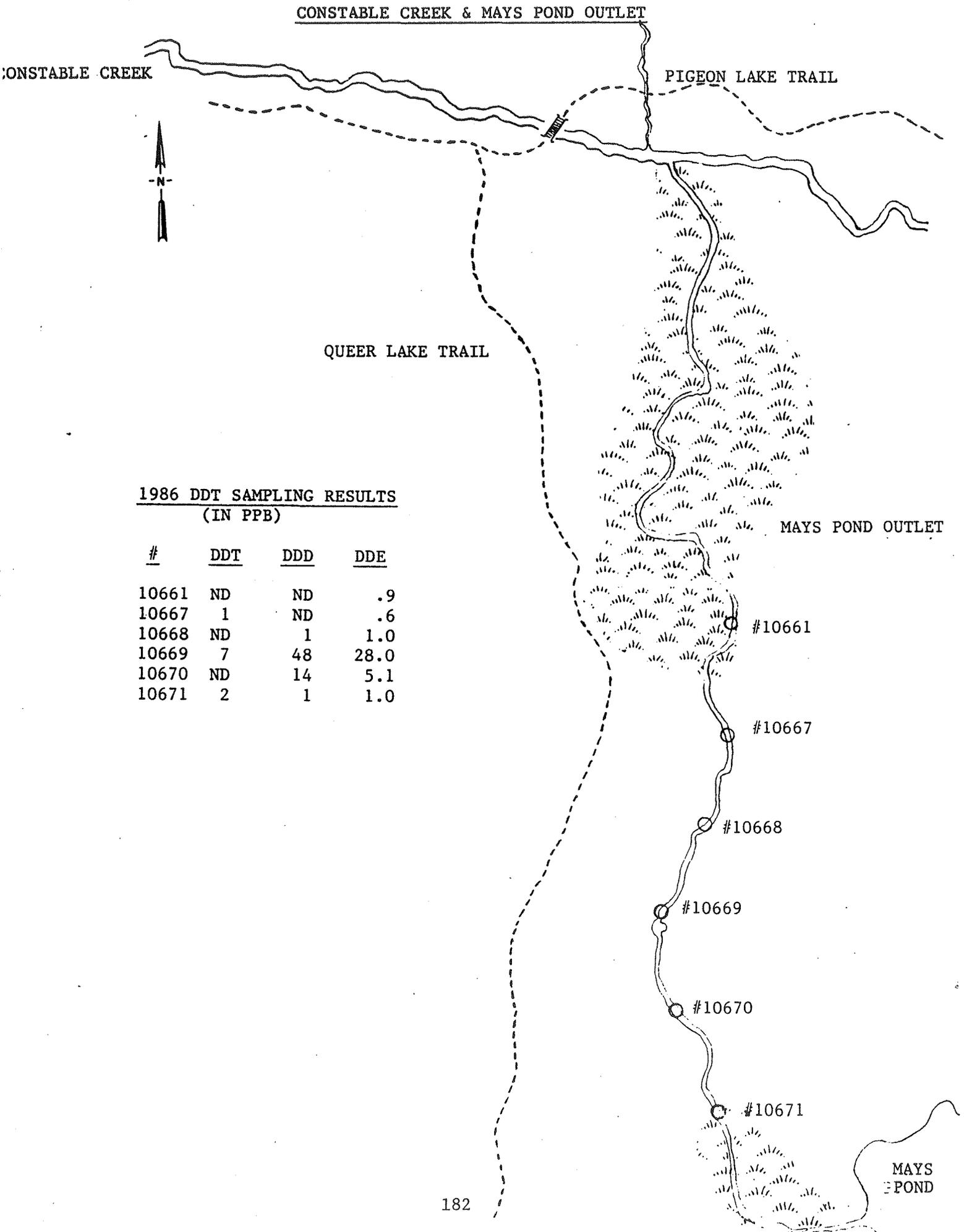
In 1988, core sediment samples were collected from this area in an attempt to find DDT levels at various sediment depths. We do not have these analytical results at this time.

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		
	<u>DDT</u>	<u>DDD</u>	<u>DDE</u>	<u>DDT</u>	<u>DDD</u>	<u>DDE</u>	<u>DDT</u>	<u>DDD</u>	<u>DDE</u>
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

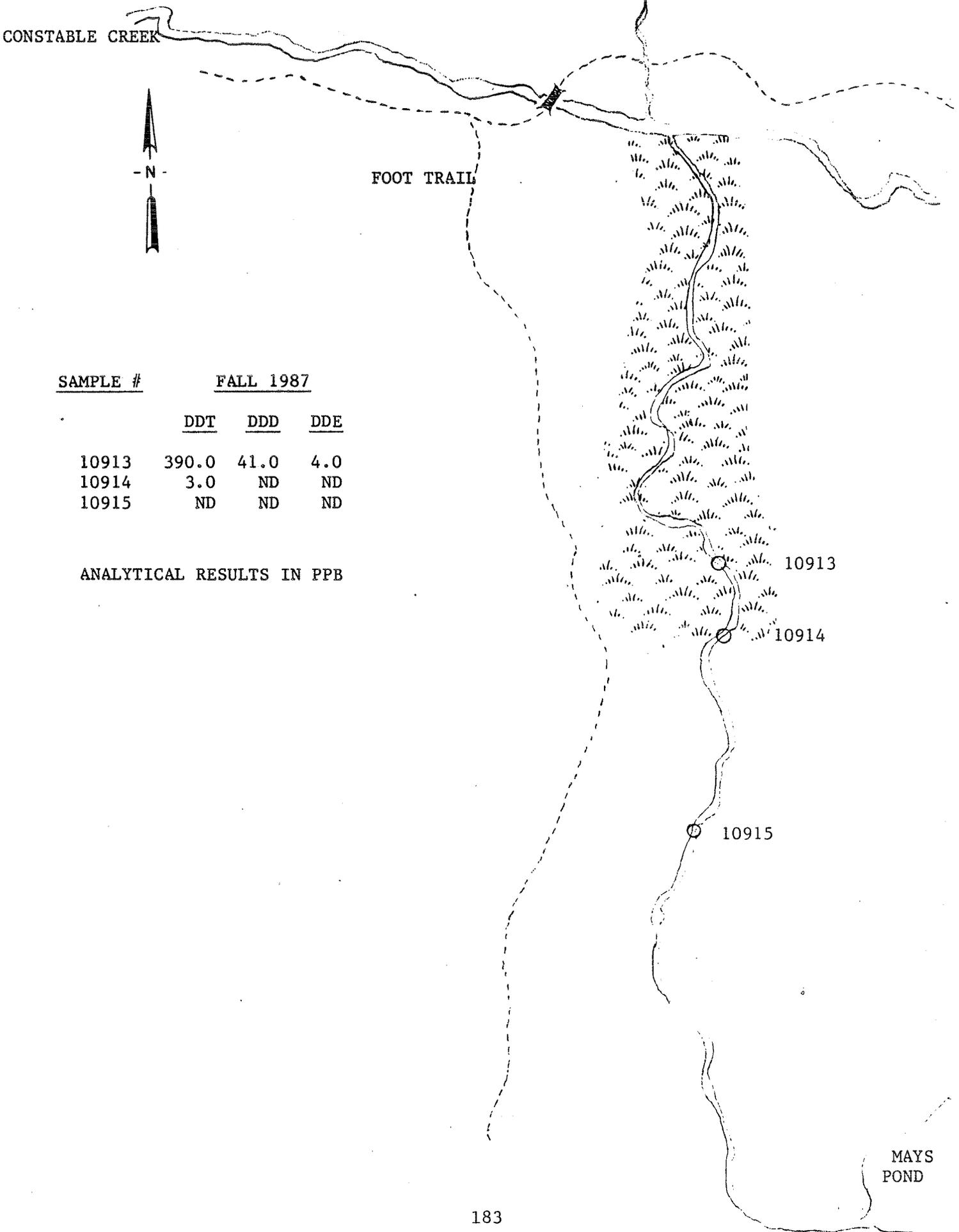
ANALYTICAL RESULTS IN PPB



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



<u>SAMPLE #</u>	<u>FALL 1987</u>		
	<u>DDT</u>	<u>DDD</u>	<u>DDE</u>
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.

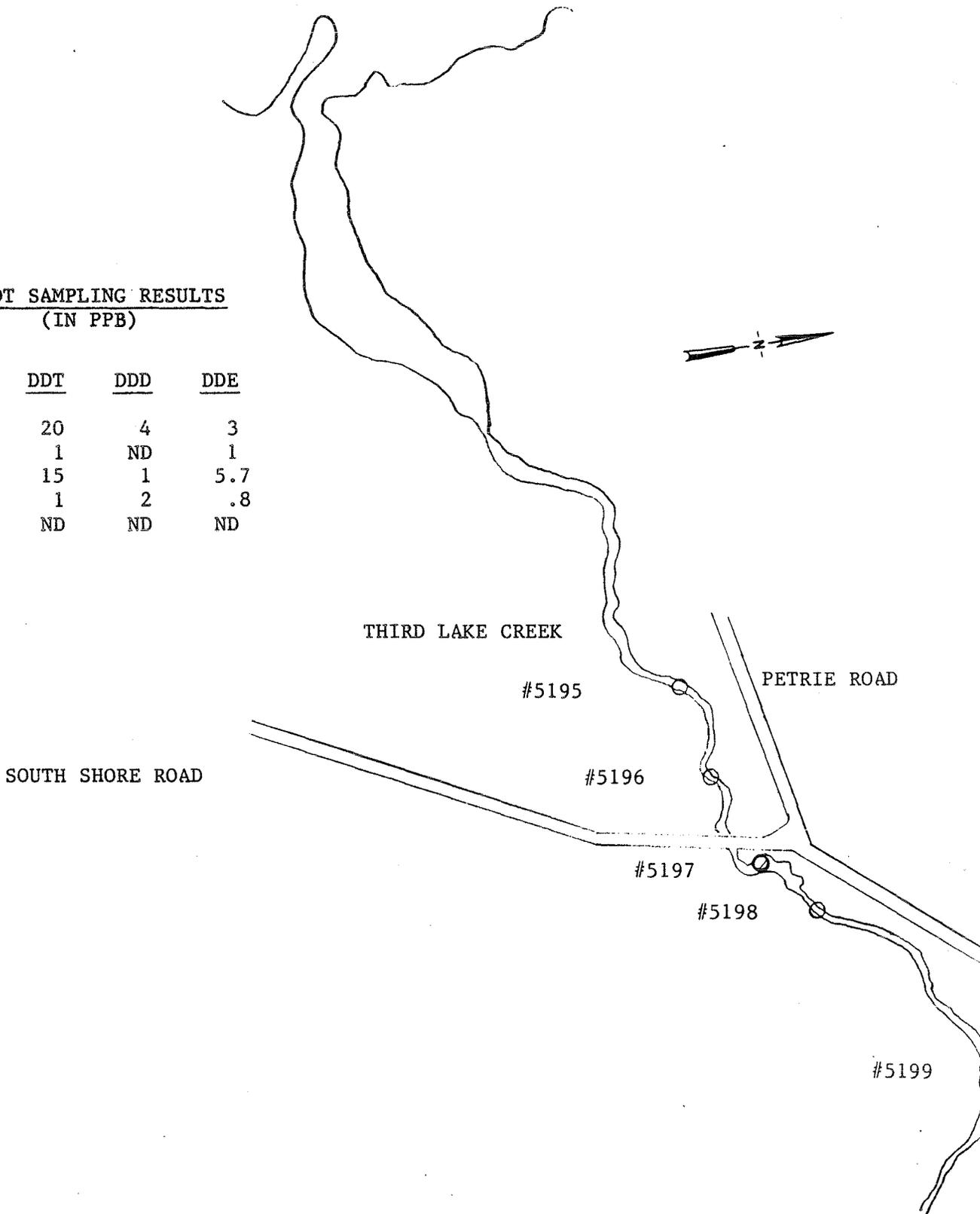
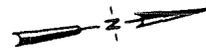
The results of the past four years of sampling suggests that DDT entered this watershed just upstream of the South Shore Road during the last 10-15 years and has migrated towards Third Lake. Future sampling of the lake sediment is necessary to determine the magnitude of past DDT use in Third Lake Creek.

THIRD LAKE CREEK

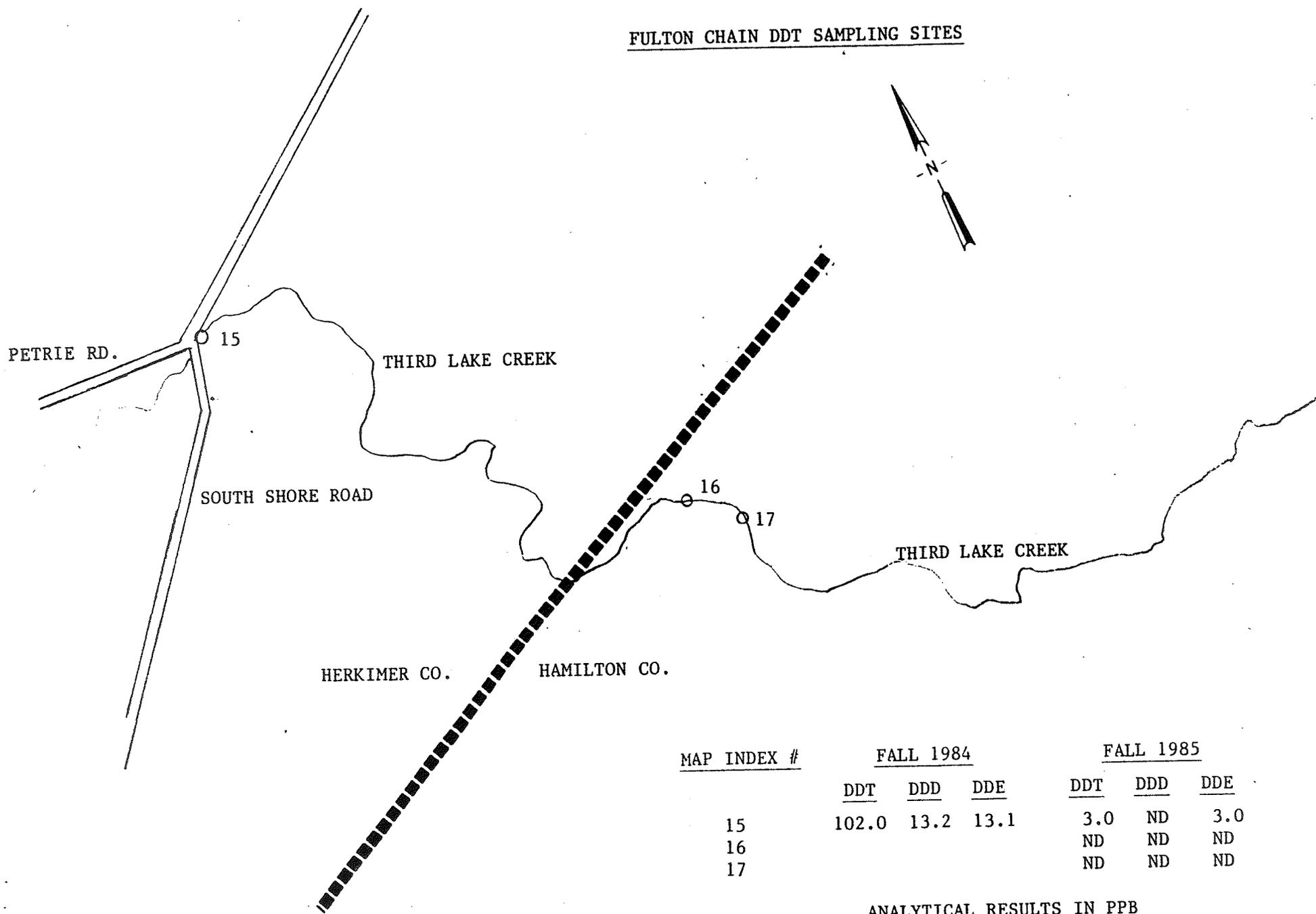
THIRD LAKE

1986 DDT SAMPLING RESULTS  
(IN PPB)

<u>#</u>	<u>DDT</u>	<u>DDD</u>	<u>DDE</u>
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



<u>MAP INDEX #</u>	<u>FALL 1984</u>			<u>FALL 1985</u>		
	<u>DDT</u>	<u>DDD</u>	<u>DDE</u>	<u>DDT</u>	<u>DDD</u>	<u>DDE</u>
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

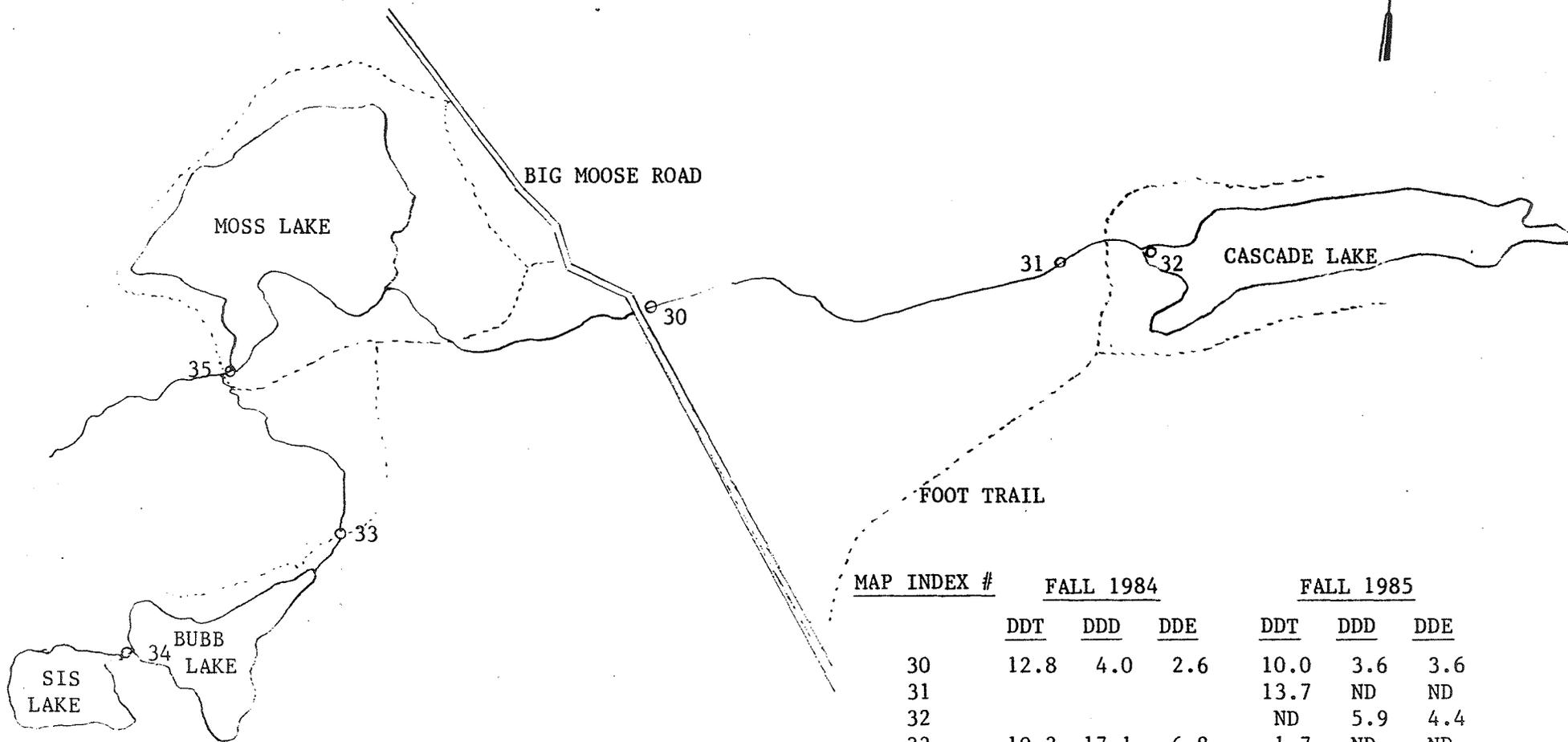
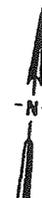
In 1984, a sediment sample was collected from Cascade Lake Outlet just upstream of the Big Moose Road that contained 12.8 ppb DDT, 4.0 ppb DDD, and 2.6 ppb DDE. This prompted additional upstream work in 1985. Again, just upstream of the Big Moose Road, the sample results were very similar to the 1984 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.

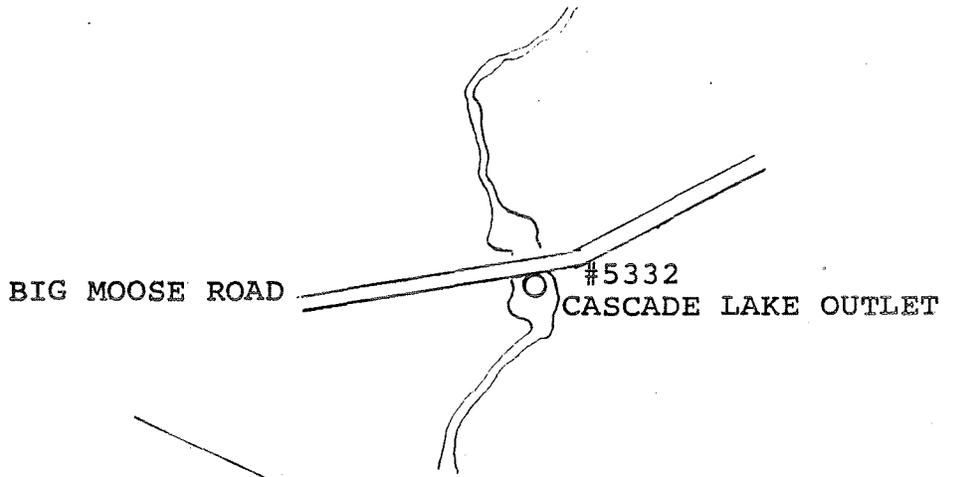
FULTON CHAIN DDT SAMPLING SITES



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			

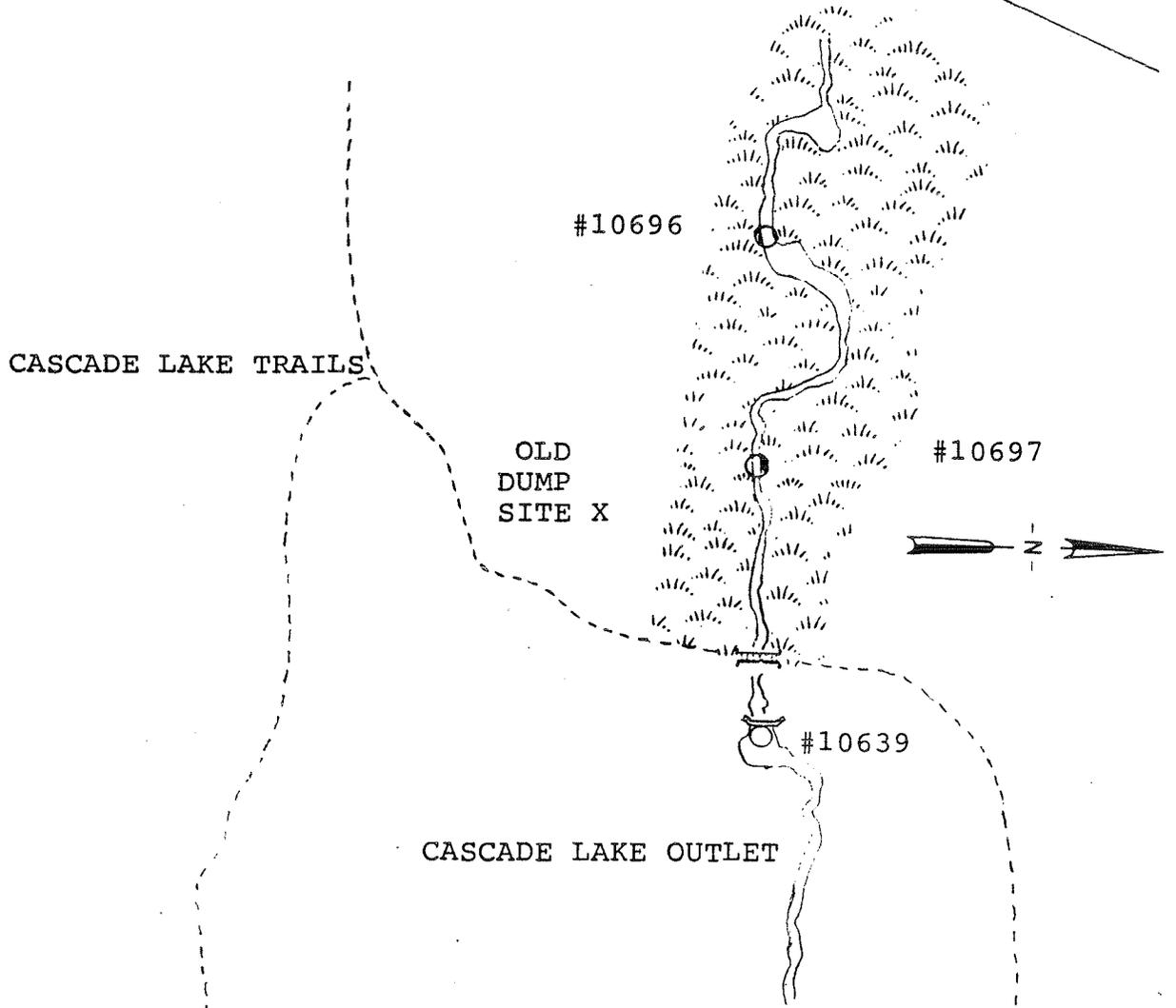
ANALYTICAL RESULTS IN PPB

CASCADE LAKE OUTLET

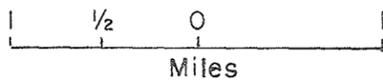
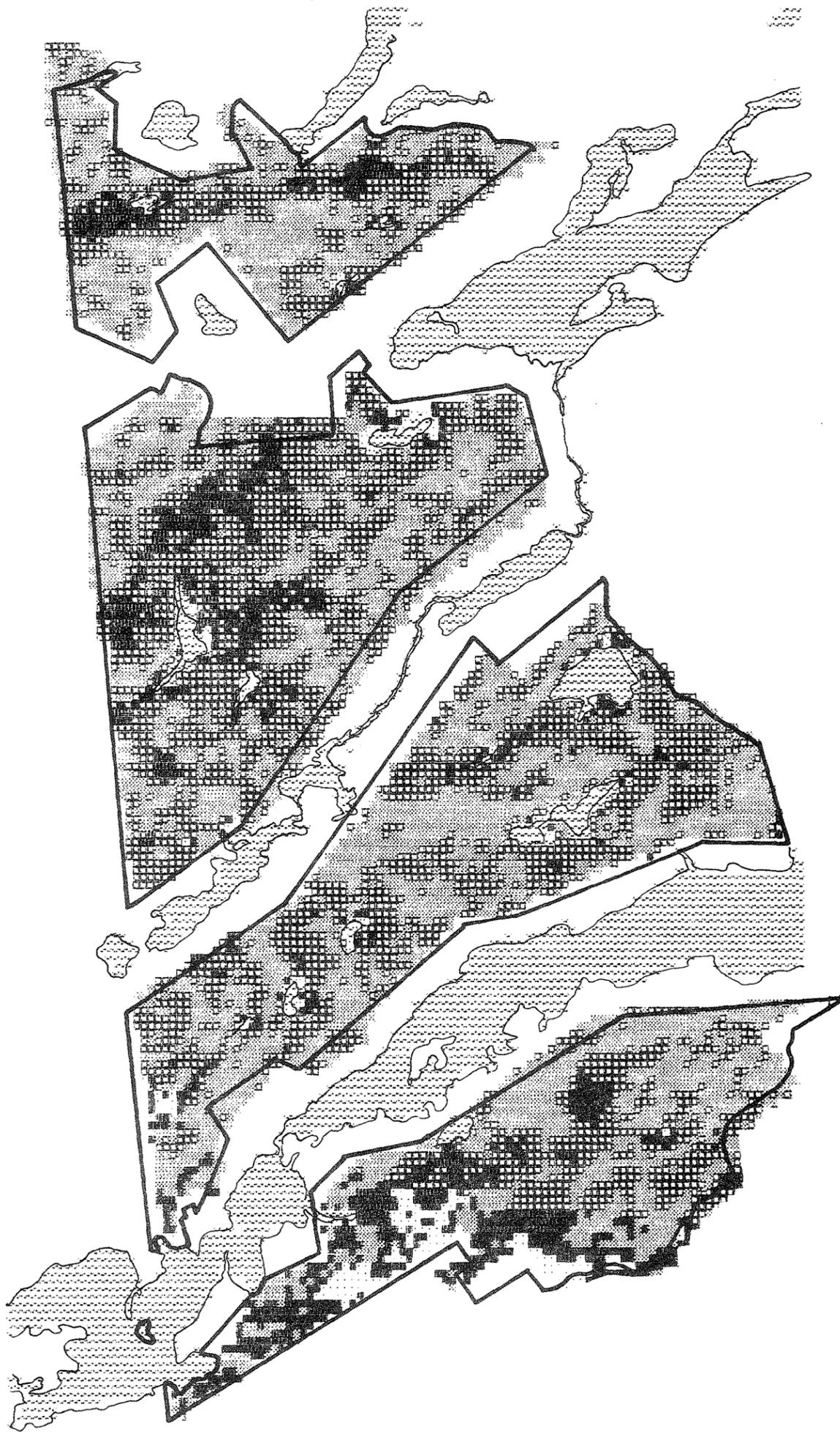


1986 DDT SAMPLING REPORT

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



# FULTON CHAIN WILD FOREST LANDCOVER TYPES



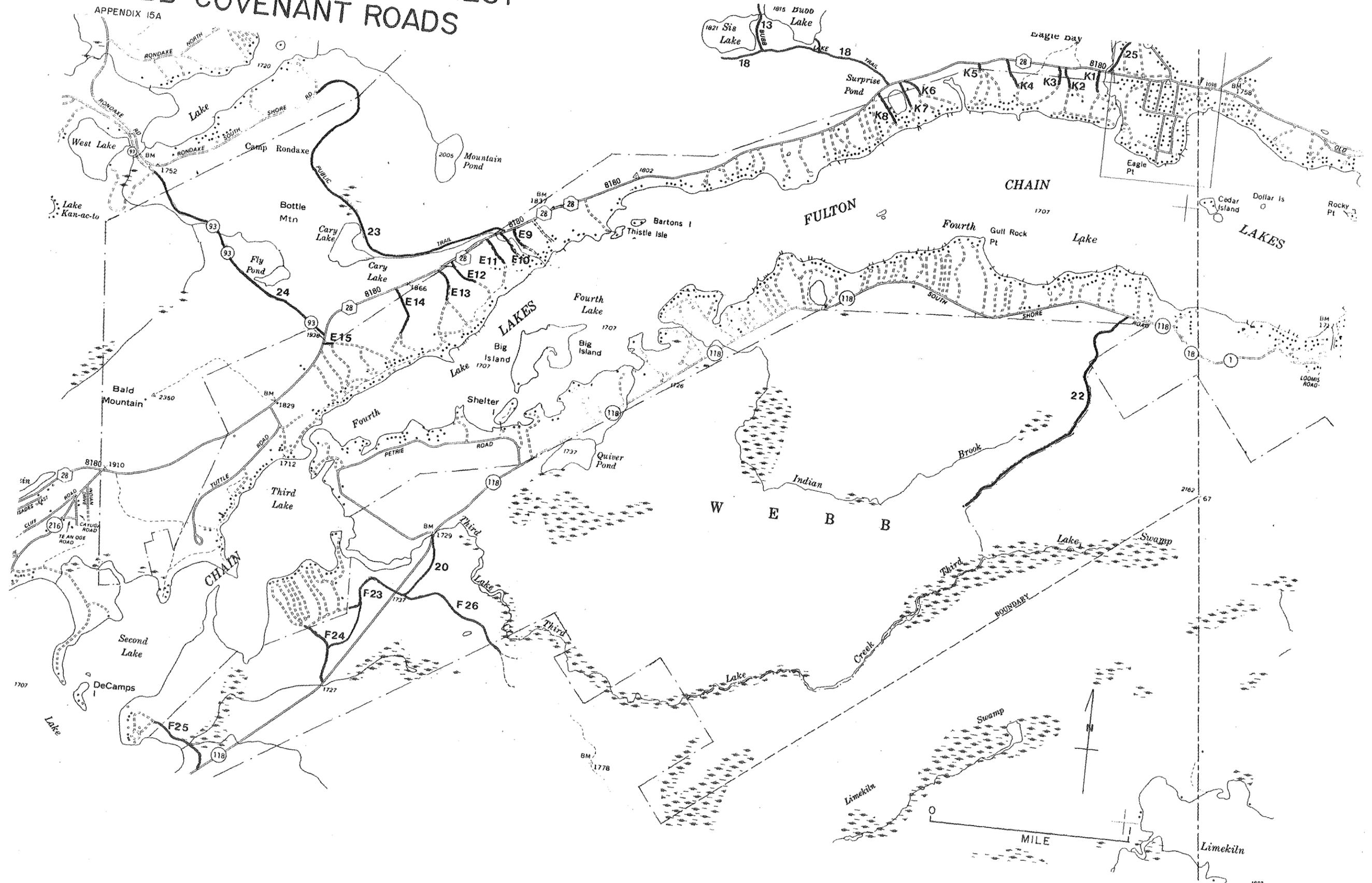
Source: Adirondack Park Agency  
1978 Landsat data



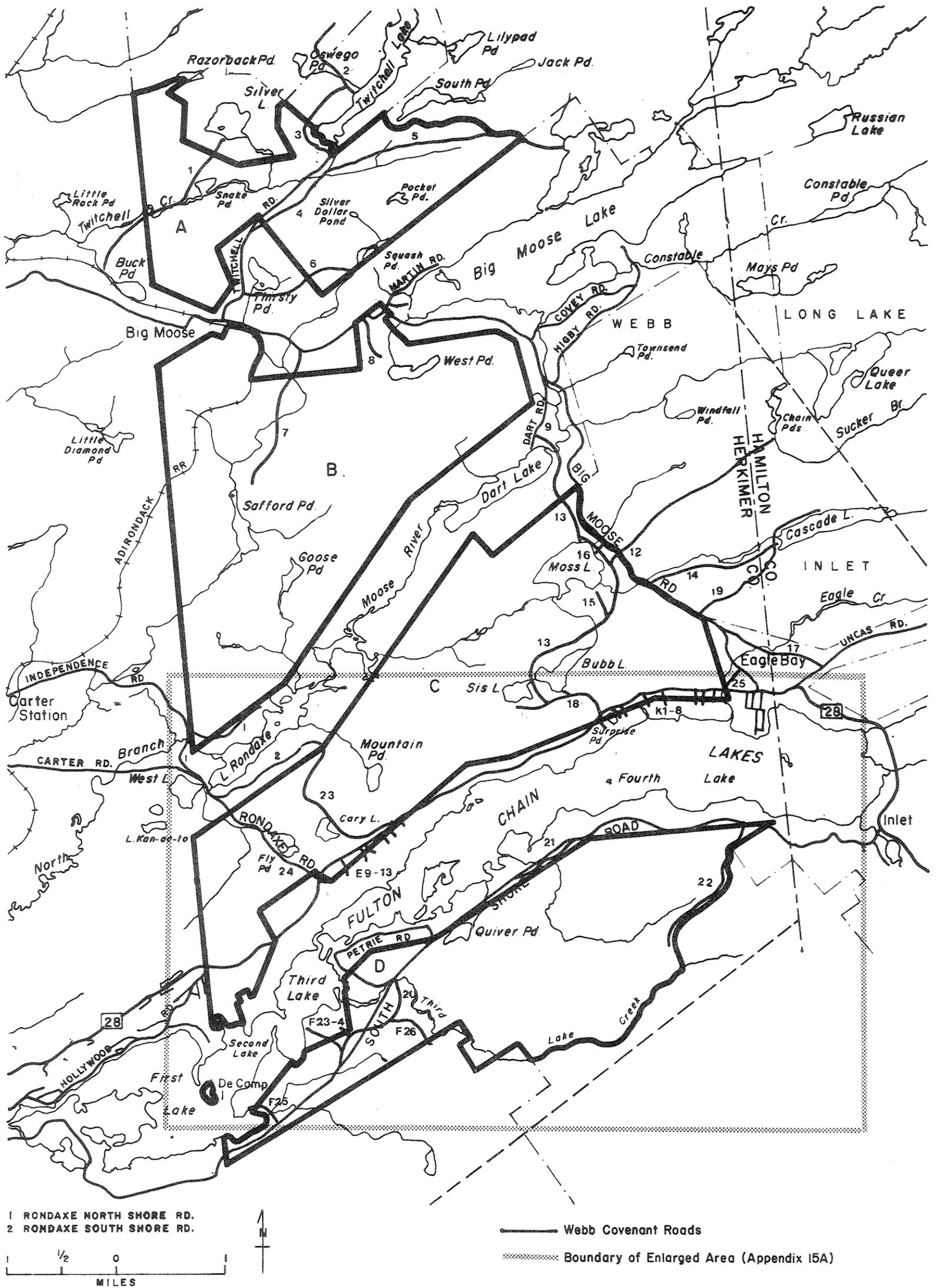
-  Hardwood
-  Mixed
-  Conifer
-  Wet Conifer

# FULTON CHAIN WILD FOREST WEBB COVENANT ROADS

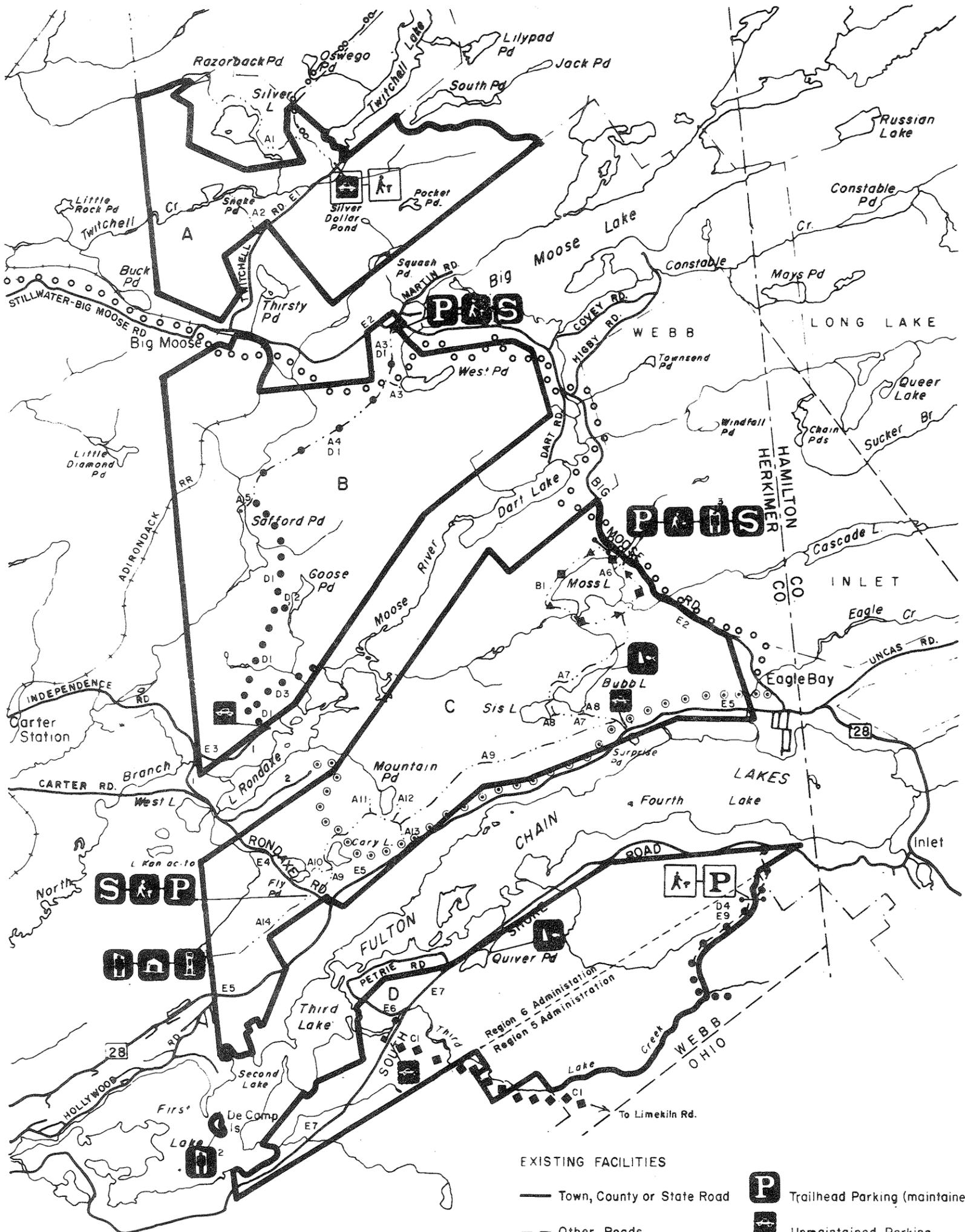
APPENDIX 15A



# FULTON CHAIN WILD FOREST WEBB COVENANT ROADS



# FULTON CHAIN WILD FOREST FACILITIES



1 RONDAXE NORTH SHORE RD.  
2 RONDAXE SOUTH SHORE RD.



- 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

# FULTON CHAIN WILD FOREST TOPOGRAPHY

